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<tr>
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<tr>
<td>XssMatchSetUpdate</td>
</tr>
<tr>
<td>XssMatchTuple</td>
</tr>
<tr>
<td>ActivatedRule</td>
</tr>
<tr>
<td>ByteMatchSet</td>
</tr>
<tr>
<td>ByteMatchSetSummary</td>
</tr>
<tr>
<td>ByteMatchSetUpdate</td>
</tr>
<tr>
<td>ByteMatchTuple</td>
</tr>
<tr>
<td>ExcludedRule</td>
</tr>
<tr>
<td>FieldToMatch</td>
</tr>
<tr>
<td>GeoMatchConstraint</td>
</tr>
<tr>
<td>GeoMatchSet</td>
</tr>
<tr>
<td>GeoMatchSetSummary</td>
</tr>
<tr>
<td>GeoMatchSetUpdate</td>
</tr>
<tr>
<td>HTTPHeader</td>
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<tr>
<td>HTTPRequest</td>
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<td>IPSet</td>
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<td>IPSetDescriptor</td>
</tr>
<tr>
<td>IPSetSummary</td>
</tr>
<tr>
<td>IPSetUpdate</td>
</tr>
<tr>
<td>LoggingConfiguration</td>
</tr>
<tr>
<td>Predicate</td>
</tr>
<tr>
<td>RateBasedRule</td>
</tr>
<tr>
<td>RegexMatchSet</td>
</tr>
<tr>
<td>RegexMatchSetSummary</td>
</tr>
<tr>
<td>RegexMatchSetUpdate</td>
</tr>
<tr>
<td>RegexMatchTuple</td>
</tr>
<tr>
<td>RegexPatternSet</td>
</tr>
<tr>
<td>RegexPatternSetSummary</td>
</tr>
<tr>
<td>RegexPatternSetUpdate</td>
</tr>
<tr>
<td>Rule</td>
</tr>
<tr>
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</tr>
</tbody>
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Welcome

AWS WAFV2

Note

This is the latest version of the AWS WAF API, released in November, 2019. The names of the entities that you use to access this API, like endpoints and namespaces, all have the versioning information added, like "V2" or "v2", to distinguish from the prior version. We recommend migrating your resources to this version, because it has a number of significant improvements.

If you used AWS WAF prior to this release, you can't use this AWS WAFV2 API to access any AWS WAF resources that you created before. You can access your old rules, web ACLs, and other AWS WAF resources only through the AWS WAF Classic APIs. The AWS WAF Classic APIs have retained the prior names, endpoints, and namespaces.

For information, including how to migrate your AWS WAF resources to this version, see the AWS WAF Developer Guide.

AWS WAF is a web application firewall that lets you monitor the HTTP and HTTPS requests that are forwarded to an Amazon CloudFront distribution, Amazon API Gateway REST API, Application Load Balancer, AWS AppSync GraphQL API, Amazon Cognito user pool, AWS App Runner service, or AWS Verified Access instance. AWS WAF also lets you control access to your content, to protect the AWS resource that AWS WAF is monitoring. Based on conditions that you specify, such as the IP addresses that requests originate from or the values of query strings, the protected resource responds to requests with either the requested content, an HTTP 403 status code (Forbidden), or with a custom response.

This API guide is for developers who need detailed information about AWS WAF API actions, data types, and errors. For detailed information about AWS WAF features and guidance for configuring and using AWS WAF, see the AWS WAF Developer Guide.

You can make calls using the endpoints listed in AWS WAF endpoints and quotas.

- For regional applications, you can use any of the endpoints in the list. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync
GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

- For Amazon CloudFront applications, you must use the API endpoint listed for US East (N. Virginia): us-east-1.

Alternatively, you can use one of the AWS SDKs to access an API that's tailored to the programming language or platform that you're using. For more information, see AWS SDKs.

We currently provide two versions of the AWS WAF API: this API and the prior versions, the classic AWS WAF APIs. This new API provides the same functionality as the older versions, with the following major improvements:

- You use one API for both global and regional applications. Where you need to distinguish the scope, you specify a Scope parameter and set it to CLOUDFRONT or REGIONAL.
- You can define a web ACL or rule group with a single call, and update it with a single call. You define all rule specifications in JSON format, and pass them to your rule group or web ACL calls.
- The limits AWS WAF places on the use of rules more closely reflects the cost of running each type of rule. Rule groups include capacity settings, so you know the maximum cost of a rule group when you use it.

**AWS WAF Classic**

ℹ️ **Note**

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

This is the AWS WAF Classic API Reference for using AWS WAF Classic with Amazon CloudFront. The AWS WAF Classic actions and data types listed in the reference are available for protecting CloudFront distributions. You can use these actions and data types via the endpoint waf.amazonaws.com. This guide is for developers who need detailed information about the AWS WAF Classic API actions, data types, and errors. For detailed information about AWS WAF Classic
features and an overview of how to use the AWS WAF Classic API, see the AWS WAF Classic in the developer guide.

AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

This is the AWS WAF Classic Regional API Reference for using AWS WAF Classic with the AWS resources, Elastic Load Balancing Application Load Balancers and Amazon API Gateway APIs. The AWS WAF Classic actions and data types listed in the reference are available for protecting these resource types. You can use these actions and data types by means of the endpoints listed in AWS WAF Classic endpoints and quotas. This guide is for developers who need detailed information about the AWS WAF Classic API actions, data types, and errors. For detailed information about AWS WAF Classic features and an overview of how to use the AWS WAF Classic API, see the AWS WAF Classic in the developer guide.
Actions

The following actions are supported by AWS WAFV2:

- AssociateWebACL
- CheckCapacity
- CreateAPIKey
- CreateIPSet
- CreateRegexPatternSet
- CreateRuleGroup
- CreateWebACL
- DeleteFirewallManagerRuleGroups
- DeleteIPSet
- DeleteLoggingConfiguration
- DeletePermissionPolicy
- DeleteRegexPatternSet
- DeleteRuleGroup
- DeleteWebACL
- DescribeAllManagedProducts
- DescribeManagedProductsByVendor
- DescribeManagedRuleGroup
- DisassociateWebACL
- GenerateMobileSdkReleaseUrl
- GetDecryptedAPIKey
- GetIPSet
- GetLoggingConfiguration
- GetManagedRuleSet
- GetMobileSdkRelease
- GetPermissionPolicy
- GetRateBasedStatementManagedKeys
- GetRegexPatternSet
• GetRuleGroup
• GetSampledRequests
• GetWebACL
• GetWebACLForResource
• ListAPIKeys
• ListAvailableManagedRuleGroups
• ListAvailableManagedRuleGroupVersions
• ListIPSets
• ListLoggingConfigurations
• ListManagedRuleSets
• ListMobileSdkReleases
• ListRegexPatternSets
• ListResourcesForWebACL
• ListRuleGroups
• ListTagsForResource
• ListWebACLs
• PutLoggingConfiguration
• PutManagedRuleSetVersions
• PutPermissionPolicy
• TagResource
• UntagResource
• UpdateIPSet
• UpdateManagedRuleSetVersionExpiryDate
• UpdateRegexPatternSet
• UpdateRuleGroup
• UpdateWebACL

The following actions are supported by AWS WAF Classic:

• CreateByteMatchSet
• CreateGeoMatchSet
• CreateIPSet
• CreateRateBasedRule
• CreateRegexMatchSet
• CreateRegexPatternSet
• CreateRule
• CreateRuleGroup
• CreateSizeConstraintSet
• CreateSqlInjectionMatchSet
• CreateWebACL
• CreateWebACLMigrationStack
• CreateXssMatchSet
• DeleteByteMatchSet
• DeleteGeoMatchSet
• DeleteIPSet
• DeleteLoggingConfiguration
• DeletePermissionPolicy
• DeleteRateBasedRule
• DeleteRegexMatchSet
• DeleteRegexPatternSet
• DeleteRule
• DeleteRuleGroup
• DeleteSizeConstraintSet
• DeleteSqlInjectionMatchSet
• DeleteWebACL
• DeleteXssMatchSet
• GetByteMatchSet
• GetChangeToken
• GetChangeTokenStatus
• GetGeoMatchSet
• GetIPSet
• GetLoggingConfiguration
• GetPermissionPolicy
• GetRateBasedRule
• GetRateBasedRuleManagedKeys
• GetRegexMatchSet
• GetRegexPatternSet
• GetRule
• GetRuleGroup
• GetSampledRequests
• GetSizeConstraintSet
• GetSqlInjectionMatchSet
• GetWebACL
• GetXssMatchSet
• ListActivatedRulesInRuleGroup
• ListByteMatchSets
• ListGeoMatchSets
• ListIPSets
• ListLoggingConfigurations
• ListRateBasedRules
• ListRegexMatchSets
• ListRegexPatternSets
• ListRuleGroups
• ListRules
• ListSizeConstraintSets
• ListSqlInjectionMatchSets
• ListSubscribedRuleGroups
• ListTagsForResource
• ListWebACLs
• ListXssMatchSets
• PutLoggingConfiguration
• PutPermissionPolicy
• TagResource
• UntagResource
• UpdateByteMatchSet
• UpdateGeoMatchSet
• UpdateIPSet
• UpdateRateBasedRule
• UpdateRegexMatchSet
• UpdateRegexPatternSet
• UpdateRule
• UpdateRuleGroup
• UpdateSizeConstraintSet
• UpdateSqlInjectionMatchSet
• UpdateWebACL
• UpdateXssMatchSet

The following actions are supported by AWS WAF Classic Regional:

• AssociateWebACL
• CreateByteMatchSet
• CreateGeoMatchSet
• CreateIPSet
• CreateRateBasedRule
• CreateRegexMatchSet
• CreateRegexPatternSet
• CreateRule
• CreateRuleGroup
• CreateSizeConstraintSet
• CreateSqlInjectionMatchSet
• CreateWebACL
• CreateWebACLMigrationStack
- CreateXssMatchSet
- DeleteByteMatchSet
- DeleteGeoMatchSet
- DeleteIPSet
- DeleteLoggingConfiguration
- DeletePermissionPolicy
- DeleteRateBasedRule
- DeleteRegexMatchSet
- DeleteRegexPatternSet
- DeleteRule
- DeleteRuleGroup
- DeleteSizeConstraintSet
- DeleteSqlInjectionMatchSet
- DeleteWebACL
- DeleteXssMatchSet
- DisassociateWebACL
- GetByteMatchSet
- GetChangeToken
- GetChangeTokenStatus
- GetGeoMatchSet
- GetIPSet
- GetLoggingConfiguration
- GetPermissionPolicy
- GetRateBasedRule
- GetRateBasedRuleManagedKeys
- GetRegexMatchSet
- GetRegexPatternSet
- GetRule
- GetRuleGroup
- GetSampledRequests
AWS WAFV2 API Reference

-GetSizeConstraintSet
-GetSizeConstraintSet
-GetSqlInjectionMatchSet
-GetWebACL
-GetWebACLForResource
-GetXssMatchSet
-ListActivatedRulesInRuleGroup
-ListByteMatchSets
-ListGeoMatchSets
-ListIPSets
-ListLoggingConfigurations
-ListRateBasedRules
-ListRegexMatchSets
-ListRegexPatternSets
-ListResourcesForWebACL
-ListRuleGroups
-ListRules
-ListSizeConstraintSets
-ListSqlInjectionMatchSets
-ListSubscribedRuleGroups
-ListTagsForResource
-ListWebACLs
-ListXssMatchSets
-PutLoggingConfiguration
-PutPermissionPolicy
-TagResource
-UntagResource
-UpdateByteMatchSet
-UpdateGeoMatchSet
-UpdateIPSets
-UpdateRateBasedRule
The following actions are supported by AWS WAFV2:

- **AssociateWebACL**
- **CheckCapacity**
- **CreateAPIKey**
- **CreateIPSet**
- **CreateRegexPatternSet**
- **CreateRuleGroup**
- **CreateWebACL**
- **DeleteFirewallManagerRuleGroups**
- **DeleteIPSet**
- **DeleteLoggingConfiguration**
- **DeletePermissionPolicy**
- **DeleteRegexPatternSet**
- **DeleteRuleGroup**
- **DeleteWebACL**
- **DescribeAllManagedProducts**
- **DescribeManagedProductsByVendor**
- **DescribeManagedRuleGroup**
- **DisassociateWebACL**
- GenerateMobileSdkReleaseUrl
- GetDecryptedAPIKey
- GetIPSet
- GetLoggingConfiguration
- GetManagedRuleSet
- GetMobileSdkRelease
- GetPermissionPolicy
- GetRateBasedStatementManagedKeys
- GetRegexPatternSet
- GetRuleGroup
- GetSampledRequests
- GetWebACL
- GetWebACLForResource
- ListAPIKeys
- ListAvailableManagedRuleGroups
- ListAvailableManagedRuleGroupVersions
- ListIPSets
- ListLoggingConfigurations
- ListManagedRuleSets
- ListMobileSdkReleases
- ListRegexPatternSets
- ListResourcesForWebACL
- ListRuleGroups
- ListTagsForResource
- ListWebACLs
- PutLoggingConfiguration
- PutManagedRuleSetVersions
- PutPermissionPolicy
- TagResource
- UntagResource
• UpdateIPSet
• UpdateManagedRuleSetVersionExpiryDate
• UpdateRegexPatternSet
• UpdateRuleGroup
• UpdateWebACL
**AssociateWebACL**

Service: AWS WAFV2

Associates a web ACL with a regional application resource, to protect the resource. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

For Amazon CloudFront, don't use this call. Instead, use your CloudFront distribution configuration. To associate a web ACL, in the CloudFront call UpdateDistribution, set the web ACL ID to the Amazon Resource Name (ARN) of the web ACL. For information, see `UpdateDistribution` in the *Amazon CloudFront Developer Guide*.

**Required permissions for customer-managed IAM policies**

This call requires permissions that are specific to the protected resource type. For details, see `Permissions for AssociateWebACL` in the *AWS WAF Developer Guide*.

**Temporary inconsistencies during updates**

When you create or change a web ACL or other AWS WAF resources, the changes take a small amount of time to propagate to all areas where the resources are stored. The propagation time can be from a few seconds to a number of minutes.

The following are examples of the temporary inconsistencies that you might notice during change propagation:

- After you create a web ACL, if you try to associate it with a resource, you might get an exception indicating that the web ACL is unavailable.
- After you add a rule group to a web ACL, the new rule group rules might be in effect in one area where the web ACL is used and not in another.
- After you change a rule action setting, you might see the old action in some places and the new action in others.
- After you add an IP address to an IP set that is in use in a blocking rule, the new address might be blocked in one area while still allowed in another.

**Request Syntax**

```json
{}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceArn**

The Amazon Resource Name (ARN) of the resource to associate with the web ACL.

The ARN must be in one of the following formats:

- For an Application Load Balancer:
  `arn:partition:elasticloadbalancing:region:account-id:loadbalancer/app/load-balancer-name/load-balancer-id`
- For an Amazon API Gateway REST API: `arn:partition:apigateway:region::/restapis/api-id/stages/stage-name`
- For an AWS AppSync GraphQL API: `arn:partition:appsync:region:account-id:apis/GraphQLApiId`
- For an Amazon Cognito user pool: `arn:partition:cognito-idp:region:account-id:userpool/user-pool-id`

Type: String


Pattern: `.*\S.*`

Required: Yes

**WebACLArn**

The Amazon Resource Name (ARN) of the web ACL that you want to associate with the resource.
Type: String


Pattern: .*\S.*

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400
**WAFNonexistentItemException**

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

**WAFUnavailableEntityException**

AWS WAF couldn't retrieve a resource that you specified for this operation. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
CheckCapacity
Service: AWS WAFV2

Returns the web ACL capacity unit (WCU) requirements for a specified scope and set of rules. You can use this to check the capacity requirements for the rules you want to use in a RuleGroup or WebACL.

AWS WAF uses WCUs to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect the relative cost of each rule. Simple rules that cost little to run use fewer WCUs than more complex rules that use more processing power. Rule group capacity is fixed at creation, which helps users plan their web ACL WCU usage when they use a rule group. For more information, see AWS WAF web ACL capacity units (WCU) in the AWS WAF Developer Guide.

Request Syntax

```json
{
  "Rules": [
    {
      "Action": {
        "Allow": {
          "CustomRequestHandling": {
            "InsertHeaders": [
              {
                "Name": "string",
                "Value": "string"
              }
            ]
          },
          "Block": {
            "CustomResponse": {
              "CustomResponseBodyKey": "string",
              "ResponseCode": number,
              "ResponseHeaders": [
                {
                  "Name": "string",
                  "Value": "string"
                }
              ]
            }
          }
        }
      }
    }
  ]
}
```
"Captcha": { 
  "CustomRequestHandling": { 
    "InsertHeaders": [ 
      { 
        "Name": "string",
        "Value": "string"
      } 
    ] 
  },
},
"Challenge": { 
  "CustomRequestHandling": { 
    "InsertHeaders": [ 
      { 
        "Name": "string",
        "Value": "string"
      } 
    ] 
  },
},
"Count": { 
  "CustomRequestHandling": { 
    "InsertHeaders": [ 
      { 
        "Name": "string",
        "Value": "string"
      } 
    ] 
  }
},
"CaptchaConfig": { 
  "ImmunityTimeProperty": { 
    "ImmunityTime": number 
  }
},
"ChallengeConfig": { 
  "ImmunityTimeProperty": { 
    "ImmunityTime": number 
  }
}
"Name": "string",
"OverrideAction": { 
  "Count": {
"CustomRequestHandling": {
    "InsertHeaders": [
        {
            "Name": "string",
            "Value": "string"
        }
    ],
    "None": {
    }
},
"Priority": number,
"RuleLabels": [
    {
        "Name": "string"
    }
],
"Statement": {
    "AndStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "ByteMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {
            },
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "HeaderOrder": {
                "OversizeHandling": "string"
            },
        }
    }
}
"Headers": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JA3Fingerprint": {
    "FallbackBehavior": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
},
"PositionalConstraint": "string",
"SearchString": "blob",
"TextTransformations": [
    {
        "Priority": "number",
        "Type": "string"
    }
]
"GeoMatchStatement": {
  "CountryCodes": [ "string" ],
  "ForwardedIPConfig": {
    "FallbackBehavior": "string",
    "HeaderName": "string"
  }
},
"IPSetReferenceStatement": {
  "ARN": "string",
  "IPSetForwardedIPConfig": {
    "FallbackBehavior": "string",
    "HeaderName": "string",
    "Position": "string"
  }
},
"LabelMatchStatement": {
  "Key": "string",
  "Scope": "string"
},
"ManagedRuleGroupStatement": {
  "ExcludedRules": [
    {
      "Name": "string"
    }
  ],
  "ManagedRuleGroupConfigs": [
    {
      "AWSManagedRulesACFPRuleSet": {
        "CreationPath": "string",
        "EnableRegexInPath": boolean,
        "RegistrationPagePath": "string",
        "RequestInspection": {
          "AddressFields": [
            {
              "Identifier": "string"
            }
          ],
          "EmailField": {
            "Identifier": "string"
          },
          "PasswordField": {
            "Identifier": "string"
          }
        }
      }
    }
  ]}
"PayloadType": "string",
"PhoneNumberFields": [
    {
        "Identifier": "string"
    },
    "UsernameField": {
        "Identifier": "string"
    }
],
"ResponseInspection": {
    "BodyContains": {
        "FailureStrings": [ "string" ],
        "SuccessStrings": [ "string" ]
    },
    "Header": {
        "FailureValues": [ "string" ],
        "Name": "string",
        "SuccessValues": [ "string" ]
    },
    "Json": {
        "FailureValues": [ "string" ],
        "Identifier": "string",
        "SuccessValues": [ "string" ]
    },
    "StatusCode": {
        "FailureCodes": [ "string" ],
        "SuccessCodes": [ "string" ]
    }
},
"AWSManagedRulesATPRuleSet": {
    "EnableRegexInPath": boolean,
    "LoginPath": "string",
    "RequestInspection": {
        "PasswordField": {
            "Identifier": "string"
        },
        "PayloadType": "string",
        "UsernameField": {
            "Identifier": "string"
        }
    },
    "ResponseInspection": {

"BodyContains": {
    "FailureStrings": [ "string" ],
    "SuccessStrings": [ "string" ]
},
"Header": {
    "FailureValues": [ "string" ],
    "Name": "string",
    "SuccessValues": [ "string" ]
},
"Json": {
    "FailureValues": [ "string" ],
    "Identifier": "string",
    "SuccessValues": [ "string" ]
},
"StatusCode": {
    "FailureCodes": [ number ],
    "SuccessCodes": [ number ]
}
},
"AWSManagedRulesBotControlRuleSet": {
    "EnableMachineLearning": boolean,
    "InspectionLevel": "string"
},
"LoginPath": "string",
"PasswordField": {
    "Identifier": "string"
},
"PayloadType": "string",
"UsernameField": {
    "Identifier": "string"
}
],
"Name": "string",
"RuleActionOverrides": [
{  
    "ActionToUse": {  
        "Allow": {  
            "CustomRequestHandling": {  
                "InsertHeaders": [  
                    {  
                        "Name": "string",
                        "Value": "string"  
                    ]  
                ]  
            }  
        }  
    }  
}
]


"Block": {
    "CustomResponse": {
        "CustomResponseBodyKey": "string",
        "ResponseCode": number,
        "ResponseHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    },
    "Captcha": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },
        "Challenge": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            },
            "Count": {
                "CustomRequestHandling": {
                    "InsertHeaders": [
                        {
                            "Name": "string",
                            "Value": "string"
                        }
                    ]
                }
            }
        }
    }
}
"Name": "string",
"ScopeDownStatement": "Statement",
"VendorName": "string",
"Version": "string"
},
"NotStatement": {
  "Statement": "Statement"
},
"OrStatement": {
  "Statements": [
    "Statement"
  ]
},
"RateBasedStatement": {
  "AggregateKeyType": "string",
  "CustomKeys": [
    "Cookie": {
      "Name": "string",
      "TextTransformations": [
        { "Priority": number,
        "Type": "string"
      }
    },
    "ForwardedIP": {
      }
    },
    "Header": {
      "Name": "string",
      "TextTransformations": [
        { "Priority": number,
        "Type": "string"
      }
    },
    "HTTPMethod": {
      }
    },
"IP": {
},
"LabelNamespace": {
   "Namespace": "string"
},
"QueryArgument": {
   "Name": "string",
   "TextTransformations": [
     {
       "Priority": number,
       "Type": "string"
     }
   ]
},
"QueryString": {
   "TextTransformations": [
     {
       "Priority": number,
       "Type": "string"
     }
   ]
},
"UriPath": {
   "TextTransformations": [
     {
       "Priority": number,
       "Type": "string"
     }
   ]
}
"ForwardedIPConfig": {
   "FallbackBehavior": "string",
   "HeaderName": "string"
},
"Limit": number,
"ScopeDownStatement": "Statement"
},
"RegexMatchStatement": {
   "FieldToMatch": {
     "AllQueryArguments": {
     },
     "Body": {

"OversizeHandling": "string",
"Cookies": {
  "MatchPattern": {
    "All": {
    },
    "ExcludedCookies": [ "string" ],
    "IncludedCookies": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"HeaderOrder": {
  "OversizeHandling": "string"
},
"Headers": {
  "MatchPattern": {
    "All": {
    },
    "ExcludedHeaders": [ "string" ],
    "IncludedHeaders": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
"SingleQueryArgument": {  
"Name": "string"
},
"UriPath": {
},
"RegexString": "string",
"TextTransformations": [
{
  "Priority": number,
  "Type": "string"
}
],
"RegexPatternSetReferenceStatement": {
  "ARN": "string",
  "FieldToMatch": {
    "AllQueryArguments": {},
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {},
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {},
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",

"OversizeHandling": "string",
"JA3Fingerprint": {
    "FallbackBehavior": "string",
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {},
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
},
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
],
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [ {
        "Name": "string"
    } ],
    "RuleActionOverrides": [ {

"ActionToUse": {
    "Allow": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },
    },
    "Block": {
        "CustomResponse": {
            "CustomResponseBodyKey": "string",
            "ResponseCode": number,
            "ResponseHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },
    },
    "Captcha": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },
    },
    "Challenge": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },
    },
    "Count": {
        "CheckCapacity": 31
    }
}
"CustomRequestHandling": {
  "InsertHeaders": [
    {
      "Name": "string",
      "Value": "string"
    }
  ],
  "Name": "string"
},
"SizeConstraintStatement": {
  "ComparisonOperator": "string",
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    }
  }
}
"All": {
    "ExcludedCookies": [ "string" ],
    "IncludedCookies": [ "string" ]
},
"MatchScope": "string",
"OversizeHandling": "string"
},
"HeaderOrder": {
    "OversizeHandling": "string"
},
"Headers": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JA3Fingerprint": {
    "FallbackBehavior": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
     },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
}
"UriPath": {
},
"SensitivityLevel": "string",
"TextTransformations": [ {
    "Priority": number,
    "Type": "string"
}
],
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {},
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {},
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "HeaderOrder": {
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {},
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JA3Fingerprint": {
            "FallbackBehavior": "string"
        }
    }
}
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
],
"VisibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
],
"Scope": "string"}
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Rules

An array of Rule that you're configuring to use in a rule group or web ACL.

Type: Array of Rule objects

Required: Yes

Scope

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:
• CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
• API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```json
{
    "Capacity": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**Capacity**

The capacity required by the rules and scope.

Type: Long

Valid Range: Minimum value of 0.

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFExpiredManagedRuleGroupVersionException**

The operation failed because the specified version for the managed rule group has expired. You can retrieve the available versions for the managed rule group by calling `ListAvailableManagedRuleGroupVersions`.

HTTP Status Code: 400

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFLInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.

Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFInvalidResourceException

AWS WAF couldn't perform the operation because the resource that you requested isn't valid. Check the resource, and try again.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

WAFSubscriptionNotFoundException

You tried to use a managed rule group that's available by subscription, but you aren't subscribed to it yet.

HTTP Status Code: 400

WAFUnavailableEntityException

AWS WAF couldn't retrieve a resource that you specified for this operation. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateAPIKey

Service: AWS WAFV2

Creates an API key that contains a set of token domains.

API keys are required for the integration of the CAPTCHA API in your JavaScript client applications. The API lets you customize the placement and characteristics of the CAPTCHA puzzle for your end users. For more information about the CAPTCHA JavaScript integration, see [AWS WAF client application integration](https://docs.aws.amazon.com/waf/latest/developerguide/awsvaf-integrate-captcha.html) in the *AWS WAF Developer Guide*.

You can use a single key for up to 5 domains. After you generate a key, you can copy it for use in your JavaScript integration.

**Request Syntax**

```json
{
    "Scope": "string",
    "TokenDomains": [ "string" ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](https://docs.aws.amazon.com/waf/latest/APIReference/api-reference.html).

The request accepts the following data in JSON format.

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String
Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**TokenDomains**

The client application domains that you want to use this API key for.

Example JSON: "TokenDomains": ["abc.com", "store.abc.com"]

Public suffixes aren't allowed. For example, you can't use gov.au or co.uk as token domains.

Type: Array of strings

Array Members: Minimum number of 1 item.


Pattern: ^\[\w\.|\-\]/+

Required: Yes

**Response Syntax**

```
{
    "APIKey": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**APIKey**

The generated, encrypted API key. You can copy this for use in your JavaScript CAPTCHA integration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.
Pattern: . *\S . *

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
CreateIPSet

Service: AWS WAFV2

Creates an IPSet, which you use to identify web requests that originate from specific IP addresses or ranges of IP addresses. For example, if you're receiving a lot of requests from a range of IP addresses, you can configure AWS WAF to block them using an IPSet that lists those IP addresses.

Request Syntax

```json
{
  "Addresses": [ "string" ],
  "Description": "string",
  "IPAddressVersion": "string",
  "Name": "string",
  "Scope": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Addresses**

Contains an array of strings that specifies zero or more IP addresses or blocks of IP addresses that you want AWS WAF to inspect for in incoming requests. All addresses must be specified using Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports all IPv4 and IPv6 CIDR ranges except for /0.

Example address strings:

- For requests that originated from the IP address 192.0.2.44, specify 192.0.2.44/32.
- For requests that originated from IP addresses from 192.0.2.0 to 192.0.2.255, specify 192.0.2.0/24.
• For requests that originated from the IP address 1111:0000:0000:0000:0000:0000:0000:0111, specify 1111:0000:0000:0000:0000:0000:0000:0111/128.


For more information about CIDR notation, see the Wikipedia entry Classless Inter-Domain Routing.

Example JSON Addresses specifications:
• Empty array: "Addresses": []
• Array with one address: "Addresses": ["192.0.2.44/32"]
• Array with three addresses: "Addresses": ["192.0.2.44/32", "192.0.2.0/24", "192.0.0.0/16"]
• INVALID specification: "Addresses": ["""] INVALID

Type: Array of strings


Pattern: .*\S.*

Required: Yes

**Description**

A description of the IP set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[\w+=:#@/\-,.]$[\w+=:#@/\-,.\s]+[\w+=:#@/\-,.]$.

Required: No

**IPAddressVersion**

The version of the IP addresses, either IPV4 or IPV6.

Type: String
Valid Values: IPV4 | IPV6

Required: Yes

**Name**

The name of the IP set. You cannot change the name of an IPSet after you create it.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Tags**

An array of key:value pairs to associate with the resource.

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: No
Response Syntax

```json
{
    "Summary": {
        "ARN": "string",
        "Description": "string",
        "Id": "string",
        "LockToken": "string",
        "Name": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Summary**

High-level information about an IPSet, returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage an IPSet, and the ARN, that you provide to the IPSetReferenceStatement to use the address set in a Rule.

Type: IPSetSummary object

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFDuplicateItemException**

AWS WAF couldn’t perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.
HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:
- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-quota-usage.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

**WAFOptimisticLockException**

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

**WAFTagOperationException**

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400
WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
CreateRegexPatternSet

Service: AWS WAFV2

Creates a RegexPatternSet, which you reference in a RegexPatternSetReferenceStatement, to have AWS WAF inspect a web request component for the specified patterns.

Request Syntax

```json
{
   "Description": "string",
   "Name": "string",
   "RegularExpressionList": [
      {
         "RegexString": "string"
      }
   ],
   "Scope": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Description**

A description of the set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^\[\w+=:#@/\-,\ .\][\w+=:#@/\-,\ .\s]+\[\w+=:#@/\-,\ .\]$`

Required: No
**Name**

The name of the set. You cannot change the name after you create the set.

Type: String


Pattern: `^[\w\-]+$`

Required: Yes

**RegularExpressionList**

Array of regular expression strings.

Type: Array of `Regex` objects

Required: Yes

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Tags**

An array of key:value pairs to associate with the resource.

Type: Array of `Tag` objects
Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```json
{
    "Summary": {
        "ARN": "string",
        "Description": "string",
        "Id": "string",
        "LockToken": "string",
        "Name": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Summary**

High-level information about a `RegexPatternSet`, returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage a `RegexPatternSet`, and the ARN, that you provide to the `RegexPatternSetReferenceStatement` to use the pattern set in a `Rule`.

Type: `RegexPatternSetSummary` object

**Errors**

For information about the errors that are common to all actions, see [Common Errors](https://docs.aws.amazon.com/waf/latest/APIReference/API_Error_Codes.html).

**WAFDuplicateItemException**

AWS WAF couldn't perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400
WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn’t valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn’t recognize a parameter in the request. For example:

- You specified a parameter name or value that isn’t valid.
- Your nested statement isn’t valid. You might have tried to nest a statement that can’t be nested.
- You tried to update a WebACL with a DefaultAction that isn’t among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can’t be associated.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn’t perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn’t save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400
WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateRuleGroup

Service: AWS WAFV2

Creates a RuleGroup per the specifications provided.

A rule group defines a collection of rules to inspect and control web requests that you can use in a WebACL. When you create a rule group, you define an immutable capacity limit. If you update a rule group, you must stay within the capacity. This allows others to reuse the rule group with confidence in its capacity requirements.

Request Syntax

```
{
    "Capacity": number,
    "CustomResponseBodies": {
        "string": {
            "Content": "string",
            "ContentType": "string"
        }
    },
    "Description": "string",
    "Name": "string",
    "Rules": [
        {
            "Action": {
                "Allow": {
                    "CustomRequestHandling": {
                        "InsertHeaders": [
                            {
                                "Name": "string",
                                "Value": "string"
                            }
                        ]
                    }
                }
            },
            "Block": {
                "CustomResponse": {
                    "CustomResponseBodyKey": "string",
                    "ResponseCode": number,
                    "ResponseHeaders": [
                        {
                            "Name": "string",
                            "Value": "string"
                        }
                    ]
                }
            }
        }
    ]
}
```
],
]
],
"Captcha": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},
"Challenge": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},
"Count": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},
"CaptchaConfig": {
  "ImmunityTimeProperty": {
    "ImmunityTime": number
  }
},
"ChallengeConfig": {
  "ImmunityTimeProperty": {
    "ImmunityTime": number
  }
}
},
"Name": "string",
"OverrideAction": {
  "Count": {
    "CustomRequestHandling": {
      "InsertHeaders": [
        {
          "Name": "string",
          "Value": "string"
        }
      ]
    }
  },
  "None": {
  }
},
"Priority": number,
"RuleLabels": [
  {
    "Name": "string"
  }
],
"Statement": {
  "AndStatement": {
    "Statements": [
      "Statement"
    ]
  },
  "ByteMatchStatement": {
    "FieldToMatch": {
      "AllQueryArguments": {
      },
      "Body": {
        "OversizeHandling": "string"
      },
      "Cookies": {
        "MatchPattern": {
          "All": {
          },
          "ExcludedCookies": [ "string" ],
          "IncludedCookies": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"}
},
  "HeaderOrder": {
    "OversizeHandling": "string"
  },
  "Headers": {
    "MatchPattern": {
      "All": {
      },
      "ExcludedHeaders": [ "string" ],
      "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
  },
  "JA3Fingerprint": {
    "FallbackBehavior": "string"
  },
  "JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
      "All": {
      },
      "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
  },
  "Method": {
  },
  "QueryString": {
  },
  "SingleHeader": {
    "Name": "string"
  },
  "SingleQueryArgument": {
    "Name": "string"
  },
  "UriPath": {
  },
  "PositionalConstraint": "string",
  "SearchString": "blob",
  "TextTransformations": [
  ]}
"Priority": number,
"Type": "string"
}
],
"GeoMatchStatement": {
"CountryCodes": [ "string" ],
"ForwardedIPConfig": {
"FallbackBehavior": "string",
"HeaderName": "string"
}
},
"IPSetReferenceStatement": {
"ARN": "string",
"IPSetForwardedIPConfig": {
"FallbackBehavior": "string",
"HeaderName": "string",
"Position": "string"
}
},
"LabelMatchStatement": {
"Key": "string",
"Scope": "string"
},
"ManagedRuleGroupStatement": {
"ExcludedRules": [
{
"Name": "string"
}
],
"ManagedRuleGroupConfigs": [
{
"AWSManagedRulesACFPRuleSet": {
"CreationPath": "string",
"EnableRegexInPath": boolean,
"RegistrationPagePath": "string",
"RequestInspection": {
"AddressFields": [
{
"Identifier": "string"
}
],
"EmailField": {
"Identifier": "string"
}
"PasswordField": {
    "Identifier": "string"
},
"PayloadType": "string",
"PhoneNumberFields": [
    {
        "Identifier": "string"
    }
],
"UsernameField": {
    "Identifier": "string"
}
},
"ResponseInspection": {
    "BodyContains": {
        "FailureStrings": [ "string" ],
        "SuccessStrings": [ "string" ]
    },
    "Header": {
        "FailureValues": [ "string" ],
        "Name": "string",
        "SuccessValues": [ "string" ]
    },
    "Json": {
        "FailureValues": [ "string" ],
        "Identifier": "string",
        "SuccessValues": [ "string" ]
    },
    "StatusCode": {
        "FailureCodes": [ number ],
        "SuccessCodes": [ number ]
    }
}
},
"AWSManagedRulesATPRuleSet": {
    "EnableRegexInPath": boolean,
    "LoginPath": "string",
    "RequestInspection": {
        "PasswordField": {
            "Identifier": "string"
        },
        "PayloadType": "string",
        "UsernameField": {
            "Identifier": "string"
        }
    }
}
}
"Identifier": "string"

"ResponseInspection": {
  "BodyContains": {
    "FailureStrings": [ "string" ],
    "SuccessStrings": [ "string" ]
  },
  "Header": {
    "FailureValues": [ "string" ],
    "Name": "string",
    "SuccessValues": [ "string" ]
  },
  "Json": {
    "FailureValues": [ "string" ],
    "Identifier": "string",
    "SuccessValues": [ "string" ]
  },
  "StatusCode": {
    "FailureCodes": [ number ],
    "SuccessCodes": [ number ]
  }
},

"AWSManagedRulesBotControlRuleSet": {
  "EnableMachineLearning": boolean,
  "InspectionLevel": "string"
},

"LoginPath": "string",

"PasswordField": {
  "Identifier": "string"
},

"PayloadType": "string",

"UsernameField": {
  "Identifier": "string"
}

"RuleActionOverrides": [
  {
    "ActionToUse": {
      "Allow": {
        "CustomRequestHandling": {
        
```
"InsertHeaders": [
  {
    "Name": "string",
    "Value": "string"
  }
],

"Block": {
  "CustomResponse": {
    "CustomResponseBodyKey": "string",
    "ResponseCode": number,
    "ResponseHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},

"Captcha": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},

"Challenge": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},

"Count": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
}
"Name": "string",
"Value": "string"
}
]
}
}
],
"ScopeDownStatement": "Statement",
"VendorName": "string",
"Version": "string"
}
,"NotStatement": {
 "Statement": "Statement"
},
"OrStatement": {
 "Statements": [
 "Statement"
 ]
},
"RateBasedStatement": {
 "AggregateKeyType": "string",
 "CustomKeys": [
  
  "Cookie": {
   "Name": "string",
   "TextTransformations": [
   
   
   "Priority": number,
   "Type": "string"
   ]
  },
  "ForwardedIP": {
  },
  "Header": {
   "Name": "string",
   "TextTransformations": [
   
   "Priority": number,
   "Type": "string"
   ]
  }
]
"HTTPMethod": {},
"IP": {},
"LabelNamespace": {
  "Namespace": "string"
},
"QueryArgument": {
  "Name": "string",
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
},
"QueryString": {
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
},
"UriPath": {
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
},
"ForwardedIPConfig": {
  "FallbackBehavior": "string",
  "HeaderName": "string"
},
"Limit": number,
"ScopeDownStatement": "Statement"
},
"RegexMatchStatement": {


"FieldToMatch": {
  "AllQueryArguments": {
  },
  "Body": {
    "OversizeHandling": "string"
  },
  "Cookies": {
    "MatchPattern": {
      "All": {
      },
      "ExcludedCookies": [ "string" ],
      "IncludedCookies": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
  },
  "HeaderOrder": {
    "OversizeHandling": "string"
  },
  "Headers": {
    "MatchPattern": {
      "All": {
      },
      "ExcludedHeaders": [ "string" ],
      "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
  },
  "JA3Fingerprint": {
    "FallbackBehavior": "string"
  },
  "JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
      "All": {
      },
      "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
  },
  "Method": {
  }
}
"QueryString": {
},
"SingleHeader": {
   "Name": "string"
},
"SingleQueryArgument": {
   "Name": "string"
},
"UriPath": {
}
,"Regexp": "string",
"TextTransformations": [
{
   "Priority": number,
   "Type": "string"
}
],
"RegexpPatternSetReferenceStatement": {
   "ARN": "string",
   "FieldToMatch": {
      "AllQueryArguments": {
      },
      "Body": {
      "OversizeHandling": "string"
      },
      "Cookies": {
      "MatchPattern": {
      "All": {
      },
      "ExcludedCookies": [ "string" ],
      "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
      },
      "HeaderOrder": {
      "OversizeHandling": "string"
      },
      "Headers": {
      "MatchPattern": {
      "All": {
      }
      },
      "ExcludedHeaders": [ "string" ],
      "IncludedHeaders": [ "string" ]
      },
      "OversizeHandling": "string"
    },
    "HostHeader": { "MatchPattern": { "All": { } }, "OversizeHandling": "string" },
    "Path": { "MatchPattern": { "All": { } }, "OversizeHandling": "string" },
"ExcludedHeaders": [ "string" ],
"IncludedHeaders": [ "string" ]
},
"MatchScope": "string",
"OversizeHandling": "string"
},
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
},
"TextTransformations": [
  {
    "Priority": number,
    "Type": "string"
  }
],
"RuleGroupReferenceStatement": {
  "ARN": "string",
  "ExcludedRules": [
  {
    "Name": "string"
  }
],
"RuleActionOverrides": [
{
   "ActionToUse": {
      "Allow": {
         "CustomRequestHandling": {
            "InsertHeaders": [
            {
               "Name": "string",
               "Value": "string"
            }
         ]
      },
      "Block": {
         "CustomResponse": {
            "CustomResponseBodyKey": "string",
            "ResponseCode": number,
            "ResponseHeaders": [
            {
               "Name": "string",
               "Value": "string"
            }
         ]
      },
      "Captcha": {
         "CustomRequestHandling": {
            "InsertHeaders": [
            {
               "Name": "string",
               "Value": "string"
            }
         ]
      },
      "Challenge": {
         "CustomRequestHandling": {
            "InsertHeaders": [
            {
               "Name": "string",
               "Value": "string"
            }
         ]
      }
   }
},
"CreateRuleGroup"
[ ]
},
"Count": {
"CustomRequestHandling": {
"InsertHeaders": [
{
"Name": "string",
"Value": "string"
}
]
}
},
"Name": "string"
}
],
"SizeConstraintStatement": {
"ComparisonOperator": "string",
"FieldToMatch": {
"AllQueryArguments": {
},
"Body": {
"OversizeHandling": "string"
},
"Cookies": {
"MatchPattern": {
"All": {
},
"ExcludedCookies": [ "string" ],
"IncludedCookies": [ "string" ]
},
"MatchScope": "string",
"OversizeHandling": "string"
},
"HeaderOrder": {
"OversizeHandling": "string"
},
"Headers": {
"MatchPattern": {
"All": {
},
"ExcludedHeaders": [ "string" ]
}}
"IncludedHeaders": [ "string" ]
",
"MatchScope": "string",
"OversizeHandling": "string"
",
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
      
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
}
",
"Size": number,
"TextTransformations": [
  {
    "Priority": number,
    "Type": "string"
  }
],
"
"SqliMatchStatement": {
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      
    }
  }
}
"OversizeHandling": "string",
"Cookies": {
    "MatchPattern": {
        "All": {
            "ExcludedCookies": [ "string" ],
            "IncludedCookies": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "HeaderOrder": {
        "OversizeHandling": "string"
    },
    "Headers": {
        "MatchPattern": {
            "All": {
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JA3Fingerprint": {
            "FallbackBehavior": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                    "IncludedPaths": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Method": {
            },
            "QueryString": {
            },
            "SingleHeader": {
                "Name": "string"
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
  
},
"SensitivityLevel": "string",
"TextTransformations": [
  {
    "Priority": number,
    "Type": "string"
  }
],
"XssMatchStatement": {
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
  "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
  },
  "Method": {
  },
  "QueryString": {
  },
  "SingleHeader": {
    "Name": "string"
  },
  "SingleQueryArgument": {
    "Name": "string"
  },
  "UriPath": {
  }
},
"TextTransformations": [ {
  "Priority": number,
  "Type": "string"
 }
],
"VisibilityConfig": {
  "CloudWatchMetricsEnabled": boolean,
  "MetricName": "string",
  "SampledRequestsEnabled": boolean
}
]
},
"Scope": "string",
"Tags": [
Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**Capacity**

The web ACL capacity units (WCUs) required for this rule group.

When you create your own rule group, you define this, and you cannot change it after creation. When you add or modify the rules in a rule group, AWS WAF enforces this limit. You can check the capacity for a set of rules using [CheckCapacity](#).

AWS WAF uses WCUs to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect the relative cost of each rule. Simple rules that cost little to run use fewer WCUs than more complex rules that use more processing power. Rule group capacity is fixed at creation, which helps users plan their web ACL WCU usage when they use a rule group. For more information, see [AWS WAF web ACL capacity units (WCU)](#) in the [AWS WAF Developer Guide](#).

Type: Long

Valid Range: Minimum value of 1.

Required: Yes
CustomResponseBody

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the rule group, and then use them in the rules that you define in the rule group.

For information about customizing web requests and responses, see Customizing web requests and responses in AWS WAF in the AWS WAF Developer Guide.

For information about the limits on count and size for custom request and response settings, see AWS WAF quotas in the AWS WAF Developer Guide.

Type: String to CustomResponseBody object map

Map Entries: Maximum number of items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: ^[\w\-]+$

Required: No

Description

A description of the rule group that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[\w+=:#@/\-,\ .]+[\w+=:#@/\-,\ .]+$  

Required: No

Name

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String


Pattern: ^[\w\-]+$
Required: Yes

**Rules**

The Rule statements used to identify the web requests that you want to manage. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Type: Array of Rule objects

Required: No

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- **CLI** - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`
- **API and SDKs** - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Tags**

An array of key:value pairs to associate with the resource.

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: No

**VisibilityConfig**

Defines and enables Amazon CloudWatch metrics and web request sample collection.
**Type:** VisibilityConfig object

**Required:** Yes

**Response Syntax**

```json
{
  "Summary": {
    "ARN": "string",
    "Description": "string",
    "Id": "string",
    "LockToken": "string",
    "Name": "string"
  }
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Summary**

High-level information about a RuleGroup, returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage a RuleGroup, and the ARN, that you provide to the RuleGroupReferenceStatement to use the rule group in a Rule.

Type: RuleGroupSummary object

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFDuplicateItemException**

AWS WAF couldn't perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400
**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a `DefaultAction` that isn't among the types available at `DefaultAction`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](https://docs.aws.amazon.com/waf/latest/developerguide/set-up-waf-in-a-vpc.html) in the AWS WAF Developer Guide.

HTTP Status Code: 400

**WAFNonexistentItemException**

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400
WAFOptimisticLockException

AWS WAF couldn’t save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFSubscriptionNotFoundException

You tried to use a managed rule group that's available by subscription, but you aren't subscribed to it yet.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn’t perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500

WAFUnavailableEntityException

AWS WAF couldn't retrieve a resource that you specified for this operation. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateWebACL

Service: AWS WAFV2

Creates a WebACL per the specifications provided.

A web ACL defines a collection of rules to use to inspect and control web requests. Each rule has a statement that defines what to look for in web requests and an action that AWS WAF applies to requests that match the statement. In the web ACL, you assign a default action to take (allow, block) for any request that does not match any of the rules. The rules in a web ACL can be a combination of the types Rule, RuleGroup, and managed rule group. You can associate a web ACL with one or more AWS resources to protect. The resources can be an Amazon CloudFront distribution, an Amazon API Gateway REST API, an Application Load Balancer, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

Request Syntax

```
{
    "AssociationConfig": {
        "RequestBody": {
            "string": {
                "DefaultSizeInspectionLimit": "string"
            }
        }
    },
    "CaptchaConfig": {
        "ImmunityTimeProperty": {
            "ImmunityTime": number
        }
    },
    "ChallengeConfig": {
        "ImmunityTimeProperty": {
            "ImmunityTime": number
        }
    },
    "CustomResponseBodies": {
        "string": {
            "Content": "string",
            "ContentType": "string"
        }
    },
    "DefaultAction": {
```

"Allow": {  
  "CustomRequestHandling": {  
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        "Value": "string"  
      }  
    ]  
  },  
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          "Value": "string"  
        }  
      ]  
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                }  
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                  }  
                ]  
              }  
            }  
          }  
      }  
    ]  
  }  
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        "Value": "string"
      }
    ]
  }
},
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        "Value": "string"
      }
    ]
  }
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        "Value": "string"
      }
    ]
  }
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  }
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     "Value": "string"
    }
   ]
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  "None": {
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   "Name": "string"
  }
],
"Statement": {
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    "Statement"
   ]
  },
  "ByteMatchStatement": {
   "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
     "OversizeHandling": "string"
    },
    "Cookies": {
     "MatchPattern": {
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      },
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      "IncludedCookies": [ "string" ]
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   }
  }
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"All": {
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},
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"Name": "string"
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"UriPath": {
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"PositionalConstraint": "string",
"SearchString": blob,
"TextTransformations": [  
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    "Priority": number,  
    "Type": "string"  
  }  
],
"GeoMatchStatement": {  
  "CountryCodes": [ "string" ],  
  "ForwardedIPConfig": {  
    "FallbackBehavior": "string",  
    "HeaderName": "string"  
  }  
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"IPSetReferenceStatement": {  
  "ARN": "string",  
  "IPSetForwardedIPConfig": {  
    "FallbackBehavior": "string",  
    "HeaderName": "string",  
    "Position": "string"  
  }  
},
"LabelMatchStatement": {  
  "Key": "string",  
  "Scope": "string"  
},
"ManagedRuleGroupStatement": {  
  "ExcludedRules": [  
    {  
      "Name": "string"  
    }  
  ],  
  "ManagedRuleGroupConfigs": [  
    {  
      "AWSManagedRulesACFPRuleSet": {  
        "CreationPath": "string",  
        "EnableRegexInPath": boolean,  
        "RegistrationPagePath": "string",  
        "RequestInspection": {  
          "AddressFields": [  
            {  
              "Identifier": "string"  
            }  
          ]  
        }  
      }  
    }  
  ]
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"PasswordField": {
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},
"PayloadType": "string",
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   {
      "Identifier": "string"
   }
],
"UsernameField": {
   "Identifier": "string"
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"ResponseInspection": {
   "BodyContains": {
      "FailureStrings": [ "string" ],
      "SuccessStrings": [ "string" ]
   },
   "Header": {
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      "Name": "string",
      "SuccessValues": [ "string" ]
   },
   "Json": {
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      "Identifier": "string",
      "SuccessValues": [ "string" ]
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   "StatusCode": {
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      "SuccessCodes": [ number ]
   }
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"AWSManagedRulesATPRuleSet": {
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      }
   }
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    "Identifier": "string"
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        "SuccessStrings": [ "string" ]
    },
    "Header": {
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        "Name": "string",
        "SuccessValues": [ "string" ]
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        "SuccessValues": [ "string" ]
    },
    "StatusCode": {
        "FailureCodes": [ number ],
        "SuccessCodes": [ number ]
    }
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},
"AWSManagedRulesBotControlRuleSet": {
    "EnableMachineLearning": boolean,
    "InspectionLevel": "string"
},
"LoginPath": "string",
"PasswordField": {
    "Identifier": "string"
},
"PayloadType": "string",
"UsernameField": {
    "Identifier": "string"
}
]
},
"Name": "string",
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    {
        "ActionToUse": {
            "CreateWebACL": 89
        }
    }
]
"Allow": {
  "CustomRequestHandling": {
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        "Name": "string",
        "Value": "string"
      }
    ]
  }
},
"Block": {
  "CustomResponse": {
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    "ResponseCode": number,
    "ResponseHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},
"Captcha": {
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        "Name": "string",
        "Value": "string"
      }
    ]
  }
},
"Challenge": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},
"Count": {
  "CustomRequestHandling": {

"InsertHeaders": [
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    "Value": "string"
  }
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"ScopeDownStatement": "Statement",
"VendorName": "string",
"Version": "string"
],
"NotStatement": {
  "Statement": "Statement"
},
"OrStatement": {
  "Statements": [
    "Statement"
  ]
},
"RateBasedStatement": {
  "AggregateKeyType": "string",
  "CustomKeys": [
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      "Cookie": {
        "Name": "string",
        "TextTransformations": [
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            "Type": "string"
          }
        ]
      },
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      },
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        "Name": "string",
        "TextTransformations": [
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          }
        ]
      }
    }
  ]
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"CreateWebACL": 91
"Type": "string"
],
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},
"IP": {
},
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      "Type": "string"
    }
  ]
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      "Type": "string"
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  ]
},
"UriPath": {
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
},
"ForwardedIPConfig": {
  "FallbackBehavior": "string",
  "HeaderName": "string"
},
"Limit": number,
"ScopeDownStatement": "Statement"
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API Reference

},
"RegexMatchStatement": {
"FieldToMatch": {
"AllQueryArguments": {
},
"Body": {
"OversizeHandling": "string"
},
"Cookies": {
"MatchPattern": {
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"OversizeHandling": "string"
},
"JA3Fingerprint": {
"FallbackBehavior": "string"
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"JsonBody": {
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"MatchPattern": {
"All": {
},
"IncludedPaths": [ "string" ]
},
"MatchScope": "string",
"OversizeHandling": "string"
},

CreateWebACL

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"Method": {  
},
"QueryString": {  
},
"SingleHeader": {  
  "Name": "string"  
},
"SingleQueryArgument": {  
  "Name": "string"  
},
"UriPath": {  
}
},
"RegexString": "string",
"TextTransformations": [  
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    "Priority": number,
    "Type": "string"
  }
],
"RegexPatternSetReferenceStatement": {  
  "ARN": "string",
  "FieldToMatch": {  
    "AllQueryArguments": {  
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    "Body": {  
      "OversizeHandling": "string"
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    "Cookies": {  
      "MatchPattern": {  
        "All": {  
        },
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        "IncludedCookies": [ "string" ]
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      "OversizeHandling": "string"
    },
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      "OversizeHandling": "string"
    },
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      "MatchPattern": {

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"JsonBody": {
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"All": {
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} ]
},
"RuleGroupReferenceStatement": {
"ARN": "string",
"ExcludedRules": [
{
   "Name": "string"
}

"RuleActionOverrides": [
{
   "ActionToUse": {
      "Allow": {
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               {
                  "Name": "string",
                  "Value": "string"
               }
            ]
           }
      },
      "Block": {
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            "ResponseCode": number,
            "ResponseHeaders": [
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                  "Name": "string",
                  "Value": "string"
               }
            ]
         },
         "Captcha": {
            "CustomRequestHandling": {
               "InsertHeaders": [
                  {
                     "Name": "string",
                     "Value": "string"
                  }
               ]
            },
            "Challenge": {
               "CustomRequestHandling": {
                  "InsertHeaders": [
                     {
                        "Name": "string",
                        "Value": "string"
                     }
                  ]
               }
            }
         }
      }
   }
}
"Value": "string"
]
}

"Count": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},

"Name": "string"
]}

"SizeConstraintStatement": {
  "ComparisonOperator": "string",
  "FieldToMatch": {
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    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
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        "All": {},
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        "IncludedCookies": [ "string" ]
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      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
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          "Value": "string"
        }
      }
    }
  }
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"IncludedHeaders": [ "string" ]
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"OversizeHandling": "string"
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"JsonBody": {
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   "MatchPattern": {
      "All": {
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   "IncludedPaths": [ "string" ]
   "MatchScope": "string",
   "OversizeHandling": "string"
   "Method": {
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   "QueryString": {
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   "SingleHeader": {
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   "SingleQueryArgument": {
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   },
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      "Type": "string"
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   "FieldToMatch": {
      "AllQueryArguments": {
      },
"Body": {
  "OversizeHandling": "string"
},
"Cookies": {
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      "IncludedCookies": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
  },
  "HeaderOrder": {
    "OversizeHandling": "string"
  },
  "Headers": {
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      "All": {
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
      "FallbackBehavior": "string"
    },
    "JsonBody": {
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      "MatchPattern": {
        "All": {
          "IncludedPaths": [ "string" ]
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        "MatchScope": "string",
        "OversizeHandling": "string"
      },
      "Method": {
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      "QueryString": {
      }
    },
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"TextTransformations": [
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        "Type": "string"
    }
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        },
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                "All": {},
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
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        },
        "Headers": {
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                },
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                "IncludedHeaders": [ "string" ]
            }
        }
    }
}
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"OversizeHandling": "string"
},
"JA3Fingerprint": {
  "FallbackBehavior": "string"
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"JsonBody": {
  "InvalidFallbackBehavior": "string",
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    },
    "IncludedPaths": [ "string" ]
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  "MatchScope": "string",
  "OversizeHandling": "string"
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"Method": {
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"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
  {
    "Priority": number,
    "Type": "string"
  }
],
"VisibilityConfig": {
  "CloudWatchMetricsEnabled": boolean,
  "MetricName": "string",
  "SampledRequestsEnabled": boolean
}
]
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AssociationConfig

Specifies custom configurations for the associations between the web ACL and protected resources.

Use this to customize the maximum size of the request body that your protected CloudFront distributions forward to AWS WAF for inspection. The default is 16 KB (16,384 bytes).

Note

You are charged additional fees when your protected resources forward body sizes that are larger than the default. For more information, see AWS WAF Pricing.

Type: AssociationConfig object

Required: No
**CaptchaConfig**

Specifies how AWS WAF should handle CAPTCHA evaluations for rules that don't have their own CaptchaConfig settings. If you don't specify this, AWS WAF uses its default settings for CaptchaConfig.

Type: `CaptchaConfig` object

Required: No

**ChallengeConfig**

Specifies how AWS WAF should handle challenge evaluations for rules that don't have their own ChallengeConfig settings. If you don't specify this, AWS WAF uses its default settings for ChallengeConfig.

Type: `ChallengeConfig` object

Required: No

**CustomResponseBodies**

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the web ACL, and then use them in the rules and default actions that you define in the web ACL.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](https://docs.aws.amazon.com/waf/latest/developerguide/customizing-web-requests-and-responses.html) in the *AWS WAF Developer Guide*.

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](https://docs.aws.amazon.com/waf/latest/developerguide/quotas.html) in the *AWS WAF Developer Guide*.

Type: String to `CustomResponseBody` object map

Map Entries: Maximum number of items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `^[\w\-]+$`  

Required: No

**DefaultAction**

The action to perform if none of the Rules contained in the WebACL match.
Type: **DefaultAction** object

**Description**

A description of the web ACL that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[\w+=:#@/-,.\s]+[\w+=:#@/-,.\s]+$`

Required: No

**Name**

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String


Pattern: `^[\w\-]+$`

Required: Yes

**Rules**

The **Rule** statements used to identify the web requests that you want to manage. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Type: Array of **Rule** objects

Required: No

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:
• CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.

• API and SDKs - For all calls, use the Region endpoint us-east-1.

  Type: String

  Valid Values: CLOUDFRONT | REGIONAL

  Required: Yes

**Tags**

An array of key:value pairs to associate with the resource.

  Type: Array of **Tag** objects

  Array Members: Minimum number of 1 item.

  Required: No

**TokenDomains**

Specifies the domains that AWS WAF should accept in a web request token. This enables the use of tokens across multiple protected websites. When AWS WAF provides a token, it uses the domain of the AWS resource that the web ACL is protecting. If you don't specify a list of token domains, AWS WAF accepts tokens only for the domain of the protected resource. With a token domain list, AWS WAF accepts the resource's host domain plus all domains in the token domain list, including their prefixed subdomains.

  Example JSON: "TokenDomains": { "mywebsite.com", "myotherwebsite.com" }

  Public suffixes aren't allowed. For example, you can't use gov.au or co.uk as token domains.

  Type: Array of strings


  Pattern: ^[\w\./\-]+$

  Required: No

**VisibilityConfig**

Defines and enables Amazon CloudWatch metrics and web request sample collection.
Type: **VisibilityConfig** object

Required: Yes

**Response Syntax**

```json
{
   "Summary": {
      "ARN": "string",
      "Description": "string",
      "Id": "string",
      "LockToken": "string",
      "Name": "string"
   }
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response. The following data is returned in JSON format by the service.

**Summary**

High-level information about a **WebACL**, returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage a WebACL, and the ARN, that you provide to operations like **AssociateWebACL**.

Type: **WebACLSummary** object

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFConfigurationWarningException**

The operation failed because you are inspecting the web request body, headers, or cookies without specifying how to handle oversize components. Rules that inspect the body must either provide an `OversizeHandling` configuration or they must be preceded by a `SizeConstraintStatement` that blocks the body content from being too large. Rules that inspect the headers or cookies must provide an `OversizeHandling` configuration.
Provide the handling configuration and retry your operation.

Alternately, you can suppress this warning by adding the following tag to the resource that you provide to this operation: Tag (key: WAF: OversizeFieldsHandlingConstraintOptOut, value: true).

HTTP Status Code: 400

**WAFDuplicateItemException**

AWS WAF couldn’t perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

**WAFExpiredManagedRuleGroupVersionException**

The operation failed because the specified version for the managed rule group has expired. You can retrieve the available versions for the managed rule group by calling ListAvailableManagedRuleGroupVersions.

HTTP Status Code: 400

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFInvalidResourceException

AWS WAF couldn't perform the operation because the resource that you requested isn't valid. Check the resource, and try again.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFSubscriptionNotFoundException

You tried to use a managed rule group that's available by subscription, but you aren't subscribed to it yet.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.
HTTP Status Code: 400

**WAFTagOperationInternalErrorException**

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500

**WAFUnavailableEntityException**

AWS WAF couldn't retrieve a resource that you specified for this operation. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

**Examples**

**Create a web ACL**

The following example lists a web ACL JSON with multiple rules, including one that references a managed rule group. The managed rule group reference statement includes additional managed rule group configuration.

```json
{
    "Name": "exampleWebACL",
    "Id": "77777777-8888-9999-0000-111111111111",
    "DefaultAction": {
        "Allow": {}
    },
    "Description": "",
    "Rules": [
        {
            "Name": "exampleIPSetRule",
            "Priority": 0,
            "Statement": {
                "IPSetReferenceStatement": {
                }
            }
        }
    ]
}
```

},
  "Action": {
    "Block": {}
  },
  "VisibilityConfig": {
    "SampledRequestsEnabled": true,
    "CloudWatchMetricsEnabled": true,
    "MetricName": "exampleIPSetRule"
  }
},

{
  "Name": "exampleGeoMatchRule",
  "Priority": 1,
  "Statement": {
    "GeoMatchStatement": {
      "CountryCodes": [
        "AQ",
        "RE"
      ]
    }
  },
  "Action": {
    "Block": {}
  },
  "VisibilityConfig": {
    "SampledRequestsEnabled": true,
    "CloudWatchMetricsEnabled": true,
    "MetricName": "exampleGeoMatchRule"
  }
},

{
  "Name": "AWS-AWSManagedRulesATPRuleSet",
  "Priority": 2,
  "Statement": {
    "ManagedRuleGroupStatement": {
      "VendorName": "AWS",
      "Name": "AWSManagedRulesATPRuleSet",
      "ManagedRuleGroupConfigs": [
        {
          "LoginPath": "/web/login"
        },
        {
          "PayloadType": "JSON"
        }
      ]
    }
  }
}
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteFirewallManagerRuleGroups

Service: AWS WAFV2

Deletes all rule groups that are managed by AWS Firewall Manager for the specified web ACL.

You can only use this if ManagedByFirewallManager is false in the specified WebACL.

Request Syntax

```
{
   "WebACLArn": "string",
   "WebACLLockToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**WebACLArn**

The Amazon Resource Name (ARN) of the web ACL.

Type: String


Pattern: .\S.*

Required: Yes

**WebACLLockToken**

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.
Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

Response Syntax

```
{
    "NextWebACLLockToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextWebACLLockToken**

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Errors

For information about the errors that are common to all actions, see [Common Errors](#).
WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteIPSet
Service: AWS WAFV2

Deletes the specified IPSet.

Request Syntax

```json
{
    "Id": "string",
    "LockToken": "string",
    "Name": "string",
    "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Id**

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: Yes

**LockToken**

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.
Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

Name

The name of the IP set. You cannot change the name of an IPSet after you create it.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

Scope

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.
Errors

For information about the errors that are common to all actions, see Common Errors.

WAFAssociatedItemException

AWS WAF couldn't perform the operation because your resource is being used by another resource or it's associated with another resource.

HTTP Status Code: 400

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.
HTTP Status Code: 400

**WAFOptimisticLockException**

AWS WAF couldn’t save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

**WAFTagOperationException**

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

**WAFTagOperationInternalErrorException**

AWS WAF couldn’t perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteLoggingConfiguration
Service: AWS WAFV2

Deletes the LoggingConfiguration from the specified web ACL.

Request Syntax

```json
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceArn**

The Amazon Resource Name (ARN) of the web ACL from which you want to delete the LoggingConfiguration.

Type: String


Pattern: .\S+. *

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.
HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeletePermissionPolicy
Service: AWS WAFV2

Permanently deletes an IAM policy from the specified rule group.
You must be the owner of the rule group to perform this operation.

Request Syntax

```
{
  "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceArn**

The Amazon Resource Name (ARN) of the rule group from which you want to delete the policy.

You must be the owner of the rule group to perform this operation.

Type: String


Pattern: .\S.*

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.
**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a `DefaultAction` that isn't among the types available at `DefaultAction`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

**WAFNonexistentItemException**

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteRegexPatternSet

Service: AWS WAFV2

Deletes the specified RegexPatternSet.

Request Syntax

```
{
    "Id": "string",
    "LockToken": "string",
    "Name": "string",
    "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**Id**

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: Yes

**LockToken**

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.
Type: String


Pattern: ^[0-9a-f]{8}-\(?[0-9a-f]{4}\)?-[0-9a-f]{12}$

Required: Yes

**Name**

The name of the set. You cannot change the name after you create the set.

Type: String


Pattern: ^[\w\-]+$  

Required: Yes

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: 
  ```bash
  --scope=CLOUDFRONT
  --region=us-east-1.
  ```
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.
Errors

For information about the errors that are common to all actions, see Common Errors.

WAFAssociatedItemException

AWS WAF couldn’t perform the operation because your resource is being used by another resource or it’s associated with another resource.

HTTP Status Code: 400

WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can’t be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn’t perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.
HTTP Status Code: 400

**WAFOptimisticLockException**

AWS WAF couldn’t save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

**WAFTagOperationException**

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

**WAFTagOperationInternalErrorException**

AWS WAF couldn’t perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
DeleteRuleGroup
Service: AWS WAFV2

Deletes the specified RuleGroup.

Request Syntax

```
{
   "Id": "string",
   "LockToken": "string",
   "Name": "string",
   "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Id**

A unique identifier for the rule group. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: Yes

**LockToken**

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.
Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

Name

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

Scope

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.
Errors

For information about the errors that are common to all actions, see Common Errors.

WAFAssociatedItemException

AWS WAF couldn't perform the operation because your resource is being used by another resource or it's associated with another resource.

HTTP Status Code: 400

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.
HTTP Status Code: 400

**WAFOptimisticLockException**

AWS WAF couldn’t save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

**WAFTagOperationException**

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

**WAFTagOperationInternalErrorException**

AWS WAF couldn’t perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
DeleteWebACL

Service: AWS WAFV2

Deletes the specified WebACL.

You can only use this if ManagedByFirewallManager is false in the specified WebACL.

Note

Before deleting any web ACL, first disassociate it from all resources.

- To retrieve a list of the resources that are associated with a web ACL, use the following calls:
  - For regional resources, call ListResourcesForWebACL.
  - For Amazon CloudFront distributions, use the CloudFront call ListDistributionsByWebACLId. For information, see ListDistributionsByWebACLId in the Amazon CloudFront API Reference.
- To disassociate a resource from a web ACL, use the following calls:
  - For regional resources, call DisassociateWebACL.
  - For Amazon CloudFront distributions, provide an empty web ACL ID in the CloudFront call UpdateDistribution. For information, see UpdateDistribution in the Amazon CloudFront API Reference.

Request Syntax

```json
{
   "Id": "string",
   "LockToken": "string",
   "Name": "string",
   "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
Id

The unique identifier for the web ACL. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

LockToken

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

Name

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String


Pattern: ^\w\-]+$

Required: Yes
**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- **CLI** - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT` `--region=us-east-1`.
- **API and SDKs** - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFAssociatedItemException**

AWS WAF couldn’t perform the operation because your resource is being used by another resource or it’s associated with another resource.

HTTP Status Code: 400

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperation**

The operation isn't valid.
HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

**WAFNonexistentItemException**

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

**WAFOptimisticLockException**

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

**WAFTagOperationException**

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

**WAFTagOperationInternalErrorException**

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeAllManagedProducts

Service: AWS WAFV2

Provides high-level information for the AWS Managed Rules rule groups and AWS Marketplace managed rule groups.

Request Syntax

```
{
  "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- **CLI** - Specify the Region when you use the CloudFront scope: `-s scope=CLOUDFRONT --region=us-east-1`.
- **API and SDKs** - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{
  "ManagedProducts": [
  
```

DescribeAllManagedProducts
{
   "IsAdvancedManagedRuleSet": boolean,
   "IsVersioningSupported": boolean,
   "ManagedRuleSetName": "string",
   "ProductDescription": "string",
   "ProductId": "string",
   "ProductLink": "string",
   "ProductTitle": "string",
   "SnsTopicArn": "string",
   "VendorName": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ManagedProducts**

High-level information for the AWS Managed Rules rule groups and AWS Marketplace managed rule groups.

Type: Array of ManagedProductDescriptor objects

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeManagedProductsByVendor

Service: AWS WAFV2

Provides high-level information for the managed rule groups owned by a specific vendor.

Request Syntax

```json
{
    "Scope": "string",
    "VendorName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: ```--scope=CLOUDFRONT --region=us-east-1```.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**VendorName**

The name of the managed rule group vendor. You use this, along with the rule group name, to identify a rule group.
Type: String


Pattern: .*\S.*

Required: Yes

Response Syntax

```json
{
  "ManagedProducts": [
    {
      "IsAdvancedManagedRuleSet": boolean,
      "IsVersioningSupported": boolean,
      "ManagedRuleSetName": "string",
      "ProductDescription": "string",
      "ProductId": "string",
      "ProductLink": "string",
      "ProductTitle": "string",
      "SnsTopicArn": "string",
      "VendorName": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ManagedProducts**

High-level information for the managed rule groups owned by the specified vendor.

Type: Array of **ManagedProductDescriptor** objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).
WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeManagedRuleGroup

Service: AWS WAFV2

Provides high-level information for a managed rule group, including descriptions of the rules.

Request Syntax

```json
{
   "Name": "string",
   "Scope": "string",
   "VendorName": "string",
   "VersionName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Name**

The name of the managed rule group. You use this, along with the vendor name, to identify the rule group.

Type: String


Pattern: `^[\w\-]+$`

Required: Yes

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

  Type: String

  Valid Values: CLOUDFRONT | REGIONAL

  Required: Yes

**VendorName**

The name of the managed rule group vendor. You use this, along with the rule group name, to identify a rule group.

Type: String


Pattern: .*\S.*

Required: Yes

**VersionName**

The version of the rule group. You can only use a version that is not scheduled for expiration. If you don't provide this, AWS WAF uses the vendor's default version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^\[\w#:\.\-\/]+$

Required: No

**Response Syntax**

```
{
   "AvailableLabels": [
      {
         "Name": "string"
      }
   ],
   "Capacity": number,
   "ConsumedLabels": [
      {
      }...
   }
```

DescribeManagedRuleGroup

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"Name": "string"
],
"LabelNamespace": "string",
"Rules": [
{
  "Action": {
    "Allow": {
      "CustomRequestHandling": {
        "InsertHeaders": [
          {
            "Name": "string",
            "Value": "string"
          }
        ]
      }
    },
    "Block": {
      "CustomResponse": {
        "CustomResponseBodyKey": "string",
        "ResponseCode": number,
        "ResponseHeaders": [
          {
            "Name": "string",
            "Value": "string"
          }
        ]
      }
    },
    "Captcha": {
      "CustomRequestHandling": {
        "InsertHeaders": [
          {
            "Name": "string",
            "Value": "string"
          }
        ]
      }
    },
    "Challenge": {
      "CustomRequestHandling": {
        "InsertHeaders": [
          {
            "Name": "string",
            "Value": "string"
          }
        ]
      }
    }
  }
}
]
"Value": "string"
}
]
}
}
"Count": {
"CustomRequestHandling": {
"InsertHeaders": [ 
{
"Name": "string",
"Value": "string"
}
]
}
},
"Name": "string"
]
"SnsTopicArn": "string",
"VersionName": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**AvailableLabels**

The labels that one or more rules in this rule group add to matching web requests. These labels are defined in the RuleLabels for a Rule.

Type: Array of LabelSummary objects

**Capacity**

The web ACL capacity units (WCUs) required for this rule group.

AWS WAF uses WCUs to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect the relative cost of each rule. Simple rules that cost little to run use fewer
WCUs than more complex rules that use more processing power. Rule group capacity is fixed at creation, which helps users plan their web ACL WCU usage when they use a rule group. For more information, see **AWS WAF web ACL capacity units (WCU)** in the *AWS WAF Developer Guide*.

Type: Long

Valid Range: Minimum value of 1.

**ConsumedLabels**

The labels that one or more rules in this rule group match against in label match statements. These labels are defined in a LabelMatchStatement specification, in the **Statement** definition of a rule.

Type: Array of **LabelSummary** objects

**LabelNamespace**

The label namespace prefix for this rule group. All labels added by rules in this rule group have this prefix.

- The syntax for the label namespace prefix for a managed rule group is the following:
  
  `awswaf:managed:<vendor>:<rule group name>`

- When a rule with a label matches a web request, AWS WAF adds the fully qualified label to the request. A fully qualified label is made up of the label namespace from the rule group or web ACL where the rule is defined and the label from the rule, separated by a colon:

  `<label namespace>:<label from rule>`

Type: String


Pattern: `^[0-9A-Za-z\-_\:]+$`

**Rules**

Type: Array of **RuleSummary** objects

**SnsTopicArn**

The Amazon resource name (ARN) of the Amazon Simple Notification Service SNS topic that's used to provide notification of changes to the managed rule group. You can subscribe to the

DescribeManagedRuleGroup
SNS topic to receive notifications when the managed rule group is modified, such as for new versions and for version expiration. For more information, see the Amazon Simple Notification Service Developer Guide.

**Type**: String

**Length Constraints**: Minimum length of 20. Maximum length of 2048.

**Pattern**: . *\S . *

**VersionName**

The managed rule group's version.

**Type**: String

**Length Constraints**: Minimum length of 1. Maximum length of 64.

**Pattern**: ^[\w# : \.-/]+$

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFExpiredManagedRuleGroupVersionException**

The operation failed because the specified version for the managed rule group has expired. You can retrieve the available versions for the managed rule group by calling ListAvailableManagedRuleGroupVersions.

HTTP Status Code: 400

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFAInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400
WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFInvalidResourceException

AWS WAF couldn’t perform the operation because the resource that you requested isn’t valid. Check the resource, and try again.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn’t perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DisassociateWebACL

Service: AWS WAFV2

Disassociates the specified regional application resource from any existing web ACL association. A resource can have at most one web ACL association. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

For Amazon CloudFront, don't use this call. Instead, use your CloudFront distribution configuration. To disassociate a web ACL, provide an empty web ACL ID in the CloudFront call UpdateDistribution. For information, see UpdateDistribution in the Amazon CloudFront API Reference.

Required permissions for customer-managed IAM policies

This call requires permissions that are specific to the protected resource type. For details, see Permissions for DisassociateWebACL in the AWS WAF Developer Guide.

Request Syntax

```json
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceArn**

The Amazon Resource Name (ARN) of the resource to disassociate from the web ACL.

The ARN must be in one of the following formats:

- For an Application Load Balancer:
  ```
  arn:partition:elasticloadbalancing:region:account-id:loadbalancer/app/load-balancer-name/load-balancer-id
  ```

- For an Amazon API Gateway REST API:
  ```
  arn:partition:apigateway:region::/restapis/api-id/stages/stage-name
  ```
- For an AWS AppSync GraphQL API: `arn:partition:appsync:region:account-id:apis/GraphQLApiId`
- For an Amazon Cognito user pool: `arn:partition:cognito-idp:region:account-id:userpool/user-pool-id`

Type: String


Pattern: `.*\S.*`

Required: Yes

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:
• You specified a parameter name or value that isn't valid.
• Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
• You tried to update a WebACL with a DefaultAction that isn't among the types available at `DefaultAction`.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

**WAFNonexistentItemException**

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• [AWS Command Line Interface](#)
• [AWS SDK for .NET](#)
• [AWS SDK for C++](#)
• [AWS SDK for Go](#)
• [AWS SDK for Java V2](#)
• [AWS SDK for JavaScript V3](#)
• [AWS SDK for PHP V3](#)
• [AWS SDK for Python](#)
• [AWS SDK for Ruby V3](#)
GenerateMobileSdkReleaseUrl

Service: AWS WAFV2

Generates a presigned download URL for the specified release of the mobile SDK.

The mobile SDK is not generally available. Customers who have access to the mobile SDK can use it to establish and manage AWS WAF tokens for use in HTTP(S) requests from a mobile device to AWS WAF. For more information, see AWS WAF client application integration in the AWS WAF Developer Guide.

Request Syntax

```json
{
    "Platform": "string",
    "ReleaseVersion": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Platform**

The device platform.

Type: String

Valid Values: IOS | ANDROID

Required: Yes

**ReleaseVersion**

The release version. For the latest available version, specify LATEST.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[\w#:\.\-/]*$
Required: Yes

**Response Syntax**

```json
{
   "Url": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Url**

The presigned download URL for the specified SDK release.

Type: String

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
• Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.

• You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.

• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
**GetDecryptedAPIKey**

Service: AWS WAFV2

Returns your API key in decrypted form. Use this to check the token domains that you have defined for the key.

API keys are required for the integration of the CAPTCHA API in your JavaScript client applications. The API lets you customize the placement and characteristics of the CAPTCHA puzzle for your end users. For more information about the CAPTCHA JavaScript integration, see [AWS WAF client application integration](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-integrate-captcha.html) in the *AWS WAF Developer Guide.*

**Request Syntax**

```
{
    "APIKey": "string",
    "Scope": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**APIKey**

The encrypted API key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST
API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Syntax**

```
{
   "CreationTimestamp": number,
   "TokenDomains": [ "string" ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CreationTimestamp**

The date and time that the key was created.

Type: Timestamp

**TokenDomains**

The token domains that are defined in this API key.

Type: Array of strings


Pattern: `^[\w\./\-]+$`
Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

**WAFInvalidResourceException**

AWS WAF couldn’t perform the operation because the resource that you requested isn’t valid. Check the resource, and try again.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetIPSet

Service: AWS WAFV2

Retrieves the specified IPSet.

Request Syntax

```
{
    "Id": "string",
    "Name": "string",
    "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**Id**

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: Yes

**Name**

The name of the IP set. You cannot change the name of an IPSet after you create it.

Type: String


Pattern: `^[\w\-]+$`

Required: Yes
Scope

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{
   "IPSet": {
      "Addresses": [ "string" ],
      "ARN": "string",
      "Description": "string",
      "Id": "string",
      "IPAddressVersion": "string",
      "Name": "string"
   },
   "LockToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**IPSet**
Type: `IPSet` object

**LockToken**

A token used for optimistic locking. AWS WAF returns a token to your `get` and `list` requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like `update` and `delete`. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another `get`, and use the new token returned by that operation.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFOinternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn’t valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can’t be nested.
• You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.

• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
GetLoggingConfiguration
Service: AWS WAFV2

Returns the LoggingConfiguration for the specified web ACL.

Request Syntax

```
{
  "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ResourceArn**

The Amazon Resource Name (ARN) of the web ACL for which you want to get the LoggingConfiguration.

Type: String


Pattern: .*\S.*

Required: Yes

Response Syntax

```
{
  "LoggingConfiguration": {
    "LogDestinationConfigs": [ "string" ],
    "LoggingFilter": {
      "DefaultBehavior": "string",
      "Filters": [ {
        "Behavior": "string",
        "Conditions": [ ...
```
"ActionCondition": {
  "Action": "string"
},
"LabelNameCondition": {
  "LabelName": "string"
}
"Requirement": "string"
"ManagedByFirewallManager": boolean,
"RedactedFields": [
  {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
  }
}
"FallbackBehavior": "string",
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
],
"ResourceArn": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**LoggingConfiguration**

The **LoggingConfiguration** for the specified web ACL.

Type: **LoggingConfiguration** object
Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetManagedRuleSet

Service: AWS WAFV2

Retrieves the specified managed rule set.

⚠️ Note
This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are ListManagedRuleSets, GetManagedRuleSet, PutManagedRuleSetVersions, and UpdateManagedRuleSetVersionExppiryDate.

Request Syntax

```json
{
    "Id": "string",
    "Name": "string",
    "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Id**

A unique identifier for the managed rule set. The ID is returned in the responses to commands like list. You provide it to operations like get and update.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes
Name

The name of the managed rule set. You use this, along with the rule set ID, to identify the rule set.

This name is assigned to the corresponding managed rule group, which your customers can access and use.

Type: String


Pattern: ^\[\w\-]+$  

Required: Yes

Scope

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:
- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT  
  region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT  |  REGIONAL

Required: Yes

Response Syntax

```json
{
   "LockToken": "string",
   "ManagedRuleSet": {
      "ARN": "string"
   }
}
```
"Description": "string",
"Id": "string",
"LabelNamespace": "string",
"Name": "string",
"PublishedVersions": {
  "string": {
    "AssociatedRuleGroupArn": "string",
    "Capacity": number,
    "ExpiryTimestamp": number,
    "ForecastedLifetime": number,
    "LastUpdateTimestamp": number,
    "PublishTimestamp": number
  }
},
"RecommendedVersion": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**LockToken**

A token used for optimistic locking. AWS WAF returns a token to your `get` and `list` requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another `get`, and use the new token returned by that operation.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

**ManagedRuleSet**

The managed rule set that you requested.
Type: ManagedRuleSet object

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationExcetion

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn’t perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetMobileSdkRelease

Service: AWS WAFV2

Retrieves information for the specified mobile SDK release, including release notes and tags.

The mobile SDK is not generally available. Customers who have access to the mobile SDK can use it to establish and manage AWS WAF tokens for use in HTTP(S) requests from a mobile device to AWS WAF. For more information, see AWS WAF client application integration in the AWS WAF Developer Guide.

Request Syntax

```json
{
    "Platform": "string",
    "ReleaseVersion": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Platform**

The device platform.

Type: String

Valid Values: IOS  |  ANDROID

Required: Yes

**ReleaseVersion**

The release version. For the latest available version, specify LATEST.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[\w#:\.\-/]+$

Required: Yes
Response Syntax

```
{
    "MobileSdkRelease": {
        "ReleaseNotes": "string",
        "ReleaseVersion": "string",
        "Tags": [
            {
                "Key": "string",
                "Value": "string"
            }
        ],
        "Timestamp": number
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**MobileSdkRelease**

Information for a specified SDK release, including release notes and tags.

Type: **MobileSdkRelease** object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.
HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
• **AWS SDK for Ruby V3**
GetPermissionPolicy

Service: AWS WAFV2

Returns the IAM policy that is attached to the specified rule group.

You must be the owner of the rule group to perform this operation.

Request Syntax

```
{
    "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceArn**

The Amazon Resource Name (ARN) of the rule group for which you want to get the policy.

Type: String


Pattern: .*\S.*

Required: Yes

Response Syntax

```
{
    "Policy": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

### Policy

The IAM policy that is attached to the specified rule group.

- **Type:** String
- **Length Constraints:** Minimum length of 1. Maximum length of 395000.
- **Pattern:** .\*\S\.*

### Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can’t be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can’t be associated.

HTTP Status Code: 400

**WAFNonexistentItemException**

AWS WAF couldn’t perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetRateBasedStatementManagedKeys

Service: AWS WAFV2

Retrieves the IP addresses that are currently blocked by a rate-based rule instance. This is only available for rate-based rules that aggregate solely on the IP address or on the forwarded IP address.

The maximum number of addresses that can be blocked for a single rate-based rule instance is 10,000. If more than 10,000 addresses exceed the rate limit, those with the highest rates are blocked.

For a rate-based rule that you've defined inside a rule group, provide the name of the rule group reference statement in your request, in addition to the rate-based rule name and the web ACL name.

AWS WAF monitors web requests and manages keys independently for each unique combination of web ACL, optional rule group, and rate-based rule. For example, if you define a rate-based rule inside a rule group, and then use the rule group in a web ACL, AWS WAF monitors web requests and manages keys for that web ACL, rule group reference statement, and rate-based rule instance. If you use the same rule group in a second web ACL, AWS WAF monitors web requests and manages keys for this second usage completely independent of your first.

Request Syntax

```
{
    "RuleGroupRuleName": "string",
    "RuleName": "string",
    "Scope": "string",
    "WebACLId": "string",
    "WebACLName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.
**RuleGroupRuleName**

The name of the rule group reference statement in your web ACL. This is required only when you have the rate-based rule nested inside a rule group.

Type: String


Pattern: ^\w-]+$

Required: No

**RuleName**

The name of the rate-based rule to get the keys for. If you have the rule defined inside a rule group that you're using in your web ACL, also provide the name of the rule group reference statement in the request parameter RuleGroupRuleName.

Type: String


Pattern: ^\w-]+$

Required: Yes

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL
**WebACLId**

The unique identifier for the web ACL. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

- **Type:** String
- **Length Constraints:** Minimum length of 1. Maximum length of 36.
- **Pattern:** `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

**WebACLName**

The name of the web ACL. You cannot change the name of a web ACL after you create it.

- **Type:** String
- **Length Constraints:** Minimum length of 1. Maximum length of 128.
- **Pattern:** `^[\w\-]+$`

**Response Syntax**

```json
{
  "ManagedKeysIPV4": {
    "Addresses": [ "string" ],
    "IPAddressVersion": "string"
  },
  "ManagedKeysIPV6": {
    "Addresses": [ "string" ],
    "IPAddressVersion": "string"
  }
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

ManagedKeysIPV4

The keys that are of Internet Protocol version 4 (IPv4).

Type: RateBasedStatementManagedKeysIPSet object

ManagedKeysIPV6

The keys that are of Internet Protocol version 6 (IPv6).

Type: RateBasedStatementManagedKeysIPSet object

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can’t be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.
HTTP Status Code: 400

**WAFNonexistentItemException**

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

**WAFUnsupportedAggregateKeyTypeException**

The rule that you've named doesn't aggregate solely on the IP address or solely on the forwarded IP address. This call is only available for rate-based rules with an AggregateKeyType setting of IP or FORWARDED_IP.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetRegexPatternSet

Service: AWS WAFV2

Retrieves the specified RegexPatternSet.

Request Syntax

```json
{
   "Id": "string",
   "Name": "string",
   "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**Id**

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: Yes

**Name**

The name of the set. You cannot change the name after you create the set.

Type: String


Pattern: `^[\w\-]+$`

Required: Yes
**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Syntax**

```json
{
    "LockToken": "string",
    "RegexPatternSet": {
        "ARN": "string",
        "Description": "string",
        "Id": "string",
        "Name": "string",
        "RegularExpressionList": [
            {
                "RegexpString": "string"
            }
        ]
    }
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**LockToken**

A token used for optimistic locking. AWS WAF returns a token to your `get` and `list` requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like `update` and `delete`. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another `get`, and use the new token returned by that operation.

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 36.

**Pattern:** `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

**RegexPatternSet**

**Type:** `RegexPatternSet` object

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
• Your nested statement isn't valid. You might have tried to nest a statement that can't be
nested.
• You tried to update a WebACL with a DefaultAction that isn't among the types available at
DefaultAction.
• Your request references an ARN that is malformed, or corresponds to a resource with which a
web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just
created a resource that you're using in this operation, you might just need to wait a few
minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the
following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
GetRuleGroup

Service: AWS WAFV2

Retrieves the specified RuleGroup.

Request Syntax

```json
{
   "ARN": "string",
   "Id": "string",
   "Name": "string",
   "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ARN**

The Amazon Resource Name (ARN) of the entity.

Type: String


Pattern: .*\S.*

Required: No

**Id**

A unique identifier for the rule group. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: No
**Name**

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String


Pattern: ^[\w\-]+$

Required: No

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:
- **CLI** - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- **API and SDKs** - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: No

**Response Syntax**

```json
{
    "LockToken": "string",
    "RuleGroup": {
        "ARN": "string",
        "AvailableLabels": [
            {
                "Name": "string"
            }
        ],
        "Capacity": number,
        "ConsumedLabels": [
```


```json
{
    "Name": "string"
}
]
"CustomResponseBodies": {
    "string": {
        "Content": "string",
        "ContentType": "string"
    }
},
"Description": "string",
"Id": "string",
"LabelNamespace": "string",
"Name": "string",
"Rules": [
    {
        "Action": {
            "Allow": {
                "CustomRequestHandling": {
                    "InsertHeaders": [
                        {
                            "Name": "string",
                            "Value": "string"
                        }
                    ]
                }
            },
            "Block": {
                "CustomResponse": {
                    "CustomResponseBodyKey": "string",
                    "ResponseCode": number,
                    "ResponseHeaders": [
                        {
                            "Name": "string",
                            "Value": "string"
                        }
                    ]
                }
            },
            "Captcha": {
                "CustomRequestHandling": {
                    "InsertHeaders": [
                        {
                            "Name": "string",
                            "Value": "string"
                        }
                    ]
                }
            }
        }
    }
}
```
getRuleGroup

"Value": "string"
"
"
"
"
"
"

"Challenge": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},

"Count": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
}
},
"CaptchaConfig": {
  "ImmunityTimeProperty": {
    "ImmunityTime": number
  }
},

"ChallengeConfig": {
  "ImmunityTimeProperty": {
    "ImmunityTime": number
  }
},

"Name": "string",
"OverrideAction": {
  "Count": {
    "CustomRequestHandling": {
      "InsertHeaders": [
        {
          "Name": "string",
          "Value": "string"
        }
      ]
    }
  }
}
"Priority": number,
"RuleLabels": [
    
    "Name": "string"
  ],

"Statement": {
    "AndStatement": {
      "Statements": [
        "Statement"
      ]
    },

    "ByteMatchStatement": {
      "FieldToMatch": {
        "AllQueryArguments": {
        },

        "Body": {
          "OversizeHandling": "string"
        },

        "Cookies": {
          "MatchPattern": {
            "All": {
              "ExcludedCookies": [ "string" ],
              "IncludedCookies": [ "string" ]
            },

            "MatchScope": "string",
            "OversizeHandling": "string"
          },

          "HeaderOrder": {
            "OversizeHandling": "string"
          },

          "Headers": {
            "MatchPattern": {
              "All": {
                "ExcludedHeaders": [ "string" ]
              },

              "MatchScope": "string",
              "OversizeHandling": "string"
            }
          }  
        }
      }
    }
}
"IncludedHeaders": [ "string" ],
"MatchScope": "string",
"OversizeHandling": "string",
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
},
"PositionalConstraint": "string",
"SearchString": "blob",
"TextTransformations": [
  {
    "Priority": number,
    "Type": "string"
  }
],
"GeoMatchStatement": {
  "CountryCodes": [ "string" ],
  "ForwardedIPConfig": {
    "FallbackBehavior": "string",
    "ForwardedHeader": "string"
  }
}
"HeaderName": "string"

"IPSetReferenceStatement": {
    "ARN": "string",
    "IPSetForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string",
        "Position": "string"
    }
},

"LabelMatchStatement": {
    "Key": "string",
    "Scope": "string"
},

"ManagedRuleGroupStatement": {
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ],
    "ManagedRuleGroupConfigs": [
        {
            "AWSManagedRulesACFPRuleSet": {
                "CreationPath": "string",
                "EnableRegexInPath": boolean,
                "RegistrationPagePath": "string",
                "RequestInspection": {
                    "AddressFields": [
                        {
                            "Identifier": "string"
                        }
                    ],
                    "EmailField": {
                        "Identifier": "string"
                    },
                    "PasswordField": {
                        "Identifier": "string"
                    },
                    "PayloadType": "string",
                    "PhoneNumberFields": [
                        {
                            "Identifier": "string"
                        }
                    ]
                }
            }
        }
    ]
}
"UsernameField": {
  "Identifier": "string"
},
"ResponseInspection": {
  "BodyContains": {
    "FailureStrings": [ "string" ],
    "SuccessStrings": [ "string" ]
  },
  "Header": {
    "FailureValues": [ "string" ],
    "Name": "string",
    "SuccessValues": [ "string" ]
  },
  "Json": {
    "FailureValues": [ "string" ],
    "Identifier": "string",
    "SuccessValues": [ "string" ]
  },
  "StatusCode": {
    "FailureCodes": [ number ],
    "SuccessCodes": [ number ]
  }
},
"AWSManagedRulesATPRuleSet": {
  "EnableRegexInPath": boolean,
  "LoginPath": "string",
  "RequestInspection": {
    "PasswordField": {
      "Identifier": "string"
    },
    "PayloadType": "string",
    "UsernameField": {
      "Identifier": "string"
    }
  },
  "ResponseInspection": {
    "BodyContains": {
      "FailureStrings": [ "string" ],
      "SuccessStrings": [ "string" ]
    },
    "Header": {
      "FailureValues": [ "string" ],
      "SuccessValues": [ "string" ]
    }
  }
}
"FailureValues": [ "string" ],
"Name": "string",
"SuccessValues": [ "string" ]
},
"Json": {
  "FailureValues": [ "string" ],
  "Identifier": "string",
  "SuccessValues": [ "string" ]
},
"StatusCode": {
  "FailureCodes": [ number ],
  "SuccessCodes": [ number ]
}
},
"AWSManagedRulesBotControlRuleSet": {
  "EnableMachineLearning": boolean,
  "InspectionLevel": "string"
},
"LoginPath": "string",
"PasswordField": {
  "Identifier": "string"
},
"PayloadType": "string",
"UsernameField": {
  "Identifier": "string"
}
],
"Name": "string",
"RuleActionOverrides": [
{
  "ActionToUse": {
    "Allow": {
      "CustomRequestHandling": {
        "InsertHeaders": [ {
          "Name": "string",
          "Value": "string"
        }
      ]
    }
  }
},
"Block": {

"CustomResponse": {
  "CustomResponseBodyKey": "string",
  "ResponseCode": number,
  "ResponseHeaders": [
    {
      "Name": "string",
      "Value": "string"
    }
  ],
  "Name": "string",
  "Value": "string"
},
"Captcha": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ],
    "Name": "string",
    "Value": "string"
  },
  "Name": "string",
  "Value": "string"
},
"Challenge": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ],
    "Name": "string",
    "Value": "string"
  },
  "Name": "string",
  "Value": "string"
},
"Count": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ],
    "Name": "string",
    "Value": "string"
  },
  "Name": "string"
}
},
  "ScopeDownStatement": "Statement",
  "VendorName": "string",
  "Version": "string"
},
  "NotStatement": {
    "Statement": "Statement"
  },
  "OrStatement": {
    "Statements": [
      "Statement"
    ]
  },
  "RateBasedStatement": {
    "AggregateKeyType": "string",
    "CustomKeys": [
      {
        "Cookie": {
          "Name": "string",
          "TextTransformations": [
            {
              "Priority": number,
              "Type": "string"
            }
          ]
        },
        "ForwardedIP": {},
        "Header": {
          "Name": "string",
          "TextTransformations": [
            {
              "Priority": number,
              "Type": "string"
            }
          ]
        },
        "HTTPMethod": {},
        "IP": {},
        "LabelNamespace": {
          "Namespace": "string"
        }
      }
    ]
  }
}
"QueryArgument": {
  "Name": "string",
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ],
  "QueryString": {
    "TextTransformations": [
      {
        "Priority": number,
        "Type": "string"
      }
    ],
    "UriPath": {
      "TextTransformations": [
        {
          "Priority": number,
          "Type": "string"
        }
      ]
    }
  }
},
"ForwardedIPConfig": {
  "FallbackBehavior": "string",
  "HeaderName": "string"
},
"Limit": number,
"ScopeDownStatement": "Statement"
},
"RegexMatchStatement": {
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {

GetRuleGroup
"RegexString": "string",
"TextTransformations": [
  {
    "Priority": number,
    "Type": "string"
  }
],
"RegexPatternSetReferenceStatement": {
  "ARN": "string",
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
      "FallbackBehavior": "string"
    }
  }
}
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
],
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ],
    "RuleActionOverrides": [
        {
            "ActionToUse": {
                "Allow": {
                    "CustomRequestHandling": {
                        "InsertHeaders": [
                    }
                }
            }
        }
    }
"Name": "string",
"Value": "string"
}
]
}
],
"Block": {
"CustomResponse": {
"CustomResponseBodyKey": "string",
"ResponseCode": number,
"ResponseHeaders": [
{
"Name": "string",
"Value": "string"
}
]
}
},
"Captcha": {
"CustomRequestHandling": {
"InsertHeaders": [
{
"Name": "string",
"Value": "string"
}
]
}
},
"Challenge": {
"CustomRequestHandling": {
"InsertHeaders": [
{
"Name": "string",
"Value": "string"
}
]
}
},
"Count": {
"CustomRequestHandling": {
"InsertHeaders": [
{
"Name": "string",
"Value": "string"
}
]
}
}


```json
{
    "SizeConstraintStatement": {
        "ComparisonOperator": "string",
        "FieldToMatch": {
            "AllQueryArguments": {},
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "HeaderOrder": {
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedHeaders": [ "string" ],
                    " IncludedHeaders": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "JA3Fingerprint": {
                "FallbackBehavior": "string"
            },
            "JsonBody": {
```
"InvalidFallbackBehavior": "string",
"MatchPattern": {
  "All": {
  },
  "IncludedPaths": [ "string" ]
},
"MatchScope": "string",
"OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
},
"Size": number,
"TextTransformations": [ {
  "Priority": number,
  "Type": "string"
}
],
"SqlInjectionMatchStatement": {
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
"MatchScope": "string",
"OversizeHandling": "string"
},
"HeaderOrder": {
  "OversizeHandling": "string"
},
"Headers": {
  "MatchPattern": {
    "All": {
    },
    "ExcludedHeaders": [ "string" ],
    "IncludedHeaders": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {

},
"SensitivityLevel": "string",
"TextTransformations": [}
{
    "Priority": number,
    "Type": "string"
}
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        
        
        
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                
                
                
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            
            
            
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
        },
        "HeaderOrder": {
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                
                
                
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            
            
            
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
        },
        "JA3Fingerprint": {
            "FallbackBehavior": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                
                
                
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            
            
            
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
        
        
        
    
    
    
}
"IncludedPaths": [ "string" ]
},
"MatchScope": "string",
"OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
   "Name": "string"
},
"SingleQueryArgument": {
   "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
   {
      "Priority": number,
      "Type": "string"
   }
]
},
"VisibilityConfig": {
   "CloudWatchMetricsEnabled": boolean,
   "MetricName": "string",
   "SampledRequestsEnabled": boolean
}
],
"VisibilityConfig": {
   "CloudWatchMetricsEnabled": boolean,
   "MetricName": "string",
   "SampledRequestsEnabled": boolean
}
}
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**LockToken**

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

**RuleGroup**

Type: [RuleGroup](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400
WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetSampledRequests

Service: AWS WAFV2

Gets detailed information about a specified number of requests—a sample—that AWS WAF randomly selects from among the first 5,000 requests that your AWS resource received during a time range that you choose. You can specify a sample size of up to 500 requests, and you can specify any time range in the previous three hours.

GetSampledRequests returns a time range, which is usually the time range that you specified. However, if your resource (such as a CloudFront distribution) received 5,000 requests before the specified time range elapsed, GetSampledRequests returns an updated time range. This new time range indicates the actual period during which AWS WAF selected the requests in the sample.

Request Syntax

```json
{
   "MaxItems": number,
   "RuleMetricName": "string",
   "Scope": "string",
   "TimeWindow": {
      "EndTime": number,
      "StartTime": number
   },
   "WebAclArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**MaxItems**

The number of requests that you want AWS WAF to return from among the first 5,000 requests that your AWS resource received during the time range. If your resource received fewer requests than the value of MaxItems, GetSampledRequests returns information about all of them.

Type: Long

**RuleMetricName**

The metric name assigned to the Rule or RuleGroup dimension for which you want a sample of requests.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[\w#:\.\-/]+$`

Required: Yes

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**TimeWindow**

The start date and time and the end date and time of the range for which you want GetSampledRequests to return a sample of requests. You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours. If you specify a start time that's earlier than three hours ago, AWS WAF sets it to three hours ago.

Type: TimeWindow object
Required: Yes

**WebAclArn**

The Amazon resource name (ARN) of the WebACL for which you want a sample of requests.

Type: String


Pattern: .\S.*

Required: Yes

**Response Syntax**

```json
{
    "PopulationSize": number,
    "SampledRequests": [
        {
            "Action": "string",
            "CaptchaResponse": {
                "FailureReason": "string",
                "ResponseCode": number,
                "SolveTimestamp": number
            },
            "ChallengeResponse": {
                "FailureReason": "string",
                "ResponseCode": number,
                "SolveTimestamp": number
            },
            "Labels": [
                {
                    "Name": "string"
                }
            ],
            "OverriddenAction": "string",
            "Request": {
                "ClientIP": "string",
                "Country": "string",
                "Headers": [
                    {
                        "Name": "string"
                    }
                ]
            }
        }
    ]
}
```

GetSampledRequests
"Value": "string",
},
"HTTPVersion": "string",
"Method": "string",
"URI": "string"
},
"RequestHeadersInserted": [
{
"Name": "string",
"Value": "string"
}
],
"ResponseCodeSent": number,
"RuleNameWithinRuleGroup": "string",
"Timestamp": number,
"Weight": number
}
],
"TimeWindow": {
  "EndTime": number,
  "StartTime": number
}
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**PopulationSize**

The total number of requests from which GetSampledRequests got a sample of MaxItems requests. If PopulationSize is less than MaxItems, the sample includes every request that your AWS resource received during the specified time range.

Type: Long

**SampledRequests**

A complex type that contains detailed information about each of the requests in the sample.

Type: Array of SampledHTTPRequest objects
**TimeWindow**

Usually, `TimeWindow` is the time range that you specified in the `GetSampledRequests` request. However, if your AWS resource received more than 5,000 requests during the time range that you specified in the request, `GetSampledRequests` returns the time range for the first 5,000 requests. Times are in Coordinated Universal Time (UTC) format.

Type: `TimeWindow` object

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can’t be nested.
- You tried to update a WebACL with a `DefaultAction` that isn't among the types available at `DefaultAction`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

**WAFNonexistentItemException**

AWS WAF couldn’t perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetWebACL
Service: AWS WAFV2

Retrieves the specified WebACL.

Request Syntax

```json
{
    "Id": "string",
    "Name": "string",
    "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**Id**

The unique identifier for the web ACL. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: Yes

**Name**

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String


Pattern: `^[\w\-]+$`

Required: Yes
Scopes

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT  |  REGIONAL

Required: Yes

Response Syntax

```json
{
    "ApplicationIntegrationURL": "string",
    "LockToken": "string",
    "WebACL": {
        "ARN": "string",
        "AssociationConfig": {
            "RequestBody": {
                "string": {
                    "DefaultSizeInspectionLimit": "string"
                }
            }
        }
    },
    "Capacity": number,
    "CaptchaConfig": {
        "ImmunityTimeProperty": {
            "ImmunityTime": number
        }
    },
    "ChallengeConfig": {
        "ImmunityTimeProperty": {
            "ImmunityTime": number
        }
    }
}
```
GetWebACL
"ManagedRuleGroupConfigs": [
  {
    "AWSManagedRulesACFPRuleSet": {
      "CreationPath": "string",
      "EnableRegexInPath": boolean,
      "RegistrationPagePath": "string",
      "RequestInspection": {
        "AddressFields": [
          {
            "Identifier": "string"
          }
        ],
        "EmailField": {
          "Identifier": "string"
        },
        "PasswordField": {
          "Identifier": "string"
        },
        "PayloadType": "string",
        "PhoneNumberFields": [
          {
            "Identifier": "string"
          }
        ],
        "UsernameField": {
          "Identifier": "string"
        }
      },
      "ResponseInspection": {
        "BodyContains": {
          "FailureStrings": [ "string" ],
          "SuccessStrings": [ "string" ]
        },
        "Header": {
          "FailureValues": [ "string" ],
          "Name": "string",
          "SuccessValues": [ "string" ]
        },
        "Json": {
          "FailureValues": [ "string" ],
          "Identifier": "string",
          "SuccessValues": [ "string" ]
        }
      }
    }
  }
],
"StatusCode": {
    "FailureCodes": [ number ],
    "SuccessCodes": [ number ]
}
},
"AWSManagedRulesATPRuleSet": {
    "EnableRegexInPath": boolean,
    "LoginPath": "string",
    "RequestInspection": {
        "PasswordField": {
            "Identifier": "string"
        },
        "PayloadType": "string",
        "UsernameField": {
            "Identifier": "string"
        }
    },
    "ResponseInspection": {
        "BodyContains": {
            "FailureStrings": [ "string" ],
            "SuccessStrings": [ "string" ]
        },
        "Header": {
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  ],
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                "Value": "string"
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                  "Value": "string"
               }
            ]
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    "ImmunityTime": number
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        "HeaderName": "string",
        "Position": "string"
    }
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            "Value": "string"
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            "Value": "string"
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"Value": "string"
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"Value": "string"
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                }
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        "IncludedHeaders": [ "string" ]
    },
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    "OversizeHandling": "string"
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    "OversizeHandling": "string"
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"SingleQueryArgument": {
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            "OversizeHandling": "string"
        },
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            },
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            "OversizeHandling": "string"
        },
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        },
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GetWebACL
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    "Type": "string"
}
]
},
"VisibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
"MetricName": "string",
  "SampledRequestsEnabled": boolean
  }
}
],
"TokenDomains": [ "string" ],
"VisibilityConfig": {
  "CloudWatchMetricsEnabled": boolean,
  "MetricName": "string",
  "SampledRequestsEnabled": boolean
  }
}
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ApplicationIntegrationURL**

The URL to use in SDK integrations with AWS managed rule groups. For example, you can use the integration SDKs with the account takeover prevention managed rule group AWSManagedRulesATPRuleSet and the account creation fraud prevention managed rule group AWSManagedRulesACFPRuleSet. This is only populated if you are using a rule group in your web ACL that integrates with your applications in this way. For more information, see [AWS WAF client application integration](https://docs.aws.amazon.com/waf/latest/developerguide/client-application-integration.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

Type: String

**LockToken**

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.

Type: String

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

WebACL

The web ACL specification. You can modify the settings in this web ACL and use it to update this web ACL or create a new one.

Type: WebACL object

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can’t be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can’t be associated.

HTTP Status Code: 400
WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetWebACLForResource

Service: AWS WAFV2

Retrieves the WebACL for the specified resource.

This call uses GetWebACL, to verify that your account has permission to access the retrieved web ACL. If you get an error that indicates that your account isn't authorized to perform wafv2:GetWebACL on the resource, that error won't be included in your AWS CloudTrail event history.

For Amazon CloudFront, don't use this call. Instead, call the CloudFront action GetDistributionConfig. For information, see GetDistributionConfig in the Amazon CloudFront API Reference.

Required permissions for customer-managed IAM policies

This call requires permissions that are specific to the protected resource type. For details, see Permissions for GetWebACLForResource in the AWS WAF Developer Guide.

Request Syntax

```
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the resource whose web ACL you want to retrieve.

The ARN must be in one of the following formats:

- For an Application Load Balancer:
  `arn:partition:elasticloadbalancing:region:account-id:loadbalancer/app/load-balancer-name/load-balancer-id`

- For an Amazon API Gateway REST API:
  `arn:partition:apigateway:region::/restapis/api-id/stages/stage-name`
- For an AWS AppSync GraphQL API: `arn:partition:appsync:region:account-id:apis/GraphQLApiId`
- For an Amazon Cognito user pool: `arn:partition:cognito-idp:region:account-id:userpool/user-pool-id`

Type: String


Pattern: `.*\S.*`

Required: Yes

**Response Syntax**

```json
{
  "WebACL": {
    "ARN": "string",
    "AssociationConfig": {
      "RequestBody": {
        "string": {
          "DefaultSizeInspectionLimit": "string"
        }
      }
    },
    "Capacity": number,
    "CaptchaConfig": {
      "ImmunityTimeProperty": {
        "ImmunityTime": number
      }
    },
    "ChallengeConfig": {
      "ImmunityTimeProperty": {
        "ImmunityTime": number
      }
    },
    "CustomResponseBodies": {
```
"string": {
  "Content": "string",
  "ContentType": "string"
},
"DefaultAction": {
  "Allow": {
    "CustomRequestHandling": {
      "InsertHeaders": [
        {
          "Name": "string",
          "Value": "string"
        }
      ]
    }
  },
  "Block": {
    "CustomResponse": {
      "CustomResponseBodyKey": "string",
      "ResponseCode": "number",
      "ResponseHeaders": [
        {
          "Name": "string",
          "Value": "string"
        }
      ]
    }
  }
},
"Description": "string",
"Id": "string",
"LabelNamespace": "string",
"ManagedByFirewallManager": "boolean",
"Name": "string",
"PostProcessFirewallManagerRuleGroups": [
  {
    "FirewallManagerStatement": {
      "ManagedRuleGroupStatement": {
        "ExcludedRules": [
          {
            "Name": "string"
          }
        ],
        "ManagedRuleGroupConfigs": [
          
        ]
      }
    }
  }
]
{
  "AWSManagedRulesACFPRuleSet": {
    "CreationPath": "string",
    "EnableRegexInPath": boolean,
    "RegistrationPagePath": "string",
    "RequestInspection": {
      "AddressFields": [
        {
          "Identifier": "string"
        }
      ],
      "EmailField": {
        "Identifier": "string"
      },
      "PasswordField": {
        "Identifier": "string"
      },
      "PayloadType": "string",
      "PhoneNumberFields": [
        {
          "Identifier": "string"
        }
      ],
      "UsernameField": {
        "Identifier": "string"
      }
    },
    "ResponseInspection": {
      "BodyContains": {
        "FailureStrings": [ "string" ],
        "SuccessStrings": [ "string" ]
      },
      "Header": {
        "FailureValues": [ "string" ],
        "Name": "string",
        "SuccessValues": [ "string" ]
      },
      "Json": {
        "FailureValues": [ "string" ],
        "Identifier": "string",
        "SuccessValues": [ "string" ]
      },
      "StatusCode": {
        "FailureCodes": [ number ],
        "SuccessCodes": [ number ]
      }
    }
  }
}

GetWebACLForResource
"SuccessCodes": [ number ]
}
},
"AWSManagedRulesATPRuleSet": {
    "EnableRegexInPath": boolean,
    "LoginPath": "string",
    "RequestInspection": {
        "PasswordField": {
            "Identifier": "string"
        },
        "PayloadType": "string",
        "UsernameField": {
            "Identifier": "string"
        }
    },
    "ResponseInspection": {
        "BodyContains": {
            "FailureStrings": [ "string" ],
            "SuccessStrings": [ "string" ]
        },
        "Header": {
            "FailureValues": [ "string" ],
            "Name": "string",
            "SuccessValues": [ "string" ]
        },
        "Json": {
            "FailureValues": [ "string" ],
            "Identifier": "string",
            "SuccessValues": [ "string" ]
        },
        "StatusCode": {
            "FailureCodes": [ number ],
            "SuccessCodes": [ number ]
        }
    }
},
"AWSManagedRulesBotControlRuleSet": {
    "EnableMachineLearning": boolean,
    "InspectionLevel": "string"
}
"LoginPath": "string",
"PasswordField": {
    "Identifier": "string"
"PayloadType": "string",
"UsernameField": {
  "Identifier": "string"
}
],
"Name": "string",
"RuleActionOverides": [
{
  "ActionToUse": {
    "Allow": {
      "CustomRequestHandling": {
        "InsertHeaders": [
        {
          "Name": "string",
          "Value": "string"
        }
        ]
      },
      "Block": {
        "CustomResponse": {
          "CustomResponseBodyKey": "string",
          "ResponseCode": number,
          "ResponseHeaders": [
          {
            "Name": "string",
            "Value": "string"
          }
          ]
        },
        "Captcha": {
          "CustomRequestHandling": {
            "InsertHeaders": [
            {
              "Name": "string",
              "Value": "string"
            }
            ]
          },
          "Challenge": {
        
        }"}
      }
    }
  }
}
"CustomRequestHandling": {
    "InsertHeaders": [
        {
            "Name": "string",
            "Value": "string"
        }
    ],
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        }
    }
},
"Name": "string"
},
"ScopeDownStatement": {
    "AndStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "ByteMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {},
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string"
            }
        }
    }
}
"OversizeHandling": "string",
"HeaderOrder": {
  "OversizeHandling": "string"
},
"Headers": {
  "MatchPattern": {
    "All": {
    },
    "ExcludedHeaders": [ "string" ],
    "IncludedHeaders": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
}
},
"PositionalConstraint": "string",
"SearchString": "blob",
"TextTransformations": [
{  "Priority": number,
   "Type": "string"
}

"GeoMatchStatement": {
   "CountryCodes": [ "string" ],
   "ForwardedIPConfig": {
      "FallbackBehavior": "string",
      "HeaderName": "string"
   }
},

"IPSetReferenceStatement": {
   "ARN": "string",
   "IPSetForwardedIPConfig": {
      "FallbackBehavior": "string",
      "HeaderName": "string",
      "Position": "string"
   }
},

"LabelMatchStatement": {
   "Key": "string",
   "Scope": "string"
},

"ManagedRuleGroupStatement": "ManagedRuleGroupStatement",

"NotStatement": {
   "Statement": "Statement"
},

"OrStatement": {
   "Statements": [
      "Statement"
   ]
},

"RateBasedStatement": {
   "AggregateKeyType": "string",
   "CustomKeys": [
      {
         "Cookie": {
            "Name": "string",
            "TextTransformations": [
               {
                  "Priority": number,
                  "Type": "string"
               }
            ]
         }
      }
   ]
}
"ForwardedIP": {
},
"Header": {
  "Name": "string",
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
},
"HTTPMethod": {
},
"IP": {
},
"LabelNamespace": {
  "Namespace": "string"
},
"QueryArgument": {
  "Name": "string",
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
},
"queryString": {
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
},
"UriPath": {
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
}
"GetWebACLForResource": {  
  "ScopeDownStatement": "Statement",  
  "Limit": number,  
  "ForwardedIPConfig": {  
    "FallbackBehavior": "string",  
    "HeaderName": "string"  
  },  
  "RegexMatchStatement": {  
    "FieldToMatch": {  
      "AllQueryArguments": { },  
      "Body": {  
        "OversizeHandling": "string"  
      },  
      "Cookies": {  
        "MatchPattern": {  
          "All": { },  
          "ExcludedCookies": [ "string" ],  
          "IncludedCookies": [ "string" ]  
        },  
        "MatchScope": "string",  
        "OversizeHandling": "string"  
      },  
      "HeaderOrder": {  
        "OversizeHandling": "string"  
      },  
      "Headers": {  
        "MatchPattern": {  
          "All": { },  
          "ExcludedHeaders": [ "string" ],  
          "IncludedHeaders": [ "string" ]  
        },  
        "MatchScope": "string",  
        "OversizeHandling": "string"  
      },  
      "JA3Fingerprint": {  
        "FallbackBehavior": "string"  
      }  
    }  
  }
}
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
},
"RegexString": "string",
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
],
"RegexPatternSetReferenceStatement": {
    "ARN": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ]
            }
        }
    }
}
"IncludedCookies": [ "string" ]
},
"MatchScope": "string",
"OversizeHandling": "string"
},
"HeaderOrder": {
  "OversizeHandling": "string"
},
"Headers": {
  "MatchPattern": {
    "All": {
    },
    "ExcludedHeaders": [ "string" ],
    "IncludedHeaders": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"JA3Fingerprint": {
  "OversizeHandling": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
}
"TextTransformations": [
{
  "Priority": number,
  "Type": "string"
}
],
"RuleGroupReferenceStatement": {
  "ARN": "string",
  "ExcludedRules": [
    {
      "Name": "string"
    }
  ],
  "RuleActionOverrides": [
    {
      "ActionToUse": {
        "Allow": {
          "CustomRequestHandling": {
            "InsertHeaders": [
              {
                "Name": "string",
                "Value": "string"
              }
            ]
          }
        }
      },
      "Block": {
        "CustomResponse": {
          "CustomResponseBodyKey": "string",
          "ResponseCode": number,
          "ResponseHeaders": [
            {
              "Name": "string",
              "Value": "string"
            }
          ]
        }
      },
      "Captcha": {
        "CustomRequestHandling": {
          "InsertHeaders": [
            {
              "Name": "string",
              "Value": "string"
            }
          ]
        }
      }
    }
  ]
}
"Value": "string"

"Challenge": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  },
  "Count": {
    "CustomRequestHandling": {
      "InsertHeaders": [
        {
          "Name": "string",
          "Value": "string"
        }
      ]
    },
    "Name": "string"
  }
},
"SizeConstraintStatement": {
  "ComparisonOperator": "string",
  "FieldToMatch": {
    "AllQueryArguments": {},
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      }
    }
  }
}
"MatchScope": "string",
"OversizeHandling": "string"
],
"HeaderOrder": {
  "OversizeHandling": "string"
},
"Headers": {
  "MatchPattern": {
    "All": {},
    "ExcludedHeaders": [ "string" ],
    "IncludedHeaders": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
],
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {},
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
],
"Method": {
  
},
"QueryString": {
  
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
  
},
"Size": number,
"TextTransformations": [
  {
    "Priority": number,
    "Type": "string"
  }
],
"SqlInjectionMatchStatement": {
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
      "FallbackBehavior": "string"
    },
    "JsonBody": {
      "InvalidFallbackBehavior": "string",
      "MatchPattern": {
        "All": {
        }
      }
    }
  }
}


```
{
   "IncludedPaths": [ "string" ]
},
   "MatchScope": "string",
   "OversizeHandling": "string"
},
   "Method": {
   },
   "QueryString": {
   },
   "SingleHeader": {
      "Name": "string"
   },
   "SingleQueryArgument": {
      "Name": "string"
   },
   "UriPath": {
   }
},
   "SensitivityLevel": "string",
   "TextTransformations": [
      {
         "Priority": number,
         "Type": "string"
      }
   ],
   "XssMatchStatement": {
      "FieldToMatch": {
         "AllQueryArguments": {
         },
         "Body": {
            "OversizeHandling": "string"
         },
         "Cookies": {
            "MatchPattern": {
               "All": {
               },
               "ExcludedCookies": [ "string" ],
               "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
         }
      }
   }
}
"HeaderOrder": {
    "OversizeHandling": "string"
},
"Headers": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JA3Fingerprint": {
    "FallbackBehavior": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}


},

"VendorName": "string",
"Version": "string"
}

"RuleGroupReferenceStatement": {
  "ARN": "string",
  "ExcludedRules": [
    {
      "Name": "string"
    }
  ],

"RuleActionOverrides": [
  {
    "ActionToUse": {
      "Allow": {
        "CustomRequestHandling": {
          "InsertHeaders": [
            {
              "Name": "string",
              "Value": "string"
            }
          ]
        }
      },
      "Block": {
        "CustomResponse": {
          "CustomResponseBodyKey": "string",
          "ResponseCode": number,
          "ResponseHeaders": [
            {
              "Name": "string",
              "Value": "string"
            }
          ]
        }
      },
      "Captcha": {
        "CustomRequestHandling": {  
          "InsertHeaders": [
            {
              "Name": "string",
              "Value": "string"
            }
          ]
        }
      }
    }
  }
}
"Challenge": {
    "CustomRequestHandling": {
        "InsertHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    }
},
"Count": {
    "CustomRequestHandling": {
        "InsertHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    }
},
"Name": "string",
"OverrideAction": {
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        }
    },
    "None": {
    }
}


"Priority": number,
"VisibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
]
"PreProcessFirewallManagerRuleGroups": [
    {
        "FirewallManagerStatement": {
            "ManagedRuleGroupStatement": {
                "ExcludedRules": [
                    {
                        "Name": "string"
                    }
                ],
                "ManagedRuleGroupConfigs": [
                    {
                        "AWSManagedRulesACFPRuleSet": {
                            "CreationPath": "string",
                            "EnableRegexInPath": boolean,
                            "RegistrationPagePath": "string",
                            "RequestInspection": {
                                "AddressFields": [
                                    {
                                        "Identifier": "string"
                                    }
                                ],
                                "EmailField": {
                                    "Identifier": "string"
                                },
                                "PasswordField": {
                                    "Identifier": "string"
                                },
                                "PayloadType": "string",
                                "PhoneNumberFields": [
                                    {
                                        "Identifier": "string"
                                    }
                                ],
                                "UsernameField": {
                                    "Identifier": "string"
                                }
                            }
                        }
                    }
                ]
            }
        }
    }
]
"ResponseInspection": {
  "BodyContains": {
    "FailureStrings": [ "string" ],
    "SuccessStrings": [ "string" ]
  },
  "Header": {
    "FailureValues": [ "string" ],
    "Name": "string",
    "SuccessValues": [ "string" ]
  },
  "Json": {
    "FailureValues": [ "string" ],
    "Identifier": "string",
    "SuccessValues": [ "string" ]
  },
  "StatusCode": {
    "FailureCodes": [ number ],
    "SuccessCodes": [ number ]
  }
},
"AWSManagedRulesATPRuleSet": {
  "EnableRegexInPath": boolean,
  "LoginPath": "string",
  "RequestInspection": {
    "PasswordField": {
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    }
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      "SuccessStrings": [ "string" ]
    },
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      "SuccessValues": [ "string" ]
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},  
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        }  
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  }  
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        "InsertHeaders": [  
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            "Value": "string"  
          }  
        ]  
      }  
    }  
  }  
}  
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  "Value": "string"

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      "Value": "string"

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  }
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      "Value": "string"

    ]
  }
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      "Value": "string"

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  }
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}
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      },
      "Cookies": {
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         "MatchPattern": {
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  "SearchString": "blob",
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      "HeaderName": "string"
    }
  },
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    "ARN": "string",
    "IPSetForwardedIPConfig": {
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"OrStatement": {
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      "TextTransformations": [
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}
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GetWebACLForResource
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        "Value": "string"
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  }
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        "Value": "string"
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        "Value": "string"
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GetWebACLForResource
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            }
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 GetWebACLForResource

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        "Value": "string"
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  }
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        "Value": "string"
      }
    ]
  }
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        "Value": "string"
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    "ImmunityTime": number
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          "Value": "string"
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  "None": {
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  },
  "ByteMatchStatement": {
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        }
      }
    }
  }
}
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"IncludedCookies": [ "string" ]
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"OversizeHandling": "string"
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    "IncludedHeaders": [ "string" ]
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"SingleQueryArgument": {
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],
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  "ForwardedIPConfig": {
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    "HeaderName": "string"
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"IPSetReferenceStatement": {
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  "IPSetForwardedIPConfig": {
    "FallbackBehavior": "string",
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    "Position": "string"
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"LabelMatchStatement": {
  "Key": "string",
  "Scope": "string"
},
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    }
  ],
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        "EnableRegexInPath": boolean,
        "RegistrationPagePath": "string",
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"PasswordField": {
    "Identifier": "string"
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        "Identifier": "string"
    }
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"UsernameField": {
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}
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        "Name": "string",
        "SuccessValues": [ "string" ]
    },
    "Json": {
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        "Identifier": "string",
        "SuccessValues": [ "string" ]
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        "SuccessCodes": [ number ]
    }
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]
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"PayloadType": "string",
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  "Identifier": "string"
}

"ResponseInspection": {
  "BodyContains": {
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    "SuccessStrings": [ "string" ]
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    "SuccessValues": [ "string" ]
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    "Identifier": "string",
    "SuccessValues": [ "string" ]
  },
  "StatusCode": {
    "FailureCodes": [ number ],
    "SuccessCodes": [ number ]
  }
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"AWSManagedRulesBotControlRuleSet": {
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"PayloadType": "string",
"UsernameField": {
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}

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                            "Name": "string",
                            "Value": "string"
                        }
                    ]
                }
            },
            "Block": {
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                    "ResponseCode": number,
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                            "Value": "string"
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                    ]
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                            "Value": "string"
                        }
                    ]
                }
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                            "Value": "string"
                        }
                    ]
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            }
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        "Value": "string"
      }
    ]
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  "AggregateKeyType": "string",
  "CustomKeys": [
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        "TextTransformations": [
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            "Type": "string"
          }
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    "Type": "string"  
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},  
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        "Type": "string"  
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      {  
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      }  
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        "Type": "string"  
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        "IncludedCookies": [ "string" ]
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    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
      "FallbackBehavior": "string"
    },
    "JsonBody": {
      "InvalidFallbackBehavior": "string",
      "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
      }
    }
  }
}
GetWebACLForResource
"Headers": {
  "MatchPattern": {
    "All": {
    },
    "ExcludedHeaders": [ "string" ],
    "IncludedHeaders": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
},
"TextTransformations": [
  {
    "Priority": number,
    "Type": "string"
  }
]
"RuleGroupReferenceStatement": {
  "ARN": "string",
  "ExcludedRules": [
    {
      "Name": "string"
    }
  ],
  "RuleActionOverrides": [
    {
      "ActionToUse": {
        "Allow": {
          "CustomRequestHandling": {
            "InsertHeaders": [
              {
                "Name": "string",
                "Value": "string"
              }
            ]
          }
        }
      },
      "Block": {
        "CustomResponse": {
          "CustomResponseBodyKey": "string",
          "ResponseCode": number,
          "ResponseHeaders": [
            {
              "Name": "string",
              "Value": "string"
            }
          ]
        }
      }
    },
    "Captcha": {
      "CustomRequestHandling": {
        "InsertHeaders": [
          {
            "Name": "string",
            "Value": "string"
          }
        ]
      }
    },
    "Challenge": {
      "CustomRequestHandling": {
      }
    }
  ]
}
"InsertHeaders": [
  {
    "Name": "string",
    "Value": "string"
  }
],
"Count": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ],
    "Name": "string"
  }
},
"SizeConstraintStatement": {
  "ComparisonOperator": "string",
  "FieldToMatch": {
    "AllQueryArguments": {},
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {},
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    }
  }
}
"Headers": {
  "MatchPattern": {
    "All": {
    },
    "ExcludedHeaders": [ "string" ],
    "IncludedHeaders": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
},
"Size": number,
"TextTransformations": [ {
  "Priority": number,
  "Type": "string"
} ]}
"SqlInjectionMatchStatement": {
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
      "FallbackBehavior": "string"
    },
    "JsonBody": {
      "InvalidFallbackBehavior": "string",
      "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "Method": {

"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
},
"SensitivityLevel": "string",
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
],
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "HeaderOrder": {
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                }
            }
        }
    }
}
"ExcludedHeaders": [ "string" ],
"IncludedHeaders": [ "string" ]
},
"MatchScope": "string",
"OversizeHandling": "string"
},
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
},
"TextTransformations": [ 
  {
    "Priority": number,
    "Type": "string"
  }
],
"VisibilityConfig": {
  "CloudWatchMetricsEnabled": boolean,
  "MetricName": "string",
  "SampledRequestsEnabled": boolean
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**WebACL**

The web ACL that is associated with the resource. If there is no associated resource, AWS WAF returns a null web ACL.

Type: [WebACL](#) object

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400
WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can’t be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

WAFUnavailableEntityException

AWS WAF couldn't retrieve a resource that you specified for this operation. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListAPIKeys

Service: AWS WAFV2

Retrieves a list of the API keys that you've defined for the specified scope.

API keys are required for the integration of the CAPTCHA API in your JavaScript client applications. The API lets you customize the placement and characteristics of the CAPTCHA puzzle for your end users. For more information about the CAPTCHA JavaScript integration, see AWS WAF client application integration in the AWS WAF Developer Guide.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string",
    "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a NextMarker value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextMarker**

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.
Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .!*\S.*

Required: No

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- **CLI** - Specify the Region when you use the CloudFront scope: ```--scope=CLOUDFRONT --region=us-east-1```.
- **API and SDKs** - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Syntax**

```
{
   "APIKeySummaries": [
   {
      "APIKey": "string",
      "CreationTimestamp": number,
      "TokenDomains": [ "string" ],
      "Version": number
   }
   ],
   "ApplicationIntegrationURL": "string",
   "NextMarker": "string"
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**APIKeySummaries**

The array of key summaries. If you specified a `Limit` in your request, this might not be the full list.

Type: Array of **APIKeySummary** objects

**ApplicationIntegrationURL**

The CAPTCHA application integration URL, for use in your JavaScript implementation.

Type: String

**NextMarker**

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: . \S . *

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500
**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

**WAFInvalidResourceException**

AWS WAF couldn't perform the operation because the resource that you requested isn’t valid. Check the resource, and try again.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- AWS SDK for Python
- AWS SDK for Ruby V3
ListAvailableManagedRuleGroups

Service: AWS WAFV2

Retrieves an array of managed rule groups that are available for you to use. This list includes all AWS Managed Rules rule groups and all of the AWS Marketplace managed rule groups that you're subscribed to.

Request Syntax

```
{
  "Limit": number,
  "NextMarker": "string",
  "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a NextMarker value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextMarker

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String
Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*\S.*

Required: No

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT  |  REGIONAL

Required: Yes

**Response Syntax**

```
{
   "ManagedRuleGroups": [
   {
   "Description": "string",
   "Name": "string",
   "VendorName": "string",
   "VersioningSupported": boolean
   },
   "NextMarker": "string"
   }
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**ManagedRuleGroups**

Array of managed rule groups that you can use. If you specified a `Limit` in your request, this might not be the full list.

Type: Array of [ManagedRuleGroupSummary](#) objects

**NextMarker**

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `.\S.*`

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

### WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

### WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

**ListAvailableManagedRuleGroups**
• You specified a parameter name or value that isn't valid.
• Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
• You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListAvailableManagedRuleGroupVersions

Service: AWS WAFV2

Returns a list of the available versions for the specified managed rule group.

Request Syntax

```json
{
   "Limit": number,
   "Name": "string",
   "NextMarker": "string",
   "Scope": "string",
   "VendorName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**Limit**

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a NextMarker value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**Name**

The name of the managed rule group. You use this, along with the vendor name, to identify the rule group.

Type: String


Pattern: `^[\w\-]+$`
Required: Yes

**NextMarker**

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\S.*

Required: No

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**VendorName**

The name of the managed rule group vendor. You use this, along with the rule group name, to identify a rule group.

Type: String

Pattern: `.*\S.*`

Required: Yes

**Response Syntax**

```json
{
    "CurrentDefaultVersion": "string",
    "NextMarker": "string",
    "Versions": [
        {
            "LastUpdateTimestamp": "number",
            "Name": "string"
        }
    ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CurrentDefaultVersion**

The name of the version that's currently set as the default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[\w#:\.\-/]+$`

**NextMarker**

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String
Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*\S.*

**Versions**

The versions that are currently available for the specified managed rule group. If you specified a Limit in your request, this might not be the full list.

Type: Array of ManagedRuleGroupVersion objects

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400
WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListIPSets
Service: AWS WAFV2

Retrieves an array of IPSetSummary objects for the IP sets that you manage.

Request Syntax

```json
{
    "Limit": number,
    "NextMarker": "string",
    "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a NextMarker value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextMarker**

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.
Pattern: \.*\S.*

Required: No

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- **CLI** - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT -- region=us-east-1.
- **API and SDKs** - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Syntax**

```json
{
   "IPSets": [
      {
         "ARN": "string",
         "Description": "string",
         "Id": "string",
         "LockToken": "string",
         "Name": "string"
      },
      {
         "ARN": "string",
         "Description": "string",
         "Id": "string",
         "LockToken": "string",
         "Name": "string"
      }
   ],
   "NextMarker": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**IPSets**

Array of IPSets. If you specified a `Limit` in your request, this might not be the full list.

Type: Array of [IPSetSummary](#) objects

**NextMarker**

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*\S.*

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn’t recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
• Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
• You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListLoggingConfigurations
Service: AWS WAFV2

Retrieves an array of your LoggingConfiguration objects.

Request Syntax

```json
{
    "Limit": number,
    "NextMarker": "string",
    "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a NextMarker value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextMarker

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*\S.*
**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Syntax**

```json
{
    "LoggingConfigurations": [
        {
            "LogDestinationConfigs": [ "string" ],
            "LoggingFilter": {
                "DefaultBehavior": "string",
                "Filters": [
                    {
                        "Behavior": "string",
                        "Conditions": [
                            {
                                "ActionCondition": {
                                    "Action": "string"
                                },
                                "LabelNameCondition": {
                                    "LabelName": "string"
                                }
                            }
                        ],
                    }
                ],
                "Requirement": "string"
            }
        }
    ]
}
```
"ManagedByFirewallManager": boolean,
"RedactedFields": [
  {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
      "FallbackBehavior": "string"
    },
    "JsonBody": {
      "InvalidFallbackBehavior": "string",
      "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    }
  }
]
"MatchScope": "string",
"OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
}
],
"ResourceArn": "string"
],
"NextMarker": "string"
}

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**LoggingConfigurations**

Array of logging configurations. If you specified a Limit in your request, this might not be the full list.

Type: Array of **LoggingConfiguration** objects

**NextMarker**

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String
Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: . * \S . *

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can’t be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListManagedRuleSets

Service: AWS WAFV2

Retrieves the managed rule sets that you own.

⚠️ Note

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are ListManagedRuleSets, GetManagedRuleSet, PutManagedRuleSetVersions, and UpdateManagedRuleSetVersionExpiryDate.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string",
    "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a NextMarker value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No
**NextMarker**

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `.\S.*`

Required: No

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- **CLI** - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- **API and SDKs** - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Syntax**

```json
{
   "ManagedRuleSets": [
   {
      "ARN": "string",
      "Description": "string",
      "Id": "string",
      "Rules": ["string"]
   }
   ]
}
```
"LabelNamespace": "string",
"LockToken": "string",
"Name": "string"
}
],
"NextMarker": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ManagedRuleSets

Your managed rule sets. If you specified a Limit in your request, this might not be the full list.

Type: Array of ManagedRuleSetSummary objects

NextMarker

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500
WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at `DefaultAction`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
ListMobileSdkReleases
Service: AWS WAFV2

Retrieves a list of the available releases for the mobile SDK and the specified device platform.

The mobile SDK is not generally available. Customers who have access to the mobile SDK can use it to establish and manage AWS WAF tokens for use in HTTP(S) requests from a mobile device to AWS WAF. For more information, see AWS WAF client application integration in the AWS WAF Developer Guide.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string",
    "Platform": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a NextMarker value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextMarker**

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.
Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\S.*

Required: No

**Platform**

The device platform to retrieve the list for.

Type: String

Valid Values: IOS | ANDROID

Required: Yes

**Response Syntax**

```json
{
    "NextMarker": "string",
    "ReleaseSummaries": [
        {
            "ReleaseVersion": "string",
            "Timestamp": number
        }
    ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.
Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\S\.*

**ReleaseSummaries**

The high level information for the available SDK releases. If you specified a **Limit** in your request, this might not be the full list.

Type: Array of **ReleaseSummary** objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a **DefaultAction** that isn't among the types available at **DefaultAction**.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
ListRegexPatternSets

Service: AWS WAFV2

Retrieves an array of RegexPatternSetSummary objects for the regex pattern sets that you manage.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string",
    "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a NextMarker value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextMarker**

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.
Pattern: .*\S.*

Required: No

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- **CLI** - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- **API and SDKs** - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Syntax**

```
{
   "NextMarker": "string",
   "RegexPatternSets": [
   {
       "ARN": "string",
       "Description": "string",
       "Id": "string",
       "LockToken": "string",
       "Name": "string"
   }
   ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**NextMarker**

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\S.*

**RegexPatternSets**

Array of regex pattern sets. If you specified a `Limit` in your request, this might not be the full list.

Type: Array of `RegexPatternSetSummary` objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:
• You specified a parameter name or value that isn't valid.
• Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
• You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListResourcesForWebACL

Service: AWS WAFV2

Retrieves an array of the Amazon Resource Names (ARNs) for the regional resources that are associated with the specified web ACL.

For Amazon CloudFront, don't use this call. Instead, use the CloudFront call ListDistributionsByWebACLId. For information, see ListDistributionsByWebACLId in the Amazon CloudFront API Reference.

Required permissions for customer-managed IAM policies

This call requires permissions that are specific to the protected resource type. For details, see Permissions for ListResourcesForWebACL in the AWS WAF Developer Guide.

Request Syntax

```
{
    "ResourceType": "string",
    "WebACLArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceType**

Used for web ACLs that are scoped for regional applications. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

**Note**

If you don't provide a resource type, the call uses the resource type APPLICATION_LOAD_BALANCER.
Default: APPLICATION_LOAD_BALANCER

Type: String

Valid Values: APPLICATION_LOAD_BALANCER | API_GATEWAY | APPSYNC | COGNITO_USER_POOL | APP_RUNNER_SERVICE | VERIFIED_ACCESS_INSTANCE

Required: No

**WebACLArn**

The Amazon Resource Name (ARN) of the web ACL.

Type: String


Pattern: .*\S.*

Required: Yes

**Response Syntax**

```json
{
   "ResourceArns": [ "string" ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ResourceArns**

The array of Amazon Resource Names (ARNs) of the associated resources.

Type: Array of strings

Pattern: . *S .*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn’t perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListRuleGroups
Service: AWS WAFV2

Retrieves an array of RuleGroupSummary objects for the rule groups that you manage.

Request Syntax

```
{
   "Limit": number,
   "NextMarker": "string",
   "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a NextMarker value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextMarker**

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.
Pattern: .*\S.*

Required: No

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT` `--region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Syntax**

```json
{
   "NextMarker": "string",
   "RuleGroups": [
      {
         "ARN": "string",
         "Description": "string",
         "Id": "string",
         "LockToken": "string",
         "Name": "string"
      }
   ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**NextMarker**

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*\S.*

**RuleGroups**

Array of rule groups. If you specified a `Limit` in your request, this might not be the full list.

Type: Array of `RuleGroupSummary` objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn’t valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn’t recognize a parameter in the request. For example:

- You specified a parameter name or value that isn’t valid.
• Your nested statement isn't valid. You might have tried to nest a statement that can't be
nested.
• You tried to update a WebACL with a DefaultAction that isn't among the types available at
DefaultAction.
• Your request references an ARN that is malformed, or corresponds to a resource with which a
web ACL can't be associated.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the
following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListTagsForResource
Service: AWS WAFV2

Retrieves the TagInfoForResource for the specified resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

You can tag the AWS resources that you manage through AWS WAF: web ACLs, rule groups, IP sets, and regex pattern sets. You can't manage or view tags through the AWS WAF console.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string",
    "ResourceARN": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a NextMarker value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextMarker

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the
response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*\S.*

Required: No

**ResourceARN**

The Amazon Resource Name (ARN) of the resource.

Type: String


Pattern: .*\S.*

Required: Yes

**Response Syntax**

```json
{
    "NextMarker": "string",
    "TagInfoForResource": {
        "ResourceARN": "string",
        "TagList": [
            {
                "Key": "string",
                "Value": "string"
            }
        ]
    }
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**NextMarker**

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*\S.*

**TagInfoForResource**

The collection of tagging definitions for the resource. If you specified a Limit in your request, this might not be the full list.

Type: TagInfoForResource object

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn’t recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
• Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.

• You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.

• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListWebACLs

Service: AWS WAFV2

Retrieves an array of WebACLSummary objects for the web ACLs that you manage.

Request Syntax

```
{
   "Limit": number,
   "NextMarker": "string",
   "Scope": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a NextMarker value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextMarker**

When you request a list of objects with a Limit setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a NextMarker value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.
Pattern: .*\S.*

Required: No

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- **CLI** - Specify the Region when you use the CloudFront scope: **--scope=CLOUDFRONT** **--region=us-east-1**.
- **API and SDKs** - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Syntax**

```json
{
   "NextMarker": "string",
   "WebACLs": [
      {
         "ARN": "string",
         "Description": "string",
         "Id": "string",
         "LockToken": "string",
         "Name": "string"
      }
   ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**NextMarker**

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `.\S.*`

**WebACLs**

Array of web ACLs. If you specified a `Limit` in your request, this might not be the full list.

Type: Array of `WebACLSummary` objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
• Your nested statement isn't valid. You might have tried to nest a statement that can’t be
nested.
• You tried to update a WebACL with a DefaultAction that isn't among the types available at
DefaultAction.
• Your request references an ARN that is malformed, or corresponds to a resource with which a
web ACL can't be associated.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the
following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
PutLoggingConfiguration
Service: AWS WAFV2

Enables the specified LoggingConfiguration, to start logging from a web ACL, according to the configuration provided.

**Note**
This operation completely replaces any mutable specifications that you already have for a logging configuration with the ones that you provide to this call.
To modify an existing logging configuration, do the following:

1. Retrieve it by calling GetLoggingConfiguration
2. Update its settings as needed
3. Provide the complete logging configuration specification to this call

**Note**
You can define one logging destination per web ACL.

You can access information about the traffic that AWS WAF inspects using the following steps:

1. Create your logging destination. You can use an Amazon CloudWatch Logs log group, an Amazon Simple Storage Service (Amazon S3) bucket, or an Amazon Kinesis Data Firehose.

   The name that you give the destination must start with `aws-waf-logs-`. Depending on the type of destination, you might need to configure additional settings or permissions.

   For configuration requirements and pricing information for each destination type, see [Logging web ACL traffic](https://docs.aws.amazon.com/waf/latest/developerguide/logging-web-traffic.html) in the *AWS WAF Developer Guide*.

2. Associate your logging destination to your web ACL using a PutLoggingConfiguration request.

When you successfully enable logging using a PutLoggingConfiguration request, AWS WAF creates an additional role or policy that is required to write logs to the logging destination. For an Amazon CloudWatch Logs log group, AWS WAF creates a resource policy on the log group. For an
Amazon S3 bucket, AWS WAF creates a bucket policy. For an Amazon Kinesis Data Firehose, AWS WAF creates a service-linked role.

For additional information about web ACL logging, see [Logging web ACL traffic information](#) in the [AWS WAF Developer Guide](#).

**Request Syntax**

```json
{
    "LoggingConfiguration": {
        "LogDestinationConfigs": [ "string" ],
        "LoggingFilter": {
            "DefaultBehavior": "string",
            "Filters": [
                {
                    "Behavior": "string",
                    "Conditions": [
                        {
                            "ActionCondition": {
                                "Action": "string"
                            },
                            "LabelNameCondition": {
                                "LabelName": "string"
                            }
                        }
                    ],
                    "Requirement": "string"
                }
            ],
            "ManagedByFirewallManager": boolean,
            "RedactedFields": [
                {
                    "AllQueryArguments": {
                    },
                    "Body": {
                        "OversizeHandling": "string"
                    },
                    "Cookies": {
                        "MatchPattern": {
                            "All": {
                            },
                            "ExcludedCookies": [ "string" ]
                        }
                    }
                }
            ]
        }
    }
}
```
"IncludedCookies": [ "string" ],
"MatchScope": "string",
"OversizeHandling": "string"
},
"HeaderOrder": {
    "OversizeHandling": "string"
},
"Headers": {
    "MatchPattern": {
        "All": {
            "ExcludedHeaders": [ "string" ],
            "IncludedHeaders": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
        "FallbackBehavior": "string"
    },
    "JsonBody": {
        "InvalidFallbackBehavior": "string",
        "MatchPattern": {
            "All": {
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    }
}
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**LoggingConfiguration**

Type: `LoggingConfiguration` object

Required: Yes

Response Syntax

```json
{
    "LoggingConfiguration": {
        "LogDestinationConfigs": [ "string" ],
        "LoggingFilter": {
            "DefaultBehavior": "string",
            "Filters": [
                {
                    "Behavior": "string",
                    "Conditions": [
                        {
                            "ActionCondition": {
                                "Action": "string"
                            },
                            "LabelNameCondition": {
                                "LabelName": "string"
                            }
                        },
                        {
                            "Requirement": "string"
                        }
                    ]
                }
            ],
            "ManagedByFirewallManager": boolean,
        }
    }
}
```
"RedactedFields": [
  {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
      "FallbackBehavior": "string"
    },
    "JsonBody": {
      "InvalidFallbackBehavior": "string",
      "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "Method": {
      "PutLoggingConfiguration": 404
    }
  }
]
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**LoggingConfiguration**

Type: `LoggingConfiguration` object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).  

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400
**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at `DefaultAction`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-quota-limits.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

**WAFLogDestinationPermissionIssueException**

The operation failed because you don't have the permissions that your logging configuration requires. For information, see [Logging web ACL traffic information](https://docs.aws.amazon.com/waf/latest/developerguide/waf-logging.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

**WAFNonexistentItemException**

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

**WAFOptimisticLockException**

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.
HTTP Status Code: 400

WAFServiceLinkedRoleErrorException

AWS WAF is not able to access the service linked role. This can be caused by a previous PutLoggingConfiguration request, which can lock the service linked role for about 20 seconds. Please try your request again. The service linked role can also be locked by a previous DeleteServiceLinkedRole request, which can lock the role for 15 minutes or more. If you recently made a call to DeleteServiceLinkedRole, wait at least 15 minutes and try the request again. If you receive this same exception again, you will have to wait additional time until the role is unlocked.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
PutManagedRuleSetVersions
Service: AWS WAFV2

Defines the versions of your managed rule set that you are offering to the customers. Customers see your offerings as managed rule groups with versioning.

Note
This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.
Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are ListManagedRuleSets, GetManagedRuleSet, PutManagedRuleSetVersions, and UpdateManagedRuleSetVersionExpiryDate.

Customers retrieve their managed rule group list by calling ListAvailableManagedRuleGroups. The name that you provide here for your managed rule set is the name the customer sees for the corresponding managed rule group. Customers can retrieve the available versions for a managed rule group by calling ListAvailableManagedRuleGroupVersions. You provide a rule group specification for each version. For each managed rule set, you must specify a version that you recommend using.

To initiate the expiration of a managed rule group version, use UpdateManagedRuleSetVersionExpiryDate.

Request Syntax

```json
{
  "Id": "string",
  "LockToken": "string",
  "Name": "string",
  "RecommendedVersion": "string",
  "Scope": "string",
  "VersionsToPublish": {
    "string": {
      "AssociatedRuleGroupArn": "string",
      "ForecastedLifetime": number
    }
  }
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Id

A unique identifier for the managed rule set. The ID is returned in the responses to commands like list. You provide it to operations like get and update.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

LockToken

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

Name

The name of the managed rule set. You use this, along with the rule set ID, to identify the rule set.
This name is assigned to the corresponding managed rule group, which your customers can access and use.

Type: String


Pattern: ^\[\w\-]+$ 

Required: Yes

RecommendedVersion

The version of the named managed rule group that you'd like your customers to choose, from among your version offerings.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^\[\w#:\.\-/]+$ 

Required: No

Scope

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL 

Required: Yes

VersionsToPublish

The versions of the named managed rule group that you want to offer to your customers.
Type: String to **VersionToPublish** object map

Key Length Constraints: Minimum length of 1. Maximum length of 64.

Key Pattern: ^[^\w#:\./-]+$

Required: No

**Response Syntax**

```
{
   "NextLockToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextLockToken**

A token used for optimistic locking. AWS WAF returns a token to your `get` and `list` requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like `update` and `delete`. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another `get`, and use the new token returned by that operation.

Type: String


Pattern: ^[0-9a-f]{8}(-(?:[0-9a-f]{4}){3}[0-9a-f]{12})$

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).
WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn’t save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
PutPermissionPolicy

Service: AWS WAFV2

Attaches an IAM policy to the specified resource. Use this to share a rule group across accounts.

You must be the owner of the rule group to perform this operation.

This action is subject to the following restrictions:

- You can attach only one policy with each PutPermissionPolicy request.
- The ARN in the request must be a valid AWS WAF RuleGroup ARN and the rule group must exist in the same Region.
- The user making the request must be the owner of the rule group.

Request Syntax

```
{
   "Policy": "string",
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Policy**

The policy to attach to the specified rule group.

The policy specifications must conform to the following:

- The policy must be composed using IAM Policy version 2012-10-17.
- The policy must include specifications for Effect, Action, and Principal.
- Effect must specify Allow.
- Action must specify wafv2:CreateWebACL, wafv2:UpdateWebACL, and wafv2:PutFirewallManagerRuleGroups and may optionally specify wafv2:GetRuleGroup. AWS WAF rejects any extra actions or wildcard actions in the policy.
• The policy must not include a `Resource` parameter.

For more information, see [IAM Policies](#).

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 395000.

**Pattern:** .*\S.*

**Required:** Yes

---

**ResourceArn**

The Amazon Resource Name (ARN) of the `RuleGroup` to which you want to attach the policy.

**Type:** String

**Length Constraints:** Minimum length of 20. Maximum length of 2048.

**Pattern:** .*\S.*

**Required:** Yes

---

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

---

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

**HTTP Status Code:** 500

**WAFInvalidParameterException**

The operation failed because AWS WAF didn’t recognize a parameter in the request. For example:

• You specified a parameter name or value that isn’t valid.
• Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.

• You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.

• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFInvalidPermissionPolicyException

The operation failed because the specified policy isn't in the proper format.

The policy specifications must conform to the following:

• The policy must be composed using IAM Policy version 2012-10-17.

• The policy must include specifications for Effect, Action, and Principal.

• Effect must specify Allow.

• Action must specify wafv2:CreateWebACL, wafv2:UpdateWebACL, and wafv2:PutFirewallManagerRuleGroups and may optionally specify wafv2:GetRuleGroup. AWS WAF rejects any extra actions or wildcard actions in the policy.

• The policy must not include a Resource parameter.

For more information, see IAM Policies.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

Examples

Share a rule group with another account

This example illustrates one usage of PutPermissionPolicy.
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": {
        "AWS": "arn:aws:iam::111111111111:user/UserName"
      },
      "Action": [
        "wafv2:CreateWebACL",
        "wafv2:UpdateWebACL",
        "wafv2:PutFirewallManagerRuleGroups",
        "wafv2:GetRuleGroup"
      ]
    }
  ]
}

Example put permission policy call for the CLI:

This example illustrates one usage of PutPermissionPolicy.

aws wafv2 put-permission-policy --resource-arn arn:aws:wafv2:us-east-1:989715759876:regional/rulegroup/rule_group_with_rules/exampleRuleGroupArn
--policy '{"Version":"2012-10-17","Statement":[{"Effect":"Allow","Principal":{
  "AWS": "arn:aws:iam::111111111111:user/ExampleUserName"},"Action":
  ["wafv2:UpdateWebACL","wafv2:CreateWebACL","wafv2:PutFirewallManagerRuleGroups"]}]}'

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
TagResource

Service: AWS WAFV2

Associates tags with the specified AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

You can tag the AWS resources that you manage through AWS WAF: web ACLs, rule groups, IP sets, and regex pattern sets. You can't manage or view tags through the AWS WAF console.

Request Syntax

```
{
   "ResourceARN": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceARN**

The Amazon Resource Name (ARN) of the resource.

Type: String


Pattern: .\S.*

Required: Yes
Tags

An array of key:value pairs to associate with the resource.

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn’t valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can’t be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.
HTTP Status Code: 400

**WAFLimitsExceededException**

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-quota-quota-manager.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

HTTP Status Code: 400

**WAFNonexistentItemException**

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

**WAFTagOperationException**

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

**WAFTagOperationInternalErrorException**

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](https://docs.aws.amazon.com/cli/latest/userguide/cli-aws-waf.html)
- [AWS SDK for .NET](https://docs.aws.amazon.com/aws-sdk-dotnet/latest/userguide/)
- [AWS SDK for C++](https://docs.aws.amazon.com/sdk-for-cpp/v1/developer-guide/
- [AWS SDK for Go](https://docs.aws.amazon.com/sdk-for-golang/v1/developer-guide/
- [AWS SDK for Java V2](https://docs.aws.amazon.com/aws-java-sdk/latest/developer-guide/)
- [AWS SDK for JavaScript V3](https://docs.aws.amazon.com/js-sdk/latest/)

TagResource
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
UntagResource
Service: AWS WAFV2

Disassociates tags from an AWS resource. Tags are key:value pairs that you can associate with AWS resources. For example, the tag key might be "customer" and the tag value might be "companyA." You can specify one or more tags to add to each container. You can add up to 50 tags to each AWS resource.

Request Syntax

```json
{
    "ResourceARN": "string",
    "TagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ResourceARN**

The Amazon Resource Name (ARN) of the resource.

Type: String


Pattern: `.*\S.*`

Required: Yes

**TagKeys**

An array of keys identifying the tags to disassociate from the resource.

Type: Array of strings

Array Members: Minimum number of 1 item.


Pattern: `^([\p{L}\p{Z}\p{N}\_\.:=\+/\-\@]+)\$`
Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can’t be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn’t perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.
HTTP Status Code: 400

**WAFTagOperationException**

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

**WAFTagOperationInternalErrorException**

AWS WAF couldn’t perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
UpdateIPSet
Service: AWS WAFV2

Updates the specified IPSet.

⚠️ **Note**

This operation completely replaces the mutable specifications that you already have for the IP set with the ones that you provide to this call.

To modify an IP set, do the following:

1. Retrieve it by calling GetIPSet
2. Update its settings as needed
3. Provide the complete IP set specification to this call

Temporary inconsistencies during updates

When you create or change a web ACL or other AWS WAF resources, the changes take a small amount of time to propagate to all areas where the resources are stored. The propagation time can be from a few seconds to a number of minutes.

The following are examples of the temporary inconsistencies that you might notice during change propagation:

- After you create a web ACL, if you try to associate it with a resource, you might get an exception indicating that the web ACL is unavailable.
- After you add a rule group to a web ACL, the new rule group rules might be in effect in one area where the web ACL is used and not in another.
- After you change a rule action setting, you might see the old action in some places and the new action in others.
- After you add an IP address to an IP set that is in use in a blocking rule, the new address might be blocked in one area while still allowed in another.

Request Syntax

```
{
   "Addresses": [ "string" ],
```

UpdateIPSet
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Addresses**

Contains an array of strings that specifies zero or more IP addresses or blocks of IP addresses that you want AWS WAF to inspect for in incoming requests. All addresses must be specified using Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports all IPv4 and IPv6 CIDR ranges except for /0.

Example address strings:

- For requests that originated from the IP address 192.0.2.44, specify 192.0.2.44/32.
- For requests that originated from IP addresses from 192.0.2.0 to 192.0.2.255, specify 192.0.2.0/24.
- For requests that originated from the IP address 1111:0000:0000:0000:0000:0000:0000:0111, specify 1111:0000:0000:0000:0000:0000:0000:0111/128.

For more information about CIDR notation, see the Wikipedia entry Classless Inter-Domain Routing.

Example JSON Addresses specifications:

- Empty array: "Addresses": []
- Array with one address: "Addresses": ["192.0.2.44/32"]
- Array with three addresses: "Addresses": ["192.0.2.44/32", "192.0.2.0/24", "192.0.0.0/16"]
• INVALID specification: "Addresses": ["""] INVALID

Type: Array of strings


Pattern: .*\S.*

Required: Yes

**Description**

A description of the IP set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^\[\w+=:#@/\-,.\]\[\w+=:#@/\-,.\s\]+\[\w+=:#@/\-,.\]$ 

Required: No

**Id**

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: ^[0-9a-f]{8}-\(?:[0-9a-f]{4}-\)?[0-9a-f]{3}[0-9a-f]{12}$

Required: Yes

**LockToken**

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.
Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

**Name**

The name of the IP set. You cannot change the name of an IPSet after you create it.

Type: String


Pattern: ^\w\-]+$

Required: Yes

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- **CLI** - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- **API and SDKs** - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

**Response Syntax**

```
{
   "NextLockToken": "string"
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextLockToken**

A token used for optimistic locking. AWS WAF returns this token to your update requests. You use `NextLockToken` in the same manner as you use `LockToken`.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDuplicateItemException**

AWS WAF couldn’t perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:
• You specified a parameter name or value that isn't valid.
• Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
• You tried to update a WebACL with a `DefaultAction` that isn't among the types available at `DefaultAction`.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

`WAFLimitsExceededException`

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-quota-limits.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

`WAFNonexistentItemException`

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

`WAFOptimisticLockException`

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• [AWS Command Line Interface](https://docs.aws.amazon.com/cli/latest/userguide/cli-waf.html)
• [AWS SDK for .NET](https://docs.aws.amazon.com/aws-sdk-dotnet/latest/userguide/)

UpdateIPSet
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateManagedRuleSetVersionExpiryDate

Service: AWS WAFV2

Updates the expiration information for your managed rule set. Use this to initiate the expiration of a managed rule group version. After you initiate expiration for a version, AWS WAF excludes it from the response to `ListAvailableManagedRuleGroupVersions` for the managed rule group.

**Note**

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are `ListManagedRuleSets`, `GetManagedRuleSet`, `PutManagedRuleSetVersions`, and `UpdateManagedRuleSetVersionExpiryDate`.

**Request Syntax**

```json
{
    "ExpiryTimestamp": number,
    "Id": "string",
    "LockToken": "string",
    "Name": "string",
    "Scope": "string",
    "VersionToExpire": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ExpiryTimestamp**

The time that you want the version to expire.

Times are in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".
Id

A unique identifier for the managed rule set. The ID is returned in the responses to commands like list. You provide it to operations like get and update.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

LockToken

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

Name

The name of the managed rule set. You use this, along with the rule set ID, to identify the rule set.

This name is assigned to the corresponding managed rule group, which your customers can access and use.

Type: String
**Length Constraints:** Minimum length of 1. Maximum length of 128.

**Pattern:** ^[\w-]+$  

**Required:** Yes

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- **CLI** - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- **API and SDKs** - For all calls, use the Region endpoint us-east-1.

**Type:** String  

**Valid Values:** CLOUDFRONT | REGIONAL  

**Required:** Yes

**VersionToExpire**

The version that you want to remove from your list of offerings for the named managed rule group.

**Type:** String  

**Length Constraints:** Minimum length of 1. Maximum length of 64.

**Pattern:** ^\w+:\./-]+$  

**Required:** Yes

**Response Syntax**

```
{
    "ExpiringVersion": "string",
}
```
"ExpiryTimestamp": number,
"NextLockToken": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ExpiringVersion**

The version that is set to expire.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[\w#:\./-]+$

**ExpiryTimestamp**

The time that the version will expire.

Times are in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".

Type: Timestamp

**NextLockToken**

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.

Type: String

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn’t perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400
WAFOptimisticLockException

AWS WAF couldn’t save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateRegexPatternSet
Service: AWS WAFV2

Updates the specified RegexPatternSet.

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
</table>
This operation completely replaces the mutable specifications that you already have for the regex pattern set with the ones that you provide to this call.

To modify a regex pattern set, do the following:

1. Retrieve it by calling GetRegexPatternSet
2. Update its settings as needed
3. Provide the complete regex pattern set specification to this call

Temporary inconsistencies during updates

When you create or change a web ACL or other AWS WAF resources, the changes take a small amount of time to propagate to all areas where the resources are stored. The propagation time can be from a few seconds to a number of minutes.

The following are examples of the temporary inconsistencies that you might notice during change propagation:

- After you create a web ACL, if you try to associate it with a resource, you might get an exception indicating that the web ACL is unavailable.
- After you add a rule group to a web ACL, the new rule group rules might be in effect in one area where the web ACL is used and not in another.
- After you change a rule action setting, you might see the old action in some places and the new action in others.
- After you add an IP address to an IP set that is in use in a blocking rule, the new address might be blocked in one area while still allowed in another.

Request Syntax

```json
{
    "Description": "string",
}```
"Id": "string",
"LockToken": "string",
"Name": "string",
"RegularExpressionList": [
  {
    "RegexString": "string"
  }
],
"Scope": "string"

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Description

A description of the set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^\w+=:#@/\-,.]+\w+=:#@/\-,.s]+\w+=:#@/\-,.]+$

Required: No

Id

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

LockToken

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to
the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

**Name**

The name of the set. You cannot change the name after you create the set.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

**RegularExpressionList**

Type: Array of Regex objects

Required: Yes

**Scope**

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- **CLI** - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`. 
• API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{
  "NextLockToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextLockToken**

A token used for optimistic locking. AWS WAF returns this token to your update requests. You use NextLockToken in the same manner as you use LockToken.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDuplicateItemException**

AWS WAF couldn’t perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400
WAFInternalErrorException

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn’t valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn’t valid.
- Your nested statement isn’t valid. You might have tried to nest a statement that can’t be nested.
- You tried to update a WebACL with a DefaultAction that isn’t among the types available at DefaultAction.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can’t be associated.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn’t perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn’t perform the operation because your resource doesn’t exist. If you’ve just created a resource that you’re using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400
WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateRuleGroup

Service: AWS WAFV2

Updates the specified RuleGroup.

Note

This operation completely replaces the mutable specifications that you already have for the rule group with the ones that you provide to this call.

To modify a rule group, do the following:

1. Retrieve it by calling GetRuleGroup
2. Update its settings as needed
3. Provide the complete rule group specification to this call

A rule group defines a collection of rules to inspect and control web requests that you can use in a WebACL. When you create a rule group, you define an immutable capacity limit. If you update a rule group, you must stay within the capacity. This allows others to reuse the rule group with confidence in its capacity requirements.

Temporary inconsistencies during updates

When you create or change a web ACL or other AWS WAF resources, the changes take a small amount of time to propagate to all areas where the resources are stored. The propagation time can be from a few seconds to a number of minutes.

The following are examples of the temporary inconsistencies that you might notice during change propagation:

- After you create a web ACL, if you try to associate it with a resource, you might get an exception indicating that the web ACL is unavailable.
- After you add a rule group to a web ACL, the new rule group rules might be in effect in one area where the web ACL is used and not in another.
- After you change a rule action setting, you might see the old action in some places and the new action in others.
- After you add an IP address to an IP set that is in use in a blocking rule, the new address might be blocked in one area while still allowed in another.
Request Syntax

```json
{
    "CustomResponseBodies": {
        "string": {
            "Content": "string",
            "ContentType": "string"
        }
    },
    "Description": "string",
    "Id": "string",
    "LockToken": "string",
    "Name": "string",
    "Rules": [
        {
            "Action": {
                "Allow": {
                    "CustomRequestHandling": {
                        "InsertHeaders": [
                            {
                                "Name": "string",
                                "Value": "string"
                            }
                        ]
                    }
                }
            },
            "Block": {
                "CustomResponse": {
                    "CustomResponseBodyKey": "string",
                    "ResponseCode": number,
                    "ResponseHeaders": [
                        {
                            "Name": "string",
                            "Value": "string"
                        }
                    ]
                }
            },
            "Captcha": {
                "CustomRequestHandling": {
                    "InsertHeaders": [
                        {
                            "Name": "string",
                            "Value": "string"
                        }
                    ]
                }
            }
        }
    ]
}
```
"Value": "string"
]
},
"Challenge": {
  "CustomRequestHandling": {
    "InsertHeaders": [
    {
      "Name": "string",
      "Value": "string"
    }
    ]
  }
},
"Count": {
  "CustomRequestHandling": {
    "InsertHeaders": [
    {
      "Name": "string",
      "Value": "string"
    }
    ]
  }
},
"CaptchaConfig": {
  "ImmunityTimeProperty": {
    "ImmunityTime": number
  }
},
"ChallengeConfig": {
  "ImmunityTimeProperty": {
    "ImmunityTime": number
  }
},
"Name": "string",
"OverrideAction": {
  "Count": {
    "CustomRequestHandling": {
    "InsertHeaders": [
    {
      "Name": "string",
      "Value": "string"
    }
    ]
  }
}


```
},
],
},
"None": {
}
},
"Priority": number,
"RuleLabels": [
{
"Name": "string"
}
],
"Statement": {
"AndStatement": {
"Statements": [
"Statement"
]
},
"ByteMatchStatement": {
"FieldToMatch": {
 "AllQueryArguments": {
 },
"Body": {
 "OversizeHandling": "string"
 },
"Cookies": {
 "MatchPattern": {
 "All": {
 },
 "ExcludedCookies": [ "string" ],
 "IncludedCookies": [ "string" ]
 },
"MatchScope": "string",
"OversizeHandling": "string"
 },
"HeaderOrder": {
 "OversizeHandling": "string"
 },
"Headers": {
 "MatchPattern": {
 "All": {
 },
 "ExcludedHeaders": [ "string" ]
},
```

UpdateRuleGroup

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"IncludedHeaders": [ "string" ]
},
"MatchScope": "string",
"OversizeHandling": "string"
},
"JA3Fingerprint": {
   "FallbackBehavior": "string"
},
"JsonBody": {
   "InvalidFallbackBehavior": "string",
   "MatchPattern": {
      "All": {
      },
      "IncludedPaths": [ "string" ]
   },
   "MatchScope": "string",
   "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
   "Name": "string"
},
"SingleQueryArgument": {
   "Name": "string"
},
"UriPath": {
},
"PositionalConstraint": "string",
"SearchString": "blob",
"TextTransformations": [
{
   "Priority": number,
   "Type": "string"
}
],
"GeoMatchStatement": {
   "CountryCodes": [ "string" ],
   "ForwardedIPConfig": {
      "FallbackBehavior": "string",

"HeaderName": "string"
},
"IPSetReferenceStatement": {
  "ARN": "string",
  "IPSetForwardedIPConfig": {
    "FallbackBehavior": "string",
    "HeaderName": "string",
    "Position": "string"
  }
},
"LabelMatchStatement": {
  "Key": "string",
  "Scope": "string"
},
"ManagedRuleGroupStatement": {
  "ExcludedRules": [
    {
      "Name": "string"
    }
  ],
  "ManagedRuleGroupConfigs": [
    {
      "AWSManagedRulesACFPRuleSet": {
        "CreationPath": "string",
        "EnableRegexInPath": boolean,
        "RegistrationPagePath": "string",
        "RequestInspection": {
          "AddressFields": [
            {
              "Identifier": "string"
            }
          ],
          "EmailField": {
            "Identifier": "string"
          },
          "PasswordField": {
            "Identifier": "string"
          },
          "PayloadType": "string",
          "PhoneNumberFields": [
            {
              "Identifier": "string"
            }
          ]
        }
      }
    }
  ]
}
"UsernameField": {
    "Identifier": "string"
},
"ResponseInspection": {
    "BodyContains": {
        "FailureStrings": [ "string" ],
        "SuccessStrings": [ "string" ]
    },
    "Header": {
        "FailureValues": [ "string" ],
        "Name": "string",
        "SuccessValues": [ "string" ]
    },
    "Json": {
        "FailureValues": [ "string" ],
        "Identifier": "string",
        "SuccessValues": [ "string" ]
    },
    "StatusCode": {
        "FailureCodes": [ number ],
        "SuccessCodes": [ number ]
    }
},
"AWSManagedRulesATPRuleSet": {
    "EnableRegexInPath": boolean,
    "LoginPath": "string",
    "RequestInspection": {
        "PasswordField": {
            "Identifier": "string"
        },
        "PayloadType": "string",
        "UsernameField": {
            "Identifier": "string"
        }
    },
    "ResponseInspection": {
        "BodyContains": {
            "FailureStrings": [ "string" ],
            "SuccessStrings": [ "string" ]
        },
        "Header": {

"FailureValues": [ "string" ],
"Name": "string",
"SuccessValues": [ "string" ]
},
"Json": {
"FailureValues": [ "string" ],
"Identifier": "string",
"SuccessValues": [ "string" ]
},
"StatusCode": {
"FailureCodes": [ number ],
"SuccessCodes": [ number ]
}
},
"AWSManagedRulesBotControlRuleSet": {
"EnableMachineLearning": boolean,
"InspectionLevel": "string"
},
"LoginPath": "string",
"PasswordField": {
"Identifier": "string"
},
"PayloadType": "string",
"UsernameField": {
"Identifier": "string"
}
],
"Name": "string",
"RuleActionOverrrides": [ {
"ActionToUse": {
"Allow": {
"CustomRequestHandling": {
"InsertHeaders": [ {
"Name": "string",
"Value": "string"
} ]
},
"Block": {

UpdateRuleGroup

452
"CustomResponse": {
    "CustomResponseBodyBodyKey": "string",
    "ResponseCode": number,
    "ResponseHeaders": [
        {
            "Name": "string",
            "Value": "string"
        }
    ]
},
"Captcha": {
    "CustomRequestHandling": {
        "InsertHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    }
},
"Challenge": {
    "CustomRequestHandling": {
        "InsertHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    }
},
"Count": {
    "CustomRequestHandling": {
        "InsertHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    }
},
"Name": "string"
UpdateRuleGroup
"QueryArgument": {
  "Name": "string",
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ],
},
"QueryString": {
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ],
},
"UriPath": {
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ],
},
"ForwardedIPConfig": {
  "FallbackBehavior": "string",
  "HeaderName": "string"
},
"Limit": number,
"ScopeDownStatement": "Statement"
},
"RegexMatchStatement": {
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {

},

"RegexString": "string",
"TextTransformations": [
{
  "Priority": number,
  "Type": "string"
}
],

"RegexPatternSetReferenceStatement": {
  "ARN": "string",
  "FieldToMatch": {
    "AllQueryArguments": {},
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
      "FallbackBehavior": "string"
    }
  }
}
"JsonBody": {
   "InvalidFallbackBehavior": "string",
   "MatchPattern": {
      "All": {
      },
      "IncludedPaths": [ "string" ]
   },
   "MatchScope": "string",
   "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
   "Name": "string"
},
"SingleQueryArgument": {
   "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
{
   "Priority": number,
   "Type": "string"
}
],
"RuleGroupReferenceStatement": {
   "ARN": "string",
   "ExcludedRules": [
      {
         "Name": "string"
      }
   ],
   "RuleActionOverrides": [
      {
         "ActionToUse": {
            "Allow": {
               "CustomRequestHandling": {
                  "InsertHeaders": [
               }
            }
         }
      }
   ]}
"Name": "string",
"Value": "string"
}
],
},
"Block": {
 "CustomResponse": {
 "CustomResponseBodyBodyKey": "string",
 "ResponseCode": number,
 "ResponseHeaders": [
{
 "Name": "string",
 "Value": "string"
 }]
 },
"Captcha": {
 "CustomRequestHandling": {
 "InsertHeaders": [
{
 "Name": "string",
 "Value": "string"
 }]
 },
"Challenge": {
 "CustomRequestHandling": {
 "InsertHeaders": [
{
 "Name": "string",
 "Value": "string"
 }]
 },
"Count": {
 "CustomRequestHandling": {
 "InsertHeaders": [
{
 "Name": "string",
 "Value": "string"}]}]}]}
"SizeConstraintStatement": {
  "ComparisonOperator": "string",
  "FieldToMatch": {
    "AllQueryArguments": {},
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {},
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {},
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
      "FallbackBehavior": "string"
    },
    "JsonBody": {

"InvalidFallbackBehavior": "string",
"MatchPattern": {
    "All": {
    
    },
    "IncludedPaths": [ "string" ]
},
"MatchScope": "string",
"OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}

"Size": number,
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
},
"SqlIMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            }
        }
    }
}
"MatchScope": "string",
"OversizeHandling": "string"
},
"HeaderOrder": {
  "OversizeHandling": "string"
},
"Headers": {
  "MatchPattern": {
    "All": {
    },
    "ExcludedHeaders": [ "string" ],
    "IncludedHeaders": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
},
"SensitivityLevel": "string",
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}

"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "HeaderOrder": {
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JA3Fingerprint": {
            "FallbackBehavior": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                }
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        }
    }
}
"IncludedPaths": [ "string" ]
,
"MatchScope": "string",
"OversizeHandling": "string"
,
"Method": {
},
"QueryString": {
},
"SingleHeader": {
   "Name": "string"
},
"SingleQueryArgument": {
   "Name": "string"
},
"UriPath": {
}
,
"TextTransformations": [
   {
      "Priority": number,
      "Type": "string"
   }
]
,
"VisibilityConfig": {
   "CloudWatchMetricsEnabled": boolean,
   "MetricName": "string",
   "SampledRequestsEnabled": boolean
}
,
"Scope": "string",
"VisibilityConfig": {
   "CloudWatchMetricsEnabled": boolean,
   "MetricName": "string",
   "SampledRequestsEnabled": boolean
}
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**CustomResponseBody**

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the rule group, and then use them in the rules that you define in the rule group.

For information about customizing web requests and responses, see Customizing web requests and responses in AWS WAF in the AWS WAF Developer Guide.

For information about the limits on count and size for custom request and response settings, see AWS WAF quotas in the AWS WAF Developer Guide.

Type: String to CustomResponseBody object map

Map Entries: Maximum number of items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: ^\w-]+$

Required: No

**Description**

A description of the rule group that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[\w+=:@/\-,.\ ]+[\w+=:@/\-,.\ ]+$

Required: No

**Id**

A unique identifier for the rule group. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.
Type: String


Pattern: ^[0-9a-f]{8}-\(?:[0-9a-f]{4}\)-\{3\}[0-9a-f]{12}$

Required: Yes

**LockToken**

A token used for optimistic locking. AWS WAF returns a token to your `get` and `list` requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like `update` and `delete`. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another `get`, and use the new token returned by that operation.

Type: String


Pattern: ^[0-9a-f]{8}-\(?:[0-9a-f]{4}\)-\{3\}[0-9a-f]{12}$

Required: Yes

**Name**

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

**Rules**

The `Rule` statements used to identify the web requests that you want to manage. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.
Type: Array of Rule objects

Required: No

Scope

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

VisibilityConfig

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: VisibilityConfig object

Required: Yes

Response Syntax

```
{
   "NextLockToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**NextLockToken**

A token used for optimistic locking. AWS WAF returns this token to your update requests. You use NextLockToken in the same manner as you use LockToken.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFConfigurationWarningException**

The operation failed because you are inspecting the web request body, headers, or cookies without specifying how to handle oversize components. Rules that inspect the body must either provide an OversizeHandling configuration or they must be preceded by a SizeConstraintStatement that blocks the body content from being too large. Rules that inspect the headers or cookies must provide an OversizeHandling configuration.

Provide the handling configuration and retry your operation.

Alternately, you can suppress this warning by adding the following tag to the resource that you provide to this operation: Tag (key:WAF:OversizeFieldsHandlingConstraintOptOut, value:true).

HTTP Status Code: 400

**WAFDuplicateItemException**

AWS WAF couldn’t perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn’t perform the operation because of a system problem. Retry your request.
HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a `DefaultAction` that isn't among the types available at `DefaultAction`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

**WAFLimitsExcededException**

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-limits.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

HTTP Status Code: 400

**WAFNonexistentItemException**

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

**WAFOptimisticLockException**

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.
HTTP Status Code: 400

WAFSubscriptionNotFoundException

You tried to use a managed rule group that's available by subscription, but you aren't subscribed to it yet.

HTTP Status Code: 400

WAFUnavailableEntityException

AWS WAF couldn't retrieve a resource that you specified for this operation. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
**UpdateWebACL**

Service: AWS WAFV2

Updates the specified [WebACL](#). While updating a web ACL, AWS WAF provides continuous coverage to the resources that you have associated with the web ACL.

ℹ️ **Note**

This operation completely replaces the mutable specifications that you already have for the web ACL with the ones that you provide to this call.

To modify a web ACL, do the following:

1. Retrieve it by calling [GetWebACL](#)
2. Update its settings as needed
3. Provide the complete web ACL specification to this call

A web ACL defines a collection of rules to use to inspect and control web requests. Each rule has a statement that defines what to look for in web requests and an action that AWS WAF applies to requests that match the statement. In the web ACL, you assign a default action to take (allow, block) for any request that does not match any of the rules. The rules in a web ACL can be a combination of the types [Rule](#), [RuleGroup](#), and managed rule group. You can associate a web ACL with one or more AWS resources to protect. The resources can be an Amazon CloudFront distribution, an Amazon API Gateway REST API, an Application Load Balancer, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

**Temporary inconsistencies during updates**

When you create or change a web ACL or other AWS WAF resources, the changes take a small amount of time to propagate to all areas where the resources are stored. The propagation time can be from a few seconds to a number of minutes.

The following are examples of the temporary inconsistencies that you might notice during change propagation:

- After you create a web ACL, if you try to associate it with a resource, you might get an exception indicating that the web ACL is unavailable.
• After you add a rule group to a web ACL, the new rule group rules might be in effect in one area where the web ACL is used and not in another.

• After you change a rule action setting, you might see the old action in some places and the new action in others.

• After you add an IP address to an IP set that is in use in a blocking rule, the new address might be blocked in one area while still allowed in another.

Request Syntax

```json
{
   "AssociationConfig": {
      "RequestBody": {
         "string": {
            "DefaultSizeInspectionLimit": "string"
         }
      }
   },
   "CaptchaConfig": {
      "ImmunityTimeProperty": {
         "ImmunityTime": number
      }
   },
   "ChallengeConfig": {
      "ImmunityTimeProperty": {
         "ImmunityTime": number
      }
   },
   "CustomResponseBodies": {
      "string": {
         "Content": "string",
         "ContentType": "string"
      }
   },
   "DefaultAction": {
      "Allow": {
         "CustomRequestHandling": {
            "InsertHeaders": [
            {
               "Name": "string",
               "Value": "string"
            }
            ]
         }
      }
   }
}
```
"Block": {
  "CustomResponse": {
    "CustomResponseBodyKey": "string",
    "ResponseCode": number,
    "ResponseHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},
"Description": "string",
"Id": "string",
"LockToken": "string",
"Name": "string",
"Rules": [
  {
    "Action": {
      "Allow": {
        "CustomRequestHandling": {
          "InsertHeaders": [
            {
              "Name": "string",
              "Value": "string"
            }
          ]
        }
      }
    },
    "Block": {
      "CustomResponse": {
        "CustomResponseBodyKey": "string",
        "ResponseCode": number,
        "ResponseHeaders": [
          {
            "Name": "string",
            "Value": "string"
          }
        ]
      }
    }
  }
]
"Captcha": {
    "CustomRequestHandling": {
        "InsertHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    },

    "Challenge": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },

        "Count": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        }
    }
},

"CaptchaConfig": {
    "ImmunityTimeProperty": {
        "ImmunityTime": number
    }
},

"ChallengeConfig": {
    "ImmunityTimeProperty": {
        "ImmunityTime": number
    }
},

"Name": "string",
"OverrideAction": {
    "UpdateWebACL": {"string": "string"}
}
"Count": {
    "CustomRequestHandling": {
      "InsertHeaders": [
        {
          "Name": "string",
          "Value": "string"
        }
      ]
    },
    "None": {
    },
    "Priority": number,
    "RuleLabels": [
      {
        "Name": "string"
      }
    ],
    "Statement": {
      "AndStatement": {
        "Statements": [
          "Statement"
        ]
      },
      "ByteMatchStatement": {
        "FieldToMatch": {
          "AllQueryArguments": {
          },
          "Body": {
            "OversizeHandling": "string"
          },
          "Cookies": {
            "MatchPattern": {
              "All": {
              },
              "ExcludedCookies": [ "string" ],
              "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
          }
        }]
      }
    }
  }
}
},
"Headers": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JA3Fingerprint": {
    "FallbackBehavior": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
},
"PositionalConstraint": "string",
"SearchString": "blob",
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
],

"GeoMatchStatement": {
  "CountryCodes": [ "string" ],
  "ForwardedIPConfig": {
    "FallbackBehavior": "string",
    "HeaderName": "string"
  }
},

"IPSetReferenceStatement": {
  "ARN": "string",
  "IPSetForwardedIPConfig": {
    "FallbackBehavior": "string",
    "HeaderName": "string",
    "Position": "string"
  }
},

"LabelMatchStatement": {
  "Key": "string",
  "Scope": "string"
},

"ManagedRuleGroupStatement": {
  "ExcludedRules": [
    {
      "Name": "string"
    }
  ],

  "ManagedRuleGroupConfigs": [
    {
      "AWSManagedRulesACFPRuleSet": {
        "CreationPath": "string",
        "EnableRegexInPath": boolean,
        "RegistrationPagePath": "string",
        "RequestInspection": {
          "AddressFields": [
            {
              "Identifier": "string"
            }
          ],

          "EmailField": {
            "Identifier": "string"
          },

          "PasswordField": {
            "Identifier": "string"
          }
        }
      }
    }
  ]
}
"PayloadType": "string",
"PhoneNumberFields": [
  {
    "Identifier": "string"
  },
],
"UsernameField": {
  "Identifier": "string"
},
"ResponseInspection": {
  "BodyContains": {
    "FailureStrings": [ "string" ],
    "SuccessStrings": [ "string" ]
  },
  "Header": {
    "FailureValues": [ "string" ],
    "Name": "string",
    "SuccessValues": [ "string" ]
  },
  "Json": {
    "FailureValues": [ "string" ],
    "Identifier": "string",
    "SuccessValues": [ "string" ]
  },
  "StatusCode": {
    "FailureCodes": [ number ],
    "SuccessCodes": [ number ]
  }
}
},
"AWSManagedRulesATPRuleSet": {
  "EnableRegexInPath": boolean,
  "LoginPath": "string",
  "RequestInspection": {
    "PasswordField": {
      "Identifier": "string"
    },
    "PayloadType": "string",
    "UsernameField": {
      "Identifier": "string"
    }
  }
}
"ResponseInspection": {
    "BodyContains": {
        "FailureStrings": [ "string" ],
        "SuccessStrings": [ "string" ]
    },
    "Header": {
        "FailureValues": [ "string" ],
        "Name": "string",
        "SuccessValues": [ "string" ]
    },
    "Json": {
        "FailureValues": [ "string" ],
        "Identifier": "string",
        "SuccessValues": [ "string" ]
    },
    "StatusCode": {
        "FailureCodes": [ number ],
        "SuccessCodes": [ number ]
    }
},
"AWSManagedRulesBotControlRuleSet": {
    "EnableMachineLearning": boolean,
    "InspectionLevel": "string"
},
"LoginPath": "string",
"PasswordField": {
    "Identifier": "string"
},
"PayloadType": "string",
"UsernameField": {
    "Identifier": "string"
}
},
"Name": "string",
"RuleActionOverrides": [
    {
        "ActionToUse": {
            "Allow": {
                "CustomRequestHandling": {
                    "InsertHeaders": [
                        { "Name": "string" },
                    ]
                }
            }
        }
    }
]
"Value": "string"
],
}
},
"Block": {
  "CustomResponse": {
    "CustomResponseBodyKey": "string",
    "ResponseCode": number,
    "ResponseHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},
"Captcha": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},
"Challenge": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
},
"Count": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
}
[ ],
},
},
"Name": "string"
]
],
"ScopeDownStatement": "Statement",
"VendorName": "string",
"Version": "string"
},
"NotStatement": {
 "Statement": "Statement"

},
"OrStatement": {
 "Statements": [ 
 "Statement"
 ]

},
"RateBasedStatement": {
 "AggregateKeyType": "string",
 "CustomKeys": [
 {
 "Cookie": {
 "Name": "string",
 "TextTransformations": [
 {
 "Priority": number,
 "Type": "string"
 }
 ]
 
 },
 "ForwardedIP": {
 }
 
 },
 "Header": {
 "Name": "string",
 "TextTransformations": [
 {
 "Priority": number,
 "Type": "string"
 }
 ]
 
 },
 "HTTPMethod": {
 
 }
"IP": { },
"LabelNamespace": { 
  "Namespace": "string"
},
"QueryArgument": { 
  "Name": "string",
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
},
"QueryString": { 
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
},
"UriPath": { 
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
}
],
"ForwardedIPConfig": { 
  "FallbackBehavior": "string",
  "HeaderName": "string"
},
"Limit": number,
"ScopeDownStatement": "Statement"
},
"RegexMatchStatement": { 
  "FieldToMatch": { 
    "AllQueryArguments": { 
    },
'Body': {
    'OversizeHandling': "string"
},
'Cookies': {
    'MatchPattern': {
        'All': {
        },
        'ExcludedCookies': [ "string" ],
        'IncludedCookies': [ "string" ]
    },
    'MatchScope': "string",
    'OversizeHandling': "string"
},
'HeaderOrder': {
    'OversizeHandling': "string"
},
'Headers': {
    'MatchPattern': {
        'All': {
        },
        'ExcludedHeaders': [ "string" ],
        'IncludedHeaders': [ "string" ]
    },
    'MatchScope': "string",
    'OversizeHandling': "string"
},
'JA3Fingerprint': {
    'FallbackBehavior': "string"
},
'JsonBody': {
    'InvalidFallbackBehavior': "string",
    'MatchPattern': {
        'All': {
        },
        'IncludedPaths': [ "string" ]
    },
    'MatchScope': "string",
    'OversizeHandling': "string"
},
'Method': {
},
'QueryString': {
},
'SingleHeader': {
"Name": "string",
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
},
"RegexString": "string",
"TextTransformations": [
  {
    "Priority": number,
    "Type": "string"
  }
],
"RegexPatternSetReferenceStatement": {
  "ARN": "string",
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
    },
},
"UpdateWebACL": 484
"MatchScope": "string",
"OversizeHandling": "string"
},
"JA3Fingerprint": {
   "FallbackBehavior": "string"
},
"JsonBody": {
   "InvalidFallbackBehavior": "string",
   "MatchPattern": {
      "All": {
      
      },
      "IncludedPaths": [ "string" ]
   },
   "MatchScope": "string",
   "OversizeHandling": "string"
},
"Method": {
   
},
"QueryString": {
   
},
"SingleHeader": {
   "Name": "string"
},
"SingleQueryArgument": {
   "Name": "string"
},
"UriPath": {
   
},
"TextTransformations": [ 
   
   
],
"RuleGroupReferenceStatement": {
   "ARN": "string",
   "ExcludedRules": [ 
      
   ],
   "RuleActionOverrrides": [ 
      
   ]
}
{
    "ActionToUse": {
        "Allow": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        },
        "Block": {
            "CustomResponse": {
                "CustomResponseBodyKey": "string",
                "ResponseCode": number,
                "ResponseHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        },
        "Captcha": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        },
        "Challenge": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        }
    }
}
"Count": {
  "CustomRequestHandling": {
    "InsertHeaders": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  },
  "Name": "string"
},
"SizeConstraintStatement": {
  "ComparisonOperator": "string",
  "FieldToMatch": {
    "AllQueryArguments": {},
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "Name": "string"
    }
  }
}
"OversizeHandling": "string",
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
},
"UriPath": {
},
"Size": number,
"TextTransformations": [
  {
    "Priority": number,
    "Type": "string"
  }
],
"SqlIMatchStatement": {
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
}
"MatchPattern": {
  "All": {
  },
  "ExcludedCookies": [ "string" ],
  "IncludedCookies": [ "string" ]
},
"MatchScope": "string",
"OversizeHandling": "string"
},
"HeaderOrder": {
  "OversizeHandling": "string"
},
"Headers": {
  "MatchPattern": {
    "All": {
    },
    "ExcludedHeaders": [ "string" ],
    "IncludedHeaders": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"JA3Fingerprint": {
  "FallbackBehavior": "string"
},
"JsonBody": {
  "InvalidFallbackBehavior": "string",
  "MatchPattern": {
    "All": {
    },
    "IncludedPaths": [ "string" ]
  },
  "MatchScope": "string",
  "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
  "Name": "string"
},
"SingleQueryArgument": {
  "Name": "string"
"UriPath": {},
"SensitivityLevel": "string",
"TextTransformations": [
  {
    "Priority": number,
    "Type": "string"
  }
],
"XssMatchStatement": {
  "FieldToMatch": {
    "AllQueryArguments": {},
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {},
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "HeaderOrder": {
      "OversizeHandling": "string"
    },
    "Headers": {
      "MatchPattern": {
        "All": {},
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "JA3Fingerprint": {
      "FallbackBehavior": "string"
    }
  }
}
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
"VisibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
"Scope": "string",
"TokenDomains": [ "string" ],
"VisibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
"SampledRequestsEnabled": boolean
}
}

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AssociationConfig

Specifies custom configurations for the associations between the web ACL and protected resources.

Use this to customize the maximum size of the request body that your protected CloudFront distributions forward to AWS WAF for inspection. The default is 16 KB (16,384 bytes).

Note

You are charged additional fees when your protected resources forward body sizes that are larger than the default. For more information, see AWS WAF Pricing.

Type: AssociationConfig object

Required: No

CaptchaConfig

Specifies how AWS WAF should handle CAPTCHA evaluations for rules that don't have their own CaptchaConfig settings. If you don't specify this, AWS WAF uses its default settings for CaptchaConfig.

Type: CaptchaConfig object

Required: No

ChallengeConfig

Specifies how AWS WAF should handle challenge evaluations for rules that don't have their own ChallengeConfig settings. If you don't specify this, AWS WAF uses its default settings for ChallengeConfig.
**ChallengeConfig**

Required: No

**CustomResponseBodies**

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the web ACL, and then use them in the rules and default actions that you define in the web ACL.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](https://docs.aws.amazon.com/waf/latest/developerguide/customizing-web-requests-and-responses.html) in the AWS WAF Developer Guide.

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-quota-concepts.html) in the AWS WAF Developer Guide.

Type: String to **CustomResponseBody** object map

Map Entries: Maximum number of items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `^[\w-]+$`

Required: No

**DefaultAction**

The action to perform if none of the Rules contained in the WebACL match.

Type: **DefaultAction** object

Required: Yes

**Description**

A description of the web ACL that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[\w+=:#@\-\ /,\ .\ ]+[\w+=:#@\-\ /,\ .\ s]+[\w+=:#@\-\ /,\ .\ ]$`

Required: No
Id

The unique identifier for the web ACL. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

LockToken

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

Name

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String


Pattern: ^\w\-]+$

Required: Yes
Rules

The `Rule` statements used to identify the web requests that you want to manage. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Type: Array of `Rule` objects

Required: No

Scope

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

TokenDomains

Specifies the domains that AWS WAF should accept in a web request token. This enables the use of tokens across multiple protected websites. When AWS WAF provides a token, it uses the domain of the AWS resource that the web ACL is protecting. If you don't specify a list of token domains, AWS WAF accepts tokens only for the domain of the protected resource. With a token domain list, AWS WAF accepts the resource's host domain plus all domains in the token domain list, including their prefixed subdomains.

Example JSON: "TokenDomains": { "mywebsite.com", "myotherwebsite.com" }

Public suffixes aren't allowed. For example, you can't use `gov.au` or `co.uk` as token domains.

Type: Array of strings
VisibilityConfig

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: VisibilityConfig object

Required: Yes

Response Syntax

```
{
  "NextLockToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextLockToken

A token used for optimistic locking. AWS WAF returns this token to your update requests. You use NextLockToken in the same manner as you use LockToken.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Errors

For information about the errors that are common to all actions, see Common Errors.
**WAFConfigurationWarningException**

The operation failed because you are inspecting the web request body, headers, or cookies without specifying how to handle oversize components. Rules that inspect the body must either provide an `OversizeHandling` configuration or they must be preceded by a `SizeConstraintStatement` that blocks the body content from being too large. Rules that inspect the headers or cookies must provide an `OversizeHandling` configuration.

Provide the handling configuration and retry your operation.

Alternately, you can suppress this warning by adding the following tag to the resource that you provide to this operation: `Tag (key: WAF: OversizeFieldsHandlingConstraintOptOut, value: true)`.

HTTP Status Code: 400

**WAFDuplicateItemException**

AWS WAF couldn't perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

**WAFExpiredManagedRuleGroupVersionException**

The operation failed because the specified version for the managed rule group has expired. You can retrieve the available versions for the managed rule group by calling `ListAvailableManagedRuleGroupVersions`.

HTTP Status Code: 400

**WAFInternalErrorException**

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation isn't valid.

HTTP Status Code: 400
WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFInvalidResourceException

AWS WAF couldn't perform the operation because the resource that you requested isn't valid. Check the resource, and try again.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.
HTTP Status Code: 400

**WAFSubscriptionNotFoundException**

You tried to use a managed rule group that's available by subscription, but you aren't subscribed to it yet.

HTTP Status Code: 400

**WAFUnavailableEntityException**

AWS WAF couldn't retrieve a resource that you specified for this operation. If you've just created a resource that you're using in this operation, you might just need to wait a few minutes. It can take from a few seconds to a number of minutes for changes to propagate. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

**AWS WAF Classic**

The following actions are supported by AWS WAF Classic:

- [CreateByteMatchSet](#)
• CreateGeoMatchSet
• CreateIPSet
• CreateRateBasedRule
• CreateRegexMatchSet
• CreateRegexPatternSet
• CreateRule
• CreateRuleGroup
• CreateSizeConstraintSet
• CreateSqlInjectionMatchSet
• CreateWebACL
• CreateWebACLMigrationStack
• CreateXssMatchSet
• DeleteByteMatchSet
• DeleteGeoMatchSet
• DeleteIPSet
• DeleteLoggingConfiguration
• DeletePermissionPolicy
• DeleteRateBasedRule
• DeleteRegexMatchSet
• DeleteRegexPatternSet
• DeleteRule
• DeleteRuleGroup
• DeleteSizeConstraintSet
• DeleteSqlInjectionMatchSet
• DeleteWebACL
• DeleteXssMatchSet
• GetByteMatchSet
• GetChangeToken
• GetChangeTokenStatus
• GetGeoMatchSet
• GetIPSet
• GetLoggingConfiguration
• GetPermissionPolicy
• GetRateBasedRule
• GetRateBasedRuleManagedKeys
• GetRegexMatchSet
• GetRegexPatternSet
• GetRule
• GetRuleGroup
• GetSampledRequests
• GetSizeConstraintSet
• GetSqlInjectionMatchSet
• GetWebACL
• GetXssMatchSet
• ListActivatedRulesInRuleGroup
• ListByteMatchSets
• ListGeoMatchSets
• ListIPSets
• ListLoggingConfigurations
• ListRateBasedRules
• ListRegexMatchSets
• ListRegexPatternSets
• ListRuleGroups
• ListRules
• ListSizeConstraintSets
• ListSqlInjectionMatchSets
• ListSubscribedRuleGroups
• ListTagsForResource
• ListWebACLs
• ListXssMatchSets
• PutLoggingConfiguration
• PutPermissionPolicy
• TagResource
• UntagResource
• UpdateByteMatchSet
• UpdateGeoMatchSet
• UpdateIPSet
• UpdateRateBasedRule
• UpdateRegexMatchSet
• UpdateRegexPatternSet
• UpdateRule
• UpdateRuleGroup
• UpdateSizeConstraintSet
• UpdateSqlInjectionMatchSet
• UpdateWebACL
• UpdateXssMatchSet
CreateByteMatchSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a ByteMatchSet. You then use UpdateByteMatchSet to identify the part of a web request that you want AWS WAF to inspect, such as the values of the User-Agent header or the query string. For example, you can create a ByteMatchSet that matches any requests with User-Agent headers that contain the string BadBot. You can then configure AWS WAF to reject those requests.

To create and configure a ByteMatchSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateByteMatchSet request.
2. Submit a CreateByteMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateByteMatchSet request.
4. Submit an UpdateByteMatchSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```
{
   "ChangeToken": "string",
   "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes

**Name**

A friendly name or description of the ByteMatchSet. You can't change Name after you create a ByteMatchSet.

Type: String


Pattern: .*\S.*

Required: Yes

Response Syntax

```
{
    "ByteMatchSet": {
        "ByteMatchSetId": "string",
        "ByteMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "PositionalConstraint": "string",
            }
        ]
    }
}
```

CreateByteMatchSet
"TargetString": "blob",
"TextTransformation": "string"
},

"Name": "string"
},

"ChangeToken": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ByteMatchSet**

A ByteMatchSet that contains no ByteMatchTuple objects.

Type: ByteMatchSet object

**ChangeToken**

The ChangeToken that you used to submit the CreateByteMatchSet request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.

Type: String


Pattern: .\S.*

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400
**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-classic-quota-limits.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).
HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
CreateGeoMatchSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a GeoMatchSet, which you use to specify which web requests you want to allow or block based on the country that the requests originate from. For example, if you're receiving a lot of requests from one or more countries and you want to block the requests, you can create a GeoMatchSet that contains those countries and then configure AWS WAF to block the requests.

To create and configure a GeoMatchSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateGeoMatchSet request.
2. Submit a CreateGeoMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateGeoMatchSet request.
4. Submit an UpdateGeoMatchSet request to specify the countries that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
    "ChangeToken": "string",
    "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

Type: String


Pattern: .*

Required: Yes

**Name**

A friendly name or description of the `GeoMatchSet`. You can't change Name after you create the GeoMatchSet.

Type: String


Pattern: .*

Required: Yes

Response Syntax

```
{
   "ChangeToken": "string",
   "GeoMatchSet": {
      "GeoMatchConstraints": [
         {"Type": "string", "Value": "string"},
         ],
      "GeoMatchSetId": "string",
```
"Name": "string"
}
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateGeoMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**GeoMatchSet**

The GeoMatchSet returned in the CreateGeoMatchSet response. The GeoMatchSet contains no GeoMatchConstraints.

Type: GeoMatchSet object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-quotas.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateIPSet
Service: AWS WAF Classic

ℹ️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates an IPSet, which you use to specify which web requests that you want to allow or block based on the IP addresses that the requests originate from. For example, if you're receiving a lot of requests from one or more individual IP addresses or one or more ranges of IP addresses and you want to block the requests, you can create an IPSet that contains those IP addresses and then configure AWS WAF to block the requests.

To create and configure an IPSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateIPSet request.
2. Submit a CreateIPSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateIPSet request.
4. Submit an UpdateIPSet request to specify the IP addresses that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
  "ChangeToken": "string",
  "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes

**Name**

A friendly name or description of the IPSet. You can't change Name after you create the IPSet.

Type: String


Pattern: .*\S.*

Required: Yes

Response Syntax

```json
{
    "ChangeToken": "string",
    "IPSet":{
        "IPSetDescriptors": [
            {
                "Type": "string",
                "Value": "string"
            }
        ],
        "IPSetId": "string",
        "Name": "string"
    }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateIPSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .\S+. *

**IPSet**

The IPSet returned in the CreateIPSet response.

Type: IPSet object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateRateBasedRule
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RateBasedRule. The RateBasedRule contains a RateLimit, which specifies the maximum number of requests that AWS WAF allows from a specified IP address in a five-minute period. The RateBasedRule also contains the IPSet objects, ByteMatchSet objects, and other predicates that identify the requests that you want to count or block if these requests exceed the RateLimit.

If you add more than one predicate to a RateBasedRule, a request not only must exceed the RateLimit, but it also must match all the conditions to be counted or blocked. For example, suppose you add the following to a RateBasedRule:

- An IPSet that matches the IP address 192.0.2.44/32
- A ByteMatchSet that matches BadBot in the User-Agent header

Further, you specify a RateLimit of 1,000.

You then add the RateBasedRule to a WebACL and specify that you want to block requests that meet the conditions in the rule. For a request to be blocked, it must come from the IP address 192.0.2.44 and the User-Agent header in the request must contain the value BadBot. Further, requests that match these two conditions must be received at a rate of more than 1,000 requests every five minutes. If both conditions are met and the rate is exceeded, AWS WAF blocks the requests. If the rate drops below 1,000 for a five-minute period, AWS WAF no longer blocks the requests.

As a second example, suppose you want to limit requests to a particular page on your site. To do this, you could add the following to a RateBasedRule:
• A ByteMatchSet with FieldToMatch of URI
• A PositionalConstraint of STARTS_WITH
• A TargetString of login

Further, you specify a RateLimit of 1,000.

By adding this RateBasedRule to a WebACL, you could limit requests to your login page without affecting the rest of your site.

To create and configure a RateBasedRule, perform the following steps:

1. Create and update the predicates that you want to include in the rule. For more information, see CreateByteMatchSet, CreateIPSet, and CreateSqlInjectionMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateRule request.
3. Submit a CreateRateBasedRule request.
4. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRule request.
5. Submit an UpdateRateBasedRule request to specify the predicates that you want to include in the rule.
6. Create and update a WebACL that contains the RateBasedRule. For more information, see CreateWebACL.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
    "ChangeToken": "string",
    "MetricName": "string",
    "Name": "string",
    "RateKey": "string",
    "RateLimit": number,
    "Tags": [
        {
            
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The ChangeToken that you used to submit the CreateRateBasedRule request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.

Type: String


Pattern: .*\S.*

Required: Yes

**MetricName**

A friendly name or description for the metrics for this RateBasedRule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RateBasedRule.

Type: String


Pattern: .*\S.*

Required: Yes
Name

A friendly name or description of the RateBasedRule. You can't change the name of a RateBasedRule after you create it.

Type: String


Pattern: .*\S.*

Required: Yes

RateKey

The field that AWS WAF uses to determine if requests are likely arriving from a single source and thus subject to rate monitoring. The only valid value for RateKey is IP. IP indicates that requests that arrive from the same IP address are subject to the RateLimit that is specified in the RateBasedRule.

Type: String

Valid Values: IP

Required: Yes

RateLimit

The maximum number of requests, which have an identical value in the field that is specified by RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

Tags

Type: Array of Tag objects

Array Members: Minimum number of 1 item.
Required: No

Response Syntax

```json
{
   "ChangeToken": "string",
   "Rule": {
      "MatchPredicates": [
         {
            "DataId": "string",
            "Negated": boolean,
            "Type": "string"
         }
      ],
      "MetricName": "string",
      "Name": "string",
      "RateKey": "string",
      "RateLimit": number,
      "RuleId": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateRateBasedRule request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**Rule**

The [RateBasedRule](#) that is returned in the CreateRateBasedRule response.
Type: RateBasedRule object

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFBadRequestException

HTTP Status Code: 400

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceeded EXCEPTION

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFStaleData Exception

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateRegexMatchSet

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RegexMatchSet. You then use UpdateRegexMatchSet to identify the part of a web request that you want AWS WAF to inspect, such as the values of the User-Agent header or the query string. For example, you can create a RegexMatchSet that contains a RegexMatchTuple that looks for any requests with User-Agent headers that match a RegexPatternSet with pattern B[a@]dB[o0]t. You can then configure AWS WAF to reject those requests.

To create and configure a RegexMatchSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateRegexMatchSet request.
2. Submit a CreateRegexMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRegexMatchSet request.
4. Submit an UpdateRegexMatchSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value, using a RegexPatternSet, that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
    "ChangeToken": "string",
    "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .\S.*

Required: Yes

**Name**

A friendly name or description of the RegexMatchSet. You can't change Name after you create a RegexMatchSet.

Type: String


Pattern: .\S.*

Required: Yes

Response Syntax

```json
{
   "ChangeToken": "string",
   "RegexMatchSet": {
      "Name": "string",
      "RegexMatchSetId": "string",
      "RegexMatchTuples": [
         {
            "FieldToMatch": {
```
"Data": "string",
"Type": "string"
},
"RegexPatternSetId": "string",
"TextTransformation": "string"
]
}
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateRegexMatchSet request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.

Type: String


Pattern: .*\S.*

**RegexMatchSet**

A RegexMatchSet that contains no RegexMatchTuple objects.

Type: RegexMatchSet object

Errors

For information about the errors that are common to all actions, see Common Errors.

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400
**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-warnings.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](https://docs.aws.amazon.com/cli/index.html)
- [AWS SDK for .NET](https://docs.aws.amazon.com/sdk-for-net/v弱点？)  
- [AWS SDK for C++](https://docs.aws.amazon.com/sdk-for-cpp/v弱点？)  
- [AWS SDK for Go](https://docs.aws.amazon.com/sdk-for-go/index.html)
- [AWS SDK for Java V2](https://docs.aws.amazon.com/java/index.html)
- [AWS SDK for JavaScript V3](https://docs.aws.amazon.com/js-sdk/index.html)
- [AWS SDK for PHP V3](https://docs.aws.amazon.com/sdk-for-php/v弱点？)  
- [AWS SDK for Python](https://docs.aws.amazon.com/sdk-for-python/index.html)
- [AWS SDK for Ruby V3](https://docs.aws.amazon.com/sdk-for-ruby/index.html)
CreateRegexPatternSet
Service: AWS WAF Classic

ℹ️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RegexPatternSet. You then use UpdateRegexPatternSet to specify the regular expression (regex) pattern that you want AWS WAF to search for, such as B[a@]dB[o0]t. You can then configure AWS WAF to reject those requests.

To create and configure a RegexPatternSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateRegexPatternSet request.
2. Submit a CreateRegexPatternSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRegexPatternSet request.
4. Submit an UpdateRegexPatternSet request to specify the string that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
   "ChangeToken": "string",
   "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes

**Name**

A friendly name or description of the RegexPatternSet. You can't change Name after you create a RegexPatternSet.

Type: String


Pattern: .*\S.*

Required: Yes

Response Syntax

```json
{
   "ChangeToken": "string",
   "RegexPatternSet": {
      "Name": "string",
      "RegexPatternSetId": "string",
      "RegexPatternStrings": [ "string" ]
   }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateRegexPatternSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .\S.*

**RegexPatternSet**

A [RegexPatternSet](#) that contains no objects.

Type: [RegexPatternSet](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFNotAllowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateRule
Service: AWS WAF Classic

**Note**
This is **AWS WAF Classic** documentation. For more information, see **AWS WAF Classic** in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the **AWS WAF Developer Guide**. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a Rule, which contains the IPSet objects, ByteMatchSet objects, and other predicates that identify the requests that you want to block. If you add more than one predicate to a Rule, a request must match all of the specifications to be allowed or blocked. For example, suppose that you add the following to a Rule:

- An IPSet that matches the IP address `192.0.2.44/32`
- A ByteMatchSet that matches `BadBot` in the User-Agent header

You then add the Rule to a WebACL and specify that you want to blocks requests that satisfy the Rule. For a request to be blocked, it must come from the IP address `192.0.2.44` and the User-Agent header in the request must contain the value `BadBot`.

To create and configure a Rule, perform the following steps:

1. Create and update the predicates that you want to include in the Rule. For more information, see **CreateByteMatchSet**, **CreateIPSet**, and **CreateSqlInjectionMatchSet**.
2. Use **GetChangeToken** to get the change token that you provide in the ChangeToken parameter of a CreateRule request.
3. Submit a CreateRule request.
4. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRule request.
5. Submit an UpdateRule request to specify the predicates that you want to include in the Rule.
6. Create and update a WebACL that contains the Rule. For more information, see **CreateWebACL**.
For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

**Request Syntax**

```
{
   "ChangeToken": "string",
   "MetricName": "string",
   "Name": "string",
   "Tags": [
   {
       "Key": "string",
       "Value": "string"
   }
   ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*$

Required: Yes

**MetricName**

A friendly name or description for the metrics for this Rule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the Rule.

Type: String

Pattern: .*\S.*

Required: Yes

**Name**

A friendly name or description of the Rule. You can't change the name of a Rule after you create it.

Type: String


Pattern: .*\S.*

Required: Yes

**Tags**

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: No

**Response Syntax**

```json
{
   "ChangeToken": "string",
   "Rule": {
      "MetricName": "string",
      "Name": "string",
      "Predicates": [
         {
            "DataId": "string",
            "Negated": boolean,
            "Type": "string"
         }
      ],
      "RuleId": "string"
   }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The `ChangeToken` that you used to submit the `CreateRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**Rule**

The `Rule` returned in the `CreateRule` response.

Type: `Rule` object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFBadRequestException**

HTTP Status Code: 400

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-classic-quotas.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400
WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
CreateRuleGroup
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RuleGroup. A rule group is a collection of predefined rules that you add to a web ACL. You use UpdateRuleGroup to add rules to the rule group.

Rule groups are subject to the following limits:

- Three rule groups per account. You can request an increase to this limit by contacting customer support.
- One rule group per web ACL.
- Ten rules per rule group.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
   "ChangeToken": "string",
   "MetricName": "string",
   "Name": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes

**MetricName**

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

Type: String


Pattern: .*\S.*

Required: Yes

**Name**

A friendly name or description of the RuleGroup. You can't change Name after you create a RuleGroup.

Type: String


Pattern: .*\S.*

Required: Yes
**Tags**

Type: Array of `Tag` objects

Array Members: Minimum number of 1 item.

Required: No

**Response Syntax**

```json
{
  "ChangeToken": "string",
  "RuleGroup": {
    "MetricName": "string",
    "Name": "string",
    "RuleGroupId": "string"
  }
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The `ChangeToken` that you used to submit the `CreateRuleGroup` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .\S.*

**RuleGroup**

An empty `RuleGroup`.

Type: `RuleGroup` object
Errors

For information about the errors that are common to all actions, see Common Errors.

WAFBadRequestException

HTTP Status Code: 400

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateSizeConstraintSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAF2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a SizeConstraintSet. You then use UpdateSizeConstraintSet to identify the part of a web request that you want AWS WAF to check for length, such as the length of the User-Agent header or the length of the query string. For example, you can create a SizeConstraintSet that matches any requests that have a query string that is longer than 100 bytes. You can then configure AWS WAF to reject those requests.

To create and configure a SizeConstraintSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateSizeConstraintSet request.
2. Submit a CreateSizeConstraintSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateSizeConstraintSet request.
4. Submit an UpdateSizeConstraintSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
    "ChangeToken": "string",
    "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes

**Name**

A friendly name or description of the SizeConstraintSet. You can't change Name after you create a SizeConstraintSet.

Type: String


Pattern: .*\S.*

Required: Yes

Response Syntax

```json
{
   "ChangeToken": "string",
   "SizeConstraintSet": {
      "Name": "string",
      "SizeConstraints": [
         {
            "ComparisonOperator": "string",
```
"FieldToMatch": {
    "Data": "string",
    "Type": "string"
  },
  "Size": number,
  "TextTransformation": "string"
},
"SizeConstraintSetId": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateSizeConstraintSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**SizeConstraintSet**

A SizeConstraintSet that contains no SizeConstraint objects.

Type: SizeConstraintSet object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDisallowedNameException**

The name specified is invalid.
HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-limits.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).
HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
CreateSqlInjectionMatchSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a SqlInjectionMatchSet, which you use to allow, block, or count requests that contain snippets of SQL code in a specified part of web requests. AWS WAF searches for character sequences that are likely to be malicious strings.

To create and configure a SqlInjectionMatchSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateSqlInjectionMatchSet request.
2. Submit a CreateSqlInjectionMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateSqlInjectionMatchSet request.
4. Submit an UpdateSqlInjectionMatchSet request to specify the parts of web requests in which you want to allow, block, or count malicious SQL code.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
    "ChangeToken": "string",
    "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*

Required: Yes

**Name**

A friendly name or description for the SqlInjectionMatchSet that you're creating. You can't change Name after you create the SqlInjectionMatchSet.

Type: String


Pattern: .*

Required: Yes

Response Syntax

```json
{
    "ChangeToken": "string",
    "SqlInjectionMatchSet": {
        "Name": "string",
        "SqlInjectionMatchSetId": "string",
        "SqlInjectionMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                }
            }
        ]
    }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateSqlInjectionMatchSet request. You can also use this value to query the status of the request. For more information, see `GetChangeTokenStatus`.

Type: String


Pattern: .*\S.*

**SqlInjectionMatchSet**

A `SqlInjectionMatchSet` object.

Errors

For information about the errors that are common to all actions, see `Common Errors`.

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-classic-quota.html) in the **AWS WAF Developer Guide**.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateWebACL
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a WebACL, which contains the Rules that identify the Amazon CloudFront web requests that you want to allow, block, or count. AWS WAF evaluates Rules in order based on the value of Priority for each Rule.

You also specify a default action, either ALLOW or BLOCK. If a web request doesn't match any of the Rules in a WebACL, AWS WAF responds to the request with the default action.

To create and configure a WebACL, perform the following steps:

1. Create and update the ByteMatchSet objects and other predicates that you want to include in Rules. For more information, see CreateByteMatchSet, UpdateByteMatchSet, CreateIPSet, UpdateIPSet, CreateSqlInjectionMatchSet, and UpdateSqlInjectionMatchSet.

2. Create and update the Rules that you want to include in the WebACL. For more information, see CreateRule and UpdateRule.

3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateWebACL request.

4. Submit a CreateWebACL request.

5. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateWebACL request.

6. Submit an UpdateWebACL request to specify the Rules that you want to include in the WebACL, to specify the default action, and to associate the WebACL with an Amazon CloudFront distribution.

For more information about how to use the AWS WAF API, see the AWS WAF Developer Guide.
Request Syntax

```json
{
   "ChangeToken": "string",
   "DefaultAction": {
      "Type": "string"
   },
   "MetricName": "string",
   "Name": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .*

Required: Yes

**DefaultAction**

The action that you want AWS WAF to take when a request doesn't match the criteria specified in any of the Rule objects that are associated with the WebACL.

Type: [WafAction](#) object

Required: Yes
**MetricName**

A friendly name or description for the metrics for this WebACL. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change MetricName after you create the WebACL.

Type: String


Pattern: .*\S.*

Required: Yes

**Name**

A friendly name or description of the WebACL. You can't change Name after you create the WebACL.

Type: String


Pattern: .*\S.*

Required: Yes

**Tags**

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: No

**Response Syntax**

```json
{
    "ChangeToken": "string",
    "WebACL": {
        "DefaultAction": {
        }
    }
}
```
"Type": "string",
},
"MetricName": "string",
"Name": "string",
"Rules": [
{
"Action": {
"Type": "string"
},
"ExcludedRules": [
{
"RuleId": "string"
}
],
"OverrideAction": {
"Type": "string"
},
"Priority": number,
"RuleId": "string",
"Type": "string"
}
],
"WebACLArn": "string",
"WebACLId": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateWebACL request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*

CreateWebACL
WebACL

The WebACL returned in the CreateWebACL response.

Type: WebACL object

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFBadRequestException

HTTP Status Code: 400

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateWebACLMigrationStack

Service: AWS WAF Classic

Creates an AWS CloudFormation AWS WAFV2 template for the specified web ACL in the specified Amazon S3 bucket. Then, in CloudFormation, you create a stack from the template, to create the web ACL and its resources in AWS WAFV2. Use this to migrate your AWS WAF Classic web ACL to the latest version of AWS WAF.

This is part of a larger migration procedure for web ACLs from AWS WAF Classic to the latest version of AWS WAF. For the full procedure, including caveats and manual steps to complete the migration and switch over to the new web ACL, see Migrating your AWS WAF Classic resources to AWS WAF in the AWS WAF Developer Guide.

Request Syntax

```
{
    "IgnoreUnsupportedType": boolean,
    "S3BucketName": "string",
    "WebACLId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**IgnoreUnsupportedType**

Indicates whether to exclude entities that can't be migrated or to stop the migration. Set this to true to ignore unsupported entities in the web ACL during the migration. Otherwise, if AWS WAF encounters unsupported entities, it stops the process and throws an exception.

Type: Boolean

Required: Yes

**S3BucketName**

The name of the Amazon S3 bucket to store the AWS CloudFormation template in. The S3 bucket must be configured as follows for the migration:
• If the bucket is encrypted, the encryption must use Amazon S3 (SSE-S3) keys. The migration doesn't support encryption with AWS Key Management Service (SSE-KMS) keys.

• The bucket name must start with aws-waf-migration-. For example, aws-waf-migration-my-web-acl.

• The bucket must be in the Region where you are deploying the template. For example, for a web ACL in us-west-2, you must use an Amazon S3 bucket in us-west-2 and you must deploy the template stack to us-west-2.

• The bucket policies must permit the migration process to write data. For listings of the bucket policies, see the Examples section.

Type: String


Pattern: ^aws-waf-migration-\[0-9A-Za-z\.-_]*$

Required: Yes

**WebACLId**

The UUID of the WAF Classic web ACL that you want to migrate to WAF v2.

Type: String


Pattern: .\S.*

Required: Yes

**Response Syntax**

```json
{
    "S3ObjectUrl": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**S3ObjectUrl**

The URL of the template created in Amazon S3.

Type: String

Length Constraints: Minimum length of 1.

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFEntityMigrationException**

The operation failed due to a problem with the migration. The failure cause is provided in the exception, in the MigrationErrorType:

- ENTITY_NOT_SUPPORTED - The web ACL has an unsupported entity but the IgnoreUnsupportedType is not set to true.
- ENTITY_NOT_FOUND - The web ACL doesn't exist.
- S3_BUCKET_NO_PERMISSION - You don't have permission to perform the PutObject action to the specified Amazon S3 bucket.
- S3_BUCKET_NOT_ACCESSIBLE - The bucket policy doesn't allow AWS WAF to perform the PutObject action in the bucket.
- S3_BUCKET_NOT_FOUND - The S3 bucket doesn't exist.
- S3_BUCKET_INVALID_REGION - The S3 bucket is not in the same Region as the web ACL.
- S3_INTERNAL_ERROR - AWS WAF failed to create the template in the S3 bucket for another reason.

In addition, the exception includes specific details about the failure in the MigrationErrorReason.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400
WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

Examples

Amazon S3 bucket policy for global Amazon CloudFront applications

This example illustrates one usage of CreateWebACLMigrationStack.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Principal": {
                "Service": "apiv2migration.waf.amazonaws.com"
            },
            "Action": "s3:PutObject",
            "Resource": "arn:aws:s3:::<BUCKET_NAME>/AWSWAF/<CUSTOMER_ACCOUNT_ID>/*"
        }
    ]
}
```

Amazon S3 bucket policy for Amazon API Gateway API or Application Load Balancer applications

This example illustrates one usage of CreateWebACLMigrationStack.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Principal": {
                "Service": "apiv2migration.waf-regional.amazonaws.com"
            },
            "Action": "s3:PutObject",
            "Resource": "arn:aws:s3:::<BUCKET_NAME>/AWSWAF/<CUSTOMER_ACCOUNT_ID>/*"
        }
    ]
}
```
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateXssMatchSet
Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates an XssMatchSet, which you use to allow, block, or count requests that contain cross-site scripting attacks in the specified part of web requests. AWS WAF searches for character sequences that are likely to be malicious strings.

To create and configure an XssMatchSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateXssMatchSet request.
2. Submit a CreateXssMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateXssMatchSet request.
4. Submit an UpdateXssMatchSet request to specify the parts of web requests in which you want to allow, block, or count cross-site scripting attacks.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
   "ChangeToken": "string",
   "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ChangeToken

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: . *\S .*

Required: Yes

Name

A friendly name or description for the XssMatchSet that you're creating. You can't change Name after you create the XssMatchSet.

Type: String


Pattern: . *\S .*

Required: Yes

Response Syntax

```json
{
    "ChangeToken": "string",
    "XssMatchSet": {
        "Name": "string",
        "XssMatchSetId": "string",
        "XssMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                }
            }
        ]
    }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateXssMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: \S.*

**XssMatchSet**

An XssMatchSet.

Type: XssMatchSet object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-limits.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.
HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteByteMatchSet

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a ByteMatchSet. You can't delete a ByteMatchSet if it's still used in any Rules or if it still includes any ByteMatchTuple objects (any filters).

If you just want to remove a ByteMatchSet from a Rule, use UpdateRule.

To permanently delete a ByteMatchSet, perform the following steps:

1. Update the ByteMatchSet to remove filters, if any. For more information, see UpdateByteMatchSet.

2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteByteMatchSet request.

3. Submit a DeleteByteMatchSet request.

Request Syntax

```
{
    "ByteMatchSetId": "string",
    "ChangeToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ByteMatchSetId**

The `ByteMatchSetId` of the [ByteMatchSet](#) that you want to delete. `ByteMatchSetId` is returned by [CreateByteMatchSet](#) and by [ListByteMatchSets](#).

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 128.

**Pattern:** .\S\.

**Required:** Yes

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 128.

**Pattern:** .\S\.

**Required:** Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the `DeleteByteMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).
Type: String


Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
You tried to delete a ByteMatchSet that is still referenced by a Rule.

You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteGeoMatchSet

Service: AWS WAF Classic

ℹ️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a GeoMatchSet. You can't delete a GeoMatchSet if it's still used in any Rules or if it still includes any countries.

If you just want to remove a GeoMatchSet from a Rule, use UpdateRule.

To permanently delete a GeoMatchSet from AWS WAF, perform the following steps:

1. Update the GeoMatchSet to remove any countries. For more information, see UpdateGeoMatchSet.

2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteGeoMatchSet request.

3. Submit a DeleteGeoMatchSet request.

Request Syntax

```
{
    "ChangeToken": "string",
    "GeoMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

Type: String


Pattern: .\S.*

Required: Yes

**GeoMatchSetId**

The GeoMatchSet ID of the `GeoMatchSet` that you want to delete. GeoMatchSetId is returned by `CreateGeoMatchSet` and by `ListGeoMatchSets`.

Type: String


Pattern: .\S.*

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the `DeleteGeoMatchSet` request. You can also use this value to query the status of the request. For more information, see `GetChangeTokenStatus`.

Type: String
Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:
- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
- You tried to delete a ByteMatchSet that is still referenced by a Rule.
You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteIPSet

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes an IPSet. You can't delete an IPSet if it's still used in any Rules or if it still includes any IP addresses.

If you just want to remove an IPSet from a Rule, use UpdateRule.

To permanently delete an IPSet from AWS WAF, perform the following steps:

1. Update the IPSet to remove IP address ranges, if any. For more information, see UpdateIPSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteIPSet request.
3. Submit a DeleteIPSet request.

Request Syntax

```
{
   "ChangeToken": "string",
   "IPSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to [GetChangeToken](https://docs.aws.amazon.com/wafv2/latest/APIReference/API_GetChangeToken.html).

Type: String


Pattern: .\S.*

Required: Yes

**IPSetId**

The IPSetId of the [IPSet](https://docs.aws.amazon.com/wafv2/latest/APIReference/API_IPSet.html) that you want to delete. IPSetId is returned by [CreateIPSet](https://docs.aws.amazon.com/wafv2/latest/APIReference/API_CreateIPSet.html) and by [ListIPSets](https://docs.aws.amazon.com/wafv2/latest/APIReference/API_ListIPSets.html).

Type: String


Pattern: .\S.*

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the DeleteIPSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](https://docs.aws.amazon.com/wafv2/latest/APIReference/API_GetChangeTokenStatus.html).

Type: String

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteLoggingConfiguration

Service: AWS WAF Classic

ℹ️ Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes the LoggingConfiguration from the specified web ACL.

**Request Syntax**

```json
{
  "ResourceArn": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceArn**

The Amazon Resource Name (ARN) of the web ACL from which you want to delete the LoggingConfiguration.

Type: String


Pattern: .\S. *

Required: Yes
Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn’t exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeletePermissionPolicy

Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes an IAM policy from the specified RuleGroup.

The user making the request must be the owner of the RuleGroup.

Request Syntax

```json
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the RuleGroup from which you want to delete the policy.

The user making the request must be the owner of the RuleGroup.

Type: String


Pattern: .\S.*

Required: Yes
Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn’t exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteRateBasedRule
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a RateBasedRule. You can't delete a rule if it's still used in any WebACL objects or if it still includes any predicates, such as ByteMatchSet objects.

If you just want to remove a rule from a WebACL, use UpdateWebACL.

To permanently delete a RateBasedRule from AWS WAF, perform the following steps:

1. Update the RateBasedRule to remove predicates, if any. For more information, see UpdateRateBasedRule.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteRateBasedRule request.
3. Submit a DeleteRateBasedRule request.

Request Syntax

```json
{
    "ChangeToken": "string",
    "RuleId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes

**RuleId**

The RuleId of the RateBasedRule that you want to delete. RuleId is returned by CreateRateBasedRule and by ListRateBasedRules.

Type: String


Pattern: .*\S.*

Required: Yes

**Response Syntax**

```json
{
  "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the DeleteRateBasedRule request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.
Type: String


Pattern: . *\S . *

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

HTTP Status Code: 400
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteRegexMatchSet
Service: AWS WAF Classic

ℹ️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a RegexMatchSet. You can't delete a RegexMatchSet if it's still used in any Rules or if it still includes any RegexMatchTuples objects (any filters).

If you just want to remove a RegexMatchSet from a Rule, use UpdateRule.

To permanently delete a RegexMatchSet, perform the following steps:

1. Update the RegexMatchSet to remove filters, if any. For more information, see UpdateRegexMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteRegexMatchSet request.
3. Submit a DeleteRegexMatchSet request.

Request Syntax

```
{
   "ChangeToken": "string",
   "RegexMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to [GetChangeToken](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetChangeToken.html).

Type: String


Pattern: \.*\S.*

Required: Yes

**RegexMatchSetId**

The RegexMatchSetId of the [RegexMatchSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateRegexMatchSet.html) that you want to delete. RegexMatchSetId is returned by [CreateRegexMatchSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateRegexMatchSet.html) and by [ListRegexMatchSets](https://docs.aws.amazon.com/waf/latest/APIReference/API_ListRegexMatchSets.html).

Type: String


Pattern: \.*\S.*

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the DeleteRegexMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetChangeTokenStatus.html).
Type: String


Pattern: .\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteRegexPatternSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a RegexPatternSet. You can't delete a RegexPatternSet if it's still used in any RegexMatchSet or if the RegexPatternSet is not empty.

Request Syntax

```
{
   "ChangeToken": "string",
   "RegexPatternSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ChangeToken

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .\S.*

Required: Yes
**RegexPatternSetId**

The `RegexPatternSetId` of the [RegexPatternSet](https://aws.amazon.com) that you want to delete. `RegexPatternSetId` is returned by [CreateRegexPatternSet](https://aws.amazon.com) and by [ListRegexPatternSets](https://aws.amazon.com).

Type: String


Pattern: .*\S.*

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The `ChangeToken` that you used to submit the `DeleteRegexPatternSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](https://aws.amazon.com).

Type: String


Pattern: .*\S.*

**Errors**

For information about the errors that are common to all actions, see [Common Errors](https://aws.amazon.com).
**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonEmptyEntityException**

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**WAFReferencedItemException**

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteRule

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a Rule. You can't delete a Rule if it's still used in any WebACL objects or if it still includes any predicates, such as ByteMatchSet objects.

If you just want to remove a Rule from a WebACL, use UpdateWebACL.

To permanently delete a Rule from AWS WAF, perform the following steps:

1. Update the Rule to remove predicates, if any. For more information, see UpdateRule.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteRule request.
3. Submit a DeleteRule request.

Request Syntax

```
{
    "ChangeToken": "string",
    "RuleId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

Type: String


Pattern: .*\S.*

Required: Yes

**RuleId**

The `RuleId` of the `Rule` that you want to delete. `RuleId` is returned by `CreateRule` and by `ListRules`.

Type: String


Pattern: .*\S.*

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The `ChangeToken` that you used to submit the `DeleteRule` request. You can also use this value to query the status of the request. For more information, see `GetChangeTokenStatus`.

Type: String

Pattern: \.*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**WAFTagOperationException**

HTTP Status Code: 400

**WAFTagOperationInternalErrorException**

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• [AWS Command Line Interface](#)
• [AWS SDK for .NET](#)
• [AWS SDK for C++](#)
• [AWS SDK for Go](#)
• [AWS SDK for Java V2](#)
• [AWS SDK for JavaScript V3](#)
• [AWS SDK for PHP V3](#)
• [AWS SDK for Python](#)
• [AWS SDK for Ruby V3](#)
DeleteRuleGroup
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a RuleGroup. You can't delete a RuleGroup if it's still used in any WebACL objects or if it still includes any rules.

If you just want to remove a RuleGroup from a WebACL, use UpdateWebACL.

To permanently delete a RuleGroup from AWS WAF, perform the following steps:

1. Update the RuleGroup to remove rules, if any. For more information, see UpdateRuleGroup.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteRuleGroup request.
3. Submit a DeleteRuleGroup request.

Request Syntax

```
{
  "ChangeToken": "string",
  "RuleGroupId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .\S.*

Required: Yes

**RuleGroupId**

The RuleGroupId of the RuleGroup that you want to delete. RuleGroupId is returned by CreateRuleGroup and by ListRuleGroups.

Type: String


Pattern: .\S.*

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the DeleteRuleGroup request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.

Type: String

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400
WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteSizeConstraintSet

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a SizeConstraintSet. You can't delete a SizeConstraintSet if it's still used in any Rules or if it still includes any SizeConstraint objects (any filters).

If you just want to remove a SizeConstraintSet from a Rule, use UpdateRule.

To permanently delete a SizeConstraintSet, perform the following steps:

1. Update the SizeConstraintSet to remove filters, if any. For more information, see UpdateSizeConstraintSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteSizeConstraintSet request.
3. Submit a DeleteSizeConstraintSet request.

Request Syntax

```
{
    "ChangeToken": "string",
    "SizeConstraintSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to [GetChangeToken](https://docs.aws.amazon.com/waf/latest/developerguide/wafv2-api-change-token.html).

Type: String


Pattern: .*\S.*

Required: Yes

**SizeConstraintSetId**

The `SizeConstraintSetId` of the `SizeConstraintSet` that you want to delete. `SizeConstraintSetId` is returned by [CreateSizeConstraintSet](https://docs.aws.amazon.com/waf/latest/developerguide/wafv2-api-create-size-constraint-set.html) and by [ListSizeConstraintSets](https://docs.aws.amazon.com/waf/latest/developerguide/wafv2-api-list-size-constraint-sets.html).

Type: String


Pattern: .*\S.*

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The `ChangeToken` that you used to submit the `DeleteSizeConstraintSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](https://docs.aws.amazon.com/waf/latest/developerguide/wafv2-api-get-change-token-status.html).
Type: String


Pattern: \.*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteSqlInjectionMatchSet
Service: AWS WAF Classic

Important Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a SqlInjectionMatchSet. You can't delete a SqlInjectionMatchSet if it's still used in any Rules or if it still contains any SqlInjectionMatchTuple objects.

If you just want to remove a SqlInjectionMatchSet from a Rule, use UpdateRule.

To permanently delete a SqlInjectionMatchSet from AWS WAF, perform the following steps:

1. Update the SqlInjectionMatchSet to remove filters, if any. For more information, see UpdateSqlInjectionMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteSqlInjectionMatchSet request.
3. Submit a DeleteSqlInjectionMatchSet request.

Request Syntax

```json
{
    "ChangeToken": "string",
    "SqlInjectionMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

Type: String


Pattern: `.*\S.*`

Required: Yes

**SqlInjectionMatchSetId**

The `SqlInjectionMatchSetId` of the `SqlInjectionMatchSet` that you want to delete. `SqlInjectionMatchSetId` is returned by `CreateSqlInjectionMatchSet` and by `ListSqlInjectionMatchSets`.

Type: String


Pattern: `.*\S.*`

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the `DeleteSqlInjectionMatchSet` request. You can also use this value to query the status of the request. For more information, see `GetChangeTokenStatus`. 
Type: String


Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteWebACL

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a WebACL. You can’t delete a WebACL if it still contains any Rules.

To delete a WebACL, perform the following steps:

1. Update the WebACL to remove Rules, if any. For more information, see UpdateWebACL.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteWebACL request.
3. Submit a DeleteWebACL request.

Request Syntax

```
{
    "ChangeToken": "string",
    "WebACLId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String

Pattern: . *\S . *

Required: Yes

**WebACLId**

The WebACLId of the WebACL that you want to delete. WebACLId is returned by [CreateWebACL](#) and by [ListWebACLs](#).

Type: String


Pattern: . *\S . *

Required: Yes

**Response Syntax**

```json
{
  "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the DeleteWebACL request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: . *\S . *
Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400
**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**WAFTagOperationException**

HTTP Status Code: 400

**WAFTagOperationInternalErrorException**

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
DeleteXssMatchSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes an XssMatchSet. You can't delete an XssMatchSet if it's still used in any Rules or if it still contains any XssMatchTuple objects.

If you just want to remove an XssMatchSet from a Rule, use UpdateRule.

To permanently delete an XssMatchSet from AWS WAF, perform the following steps:

1. Update the XssMatchSet to remove filters, if any. For more information, see UpdateXssMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteXssMatchSet request.
3. Submit a DeleteXssMatchSet request.

Request Syntax

```
{
   "ChangeToken": "string",
   "XssMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .*\S.*

Required: Yes

**XssMatchSetId**

The XssMatchSetId of the [XssMatchSet](#) that you want to delete. XssMatchSetId is returned by [CreateXssMatchSet](#) and by [ListXssMatchSets](#).

Type: String


Pattern: .*\S.*

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the DeleteXssMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String

Pattern: . *\S . *

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
GetByteMatchSet
Service: AWS WAF Classic

Note
This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.
For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the **ByteMatchSet** specified by ByteMatchSetId.

Request Syntax

```
{
  "ByteMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ByteMatchSetId**

The ByteMatchSetId of the **ByteMatchSet** that you want to get. ByteMatchSetId is returned by [CreateByteMatchSet](#) and by [ListByteMatchSets](#).

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```
{
    "ByteMatchSet": {
        "ByteMatchSetId": "string",
        "ByteMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "PositionalConstraint": "string",
                "TargetString": "blob",
                "TextTransformation": "string"
            }
        ],
        "Name": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ByteMatchSet**

Information about the ByteMatchSet that you specified in the GetByteMatchSet request. For more information, see the following topics:

- **ByteMatchSet**: Contains ByteMatchSetId, ByteMatchTuples, and Name
- **ByteMatchTuples**: Contains an array of ByteMatchTuple objects. Each ByteMatchTuple object contains **FieldToMatch**, PositionalConstraint, TargetString, and TextTransformation
- **FieldToMatch**: Contains Data and Type

Type: ByteMatchSet object

Errors

For information about the errors that are common to all actions, see Common Errors.
**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetChangeToken
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

When you want to create, update, or delete AWS WAF objects, get a change token and include the change token in the create, update, or delete request. Change tokens ensure that your application doesn't submit conflicting requests to AWS WAF.

Each create, update, or delete request must use a unique change token. If your application submits a GetChangeToken request and then submits a second GetChangeToken request before submitting a create, update, or delete request, the second GetChangeToken request returns the same value as the first GetChangeToken request.

When you use a change token in a create, update, or delete request, the status of the change token changes to PENDING, which indicates that AWS WAF is propagating the change to all AWS WAF servers. Use GetChangeTokenStatus to determine the status of your change token.

Response Syntax

```json
{
   "ChangeToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**ChangeToken**

The ChangeToken that you used in the request. Use this value in a GetChangeTokenStatus request to get the current status of the request.

Type: String


Pattern: . *\S . *

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetChangeTokenStatus
Service: AWS WAF Classic

**Note**
This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://aws.amazon.com/waf-classic) in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the status of a ChangeToken that you got by calling [GetChangeToken](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetChangeToken.html).

ChangeTokenStatus is one of the following values:

- **PROVISIONED**: You requested the change token by calling GetChangeToken, but you haven't used it yet in a call to create, update, or delete an AWS WAF object.
- **PENDING**: AWS WAF is propagating the create, update, or delete request to all AWS WAF servers.
- **INSYNC**: Propagation is complete.

**Request Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](https://docs.aws.amazon.com/waf/latest/APIReference/API_CommonParameters.html).

The request accepts the following data in JSON format.

**ChangeToken**

The change token for which you want to get the status. This change token was previously returned in the GetChangeToken response.

Type: String

Pattern: . * \S . *

Required: Yes

**Response Syntax**

```
{
  "ChangeTokenStatus": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeTokenStatus**

The status of the change token.

Type: String

Valid Values: PROVISIONED | PENDING | INSYNC

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- **AWS Command Line Interface**
- **AWS SDK for .NET**
- **AWS SDK for C++**
- **AWS SDK for Go**
- **AWS SDK for Java V2**
- **AWS SDK for JavaScript V3**
- **AWS SDK for PHP V3**
- **AWS SDK for Python**
- **AWS SDK for Ruby V3**
GetGeoMatchSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the GeoMatchSet that is specified by GeoMatchSetId.

Request Syntax

```json
{
    "GeoMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

GeoMatchSetId

The GeoMatchSetId of the GeoMatchSet that you want to get. GeoMatchSetId is returned by CreateGeoMatchSet and by ListGeoMatchSets.

Type: String


Pattern: .*

Required: Yes
Response Syntax

```
{
  "GeoMatchSet": {
    "GeoMatchConstraints": [
      {
        "Type": "string",
        "Value": "string"
      }
    ],
    "GeoMatchSetId": "string",
    "Name": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**GeoMatchSet**

Information about the GeoMatchSet that you specified in the GetGeoMatchSet request. This includes the Type, which for a GeoMatchConstraint is always Country, as well as the Value, which is the identifier for a specific country.

Type: GeoMatchSet object

Errors

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetIPSet

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the IPSet that is specified by IPSetId.

Request Syntax

```
{
    "IPSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**IPSetId**

The IPSetId of the IPSet that you want to get. IPSetId is returned by CreateIPSet and by ListIPSets.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

{
    "IPSet": {
        "IPSetDescriptors": [
            {
                "Type": "string",
                "Value": "string"
            }
        ],
        "IPSetId": "string",
        "Name": "string"
    }
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**IPSet**

Information about the **IPSet** that you specified in the GetIPSet request. For more information, see the following topics:

- **IPSet**: Contains IPSetDescriptors, IPSetId, and Name
- **IPSetDescriptors**: Contains an array of **IPSetDescriptor** objects. Each IPSetDescriptor object contains Type and Value

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetLoggingConfiguration
Service: AWS WAF Classic

ℹ️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the LoggingConfiguration for the specified web ACL.

Request Syntax

```json
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the web ACL for which you want to get the LoggingConfiguration.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```
{
   "LoggingConfiguration": {
      "LogDestinationConfigs": [ "string" ],
      "RedactedFields": [
         {
            "Data": "string",
            "Type": "string"
         }
      ],
      "ResourceArn": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**LoggingConfiguration**

The [LoggingConfiguration](#) for the specified web ACL.

Type: [LoggingConfiguration](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetPermissionPolicy
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the IAM policy attached to the RuleGroup.

Request Syntax

```json
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the RuleGroup for which you want to get the policy.

Type: String


Pattern: .\S.*

Required: Yes

Response Syntax

```json
{
}
```
"Policy": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Policy

The IAM policy attached to the specified RuleGroup.

Type: String


Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetRateBasedRule
Service: AWS WAF Classic

Note
This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the **RateBasedRule** that is specified by the `RuleId` that you included in the `GetRateBasedRule` request.

### Request Syntax

```json
{
    "RuleId": "string"
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**RuleId**

The `RuleId` of the **RateBasedRule** that you want to get. `RuleId` is returned by [CreateRateBasedRule](#) and by [ListRateBasedRules](#).

- **Type**: String
- **Length Constraints**: Minimum length of 1. Maximum length of 128.
- **Pattern**: .*
- **Required**: Yes
Response Syntax

```
{
    "Rule": {
        "MatchPredicates": [
            {
                "DataId": "string",
                "Negated": boolean,
                "Type": "string"
            }
        ],
        "MetricName": "string",
        "Name": "string",
        "RateKey": "string",
        "RateLimit": number,
        "RuleId": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Rule**

Information about the RateBasedRule that you specified in the GetRateBasedRule request.

Type: RateBasedRule object

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetRateBasedRuleManagedKeys

Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of IP addresses currently being blocked by the RateBasedRule that is specified by the RuleId. The maximum number of managed keys that will be blocked is 10,000. If more than 10,000 addresses exceed the rate limit, the 10,000 addresses with the highest rates will be blocked.

Request Syntax

```
{
    "NextMarker": "string",
    "RuleId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

NextMarker

A null value and not currently used. Do not include this in your request.

Type: String


Pattern: .\S.*

Required: No
**RuleId**

The RuleId of the [RateBasedRule](#) for which you want to get a list of ManagedKeys. RuleId is returned by [CreateRateBasedRule](#) and by [ListRateBasedRules](#).

Type: String


Pattern: \.*\S.*

Required: Yes

**Response Syntax**

```json
{
    "ManagedKeys": [ "string" ],
    "NextMarker": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ManagedKeys**

An array of IP addresses that currently are blocked by the specified [RateBasedRule](#).

Type: Array of strings

**NextMarker**

A null value and not currently used.

Type: String


Pattern: \.*\S.*
Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetRegexMatchSet

Service: AWS WAF Classic

**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/current/index.html) in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/current/index.html). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the **RegexMatchSet** specified by RegexMatchSetId.

**Request Syntax**

```json
{
   "RegexMatchSetId": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](https://docs.aws.amazon.com/waf/latest/current/index.html).

The request accepts the following data in JSON format.

**RegexMatchSetId**

The RegexMatchSetId of the **RegexMatchSet** that you want to get. RegexMatchSetId is returned by [CreateRegexMatchSet](https://docs.aws.amazon.com/waf/latest/current/API_CreateRegexMatchSet.html) and by [ListRegexMatchSets](https://docs.aws.amazon.com/waf/latest/current/API_ListRegexMatchSets.html).

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

{  
  "RegexMatchSet": {  
    "Name": "string",  
    "RegexMatchSetId": "string",  
    "RegexMatchTuples": [  
      {  
        "FieldToMatch": {  
          "Data": "string",  
          "Type": "string"  
        },  
        "RegexPatternSetId": "string",  
        "TextTransformation": "string"  
      }  
    ]  
  }  
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**RegexMatchSet**

Information about the RegexMatchSet that you specified in the GetRegexMatchSet request. For more information, see RegexMatchTuple.

Type: RegexMatchSet object

Errors

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn’t exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetRegexPatternSet

Service: AWS WAF Classic

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Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the RegexPatternSet specified by RegexPatternSetId.

Request Syntax

```json
{
   "RegexPatternSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**RegexPatternSetId**

The RegexPatternSetId of the RegexPatternSet that you want to get. RegexPatternSetId is returned by CreateRegexPatternSet and by ListRegexPatternSets.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```json
{
    "RegexPatternSet": {
        "Name": "string",
        "RegexPatternSetId": "string",
        "RegexPatternStrings": [ "string" ]
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**RegexPatternSet**

- Information about the `RegexPatternSet` that you specified in the `GetRegexPatternSet` request, including the identifier of the pattern set and the regular expression patterns you want AWS WAF to search for.

  Type: `RegexPatternSet` object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

- The operation failed because of a system problem, even though the request was valid. Retry your request.

  HTTP Status Code: 500

**WAFFInvalidAccountException**

- The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

  HTTP Status Code: 400
WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetRule
Service: AWS WAF Classic

ℹ️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the Rule that is specified by the RuleId that you included in the GetRule request.

Request Syntax

```json
{
  "RuleId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

RuleId

The RuleId of the Rule that you want to get. RuleId is returned by CreateRule and by ListRules.

Type: String


Pattern: .*

Required: Yes
Response Syntax

```
{
  "Rule": {
    "MetricName": "string",
    "Name": "string",
    "Predicates": [
      {
        "DataId": "string",
        "Negated": boolean,
        "Type": "string"
      }
    ],
    "RuleId": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Rule**

Information about the Rule that you specified in the GetRule request. For more information, see the following topics:

- **Rule**: Contains MetricName, Name, an array of Predicate objects, and RuleId
- **Predicate**: Each Predicate object contains DataId, Negated, and Type

Type: Rule object

Errors

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetRuleGroup
Service: AWS WAF Classic

⚠️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the RuleGroup that is specified by the RuleGroupId that you included in the GetRuleGroup request.

To view the rules in a rule group, use ListActivatedRulesInRuleGroup.

Request Syntax

```json
{
  "RuleGroupId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**RuleGroupId**

The RuleGroupId of the RuleGroup that you want to get. RuleGroupId is returned by CreateRuleGroup and by ListRuleGroups.

Type: String


Pattern: .*\S.*
Required: Yes

Response Syntax

```json
{
    "RuleGroup": {
        "MetricName": "string",
        "Name": "string",
        "RuleGroupId": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**RuleGroup**

Information about the `RuleGroup` that you specified in the `GetRuleGroup` request.

Type: `RuleGroup` object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetSampledRequests
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Gets detailed information about a specified number of requests--a sample--that AWS WAF randomly selects from among the first 5,000 requests that your AWS resource received during a time range that you choose. You can specify a sample size of up to 500 requests, and you can specify any time range in the previous three hours.

GetSampledRequests returns a time range, which is usually the time range that you specified. However, if your resource (such as an Amazon CloudFront distribution) received 5,000 requests before the specified time range elapsed, GetSampledRequests returns an updated time range. This new time range indicates the actual period during which AWS WAF selected the requests in the sample.

Request Syntax

```
{
   "MaxItems": number,
   "RuleId": "string",
   "TimeWindow": {
      "EndTime": number,
      "StartTime": number
   },
   "WebAclId": "string"
}
```

Request Parameters
For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
MaxItems

The number of requests that you want AWS WAF to return from among the first 5,000 requests that your AWS resource received during the time range. If your resource received fewer requests than the value of MaxItems, GetSampledRequests returns information about all of them.

Type: Long


Required: Yes

RuleId

RuleId is one of three values:

- The RuleId of the Rule or the RuleGroupId of the RuleGroup for which you want GetSampledRequests to return a sample of requests.
- Default_Action, which causes GetSampledRequests to return a sample of the requests that didn't match any of the rules in the specified WebACL.

Type: String


Pattern: .*\S.*

Required: Yes

TimeWindow

The start date and time and the end date and time of the range for which you want GetSampledRequests to return a sample of requests. You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: TimeWindow object

Required: Yes

WebACLId

The WebACLId of the WebACL for which you want GetSampledRequests to return a sample of requests.

Type: String

Pattern: .*\S.*

Required: Yes

Response Syntax

```json
{
    "PopulationSize": number,
    "SampledRequests": [
        {
            "Action": "string",
            "Request": {
                "ClientIP": "string",
                "Country": "string",
                "Headers": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ],
                "HTTPVersion": "string",
                "Method": "string",
                "URI": "string"
            },
            "RuleWithinRuleGroup": "string",
            "Timestamp": number,
            "Weight": number
        }
    ],
    "TimeWindow": {
        "EndTime": number,
        "StartTime": number
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
PopulationSize

The total number of requests from which GetSampledRequests got a sample of MaxItems requests. If PopulationSize is less than MaxItems, the sample includes every request that your AWS resource received during the specified time range.

Type: Long

SampledRequests

A complex type that contains detailed information about each of the requests in the sample.

Type: Array of SampledHTTPRequest objects

TimeWindow

Usually, TimeWindow is the time range that you specified in the GetSampledRequests request. However, if your AWS resource received more than 5,000 requests during the time range that you specified in the request, GetSampledRequests returns the time range for the first 5,000 requests. Times are in Coordinated Universal Time (UTC) format.

Type: TimeWindow object

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
GetSizeConstraintSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the SizeConstraintSet specified by SizeConstraintSetId.

Request Syntax

```
{
    "SizeConstraintSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

SizeConstraintSetId

The SizeConstraintSetId of the SizeConstraintSet that you want to get.
SizeConstraintSetId is returned by CreateSizeConstraintSet and by ListSizeConstraintSets.

Type: String


Pattern: .*\S.*

Required: Yes
Response Syntax

```json
{
    "SizeConstraintSet": {
        "Name": "string",
        "SizeConstraints": [
            {
                "ComparisonOperator": "string",
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "Size": number,
                "TextTransformation": "string"
            }
        ],
        "SizeConstraintSetId": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response. The following data is returned in JSON format by the service.

**SizeConstraintSet**

Information about the SizeConstraintSet that you specified in the GetSizeConstraintSet request. For more information, see the following topics:

- **SizeConstraintSet**: Contains SizeConstraintSetId, SizeConstraints, and Name
- SizeConstraints: Contains an array of SizeConstraint objects. Each SizeConstraint object contains FieldToMatch, TextTransformation, ComparisonOperator, and Size
- **FieldToMatch**: Contains Data and Type

Type: SizeConstraintSet object

Errors

For information about the errors that are common to all actions, see Common Errors.
**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetSqlInjectionMatchSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the SqlInjectionMatchSet that is specified by SqlInjectionMatchSetId.

Request Syntax

```
{
    "SqlInjectionMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**SqlInjectionMatchSetId**

The SqlInjectionMatchSetId of the SqlInjectionMatchSet that you want to get. SqlInjectionMatchSetId is returned by CreateSqlInjectionMatchSet and by ListSqlInjectionMatchSets.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```
{
    "SqlInjectionMatchSet": {
        "Name": "string",
        "SqlInjectionMatchSetId": "string",
        "SqlInjectionMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "TextTransformation": "string"
            }
        ]
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**SqlInjectionMatchSet**

Information about the `SqlInjectionMatchSet` that you specified in the `GetSqlInjectionMatchSet` request. For more information, see the following topics:

- `SqlInjectionMatchSet`: Contains Name, SqlInjectionMatchSetId, and an array of SqlInjectionMatchTuple objects
- `SqlInjectionMatchTuple`: Each SqlInjectionMatchTuple object contains FieldToMatch and TextTransformation
- `FieldToMatch`: Contains Data and Type

Type: `SqlInjectionMatchSet` object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).
WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetWebACL
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the WebACL that is specified by WebACLId.

Request Syntax

```
{
   "WebACLId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

WebACLId

The WebACLId of the WebACL that you want to get. WebACLId is returned by CreateWebACL and by ListWebACLs.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```json
{
    "WebACL": {
        "DefaultAction": {
            "Type": "string"
        },
        "MetricName": "string",
        "Name": "string",
        "Rules": [
            {
                "Action": {
                    "Type": "string"
                },
                "ExcludedRules": [
                    {
                        "RuleId": "string"
                    }
                ],
                "OverrideAction": {
                    "Type": "string"
                },
                "Priority": number,
                "RuleId": "string",
                "Type": "string"
            }
        ],
        "WebACLArn": "string",
        "WebACLId": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**WebACL**

Information about the WebACL that you specified in the GetWebACL request. For more information, see the following topics:
• **WebACL**: Contains DefaultAction, MetricName, Name, an array of Rule objects, and WebACLId

• DefaultAction (Data type is **WafAction**): Contains Type

• Rules: Contains an array of ActivatedRule objects, which contain Action, Priority, and RuleId

• Action: Contains Type

  Type: **WebACL** object

**Errors**

For information about the errors that are common to all actions, see **Common Errors**.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• [AWS Command Line Interface](#)

• [AWS SDK for .NET](#)
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
GetXssMatchSet

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the XssMatchSet that is specified by XssMatchSetId.

Request Syntax

```
{
   "XssMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**XssMatchSetId**

The XssMatchSetId of the XssMatchSet that you want to get. XssMatchSetId is returned by CreateXssMatchSet and by ListXssMatchSets.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```json
{
  "XssMatchSet": {
    "Name": "string",
    "XssMatchSetId": "string",
    "XssMatchTuples": [
      {
        "FieldToMatch": {
          "Data": "string",
          "Type": "string"
        },
        "TextTransformation": "string"
      }
    ]
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**XssMatchSet**

Information about the XssMatchSet that you specified in the GetXssMatchSet request. For more information, see the following topics:

- **XssMatchSet**: Contains Name, XssMatchSetId, and an array of XssMatchTuple objects
- **XssMatchTuple**: Each XssMatchTuple object contains FieldToMatch and TextTransformation
- **FieldToMatch**: Contains Data and Type

Type: XssMatchSet object

Errors

For information about the errors that are common to all actions, see Common Errors.
WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
See the latest version of the AWS WAF Developer Guide for AWS WAF Classic.
**NextMarker**

If you specify a value for Limit and you have more ActivatedRules than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of ActivatedRules. For the second and subsequent ListActivatedRulesInRuleGroup requests, specify the value of NextMarker from the previous response to get information about another batch of ActivatedRules.

Type: String


Pattern: .*\S.*

Required: No

**RuleGroupId**

The RuleGroupId of the RuleGroup for which you want to get a list of ActivatedRule objects.

Type: String


Pattern: .*\S.*

Required: No

**Response Syntax**

```json
{
    "ActivatedRules": [
        {
            "Action": {
                "Type": "string"
            },
            "ExcludedRules": [
                {
                    "RuleId": "string"
                }
            ],
            "OverrideAction": {
                "Type": "string"
            }
        }
    ]
}```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ActivatedRules**

An array of ActivatedRules objects.

Type: Array of ActivatedRule objects

**NextMarker**

If you have more ActivatedRules than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more ActivatedRules, submit another ListActivatedRulesInRuleGroup request, and specify the NextMarker value from the response in the NextMarker value in the next request.

Type: String


Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListByteMatchSets
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of ByteMatchSetSummary objects.

Request Syntax

```json
{
   "Limit": number,
   "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of ByteMatchSet objects that you want AWS WAF to return for this request. If you have more ByteMatchSets objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of ByteMatchSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for `Limit` and you have more `ByteMatchSets` than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `ByteMatchSets`. For the second and subsequent `ListByteMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `ByteMatchSets`.

Type: String


Pattern: .*\S.*

Required: No

**Response Syntax**

```
{
   "ByteMatchSets": [
   {
      "ByteMatchSetId": "string",
      "Name": "string"
   },
   "NextMarker": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ByteMatchSets**

An array of `ByteMatchSetSummary` objects.

Type: Array of `ByteMatchSetSummary` objects
**NextMarker**

If you have more ByteMatchSet objects than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more ByteMatchSet objects, submit another ListByteMatchSets request, and specify the NextMarker value from the response in the NextMarker value in the next request.

Type: String


Pattern: .\S.*

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListGeoMatchSets
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of GeoMatchSetSummary objects in the response.

Request Syntax

```
{
   "Limit": number,
   "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of GeoMatchSet objects that you want AWS WAF to return for this request. If you have more GeoMatchSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of GeoMatchSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for `Limit` and you have more `GeoMatchSets` than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `GeoMatchSet` objects. For the second and subsequent `ListGeoMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `GeoMatchSet` objects.

Type: String


Pattern: .*

Required: No

**Response Syntax**

```
{
   "GeoMatchSets": [
   {
      "GeoMatchSetId": "string",
      "Name": "string"
   },
   "NextMarker": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**GeoMatchSets**

An array of `GeoMatchSetSummary` objects.

Type: Array of `GeoMatchSetSummary` objects
**NextMarker**

If you have more GeoMatchSet objects than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more GeoMatchSet objects, submit another ListGeoMatchSets request, and specify the NextMarker value from the response in the NextMarker value in the next request.

Type: String


Pattern: .*\S.*

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListIPSets
Service: AWS WAF Classic

Note
This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/APIReference/) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [IPSetSummary](https://docs.aws.amazon.com/waf/latest/APIReference/API_IPSetSummary) objects in the response.

**Request Syntax**

```json
{
   "Limit": number,
   "NextMarker": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](https://docs.aws.amazon.com/waf/latest/APIReference/). The request accepts the following data in JSON format.

**Limit**

Specifies the number of IPSet objects that you want AWS WAF to return for this request. If you have more IPSet objects than the number you specify for *Limit*, the response includes a *NextMarker* value that you can use to get another batch of IPSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

AWS WAF returns a `NextMarker` value in the response that allows you to list another group of IPSets. For the second and subsequent ListIPSets requests, specify the value of `NextMarker` from the previous response to get information about another batch of IPSets.

Type: String


Pattern: `.*\S.*`

Required: No

**Response Syntax**

```
{
    "IPSets": [
        {
            "IPSetId": "string",
            "Name": "string"
        }
    ],
    "NextMarker": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**IPSets**

An array of `IPSetSummary` objects.

Type: Array of `IPSetSummary` objects

**NextMarker**

To list more IPSet objects, submit another ListIPSets request, and in the next request use the `NextMarker` response value as the `NextMarker` value.
Type: String


Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListLoggingConfigurations

Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of LoggingConfiguration objects.

Request Syntax

```
{
   "Limit": number,
   "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of LoggingConfigurations that you want AWS WAF to return for this request. If you have more LoggingConfigurations than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of LoggingConfigurations.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
NextMarker

If you specify a value for Limit and you have more LoggingConfigurations than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of LoggingConfigurations. For the second and subsequent ListLoggingConfigurations requests, specify the value of NextMarker from the previous response to get information about another batch of ListLoggingConfigurations.

Type: String


Pattern: .*\S.*

Required: No

Response Syntax

```json
{
   "LoggingConfigurations": [
      {
         "LogDestinationConfigs": [ "string" ],
         "RedactedFields": [
            {
               "Data": "string",
               "Type": "string"
            }
         ],
         "ResourceArn": "string"
      }
   ],
   "NextMarker": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**LoggingConfigurations**

An array of `LoggingConfiguration` objects.

Type: Array of `LoggingConfiguration` objects

**NextMarker**

If you have more `LoggingConfigurations` than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `LoggingConfigurations`, submit another `ListLoggingConfigurations` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String


Pattern: `.*\S.*`

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a `DefaultAction` Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a `RateKey` value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListRateBasedRules
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of RuleSummary objects.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of Rules that you want AWS WAF to return for this request. If you have more Rules than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
NextMarker

If you specify a value for Limit and you have more Rules than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of Rules. For the second and subsequent ListRateBasedRules requests, specify the value of NextMarker from the previous response to get information about another batch of Rules.

Type: String


Pattern: .*\S.*

Required: No

Response Syntax

```json
{
    "NextMarker": "string",
    "Rules": [
        {
            "Name": "string",
            "RuleId": "string"
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextMarker

If you have more Rules than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more Rules, submit another ListRateBasedRules request, and specify the NextMarker value from the response in the NextMarker value in the next request.

Type: String

Pattern: . * \S . *

**Rules**

An array of RuleSummary objects.

Type: Array of RuleSummary objects

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListRegexMatchSets

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of RegexMatchSetSummary objects.

Request Syntax

```json
{
  "Limit": number,
  "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

Specifies the number of RegexMatchSet objects that you want AWS WAF to return for this request. If you have more RegexMatchSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of RegexMatchSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for `Limit` and you have more RegexMatchSet objects than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of ByteMatchSets. For the second and subsequent `ListRegexMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of RegexMatchSet objects.

Type: String


Pattern: .*\S.*

Required: No

**Response Syntax**

```json
{
    "NextMarker": "string",
    "RegexMatchSets": [
        {
            "Name": "string",
            "RegexMatchSetId": "string"
        }
    ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more RegexMatchSet objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more RegexMatchSet objects, submit another `ListRegexMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.
Type: String


Pattern: .\S.*

**RegexMatchSets**

An array of *RegexMatchSetSummary* objects.

Type: Array of *RegexMatchSetSummary* objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListRegexPatternSets
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of RegexPatternSetSummary objects.

Request Syntax

```json
{
"Limit": number,
"NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

Specifies the number of RegexPatternSet objects that you want AWS WAF to return for this request. If you have more RegexPatternSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of RegexPatternSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for Limit and you have more RegexPatternSet objects than the value of Limit, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of RegexPatternSet objects. For the second and subsequent `ListRegexPatternSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of RegexPatternSet objects.

Type: String


Pattern: .*\S.*

Required: No

**Response Syntax**

```
{
    "NextMarker": "string",
    "RegexPatternSets": [
        {
            "Name": "string",
            "RegexPatternSetId": "string"
        }
    ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more RegexPatternSet objects than the number that you specified for Limit in the request, the response includes a `NextMarker` value. To list more RegexPatternSet objects, submit another `ListRegexPatternSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.
Type: String


Pattern: .*\S.*

**RegexPatternSets**

An array of [RegexPatternSetSummary](#) objects.

Type: Array of [RegexPatternSetSummary](#) objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListRuleGroups
Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of RuleGroup objects.

Request Syntax

```
{
  "Limit": number,
  "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of RuleGroups that you want AWS WAF to return for this request. If you have more RuleGroups than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of RuleGroups.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for `Limit` and you have more RuleGroups than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of RuleGroups. For the second and subsequent `ListRuleGroups` requests, specify the value of `NextMarker` from the previous response to get information about another batch of RuleGroups.

Type: String


Pattern: .*\S.*

Required: No

**Response Syntax**

```
{
  "NextMarker": "string",
  "RuleGroups": [
    {
      "Name": "string",
      "RuleGroupId": "string"
    }
  ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more RuleGroups than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more RuleGroups, submit another `ListRuleGroups` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.
Type: String


Pattern: .*\S.*

**RuleGroups**

An array of [RuleGroup](#) objects.

Type: Array of [RuleGroupSummary](#) objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
**ListRules**

Service: AWS WAF Classic

---

### Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

---

Returns an array of RuleSummary objects.

**Request Syntax**

```json
{
   "Limit": number,
   "NextMarker": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

Specifies the number of Rules that you want AWS WAF to return for this request. If you have more Rules than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for `Limit` and you have more `Rules` than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `Rules`. For the second and subsequent `ListRules` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `Rules`.

Type: String


Pattern: `.*\S.*`

Required: No

**Response Syntax**

```
{
   "NextMarker": "string",
   "Rules": [
      {
         "Name": "string",
         "RuleId": "string"
      }
   ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response. The following data is returned in JSON format by the service.

**NextMarker**

If you have more `Rules` than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `Rules`, submit another `ListRules` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Pattern: . *\S.*

**Rules**

An array of RuleSummary objects.

Type: Array of RuleSummary objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- AWS SDK for Python
- AWS SDK for Ruby V3
ListSizeConstraintSets
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of SizeConstraintSetSummary objects.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of SizeConstraintSet objects that you want AWS WAF to return for this request. If you have more SizeConstraintSets objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of SizeConstraintSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
NextMarker

If you specify a value for `Limit` and you have more `SizeConstraintSets` than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `SizeConstraintSets`. For the second and subsequent `ListSizeConstraintSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `SizeConstraintSets`.

Type: String


Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
    "NextMarker": "string",
    "SizeConstraintSets": [
        {
            "Name": "string",
            "SizeConstraintSetId": "string"
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextMarker

If you have more `SizeConstraintSet` objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `SizeConstraintSet` objects, submit another `ListSizeConstraintSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.
Type: String


Pattern: .*\S.*

**SizeConstraintSets**

An array of [SizeConstraintSetSummary](#) objects.

Type: Array of [SizeConstraintSetSummary](#) objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• **AWS SDK for PHP V3**
• **AWS SDK for Python**
• **AWS SDK for Ruby V3**
**ListSqlInjectionMatchSets**

Service: AWS WAF Classic

---

### Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://aws.amazon.com/waf-classic/) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

---

Returns an array of **SqlInjectionMatchSet** objects.

**Request Syntax**

```
{
   "Limit": number,
   "NextMarker": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](https://docs.aws.amazon.com/waf/latest/developerguide/waf-parameters-reference.html).

The request accepts the following data in JSON format.

**Limit**

Specifies the number of **SqlInjectionMatchSet** objects that you want AWS WAF to return for this request. If you have more SqlInjectionMatchSet objects than the number you specify for Limit, the response includes a **NextMarker** value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for `Limit` and you have more `SqlInjectionMatchSet` objects than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of SqlInjectionMatchSets. For the second and subsequent `ListSqlInjectionMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of SqlInjectionMatchSets.

Type: String


Pattern: .*\S.*

Required: No

**Response Syntax**

```json
{
    "NextMarker": "string",
    "SqlInjectionMatchSets": [
        {
            "Name": "string",
            "SqlInjectionMatchSetId": "string"
        }
    ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more `SqlInjectionMatchSet` objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `SqlInjectionMatchSet` objects, submit another `ListSqlInjectionMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.
Type: String


Pattern: .*\S.*

**SqlInjectionMatchSets**

An array of **SqlInjectionMatchSetSummary** objects.

Type: Array of **SqlInjectionMatchSetSummary** objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListSubscribedRuleGroups
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of RuleGroup objects that you are subscribed to.

Request Syntax

```
{
   "Limit": number,
   "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of subscribed rule groups that you want AWS WAF to return for this request. If you have more objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for `Limit` and you have more `ByteMatchSets` subscribed rule groups than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of subscribed rule groups. For the second and subsequent `ListSubscribedRuleGroupsRequest` requests, specify the value of `NextMarker` from the previous response to get information about another batch of subscribed rule groups.

Type: String


Pattern: `.*\S.*`

Required: No

**Response Syntax**

```
{
    "NextMarker": "string",
    "RuleGroups": [
        {
            "MetricName": "string",
            "Name": "string",
            "RuleGroupId": "string"
        }
    ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more objects, submit another `ListSubscribedRuleGroups` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.
Type: String


Pattern: .[^\S]*

**RuleGroups**

An array of **RuleGroup** objects.

Type: Array of **SubscribedRuleGroupSummary** objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• **AWS SDK for PHP V3**
• **AWS SDK for Python**
• **AWS SDK for Ruby V3**
ListTagsForResource
Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Retrieves the tags associated with the specified AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Request Syntax

```
{
   "Limit": number,
   "NextMarker": "string",
   "ResourceARN": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Type: Integer
Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

**NextMarker**

Type: String


Pattern: .*\S.*

Required: No

**ResourceARN**

Type: String


Pattern: .*\S.*

Required: Yes

**Response Syntax**

```json
{
    "NextMarker": "string",
    "TagInfoForResource": {
        "ResourceARN": "string",
        "TagList": [
            {
                "Key": "string",
                "Value": "string"
            }
        ]
    }
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**NextMarker**

Type: String


Pattern: .*\S.*

**TagInfoForResource**

Type: [TagInfoForResource object](#)

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFBadRequestException**

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListWebACLs
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of WebACLSummary objects in the response.

Request Syntax

```
{
   "Limit": number,
   "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

Specifies the number of WebACL objects that you want AWS WAF to return for this request. If you have more WebACL objects than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of WebACL objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for `Limit` and you have more WebACL objects than the number that you specify for `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of WebACL objects. For the second and subsequent `ListWebACLs` requests, specify the value of `NextMarker` from the previous response to get information about another batch of WebACL objects.

Type: String


Pattern: .\S.*

Required: No

**Response Syntax**

```json
{
    "NextMarker": "string",
    "WebACLs": [
        {
            "Name": "string",
            "WebACLId": "string"
        }
    ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more WebACL objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more WebACL objects, submit another `ListWebACLs` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.
Type: String


Pattern: .\S\.*

**WebACLs**

An array of [WebACLSummary](#) objects.

Type: Array of [WebACLSummary](#) objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListXssMatchSets
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of XssMatchSet objects.

Request Syntax

```
{
   "Limit": number,
   "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of XssMatchSet objects that you want AWS WAF to return for this request. If you have more XssMatchSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for Limit and you have more **XssMatchSet** objects than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of XssMatchSets. For the second and subsequent ListXssMatchSets requests, specify the value of NextMarker from the previous response to get information about another batch of XssMatchSets.

Type: String


Pattern: .*\S.*

Required: No

**Response Syntax**

```
{
   "NextMarker": "string",
   "XssMatchSets": [
      {
         "Name": "string",
         "XssMatchSetId": "string"
      }
   ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more **XssMatchSet** objects than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more XssMatchSet objects, submit another ListXssMatchSets request, and specify the NextMarker value from the response in the NextMarker value in the next request.
Type: String


Pattern: .\S.*

**XssMatchSets**

An array of [XssMatchSetSummary](#) objects.

Type: Array of [XssMatchSetSummary](#) objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
PutLoggingConfiguration
Service: AWS WAF Classic

**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://aws.amazon.com/documentation/waf/classic/) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Associates a [LoggingConfiguration](https://docs.aws.amazon.com/waf/latest/developerguide/understanding-log-destinations.html) with a specified web ACL.

You can access information about all traffic that AWS WAF inspects using the following steps:

1. Create an Amazon Kinesis Data Firehose.

   Create the data firehose with a PUT source and in the region that you are operating. However, if you are capturing logs for Amazon CloudFront, always create the firehose in US East (N. Virginia).

   Give the data firehose a name that starts with the prefix `aws-waf-logs-`. For example, `aws-waf-logs-us-east-2-analytics`.

**Note**

Do not create the data firehose using a Kinesis stream as your source.

2. Associate that firehose to your web ACL using a PutLoggingConfiguration request.

   When you successfully enable logging using a PutLoggingConfiguration request, AWS WAF will create a service linked role with the necessary permissions to write logs to the Amazon Kinesis Data Firehose. For more information, see [Logging Web ACL Traffic Information](https://docs.aws.amazon.com/waf/latest/developerguide/understanding-log-destinations.html) in the [AWS WAF Developer Guide](https://aws.amazon.com/documentation/waf/).

**Request Syntax**

```json
{
}
```
Request Parameters

For information about the parameters that are common to all actions, see `Common Parameters`.

The request accepts the following data in JSON format.

The Amazon Kinesis Data Firehose that contains the inspected traffic information, the redacted fields details, and the Amazon Resource Name (ARN) of the web ACL to monitor.

**LoggingConfiguration**

The Amazon Kinesis Data Firehose that contains the inspected traffic information, the redacted fields details, and the Amazon Resource Name (ARN) of the web ACL to monitor.

**Note**

When specifying Type in RedactedFields, you must use one of the following values: URI, QUERY_STRING, HEADER, or METHOD.

**Type**: `LoggingConfiguration` object

**Required**: Yes

Response Syntax

```json
{
  "LoggingConfiguration": {
    "LogDestinationConfigs": [ "string" ],
    "RedactedFields": [
      {
        "Data": "string",
        "Type": "string"
      }
    ],
    "ResourceArn": "string"
  }
}
```
"Type": "string"
]
"ResourceArn": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

LoggingConfiguration

The LoggingConfiguration that you submitted in the request.

Type: LoggingConfiguration object

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFServiceLinkedRoleErrorException

AWS WAF is not able to access the service linked role. This can be caused by a previous PutLoggingConfiguration request, which can lock the service linked role for about 20 seconds. Please try your request again. The service linked role can also be locked by a previous DeleteServiceLinkedRole request, which can lock the role for 15 minutes or more. If you recently made a DeleteServiceLinkedRole, wait at least 15 minutes and try the request
again. If you receive this same exception again, you will have to wait additional time until the role is unlocked.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
**PutPermissionPolicy**

Service: AWS WAF Classic

### Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/classic/) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Attaches an IAM policy to the specified resource. The only supported use for this action is to share a RuleGroup across accounts.

The PutPermissionPolicy is subject to the following restrictions:

- You can attach only one policy with each PutPermissionPolicy request.
- The policy must include an Effect, Action and Principal.
- Effect must specify Allow.
- The Action in the policy must be `waf:UpdateWebACL`, `waf-regional:UpdateWebACL`, `waf:GetRuleGroup` and `waf-regional:GetRuleGroup`. Any extra or wildcard actions in the policy will be rejected.
- The policy cannot include a Resource parameter.
- The ARN in the request must be a valid RuleGroup ARN and the RuleGroup must exist in the same region.
- The user making the request must be the owner of the RuleGroup.
- Your policy must be composed using IAM Policy version 2012-10-17.

For more information, see [Policies and permissions in IAM](https://docs.aws.amazon.com/IAM/latest/UserGuide/index.html#policies).

An example of a valid policy parameter is shown in the Examples section below.

### Request Syntax

```json
{
  "Policy": "string",
}
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Policy**

The policy to attach to the specified RuleGroup.

Type: String


Pattern: .\S.*

Required: Yes

**ResourceArn**

The Amazon Resource Name (ARN) of the RuleGroup to which you want to attach the policy.

Type: String


Pattern: .\S.*

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

WAFInvalidPermissionPolicyException

The operation failed because the specified policy is not in the proper format.

The policy is subject to the following restrictions:

- You can attach only one policy with each PutPermissionPolicy request.
- The policy must include an Effect, Action and Principal.
- Effect must specify Allow.
- The Action in the policy must be waf:UpdateWebACL, waf-regional:UpdateWebACL, waf:GetRuleGroup and waf-regional:GetRuleGroup. Any extra or wildcard actions in the policy will be rejected.
- The policy cannot include a Resource parameter.
- The ARN in the request must be a valid WAF RuleGroup ARN and the RuleGroup must exist in the same region.
- The user making the request must be the owner of the RuleGroup.
- Your policy must be composed using IAM Policy version 2012-10-17.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

Examples

Example policy parameter - No escape characters

This example illustrates one usage of PutPermissionPolicy.
Example policy parameter - ()

This example illustrates one usage of PutPermissionPolicy.

```json
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": {
        "AWS": "arn:aws:iam::111111111111:user/MyUserName"
      },
      "Action": [
        "waf:UpdateWebACL",
        "waf-regional:UpdateWebACL",
        "waf:GetRuleGroup",
        "waf-regional:GetRuleGroup"
      ]
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](https://aws.amazon.com/cli)
- [AWS SDK for .NET](https://aws.amazon.com/sdk-for-net)
- [AWS SDK for C++](https://aws.amazon.com/sdk-for-c++)
- [AWS SDK for Go](https://aws.amazon.com/sdk-for-go)
- [AWS SDK for Java V2](https://aws.amazon.com/sdk-for-java/)
- [AWS SDK for JavaScript V3](https://aws.amazon.com/sdk-for-javascript/)
- [AWS SDK for PHP V3](https://aws.amazon.com/sdk-for-php/)

PutPermissionPolicy
• AWS SDK for Python
• AWS SDK for Ruby V3
TagResource
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Associates tags with the specified AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can use this action to tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Request Syntax

```
{
  "ResourceARN": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceARN
Type: String


Pattern: \.*\S.*

Required: Yes

**Tags**

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFBadRequestException**

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-classic-quota-limits.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:
- **AWS Command Line Interface**
- **AWS SDK for .NET**
- **AWS SDK for C++**
- **AWS SDK for Go**
- **AWS SDK for Java V2**
- **AWS SDK for JavaScript V3**
- **AWS SDK for PHP V3**
- **AWS SDK for Python**
- **AWS SDK for Ruby V3**

TagResource
UntagResource
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Request Syntax

```
{
   "ResourceARN": "string",
   "TagKeys": [ "string" ]
}
```

Request Parameters
For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceARN**

Type: String


Pattern: .*\S.*

Required: Yes

**TagKeys**

Type: Array of strings
Array Members: Minimum number of 1 item.


Pattern: .[^\S].*

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFBadRequestException

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
Inserts or deletes `ByteMatchTuple` objects (filters) in a `ByteMatchSet`. For each `ByteMatchTuple` object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a `ByteMatchSetUpdate` object, you delete the existing object and add a new one.
- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the `User-Agent` header.
- The bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to look for. For more information, including how you specify the values for the AWS WAF API and the AWS CLI or AWS SDKs, see `TargetString` in the `ByteMatchTuple` data type.
- Where to look, such as at the beginning or the end of a query string.
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

For example, you can add a `ByteMatchSetUpdate` object that matches web requests in which `User-Agent` headers contain the string `BadBot`. You can then configure AWS WAF to block those requests.

To create and configure a `ByteMatchSet`, perform the following steps:

1. Create a `ByteMatchSet`. For more information, see `CreateByteMatchSet`.
2. Use `GetChangeToken` to get the change token that you provide in the `ChangeToken` parameter of an `UpdateByteMatchSet` request.
3. Submit an UpdateByteMatchSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
    "ByteMatchSetId": "string",
    "ChangeToken": "string",
    "Updates": [
        {
            "Action": "string",
            "ByteMatchTuple": {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "PositionalConstraint": "string",
                "TargetString": blob,
                "TextTransformation": "string"
            }
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ByteMatchSetId**

The ByteMatchSetId of the ByteMatchSet that you want to update. ByteMatchSetId is returned by CreateByteMatchSet and by ListByteMatchSets.

Type: String

Pattern: .*\S.*
Required: Yes

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .*\S.*
Required: Yes

**Updates**

An array of `ByteMatchSetUpdate` objects that you want to insert into or delete from a `ByteMatchSet`. For more information, see the applicable data types:

- `ByteMatchSetUpdate`: Contains Action and `ByteMatchTuple`
- `ByteMatchTuple`: Contains `FieldToMatch`, `PositionalConstraint`, `TargetString`, and `TextTransformation`
- `FieldToMatch`: Contains `Data` and `Type`

Type: Array of `ByteMatchSetUpdate` objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```json
{
  "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**ChangeToken**

The ChangeToken that you used to submit the UpdateByteMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidOperationException**

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.
HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:
- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-classic-quotas.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• [AWS Command Line Interface](#)
• [AWS SDK for .NET](#)
• [AWS SDK for C++](#)
• [AWS SDK for Go](#)
• [AWS SDK for Java V2](#)
• [AWS SDK for JavaScript V3](#)
• [AWS SDK for PHP V3](#)
• [AWS SDK for Python](#)
• [AWS SDK for Ruby V3](#)
Inserts or deletes GeoMatchConstraint objects in a GeoMatchSet. For each GeoMatchConstraint object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a GeoMatchConstraint object, you delete the existing object and add a new one.
- The Type. The only valid value for Type is Country.
- The Value, which is a two character code for the country to add to the GeoMatchConstraint object. Valid codes are listed in GeoMatchConstraint:Value.

To create and configure a GeoMatchSet, perform the following steps:

1. Submit a CreateGeoMatchSet request.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateGeoMatchSet request.
3. Submit an UpdateGeoMatchSet request to specify the country that you want AWS WAF to watch for.

When you update a GeoMatchSet, you specify the country that you want to add and/or the country that you want to delete. If you want to change a country, you delete the existing country and add the new one.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.
Request Syntax

{  
  "ChangeToken": "string",
  "GeoMatchSetId": "string",
  "Updates": [
    {
      "Action": "string",
      "GeoMatchConstraint": {
        "Type": "string",
        "Value": "string"
      }
    }
  ]
}

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .\S.*

Required: Yes

**GeoMatchSetId**

The GeoMatchSetId of the GeoMatchSet that you want to update. GeoMatchSetId is returned by CreateGeoMatchSet and by ListGeoMatchSets.

Type: String

Pattern: .*\S.*

Required: Yes

**Updates**

An array of GeoMatchSetUpdate objects that you want to insert into or delete from an GeoMatchSet. For more information, see the applicable data types:

- **GeoMatchSetUpdate**: Contains Action and GeoMatchConstraint
- **GeoMatchConstraint**: Contains Type and Value

You can have only one Type and Value per GeoMatchConstraint. To add multiple countries, include multiple GeoMatchSetUpdate objects in your request.

Type: Array of GeoMatchSetUpdate objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateGeoMatchSet request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.

Type: String

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.

• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.

• You tried to create a RateBasedRule with a RateKey value other than IP.

• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.

• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.

• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.

• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

• You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.

• You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.

• You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.

• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.
HTTP Status Code: 400

**WAFReferencedItemException**

The operation failed because you tried to delete an object that is still in use. For example:
- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
UpdateIPSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes IPSetDescriptor objects in an IPSet. For each IPSetDescriptor object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change an IPSetDescriptor object, you delete the existing object and add a new one.
- The IP address version, IPv4 or IPv6.
- The IP address in CIDR notation, for example, 192.0.2.0/24 (for the range of IP addresses from 192.0.2.0 to 192.0.2.255) or 192.0.2.44/32 (for the individual IP address 192.0.2.44).

AWS WAF supports IPv4 address ranges: /8 and any range between /16 through /32. AWS WAF supports IPv6 address ranges: /24, /32, /48, /56, /64, and /128. For more information about CIDR notation, see the Wikipedia entry Classless Inter-Domain Routing.

IPv6 addresses can be represented using any of the following formats:

- 1111:0000:0000:0000:0000:0000:0000:0111/128
- 1111:0:0:0:0:0:0:0111/128
- 1111::0111/128
- 1111::1111/128

You use an IPSet to specify which web requests you want to allow or block based on the IP addresses that the requests originated from. For example, if you're receiving a lot of requests from one or a small number of IP addresses and you want to block the requests, you can create an IPSet that specifies those IP addresses, and then configure AWS WAF to block the requests.
To create and configure an IPSet, perform the following steps:

1. Submit a CreateIPSet request.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateIPSet request.
3. Submit an UpdateIPSet request to specify the IP addresses that you want AWS WAF to watch for.

When you update an IPSet, you specify the IP addresses that you want to add and the IP addresses that you want to delete. If you want to change an IP address, delete the existing IP address and add the new one.

You can update a maximum of 1,000 addresses in a single request.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

**Request Syntax**

```json
{
    "ChangeToken": "string",
    "IPSetId": "string",
    "Updates": [
        {
            "Action": "string",
            "IPSetDescriptor": {
                "Type": "string",
                "Value": "string"
            }
        }
    ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

Type: String


Pattern: . *\S . *

Required: Yes

**IPSetId**

The IPSetId of the `IPSet` that you want to update. IPSetId is returned by `CreateIPSet` and by `ListIPSets`.

Type: String


Pattern: . *\S . *

Required: Yes

**Updates**

An array of IPSetUpdate objects that you want to insert into or delete from an `IPSet`. For more information, see the applicable data types:

- **IPSetUpdate**: Contains Action and IPSetDescriptor
- **IPSetDescriptor**: Contains Type and Value

You can specify a maximum of 1,000 addresses in a single request, for example, in a single request you can insert 999 addresses and delete 1 address, but you can't insert 999 addresses and delete 2 addresses.

Type: Array of `IPSetUpdate` objects

Array Members: Minimum number of 1 item.

Required: Yes
Response Syntax

```json
{
    "ChangeToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateIPSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidOperationException**

The operation failed because there was nothing to do. For example:
• You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
• You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
• You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
• You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
• You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:
• You specified an invalid parameter name.
• You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.
HTTP Status Code: 400

**WAFNonexistentContainerException**

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**WAFReferencedItemException**

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
Inserts or deletes Predicate objects in a rule and updates the RateLimit in the rule.

Each Predicate object identifies a predicate, such as a ByteMatchSet or an IPSet, that specifies the web requests that you want to block or count. The RateLimit specifies the number of requests every five minutes that triggers the rule.

If you add more than one predicate to a RateBasedRule, a request must match all the predicates and exceed the RateLimit to be counted or blocked. For example, suppose you add the following to a RateBasedRule:

- An IPSet that matches the IP address 192.0.2.44/32
- A ByteMatchSet that matches BadBot in the User-Agent header

Further, you specify a RateLimit of 1,000.

You then add the RateBasedRule to a WebACL and specify that you want to block requests that satisfy the rule. For a request to be blocked, it must come from the IP address 192.0.2.44 and the User-Agent header in the request must contain the value BadBot. Further, requests that match these two conditions must be received at a rate of more than 1,000 every five minutes. If the rate drops below this limit, AWS WAF no longer blocks the requests.

As a second example, suppose you want to limit requests to a particular page on your site. To do this, you could add the following to a RateBasedRule:

- A ByteMatchSet with FieldToMatch of URI
- A PositionalConstraint of STARTS_WITH
• A TargetString of login

Further, you specify a RateLimit of 1,000.

By adding this RateBasedRule to a WebACL, you could limit requests to your login page without affecting the rest of your site.

**Request Syntax**

```json
{
  "ChangeToken": "string",
  "RateLimit": number,
  "RuleId": "string",
  "Updates": [
    {
      "Action": "string",
      "Predicate": {
        "DataId": "string",
        "Negated": boolean,
        "Type": "string"
      }
    }
  ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .\S.*

Required: Yes
**RateLimit**

The maximum number of requests, which have an identical value in the field specified by the RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

**RuleId**

The RuleId of the RateBasedRule that you want to update. RuleId is returned by CreateRateBasedRule and by ListRateBasedRules.

Type: String


Pattern: .*

Required: Yes

**Updates**

An array of RuleUpdate objects that you want to insert into or delete from a RateBasedRule.

Type: Array of RuleUpdate objects

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateRateBasedRule request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidOperationException**

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
• You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

• You specified an invalid parameter name.
• You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

• You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
• You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
• You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
UpdateRegexMatchSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes RegexMatchTuple objects (filters) in a RegexMatchSet. For each RegexMatchSetUpdate object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a RegexMatchSetUpdate object, you delete the existing object and add a new one.
- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the User-Agent header.
- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see RegexPatternSet.
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

For example, you can create a RegexPatternSet that matches any requests with User-Agent headers that contain the string B[a-zA-Z]dB[oO]t. You can then configure AWS WAF to reject those requests.

To create and configure a RegexMatchSet, perform the following steps:

1. Create a RegexMatchSet. For more information, see CreateRegexMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRegexMatchSet request.
3. Submit an UpdateRegexMatchSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the identifier of the
A RegexPatternSet that contain the regular expression patterns you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

**Request Syntax**

```json
{
    "ChangeToken": "string",
    "RegexMatchSetId": "string",
    "Updates": [
        {
            "Action": "string",
            "RegexMatchTuple": {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "RegexPatternSetId": "string",
                "TextTransformation": "string"
            }
        }
    ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .*\S.*
Required: Yes

**RegexMatchSetId**

The RegexMatchSetId of the RegexMatchSet that you want to update. RegexMatchSetId is returned by CreateRegexMatchSet and by ListRegexMatchSets.

Type: String


Pattern: .\S.*

Required: Yes

**Updates**

An array of RegexMatchSetUpdate objects that you want to insert into or delete from a RegexMatchSet. For more information, see RegexMatchTuple.

Type: Array of RegexMatchSetUpdate objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateRegexMatchSet request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.
Type: String
Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.
HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-quotas.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

**WAFNonexistentContainerException**

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

Inserts or deletes RegexPatternString objects in a RegexPatternSet. For each RegexPatternString object, you specify the following values:

- Whether to insert or delete the RegexPatternString.
- The regular expression pattern that you want to insert or delete. For more information, see RegexPatternSet.

For example, you can create a RegexPatternString such as B[a@]dB[o0]t. AWS WAF will match this RegexPatternString to:

- BadBot
- BadB0t
- B@dBot
- B@dB0t

To create and configure a RegexPatternSet, perform the following steps:

1. Create a RegexPatternSet. For more information, see CreateRegexPatternSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRegexPatternSet request.
3. Submit an UpdateRegexPatternSet request to specify the regular expression pattern that you want AWS WAF to watch for.
For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
  "ChangeToken": "string",
  "RegexPatternSetId": "string",
  "Updates": [
    {
      "Action": "string",
      "RegexPatternString": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*

Required: Yes

**RegexPatternSetId**

The RegexPatternSetId of the RegexPatternSet that you want to update. RegexPatternSetId is returned by CreateRegexPatternSet and by ListRegexPatternSets.

Type: String

**Pattern**

Pattern: .\s.*

Required: Yes

**Updates**

An array of RegexPatternSetUpdate objects that you want to insert into or delete from a RegexPatternSet.

Type: Array of RegexPatternSetUpdate objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateRegexPatternSet request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.

Type: String


Pattern: .\s.*

**Errors**

For information about the errors that are common to all actions, see Common Errors.

UpdateRegexPatternSet
**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidOperationException**

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

**WAFInvalidRegexPatternException**

The regular expression (regex) you specified in RegexPatternString is invalid.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-classic-limits.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400
**WAFNonexistentContainerException**

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- AWS SDK for Python
- AWS SDK for Ruby V3
Inserts or deletes Predicate objects in a Rule. Each Predicate object identifies a predicate, such as a ByteMatchSet or an IPSet, that specifies the web requests that you want to allow, block, or count. If you add more than one predicate to a Rule, a request must match all of the specifications to be allowed, blocked, or counted. For example, suppose that you add the following to a Rule:

- A ByteMatchSet that matches the value BadBot in the User-Agent header
- An IPSet that matches the IP address 192.0.2.44

You then add the Rule to a WebACL and specify that you want to block requests that satisfy the Rule. For a request to be blocked, the User-Agent header in the request must contain the value BadBot and the request must originate from the IP address 192.0.2.44.

To create and configure a Rule, perform the following steps:

1. Create and update the predicates that you want to include in the Rule.
2. Create the Rule. See CreateRule.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRule request.
4. Submit an UpdateRule request to add predicates to the Rule.
5. Create and update a WebACL that contains the Rule. See CreateWebACL.

If you want to replace one ByteMatchSet or IPSet with another, you delete the existing one and add the new one.
For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```
{
   "ChangeToken": "string",
   "RuleId": "string",
   "Updates": [
      {
         "Action": "string",
         "Predicate": {
            "DataId": "string",
            "Negated": boolean,
            "Type": "string"
         }
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes

**RuleId**

The RuleId of the Rule that you want to update. RuleId is returned by CreateRule and by ListRules.
**Updates**

An array of `RuleUpdate` objects that you want to insert into or delete from a `Rule`. For more information, see the applicable data types:

- `RuleUpdate`: Contains `Action` and `Predicate`
- `Predicate`: Contains `DataId`, `Negated`, and `Type`
- `FieldToMatch`: Contains `Data` and `Type`

Type: Array of `RuleUpdate` objects

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The `ChangeToken` that you used to submit the `UpdateRule` request. You can also use this value to query the status of the request. For more information, see `GetChangeTokenStatus`.

Type: String

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

• You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
• You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
• You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
• You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
• You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

• You specified an invalid parameter name.
• You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.

- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.

- You tried to create a RateBasedRule with a RateKey value other than IP.

- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.

- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.

- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.

- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.
HTTP Status Code: 400

**WAFReferencedItemException**

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
**UpdateRuleGroup**

Service: AWS WAF Classic

**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/developerguide/) in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [ActivatedRule](https://docs.aws.amazon.com/waf/latest/developerguide/) objects in a RuleGroup.

You can only insert REGULAR rules into a rule group.

You can have a maximum of ten rules per rule group.

To create and configure a RuleGroup, perform the following steps:

1. Create and update the Rules that you want to include in the RuleGroup. See [CreateRule](https://docs.aws.amazon.com/waf/latest/developerguide/).
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateRuleGroup](https://docs.aws.amazon.com/waf/latest/developerguide/) request.
3. Submit an UpdateRuleGroup request to add Rules to the RuleGroup.
4. Create and update a WebACL that contains the RuleGroup. See [CreateWebACL](https://docs.aws.amazon.com/waf/latest/developerguide/).

If you want to replace one Rule with another, you delete the existing one and add the new one.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

**Request Syntax**

```json
{
   "ChangeToken": "string",
   "RuleGroupId": "string",
   "Updates": [
      {
         "Action": "string",
```
"ActivatedRule": {  
    "Action": {  
        "Type": "string"  
    },  
    "ExcludedRules": [  
        {  
            "RuleId": "string"  
        }  
    ],  
    "OverrideAction": {  
        "Type": "string"  
    },  
    "Priority": number,  
    "RuleId": "string",  
    "Type": "string"  
}  
]

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes

**RuleGroupId**

The RuleGroupId of the RuleGroup that you want to update. RuleGroupId is returned by CreateRuleGroup and by ListRuleGroups.

Type: String

Pattern: .*\S.*

Required: Yes

**Updates**

An array of `RuleGroupUpdate` objects that you want to insert into or delete from a `RuleGroup`.

You can only insert REGULAR rules into a rule group.

`ActivatedRule|OverrideAction` applies only when updating or adding a `RuleGroup` to a `WebACL`. In this case you do not use `ActivatedRule|Action`. For all other update requests, `ActivatedRule|Action` is used instead of `ActivatedRule|OverrideAction`.

Type: Array of `RuleGroupUpdate` objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```
{
  "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The `ChangeToken` that you used to submit the `UpdateRuleGroup` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceeded Exception

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:
- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateSizeConstraintSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes SizeConstraint objects (filters) in a SizeConstraintSet. For each SizeConstraint object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a SizeConstraintSetUpdate object, you delete the existing object and add a new one.
- The part of a web request that you want AWS WAF to evaluate, such as the length of a query string or the length of the User-Agent header.
- Whether to perform any transformations on the request, such as converting it to lowercase, before checking its length. Note that transformations of the request body are not supported because the AWS resource forwards only the first 8192 bytes of your request to AWS WAF.

You can only specify a single type of TextTransformation.
- A ComparisonOperator used for evaluating the selected part of the request against the specified Size, such as equals, greater than, less than, and so on.
- The length, in bytes, that you want AWS WAF to watch for in selected part of the request. The length is computed after applying the transformation.

For example, you can add a SizeConstraintSetUpdate object that matches web requests in which the length of the User-Agent header is greater than 100 bytes. You can then configure AWS WAF to block those requests.

To create and configure a SizeConstraintSet, perform the following steps:

1. Create a SizeConstraintSet. For more information, see CreateSizeConstraintSet.
2. Use **GetChangeToken** to get the change token that you provide in the ChangeToken parameter of an UpdateSizeConstraintSet request.

3. Submit an UpdateSizeConstraintSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

**Request Syntax**

```json
{
    "ChangeToken": "string",
    "SizeConstraintSetId": "string",
    "Updates": [
        {
            "Action": "string",
            "SizeConstraint": {
                "ComparisonOperator": "string",
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "Size": number,
                "TextTransformation": "string"
            }
        }
    ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#). The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to **GetChangeToken**.

Type: String
Pattern: .*\S.*
Required: Yes

**SizeConstraintSetId**

The `SizeConstraintSetId` of the `SizeConstraintSet` that you want to update. `SizeConstraintSetId` is returned by `CreateSizeConstraintSet` and by `ListSizeConstraintSets`.

Type: String

Pattern: .*\S.*
Required: Yes

**Updates**

An array of `SizeConstraintSetUpdate` objects that you want to insert into or delete from a `SizeConstraintSet`. For more information, see the applicable data types:

- `SizeConstraintSetUpdate`: Contains Action and `SizeConstraint`
- `SizeConstraint`: Contains `FieldToMatch`, `TextTransformation`, `ComparisonOperator`, and `Size`
- `FieldToMatch`: Contains `Data` and `Type`

Type: Array of `SizeConstraintSetUpdate` objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateSizeConstraintSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .\S\.*

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidOperationException**

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
• You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

• You specified an invalid parameter name.
• You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-limits.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide).

HTTP Status Code: 400

**WAFNonexistentContainerException**

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

• You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
• You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
• You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
**UpdateSqlInjectionMatchSet**

Service: AWS WAF Classic

**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf.html) in the developer guide.

*For the latest version of AWS WAF*, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes `SqlInjectionMatchTuple` objects (filters) in a `SqlInjectionMatchSet`. For each `SqlInjectionMatchTuple` object, you specify the following values:

- **Action**: Whether to insert the object into or delete the object from the array. To change a `SqlInjectionMatchTuple`, you delete the existing object and add a new one.
- **FieldToMatch**: The part of web requests that you want AWS WAF to inspect and, if you want AWS WAF to inspect a header or custom query parameter, the name of the header or parameter.
- **TextTransformation**: Which text transformation, if any, to perform on the web request before inspecting the request for snippets of malicious SQL code.

You can only specify a single type of TextTransformation.

You use `SqlInjectionMatchSet` objects to specify which Amazon CloudFront requests that you want to allow, block, or count. For example, if you're receiving requests that contain snippets of SQL code in the query string and you want to block the requests, you can create a `SqlInjectionMatchSet` with the applicable settings, and then configure AWS WAF to block the requests.

To create and configure a `SqlInjectionMatchSet`, perform the following steps:

1. Submit a [CreateSqlInjectionMatchSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateSqlInjectionMatchSet.html) request.
2. Use [GetChangeToken](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetChangeToken.html) to get the change token that you provide in the ChangeToken parameter of an [UpdateIPSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_UpdateIPSet.html) request.
3. Submit an [UpdateSqlInjectionMatchSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_UpdateSqlInjectionMatchSet.html) request to specify the parts of web requests that you want AWS WAF to inspect for snippets of SQL code.
For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
    "ChangeToken": "string",
    "SqlInjectionMatchSetId": "string",
    "Updates": [
        {
            "Action": "string",
            "SqlInjectionMatchTuple": {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "TextTransformation": "string"
            }
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes
**SqlInjectionMatchSetId**

The SqlInjectionMatchSetId of the SqlInjectionMatchSet that you want to update. SqlInjectionMatchSetId is returned by [CreateSqlInjectionMatchSet](#) and by [ListSqlInjectionMatchSets](#).

Type: String


Pattern: .*\S.*

Required: Yes

**Updates**

An array of SqlInjectionMatchSetUpdate objects that you want to insert into or delete from a SqlInjectionMatchSet. For more information, see the applicable data types:

- **SqlInjectionMatchSetUpdate**: Contains Action and SqlInjectionMatchTuple
- **SqlInjectionMatchTuple**: Contains FieldToMatch and TextTransformation
- **FieldToMatch**: Contains Data and Type

Type: Array of SqlInjectionMatchSetUpdate objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```json
{
  "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
ChangeToken

The ChangeToken that you used to submit the UpdateSqlInjectionMatchSet request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.

Type: String


Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.
HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-quota-rate-limiting.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

HTTP Status Code: 400

**WAFNonexistentContainerException**

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
Inserts or deletes ActivatedRule objects in a WebACL. Each Rule identifies web requests that you want to allow, block, or count. When you update a WebACL, you specify the following values:

- A default action for the WebACL, either ALLOW or BLOCK. AWS WAF performs the default action if a request doesn't match the criteria in any of the Rules in a WebACL.
- The Rules that you want to add or delete. If you want to replace one Rule with another, you delete the existing Rule and add the new one.
- For each Rule, whether you want AWS WAF to allow requests, block requests, or count requests that match the conditions in the Rule.
- The order in which you want AWS WAF to evaluate the Rules in a WebACL. If you add more than one Rule to a WebACL, AWS WAF evaluates each request against the Rules in order based on the value of Priority. (The Rule that has the lowest value for Priority is evaluated first.) When a web request matches all the predicates (such as ByteMatchSets and IPSets) in a Rule, AWS WAF immediately takes the corresponding action, allow or block, and doesn't evaluate the request against the remaining Rules in the WebACL, if any.

To create and configure a WebACL, perform the following steps:

1. Create and update the predicates that you want to include in Rules. For more information, see CreateByteMatchSet, UpdateByteMatchSet, CreateIPSet, UpdateIPSet, CreateSqlInjectionMatchSet, and UpdateSqlInjectionMatchSet.
2. Create and update the Rules that you want to include in the WebACL. For more information, see CreateRule and UpdateRule.
3. Create a WebACL. See CreateWebACL.
4. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateWebACL request.

5. Submit an UpdateWebACL request to specify the Rules that you want to include in the WebACL, to specify the default action, and to associate the WebACL with an Amazon CloudFront distribution.

The ActivatedRule can be a rule group. If you specify a rule group as your ActivatedRule, you can exclude specific rules from that rule group.

If you already have a rule group associated with a web ACL and want to submit an UpdateWebACL request to exclude certain rules from that rule group, you must first remove the rule group from the web ACL, the re-insert it again, specifying the excluded rules. For details, see ActivatedRule:ExcludedRules.

Be aware that if you try to add a RATE_BASED rule to a web ACL without setting the rule type when first creating the rule, the UpdateWebACL request will fail because the request tries to add a REGULAR rule (the default rule type) with the specified ID, which does not exist.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

**Request Syntax**

```json
{
   "ChangeToken": "string",
   "DefaultAction": {
      "Type": "string"
   },
   "Updates": [
      {
         "Action": "string",
         "ActivatedRule": {
            "Action": {
               "Type": "string"
            },
            "ExcludedRules": [
               {
                  "RuleId": "string"
               }
            ],
         }
      }
   ]
}
```


```json
{
    "OverrideAction": {
        "Type": "string",
        "Priority": number,
        "RuleId": "string",
        "Type": "string"
    }
},
"WebACLId": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .\S.*

Required: Yes

**DefaultAction**

Type: [WafAction](#) object

Required: No

**Updates**

An array of updates to make to the [WebACL](#).

An array of [WebACLUpdate](#) objects that you want to insert into or delete from a [WebACL](#). For more information, see the applicable data types:

- [WebACLUpdate](#): Contains Action and ActivatedRule
• **ActivatedRule**: Contains Action, OverrideAction, Priority, RuleId, and Type. ActivatedRule|OverrideAction applies only when updating or adding a RuleGroup to a WebACL. In this case, you do not use ActivatedRule|Action. For all other update requests, ActivatedRule|Action is used instead of ActivatedRule|OverrideAction.

• **WafAction**: Contains Type

  Type: Array of **WebACLUpdate** objects

  Required: No

**WebACLId**

The WebACLId of the **WebACL** that you want to update. WebACLId is returned by **CreateWebACL** and by **ListWebACLs**.

Type: String


Pattern: .\S.\

Required: Yes

**Response Syntax**

```
{
    "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateWebACL request. You can also use this value to query the status of the request. For more information, see **GetChangeTokenStatus**.

Type: String
Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
• You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:
• You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
• You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
• You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.
HTTP Status Code: 400

**WAFReferencedItemException**

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**WAFSubscriptionNotFoundException**

The specified subscription does not exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
UpdateXssMatchSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes XssMatchTuple objects (filters) in an XssMatchSet. For each XssMatchTuple object, you specify the following values:

- **Action**: Whether to insert the object into or delete the object from the array. To change an XssMatchTuple, you delete the existing object and add a new one.

- **FieldToMatch**: The part of web requests that you want AWS WAF to inspect and, if you want AWS WAF to inspect a header or custom query parameter, the name of the header or parameter.

- **TextTransformation**: Which text transformation, if any, to perform on the web request before inspecting the request for cross-site scripting attacks.

You can only specify a single type of TextTransformation.

You use XssMatchSet objects to specify which Amazon CloudFront requests that you want to allow, block, or count. For example, if you're receiving requests that contain cross-site scripting attacks in the request body and you want to block the requests, you can create an XssMatchSet with the applicable settings, and then configure AWS WAF to block the requests.

To create and configure an XssMatchSet, perform the following steps:

1. Submit a CreateXssMatchSet request.

2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateIPSet request.

3. Submit an UpdateXssMatchSet request to specify the parts of web requests that you want AWS WAF to inspect for cross-site scripting attacks.
For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
    "ChangeToken": "string",
    "Updates": [
    {
        "Action": "string",
        "XssMatchTuple": {
            "FieldToMatch": {
                "Data": "string",
                "Type": "string"
            },
            "TextTransformation": "string"
        }
    },
    "XssMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

- Type: String
- Pattern: .*
- Required: Yes

**Updates**

An array of XssMatchSetUpdate objects that you want to insert into or delete from an XssMatchSet. For more information, see the applicable data types:
- **XssMatchSetUpdate**: Contains Action and XssMatchTuple
- **XssMatchTuple**: Contains FieldToMatch and TextTransformation
- **FieldToMatch**: Contains Data and Type

  Type: Array of **XssMatchSetUpdate** objects

  Array Members: Minimum number of 1 item.

  Required: Yes

**XssMatchSetId**

The XssMatchSetId of the XssMatchSet that you want to update. XssMatchSetId is returned by **CreateXssMatchSet** and by **ListXssMatchSets**.

Type: String


Pattern: .\S.*

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateXssMatchSet request. You can also use this value to query the status of the request. For more information, see **GetChangeTokenStatus**.

Type: String

Pattern: . *\S . *

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
• You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceeded Exception

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:
• You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
• You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
• You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.
HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

**AWS WAF Classic Regional**

The following actions are supported by AWS WAF Classic Regional:

- [AssociateWebACL](#)
- [CreateByteMatchSet](#)
- [CreateGeoMatchSet](#)
- [CreateIPSet](#)
- [CreateRateBasedRule](#)
- [CreateRegexMatchSet](#)
- [CreateRegexPatternSet](#)
• CreateRule
• CreateRuleGroup
• CreateSizeConstraintSet
• CreateSqlInjectionMatchSet
• CreateWebACL
• CreateWebACLMigrationStack
• CreateXssMatchSet
• DeleteByteMatchSet
• DeleteGeoMatchSet
• DeleteIPSet
• DeleteLoggingConfiguration
• DeletePermissionPolicy
• DeleteRateBasedRule
• DeleteRegexMatchSet
• DeleteRegexPatternSet
• DeleteRule
• DeleteRuleGroup
• DeleteSizeConstraintSet
• DeleteSqlInjectionMatchSet
• DeleteWebACL
• DeleteXssMatchSet
• DisassociateWebACL
• GetByteMatchSet
• GetChangeToken
• GetChangeTokenStatus
• GetGeoMatchSet
• GetIPSet
• GetLoggingConfiguration
• GetPermissionPolicy
• GetRateBasedRule
- GetRateBasedRuleManagedKeys
- GetRegexMatchSet
- GetRegexPatternSet
- GetRule
- GetRuleGroup
- GetSampledRequests
- GetSizeConstraintSet
- GetSqlInjectionMatchSet
- GetWebACL
- GetWebACLForResource
- GetXssMatchSet
- ListActivatedRulesInRuleGroup
- ListByteMatchSets
- ListGeoMatchSets
- ListIPSets
- ListLoggingConfigurations
- ListRateBasedRules
- ListRegexMatchSets
- ListRegexPatternSets
- ListResourcesForWebACL
- ListRuleGroups
- ListRules
- ListSizeConstraintSets
- ListSqlInjectionMatchSets
- ListSubscribedRuleGroups
- ListTagsForResource
- ListWebACLs
- ListXssMatchSets
- PutLoggingConfiguration
- PutPermissionPolicy
- TagResource
- UntagResource
- UpdateByteMatchSet
- UpdateGeoMatchSet
- UpdateIPSet
- UpdateRateBasedRule
- UpdateRegexMatchSet
- UpdateRegexPatternSet
- UpdateRule
- UpdateRuleGroup
- UpdateSizeConstraintSet
- UpdateSqlInjectionMatchSet
- UpdateWebACL
- UpdateXssMatchSet
## AssociateWebACL

**Service:** AWS WAF Classic Regional

### Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Associates a web ACL with a resource, either an application load balancer or Amazon API Gateway stage.

### Request Syntax

```json
{
    "ResourceArn": "string",
    "WebACLId": "string"
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

#### ResourceArn

The ARN (Amazon Resource Name) of the resource to be protected, either an application load balancer or Amazon API Gateway stage.

The ARN should be in one of the following formats:

- For an Amazon API Gateway stage: `arn:aws:apigateway:region::/restapis/api-id/stages/stage-name`

Type: String

Pattern: .*\S.*

Required: Yes

**WebACLId**

A unique identifier (ID) for the web ACL.

Type: String


Pattern: .*\S.*

Required: Yes

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:
You specified an invalid parameter name.
You specified an invalid value.
You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
You tried to create a RateBasedRule with a RateKey value other than IP.
You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400
WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400
WAFUnavailableEntityException

The operation failed because the entity referenced is temporarily unavailable. Retry your request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateByteMatchSet

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a ByteMatchSet. You then use UpdateByteMatchSet to identify the part of a web request that you want AWS WAF to inspect, such as the values of the User-Agent header or the query string. For example, you can create a ByteMatchSet that matches any requests with User-Agent headers that contain the string BadBot. You can then configure AWS WAF to reject those requests.

To create and configure a ByteMatchSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateByteMatchSet request.
2. Submit a CreateByteMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateByteMatchSet request.
4. Submit an UpdateByteMatchSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
   "ChangeToken": "string",
   "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes

**Name**

A friendly name or description of the ByteMatchSet. You can't change Name after you create a ByteMatchSet.

Type: String


Pattern: .*\S.*

Required: Yes

Response Syntax

```json
{
    "ByteMatchSet": {
        "ByteMatchSetId": "string",
        "ByteMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "PositionalConstraint": "string",
            }
        ]
    }
}
```
"TargetString": "blob",
"TextTransformation": "string"
},

"Name": "string"
},

"ChangeToken": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ByteMatchSet**

A **ByteMatchSet** that contains no ByteMatchTuple objects.

Type: **ByteMatchSet** object

**ChangeToken**

The ChangeToken that you used to submit the **CreateByteMatchSet** request. You can also use this value to query the status of the request. For more information, see **GetChangeTokenStatus**.

Type: String


Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see **Common Errors**.

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400
**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-limits.html) in the *AWS WAF Developer Guide*.
HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
CreateGeoMatchSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates an GeoMatchSet, which you use to specify which web requests you want to allow or block based on the country that the requests originate from. For example, if you're receiving a lot of requests from one or more countries and you want to block the requests, you can create an GeoMatchSet that contains those countries and then configure AWS WAF to block the requests.

To create and configure a GeoMatchSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateGeoMatchSet request.
2. Submit a CreateGeoMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateGeoMatchSet request.
4. Submit an UpdateGeoMatchSet request to specify the countries that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
   "ChangeToken": "string",
   "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .*

Required: Yes

**Name**

A friendly name or description of the GeoMatchSet. You can't change Name after you create the GeoMatchSet.

Type: String


Pattern: .*

Required: Yes

Response Syntax

```json
{
   "ChangeToken": "string",
   "GeoMatchSet": {
      "GeoMatchConstraints": [
         {
            "Type": "string",
            "Value": "string"
         }
      ],
      "GeoMatchSetId": "string"
   }
}
```
"Name": "string"

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateGeoMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**GeoMatchSet**

The GeoMatchSet returned in the CreateGeoMatchSet response. The GeoMatchSet contains no GeoMatchConstraints.

Type: GeoMatchSet object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateIPSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAF2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates an IPSet, which you use to specify which web requests that you want to allow or block based on the IP addresses that the requests originate from. For example, if you're receiving a lot of requests from one or more individual IP addresses or one or more ranges of IP addresses and you want to block the requests, you can create an IPSet that contains those IP addresses and then configure AWS WAF to block the requests.

To create and configure an IPSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateIPSet request.
2. Submit a CreateIPSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateIPSet request.
4. Submit an UpdateIPSet request to specify the IP addresses that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
   "ChangeToken": "string",
   "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 128.

**Pattern:** . *\S.*

**Required:** Yes

**Name**

A friendly name or description of the IPSet. You can't change Name after you create the IPSet.

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 128.

**Pattern:** . *\S.*

**Required:** Yes

Response Syntax

```
{
    "ChangeToken": "string",
    "IPSet": {
        "IPSetDescriptors": [
            {
                "Type": "string",
                "Value": "string"
            }
        ],
        "IPSetId": "string",
        "Name": "string"
    }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response. The following data is returned in JSON format by the service.

**ChangeToken**

The `ChangeToken` that you used to submit the `CreateIPSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**IPSet**

The `IPSet` returned in the `CreateIPSet` response.

Type: `IPSet` object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFNotAllowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-metalimits.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
CreateRateBasedRule

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RateBasedRule. The RateBasedRule contains a RateLimit, which specifies the maximum number of requests that AWS WAF allows from a specified IP address in a five-minute period. The RateBasedRule also contains the IPSet objects, ByteMatchSet objects, and other predicates that identify the requests that you want to count or block if these requests exceed the RateLimit.

If you add more than one predicate to a RateBasedRule, a request not only must exceed the RateLimit, but it also must match all the conditions to be counted or blocked. For example, suppose you add the following to a RateBasedRule:

- An IPSet that matches the IP address 192.0.2.44/32
- A ByteMatchSet that matches BadBot in the User-Agent header

Further, you specify a RateLimit of 1,000.

You then add the RateBasedRule to a WebACL and specify that you want to block requests that meet the conditions in the rule. For a request to be blocked, it must come from the IP address 192.0.2.44 and the User-Agent header in the request must contain the value BadBot. Further, requests that match these two conditions must be received at a rate of more than 1,000 requests every five minutes. If both conditions are met and the rate is exceeded, AWS WAF blocks the requests. If the rate drops below 1,000 for a five-minute period, AWS WAF no longer blocks the requests.

As a second example, suppose you want to limit requests to a particular page on your site. To do this, you could add the following to a RateBasedRule:
• A ByteMatchSet with FieldToMatch of URI
• A PositionalConstraint of STARTS_WITH
• A TargetString of login

Further, you specify a RateLimit of 1,000.

By adding this RateBasedRule to a WebACL, you could limit requests to your login page without affecting the rest of your site.

To create and configure a RateBasedRule, perform the following steps:

1. Create and update the predicates that you want to include in the rule. For more information, see CreateByteMatchSet, CreateIPSet, and CreateSqlInjectionMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateRule request.
3. Submit a CreateRateBasedRule request.
4. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRule request.
5. Submit an UpdateRateBasedRule request to specify the predicates that you want to include in the rule.
6. Create and update a WebACL that contains the RateBasedRule. For more information, see CreateWebACL.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```
{
   "ChangeToken": "string",
   "MetricName": "string",
   "Name": "string",
   "RateKey": "string",
   "RateLimit": number,
   "Tags": [
   ]
}
```
"Key": "string",
"Value": "string"
}
]
}

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The ChangeToken that you used to submit the CreateRateBasedRule request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

Required: Yes

**MetricName**

A friendly name or description for the metrics for this RateBasedRule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RateBasedRule.

Type: String


Pattern: .*\S.*

Required: Yes
**Name**

A friendly name or description of the `RateBasedRule`. You can't change the name of a `RateBasedRule` after you create it.

Type: String


Pattern: .\S.*

Required: Yes

**RateKey**

The field that AWS WAF uses to determine if requests are likely arriving from a single source and thus subject to rate monitoring. The only valid value for RateKey is IP. IP indicates that requests that arrive from the same IP address are subject to the RateLimit that is specified in the `RateBasedRule`.

Type: String

Valid Values: IP

Required: Yes

**RateLimit**

The maximum number of requests, which have an identical value in the field that is specified by RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

**Tags**

Type: Array of `Tag` objects

Array Members: Minimum number of 1 item.
Response Syntax

```json
{
    "ChangeToken": "string",
    "Rule": {
        "MatchPredicates": [
            {
                "DataId": "string",
                "Negated": boolean,
                "Type": "string"
            }
        ],
        "MetricName": "string",
        "Name": "string",
        "RateKey": "string",
        "RateLimit": number,
        "RuleId": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateRateBasedRule request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**Rule**

The RateBasedRule that is returned in the CreateRateBasedRule response.
Type: RateBasedRule object

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFBadRequestException

HTTP Status Code: 400

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

`WAFLimitsExceededError`

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

`WAFStaleDataError`

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

`WAFTagOperationException`

HTTP Status Code: 400

`WAFTagOperationInternalError`

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](https://aws.amazon.com/cli/)
- [AWS SDK for .NET](https://aws.amazon.com/sdk-for-net/)
- [AWS SDK for C++](https://aws.amazon.com/sdk-for-cpp/)
- [AWS SDK for Go](https://aws.amazon.com/sdk-for-go/)
- [AWS SDK for Java V2](https://aws.amazon.com/sdk-for-java/)
- [AWS SDK for JavaScript V3](https://aws.amazon.com/sdk-for-javascript/)
- [AWS SDK for PHP V3](https://aws.amazon.com/sdk-for-php/)

CreateRateBasedRule
• AWS SDK for Python
• AWS SDK for Ruby V3
CreateRegexMatchSet

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RegexMatchSet. You then use UpdateRegexMatchSet to identify the part of a web request that you want AWS WAF to inspect, such as the values of the User-Agent header or the query string. For example, you can create a RegexMatchSet that contains a RegexMatchTuple that looks for any requests with User-Agent headers that match a RegexPatternSet with pattern B[a@]dB[o0]t. You can then configure AWS WAF to reject those requests.

To create and configure a RegexMatchSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateRegexMatchSet request.
2. Submit a CreateRegexMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRegexMatchSet request.
4. Submit an UpdateRegexMatchSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value, using a RegexPatternSet, that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
    "ChangeToken": "string",
    "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .\S.*

Required: Yes

**Name**

A friendly name or description of the RegexMatchSet. You can't change Name after you create a RegexMatchSet.

Type: String


Pattern: .\S.*

Required: Yes

Response Syntax

```json
{
   "ChangeToken": "string",
   "RegexMatchSet": {
      "Name": "string",
      "RegexMatchSetId": "string",
      "RegexMatchTuples": [
      {
         "FieldToMatch": {
```

CreateRegexMatchSet
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateRegexMatchSet request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.

Type: String


Pattern: .\S.+*

**RegexMatchSet**

A RegexMatchSet that contains no RegexMatchTuple objects.

Type: RegexMatchSet object

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400
WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateRegexPatternSet
Service: AWS WAF Classic Regional

**Note**
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RegexPatternSet. You then use UpdateRegexPatternSet to specify the regular expression (regex) pattern that you want AWS WAF to search for, such as B[a@]dB[o0]t. You can then configure AWS WAF to reject those requests.

To create and configure a RegexPatternSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateRegexPatternSet request.
2. Submit a CreateRegexPatternSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRegexPatternSet request.
4. Submit an UpdateRegexPatternSet request to specify the string that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

**Request Syntax**

```json
{
   "ChangeToken": "string",
   "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: . *\S . *

Required: Yes

**Name**

A friendly name or description of the RegexPatternSet. You can't change Name after you create a RegexPatternSet.

Type: String


Pattern: . *\S . *

Required: Yes

Response Syntax

```
{
    "ChangeToken": "string",
    "RegexPatternSet": {
        "Name": "string",
        "RegexPatternSetId": "string",
        "RegexPatternStrings": [ "string" ]
    }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateRegexPatternSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**RegexPatternSet**

A [RegexPatternSet](#) that contains no objects.

Type: [RegexPatternSet](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
**WAFLimitsExceeded Exception**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-classic-quota-limits.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](https://docs.aws.amazon.com/cli/reference/wafv2/)
- [AWS SDK for .NET](https://docs.aws.amazon.com/sdk-for-net/latest/awssdk-core/)
- [AWS SDK for C++](https://docs.aws.amazon.com/sdk-for-cpp/latest/javadoc/com.amazonaws.services.wafv2/)
- [AWS SDK for Go](https://docs.aws.amazon.com/sdk-for-go/v1/service/wafv2/
- [AWS SDK for Java V2](https://docs.aws.amazon.com/java-sdk/)
- [AWS SDK for JavaScript V3](https://docs.aws.amazon.com/js-sdk/latest/)
- [AWS SDK for PHP V3](https://docs.aws.amazon.com/sdk-for-php/v3/developer-guide/)
- [AWS SDK for Python](https://docs.aws.amazon.com/sdk-for-python/latest/)
- [AWS SDK for Ruby V3](https://docs.aws.amazon.com/sdk-for-ruby/v3/)

CreateRegexPatternSet
CreateRule

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a Rule, which contains the IPSet objects, ByteMatchSet objects, and other predicates that identify the requests that you want to block. If you add more than one predicate to a Rule, a request must match all of the specifications to be allowed or blocked. For example, suppose that you add the following to a Rule:

- An IPSet that matches the IP address 192.0.2.44/32
- A ByteMatchSet that matches BadBot in the User-Agent header

You then add the Rule to a WebACL and specify that you want to blocks requests that satisfy the Rule. For a request to be blocked, it must come from the IP address 192.0.2.44 and the User-Agent header in the request must contain the value BadBot.

To create and configure a Rule, perform the following steps:

1. Create and update the predicates that you want to include in the Rule. For more information, see CreateByteMatchSet, CreateIPSet, and CreateSqlInjectionMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateRule request.
3. Submit a CreateRule request.
4. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRule request.
5. Submit an UpdateRule request to specify the predicates that you want to include in the Rule.
6. Create and update a WebACL that contains the Rule. For more information, see CreateWebACL.
Request Syntax

```json
{
   "ChangeToken": "string",
   "MetricName": "string",
   "Name": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .*

Required: Yes

**MetricName**

A friendly name or description for the metrics for this Rule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the Rule.

Type: String

Pattern: .*\S.*

Required: Yes

Name

A friendly name or description of the Rule. You can't change the name of a Rule after you create it.

Type: String


Pattern: .*\S.*

Required: Yes

Tags

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```json
{
   "ChangeToken": "string",
   "Rule": {
      "MetricName": "string",
      "Name": "string",
      "Predicates": [
         {
            "DataId": "string",
            "Negated": boolean,
            "Type": "string"
         }
      ],
      "RuleId": "string"
   }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateRule request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

*Type: String*


*Pattern: .*\S.*

**Rule**

The Rule returned in the CreateRule response.

*Type: Rule object*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFBadRequestException**

HTTP Status Code: 400

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/wafs-quotas.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**WAFTagOperationException**

HTTP Status Code: 400
WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateRuleGroup
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RuleGroup. A rule group is a collection of predefined rules that you add to a web ACL. You use UpdateRuleGroup to add rules to the rule group.

Rule groups are subject to the following limits:

• Three rule groups per account. You can request an increase to this limit by contacting customer support.
• One rule group per web ACL.
• Ten rules per rule group.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
   "ChangeToken": "string",
   "MetricName": "string",
   "Name": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

*Type:* String


*Pattern:* .*

*Required:* Yes

**MetricName**

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

*Type:* String


*Pattern:* .*

*Required:* Yes

**Name**

A friendly name or description of the RuleGroup. You can't change Name after you create a RuleGroup.

*Type:* String


*Pattern:* .*

*Required:* Yes
**Tags**

Type: Array of `Tag` objects

Array Members: Minimum number of 1 item.

Required: No

**Response Syntax**

```json
{
   "ChangeToken": "string",
   "RuleGroup": {
      "MetricName": "string",
      "Name": "string",
      "RuleGroupId": "string"
   }
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The `ChangeToken` that you used to submit the `CreateRuleGroup` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: `.*\S.*`

**RuleGroup**

An empty `RuleGroup`.

Type: `RuleGroup` object
Errors

For information about the errors that are common to all actions, see Common Errors.

**WAFBadRequestException**

HTTP Status Code: 400

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**WAFTagOperationException**

HTTP Status Code: 400

**WAFTagOperationInternalErrorException**

HTTP Status Code: 500
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateSizeConstraintSet
Service: AWS WAF Classic Regional

ℹ️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a SizeConstraintSet. You then use UpdateSizeConstraintSet to identify the part of a web request that you want AWS WAF to check for length, such as the length of the User-Agent header or the length of the query string. For example, you can create a SizeConstraintSet that matches any requests that have a query string that is longer than 100 bytes. You can then configure AWS WAF to reject those requests.

To create and configure a SizeConstraintSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateSizeConstraintSet request.
2. Submit a CreateSizeConstraintSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateSizeConstraintSet request.
4. Submit an UpdateSizeConstraintSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
   "ChangeToken": "string",
   "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: \.*\S.*

Required: Yes

**Name**

A friendly name or description of the SizeConstraintSet. You can't change Name after you create a SizeConstraintSet.

Type: String


Pattern: \.*\S.*

Required: Yes

Response Syntax

```json
{
   "ChangeToken": "string",
   "SizeConstraintSet": {
      "Name": "string",
      "SizeConstraints": [
         {
            "ComparisonOperator": "string",
         }
      ]
   }
}
```
"FieldToMatch": {
    "Data": "string",
    "Type": "string"
},
    "Size": number,
    "TextTransformation": "string"
}]
"SizeConstraintSetId": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateSizeConstraintSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .\S.*

**SizeConstraintSet**

A SizeConstraintSet that contains no SizeConstraint objects.

Type: SizeConstraintSet object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDisallowedNameException**

The name specified is invalid.
HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-regional-limits.html) in the *AWS WAF Developer Guide*. 
HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateSqlInjectionMatchSet

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a SqlInjectionMatchSet, which you use to allow, block, or count requests that contain snippets of SQL code in a specified part of web requests. AWS WAF searches for character sequences that are likely to be malicious strings.

To create and configure a SqlInjectionMatchSet, perform the following steps:

1. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateSqlInjectionMatchSet request.
2. Submit a CreateSqlInjectionMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateSqlInjectionMatchSet request.
4. Submit an UpdateSqlInjectionMatchSet request to specify the parts of web requests in which you want to allow, block, or count malicious SQL code.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
    "ChangeToken": "string",
    "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .\S.*

Required: Yes

**Name**

A friendly name or description for the SqlInjectionMatchSet that you're creating. You can't change Name after you create the SqlInjectionMatchSet.

Type: String


Pattern: .\S.*

Required: Yes

Response Syntax

```json
{
    "ChangeToken": "string",
    "SqlInjectionMatchSet": {
        "Name": "string",
        "SqlInjectionMatchSetId": "string",
        "SqlInjectionMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                }
            }
        ]
    }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateSqlInjectionMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: \.*\S.*

**SqlInjectionMatchSet**

A SqlInjectionMatchSet.

Type: SqlInjectionMatchSet object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/waf-quotas.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/)

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateWebACL

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a WebACL, which contains the Rules that identify the Amazon CloudFront web requests that you want to allow, block, or count. AWS WAF evaluates Rules in order based on the value of Priority for each Rule.

You also specify a default action, either ALLOW or BLOCK. If a web request doesn't match any of the Rules in a WebACL, AWS WAF responds to the request with the default action.

To create and configure a WebACL, perform the following steps:

1. Create and update the ByteMatchSet objects and other predicates that you want to include in Rules. For more information, see CreateByteMatchSet, UpdateByteMatchSet, CreateIPSet, UpdateIPSet, CreateSqlInjectionMatchSet, and UpdateSqlInjectionMatchSet.

2. Create and update the Rules that you want to include in the WebACL. For more information, see CreateRule and UpdateRule.

3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a CreateWebACL request.

4. Submit a CreateWebACL request.

5. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateWebACL request.

6. Submit an UpdateWebACL request to specify the Rules that you want to include in the WebACL, to specify the default action, and to associate the WebACL with an Amazon CloudFront distribution.

For more information about how to use the AWS WAF API, see the AWS WAF Developer Guide.
Request Syntax

```
{
    "ChangeToken": "string",
    "DefaultAction": {
        "Type": "string"
    },
    "MetricName": "string",
    "Name": "string",
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see `Common Parameters`.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

Type: String


Pattern: .*

Required: Yes

**DefaultAction**

The action that you want AWS WAF to take when a request doesn't match the criteria specified in any of the `Rule` objects that are associated with the `WebACL`.

Type: `WafAction` object

Required: Yes
**MetricName**

A friendly name or description for the metrics for this WebACL. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change MetricName after you create the WebACL.

Type: String


Pattern: .*\S.*

Required: Yes

**Name**

A friendly name or description of the WebACL. You can't change Name after you create the WebACL.

Type: String


Pattern: .*\S.*

Required: Yes

**Tags**

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: No

**Response Syntax**

```json
{
   "ChangeToken": "string",
   "WebACL": {
      "DefaultAction": {
      
```
"Type": "string",
],
"MetricName": "string",
"Name": "string",
"Rules": [
{
"Action": {
"Type": "string"
},
"ExcludedRules": [
{
"RuleId": "string"
}
],
"OverrideAction": {
"Type": "string"
},
"Priority": number,
"RuleId": "string",
"Type": "string"
}
],
"WebACLArn": "string",
"WebACLId": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateWebACL request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetChangeTokenStatus.html).

Type: String


Pattern: .*\S.*
**WebACL**

The [WebACL](#) returned in the CreateWebACL response.

Type: [WebACL](#) object

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFBadRequestException**

HTTP Status Code: 400

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
CreateWebACLMigrationStack

Service: AWS WAF Classic Regional

Creates an AWS CloudFormation AWS WAFV2 template for the specified web ACL in the specified Amazon S3 bucket. Then, in CloudFormation, you create a stack from the template, to create the web ACL and its resources in AWS WAFV2. Use this to migrate your AWS WAF Classic web ACL to the latest version of AWS WAF.

This is part of a larger migration procedure for web ACLs from AWS WAF Classic to the latest version of AWS WAF. For the full procedure, including caveats and manual steps to complete the migration and switch over to the new web ACL, see Migrating your AWS WAF Classic resources to AWS WAF in the AWS WAF Developer Guide.

Request Syntax

```
{
   "IgnoreUnsupportedType": boolean,
   "S3BucketName": "string",
   "WebACLId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**IgnoreUnsupportedType**

Indicates whether to exclude entities that can't be migrated or to stop the migration. Set this to true to ignore unsupported entities in the web ACL during the migration. Otherwise, if AWS WAF encounters unsupported entities, it stops the process and throws an exception.

Type: Boolean

Required: Yes

**S3BucketName**

The name of the Amazon S3 bucket to store the AWS CloudFormation template in. The S3 bucket must be configured as follows for the migration:
• If the bucket is encrypted, the encryption must use Amazon S3 (SSE-S3) keys. The migration doesn't support encryption with AWS Key Management Service (SSE-KMS) keys.

• The bucket name must start with `aws-waf-migration-`. For example, `aws-waf-migration-my-web-acl`.

• The bucket must be in the Region where you are deploying the template. For example, for a web ACL in `us-west-2`, you must use an Amazon S3 bucket in `us-west-2` and you must deploy the template stack to `us-west-2`.

• The bucket policies must permit the migration process to write data. For listings of the bucket policies, see the Examples section.

Type: String


Pattern: `^aws-waf-migration-[0-9A-Za-z\.-\_]*$`

Required: Yes

**WebACLId**

The UUID of the WAF Classic web ACL that you want to migrate to WAF v2.

Type: String


Pattern: `.*\S.*`

Required: Yes

**Response Syntax**

```
{
  "S3ObjectUrl": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**S3ObjectUrl**

The URL of the template created in Amazon S3.

Type: String

Length Constraints: Minimum length of 1.

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFEntityMigrationException**

The operation failed due to a problem with the migration. The failure cause is provided in the exception, in the MigrationErrorType:

- **ENTITY_NOT_SUPPORTED** - The web ACL has an unsupported entity but the IgnoreUnsupportedType is not set to true.
- **ENTITY_NOT_FOUND** - The web ACL doesn't exist.
- **S3_BUCKET_NO_PERMISSION** - You don't have permission to perform the PutObject action on the specified Amazon S3 bucket.
- **S3_BUCKET_NOT_ACCESSIBLE** - The bucket policy doesn't allow AWS WAF to perform the PutObject action in the bucket.
- **S3_BUCKET_NOT_FOUND** - The S3 bucket doesn't exist.
- **S3_BUCKET_INVALID_REGION** - The S3 bucket is not in the same Region as the web ACL.
- **S3_INTERNAL_ERROR** - AWS WAF failed to create the template in the S3 bucket for another reason.

In addition, the exception includes specific details about the failure in the MigrationErrorReason.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400
**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**Examples**

**Amazon S3 bucket policy for global Amazon CloudFront applications**

This example illustrates one usage of CreateWebACLMigrationStack.

```json
{
   "Version": "2012-10-17",
   "Statement": [
      {
         "Effect": "Allow",
         "Principal": {
            "Service": "apiv2migration.waf.amazonaws.com"
         },
         "Action": "s3:PutObject",
         "Resource": "arn:aws:s3::<BUCKET_NAME>/AWSWAF/<CUSTOMER_ACCOUNT_ID>/*"
      }
   ]
}
```

**Amazon S3 bucket policy for Amazon API Gateway API or Application Load Balancer applications**

This example illustrates one usage of CreateWebACLMigrationStack.

```json
{
   "Version": "2012-10-17",
   "Statement": [
      {
         "Effect": "Allow",
         "Principal": {
            "Service": "apiv2migration.waf-regional.amazonaws.com"
         },
         "Action": "s3:PutObject",
         "Resource": "arn:aws:s3::<BUCKET_NAME>/AWSWAF/<CUSTOMER_ACCOUNT_ID>/*"
      }
   ]
}
```
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
CreateXssMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/developerguide/) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates an [XssMatchSet](https://docs.aws.amazon.com/waf/latest/developerguide/), which you use to allow, block, or count requests that contain cross-site scripting attacks in the specified part of web requests. AWS WAF searches for character sequences that are likely to be malicious strings.

To create and configure an XssMatchSet, perform the following steps:

1. Use [GetChangeToken](https://docs.aws.amazon.com/waf/latest/developerguide/) to get the change token that you provide in the ChangeToken parameter of a CreateXssMatchSet request.
2. Submit a CreateXssMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateXssMatchSet](https://docs.aws.amazon.com/waf/latest/developerguide/) request.
4. Submit an [UpdateXssMatchSet](https://docs.aws.amazon.com/waf/latest/developerguide/) request to specify the parts of web requests in which you want to allow, block, or count cross-site scripting attacks.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

Request Syntax

```json
{
   "ChangeToken": "string",
   "Name": "string"
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*

Required: Yes

**Name**

A friendly name or description for the XssMatchSet that you're creating. You can't change Name after you create the XssMatchSet.

Type: String


Pattern: .*

Required: Yes

Response Syntax

```json
{
    "ChangeToken": "string",
    "XssMatchSet": {
        "Name": "string",
        "XssMatchSetId": "string",
        "XssMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                }
            }
        ]
    }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the CreateXssMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**XssMatchSet**

An XssMatchSet.

Type: XssMatchSet object

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteByteMatchSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a ByteMatchSet. You can't delete a ByteMatchSet if it's still used in any Rules or if it still includes any ByteMatchTuple objects (any filters).

If you just want to remove a ByteMatchSet from a Rule, use UpdateRule.

To permanently delete a ByteMatchSet, perform the following steps:

1. Update the ByteMatchSet to remove filters, if any. For more information, see UpdateByteMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteByteMatchSet request.
3. Submit a DeleteByteMatchSet request.

Request Syntax

```json
{
   "ByteMatchSetId": "string",
   "ChangeToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ByteMatchSetId**

The ByteMatchSetId of the [ByteMatchSet](#) that you want to delete. ByteMatchSetId is returned by [CreateByteMatchSet](#) and by [ListByteMatchSets](#).

- **Type:** String
- **Length Constraints:** Minimum length of 1. Maximum length of 128.
- **Pattern:** .*\S.*
- **Required:** Yes

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

- **Type:** String
- **Length Constraints:** Minimum length of 1. Maximum length of 128.
- **Pattern:** .*\S.*
- **Required:** Yes

**Response Syntax**

```json
{
    "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the DeleteByteMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).
Type: String


Pattern: .\S. *

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

DeleteByteMatchSet
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteGeoMatchSet

Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a GeoMatchSet. You can't delete a GeoMatchSet if it's still used in any Rules or if it still includes any countries.

If you just want to remove a GeoMatchSet from a Rule, use UpdateRule.

To permanently delete a GeoMatchSet from AWS WAF, perform the following steps:

1. Update the GeoMatchSet to remove any countries. For more information, see UpdateGeoMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteGeoMatchSet request.
3. Submit a DeleteGeoMatchSet request.

Request Syntax

```json
{
    "ChangeToken": "string",
    "GeoMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

Type: String


Pattern: `.*\S.*`

Required: Yes

**GeoMatchSetId**

The GeoMatchSet ID of the GeoMatchSet that you want to delete. GeoMatchSetId is returned by `CreateGeoMatchSet` and by `ListGeoMatchSets`.

Type: String


Pattern: `.*\S.*`

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the DeleteGeoMatchSet request. You can also use this value to query the status of the request. For more information, see `GetChangeTokenStatus`.

Type: String

Pattern: .\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
Permanently deletes an IPSet. You can't delete an IPSet if it's still used in any Rules or if it still includes any IP addresses.

If you just want to remove an IPSet from a Rule, use UpdateRule.

To permanently delete an IPSet from AWS WAF, perform the following steps:

1. Update the IPSet to remove IP address ranges, if any. For more information, see UpdateIPSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteIPSet request.
3. Submit a DeleteIPSet request.

### Request Syntax

```
{
   "ChangeToken": "string",
   "IPSetId": "string"
}
```

### Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

- **Type**: String
- **Length Constraints**: Minimum length of 1. Maximum length of 128.
- **Pattern**: .*\$.*
- **Required**: Yes

**IPSetId**

The IPSetId of the IPSet that you want to delete. IPSetId is returned by `CreateIPSet` and by `ListIPSets`.

- **Type**: String
- **Length Constraints**: Minimum length of 1. Maximum length of 128.
- **Pattern**: .*\$.*
- **Required**: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the `DeleteIPSet` request. You can also use this value to query the status of the request. For more information, see `GetChangeTokenStatus`.

- **Type**: String

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteLoggingConfiguration
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes the LoggingConfiguration from the specified web ACL.

Request Syntax

```json
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceArn**

The Amazon Resource Name (ARN) of the web ACL from which you want to delete the LoggingConfiguration.

Type: String


Pattern: .\S.*

Required: Yes
Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn’t exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeletePermissionPolicy
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes an IAM policy from the specified RuleGroup.

The user making the request must be the owner of the RuleGroup.

Request Syntax

```json
{
    "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the RuleGroup from which you want to delete the policy.

The user making the request must be the owner of the RuleGroup.

Type: String


Pattern: .*\S.*

Required: Yes
Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteRateBasedRule
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a RateBasedRule. You can't delete a rule if it's still used in any WebACL objects or if it still includes any predicates, such as ByteMatchSet objects.

If you just want to remove a rule from a WebACL, use UpdateWebACL.

To permanently delete a RateBasedRule from AWS WAF, perform the following steps:

1. Update the RateBasedRule to remove predicates, if any. For more information, see UpdateRateBasedRule.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteRateBasedRule request.
3. Submit a DeleteRateBasedRule request.

Request Syntax

```json
{
    "ChangeToken": "string",
    "RuleId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .*\S.*

Required: Yes

**RuleId**

The `RuleId` of the [RateBasedRule](#) that you want to delete. `RuleId` is returned by [CreateRateBasedRule](#) and by [ListRateBasedRules](#).

Type: String


Pattern: .*\S.*

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the `DeleteRateBasedRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).
Type: String


Pattern: . *\S . *

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalError Exception

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
You tried to delete a ByteMatchSet that is still referenced by a Rule.
You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400
**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400
**WAFTagOperationException**

HTTP Status Code: 400
**WAFTagOperationInternalErrorException**

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
DeleteRegexMatchSet
Service: AWS WAF Classic Regional

⚠️ Note
This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://aws.amazon.com/waf-classic/) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/开发者的指南的). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a **RegexMatchSet**. You can't delete a RegexMatchSet if it's still used in any Rules or if it still includes any RegexMatchTuples objects (any filters).

If you just want to remove a RegexMatchSet from a Rule, use [UpdateRule](https://docs.aws.amazon.com/waf/latest/APIReference/API_UpdateRule.html).

To permanently delete a RegexMatchSet, perform the following steps:

1. Update the RegexMatchSet to remove filters, if any. For more information, see [UpdateRegexMatchSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_UpdateRegexMatchSet.html).
2. Use [GetChangeToken](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetChangeToken.html) to get the change token that you provide in the ChangeToken parameter of a DeleteRegexMatchSet request.
3. Submit a DeleteRegexMatchSet request.

**Request Syntax**

```json
{
   "ChangeToken": "string",
   "RegexMatchSetId": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](https://docs.aws.amazon.com/waf/latest/APIReference/API_CommonParameters.html).

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

- **Type:** String
- **Length Constraints:** Minimum length of 1. Maximum length of 128.
- **Pattern:** .*\S.*
- **Required:** Yes

**RegexMatchSetId**

The RegexMatchSetId of the [RegexMatchSet](#) that you want to delete. RegexMatchSetId is returned by [CreateRegexMatchSet](#) and by [ListRegexMatchSets](#).

- **Type:** String
- **Length Constraints:** Minimum length of 1. Maximum length of 128.
- **Pattern:** .*\S.*
- **Required:** Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

- **ChangeToken**

  The ChangeToken that you used to submit the DeleteRegexMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).
Type: String


Pattern: .\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteRegexPatternSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a RegexPatternSet. You can't delete a RegexPatternSet if it's still used in any RegexMatchSet or if the RegexPatternSet is not empty.

Request Syntax

```
{
  "ChangeToken": "string",
  "RegexPatternSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes
**DeleteRegexPatternSet**

The **RegexPatternSetId** of the **RegexPatternSet** that you want to delete. `RegexPatternSetId` is returned by **CreateRegexPatternSet** and by **ListRegexPatternSets**.

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 128.

**Pattern:** .*\S.*

**Required:** Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The **ChangeToken** that you used to submit the **DeleteRegexPatternSet** request. You can also use this value to query the status of the request. For more information, see **GetChangeTokenStatus**.

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 128.

**Pattern:** .*\S.*

**Errors**

For information about the errors that are common to all actions, see **Common Errors**.
**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonEmptyEntityException**

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**WAFReferencedItemException**

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteRule
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a Rule. You can't delete a Rule if it's still used in any WebACL objects or if it still includes any predicates, such as ByteMatchSet objects.

If you just want to remove a Rule from a WebACL, use UpdateWebACL.

To permanently delete a Rule from AWS WAF, perform the following steps:

1. Update the Rule to remove predicates, if any. For more information, see UpdateRule.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteRule request.
3. Submit a DeleteRule request.

Request Syntax

```json
{
    "ChangeToken": "string",
    "RuleId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to [GetChangeToken](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetChangeToken.html).

- **Type:** String
- **Length Constraints:** Minimum length of 1. Maximum length of 128.
- **Pattern:** .*
- **Required:** Yes

**RuleId**

The `RuleId` of the [Rule](https://docs.aws.amazon.com/waf/latest/APIReference/API_ListRules.html) that you want to delete. `RuleId` is returned by [CreateRule](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateRule.html) and by [ListRules](https://docs.aws.amazon.com/waf/latest/APIReference/API_ListRules.html).

- **Type:** String
- **Length Constraints:** Minimum length of 1. Maximum length of 128.
- **Pattern:** .*
- **Required:** Yes

**Response Syntax**

```
{
  "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the DeleteRule request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetChangeTokenStatus.html).

- **Type:** String

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteRuleGroup
Service: AWS WAF Classic Regional

⚠️ Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a RuleGroup. You can't delete a RuleGroup if it's still used in any WebACL objects or if it still includes any rules.

If you just want to remove a RuleGroup from a WebACL, use UpdateWebACL.

To permanently delete a RuleGroup from AWS WAF, perform the following steps:

1. Update the RuleGroup to remove rules, if any. For more information, see UpdateRuleGroup.

2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteRuleGroup request.

3. Submit a DeleteRuleGroup request.

Request Syntax

```json
{
   "ChangeToken": "string",
   "RuleGroupId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

Type: String


Pattern: \S.*

Required: Yes

**RuleGroupId**

The `RuleGroupId` of the `RuleGroup` that you want to delete. `RuleGroupId` is returned by `CreateRuleGroup` and by `ListRuleGroups`.

Type: String


Pattern: \S.*

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the `DeleteRuleGroup` request. You can also use this value to query the status of the request. For more information, see `GetChangeTokenStatus`.

Type: String

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400
WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteSizeConstraintSet
Service: AWS WAF Classic Regional

**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/classic/index.html) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a **SizeConstraintSet**. You can't delete a **SizeConstraintSet** if it's still used in any Rules or if it still includes any **SizeConstraint** objects (any filters).

If you just want to remove a **SizeConstraintSet** from a Rule, use [UpdateRule](https://docs.aws.amazon.com/waf/latest/developerguide/waf-api-data-types-es.html).

To permanently delete a **SizeConstraintSet**, perform the following steps:

1. Update the **SizeConstraintSet** to remove filters, if any. For more information, see [UpdateSizeConstraintSet](https://docs.aws.amazon.com/waf/latest/developerguide/waf-api-data-types-es.html).
2. Use [GetChangeToken](https://docs.aws.amazon.com/waf/latest/developerguide/waf-api-data-types-es.html) to get the change token that you provide in the ChangeToken parameter of a DeleteSizeConstraintSet request.
3. Submit a DeleteSizeConstraintSet request.

**Request Syntax**

```
{
   "ChangeToken": "string",
   "SizeConstraintSetId": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](https://docs.aws.amazon.com/waf/latest/developerguide/waf-api-data-types-es.html).

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to [GetChangeToken](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetChangeToken.html).

Type: String


Pattern: .*\S.*

Required: Yes

**SizeConstraintSetId**

The `SizeConstraintSetId` of the `SizeConstraintSet` that you want to delete. `SizeConstraintSetId` is returned by [CreateSizeConstraintSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateSizeConstraintSet.html) and by [ListSizeConstraintSets](https://docs.aws.amazon.com/waf/latest/APIReference/API_ListSizeConstraintSets.html).

Type: String


Pattern: .*\S.*

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The `ChangeToken` that you used to submit the `DeleteSizeConstraintSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetChangeTokenStatus.html).
Type: String
Pattern: .\S+.

Errors
For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException
The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

WAFInvalidAccountException
The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.
HTTP Status Code: 400

WAFNonEmptyEntityException
The operation failed because you tried to delete an object that isn't empty. For example:
- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.
HTTP Status Code: 400

WAFNonexistentItemException
The operation failed because the referenced object doesn't exist.
HTTP Status Code: 400

WAFReferencedItemException
The operation failed because you tried to delete an object that is still in use. For example:
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteSqlInjectionMatchSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a SqlInjectionMatchSet. You can't delete a SqlInjectionMatchSet if it's still used in any Rules or if it still contains any SqlInjectionMatchTuple objects.

If you just want to remove a SqlInjectionMatchSet from a Rule, use UpdateRule.

To permanently delete a SqlInjectionMatchSet from AWS WAF, perform the following steps:

1. Update the SqlInjectionMatchSet to remove filters, if any. For more information, see UpdateSqlInjectionMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteSqlInjectionMatchSet request.
3. Submit a DeleteSqlInjectionMatchSet request.

Request Syntax

```json
{
   "ChangeToken": "string",
   "SqlInjectionMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

Type: String


Pattern: `.*\S.*`

Required: Yes

**SqlInjectionMatchSetId**

The `SqlInjectionMatchSetId` of the `SqlInjectionMatchSet` that you want to delete. `SqlInjectionMatchSetId` is returned by `CreateSqlInjectionMatchSet` and by `ListSqlInjectionMatchSets`.

Type: String


Pattern: `.*\S.*`

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the `DeleteSqlInjectionMatchSet` request. You can also use this value to query the status of the request. For more information, see `GetChangeTokenStatus`. 
Type: String


Pattern: .\S+. *

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteWebACL
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a WebACL. You can't delete a WebACL if it still contains any Rules.

To delete a WebACL, perform the following steps:

1. Update the WebACL to remove Rules, if any. For more information, see UpdateWebACL.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteWebACL request.
3. Submit a DeleteWebACL request.

Request Syntax

{
    "ChangeToken": "string",
    "WebACLId": "string"
}

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ChangeToken

The value returned by the most recent call to GetChangeToken.

Type: String

Pattern: .\S\.*

Required: Yes

**WebACLId**

The WebACLId of the WebACL that you want to delete. WebACLId is returned by CreateWebACL and by ListWebACLs.

Type: String


Pattern: .\S\.*

Required: Yes

**Response Syntax**

```
{
  "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the DeleteWebACL request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.

Type: String


Pattern: .\S\.*
Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400
WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteXssMatchSet

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes an XssMatchSet. You can't delete an XssMatchSet if it's still used in any Rules or if it still contains any XssMatchTuple objects.

If you just want to remove an XssMatchSet from a Rule, use UpdateRule.

To permanently delete an XssMatchSet from AWS WAF, perform the following steps:

1. Update the XssMatchSet to remove filters, if any. For more information, see UpdateXssMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of a DeleteXssMatchSet request.
3. Submit a DeleteXssMatchSet request.

Request Syntax

```
{
   "ChangeToken": "string",
   "XssMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .\S.*

Required: Yes

**XssMatchSetId**

The `XssMatchSetId` of the `XssMatchSet` that you want to delete. `XssMatchSetId` is returned by [CreateXssMatchSet](#) and by [ListXssMatchSets](#).

Type: String


Pattern: .\S.*

Required: Yes

**Response Syntax**

```
{
  "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the `DeleteXssMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String

Pattern: \.*S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a WebACL that still contains one or more Rule objects.
- You tried to delete a Rule that still contains one or more ByteMatchSet objects or other predicates.
- You tried to delete a ByteMatchSet that contains one or more ByteMatchTuple objects.
- You tried to delete an IPSet that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
DisassociateWebACL

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Removes a web ACL from the specified resource, either an application load balancer or Amazon API Gateway stage.

Request Syntax

```json
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceArn**

The ARN (Amazon Resource Name) of the resource from which the web ACL is being removed, either an application load balancer or Amazon API Gateway stage.

The ARN should be in one of the following formats:

- For an Amazon API Gateway stage: `arn:aws:apigateway:region::/restapis/api-id/stages/stage-name`

Type: String

Pattern: \.*\S.*

Required: Yes

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
GetByteMatchSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the ByteMatchSet specified by ByteMatchSetId.

Request Syntax

```
{
  "ByteMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ByteMatchSetId**

The ByteMatchSetId of the ByteMatchSet that you want to get. ByteMatchSetId is returned by CreateByteMatchSet and by ListByteMatchSets.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```json
{
    "ByteMatchSet": {
        "ByteMatchSetId": "string",
        "ByteMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "PositionalConstraint": "string",
                "TargetString": "blob",
                "TextTransformation": "string"
            }
        ],
        "Name": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ByteMatchSet**

Information about the **ByteMatchSet** that you specified in the GetByteMatchSet request. For more information, see the following topics:

- **ByteMatchSet**: Contains ByteMatchSetId, ByteMatchTuples, and Name
- ByteMatchTuples: Contains an array of **ByteMatchTuple** objects. Each ByteMatchTuple object contains **FieldToMatch**, PositionalConstraint, TargetString, and TextTransformation
- **FieldToMatch**: Contains Data and Type

Type: **ByteMatchSet** object

Errors

For information about the errors that are common to all actions, see **Common Errors**.
**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
When you want to create, update, or delete AWS WAF objects, get a change token and include the change token in the create, update, or delete request. Change tokens ensure that your application doesn't submit conflicting requests to AWS WAF.

Each create, update, or delete request must use a unique change token. If your application submits a GetChangeToken request and then submits a second GetChangeToken request before submitting a create, update, or delete request, the second GetChangeToken request returns the same value as the first GetChangeToken request.

When you use a change token in a create, update, or delete request, the status of the change token changes to PENDING, which indicates that AWS WAF is propagating the change to all AWS WAF servers. Use GetChangeTokenStatus to determine the status of your change token.

Response Syntax

```json
{
   "ChangeToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**ChangeToken**

The ChangeToken that you used in the request. Use this value in a GetChangeTokenStatus request to get the current status of the request.

Type: String


Pattern: . *\S . *

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetChangeTokenStatus
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the status of a ChangeToken that you got by calling GetChangeToken. ChangeTokenStatus is one of the following values:

- PROVISIONED: You requested the change token by calling GetChangeToken, but you haven't used it yet in a call to create, update, or delete an AWS WAF object.
- PENDING: AWS WAF is propagating the create, update, or delete request to all AWS WAF servers.
- INSYNC: Propagation is complete.

Request Syntax

```
{
   "ChangeToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The change token for which you want to get the status. This change token was previously returned in the GetChangeToken response.

Type: String

Pattern: .\S.*

Required: Yes

**Response Syntax**

```json
{
   "ChangeTokenStatus": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeTokenStatus**

The status of the change token.

Type: String

Valid Values: PROVISIONED | PENDING | INSYNC

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetGeoMatchSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the GeoMatchSet that is specified by GeoMatchSetId.

Request Syntax

```
{
    "GeoMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

GeoMatchSetId

The GeoMatchSetId of the GeoMatchSet that you want to get. GeoMatchSetId is returned by CreateGeoMatchSet and by ListGeoMatchSets.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```json
{
  "GeoMatchSet": {
    "GeoMatchConstraints": [
      {
        "Type": "string",
        "Value": "string"
      }
    ],
    "GeoMatchSetId": "string",
    "Name": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**GeoMatchSet**

Information about the GeoMatchSet that you specified in the GetGeoMatchSet request. This includes the Type, which for a GeoMatchConstraint is always Country, as well as the Value, which is the identifier for a specific country.

Type: [GeoMatchSet](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn’t exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetIPSet

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the IPSet that is specified by IPSetId.

Request Syntax

```json
{
  "IPSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**IPSetId**

The IPSetId of the IPSet that you want to get. IPSetId is returned by CreateIPSet and by ListIPSets.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```json
{
  "IPSet": {
    "IPSetDescriptors": [
      {
        "Type": "string",
        "Value": "string"
      }
    ],
    "IPSetId": "string",
    "Name": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**IPSet**

Information about the **IPSet** that you specified in the GetIPSet request. For more information, see the following topics:

- **IPSet**: Contains IPSetDescriptors, IPSetId, and Name
- **IPSetDescriptors**: Contains an array of **IPSetDescriptor** objects. Each IPSetDescriptor object contains Type and Value

Type: **IPSet** object

Errors

For information about the errors that are common to all actions, see **Common Errors**.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetLoggingConfiguration
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the LoggingConfiguration for the specified web ACL.

Request Syntax

```
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceArn**

The Amazon Resource Name (ARN) of the web ACL for which you want to get the LoggingConfiguration.

Type: String


Pattern: .*\S.*

Required: Yes
Response Syntax

```
{
    "LoggingConfiguration": {
        "LogDestinationConfigs": [ "string" ],
        "RedactedFields": [
            {
                "Data": "string",
                "Type": "string"
            }
        ],
        "ResourceArn": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**LoggingConfiguration**

The **LoggingConfiguration** for the specified web ACL.

Type: **LoggingConfiguration** object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetPermissionPolicy
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the IAM policy attached to the RuleGroup.

Request Syntax

```json
{
    "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the RuleGroup for which you want to get the policy.

Type: String
Pattern: .*\S.*
Required: Yes

Response Syntax

```json
{
```

GetPermissionPolicy
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Policy**

The IAM policy attached to the specified RuleGroup.

Type: String


Pattern: .*\S.*

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
GetRateBasedRule

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the RateBasedRule that is specified by the RuleId that you included in the GetRateBasedRule request.

Request Syntax

```json
{
   "RuleId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

RuleId

The RuleId of the RateBasedRule that you want to get. RuleId is returned by CreateRateBasedRule and by ListRateBasedRules.

Type: String


Pattern: .*\S.*

Required: Yes
Response Syntax

```json
{
    "Rule": {
        "MatchPredicates": [
            {
                "DataId": "string",
                "Negated": boolean,
                "Type": "string"
            }
        ],
        "MetricName": "string",
        "Name": "string",
        "RateKey": "string",
        "RateLimit": number,
        "RuleId": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Rule**

Information about the RateBasedRule that you specified in the GetRateBasedRule request.

Type: RateBasedRule object

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetRateBasedRuleManagedKeys
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of IP addresses currently being blocked by the RateBasedRule that is specified by the RuleId. The maximum number of managed keys that will be blocked is 10,000. If more than 10,000 addresses exceed the rate limit, the 10,000 addresses with the highest rates will be blocked.

Request Syntax

```
{
   "NextMarker": "string",
   "RuleId": "string"
}
```

Request Parameters
For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

NextMarker

A null value and not currently used. Do not include this in your request.

Type: String


Pattern: .*\S.*

Required: No
RuleId

The RuleId of the RateBasedRule for which you want to get a list of ManagedKeys. RuleId is returned by CreateRateBasedRule and by ListRateBasedRules.

Type: String


Pattern: .*\S.*

Required: Yes

Response Syntax

```
{
    "ManagedKeys": [ "string" ],
    "NextMarker": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ManagedKeys

An array of IP addresses that currently are blocked by the specified RateBasedRule.

Type: Array of strings

NextMarker

A null value and not currently used.

Type: String


Pattern: .*\S.*
Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

• You specified an invalid parameter name.
• You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetRegexMatchSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the RegexMatchSet specified by RegexMatchSetId.

Request Syntax

```json
{
   "RegexMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**RegexMatchSetId**

The RegexMatchSetId of the RegexMatchSet that you want to get. RegexMatchSetId is returned by CreateRegexMatchSet and by ListRegexMatchSets.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```json
{
    "RegexMatchSet": {
        "Name": "string",
        "RegexMatchSetId": "string",
        "RegexMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "RegexPatternSetId": "string",
                "TextTransformation": "string"
            }
        ]
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**RegexMatchSet**

Information about the `RegexMatchSet` that you specified in the `GetRegexMatchSet` request. For more information, see `RegexMatchTuple`.

Type: `RegexMatchSet` object

Errors

For information about the errors that are common to all actions, see [Common Errors](#)

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetRegexPatternSet

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the RegexPatternSet specified by RegexPatternSetId.

Request Syntax

```json
{
   "RegexPatternSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**RegexPatternSetId**

The RegexPatternSetId of the RegexPatternSet that you want to get. RegexPatternSetId is returned by CreateRegexPatternSet and by ListRegexPatternSets.

Type: String


Pattern: .*

Required: Yes
Response Syntax

```json
{
    "RegexPatternSet": {
        "Name": "string",
        "RegexPatternSetId": "string",
        "RegexPatternStrings": [ "string" ]
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**RegexPatternSet**

Information about the `RegexPatternSet` that you specified in the `GetRegexPatternSet` request, including the identifier of the pattern set and the regular expression patterns you want AWS WAF to search for.

Type: `RegexPatternSet` object

Errors

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400
**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetRule
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the Rule that is specified by the RuleId that you included in the GetRule request.

Request Syntax

```json
{
  "RuleId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

RuleId

The RuleId of the Rule that you want to get. RuleId is returned by CreateRule and by ListRules.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```
{
  "Rule": {
    "MetricName": "string",
    "Name": "string",
    "Predicates": [
      {
        "DataId": "string",
        "Negated": boolean,
        "Type": "string"
      }
    ],
    "RuleId": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Rule**

Information about the **Rule** that you specified in the GetRule request. For more information, see the following topics:

- **Rule**: Contains MetricName, Name, an array of Predicate objects, and RuleId
- **Predicate**: Each Predicate object contains DataId, Negated, and Type

Type: **Rule** object

Errors

For information about the errors that are common to all actions, see **Common Errors**.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetRuleGroup
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the RuleGroup that is specified by the RuleGroupId that you included in the GetRuleGroup request.

To view the rules in a rule group, use ListActivatedRulesInRuleGroup.

Request Syntax

```
{
   "RuleGroupId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**RuleGroupId**

The RuleGroupId of the RuleGroup that you want to get. RuleGroupId is returned by CreateRuleGroup and by ListRuleGroups.

Type: String


Pattern: .*\S.*
Required: Yes

Response Syntax

```json
{
    "RuleGroup": {
        "MetricName": "string",
        "Name": "string",
        "RuleGroupId": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**RuleGroup**

Information about the RuleGroup that you specified in the GetRuleGroup request.

Type: RuleGroup object

Errors

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
**GetSampledRequests**

Service: AWS WAF Classic Regional

---

**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

---

Gets detailed information about a specified number of requests—a sample—that AWS WAF randomly selects from among the first 5,000 requests that your AWS resource received during a time range that you choose. You can specify a sample size of up to 500 requests, and you can specify any time range in the previous three hours.

GetSampledRequests returns a time range, which is usually the time range that you specified. However, if your resource (such as an Amazon CloudFront distribution) received 5,000 requests before the specified time range elapsed, GetSampledRequests returns an updated time range. This new time range indicates the actual period during which AWS WAF selected the requests in the sample.

**Request Syntax**

```
{
    "MaxItems": number,
    "RuleId": "string",
    "TimeWindow": {
        "EndTime": number,
        "StartTime": number
    },
    "WebAclId": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.
**MaxItems**

The number of requests that you want AWS WAF to return from among the first 5,000 requests that your AWS resource received during the time range. If your resource received fewer requests than the value of MaxItems, GetSampledRequests returns information about all of them.

Type: Long


Required: Yes

**RuleId**

RuleId is one of three values:

- The RuleId of the Rule or the RuleGroupId of the RuleGroup for which you want GetSampledRequests to return a sample of requests.
- Default_Action, which causes GetSampledRequests to return a sample of the requests that didn't match any of the rules in the specified WebACL.

Type: String


Pattern: .*\S.*

Required: Yes

**TimeWindow**

The start date and time and the end date and time of the range for which you want GetSampledRequests to return a sample of requests. You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: TimeWindow object

Required: Yes

**WebAclId**

The WebACLId of the WebACL for which you want GetSampledRequests to return a sample of requests.

Type: String

Pattern: .\S.*

Required: Yes

Response Syntax

```json
{
   "PopulationSize": number,
   "SampledRequests": [
      {
         "Action": "string",
         "Request": {
            "ClientIP": "string",
            "Country": "string",
            "Headers": [
               {
                  "Name": "string",
                  "Value": "string"
               }
            ],
            "HTTPVersion": "string",
            "Method": "string",
            "URI": "string"
         },
         "RuleWithinRuleGroup": "string",
         "Timestamp": number,
         "Weight": number
      }
   ],
   "TimeWindow": {
      "EndTime": number,
      "StartTime": number
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**PopulationSize**

The total number of requests from which GetSampledRequests got a sample of MaxItems requests. If PopulationSize is less than MaxItems, the sample includes every request that your AWS resource received during the specified time range.

Type: Long

**SampledRequests**

A complex type that contains detailed information about each of the requests in the sample.

Type: Array of SampledHTTPRequest objects

**TimeWindow**

Usually, TimeWindow is the time range that you specified in the GetSampledRequests request. However, if your AWS resource received more than 5,000 requests during the time range that you specified in the request, GetSampledRequests returns the time range for the first 5,000 requests. Times are in Coordinated Universal Time (UTC) format.

Type: TimeWindow object

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
GetSizeConstraintSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the SizeConstraintSet specified by SizeConstraintSetId.

Request Syntax

```
{
  "SizeConstraintSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**SizeConstraintSetId**

The SizeConstraintSetId of the SizeConstraintSet that you want to get.

SizeConstraintSetId is returned by CreateSizeConstraintSet and by ListSizeConstraintSets.

Type: String


Pattern: .*\S.*

Required: Yes
Response Syntax

```
{
    "SizeConstraintSet": {
        "Name": "string",
        "SizeConstraints": [
            {
                "ComparisonOperator": "string",
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "Size": number,
                "TextTransformation": "string"
            }
        ],
        "SizeConstraintSetId": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**SizeConstraintSet**

Information about the SizeConstraintSet that you specified in the GetSizeConstraintSet request. For more information, see the following topics:

- **SizeConstraintSet**: Contains SizeConstraintSetId, SizeConstraints, and Name
- SizeConstraints: Contains an array of SizeConstraint objects. Each SizeConstraint object contains FieldToMatch, TextTransformation, ComparisonOperator, and Size
- **FieldToMatch**: Contains Data and Type

Type: SizeConstraintSet object

Errors

For information about the errors that are common to all actions, see Common Errors.
**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetSqlInjectionMatchSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the SqlInjectionMatchSet that is specified by SqlInjectionMatchSetId.

Request Syntax

```json
{
    "SqlInjectionMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**SqlInjectionMatchSetId**

The SqlInjectionMatchSetId of the SqlInjectionMatchSet that you want to get. SqlInjectionMatchSetId is returned by CreateSqlInjectionMatchSet and by ListSqlInjectionMatchSets.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```json
{
    "SqlInjectionMatchSet": {
        "Name": "string",
        "SqlInjectionMatchSetId": "string",
        "SqlInjectionMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "TextTransformation": "string"
            }
        ]
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**SqlInjectionMatchSet**

Information about the `SqlInjectionMatchSet` that you specified in the `GetSqlInjectionMatchSet` request. For more information, see the following topics:

- **SqlInjectionMatchSet**: Contains Name, SqlInjectionMatchSetId, and an array of SqlInjectionMatchTuple objects
- **SqlInjectionMatchTuple**: Each SqlInjectionMatchTuple object contains FieldToMatch and TextTransformation
- **FieldToMatch**: Contains Data and Type

Type: `SqlInjectionMatchSet` object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

---

GetSqlInjectionMatchSet 1025
WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetWebACL
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the WebACL that is specified by WebACLId.

Request Syntax

```json
{
   "WebACLId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

WebACLId

The WebACLId of the WebACL that you want to get. WebACLId is returned by CreateWebACL and by ListWebACLs.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```
{
    "WebACL": {
        "DefaultAction": {
            "Type": "string"
        },
        "MetricName": "string",
        "Name": "string",
        "Rules": [
            {
                "Action": {
                    "Type": "string"
                },
                "ExcludedRules": [
                    {
                        "RuleId": "string"
                    }
                ],
                "OverrideAction": {
                    "Type": "string"
                },
                "Priority": number,
                "RuleId": "string",
                "Type": "string"
            }
        ],
        "WebACLArn": "string",
        "WebACLId": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**WebACL**

Information about the WebACL that you specified in the GetWebACL request. For more information, see the following topics:
• **WebACL**: Contains DefaultAction, MetricName, Name, an array of Rule objects, and WebACLId

• DefaultAction (Data type is **WafAction**): Contains Type

• Rules: Contains an array of ActivatedRule objects, which contain Action, Priority, and RuleId

• Action: Contains Type

  Type: **WebACL** object

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• [AWS Command Line Interface](#)

• [AWS SDK for .NET](#)
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetWebACLForResource
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the web ACL for the specified resource, either an application load balancer or Amazon API Gateway stage.

Request Syntax

```json
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The ARN (Amazon Resource Name) of the resource for which to get the web ACL, either an application load balancer or Amazon API Gateway stage.

The ARN should be in one of the following formats:

- For an Amazon API Gateway stage: `arn:aws:apigateway:region::/restapis/api-id/stages/stage-name`

Type: String

Pattern: .\S.*

Required: Yes

Response Syntax

```
{
   "WebACLSummary": {
      "Name": "string",
      "WebACLId": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**WebACLSummary**

Information about the web ACL that you specified in the GetWebACLForResource request. If there is no associated resource, a null WebACLSummary is returned.

Type: WebACLSummary object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.
HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFUnavailableEntityException

The operation failed because the entity referenced is temporarily unavailable. Retry your request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
GetXssMatchSet

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the XssMatchSet that is specified by XssMatchSetId.

Request Syntax

```
{
   "XssMatchSetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**XssMatchSetId**

The XssMatchSetId of the XssMatchSet that you want to get. XssMatchSetId is returned by CreateXssMatchSet and by ListXssMatchSets.

Type: String


Pattern: .\S.*

Required: Yes
Response Syntax

```json
{
    "XssMatchSet": {
        "Name": "string",
        "XssMatchSetId": "string",
        "XssMatchTuples": [
            {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "TextTransformation": "string"
            }
        ]
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**XssMatchSet**

Information about the **XssMatchSet** that you specified in the GetXssMatchSet request. For more information, see the following topics:

- **XssMatchSet**: Contains Name, XssMatchSetId, and an array of XssMatchTuple objects
- **XssMatchTuple**: Each XssMatchTuple object contains FieldToMatch and TextTransformation
- **FieldToMatch**: Contains Data and Type

Type: **XssMatchSet** object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).
WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListActivatedRulesInRuleGroup
Service: AWS WAF Classic Regional

ℹ️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of ActivatedRule objects.

Request Syntax

```json
{
    "Limit": number,
    "NextMarker": "string",
    "RuleGroupId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

Specifies the number of ActivatedRules that you want AWS WAF to return for this request. If you have more ActivatedRules than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of ActivatedRules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for Limit and you have more ActivatedRules than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of ActivatedRules. For the second and subsequent ListActivatedRulesInRuleGroup requests, specify the value of NextMarker from the previous response to get information about another batch of ActivatedRules.

Type: String


Pattern: \.*\S.*

Required: No

**RuleGroupId**

The RuleGroupId of the RuleGroup for which you want to get a list of ActivatedRule objects.

Type: String


Pattern: \.*\S.*

Required: No

**Response Syntax**

```json
{
    "ActivatedRules": [
    {
        "Action": {
            "Type": "string"
        },
        "ExcludedRules": [
        {
            "RuleId": "string"
        }
    ],
    "OverrideAction": {
        "Type": "string"
    }
}
```
},

  "Priority": number,
  "RuleId": "string",
  "Type": "string"
};

"NextMarker": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ActivatedRules

An array of ActivatedRules objects.

Type: Array of ActivatedRule objects

NextMarker

If you have more ActivatedRules than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more ActivatedRules, submit another ListActivatedRulesInRuleGroup request, and specify the NextMarker value from the response in the NextMarker value in the next request.

Type: String


Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListByteMatchSets
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of ByteMatchSetSummary objects.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of ByteMatchSet objects that you want AWS WAF to return for this request. If you have more ByteMatchSets objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of ByteMatchSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for `Limit` and you have more `ByteMatchSets` than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `ByteMatchSets`. For the second and subsequent `ListByteMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `ByteMatchSets`.

Type: String


Pattern: .*\S.*

Required: No

**Response Syntax**

```json
{
  "ByteMatchSets": [
    {
      "ByteMatchSetId": "string",
      "Name": "string"
    },
    "NextMarker": "string"
  ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ByteMatchSets**

An array of `ByteMatchSetSummary` objects.

Type: Array of `ByteMatchSetSummary` objects
NextMarker

If you have more ByteMatchSet objects than the number that you specified for limit in the request, the response includes a NextMarker value. To list more ByteMatchSet objects, submit another ListByteMatchSets request, and specify the NextMarker value from the response in the NextMarker value in the next request.

Type: String


Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListGeoMatchSets
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of GeoMatchSetSummary objects in the response.

Request Syntax

```json
{
  "Limit": number,
  "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of GeoMatchSet objects that you want AWS WAF to return for this request. If you have more GeoMatchSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of GeoMatchSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
NextMarker

If you specify a value for Limit and you have more GeoMatchSets than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of GeoMatchSet objects. For the second and subsequent ListGeoMatchSets requests, specify the value of NextMarker from the previous response to get information about another batch of GeoMatchSet objects.

Type: String


Pattern: .*\S.*

Required: No

Response Syntax

```
{
  "GeoMatchSets": [ 
    {
      "GeoMatchSetId": "string",
      "Name": "string"
    }
  ],
  "NextMarker": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GeoMatchSets

An array of GeoMatchSetSummary objects.

Type: Array of GeoMatchSetSummary objects
**NextMarker**

If you have more GeoMatchSet objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more GeoMatchSet objects, submit another `ListGeoMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String


Pattern: .\S\.

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListIPSets
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of IPSetSummary objects in the response.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of IPSet objects that you want AWS WAF to return for this request. If you have more IPSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of IPSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

AWS WAF returns a `NextMarker` value in the response that allows you to list another group of IPSets. For the second and subsequent `ListIPSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of IPSets.

Type: String


Pattern: `.*\S.*`

Required: No

**Response Syntax**

```json
{
    "IPSets": [
        {
            "IPSetId": "string",
            "Name": "string"
        }
    ],
    "NextMarker": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**IPSets**

An array of `IPSetSummary` objects.

Type: Array of `IPSetSummary` objects

**NextMarker**

To list more IPSet objects, submit another `ListIPSets` request, and in the next request use the `NextMarker` response value as the `NextMarker` value.
Type: String


Pattern: . *\S . *

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalError Exception

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListLoggingConfigurations
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of LoggingConfiguration objects.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

Specifies the number of LoggingConfigurations that you want AWS WAF to return for this request. If you have more LoggingConfigurations than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of LoggingConfigurations.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
NextMarker

If you specify a value for Limit and you have more LoggingConfigurations than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of LoggingConfigurations. For the second and subsequent ListLoggingConfigurations requests, specify the value of NextMarker from the previous response to get information about another batch of ListLoggingConfigurations.

Type: String


Pattern: .\S.*

Required: No

Response Syntax

```
{
   "LoggingConfigurations": [
      {
         "LogDestinationConfigs": [ "string" ],
         "RedactedFields": [
            {
               "Data": "string",
               "Type": "string"
            }
         ],
         "ResourceArn": "string"
      }
   ],
   "NextMarker": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**LoggingConfigurations**

An array of `LoggingConfiguration` objects.

Type: Array of `LoggingConfiguration` objects

**NextMarker**

If you have more LoggingConfigurations than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more LoggingConfigurations, submit another `ListLoggingConfigurations` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String


Pattern: .\S.*

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a `DefaultAction` Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a `RateKey` value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListRateBasedRules
Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of RuleSummary objects.

Request Syntax

```json
{
    "Limit": number,
    "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of Rules that you want AWS WAF to return for this request. If you have more Rules than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
NextMarker

If you specify a value for Limit and you have more Rules than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of Rules. For the second and subsequent ListRateBasedRules requests, specify the value of NextMarker from the previous response to get information about another batch of Rules.

Type: String


Pattern: .*\S.*

Required: No

Response Syntax

```
{
   "NextMarker": "string",
   "Rules": [
      {
         "Name": "string",
         "RuleId": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextMarker

If you have more Rules than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more Rules, submit another ListRateBasedRules request, and specify the NextMarker value from the response in the NextMarker value in the next request.

Type: String

Pattern: .*\S.*

**Rules**

An array of RuleSummary objects.

Type: Array of RuleSummary objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
• AWS SDK for Python
• AWS SDK for Ruby V3
ListRegexMatchSets
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of RegexMatchSetSummary objects.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of RegexMatchSet objects that you want AWS WAF to return for this request. If you have more RegexMatchSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of RegexMatchSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for Limit and you have more RegexMatchSet objects than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of ByteMatchSets. For the second and subsequent ListRegexMatchSets requests, specify the value of NextMarker from the previous response to get information about another batch of RegexMatchSet objects.

Type: String


Pattern: .*\S.*

Required: No

**Response Syntax**

```
{
   "NextMarker": "string",
   "RegexMatchSets": [
   {
      "Name": "string",
      "RegexMatchSetId": "string"
   }
   ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more RegexMatchSet objects than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more RegexMatchSet objects, submit another ListRegexMatchSets request, and specify the NextMarker value from the response in the NextMarker value in the next request.
Type: String


Pattern: .*\S.*

**RegexMatchSets**

An array of RegexMatchSetSummary objects.

Type: Array of RegexMatchSetSummary objects

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListRegexPatternSets
Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of RegexPatternSetSummary objects.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of RegexPatternSet objects that you want AWS WAF to return for this request. If you have more RegexPatternSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of RegexPatternSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for Limit and you have more RegexPatternSet objects than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of RegexPatternSet objects. For the second and subsequent ListRegexPatternSets requests, specify the value of NextMarker from the previous response to get information about another batch of RegexPatternSet objects.

*Type: String*


*Pattern: .*

*Required: No*

**Response Syntax**

```
{
    "NextMarker": "string",
    "RegexPatternSets": [
        {
            "Name": "string",
            "RegexPatternSetId": "string"
        }
    ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more RegexPatternSet objects than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more RegexPatternSet objects, submit another ListRegexPatternSets request, and specify the NextMarker value from the response in the NextMarker value in the next request.
Type: String


Pattern: .*\S.*

**RegexPatternSets**

An array of [RegexPatternSetSummary](#) objects.

Type: Array of [RegexPatternSetSummary](#) objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of resources associated with the specified web ACL.

Request Syntax

```json
{
   "ResourceType": "string",
   "WebACLId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceType**

The type of resource to list.

Type: String

Valid Values: APPLICATION_LOAD_BALANCER | API_GATEWAY

Required: No

**WebACLId**

The unique identifier (ID) of the web ACL for which to list the associated resources.

Type: String

Pattern: . *

Required: Yes

Response Syntax

```json
{
  "ResourceArns": [ "string" ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ResourceArns**

An array of ARNs (Amazon Resource Names) of the resources associated with the specified web ACL. An array with zero elements is returned if there are no resources associated with the web ACL.

Type: Array of strings


Pattern: . *

Errors

For information about the errors that are common to all actions, see Common Errors.

**WAFFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500
**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListRuleGroups
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of RuleGroup objects.

Request Syntax

```json
{
    "Limit": number,
    "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of RuleGroups that you want AWS WAF to return for this request. If you have more RuleGroups than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of RuleGroups.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
NextMarker

If you specify a value for Limit and you have more RuleGroups than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of RuleGroups. For the second and subsequent ListRuleGroups requests, specify the value of NextMarker from the previous response to get information about another batch of RuleGroups.

Type: String


Pattern: .*\S.*

Required: No

Response Syntax

```json
{
    "NextMarker": "string",
    "RuleGroups": [
        {
            "Name": "string",
            "RuleGroupId": "string"
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextMarker

If you have more RuleGroups than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more RuleGroups, submit another ListRuleGroups request, and specify the NextMarker value from the response in the NextMarker value in the next request.
Type: String


Pattern: .\S\.*

**RuleGroups**

An array of [RuleGroup](#) objects.

Type: Array of [RuleGroupSummary](#) objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
ListRules
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of RuleSummary objects.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of Rules that you want AWS WAF to return for this request. If you have more Rules than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
NextMarker

If you specify a value for Limit and you have more Rules than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of Rules. For the second and subsequent ListRules requests, specify the value of NextMarker from the previous response to get information about another batch of Rules.

Type: String


Pattern: .\S.*

Required: No

Response Syntax

```
{
   "NextMarker": "string",
   "Rules": [ 
      {
         "Name": "string",
         "RuleId": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextMarker

If you have more Rules than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more Rules, submit another ListRules request, and specify the NextMarker value from the response in the NextMarker value in the next request.

Type: String

Pattern: .\S.*

**Rules**

An array of [RuleSummary](#) objects.

Type: Array of [RuleSummary](#) objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- AWS SDK for Python
- AWS SDK for Ruby V3
ListSizeConstraintSets
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of SizeConstraintSetSummary objects.

Request Syntax

```
{
   "Limit": number,
   "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of SizeConstraintSet objects that you want AWS WAF to return for this request. If you have more SizeConstraintSets objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of SizeConstraintSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
NextMarker

If you specify a value for Limit and you have more SizeConstraintSets than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of SizeConstraintSets. For the second and subsequent ListSizeConstraintSets requests, specify the value of NextMarker from the previous response to get information about another batch of SizeConstraintSets.

Type: String


Pattern: .\S.*

Required: No

Response Syntax

```json
{
    "NextMarker": "string",
    "SizeConstraintSets": [
        {
            "Name": "string",
            "SizeConstraintSetId": "string"
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextMarker

If you have more SizeConstraintSet objects than the number that you specified for Limit in the request, the response includes a NextMarker value. To list more SizeConstraintSet objects, submit another ListSizeConstraintSets request, and specify the NextMarker value from the response in the NextMarker value in the next request.
Type: String


Pattern: . */S.*

SizeConstraintSets

An array of SizeConstraintSetSummary objects.

Type: Array of SizeConstraintSetSummary objects

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
**ListSqlInjectionMatchSets**

Service: AWS WAF Classic Regional

---

**Note**

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

---

Returns an array of SqlInjectionMatchSet objects.

**Request Syntax**

```json
{
  "Limit": number,
  "NextMarker": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Limit**

Specifies the number of SqlInjectionMatchSet objects that you want AWS WAF to return for this request. If you have more SqlInjectionMatchSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for Limit and you have more `SqlInjectionMatchSet` objects than the value of Limit, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `SqlInjectionMatchSet` objects. For the second and subsequent `ListSqlInjectionMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `SqlInjectionMatchSet` objects.

Type: String


Pattern: .*\S.*

Required: No

**Response Syntax**

```
{
   "NextMarker": "string",
   "SqlInjectionMatchSets": [
      {
         "Name": "string",
         "SqlInjectionMatchSetId": "string"
      }
   ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more `SqlInjectionMatchSet` objects than the number that you specified for Limit in the request, the response includes a `NextMarker` value. To list more `SqlInjectionMatchSet` objects, submit another `ListSqlInjectionMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.
Type: String


Pattern: .*\S.*

**SqlInjectionMatchSets**

An array of SqlInjectionMatchSetSummary objects.

Type: Array of SqlInjectionMatchSetSummary objects

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListSubscribedRuleGroups
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of RuleGroup objects that you are subscribed to.

Request Syntax

```
{
    "Limit": number,
    "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of subscribed rule groups that you want AWS WAF to return for this request. If you have more objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for `Limit` and you have more `ByteMatchSet` subscribed rule groups than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of subscribed rule groups. For the second and subsequent `ListSubscribedRuleGroups` requests, specify the value of `NextMarker` from the previous response to get information about another batch of subscribed rule groups.

Type: String


Pattern: .\S.+

Required: No

**Response Syntax**

```json
{
    "NextMarker": "string",
    "RuleGroups": [
        {
            "MetricName": "string",
            "Name": "string",
            "RuleGroupId": "string"
        }
    ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more objects, submit another `ListSubscribedRuleGroups` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.
Type: String


Pattern: .*$\S*$

**RuleGroups**

An array of RuleGroup objects.

Type: Array of SubscribedRuleGroupSummary objects

**Errors**

For information about the errors that are common to all actions, see Common Errors.

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListTagsForResource
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Retrieves the tags associated with the specified AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Request Syntax

```
{
   "Limit": number,
   "NextMarker": "string",
   "ResourceARN": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Type: Integer
Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker

Type: String


Pattern: .\S.*

Required: No

ResourceARN

Type: String


Pattern: .\S.*

Required: Yes

Response Syntax

```
{
  "NextMarker": "string",
  "TagInfoForResource": {
    "ResourceARN": "string",
    "TagList": [
      {
        "Key": "string",
        "Value": "string"
      }
    ]
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**NextMarker**

Type: String


Pattern: .\S.*

**TagInfoForResource**

Type: [TagInfoForResource](#) object

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFBadRequestException**

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• **AWS SDK for Ruby V3**
ListWebACLs

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://aws.amazon.com/waf-classic/) in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [WebACLSummary](https://docs.aws.amazon.com/waf/latest/APIReference/API_ListWebACLs.html) objects in the response.

Request Syntax

```
{
   "Limit": number,
   "NextMarker": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](https://docs.aws.amazon.com/waf/latest/APIReference/Common-Parameters.html).

The request accepts the following data in JSON format.

**Limit**

Specifies the number of WebACL objects that you want AWS WAF to return for this request. If you have more WebACL objects than the number that you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of WebACL objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for Limit and you have more WebACL objects than the number that you specify for Limit, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of WebACL objects. For the second and subsequent `ListWebACLs` requests, specify the value of `NextMarker` from the previous response to get information about another batch of WebACL objects.

Type: String


Pattern: .\S.*

Required: No

**Response Syntax**

```json
{
   "NextMarker": "string",
   "WebACLs": [
      {
         "Name": "string",
         "WebACLId": "string"
      }
   ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more WebACL objects than the number that you specified for Limit in the request, the response includes a `NextMarker` value. To list more WebACL objects, submit another `ListWebACLs` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.
Type: String


Pattern: .*\S.*

**WebACLs**

An array of [WebACLSummary](#) objects.

Type: Array of [WebACLSummary](#) objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• **AWS SDK for PHP V3**
• **AWS SDK for Python**
• **AWS SDK for Ruby V3**
ListXssMatchSets
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of XssMatchSet objects.

Request Syntax

{  
   "Limit": number,  
   "NextMarker": "string"  
}

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Limit

Specifies the number of XssMatchSet objects that you want AWS WAF to return for this request. If you have more XssMatchSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No
**NextMarker**

If you specify a value for `Limit` and you have more `XssMatchSet` objects than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `XssMatchSets`. For the second and subsequent `ListXssMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `XssMatchSets`.

Type: String


Pattern: `.*\S.*`

Required: No

**Response Syntax**

```json
{
   "NextMarker": "string",
   "XssMatchSets": [
      {
         "Name": "string",
         "XssMatchSetId": "string"
      }
   ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextMarker**

If you have more `XssMatchSet` objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `XssMatchSet` objects, submit another `ListXssMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.
Type: String


Pattern: .*\S.*

**XssMatchSets**

An array of [XssMatchSetSummary](#) objects.

Type: Array of [XssMatchSetSummary](#) objects

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidOperationException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
PutLoggingConfiguration
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Associates a LoggingConfiguration with a specified web ACL.

You can access information about all traffic that AWS WAF inspects using the following steps:

1. Create an Amazon Kinesis Data Firehose.

   Create the data firehose with a PUT source and in the region that you are operating. However, if you are capturing logs for Amazon CloudFront, always create the firehose in US East (N. Virginia).

   Give the data firehose a name that starts with the prefix aws-waf-logs-. For example, aws-waf-logs-us-east-2-analytics.

   Note
   Do not create the data firehose using a Kinesis stream as your source.

2. Associate that firehose to your web ACL using a PutLoggingConfiguration request.

   When you successfully enable logging using a PutLoggingConfiguration request, AWS WAF will create a service linked role with the necessary permissions to write logs to the Amazon Kinesis Data Firehose. For more information, see Logging Web ACL Traffic Information in the AWS WAF Developer Guide.

Request Syntax

{

"LoggingConfiguration": {
   "LogDestinationConfigs": [ "string" ],
   "RedactedFields": [
      {
         "Data": "string",
         "Type": "string"
      }
   ],
   "ResourceArn": "string"
}

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

LoggingConfiguration

The Amazon Kinesis Data Firehose that contains the inspected traffic information, the redacted fields details, and the Amazon Resource Name (ARN) of the web ACL to monitor.

Note

When specifying Type in RedactedFields, you must use one of the following values: URI, QUERY_STRING, HEADER, or METHOD.

Type: LoggingConfiguration object

Required: Yes

Response Syntax

{
   "LoggingConfiguration": {
      "LogDestinationConfigs": [ "string" ],
      "RedactedFields": [
         {
            "Data": "string",
            "Type": "string"
         }
      ],
      "ResourceArn": "string"
   }
}
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

LoggingConfiguration

The `LoggingConfiguration` that you submitted in the request.

Type: `LoggingConfiguration` object

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn’t exist.

HTTP Status Code: 400

WAFServiceLinkedRoleErrorException

AWS WAF is not able to access the service linked role. This can be caused by a previous `PutLoggingConfiguration` request, which can lock the service linked role for about 20 seconds. Please try your request again. The service linked role can also be locked by a previous `DeleteServiceLinkedRole` request, which can lock the role for 15 minutes or more. If you recently made a `DeleteServiceLinkedRole`, wait at least 15 minutes and try the request.
again. If you receive this same exception again, you will have to wait additional time until the role is unlocked.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
PutPermissionPolicy

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Attaches an IAM policy to the specified resource. The only supported use for this action is to share a RuleGroup across accounts.

The PutPermissionPolicy is subject to the following restrictions:

- You can attach only one policy with each PutPermissionPolicy request.
- The policy must include an Effect, Action and Principal.
- Effect must specify Allow.
- The Action in the policy must be waf:UpdateWebACL, waf-regional:UpdateWebACL, waf:GetRuleGroup and waf-regional:GetRuleGroup. Any extra or wildcard actions in the policy will be rejected.
- The policy cannot include a Resource parameter.
- The ARN in the request must be a valid RuleGroup ARN and the RuleGroup must exist in the same region.
- The user making the request must be the owner of the RuleGroup.
- Your policy must be composed using IAM Policy version 2012-10-17.

For more information, see Policies and permissions in IAM.

An example of a valid policy parameter is shown in the Examples section below.

Request Syntax

```json
{
    "Policy": "string",
}
```
"ResourceArn": "string" }

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Policy

The policy to attach to the specified RuleGroup.

Type: String


Pattern: .\S.*

Required: Yes

ResourceArn

The Amazon Resource Name (ARN) of the RuleGroup to which you want to attach the policy.

Type: String


Pattern: .\S.*

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.
HTTP Status Code: 500

WAFInvalidPermissionPolicyException

The operation failed because the specified policy is not in the proper format.

The policy is subject to the following restrictions:

• You can attach only one policy with each PutPermissionPolicy request.
• The policy must include an Effect, Action and Principal.
• Effect must specify Allow.
• The Action in the policy must be `waf:UpdateWebACL`, `waf-regional:UpdateWebACL`, `waf:GetRuleGroup` and `waf-regional:GetRuleGroup`. Any extra or wildcard actions in the policy will be rejected.
• The policy cannot include a Resource parameter.
• The ARN in the request must be a valid WAF RuleGroup ARN and the RuleGroup must exist in the same region.
• The user making the request must be the owner of the RuleGroup.
• Your policy must be composed using IAM Policy version 2012-10-17.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataExchange

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

Examples

Example policy parameter - No escape characters

This example illustrates one usage of PutPermissionPolicy.
Example policy parameter - ()

This example illustrates one usage of PutPermissionPolicy.

```
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
• AWS SDK for Python
• AWS SDK for Ruby V3
TagResource
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Associates tags with the specified AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can use this action to tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Request Syntax

```json
{
   "ResourceARN": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceARN**
Type: String


Pattern: .\S\.*

Required: Yes

Tags

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFBadRequestException

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceeded Exception

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
UntagResource
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Request Syntax

```
{
   "ResourceARN": "string",
   "TagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceARN**

Type: String


Pattern: .\S.*

Required: Yes

**TagKeys**

Type: Array of strings
Array Members: Minimum number of 1 item.


Pattern: .\S.*

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFBadRequestException

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
UpdateByteMatchSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes ByteMatchTuple objects (filters) in a ByteMatchSet. For each ByteMatchTuple object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a ByteMatchSetUpdate object, you delete the existing object and add a new one.
- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the User-Agent header.
- The bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to look for. For more information, including how you specify the values for the AWS WAF API and the AWS CLI or AWS SDKs, see TargetString in the ByteMatchTuple data type.
- Where to look, such as at the beginning or the end of a query string.
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

For example, you can add a ByteMatchSetUpdate object that matches web requests in which User-Agent headers contain the string BadBot. You can then configure AWS WAF to block those requests.

To create and configure a ByteMatchSet, perform the following steps:

1. Create a ByteMatchSet. For more information, see CreateByteMatchSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateByteMatchSet request.
3. Submit an `UpdateByteMatchSet` request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

**Request Syntax**

```json
{
    "ByteMatchSetId": "string",
    "ChangeToken": "string",
    "Updates": [
        {
            "Action": "string",
            "ByteMatchTuple": {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "PositionalConstraint": "string",
                "TargetString": "blob",
                "TextTransformation": "string"
            }
        }
    ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ByteMatchSetId**

The `ByteMatchSetId` of the ByteMatchSet that you want to update. `ByteMatchSetId` is returned by CreateByteMatchSet and by ListByteMatchSets.

Type: String

Pattern: .*\S.*
required: Yes

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .*\S.*
required: Yes

**Updates**

An array of ByteMatchSetUpdate objects that you want to insert into or delete from a ByteMatchSet. For more information, see the applicable data types:

- **ByteMatchSetUpdate**: Contains Action and ByteMatchTuple
- **ByteMatchTuple**: Contains FieldToMatch, PositionalConstraint, TargetString, and TextTransformation
- **FieldToMatch**: Contains Data and Type

Type: Array of ByteMatchSetUpdate objects

Array Members: Minimum number of 1 item.

required: Yes

**Response Syntax**

```
{
  "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

---

UpdateByteMatchSet
ChangeToken

The ChangeToken that you used to submit the UpdateByteMatchSet request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.

Type: String


Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.
HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
UpdateGeoMatchSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes GeoMatchConstraint objects in a GeoMatchSet. For each GeoMatchConstraint object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a GeoMatchConstraint object, you delete the existing object and add a new one.
- The Type. The only valid value for Type is Country.
- The Value, which is a two character code for the country to add to the GeoMatchConstraint object. Valid codes are listed in GeoMatchConstraint:Value.

To create and configure a GeoMatchSet, perform the following steps:

1. Submit a CreateGeoMatchSet request.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateGeoMatchSet request.
3. Submit an UpdateGeoMatchSet request to specify the country that you want AWS WAF to watch for.

When you update a GeoMatchSet, you specify the country that you want to add and/or the country that you want to delete. If you want to change a country, you delete the existing country and add the new one.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.
Request Syntax

```
{
    "ChangeToken": "string",
    "GeoMatchSetId": "string",
    "Updates": [
        {
            "Action": "string",
            "GeoMatchConstraint": {
                "Type": "string",
                "Value": "string"
            }
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .*\S.*

Required: Yes

**GeoMatchSetId**

The GeoMatchSetId of the [GeoMatchSet](#) that you want to update. GeoMatchSetId is returned by [CreateGeoMatchSet](#) and by [ListGeoMatchSets](#).

Type: String

Pattern: \.*\S.*

Required: Yes

**Updates**

An array of GeoMatchSetUpdate objects that you want to insert into or delete from an GeoMatchSet. For more information, see the applicable data types:

- **GeoMatchSetUpdate**: Contains Action and GeoMatchConstraint
- **GeoMatchConstraint**: Contains Type and Value

You can have only one Type and Value per GeoMatchConstraint. To add multiple countries, include multiple GeoMatchSetUpdate objects in your request.

Type: Array of GeoMatchSetUpdate objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```json
{
  "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateGeoMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String

Pattern: .*/\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:
• You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
• You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
• You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.
HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateIPSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/awswaf/latest/developerguide/what-is-amazon-waf-classic.html) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes `IPSetDescriptor` objects in an IPSet. For each `IPSetDescriptor` object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change an `IPSetDescriptor` object, you delete the existing object and add a new one.
- The IP address version, IPv4 or IPv6.
- The IP address in CIDR notation, for example, 192.0.2.0/24 (for the range of IP addresses from 192.0.2.0 to 192.0.2.255) or 192.0.2.44/32 (for the individual IP address 192.0.2.44).

AWS WAF supports IPv4 address ranges: /8 and any range between /16 through /32. AWS WAF supports IPv6 address ranges: /24, /32, /48, /56, /64, and /128. For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](https://en.wikipedia.org/wiki/Classless_Inter-Domain_Routing).

IPv6 addresses can be represented using any of the following formats:

- 1111:0000:0000:0000:0000:0000:0000:0111/128
- 1111::0111/128
- 1111::111/128

You use an IPSet to specify which web requests you want to allow or block based on the IP addresses that the requests originated from. For example, if you're receiving a lot of requests from one or a small number of IP addresses and you want to block the requests, you can create an IPSet that specifies those IP addresses, and then configure AWS WAF to block the requests.
To create and configure an IPSet, perform the following steps:

1. Submit a **CreateIPSet** request.
2. Use **GetChangeToken** to get the change token that you provide in the ChangeToken parameter of an **UpdateIPSet** request.
3. Submit an **UpdateIPSet** request to specify the IP addresses that you want AWS WAF to watch for.

When you update an IPSet, you specify the IP addresses that you want to add and the IP addresses that you want to delete. If you want to change an IP address, delete the existing IP address and add the new one.

You can update a maximum of 1,000 addresses in a single request.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

**Request Syntax**

```json
{
   "ChangeToken": "string",
   "IPSetId": "string",
   "Updates": [
      {
         "Action": "string",
         "IPSetDescriptor": {
            "Type": "string",
            "Value": "string"
         }
      }
   ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](https://docs.aws.amazon.com/).

The request accepts the following data in JSON format.
**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

Type: String


Pattern: . *\S.*

Required: Yes

**IPSetId**

The IPSetId of the [IPSet](#) that you want to update. IPSetId is returned by [CreateIPSet](#) and by [ListIPSets](#).

Type: String


Pattern: . *\S.*

Required: Yes

**Updates**

An array of IPSetUpdate objects that you want to insert into or delete from an [IPSet](#). For more information, see the applicable data types:

- **IPSetUpdate**: Contains Action and IPSetDescriptor
- **IPSetDescriptor**: Contains Type and Value

You can specify a maximum of 1,000 addresses in a single request, for example, in a single request you can insert 999 addresses and delete 1 address, but you can't insert 999 addresses and delete 2 addresses.

Type: Array of [IPSetUpdate](#) objects

Array Members: Minimum number of 1 item.

Required: Yes
Response Syntax

```json
{
   "ChangeToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the `UpdateIPSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: \.*\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidOperationException**

The operation failed because there was nothing to do. For example:
• You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
• You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
• You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
• You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
• You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

• You specified an invalid parameter name.
• You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*. 
HTTP Status Code: 400

**WAFNonexistentContainerException**

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**WAFReferencedItemException**

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
Inserts or deletes `Predicate` objects in a rule and updates the `RateLimit` in the rule.

Each `Predicate` object identifies a predicate, such as a `ByteMatchSet` or an `IPSet`, that specifies the web requests that you want to block or count. The `RateLimit` specifies the number of requests every five minutes that triggers the rule.

If you add more than one predicate to a `RateBasedRule`, a request must match all the predicates and exceed the `RateLimit` to be counted or blocked. For example, suppose you add the following to a `RateBasedRule`:

- An `IPSet` that matches the IP address `192.0.2.44/32`
- A `ByteMatchSet` that matches `BadBot` in the `User-Agent` header

Further, you specify a `RateLimit` of 1,000.

You then add the `RateBasedRule` to a `WebACL` and specify that you want to block requests that satisfy the rule. For a request to be blocked, it must come from the IP address `192.0.2.44` and the `User-Agent` header in the request must contain the value `BadBot`. Further, requests that match these two conditions much be received at a rate of more than 1,000 every five minutes. If the rate drops below this limit, AWS WAF no longer blocks the requests.

As a second example, suppose you want to limit requests to a particular page on your site. To do this, you could add the following to a `RateBasedRule`:

- A `ByteMatchSet` with `FieldToMatch` of `URI`
- A `PositionalConstraint` of `STARTS_WITH`
• A TargetString of login

Further, you specify a RateLimit of 1,000.

By adding this RateBasedRule to a WebACL, you could limit requests to your login page without affecting the rest of your site.

Request Syntax

```
{
    "ChangeToken": "string",
    "RateLimit": number,
    "RuleId": "string",
    "Updates": [
        {
            "Action": "string",
            "Predicate": {
                "DataId": "string",
                "Negated": boolean,
                "Type": "string"
            }
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes
**RateLimit**

The maximum number of requests, which have an identical value in the field specified by the RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

**RuleId**

The RuleId of the RateBasedRule that you want to update. RuleId is returned by CreateRateBasedRule and by ListRateBasedRules.

Type: String


Pattern: . *\S.*

Required: Yes

**Updates**

An array of RuleUpdate objects that you want to insert into or delete from a RateBasedRule.

Type: Array of RuleUpdate objects

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateRateBasedRule request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .\S.*

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidOperationException**

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
• You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:
• You specified an invalid parameter name.
• You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:
• You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
• You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
• You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
Inserts or deletes **RegexMatchTuple** objects (filters) in a **RegexMatchSet**. For each RegexMatchSetUpdate object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a RegexMatchSetUpdate object, you delete the existing object and add a new one.

- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the User-Agent header.

- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see **RegexPatternSet**.

- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

For example, you can create a RegexPatternSet that matches any requests with User-Agent headers that contain the string B[a@]dB[o0]t. You can then configure AWS WAF to reject those requests.

To create and configure a RegexMatchSet, perform the following steps:

1. Create a RegexMatchSet. For more information, see **CreateRegexMatchSet**.

2. Use **GetChangeToken** to get the change token that you provide in the ChangeToken parameter of an UpdateRegexMatchSet request.

3. Submit an UpdateRegexMatchSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the identifier of the
RegexPatternSet that contain the regular expression patterns you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

**Request Syntax**

```json
{
   "ChangeToken": "string",
   "RegexMatchSetId": "string",
   "Updates": [
      {
         "Action": "string",
         "RegexMatchTuple": {
            "FieldToMatch": {
               "Data": "string",
               "Type": "string"
            },
            "RegexPatternSetId": "string",
            "TextTransformation": "string"
         }
      }
   ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*
**RegexMatchSetId**

The RegexMatchSetId of the [RegexMatchSet](#) that you want to update. RegexMatchSetId is returned by [CreateRegexMatchSet](#) and by [ListRegexMatchSets](#).

Type: String


Pattern: .\S.*

Required: Yes

**Updates**

An array of `RegexMatchSetUpdate` objects that you want to insert into or delete from a [RegexMatchSet](#). For more information, see [RegexMatchTuple](#).

Type: Array of `RegexMatchSetUpdate` objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the `UpdateRegexMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).
Type: String


Pattern: .\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFDisallowedNameException**

The name specified is invalid.

HTTP Status Code: 400

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidOperationException**

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.
HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://aws.amazon.com/waf/classicquotas/) in the [*AWS WAF Developer Guide*](https://aws.amazon.com/waf/guides/).

HTTP Status Code: 400

**WAFNonexistentContainerException**

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](https://aws.amazon.com/cli/)
• **AWS SDK for .NET**
• **AWS SDK for C++**
• **AWS SDK for Go**
• **AWS SDK for Java V2**
• **AWS SDK for JavaScript V3**
• **AWS SDK for PHP V3**
• **AWS SDK for Python**
• **AWS SDK for Ruby V3**
Inserts or deletes RegexPatternString objects in a RegexPatternSet. For each RegexPatternString object, you specify the following values:

- Whether to insert or delete the RegexPatternString.
- The regular expression pattern that you want to insert or delete. For more information, see RegexPatternSet.

For example, you can create a RegexPatternString such as B[a@]d[B@0]t. AWS WAF will match this RegexPatternString to:

- BadBot
- BadB0t
- B@dBot
- B@dB0t

To create and configure a RegexPatternSet, perform the following steps:

1. Create a RegexPatternSet. For more information, see CreateRegexPatternSet.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRegexPatternSet request.
3. Submit an UpdateRegexPatternSet request to specify the regular expression pattern that you want AWS WAF to watch for.
For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

**Request Syntax**

```json
{
   "ChangeToken": "string",
   "RegexPatternSetId": "string",
   "Updates": [
      {
         "Action": "string",
         "RegexPatternString": "string"
      }
   ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .*

Required: Yes

**RegexPatternSetId**

The `RegexPatternSetId` of the [RegexPatternSet](#) that you want to update. `RegexPatternSetId` is returned by [CreateRegexPatternSet](#) and by [ListRegexPatternSets](#).

Type: String

**Pattern**: .\s.*

**Required**: Yes

**Updates**

An array of `RegexPatternSetUpdate` objects that you want to insert into or delete from a `RegexPatternSet`.

**Type**: Array of `RegexPatternSetUpdate` objects

**Array Members**: Minimum number of 1 item.

**Required**: Yes

**Response Syntax**

```json
{
    "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the `UpdateRegexPatternSet` request. You can also use this value to query the status of the request. For more information, see `GetChangeTokenStatus`.

**Type**: String

**Length Constraints**: Minimum length of 1. Maximum length of 128.

**Pattern**: .\s.*

**Errors**

For information about the errors that are common to all actions, see `Common Errors`. 
**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidOperationException**

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

**WAFInvalidRegexPatternException**

The regular expression (regex) you specified in RegexPatternString is invalid.

HTTP Status Code: 400

**WAFLimitsExceedededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/classic/quotas.html) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400
**WAFNonexistentContainerException**

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateRule
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes Predicate objects in a Rule. Each Predicate object identifies a predicate, such as a ByteMatchSet or an IPSet, that specifies the web requests that you want to allow, block, or count. If you add more than one predicate to a Rule, a request must match all of the specifications to be allowed, blocked, or counted. For example, suppose that you add the following to a Rule:

- A ByteMatchSet that matches the value BadBot in the User-Agent header
- An IPSet that matches the IP address 192.0.2.44

You then add the Rule to a WebACL and specify that you want to block requests that satisfy the Rule. For a request to be blocked, the User-Agent header in the request must contain the value BadBot and the request must originate from the IP address 192.0.2.44.

To create and configure a Rule, perform the following steps:

1. Create and update the predicates that you want to include in the Rule.
2. Create the Rule. See CreateRule.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRule request.
4. Submit an UpdateRule request to add predicates to the Rule.
5. Create and update a WebACL that contains the Rule. See CreateWebACL.

If you want to replace one ByteMatchSet or IPSet with another, you delete the existing one and add the new one.
For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

### Request Syntax

```json
{
    "ChangeToken": "string",
    "RuleId": "string",
    "Updates": [
        {
            "Action": "string",
            "Predicate": {
                "DataId": "string",
                "Negated": boolean,
                "Type": "string"
            }
        }
    ]
}
```

### Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .\S.*

Required: Yes

**RuleId**

The RuleId of the Rule that you want to update. RuleId is returned by CreateRule and by ListRules.
Type: String


Pattern: \.*\S.*

Required: Yes

**Updates**

An array of RuleUpdate objects that you want to insert into or delete from a Rule. For more information, see the applicable data types:

- **RuleUpdate**: Contains Action and Predicate
- **Predicate**: Contains DataId, Negated, and Type
- **FieldToMatch**: Contains Data and Type

Type: Array of RuleUpdate objects

Required: Yes

**Response Syntax**

```json
{
    "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateRule request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus.

Type: String

Pattern: \.*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.

You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.

You tried to create a RateBasedRule with a RateKey value other than IP.

You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.

You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.

You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.

Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-quotas.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/concepts-quota.html).

HTTP Status Code: 400

**WAFNonexistentContainerException**

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

**WAFNonexistentItemException**

The operation failed because the referenced object doesn't exist.
HTTP Status Code: 400

**WAFReferencedItemException**

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

**WAFStaleDataException**

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
**UpdateRuleGroup**

Service: AWS WAF Classic Regional

---

**Note**

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

---

Inserts or deletes ActivatedRule objects in a RuleGroup.

You can only insert REGULAR rules into a rule group.

You can have a maximum of ten rules per rule group.

To create and configure a RuleGroup, perform the following steps:

1. Create and update the Rules that you want to include in the RuleGroup. See CreateRule.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRuleGroup request.
3. Submit an UpdateRuleGroup request to add Rules to the RuleGroup.
4. Create and update a WebACL that contains the RuleGroup. See CreateWebACL.

If you want to replace one Rule with another, you delete the existing one and add the new one.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

**Request Syntax**

```json
{
   "ChangeToken": "string",
   "RuleGroupId": "string",
   "Updates": [
      {
         "Action": "string",
         "ActivatedRuleId": "string"
      }
   ]
}
```
"ActivatedRule": {  
  "Action": {  
    "Type": "string"  
  },  
  "ExcludedRules": [  
    {  
      "RuleId": "string"  
    }  
  ],  
  "OverrideAction": {  
    "Type": "string"  
  },  
  "Priority": number,  
  "RuleId": "string",  
  "Type": "string"  
}  
]  
]

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to GetChangeToken.

Type: String


Pattern: .*\S.*

Required: Yes

**RuleGroupId**

The RuleGroupId of the RuleGroup that you want to update. RuleGroupId is returned by CreateRuleGroup and by ListRuleGroups.

Type: String

Pattern: .*\S.*

Required: Yes

**Updates**

An array of RuleGroupUpdate objects that you want to insert into or delete from a [RuleGroup](#).

You can only insert REGULAR rules into a rule group.

ActivatedRule|OverrideAction applies only when updating or adding a RuleGroup to a WebACL. In this case you do not use ActivatedRule|Action. For all other update requests, ActivatedRule|Action is used instead of ActivatedRule|OverrideAction.

Type: Array of [RuleGroupUpdate](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```
{
    "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateRuleGroup request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:
• You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
• You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
• You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
Inserts or deletes `SizeConstraint` objects (filters) in a `SizeConstraintSet`. For each `SizeConstraint` object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a `SizeConstraintSetUpdate` object, you delete the existing object and add a new one.
- The part of a web request that you want AWS WAF to evaluate, such as the length of a query string or the length of the `User-Agent` header.
- Whether to perform any transformations on the request, such as converting it to lowercase, before checking its length. Note that transformations of the request body are not supported because the AWS resource forwards only the first 8192 bytes of your request to AWS WAF.

  You can only specify a single type of TextTransformation.
- A `ComparisonOperator` used for evaluating the selected part of the request against the specified `Size`, such as equals, greater than, less than, and so on.
- The length, in bytes, that you want AWS WAF to watch for in selected part of the request. The length is computed after applying the transformation.

For example, you can add a `SizeConstraintSetUpdate` object that matches web requests in which the length of the `User-Agent` header is greater than 100 bytes. You can then configure AWS WAF to block those requests.

To create and configure a `SizeConstraintSet`, perform the following steps:

1. Create a `SizeConstraintSet`. For more information, see `CreateSizeConstraintSet`. 

2. Use `GetChangeToken` to get the change token that you provide in the `ChangeToken` parameter of an `UpdateSizeConstraintSet` request.

3. Submit an `UpdateSizeConstraintSet` request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

**Request Syntax**

```
{
   "ChangeToken": "string",
   "SizeConstraintSetId": "string",
   "Updates": [
   {
      "Action": "string",
      "SizeConstraint": {
         "ComparisonOperator": "string",
         "FieldToMatch": {
            "Data": "string",
            "Type": "string"
         },
         "Size": number,
         "TextTransformation": "string"
      }
   }
   ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to `GetChangeToken`.

Type: String

Pattern: .*\S.*

Required: Yes

**SizeConstraintSetId**

The SizeConstraintSetId of the [SizeConstraintSet](#) that you want to update. SizeConstraintSetId is returned by [CreateSizeConstraintSet](#) and by [ListSizeConstraintSets](#).

Type: String


Pattern: .*\S.*

Required: Yes

**Updates**

An array of SizeConstraintSetUpdate objects that you want to insert into or delete from a [SizeConstraintSet](#). For more information, see the applicable data types:

- **SizeConstraintSetUpdate**: Contains Action and SizeConstraint
- **SizeConstraint**: Contains FieldToMatch, TextTransformation, ComparisonOperator, and Size
- **FieldToMatch**: Contains Data and Type

Type: Array of [SizeConstraintSetUpdate](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateSizeConstraintSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidOperationException**

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
• You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

**WAFInvalidParameterException**

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

• You specified an invalid parameter name.
• You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

**WAFLimitsExceededException**

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](http://aws.amazon.com/waf-classic/) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

**WAFNonexistentContainerException**

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

• You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
• You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
• You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
• You tried to delete a ByteMatchSet that is still referenced by a Rule.
• You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
UpdateSqlInjectionMatchSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes SqlInjectionMatchTuple objects (filters) in a SqlInjectionMatchSet. For each SqlInjectionMatchTuple object, you specify the following values:

- Action: Whether to insert the object into or delete the object from the array. To change a SqlInjectionMatchTuple, you delete the existing object and add a new one.
- FieldToMatch: The part of web requests that you want AWS WAF to inspect and, if you want AWS WAF to inspect a header or custom query parameter, the name of the header or parameter.
- TextTransformation: Which text transformation, if any, to perform on the web request before inspecting the request for snippets of malicious SQL code.

You can only specify a single type of TextTransformation.

You use SqlInjectionMatchSet objects to specify which Amazon CloudFront requests that you want to allow, block, or count. For example, if you're receiving requests that contain snippets of SQL code in the query string and you want to block the requests, you can create a SqlInjectionMatchSet with the applicable settings, and then configure AWS WAF to block the requests.

To create and configure a SqlInjectionMatchSet, perform the following steps:

1. Submit a CreateSqlInjectionMatchSet request.
2. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateIPSet request.
3. Submit an UpdateSqlInjectionMatchSet request to specify the parts of web requests that you want AWS WAF to inspect for snippets of SQL code.
For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

**Request Syntax**

```json
{
    "ChangeToken": "string",
    "SqlInjectionMatchSetId": "string",
    "Updates": [
        {
            "Action": "string",
            "SqlInjectionMatchTuple": {
                "FieldToMatch": {
                    "Data": "string",
                    "Type": "string"
                },
                "TextTransformation": "string"
            }
        }
    ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .\S.*

Required: Yes
**SqlInjectionMatchSetId**

The SqlInjectionMatchSetId of the SqlInjectionMatchSet that you want to update. SqlInjectionMatchSetId is returned by [CreateSqlInjectionMatchSet](https://docs.aws.amazon.com/wafv2/latest/APIReference/API_CreateSqlInjectionMatchSet.html) and by [ListSqlInjectionMatchSets](https://docs.aws.amazon.com/wafv2/latest/APIReference/API_ListSqlInjectionMatchSets.html).

Type: String


Pattern: .\S.*

Required: Yes

**Updates**

An array of SqlInjectionMatchSetUpdate objects that you want to insert into or delete from a [SqlInjectionMatchSet](https://docs.aws.amazon.com/wafv2/latest/APIReference/API_SqlInjectionMatchSet.html). For more information, see the applicable data types:

- **SqlInjectionMatchSetUpdate**: Contains Action and SqlInjectionMatchTuple
- **SqlInjectionMatchTuple**: Contains FieldToMatch and TextTransformation
- **FieldToMatch**: Contains Data and Type

Type: Array of [SqlInjectionMatchSetUpdate](https://docs.aws.amazon.com/wafv2/latest/APIReference/API_SqlInjectionMatchSetUpdate.html) objects

Array Members: Minimum number of 1 item.

Required: Yes

**Response Syntax**

```
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**ChangeToken**

The ChangeToken that you used to submit the UpdateSqlInjectionMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String


Pattern: .*\S.*

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

**WAFInternalErrorException**

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

**WAFInvalidAccountException**

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

**WAFInvalidOperationException**

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.
HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
**UpdateWebACL**
Service: AWS WAF Classic Regional

⚠️ **Note**
This is **AWS WAF Classic** documentation. For more information, see **AWS WAF Classic** in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the **AWS WAF Developer Guide**. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes **ActivatedRule** objects in a **WebACL**. Each **Rule** identifies web requests that you want to allow, block, or count. When you update a **WebACL**, you specify the following values:

- A default action for the **WebACL**, either **ALLOW** or **BLOCK**. **AWS WAF** performs the default action if a request doesn't match the criteria in any of the **Rules** in a **WebACL**.
- The **Rules** that you want to add or delete. If you want to replace one **Rule** with another, you delete the existing **Rule** and add the new one.
- For each **Rule**, whether you want **AWS WAF** to allow requests, block requests, or count requests that match the conditions in the **Rule**.
- The order in which you want **AWS WAF** to evaluate the **Rules** in a **WebACL**. If you add more than one **Rule** to a **WebACL**, **AWS WAF** evaluates each request against the **Rules** in order based on the value of **Priority**. (The **Rule** that has the lowest value for **Priority** is evaluated first.) When a web request matches all the predicates (such as **ByteMatchSets** and **IPSets**) in a **Rule**, **AWS WAF** immediately takes the corresponding action, allow or block, and doesn't evaluate the request against the remaining **Rules** in the **WebACL**, if any.

To create and configure a **WebACL**, perform the following steps:

1. Create and update the predicates that you want to include in **Rules**. For more information, see **CreateByteMatchSet**, **UpdateByteMatchSet**, **CreateIPSet**, **UpdateIPSet**, **CreateSqlInjectionMatchSet**, and **UpdateSqlInjectionMatchSet**.
2. Create and update the **Rules** that you want to include in the **WebACL**. For more information, see **CreateRule** and **UpdateRule**.
3. Create a **WebACL**. See **CreateWebACL**.
4. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateWebACL request.

5. Submit an UpdateWebACL request to specify the Rules that you want to include in the WebACL, to specify the default action, and to associate the WebACL with an Amazon CloudFront distribution.

The ActivatedRule can be a rule group. If you specify a rule group as your ActivatedRule, you can exclude specific rules from that rule group.

If you already have a rule group associated with a web ACL and want to submit an UpdateWebACL request to exclude certain rules from that rule group, you must first remove the rule group from the web ACL, the re-insert it again, specifying the excluded rules. For details, see ActivatedRule:ExcludedRules.

Be aware that if you try to add a RATE_BASED rule to a web ACL without setting the rule type when first creating the rule, the UpdateWebACL request will fail because the request tries to add a REGULAR rule (the default rule type) with the specified ID, which does not exist.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

Request Syntax

```json
{
   "ChangeToken": "string",
   "DefaultAction": {
      "Type": "string"
   },
   "Updates": [
      {
         "Action": "string",
         "ActivatedRule": {
            "Action": {
               "Type": "string"
            },
            "ExcludedRules": [
               {
                  "RuleId": "string"
               }
            ]
         }
      }
   ]
}
```
"OverrideAction": {  
  "Type": "string"
 },
  "Priority": number,
  "RuleId": "string",
  "Type": "string"
 }  
  
  [  
  "WebACLId": "string"
 ]

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .\S. *

Required: Yes

**DefaultAction**

Type: [WafAction](#) object

Required: No

**Updates**

An array of updates to make to the [WebACL](#).

An array of WebACLUpdate objects that you want to insert into or delete from a [WebACL](#). For more information, see the applicable data types:

- [WebACLUpdate](#): Contains Action and ActivatedRule
• **ActivatedRule**: Contains Action, OverrideAction, Priority, RuleId, and Type. ActivatedRule|OverrideAction applies only when updating or adding a RuleGroup to a WebACL. In this case, you do not use ActivatedRule|Action. For all other update requests, ActivatedRule|Action is used instead of ActivatedRule|OverrideAction.

• **WafAction**: Contains Type

  Type: Array of **WebACLUpdate** objects

  Required: No

**WebACLId**

The WebACLId of the **WebACL** that you want to update. WebACLId is returned by **CreateWebACL** and by **ListWebACLs**.

  Type: String


  Pattern: .\S.*

  Required: Yes

**Response Syntax**

```json
{
   "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateWebACL request. You can also use this value to query the status of the request. For more information, see **GetChangeTokenStatus**.

  Type: String

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:
- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:
- You specified an invalid parameter name.
• You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:
• You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
• You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
• You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.
HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:
- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFSubscriptionNotFoundException

The specified subscription does not exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](https://aws.amazon.com/cli/)
- [AWS SDK for .NET](https://aws.amazon.com/sdk-for-net/)
- [AWS SDK for C++](https://aws.amazon.com/sdk-for-cpp/)
- [AWS SDK for Go](https://aws.amazon.com/sdk-for-go/)
- [AWS SDK for Java V2](https://aws.amazon.com/sdk-for-java/)
- [AWS SDK for JavaScript V3](https://aws.amazon.com/sdk-for-javascript/)
- [AWS SDK for PHP V3](https://aws.amazon.com/sdk-for-php/)
- [AWS SDK for Python](https://aws.amazon.com/sdk-for-python/)
- [AWS SDK for Ruby V3](https://aws.amazon.com/sdk-for-ruby/)

UpdateWebACL
**UpdateXssMatchSet**

Service: AWS WAF Classic Regional

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**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://aws.amazon.com/waf-classic/) in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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Inserts or deletes **XssMatchTuple** objects (filters) in an **XssMatchSet**. For each XssMatchTuple object, you specify the following values:

- **Action**: Whether to insert the object into or delete the object from the array. To change an XssMatchTuple, you delete the existing object and add a new one.
- **FieldToMatch**: The part of web requests that you want AWS WAF to inspect and, if you want AWS WAF to inspect a header or custom query parameter, the name of the header or parameter.
- **TextTransformation**: Which text transformation, if any, to perform on the web request before inspecting the request for cross-site scripting attacks.

You can only specify a single type of TextTransformation.

You use XssMatchSet objects to specify which Amazon CloudFront requests that you want to allow, block, or count. For example, if you're receiving requests that contain cross-site scripting attacks in the request body and you want to block the requests, you can create an XssMatchSet with the applicable settings, and then configure AWS WAF to block the requests.

To create and configure an XssMatchSet, perform the following steps:

1. Submit a **CreateXssMatchSet** request.
2. Use **GetChangeToken** to get the change token that you provide in the ChangeToken parameter of an **UpdateIPSet** request.
3. Submit an **UpdateXssMatchSet** request to specify the parts of web requests that you want AWS WAF to inspect for cross-site scripting attacks.
For more information about how to use the AWS WAF API to allow or block HTTP requests, see the AWS WAF Developer Guide.

**Request Syntax**

```json
{
   "ChangeToken": "string",
   "Updates": [
   {
      "Action": "string",
      "XssMatchTuple": {
         "FieldToMatch": {
            "Data": "string",
            "Type": "string"
         },
         "TextTransformation": "string"
      }
   },
   
   "XssMatchSetId": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

**ChangeToken**

The value returned by the most recent call to [GetChangeToken](#).

Type: String


Pattern: .*\S.*

Required: Yes

**Updates**

An array of `XssMatchSetUpdate` objects that you want to insert into or delete from an `XssMatchSet`. For more information, see the applicable data types:
• **XssMatchSetUpdate**: Contains Action and XssMatchTuple

• **XssMatchTuple**: Contains FieldToMatch and TextTransformation

• **FieldToMatch**: Contains Data and Type

Type: Array of **XssMatchSetUpdate** objects

Array Members: Minimum number of 1 item.

Required: Yes

**XssMatchSetId**

The XssMatchSetId of the XssMatchSet that you want to update. XssMatchSetId is returned by **CreateXssMatchSet** and by **ListXssMatchSets**.

Type: String


Pattern: . *\S . *

Required: Yes

**Response Syntax**

```
{
    "ChangeToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ChangeToken**

The ChangeToken that you used to submit the UpdateXssMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#).

Type: String

Pattern: .\S.*

Errors

For information about the errors that are common to all actions, see Common Errors.

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
• You specified an invalid value.
• You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
• You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to create a RateBasedRule with a RateKey value other than IP.
• You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
• You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
• You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
• Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceeded Exception

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see AWS WAF Classic quotas in the AWS WAF Developer Guide.

HTTP Status Code: 400

WAFNonexistentContainer Exception

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:
• You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
• You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
• You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
• You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItem Exception

The operation failed because the referenced object doesn't exist.
HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
Data Types

The following data types are supported by AWS WAFV2:

- ActionCondition
- AddressField
- All
- AllowAction
- AllQueryArguments
- AndStatement
- APIKeySummary
- AssociationConfig
- AWSManagedRulesACFPRuleSet
- AWSManagedRulesATPRuleSet
- AWSManagedRulesBotControlRuleSet
- BlockAction
- Body
- ByteMatchStatement
- CaptchaAction
- CaptchaConfig
- CaptchaResponse
- ChallengeAction
- ChallengeConfig
- ChallengeResponse
- Condition
- CookieMatchPattern
- Cookies
- CountAction
- CustomHTTPHeader
- CustomRequestHandling
- CustomResponse
• CustomResponseBody
• DefaultAction
• EmailField
• ExcludedRule
• FieldToMatch
• Filter
• FirewallManagerRuleGroup
• FirewallManagerStatement
• ForwardedIPConfig
• GeoMatchStatement
• HeaderMatchPattern
• HeaderOrder
• Headers
• HTTPHeader
• HTTPRequest
• ImmunityTimeProperty
• IPSet
• IPSetForwardedIPConfig
• IPSetReferenceStatement
• IPSetSummary
• JA3Fingerprint
• JsonBody
• JsonMatchPattern
• Label
• LabelMatchStatement
• LabelNameCondition
• LabelSummary
• LoggingConfiguration
• LoggingFilter
• ManagedProductDescriptor
• ManagedRuleGroupConfig
• ManagedRuleGroupStatement
• ManagedRuleGroupSummary
• ManagedRuleGroupVersion
• ManagedRuleSet
• ManagedRuleSetSummary
• ManagedRuleSetVersion
• Method
• MobileSdkRelease
• NoneAction
• NotStatement
• OrStatement
• OverrideAction
• PasswordField
• PhoneNumberField
• QueryString
• RateBasedStatement
• RateBasedStatementCustomKey
• RateBasedStatementManagedKeysIPSet
• RateLimitCookie
• RateLimitForwardedIP
• RateLimitHeader
• RateLimitHTTPMethod
• RateLimitIP
• RateLimitLabelNamespace
• RateLimitQueryArgument
• RateLimitQueryString
• RateLimitUriPath
• Regex
• RegexMatchStatement
- RegexPatternSet
- RegexPatternSetReferenceStatement
- RegexPatternSetSummary
- ReleaseSummary
- RequestBodyAssociatedResourceTypeConfig
- RequestInspection
- RequestInspectionACFP
- ResponseInspection
- ResponseInspectionBodyContains
- ResponseInspectionHeader
- ResponseInspectionJson
- ResponseInspectionStatusCode
- Rule
- RuleAction
- RuleActionOverride
- RuleGroup
- RuleGroupReferenceStatement
- RuleGroupSummary
- RuleSummary
- SampledHTTPRequest
- SingleHeader
- SingleQueryArgument
- SizeConstraintStatement
- SqliMatchStatement
- Statement
- Tag
- TagInfoForResource
- TextTransformation
- TimeWindow
- UriPath
• **UsernameField**
• **VersionToPublish**
• **VisibilityConfig**
• **WebACL**
  • **WebACLSummary**
• **XssMatchStatement**

The following data types are supported by AWS WAF Classic:

• **ActivatedRule**
• **ByteMatchSet**
• **ByteMatchSetSummary**
• **ByteMatchSetUpdate**
• **ByteMatchTuple**
• **ExcludedRule**
• **FieldToMatch**
• **GeoMatchConstraint**
• **GeoMatchSet**
• **GeoMatchSetSummary**
• **GeoMatchSetUpdate**
• **HTTPHeader**
• **HTTPRequest**
• **IPSet**
• **IPSetDescriptor**
• **IPSetSummary**
• **IPSetUpdate**
• **LoggingConfiguration**
• **Predicate**
• **RateBasedRule**
• **RegexMatchSet**
• **RegexMatchSetSummary**
• RegexMatchSetUpdate
• RegexMatchTuple
• RegexPatternSet
• RegexPatternSetSummary
• RegexPatternSetUpdate
• Rule
• RuleGroup
• RuleGroupSummary
• RuleGroupUpdate
• RuleSummary
• RuleUpdate
• SampledHTTPRequest
• SizeConstraint
• SizeConstraintSet
• SizeConstraintSetSummary
• SizeConstraintSetUpdate
• SqlInjectionMatchSet
• SqlInjectionMatchSetSummary
• SqlInjectionMatchSetUpdate
• SqlInjectionMatchTuple
• SubscribedRuleGroupSummary
• Tag
• TagInfoForResource
• TimeWindow
• WafAction
• WafOverrideAction
• WebACL
• WebACLSummary
• WebACLUpdate
• XssMatchSet
The following data types are supported by AWS WAF Classic Regional:

- ActivatedRule
- ByteMatchSet
- ByteMatchSetSummary
- ByteMatchSetUpdate
- ByteMatchTuple
- ExcludedRule
- FieldToMatch
- GeoMatchConstraint
- GeoMatchSet
- GeoMatchSetSummary
- GeoMatchSetUpdate
- HTTPHeader
- HTTPRequest
- IPSet
- IPSetDescriptor
- IPSetSummary
- IPSetUpdate
- LoggingConfiguration
- Predicate
- RateBasedRule
- RegexMatchSet
- RegexMatchSetSummary
- RegexMatchSetUpdate
- RegexMatchTuple
- RegexPatternSet
- RegexPatternSetSummary
- RegexPatternSetUpdate
- Rule
- RuleGroup
- RuleGroupSummary
- RuleGroupUpdate
- RuleSummary
- RuleUpdate
- SampledHTTPRequest
- SizeConstraint
- SizeConstraintSet
- SizeConstraintSetSummary
- SizeConstraintSetUpdate
- SqlInjectionMatchSet
- SqlInjectionMatchSetSummary
- SqlInjectionMatchSetUpdate
- SqlInjectionMatchTuple
- SubscribedRuleGroupSummary
- Tag
- TagInfoForResource
- TimeWindow
- WafAction
- WafOverrideAction
- WebACL
- WebACLSummary
- WebACLUpdate
- XssMatchSet
- XssMatchSetSummary
- XssMatchSetUpdate
- XssMatchTuple
The following data types are supported by AWS WAFV2:

- ActionCondition
- AddressField
- All
- AllowAction
- AllQueryArguments
- AndStatement
- APIKeySummary
- AssociationConfig
- AWSManagedRulesACFPRuleSet
- AWSManagedRulesATPRuleSet
- AWSManagedRulesBotControlRuleSet
- BlockAction
- Body
- ByteMatchStatement
- CaptchaAction
- CaptchaConfig
- CaptchaResponse
- ChallengeAction
- ChallengeConfig
- ChallengeResponse
- Condition
- CookieMatchPattern
- Cookies
- CountAction
- CustomHTTPHeader
- CustomRequestHandling
- CustomResponse
• CustomResponseBody
• DefaultAction
• EmailField
• ExcludedRule
• FieldToMatch
• Filter
• FirewallManagerRuleGroup
• FirewallManagerStatement
• ForwardedIPConfig
• GeoMatchStatement
• HeaderMatchPattern
• HeaderOrder
• Headers
• HTTPHeader
• HTTPRequest
• ImmunityTimeProperty
• IPSet
• IPSetForwardedIPConfig
• IPSetReferenceStatement
• IPSetSummary
• JA3Fingerprint
• JsonBody
• JsonMatchPattern
• Label
• LabelMatchStatement
• LabelNameCondition
• LabelSummary
• LoggingConfiguration
• LoggingFilter
• ManagedProductDescriptor
• ManagedRuleGroupConfig
• ManagedRuleGroupStatement
• ManagedRuleGroupSummary
• ManagedRuleGroupVersion
• ManagedRuleSet
• ManagedRuleSetSummary
• ManagedRuleSetVersion
• Method
• MobileSdkRelease
• NoneAction
• NotStatement
• OrStatement
• OverrideAction
• PasswordField
• PhoneNumberField
• QueryString
• RateBasedStatement
• RateBasedStatementCustomKey
• RateBasedStatementManagedKeysIPSet
• RateLimitCookie
• RateLimitForwardedIP
• RateLimitHeader
• RateLimitHTTPRequestMethod
• RateLimitIP
• RateLimitLabelNamespace
• RateLimitQueryArgument
• RateLimitQueryStringLength
• RateLimitUriPath
• Regex
• RegexMatchStatement
- RegexPatternSet
- RegexPatternSetReferenceStatement
- RegexPatternSetSummary
- ReleaseSummary
- RequestBodyAssociatedResourceTypeConfig
- RequestInspection
- RequestInspectionACFP
- ResponseInspection
- ResponseInspectionBodyContains
- ResponseInspectionHeader
- ResponseInspectionJson
- ResponseInspectionStatusCode
- Rule
- RuleAction
- RuleActionOverride
- RuleGroup
- RuleGroupReferenceStatement
- RuleGroupSummary
- RuleSummary
- SampledHTTPRequest
- SingleHeader
- SingleQueryArgument
- SizeConstraintStatement
- SqlIMatchStatement
- Statement
- Tag
- TagInfoForResource
- TextTransformation
- TimeWindow
- UriPath
- UsernameField
- VersionToPublish
- VisibilityConfig
- WebACL
- WebACLSummary
- XssMatchStatement
ActionCondition

Service: AWS WAFV2

A single action condition for a Condition in a logging filter.

Contents

Action

The action setting that a log record must contain in order to meet the condition. This is the action that AWS WAF applied to the web request.

For rule groups, this is either the configured rule action setting, or if you’ve applied a rule action override to the rule, it's the override action. The value EXCLUDED_AS_COUNT matches on excluded rules and also on rules that have a rule action override of Count.

Type: String

Valid Values: ALLOW | BLOCK | COUNT | CAPTCHA | CHALLENGE | EXCLUDED_AS_COUNT

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
AddressField

Service: AWS WAFV2

The name of a field in the request payload that contains part or all of your customer's primary physical address.

This data type is used in the RequestInspectionACFP data type.

Contents

Identifier

The name of a single primary address field.

How you specify the address fields depends on the request inspection payload type.

- For JSON payloads, specify the field identifiers in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation [JavaScript Object Notation (JSON) Pointer](#).

  For example, for the JSON payload `{ "form": { "primaryaddressline1": "THE_ADDRESS1", "primaryaddressline2": "THE_ADDRESS2", "primaryaddressline3": "THE_ADDRESS3" } }`, the address field identifiers are `/form/primaryaddressline1`, `/form/primaryaddressline2`, and `/form/primaryaddressline3`.

- For form encoded payload types, use the HTML form names.

  For example, for an HTML form with input elements named primaryaddressline1, primaryaddressline2, and primaryaddressline3, the address fields identifiers are primaryaddressline1, primaryaddressline2, and primaryaddressline3.

Type: String


Pattern: .*\S.*

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
All

Service: AWS WAFV2

Inspect all of the elements that AWS WAF has parsed and extracted from the web request component that you've identified in your FieldToMatch specifications.

This is used in the FieldToMatch specification for some web request component types.

JSON specification: "All": {} 

Contents

The members of this exception structure are context-dependent.

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**AllowAction**

Service: AWS WAFV2

Specifies that AWS WAF should allow the request and optionally defines additional custom handling for the request.

This is used in the context of other settings, for example to specify values for RuleAction and web ACL DefaultAction.

**Contents**

**CustomRequestHandling**

Defines custom handling for the web request.

For information about customizing web requests and responses, see Customizing web requests and responses in AWS WAF in the AWS WAF Developer Guide.

Type: CustomRequestHandling object

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**AllQueryArguments**

Service: AWS WAFV2

Inspect all query arguments of the web request.

This is used in the [FieldToMatch](#) specification for some web request component types.

JSON specification: "AllQueryArguments": {}  

**Contents**

The members of this exception structure are context-dependent.

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
AndStatement

Service: AWS WAFV2

A logical rule statement used to combine other rule statements with AND logic. You provide more than one Statement within the AndStatement.

Contents

Statements

The statements to combine with AND logic. You can use any statements that can be nested.

Type: Array of Statement objects

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
APIKeySummary

Service: AWS WAFV2

Information for a single API key.

API keys are required for the integration of the CAPTCHA API in your JavaScript client applications. The API lets you customize the placement and characteristics of the CAPTCHA puzzle for your end users. For more information about the CAPTCHA JavaScript integration, see AWS WAF client application integration in the AWS WAF Developer Guide.

Contents

APIKey

The generated, encrypted API key. You can copy this for use in your JavaScript CAPTCHA integration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: .\S.*

Required: No

CreationTimestamp

The date and time that the key was created.

Type: Timestamp

Required: No

TokenDomains

The token domains that are defined in this API key.

Type: Array of strings


Pattern: ^[\w\./\-]+$

Required: No
Version

Internal value used by AWS WAF to manage the key.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
AssociationConfig

Service: AWS WAFV2

Specifies custom configurations for the associations between the web ACL and protected resources.

Use this to customize the maximum size of the request body that your protected CloudFront distributions forward to AWS WAF for inspection. The default is 16 KB (16,384 bytes).

Note

You are charged additional fees when your protected resources forward body sizes that are larger than the default. For more information, see AWS WAF Pricing.

Contents

RequestBody

Customizes the maximum size of the request body that your protected CloudFront distributions forward to AWS WAF for inspection. The default size is 16 KB (16,384 bytes).

Note

You are charged additional fees when your protected resources forward body sizes that are larger than the default. For more information, see AWS WAF Pricing.

Type: String to RequestBodyAssociatedResourceTypeConfig object map

Valid Keys: CLOUDFRONT

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
AWSManagedRulesACFPRuleSet

Service: AWS WAFV2

Details for your use of the account creation fraud prevention managed rule group, AWSManagedRulesACFPRuleSet. This configuration is used in ManagedRuleGroupConfig.

Contents

CreationPath

The path of the account creation endpoint for your application. This is the page on your website that accepts the completed registration form for a new user. This page must accept POST requests.

For example, for the URL https://example.com/web/newaccount, you would provide the path /web/newaccount. Account creation page paths that start with the path that you provide are considered a match. For example /web/newaccount matches the account creation paths /web/newaccount, /web/newaccount/, /web/newaccountPage, and /web/newaccount/thisPage, but doesn't match the path /home/web/newaccount or /website/newaccount.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*\S.*

Required: Yes

RegistrationPagePath

The path of the account registration endpoint for your application. This is the page on your website that presents the registration form to new users.

Note

This page must accept GET text/html requests.

For example, for the URL https://example.com/web/registration, you would provide the path /web/registration. Registration page paths that start with the path that you provide are considered a match. For example /web/registration matches the registration...
paths `/web/registration`, `/web/registration/`, `/web/registrationPage`, and `/web/registration/thisPage`, but doesn't match the path `/home/web/registration` or `/website/registration`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `.\S\.*`

Required: Yes

**RequestInspection**

The criteria for inspecting account creation requests, used by the ACFP rule group to validate and track account creation attempts.

Type: [RequestInspectionACFP](#) object

Required: Yes

**EnableRegexInPath**

Allow the use of regular expressions in the registration page path and the account creation path.

Type: Boolean

Required: No

**ResponseInspection**

The criteria for inspecting responses to account creation requests, used by the ACFP rule group to track account creation success rates.

**Note**

Response inspection is available only in web ACLs that protect Amazon CloudFront distributions.

The ACFP rule group evaluates the responses that your protected resources send back to client account creation attempts, keeping count of successful and failed attempts from each IP
address and client session. Using this information, the rule group labels and mitigates requests from client sessions and IP addresses that have had too many successful account creation attempts in a short amount of time.

Type: ResponseInspection object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
AWSManagedRulesATPRuleSet

Service: AWS WAFV2

Details for your use of the account takeover prevention managed rule group, AWSManagedRulesATPRuleSet. This configuration is used in ManagedRuleGroupConfig.

Contents

LoginPath

The path of the login endpoint for your application. For example, for the URL https://example.com/web/login, you would provide the path /web/login. Login paths that start with the path that you provide are considered a match. For example /web/login matches the login paths /web/login, /web/login/, /web/loginPage, and /web/login/thisPage, but doesn't match the login path /home/web/login or /website/login.

The rule group inspects only HTTP POST requests to your specified login endpoint.

Type: String

Required: Yes

EnableRegexInPath

Allow the use of regular expressions in the login page path.

Type: Boolean

Required: No

RequestInspection

The criteria for inspecting login requests, used by the ATP rule group to validate credentials usage.

Type: RequestInspection object

Required: No

ResponseInspection

The criteria for inspecting responses to login requests, used by the ATP rule group to track login failure rates.
### Note
Response inspection is available only in web ACLs that protect Amazon CloudFront distributions.

The ATP rule group evaluates the responses that your protected resources send back to client login attempts, keeping count of successful and failed attempts for each IP address and client session. Using this information, the rule group labels and mitigates requests from client sessions and IP addresses that have had too many failed login attempts in a short amount of time.

Type: ResponseInspection object

Required: No

### See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
Details for your use of the Bot Control managed rule group, AWSManagedRulesBotControlRuleSet. This configuration is used in ManagedRuleGroupConfig.

Contents

InspectionLevel

The inspection level to use for the Bot Control rule group. The common level is the least expensive. The targeted level includes all common level rules and adds rules with more advanced inspection criteria. For details, see AWS WAF Bot Control rule group in the AWS WAF Developer Guide.

Type: String

Valid Values: COMMON | TARGETED

Required: Yes

EnableMachineLearning

Applies only to the targeted inspection level.

Determines whether to use machine learning (ML) to analyze your web traffic for bot-related activity. Machine learning is required for the Bot Control rules TGT_ML_CoordinatedActivityLow and TGT_ML_CoordinatedActivityMedium, which inspect for anomalous behavior that might indicate distributed, coordinated bot activity.

For more information about this choice, see the listing for these rules in the table at Bot Control rules listing in the AWS WAF Developer Guide.

Default: TRUE

Type: Boolean

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
BlockAction

Service: AWS WAFV2

Specifies that AWS WAF should block the request and optionally defines additional custom handling for the response to the web request.

This is used in the context of other settings, for example to specify values for RuleAction and web ACL DefaultAction.

Contents

CustomResponse

Defines a custom response for the web request.

For information about customizing web requests and responses, see Customizing web requests and responses in AWS WAF in the AWS WAF Developer Guide.

Type: CustomResponse object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
Body
Service: AWS WAFV2

Inspect the body of the web request. The body immediately follows the request headers.

This is used to indicate the web request component to inspect, in the FieldToMatch specification.

Contents

OversizeHandling

What AWS WAF should do if the body is larger than AWS WAF can inspect. AWS WAF does not support inspecting the entire contents of the web request body if the body exceeds the limit for the resource type. If the body is larger than the limit, the underlying host service only forwards the contents that are below the limit to AWS WAF for inspection.

The default limit is 8 KB (8,192 bytes) for regional resources and 16 KB (16,384 bytes) for CloudFront distributions. For CloudFront distributions, you can increase the limit in the web ACL AssociationConfig, for additional processing fees.

The options for oversize handling are the following:

- CONTINUE - Inspect the available body contents normally, according to the rule inspection criteria.
- MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- NO_MATCH - Treat the web request as not matching the rule statement.

You can combine the MATCH or NO_MATCH settings for oversize handling with your rule and web ACL action settings, so that you block any request whose body is over the limit.

Default: CONTINUE

Type: String

Valid Values: CONTINUE | MATCH | NO_MATCH

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ByteMatchStatement

Service: AWS WAFV2

A rule statement that defines a string match search for AWS WAF to apply to web requests. The byte match statement provides the bytes to search for, the location in requests that you want AWS WAF to search, and other settings. The bytes to search for are typically a string that corresponds with ASCII characters. In the AWS WAF console and the developer guide, this is called a string match statement.

Contents

FieldToMatch

The part of the web request that you want AWS WAF to inspect.

Type: FieldToMatch object

Required: Yes

PositionalConstraint

The area within the portion of the web request that you want AWS WAF to search for SearchString. Valid values include the following:

CONTAINS

The specified part of the web request must include the value of SearchString, but the location doesn't matter.

CONTAINS_WORD

The specified part of the web request must include the value of SearchString, and SearchString must contain only alphanumeric characters or underscore (A-Z, a-z, 0-9, or _). In addition, SearchString must be a word, which means that both of the following are true:

- SearchString is at the beginning of the specified part of the web request or is preceded by a character other than an alphanumeric character or underscore (_). Examples include the value of a header and ;BadBot.
- SearchString is at the end of the specified part of the web request or is followed by a character other than an alphanumeric character or underscore (_), for example, BadBot; and -BadBot;.
**EXACTLY**

The value of the specified part of the web request must exactly match the value of SearchString.

**STARTS_WITH**

The value of SearchString must appear at the beginning of the specified part of the web request.

**ENDS_WITH**

The value of SearchString must appear at the end of the specified part of the web request.

**SearchString**

A string value that you want AWS WAF to search for. AWS WAF searches only in the part of web requests that you designate for inspection in FieldToMatch. The maximum length of the value is 200 bytes.

Valid values depend on the component that you specify for inspection in FieldToMatch:

- **Method**: The HTTP method that you want AWS WAF to search for. This indicates the type of operation specified in the request.

- **UriPath**: The value that you want AWS WAF to search for in the URI path, for example, /images/daily-ad.jpg.

- **JA3Fingerprint**: Match against the request's JA3 fingerprint. The JA3 fingerprint is a 32-character hash derived from the TLS Client Hello of an incoming request. This fingerprint serves as a unique identifier for the client's TLS configuration. You can use this choice only with a string match ByteMatchStatement with the PositionalConstraint set to EXACTLY.

You can obtain the JA3 fingerprint for client requests from the web ACL logs. If AWS WAF is able to calculate the fingerprint, it includes it in the logs. For information about the logging fields, see Log fields in the AWS WAF Developer Guide.
• **HeaderOrder**: The list of header names to match for. AWS WAF creates a string that contains the ordered list of header names, from the headers in the web request, and then matches against that string.

If `SearchString` includes alphabetic characters A-Z and a-z, note that the value is case sensitive.

**If you're using the AWS WAF API**

Specify a base64-encoded version of the value. The maximum length of the value before you base64-encode it is 200 bytes.

For example, suppose the value of `Type` is `HEADER` and the value of `Data` is `User-Agent`. If you want to search the `User-Agent` header for the value `BadBot`, you base64-encode `BadBot` using MIME base64-encoding and include the resulting value, `QmFkQm90`, in the value of `SearchString`.

**If you're using the AWS CLI or one of the AWS SDKs**

The value that you want AWS WAF to search for. The SDK automatically base64 encodes the value.

Type: Base64-encoded binary data object

Required: Yes

**TextTransformations**

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. Text transformations are used in rule match statements, to transform the `FieldToMatch` request component before inspecting it, and they're used in rate-based rule statements, to transform request components before using them as custom aggregation keys. If you specify one or more transformations to apply, AWS WAF performs all transformations on the specified content, starting from the lowest priority setting, and then uses the transformed component contents.

Type: Array of [TextTransformation](#) objects

Array Members: Minimum number of 1 item.

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**CaptchaAction**

Service: AWS WAFV2

Specifies that AWS WAF should run a CAPTCHA check against the request:

- If the request includes a valid, unexpired CAPTCHA token, AWS WAF applies any custom request handling and labels that you've configured and then allows the web request inspection to proceed to the next rule, similar to a CountAction.
- If the request doesn't include a valid, unexpired token, AWS WAF discontinues the web ACL evaluation of the request and blocks it from going to its intended destination.

AWS WAF generates a response that it sends back to the client, which includes the following:

- The header `x-amzn-waf-action` with a value of `captcha`.
- The HTTP status code `405 Method Not Allowed`.
- If the request contains an `Accept` header with a value of `text/html`, the response includes a CAPTCHA JavaScript page interstitial.

You can configure the expiration time in the CaptchaConfig ImmunityTimeProperty setting at the rule and web ACL level. The rule setting overrides the web ACL setting.

This action option is available for rules. It isn't available for web ACL default actions.

**Contents**

**CustomRequestHandling**

Defines custom handling for the web request, used when the CAPTCHA inspection determines that the request's token is valid and unexpired.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](https://docs.aws.amazon.com/waf/latest/developerguide/custom-web-chains.html) in the *AWS WAF Developer Guide*.

Type: `CustomRequestHandling` object

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
CaptchaConfig

Service: AWS WAFV2

Specifies how AWS WAF should handle CAPTCHA evaluations. This is available at the web ACL level and in each rule.

Contents

ImmunityTimeProperty

Determines how long a CAPTCHA timestamp in the token remains valid after the client successfully solves a CAPTCHA puzzle.

Type: ImmunityTimeProperty object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
CaptchaResponse
Service: AWS WAFV2

The result from the inspection of the web request for a valid CAPTCHA token.

Contents

FailureReason

The reason for failure, populated when the evaluation of the token fails.

Type: String

Valid Values: TOKEN_MISSING | TOKEN_EXPIRED | TOKEN_INVALID | TOKEN_DOMAIN_MISMATCH

Required: No

ResponseCode

The HTTP response code indicating the status of the CAPTCHA token in the web request. If the token is missing, invalid, or expired, this code is 405 Method Not Allowed.

Type: Integer

Required: No

SolveTimestamp

The time that the CAPTCHA was last solved for the supplied token.

Type: Long

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ChallengeAction

Service: AWS WAFV2

Specifies that AWS WAF should run a Challenge check against the request to verify that the request is coming from a legitimate client session:

- If the request includes a valid, unexpired challenge token, AWS WAF applies any custom request handling and labels that you've configured and then allows the web request inspection to proceed to the next rule, similar to a CountAction.
- If the request doesn't include a valid, unexpired challenge token, AWS WAF discontinues the web ACL evaluation of the request and blocks it from going to its intended destination.

AWS WAF then generates a challenge response that it sends back to the client, which includes the following:

- The header `x-amzn-waf-action` with a value of `challenge`.
- The HTTP status code `202 Request Accepted`.
- If the request contains an `Accept` header with a value of `text/html`, the response includes a JavaScript page interstitial with a challenge script.

Challenges run silent browser interrogations in the background, and don't generally affect the end user experience.

A challenge enforces token acquisition using an interstitial JavaScript challenge that inspects the client session for legitimate behavior. The challenge blocks bots or at least increases the cost of operating sophisticated bots.

After the client session successfully responds to the challenge, it receives a new token from AWS WAF, which the challenge script uses to resubmit the original request.

You can configure the expiration time in the `ChallengeConfig ImmunityTimeProperty` setting at the rule and web ACL level. The rule setting overrides the web ACL setting.

This action option is available for rules. It isn't available for web ACL default actions.
CustomRequestHandling

Defines custom handling for the web request, used when the challenge inspection determines that the request's token is valid and unexpired.

For information about customizing web requests and responses, see Customizing web requests and responses in AWS WAF in the AWS WAF Developer Guide.

Type: CustomRequestHandling object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ChallengeConfig

Service: AWS WAFV2

Specifies how AWS WAF should handle Challenge evaluations. This is available at the web ACL level and in each rule.

Contents

ImmunityTimeProperty

Determines how long a challenge timestamp in the token remains valid after the client successfully responds to a challenge.

Type: ImmunityTimeProperty object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ChallengeResponse
Service: AWS WAFV2

The result from the inspection of the web request for a valid challenge token.

Contents

FailureReason

The reason for failure, populated when the evaluation of the token fails.

Type: String

Valid Values: TOKEN_MISSING | TOKEN_EXPIRED | TOKEN_INVALID | TOKEN_DOMAIN_MISMATCH

Required: No

ResponseCode

The HTTP response code indicating the status of the challenge token in the web request. If the token is missing, invalid, or expired, this code is 202 Request Accepted.

Type: Integer

Required: No

SolveTimestamp

The time that the challenge was last solved for the supplied token.

Type: Long

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
**Condition**

Service: AWS WAFV2

A single match condition for a [Filter](#).

**Contents**

**ActionCondition**

A single action condition. This is the action setting that a log record must contain in order to meet the condition.

Type: `ActionCondition` object

Required: No

**LabelNameCondition**

A single label name condition. This is the fully qualified label name that a log record must contain in order to meet the condition. Fully qualified labels have a prefix, optional namespaces, and label name. The prefix identifies the rule group or web ACL context of the rule that added the label.

Type: `LabelNameCondition` object

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](https://aws.amazon.com/c/cpp/
- [AWS SDK for Go](https://aws.amazon.com/go/
- [AWS SDK for Java V2](https://docs.aws.amazon.com/waf/latest/guide/get-the-sdk-
- [AWS SDK for Ruby V3](https://docs.aws.amazon.com/waf/latest/guide/get-the-sdk-
CookieMatchPattern

Service: AWS WAFV2

The filter to use to identify the subset of cookies to inspect in a web request.

You must specify exactly one setting: either All, IncludedCookies, or ExcludedCookies.

Example JSON: "MatchPattern": { "IncludedCookies": [ "session-id-time", "session-id" ] }

Contents

All

Inspect all cookies.

Type: All object

Required: No

ExcludedCookies

Inspect only the cookies whose keys don't match any of the strings specified here.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 199 items.

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: .*\S.*

Required: No

IncludedCookies

Inspect only the cookies that have a key that matches one of the strings specified here.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 199 items.

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: .*\S.*
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
Cookies

Service: AWS WAFV2

Inspect the cookies in the web request. You can specify the parts of the cookies to inspect and you can narrow the set of cookies to inspect by including or excluding specific keys.

This is used to indicate the web request component to inspect, in the `FieldToMatch` specification.

Example JSON: "Cookies": { "MatchPattern": { "All": {} }, "MatchScope": "KEY", "OversizeHandling": "MATCH" }

Contents

MatchPattern

The filter to use to identify the subset of cookies to inspect in a web request.

You must specify exactly one setting: either All, IncludedCookies, or ExcludedCookies.

Example JSON: "MatchPattern": { "IncludedCookies": [ "session-id-time", "session-id" ] }

Type: CookieMatchPattern object

Required: Yes

MatchScope

The parts of the cookies to inspect with the rule inspection criteria. If you specify ALL, AWS WAF inspects both keys and values.

All does not require a match to be found in the keys and a match to be found in the values. It requires a match to be found in the keys or the values or both. To require a match in the keys and in the values, use a logical AND statement to combine two match rules, one that inspects the keys and another that inspects the values.

Type: String

Valid Values: ALL | KEY | VALUE

Required: Yes
OversizeHandling

What AWS WAF should do if the cookies of the request are more numerous or larger than AWS WAF can inspect. AWS WAF does not support inspecting the entire contents of request cookies when they exceed 8 KB (8192 bytes) or 200 total cookies. The underlying host service forwards a maximum of 200 cookies and at most 8 KB of cookie contents to AWS WAF.

The options for oversize handling are the following:

• CONTINUE - Inspect the available cookies normally, according to the rule inspection criteria.
• MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
• NO_MATCH - Treat the web request as not matching the rule statement.

Type: String

Valid Values: CONTINUE | MATCH | NO_MATCH

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
CountAction

Service: AWS WAFV2

Specifies that AWS WAF should count the request. Optionally defines additional custom handling for the request.

This is used in the context of other settings, for example to specify values for RuleAction and web ACL DefaultAction.

Contents

CustomRequestHandling

Defines custom handling for the web request.

For information about customizing web requests and responses, see Customizing web requests and responses in AWS WAF in the AWS WAF Developer Guide.

Type: CustomRequestHandling object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
CustomHTTPHeader

A custom header for custom request and response handling. This is used in CustomResponse and CustomRequestHandling.

Contents

Name

The name of the custom header.

For custom request header insertion, when AWS WAF inserts the header into the request, it prefixes this name x-amzn-waf-, to avoid confusion with the headers that are already in the request. For example, for the header name sample, AWS WAF inserts the header x-amzn-waf-sample.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9._$-]+$

Required: Yes

Value

The value of the custom header.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• **AWS SDK for C++**
• **AWS SDK for Go**
• **AWS SDK for Java V2**
• **AWS SDK for Ruby V3**
**CustomRequestHandling**

Service: AWS WAFV2

Custom request handling behavior that inserts custom headers into a web request. You can add custom request handling for AWS WAF to use when the rule action doesn't block the request. For example, CaptchaAction for requests with valid tokens, and AllowAction.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the *AWS WAF Developer Guide*.

**Contents**

**InsertHeaders**

The HTTP headers to insert into the request. Duplicate header names are not allowed.

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

Type: Array of CustomHTTPHeader objects

Array Members: Minimum number of 1 item.

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**CustomResponse**

Service: AWS WAFV2

A custom response to send to the client. You can define a custom response for rule actions and default web ACL actions that are set to `BlockAction`.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](https://docs.aws.amazon.com/waf/latest/developerguide/customizing-web-requests-and-responses.html) in the _AWS WAF Developer Guide._

**Contents**

**ResponseCode**

The HTTP status code to return to the client.

For a list of status codes that you can use in your custom responses, see [Supported status codes for custom response](https://docs.aws.amazon.com/waf/latest/developerguide/status-codes.html) in the _AWS WAF Developer Guide._

Type: Integer


Required: Yes

**CustomResponseBodyKey**

References the response body that you want AWS WAF to return to the web request client. You can define a custom response for a rule action or a default web ACL action that is set to block. To do this, you first define the response body key and value in the `CustomResponseBodies` setting for the [WebACL](https://docs.aws.amazon.com/waf/latest/developerguide/web-acl-overview.html) or [RuleGroup](https://docs.aws.amazon.com/waf/latest/developerguide/rule-group-overview.html) where you want to use it. Then, in the rule action or web ACL default action `BlockAction` setting, you reference the response body using this key.

Type: String


Pattern: `^[\w\-]+$`

Required: No

**ResponseHeaders**

The HTTP headers to use in the response. You can specify any header name except for `content-type`. Duplicate header names are not allowed.
For information about the limits on count and size for custom request and response settings, see AWS WAF quotas in the AWS WAF Developer Guide.

Type: Array of CustomHTTPHeader objects

Array Members: Minimum number of 1 item.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
CustomResponseBody

Service: AWS WAFV2

The response body to use in a custom response to a web request. This is referenced by key from CustomResponse CustomResponseBodyKey.

Contents

Content

The payload of the custom response.

You can use JSON escape strings in JSON content. To do this, you must specify JSON content in the ContentType setting.

For information about the limits on count and size for custom request and response settings, see AWS WAF quotas in the AWS WAF Developer Guide.

Type: String


Pattern: [\s\S]*

Required: Yes

ContentType

The type of content in the payload that you are defining in the Content string.

Type: String

Valid Values: TEXT_PLAIN | TEXT_HTML | APPLICATION_JSON

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
DefaultAction
Service: AWS WAFV2

In a WebACL, this is the action that you want AWS WAF to perform when a web request doesn't match any of the rules in the WebACL. The default action must be a terminating action.

Contents

Allow

Specifies that AWS WAF should allow requests by default.

Type: AllowAction object

Required: No

Block

Specifies that AWS WAF should block requests by default.

Type: BlockAction object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
EmailField
Service: AWS WAFV2

The name of the field in the request payload that contains your customer's email.

This data type is used in the RequestInspectionACFP data type.

Contents

Identifier

The name of the email field.

How you specify this depends on the request inspection payload type.

- For JSON payloads, specify the field name in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation JavaScript Object Notation (JSON) Pointer.

  For example, for the JSON payload `{ "form": { "email": "THE_EMAIL" } }`, the email field specification is `/form/email`.

- For form encoded payload types, use the HTML form names.

  For example, for an HTML form with the input element named email1, the email field specification is email1.

Type: String


Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ExcludedRule
Service: AWS WAFV2

Specifies a single rule in a rule group whose action you want to override to Count.

**Note**
Instead of this option, use RuleAction Overrides. It accepts any valid action setting, including Count.

**Contents**

**Name**

The name of the rule whose action you want to override to Count.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
FieldToMatch

Service: AWS WAFV2

The part of the web request that you want AWS WAF to inspect. Include the single FieldToMatch type that you want to inspect, with additional specifications as needed, according to the type. You specify a single request component in FieldToMatch for each rule statement that requires it. To inspect more than one component of the web request, create a separate rule statement for each component.

Example JSON for a QueryString field to match:

"FieldToMatch": { "QueryString": {} }

Example JSON for a Method field to match specification:

"FieldToMatch": { "Method": { "Name": "DELETE" } }

Contents

AllQueryArguments

Inspect all query arguments.

Type: AllQueryArguments object

Required: No

Body

Inspect the request body as plain text. The request body immediately follows the request headers. This is the part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form.

A limited amount of the request body is forwarded to AWS WAF for inspection by the underlying host service. For regional resources, the limit is 8 KB (8,192 bytes) and for CloudFront distributions, the limit is 16 KB (16,384 bytes). For CloudFront distributions, you can increase the limit in the web ACL's AssociationConfig, for additional processing fees.

For information about how to handle oversized request bodies, see the Body object configuration.

Type: Body object
Cookies

Inspect the request cookies. You must configure scope and pattern matching filters in the Cookies object, to define the set of cookies and the parts of the cookies that AWS WAF inspects.

Only the first 8 KB (8192 bytes) of a request's cookies and only the first 200 cookies are forwarded to AWS WAF for inspection by the underlying host service. You must configure how to handle any oversize cookie content in the Cookies object. AWS WAF applies the pattern matching filters to the cookies that it receives from the underlying host service.

Type: Cookies object

Required: No

HeaderOrder

Inspect a string containing the list of the request's header names, ordered as they appear in the web request that AWS WAF receives for inspection. AWS WAF generates the string and then uses that as the field to match component in its inspection. AWS WAF separates the header names in the string using colons and no added spaces, for example host:user-agent:accept:authorization:referer.

Type: HeaderOrder object

Required: No

Headers

Inspect the request headers. You must configure scope and pattern matching filters in the Headers object, to define the set of headers to and the parts of the headers that AWS WAF inspects.

Only the first 8 KB (8192 bytes) of a request's headers and only the first 200 headers are forwarded to AWS WAF for inspection by the underlying host service. You must configure how to handle any oversize header content in the Headers object. AWS WAF applies the pattern matching filters to the headers that it receives from the underlying host service.

Type: Headers object

Required: No
JA3Fingerprint

Match against the request's JA3 fingerprint. The JA3 fingerprint is a 32-character hash derived from the TLS Client Hello of an incoming request. This fingerprint serves as a unique identifier for the client's TLS configuration. AWS WAF calculates and logs this fingerprint for each request that has enough TLS Client Hello information for the calculation. Almost all web requests include this information.

Note

You can use this choice only with a string match ByteMatchStatement with the PositionalConstraint set to EXACTLY.

You can obtain the JA3 fingerprint for client requests from the web ACL logs. If AWS WAF is able to calculate the fingerprint, it includes it in the logs. For information about the logging fields, see Log fields in the AWS WAF Developer Guide.

Provide the JA3 fingerprint string from the logs in your string match statement specification, to match with any future requests that have the same TLS configuration.

Type: JA3Fingerprint object

Required: No

JsonBody

Inspect the request body as JSON. The request body immediately follows the request headers. This is the part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form.

A limited amount of the request body is forwarded to AWS WAF for inspection by the underlying host service. For regional resources, the limit is 8 KB (8,192 bytes) and for CloudFront distributions, the limit is 16 KB (16,384 bytes). For CloudFront distributions, you can increase the limit in the web ACL's AssociationConfig, for additional processing fees.

For information about how to handle oversized request bodies, see the JsonBody object configuration.

Type: JsonBody object
Required: No

**Method**

Inspect the HTTP method. The method indicates the type of operation that the request is asking the origin to perform.

Type: [Method](#) object

Required: No

**QueryString**

Inspect the query string. This is the part of a URL that appears after a `?` character, if any.

Type: [QueryString](#) object

Required: No

**SingleHeader**

Inspect a single header. Provide the name of the header to inspect, for example, `User-Agent` or `Referer`. This setting isn't case sensitive.

Example JSON: "SingleHeader": { "Name": "haystack" }

Alternately, you can filter and inspect all headers with the Headers `FieldToMatch` setting.

Type: [SingleHeader](#) object

Required: No

**SingleQueryArgument**

Inspect a single query argument. Provide the name of the query argument to inspect, such as `UserName` or `SalesRegion`. The name can be up to 30 characters long and isn't case sensitive.

Example JSON: "SingleQueryArgument": { "Name": "myArgument" }

Type: [SingleQueryArgument](#) object

Required: No

**UriPath**

Inspect the request URI path. This is the part of the web request that identifies a resource, for example, `/images/daily-ad.jpg`. 
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
Filter
Service: AWS WAFV2

A single logging filter, used in LoggingFilter.

Contents

Behavior

How to handle logs that satisfy the filter's conditions and requirement.

Type: String

Valid Values: KEEP  |  DROP

Required: Yes

Conditions

Match conditions for the filter.

Type: Array of Condition objects

Array Members: Minimum number of 1 item.

Required: Yes

Requirement

Logic to apply to the filtering conditions. You can specify that, in order to satisfy the filter, a log must match all conditions or must match at least one condition.

Type: String

Valid Values: MEETS_ALL  |  MEETS_ANY

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
FirewallManagerRuleGroup

Service: AWS WAFV2

A rule group that's defined for an AWS Firewall Manager AWS WAF policy.

Contents

FirewallManagerStatement

The processing guidance for an AWS Firewall Manager rule. This is like a regular rule Statement, but it can only contain a rule group reference.

Type: FirewallManagerStatement object

Required: Yes

Name

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

OverrideAction

The action to use in the place of the action that results from the rule group evaluation. Set the override action to none to leave the result of the rule group alone. Set it to count to override the result to count only.

You can only use this for rule statements that reference a rule group, like RuleGroupReferenceStatement and ManagedRuleGroupStatement.

Note

This option is usually set to none. It does not affect how the rules in the rule group are evaluated. If you want the rules in the rule group to only count matches, do not use this and instead use the rule action override option, with Count action, in your rule group reference statement settings.
Type: OverrideAction object

Required: Yes

**Priority**

If you define more than one rule group in the first or last Firewall Manager rule groups, AWS WAF evaluates each request against the rule groups in order, starting from the lowest priority setting. The priorities don't need to be consecutive, but they must all be different.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

**VisibilityConfig**

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: VisibilityConfig object

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
FirewallManagerStatement

Service: AWS WAFV2

The processing guidance for an AWS Firewall Manager rule. This is like a regular rule Statement, but it can only contain a single rule group reference.

Contents

ManagedRuleGroupStatement

A statement used by AWS Firewall Manager to run the rules that are defined in a managed rule group. This is managed by Firewall Manager for an AWS Firewall Manager AWS WAF policy.

Type: ManagedRuleGroupStatement object

Required: No

RuleGroupReferenceStatement

A statement used by AWS Firewall Manager to run the rules that are defined in a rule group. This is managed by Firewall Manager for an AWS Firewall Manager AWS WAF policy.

Type: RuleGroupReferenceStatement object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ForwardedIPConfig

Service: AWS WAFV2

The configuration for inspecting IP addresses in an HTTP header that you specify, instead of using the IP address that's reported by the web request origin. Commonly, this is the X-Forwarded-For (XFF) header, but you can specify any header name.

ℹ️ Note
If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

This configuration is used for GeoMatchStatement and RateBasedStatement. For IPSetReferenceStatement, use IPSetForwardedIPConfig instead.

AWS WAF only evaluates the first IP address found in the specified HTTP header.

Contents

FallbackBehavior

The match status to assign to the web request if the request doesn't have a valid IP address in the specified position.

ℹ️ Note
If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

You can specify the following fallback behaviors:

- MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- NO_MATCH - Treat the web request as not matching the rule statement.

Type: String

Valid Values: MATCH | NO_MATCH
Required: Yes

**HeaderName**

The name of the HTTP header to use for the IP address. For example, to use the X-Forwarded-For (XFF) header, set this to X-Forwarded-For.

**Note**

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: ^[a-zA-Z0-9-]+$

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
GeoMatchStatement

Service: AWS WAFV2

A rule statement that labels web requests by country and region and that matches against web requests based on country code. A geo match rule labels every request that it inspects regardless of whether it finds a match.

- To manage requests only by country, you can use this statement by itself and specify the countries that you want to match against in the CountryCodes array.
- Otherwise, configure your geo match rule with Count action so that it only labels requests. Then, add one or more label match rules to run after the geo match rule and configure them to match against the geographic labels and handle the requests as needed.

AWS WAF labels requests using the alpha-2 country and region codes from the International Organization for Standardization (ISO) 3166 standard. AWS WAF determines the codes using either the IP address in the web request origin or, if you specify it, the address in the geo match ForwardedIPConfig.

If you use the web request origin, the label formats are awswaf:clientip:geo:region:<ISO country code>-<ISO region code> and awswaf:clientip:geo:country:<ISO country code>.

If you use a forwarded IP address, the label formats are awswaf:forwardedip:geo:region:<ISO country code>-<ISO region code> and awswaf:forwardedip:geo:country:<ISO country code>.

For additional details, see Geographic match rule statement in the AWS WAF Developer Guide.

Contents

CountryCodes

An array of two-character country codes that you want to match against, for example, ["US", "CN"], from the alpha-2 country ISO codes of the ISO 3166 international standard.

When you use a geo match statement just for the region and country labels that it adds to requests, you still have to supply a country code for the rule to evaluate. In this case, you configure the rule to only count matching requests, but it will still generate logging and count
metrics for any matches. You can reduce the logging and metrics that the rule produces by specifying a country that's unlikely to be a source of traffic to your site.

Type: Array of strings

Array Members: Minimum number of 1 item.


Required: No

**ForwardedIPConfig**

The configuration for inspecting IP addresses in an HTTP header that you specify, instead of using the IP address that's reported by the web request origin. Commonly, this is the X-Forwarded-For (XFF) header, but you can specify any header name.

⚠️ **Note**

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.
Type: `ForwardedIPConfig` object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
HeaderMatchPattern

Service: AWS WAFV2

The filter to use to identify the subset of headers to inspect in a web request.

You must specify exactly one setting: either All, IncludedHeaders, or ExcludedHeaders.

Example JSON: "MatchPattern": { "ExcludedHeaders": [ "KeyToExclude1", "KeyToExclude2" ] }

Contents

All

Inspect all headers.

Type: All object

Required: No

ExcludedHeaders

Inspect only the headers whose keys don't match any of the strings specified here.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 199 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .*

Required: No

IncludedHeaders

Inspect only the headers that have a key that matches one of the strings specified here.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 199 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .*

Required: No
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
HeaderOrder
Service: AWS WAFV2

Inspect a string containing the list of the request's header names, ordered as they appear in the web request that AWS WAF receives for inspection. AWS WAF generates the string and then uses that as the field to match component in its inspection. AWS WAF separates the header names in the string using colons and no added spaces, for example host:user-agent:accept:authorization:referer.

Contents

OversizeHandling

What AWS WAF should do if the headers of the request are more numerous or larger than AWS WAF can inspect. AWS WAF does not support inspecting the entire contents of request headers when they exceed 8 KB (8192 bytes) or 200 total headers. The underlying host service forwards a maximum of 200 headers and at most 8 KB of header contents to AWS WAF.

The options for oversize handling are the following:

- CONTINUE - Inspect the available headers normally, according to the rule inspection criteria.
- MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- NO_MATCH - Treat the web request as not matching the rule statement.

Type: String

Valid Values: CONTINUE | MATCH | NO_MATCH

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- AWS SDK for Ruby V3
Inspect all headers in the web request. You can specify the parts of the headers to inspect and you can narrow the set of headers to inspect by including or excluding specific keys.

This is used to indicate the web request component to inspect, in the FieldToMatch specification.

If you want to inspect just the value of a single header, use the SingleHeader FieldToMatch setting instead.

Example JSON: "Headers": { "MatchPattern": { "All": {} }, "MatchScope": "KEY", "OversizeHandling": "MATCH" }

### Contents

#### MatchPattern

The filter to use to identify the subset of headers to inspect in a web request.

You must specify exactly one setting: either All, IncludedHeaders, or ExcludedHeaders.

Example JSON: "MatchPattern": { "ExcludedHeaders": [ "KeyToExclude1", "KeyToExclude2" ] }

Type: HeaderMatchPattern object

Required: Yes

#### MatchScope

The parts of the headers to match with the rule inspection criteria. If you specify ALL, AWS WAF inspects both keys and values.

All does not require a match to be found in the keys and a match to be found in the values. It requires a match to be found in the keys or the values or both. To require a match in the keys and in the values, use a logical AND statement to combine two match rules, one that inspects the keys and another that inspects the values.

Type: String

Valid Values: ALL | KEY | VALUE
Required: Yes

OversizeHandling

What AWS WAF should do if the headers of the request are more numerous or larger than AWS WAF can inspect. AWS WAF does not support inspecting the entire contents of request headers when they exceed 8 KB (8192 bytes) or 200 total headers. The underlying host service forwards a maximum of 200 headers and at most 8 KB of header contents to AWS WAF.

The options for oversize handling are the following:

- **CONTINUE** - Inspect the available headers normally, according to the rule inspection criteria.
- **MATCH** - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- **NO_MATCH** - Treat the web request as not matching the rule statement.

Type: String

Valid Values: CONTINUE | MATCH | NO_MATCH

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
HTTPHeader

Service: AWS WAFV2

Part of the response from GetSampledRequests. This is a complex type that appears as Headers in the response syntax. HTTPHeader contains the names and values of all of the headers that appear in one of the web requests.

Contents

Name

The name of the HTTP header.

Type: String

Required: No

Value

The value of the HTTP header.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
HTTPRequest

Service: AWS WAFV2

Part of the response from GetSampledRequests. This is a complex type that appears as Request in the response syntax. HTTPRequest contains information about one of the web requests.

Contents

ClientIP

The IP address that the request originated from. If the web ACL is associated with a CloudFront distribution, this is the value of one of the following fields in CloudFront access logs:

• c-ip, if the viewer did not use an HTTP proxy or a load balancer to send the request
• x-forwarded-for, if the viewer did use an HTTP proxy or a load balancer to send the request

Type: String

Required: No

Country

The two-letter country code for the country that the request originated from. For a current list of country codes, see the Wikipedia entry ISO 3166-1 alpha-2.

Type: String

Required: No

Headers

A complex type that contains the name and value for each header in the sampled web request.

Type: Array of HTTPHeader objects

Required: No

HTTPVersion

The HTTP version specified in the sampled web request, for example, HTTP/1.1.

Type: String

Required: No
**Method**

The HTTP method specified in the sampled web request.

Type: String

Required: No

**URI**

The URI path of the request, which identifies the resource, for example, /images/daily-ad.jpg.

Type: String

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
ImmunityTimeProperty

Service: AWS WAFV2

Used for CAPTCHA and challenge token settings. Determines how long a CAPTCHA or challenge timestamp remains valid after AWS WAF updates it for a successful CAPTCHA or challenge response.

Contents

ImmunityTime

The amount of time, in seconds, that a CAPTCHA or challenge timestamp is considered valid by AWS WAF. The default setting is 300.

For the Challenge action, the minimum setting is 300.

Type: Long

Valid Range: Minimum value of 60. Maximum value of 259200.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
IPSet

Service: AWS WAFV2

Contains zero or more IP addresses or blocks of IP addresses specified in Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports all IPv4 and IPv6 CIDR ranges except for /0. For information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](https://en.wikipedia.org/wiki/Classless_Inter-Domain_Routing).

AWS WAF assigns an ARN to each IPSet that you create. To use an IP set in a rule, you provide the ARN to the `Rule` statement `IPSetReferenceStatement`.

Contents

Addresses

Contains an array of strings that specifies zero or more IP addresses or blocks of IP addresses that you want AWS WAF to inspect for in incoming requests. All addresses must be specified using Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports all IPv4 and IPv6 CIDR ranges except for /0.

Example address strings:

- For requests that originated from the IP address 192.0.2.44, specify 192.0.2.44/32.
- For requests that originated from IP addresses from 192.0.2.0 to 192.0.2.255, specify 192.0.2.0/24.
- For requests that originated from the IP address 1111:0000:0000:0000:0000:0000:0000:0111, specify 1111:0000:0000:0000:0000:0000:0000:0111/128.

For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](https://en.wikipedia.org/wiki/Classless_Inter-Domain_Routing).

Example JSON `Addresses` specifications:

- Empty array: "Addresses": []
- Array with one address: "Addresses": ["192.0.2.44/32"]
- Array with three addresses: "Addresses": ["192.0.2.44/32", "192.0.2.0/24", "192.0.0.0/16"]
INVALID specification: "Addresses": ["""] INVALID

Type: Array of strings


Pattern: .*[^\S].*

Required: Yes

**ARN**

The Amazon Resource Name (ARN) of the entity.

Type: String


Pattern: .*[^\S].*

Required: Yes

**Id**

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: ^[0-9a-f]{8}-([0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

**IPAddressVersion**

The version of the IP addresses, either IPV4 or IPV6.

Type: String

Valid Values: IPV4 | IPV6

Required: Yes
Name

The name of the IP set. You cannot change the name of an IPSet after you create it.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

Description

A description of the IP set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[\w+=:@/\-,.][\w+=:@/\-,.\s]+[\w+=:@/\-,.]$  

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
IPSetForwardedIPConfig
Service: AWS WAFV2

The configuration for inspecting IP addresses in an HTTP header that you specify, instead of using the IP address that's reported by the web request origin. Commonly, this is the X-Forwarded-For (XFF) header, but you can specify any header name.

Note
If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

This configuration is used only for IPSetReferenceStatement. For GeoMatchStatement and RateBasedStatement, use ForwardedIPConfig instead.

Contents

FallbackBehavior

The match status to assign to the web request if the request doesn't have a valid IP address in the specified position.

Note
If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

You can specify the following fallback behaviors:

- MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- NO_MATCH - Treat the web request as not matching the rule statement.

Type: String

Valid Values: MATCH | NO_MATCH

Required: Yes
**HeaderName**

The name of the HTTP header to use for the IP address. For example, to use the X-Forwarded-For (XFF) header, set this to `X-Forwarded-For`.

**Note**

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[a-zA-Z0-9-]+$`

Required: Yes

**Position**

The position in the header to search for the IP address. The header can contain IP addresses of the original client and also of proxies. For example, the header value could be `10.1.1.1, 127.0.0.0, 10.10.10.10` where the first IP address identifies the original client and the rest identify proxies that the request went through.

The options for this setting are the following:

- **FIRST** - Inspect the first IP address in the list of IP addresses in the header. This is usually the client's original IP.
- **LAST** - Inspect the last IP address in the list of IP addresses in the header.
- **ANY** - Inspect all IP addresses in the header for a match. If the header contains more than 10 IP addresses, AWS WAF inspects the last 10.

Type: String

Valid Values: FIRST | LAST | ANY

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
IPSetsReferenceStatement

Service: AWS WAFV2

A rule statement used to detect web requests coming from particular IP addresses or address ranges. To use this, create an IPSet that specifies the addresses you want to detect, then use the ARN of that set in this statement. To create an IP set, see CreateIPSet.

Each IP set rule statement references an IP set. You create and maintain the set independent of your rules. This allows you to use the single set in multiple rules. When you update the referenced set, AWS WAF automatically updates all rules that reference it.

Contents

ARN

The Amazon Resource Name (ARN) of the IPSet that this statement references.

Type: String


Pattern: .*\S.*

Required: Yes

IPSetForwardedIPConfig

The configuration for inspecting IP addresses in an HTTP header that you specify, instead of using the IP address that's reported by the web request origin. Commonly, this is the X-Forwarded-For (XFF) header, but you can specify any header name.

Note

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

Type: IPSetForwardedIPConfig object

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**IPSetSummary**

Service: AWS WAFV2

High-level information about an IPSet, returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage an IPSet, and the ARN, that you provide to the IPSetReferenceStatement to use the address set in a Rule.

**Contents**

**ARN**

The Amazon Resource Name (ARN) of the entity.

Type: String


Pattern: .*\S.*

Required: No

**Description**

A description of the IP set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^\w+:\w+[/\w+\s]*$\n
Required: No

**Id**

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: ^\w+:\w+[/\w+\s]*$
Required: No

**LockToken**

A token used for optimistic locking. AWS WAF returns a token to your `get` and `list` requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like `update` and `delete`. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another `get`, and use the new token returned by that operation.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: No

**Name**

The name of the IP set. You cannot change the name of an `IPSet` after you create it.

Type: String


Pattern: `^[\w\-]+$`

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
JA3Fingerprint

Service: AWS WAFV2

Match against the request's JA3 fingerprint. The JA3 fingerprint is a 32-character hash derived from the TLS Client Hello of an incoming request. This fingerprint serves as a unique identifier for the client's TLS configuration. AWS WAF calculates and logs this fingerprint for each request that has enough TLS Client Hello information for the calculation. Almost all web requests include this information.

Note
You can use this choice only with a string match ByteMatchStatement with the PositionalConstraint set to EXACTLY.

You can obtain the JA3 fingerprint for client requests from the web ACL logs. If AWS WAF is able to calculate the fingerprint, it includes it in the logs. For information about the logging fields, see Log fields in the AWS WAF Developer Guide.

Provide the JA3 fingerprint string from the logs in your string match statement specification, to match with any future requests that have the same TLS configuration.

Contents

FallbackBehavior

The match status to assign to the web request if the request doesn't have a JA3 fingerprint.

You can specify the following fallback behaviors:

- MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- NO_MATCH - Treat the web request as not matching the rule statement.

Type: String

Valid Values: MATCH | NO_MATCH

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
JsonBody

Service: AWS WAFV2

Inspect the body of the web request as JSON. The body immediately follows the request headers.

This is used to indicate the web request component to inspect, in the FieldToMatch specification.

Use the specifications in this object to indicate which parts of the JSON body to inspect using the rule's inspection criteria. AWS WAF inspects only the parts of the JSON that result from the matches that you indicate.

Example JSON: "JsonBody": { "MatchPattern": { "All": {} }, "MatchScope": "ALL" }

Contents

MatchPattern

The patterns to look for in the JSON body. AWS WAF inspects the results of these pattern matches against the rule inspection criteria.

Type: JsonMatchPattern object

Required: Yes

MatchScope

The parts of the JSON to match against using the MatchPattern. If you specify ALL, AWS WAF matches against keys and values.

ALL does not require a match to be found in the keys and a match to be found in the values. It requires a match to be found in the keys or the values or both. To require a match in the keys and in the values, use a logical AND statement to combine two match rules, one that inspects the keys and another that inspects the values.

Type: String

Valid Values: ALL | KEY | VALUE

Required: Yes
InvalidFallbackBehavior

What AWS WAF should do if it fails to completely parse the JSON body. The options are the following:

- EVALUATE_AS_STRING - Inspect the body as plain text. AWS WAF applies the text transformations and inspection criteria that you defined for the JSON inspection to the body text string.
- MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- NO_MATCH - Treat the web request as not matching the rule statement.

If you don't provide this setting, AWS WAF parses and evaluates the content only up to the first parsing failure that it encounters.

AWS WAF does its best to parse the entire JSON body, but might be forced to stop for reasons such as invalid characters, duplicate keys, truncation, and any content whose root node isn't an object or an array.

AWS WAF parses the JSON in the following examples as two valid key, value pairs:

- Missing comma: {"key1":"value1","key2":"value2"}
- Missing colon: {"key1":"value1","key2":"value2"}
- Extra colons: {"key1::"value1","key2::"value2"}

Type: String

Valid Values: MATCH | NO_MATCH | EVALUATE_AS_STRING

Required: No

OversizeHandling

What AWS WAF should do if the body is larger than AWS WAF can inspect. AWS WAF does not support inspecting the entire contents of the web request body if the body exceeds the limit for the resource type. If the body is larger than the limit, the underlying host service only forwards the contents that are below the limit to AWS WAF for inspection.

The default limit is 8 KB (8,192 bytes) for regional resources and 16 KB (16,384 bytes) for CloudFront distributions. For CloudFront distributions, you can increase the limit in the web ACL AssociationConfig, for additional processing fees.
The options for oversize handling are the following:

- CONTINUE - Inspect the available body contents normally, according to the rule inspection criteria.
- MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- NO_MATCH - Treat the web request as not matching the rule statement.

You can combine the MATCH or NO_MATCH settings for oversize handling with your rule and web ACL action settings, so that you block any request whose body is over the limit.

Default: CONTINUE

Type: String

Valid Values: CONTINUE | MATCH | NO_MATCH

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**JsonMatchPattern**

Service: AWS WAFV2

The patterns to look for in the JSON body. AWS WAF inspects the results of these pattern matches against the rule inspection criteria. This is used with the `FieldToMatch` option `JsonBody`.

**Contents**

**All**

Match all of the elements. See also `MatchScope` in `JsonBody`.

You must specify either this setting or the `IncludedPaths` setting, but not both.

Type: `All` object

Required: No

**IncludedPaths**

Match only the specified include paths. See also `MatchScope` in `JsonBody`.

Provide the include paths using JSON Pointer syntax. For example, "`IncludedPaths": ["/dogs/0/name", "/dogs/1/name"]." For information about this syntax, see the Internet Engineering Task Force (IETF) documentation [JavaScript Object Notation (JSON) Pointer](https://datatracker.ietf.org/doc/html/rfc6901).

You must specify either this setting or the `All` setting, but not both.

**Note**

Don't use this option to include all paths. Instead, use the `All` setting.

Type: Array of strings

Array Members: Minimum number of 1 item.


Pattern: `(/[\[\^\]]|([^\[\^\]]|~[01]))+`.

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
Label

Service: AWS WAFV2

A single label container. This is used as an element of a label array in multiple contexts, for example, in RuleLabels inside a Rule and in Labels inside a SampledHTTPRequest.

Contents

Name

The label string.

Type: String


Pattern: ^[0-9A-Za-z_\-:\ ]+$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
LabelMatchStatement
Service: AWS WAFV2

A rule statement to match against labels that have been added to the web request by rules that have already run in the web ACL.

The label match statement provides the label or namespace string to search for. The label string can represent a part or all of the fully qualified label name that had been added to the web request. Fully qualified labels have a prefix, optional namespaces, and label name. The prefix identifies the rule group or web ACL context of the rule that added the label. If you do not provide the fully qualified name in your label match string, AWS WAF performs the search for labels that were added in the same context as the label match statement.

Contents

Key

The string to match against. The setting you provide for this depends on the match statement's Scope setting:

- If the Scope indicates LABEL, then this specification must include the name and can include any number of preceding namespace specifications and prefix up to providing the fully qualified label name.
- If the Scope indicates NAMESPACE, then this specification can include any number of contiguous namespace strings, and can include the entire label namespace prefix from the rule group or web ACL where the label originates.

Labels are case sensitive and components of a label must be separated by colon, for example NS1:NS2:name.

Type: String


Pattern: ^[0-9A-Za-z_\-\:]\+$

Required: Yes

Scope

Specify whether you want to match using the label name or just the namespace.
Type: String

Valid Values: LABEL | NAMESPACE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**LabelNameCondition**

Service: AWS WAFV2

A single label name condition for a [Condition](#) in a logging filter.

**Contents**

**LabelName**

The label name that a log record must contain in order to meet the condition. This must be a fully qualified label name. Fully qualified labels have a prefix, optional namespaces, and label name. The prefix identifies the rule group or web ACL context of the rule that added the label.

Type: String


Pattern: `^[0-9A-Za-z_\-\:\ ]+$`

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
LabelSummary

Service: AWS WAFV2

List of labels used by one or more of the rules of a RuleGroup. This summary object is used for the following rule group lists:

- AvailableLabels - Labels that rules add to matching requests. These labels are defined in the RuleLabels for a Rule.
- ConsumedLabels - Labels that rules match against. These labels are defined in a LabelMatchStatement specification, in the Statement definition of a rule.

Contents

Name

An individual label specification.

Type: String


Pattern: \^[0-9A-Za-z_\-:]+\$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
LoggingConfiguration
Service: AWS WAFV2

Defines an association between logging destinations and a web ACL resource, for logging from AWS WAF. As part of the association, you can specify parts of the standard logging fields to keep out of the logs and you can specify filters so that you log only a subset of the logging records.

Note
You can define one logging destination per web ACL.

You can access information about the traffic that AWS WAF inspects using the following steps:

1. Create your logging destination. You can use an Amazon CloudWatch Logs log group, an Amazon Simple Storage Service (Amazon S3) bucket, or an Amazon Kinesis Data Firehose.

   The name that you give the destination must start with aws-waf-logs-. Depending on the type of destination, you might need to configure additional settings or permissions.

   For configuration requirements and pricing information for each destination type, see Logging web ACL traffic in the AWS WAF Developer Guide.

2. Associate your logging destination to your web ACL using a PutLoggingConfiguration request.

When you successfully enable logging using a PutLoggingConfiguration request, AWS WAF creates an additional role or policy that is required to write logs to the logging destination. For an Amazon CloudWatch Logs log group, AWS WAF creates a resource policy on the log group. For an Amazon S3 bucket, AWS WAF creates a bucket policy. For an Amazon Kinesis Data Firehose, AWS WAF creates a service-linked role.

For additional information about web ACL logging, see Logging web ACL traffic information in the AWS WAF Developer Guide.

Contents

LogDestinationConfigs

   The logging destination configuration that you want to associate with the web ACL.
You can associate one logging destination to a web ACL.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.


Pattern: .\S.*

Required: Yes

ResourceArn

The Amazon Resource Name (ARN) of the web ACL that you want to associate with LogDestinationConfigs.

Type: String


Pattern: .\S.*

Required: Yes

LoggingFilter

Filtering that specifies which web requests are kept in the logs and which are dropped. You can filter on the rule action and on the web request labels that were applied by matching rules during web ACL evaluation.

Type: LoggingFilter object

Required: No

ManagedByFirewallManager

Indicates whether the logging configuration was created by AWS Firewall Manager, as part of an AWS WAF policy configuration. If true, only Firewall Manager can modify or delete the configuration.
Type: Boolean

Required: No

RedactedFields

The parts of the request that you want to keep out of the logs.

For example, if you redact the SingleHeader field, the HEADER field in the logs will be REDACTED for all rules that use the SingleHeader FieldToMatch setting.

Redaction applies only to the component that's specified in the rule's FieldToMatch setting, so the SingleHeader redaction doesn't apply to rules that use the Headers FieldToMatch.

Note

You can specify only the following fields for redaction: UriPath, QueryString, SingleHeader, and Method.

Type: Array of FieldToMatch objects

Array Members: Maximum number of 100 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
LoggingFilter

Service: AWS WAFV2

Filtering that specifies which web requests are kept in the logs and which are dropped, defined for a web ACL's LoggingConfiguration.

You can filter on the rule action and on the web request labels that were applied by matching rules during web ACL evaluation.

Contents

DefaultBehavior

Default handling for logs that don't match any of the specified filtering conditions.

Type: String

Valid Values: KEEP | DROP

Required: Yes

Filters

The filters that you want to apply to the logs.

Type: Array of Filter objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ManagedProductDescriptor

Service: AWS WAFV2

The properties of a managed product, such as an AWS Managed Rules rule group or an AWS Marketplace managed rule group.

Contents

IsAdvancedManagedRuleSet

Indicates whether the rule group provides an advanced set of protections, such as the AWS Managed Rules rule groups that are used for AWS WAF intelligent threat mitigation.

Type: Boolean

Required: No

IsVersioningSupported

Indicates whether the rule group is versioned.

Type: Boolean

Required: No

ManagedRuleSetName

The name of the managed rule group. For example, AWSManagedRulesAnonymousIpList or AWSManagedRulesATPRuleSet.

Type: String


Pattern: ^[\w\-]+$

Required: No

ProductDescription

A short description of the managed rule group.

Type: String

Length Constraints: Minimum length of 1.
**ProductId**

A unique identifier for the rule group. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: .*

Required: No

**ProductLink**

For AWS Marketplace managed rule groups only, the link to the rule group product page.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: .*

Required: No

**ProductTitle**

The display name for the managed rule group. For example, Anonymous IP list or Account takeover prevention.

Type: String

Length Constraints: Minimum length of 1.

Pattern: .*

Required: No

**SnsTopicArn**

The Amazon resource name (ARN) of the Amazon Simple Notification Service SNS topic that's used to provide notification of changes to the managed rule group. You can subscribe to the
SNS topic to receive notifications when the managed rule group is modified, such as for new versions and for version expiration. For more information, see the Amazon Simple Notification Service Developer Guide.

Type: String


Pattern: .\S.*

Required: No

VendorName

The name of the managed rule group vendor. You use this, along with the rule group name, to identify a rule group.

Type: String


Pattern: .\S.*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ManagedRuleGroupConfig

Service: AWS WAFV2

Additional information that's used by a managed rule group. Many managed rule groups don't require this.

The rule groups used for intelligent threat mitigation require additional configuration:

- Use the AWSManagedRulesACFPRuleSet configuration object to configure the account creation fraud prevention managed rule group. The configuration includes the registration and sign-up pages of your application and the locations in the account creation request payload of data, such as the user email and phone number fields.

- Use the AWSManagedRulesATPRuleSet configuration object to configure the account takeover prevention managed rule group. The configuration includes the sign-in page of your application and the locations in the login request payload of data such as the username and password.

- Use the AWSManagedRulesBotControlRuleSet configuration object to configure the protection level that you want the Bot Control rule group to use.

For example specifications, see the examples section of CreateWebACL.

Contents

AWSManagedRulesACFPRuleSet

Additional configuration for using the account creation fraud prevention (ACFP) managed rule group, AWSManagedRulesACFPRuleSet. Use this to provide account creation request information to the rule group. For web ACLs that protect CloudFront distributions, use this to also provide the information about how your distribution responds to account creation requests.

For information about using the ACFP managed rule group, see AWS WAF Fraud Control account creation fraud prevention (ACFP) rule group and AWS WAF Fraud Control account creation fraud prevention (ACFP) in the AWS WAF Developer Guide.

Type: AWSManagedRulesACFPRuleSet object

Required: No
AWSManagedRulesATPRuleSet

Additional configuration for using the account takeover prevention (ATP) managed rule group, AWSManagedRulesATPRuleSet. Use this to provide login request information to the rule group. For web ACLs that protect CloudFront distributions, use this to also provide the information about how your distribution responds to login requests.

This configuration replaces the individual configuration fields in ManagedRuleGroupConfig and provides additional feature configuration.

For information about using the ATP managed rule group, see AWS WAF Fraud Control account takeover prevention (ATP) rule group and AWS WAF Fraud Control account takeover prevention (ATP) in the AWS WAF Developer Guide.

Type: AWSManagedRulesATPRuleSet object

Required: No

AWSManagedRulesBotControlRuleSet

Additional configuration for using the Bot Control managed rule group. Use this to specify the inspection level that you want to use. For information about using the Bot Control managed rule group, see AWS WAF Bot Control rule group and AWS WAF Bot Control in the AWS WAF Developer Guide.

Type: AWSManagedRulesBotControlRuleSet object

Required: No

LoginPath

This member has been deprecated.

Note

Instead of this setting, provide your configuration under AWSManagedRulesATPRuleSet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\S\.*
Required: No

**PasswordField**

*This member has been deprecated.*

Note

Instead of this setting, provide your configuration under the request inspection configuration for AWSManagedRulesATPRuleSet or AWSManagedRulesACFPRuleSet.

Type: `PasswordField` object

Required: No

**PayloadType**

*This member has been deprecated.*

Note

Instead of this setting, provide your configuration under the request inspection configuration for AWSManagedRulesATPRuleSet or AWSManagedRulesACFPRuleSet.

Type: String

Valid Values: JSON | FORM_ENCODED

Required: No

**UsernameField**

*This member has been deprecated.*

Note

Instead of this setting, provide your configuration under the request inspection configuration for AWSManagedRulesATPRuleSet or AWSManagedRulesACFPRuleSet.
Type: **UsernameField** object

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
ManagedRuleGroupStatement

Service: AWS WAFV2

A rule statement used to run the rules that are defined in a managed rule group. To use this, provide the vendor name and the name of the rule group in this statement. You can retrieve the required names by calling ListAvailableManagedRuleGroups.

You cannot nest a ManagedRuleGroupStatement, for example for use inside a NotStatement or OrStatement. You cannot use a managed rule group inside another rule group. You can only reference a managed rule group as a top-level statement within a rule that you define in a web ACL.

⚠️ Note

You are charged additional fees when you use the AWS WAF Bot Control managed rule group AWSManagedRulesBotControlRuleSet, the AWS WAF Fraud Control account takeover prevention (ATP) managed rule group AWSManagedRulesATPRuleSet, or the AWS WAF Fraud Control account creation fraud prevention (ACFP) managed rule group AWSManagedRulesACFPRuleSet. For more information, see AWS WAF Pricing.

Contents

Name

The name of the managed rule group. You use this, along with the vendor name, to identify the rule group.

Type: String


Pattern: ^[\w-]+$

Required: Yes

VendorName

The name of the managed rule group vendor. You use this, along with the rule group name, to identify a rule group.
Type: String


Pattern: . *\S.*

Required: Yes

**ExcludedRules**

Rules in the referenced rule group whose actions are set to Count.

**Note**

Instead of this option, use RuleActionOverrides. It accepts any valid action setting, including Count.

Type: Array of **ExcludedRule** objects

Array Members: Maximum number of 100 items.

Required: No

**ManagedRuleGroupConfigs**

Additional information that's used by a managed rule group. Many managed rule groups don't require this.

The rule groups used for intelligent threat mitigation require additional configuration:

- Use the AWSManagedRulesACFPRuleSet configuration object to configure the account creation fraud prevention managed rule group. The configuration includes the registration and sign-up pages of your application and the locations in the account creation request payload of data, such as the user email and phone number fields.

- Use the AWSManagedRulesATPRuleSet configuration object to configure the account takeover prevention managed rule group. The configuration includes the sign-in page of your application and the locations in the login request payload of data such as the username and password.

- Use the AWSManagedRulesBotControlRuleSet configuration object to configure the protection level that you want the Bot Control rule group to use.
Type: Array of ManagedRuleGroupConfig objects

Required: No

**RuleActionOverrides**

Action settings to use in the place of the rule actions that are configured inside the rule group. You specify one override for each rule whose action you want to change.

You can use overrides for testing, for example you can override all of rule actions to Count and then monitor the resulting count metrics to understand how the rule group would handle your web traffic. You can also permanently override some or all actions, to modify how the rule group manages your web traffic.

Type: Array of RuleActionOverride objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

**ScopeDownStatement**

An optional nested statement that narrows the scope of the web requests that are evaluated by the managed rule group. Requests are only evaluated by the rule group if they match the scope-down statement. You can use any nestable Statement in the scope-down statement, and you can nest statements at any level, the same as you can for a rule statement.

Type: Statement object

Required: No

**Version**

The version of the managed rule group to use. If you specify this, the version setting is fixed until you change it. If you don't specify this, AWS WAF uses the vendor's default version, and then keeps the version at the vendor's default when the vendor updates the managed rule group settings.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[\w:\-/.]+$
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ManagedRuleGroupSummary

Service: AWS WAFV2

High-level information about a managed rule group, returned by ListAvailableManagedRuleGroups. This provides information like the name and vendor name, that you provide when you add a ManagedRuleGroupStatement to a web ACL. Managed rule groups include AWS Managed Rules rule groups and AWS Marketplace managed rule groups. To use any AWS Marketplace managed rule group, first subscribe to the rule group through AWS Marketplace.

Contents

Description

The description of the managed rule group, provided by AWS Managed Rules or the AWS Marketplace seller who manages it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[\w+=:#@/-,\s]+[\w+=:#@/-,\s]+$

Required: No

Name

The name of the managed rule group. You use this, along with the vendor name, to identify the rule group.

Type: String


Pattern: ^\w\-]+$

Required: No

VendorName

The name of the managed rule group vendor. You use this, along with the rule group name, to identify a rule group.

Type: String

Pattern: . *\S . *

Required: No

**VersioningSupported**

Indicates whether the managed rule group is versioned. If it is, you can retrieve the versions list by calling `ListAvailableManagedRuleGroupVersions`.

Type: Boolean

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
ManagedRuleGroupVersion
Service: AWS WAFV2

Describes a single version of a managed rule group.

Contents

LastUpdateTimestamp

The date and time that the managed rule group owner updated the rule group version information.

Type: Timestamp

Required: No

Name

The version name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[\w#:\.\-/]+$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ManagedRuleSet

Service: AWS WAFV2

A set of rules that is managed by AWS and AWS Marketplace sellers to provide versioned managed rule groups for customers of AWS WAF.

Note

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.
Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are ListManagedRuleSets, GetManagedRuleSet, PutManagedRuleSetVersions, and UpdateManagedRuleSetVersionExpiryDate.

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String


Pattern: .*\S.*

Required: Yes

Id

A unique identifier for the managed rule set. The ID is returned in the responses to commands like list. You provide it to operations like get and update.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes
Name

The name of the managed rule set. You use this, along with the rule set ID, to identify the rule set.

This name is assigned to the corresponding managed rule group, which your customers can access and use.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

Description

A description of the set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[\w+=:#@/\-,.\s]+[\w+=:#@/\-,.\s]+$

Required: No

LabelNamespace

The label namespace prefix for the managed rule groups that are offered to customers from this managed rule set. All labels that are added by rules in the managed rule group have this prefix.

- The syntax for the label namespace prefix for a managed rule group is the following:

  awswaf:managed:<vendor>:<rule group name>:

- When a rule with a label matches a web request, AWS WAF adds the fully qualified label to the request. A fully qualified label is made up of the label namespace from the rule group or web ACL where the rule is defined and the label from the rule, separated by a colon:

  <label namespace>:<label from rule>

Type: String

Pattern: ^[0-9A-Za-z_\-:\ ]+$

Required: No

**PublishedVersions**

The versions of this managed rule set that are available for use by customers.

Type: String to [ManagedRuleSetVersion](#) object map

Key Length Constraints: Minimum length of 1. Maximum length of 64.

Key Pattern: ^[^\w#\:\/.\-]+$+

Required: No

**RecommendedVersion**

The version that you would like your customers to use.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[^\w#\:\.\-]+$+

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**ManagedRuleSetSummary**

Service: AWS WAFV2

High-level information for a managed rule set.

⚠️ **Note**

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are ListManagedRuleSets, GetManagedRuleSet, PutManagedRuleSetVersions, and UpdateManagedRuleSetVersionExpiryDate.

**Contents**

**ARN**

The Amazon Resource Name (ARN) of the entity.

Type: String


Pattern: .\S.*

Required: No

**Description**

A description of the set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[\w+=:@/-,\.]\[\w+=:@/-,\s]+[\w+=:@/-,\]$
Id

A unique identifier for the managed rule set. The ID is returned in the responses to commands like `list`. You provide it to operations like `get` and `update`.

Type: String


Pattern: `^[0-9a-f]{8}-\(?[0-9a-f]{4}\)?-[0-9a-f]{12}$`

Required: No

LabelNamespace

The label namespace prefix for the managed rule groups that are offered to customers from this managed rule set. All labels that are added by rules in the managed rule group have this prefix.

- The syntax for the label namespace prefix for a managed rule group is the following:

  `awswaf:managed:<vendor>:<rule group name>`:

- When a rule with a label matches a web request, AWS WAF adds the fully qualified label to the request. A fully qualified label is made up of the label namespace from the rule group or web ACL where the rule is defined and the label from the rule, separated by a colon:

  `<label namespace>:<label from rule>`

Type: String


Pattern: `^[0-9A-Za-z_\-:]+$`

Required: No

LockToken

A token used for optimistic locking. AWS WAF returns a token to your `get` and `list` requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like `update` and `delete`. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a
WAFOptimisticLockException. If this happens, perform another `get`, and use the new token returned by that operation.

Type: String


Pattern: `^[0-9a-f]{8}-([0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: No

**Name**

The name of the managed rule set. You use this, along with the rule set ID, to identify the rule set.

This name is assigned to the corresponding managed rule group, which your customers can access and use.

Type: String


Pattern: `^[\w\-]+$`

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
ManagedRuleSetVersion

Information for a single version of a managed rule set.

**Note**

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are ListManagedRuleSets, GetManagedRuleSet, PutManagedRuleSetVersions, and UpdateManagedRuleSetVersionExpiryDate.

**Contents**

**AssociatedRuleGroupArn**

The Amazon Resource Name (ARN) of the vendor rule group that's used to define the published version of your managed rule group.

Type: String


Pattern: .*\S.*

Required: No

**Capacity**

The web ACL capacity units (WCUs) required for this rule group.

AWS WAF uses WCUs to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect the relative cost of each rule. Simple rules that cost little to run use fewer WCUs than more complex rules that use more processing power. Rule group capacity is fixed at creation, which helps users plan their web ACL WCU usage when they use a rule group. For more information, see [AWS WAF web ACL capacity units (WCU)] in the [AWS WAF Developer Guide].
Type: Long

Valid Range: Minimum value of 1.

Required: No

**ExpiryTimestamp**

The time that this version is set to expire.

Times are in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".

Type: Timestamp

Required: No

**ForecastedLifetime**

The amount of time you expect this version of your managed rule group to last, in days.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

**LastUpdateTimestamp**

The last time that you updated this version.

Times are in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".

Type: Timestamp

Required: No

**PublishTimestamp**

The time that you first published this version.

Times are in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".

Type: Timestamp
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
Method

Service: AWS WAFV2

Inspect the HTTP method of the web request. The method indicates the type of operation that the request is asking the origin to perform.

This is used in the FieldToMatch specification for some web request component types.

JSON specification: "Method" : {}  

Contents

The members of this exception structure are context-dependent.

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**MobileSdkRelease**

Service: AWS WAFV2

Information for a release of the mobile SDK, including release notes and tags.

The mobile SDK is not generally available. Customers who have access to the mobile SDK can use it to establish and manage AWS WAF tokens for use in HTTP(S) requests from a mobile device to AWS WAF. For more information, see [AWS WAF client application integration](https://docs.aws.amazon.com/waf/latest/developerguide/awaf-clientside-devguide.html) in the *AWS WAF Developer Guide*.

**Contents**

**ReleaseNotes**

Notes describing the release.

Type: String

Required: No

**ReleaseVersion**

The release version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[\w#:\./-]+$`

Required: No

**Tags**

Tags that are associated with the release.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 1 item.

Required: No

**Timestamp**

The timestamp of the release.
Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
NoneAction

Service: AWS WAFV2

Specifies that AWS WAF should do nothing. This is used for the OverrideAction setting on a Rule when the rule uses a rule group reference statement.

This is used in the context of other settings, for example to specify values for RuleAction and web ACL DefaultAction.

JSON specification: "None" : {}  

Contents

The members of this exception structure are context-dependent.

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**NotStatement**

Service: AWS WAFV2

A logical rule statement used to negate the results of another rule statement. You provide one *Statement* within the NotStatement.

**Contents**

**Statement**

The statement to negate. You can use any statement that can be nested.

Type: *Statement* object

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
OrStatement

Service: AWS WAFV2

A logical rule statement used to combine other rule statements with OR logic. You provide more than one Statement within the OrStatement.

Contents

Statements

The statements to combine with OR logic. You can use any statements that can be nested.

Type: Array of Statement objects

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
OverrideAction
Service: AWS WAFV2

The action to use in the place of the action that results from the rule group evaluation. Set the override action to none to leave the result of the rule group alone. Set it to count to override the result to count only.

You can only use this for rule statements that reference a rule group, like RuleGroupReferenceStatement and ManagedRuleGroupStatement.

Note
This option is usually set to none. It does not affect how the rules in the rule group are evaluated. If you want the rules in the rule group to only count matches, do not use this and instead use the rule action override option, with Count action, in your rule group reference statement settings.

Contents

Count

Override the rule group evaluation result to count only.

Note
This option is usually set to none. It does not affect how the rules in the rule group are evaluated. If you want the rules in the rule group to only count matches, do not use this and instead use the rule action override option, with Count action, in your rule group reference statement settings.

Type: CountAction object

Required: No

None

Don't override the rule group evaluation result. This is the most common setting.

Type: NoneAction object
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**PasswordField**

Service: AWS WAFV2

The name of the field in the request payload that contains your customer's password.

This data type is used in the RequestInspection and RequestInspectionACFP data types.

**Contents**

**Identifier**

The name of the password field.

How you specify this depends on the request inspection payload type.

- For JSON payloads, specify the field name in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation [JavaScript Object Notation (JSON) Pointer](https://tools.ietf.org/html/rfc6901).

  For example, for the JSON payload `{ "form": { "password": "THE_PASSWORD" } }`, the password field specification is `/form/password`.

- For form encoded payload types, use the HTML form names.

  For example, for an HTML form with the input element named `password1`, the password field specification is `password1`.

Type: String


Pattern: `.*\S.*`

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](https://aws.amazon.com/sdk-for-cpp/
- [AWS SDK for Go](https://github.com/aws/aws-sdk-go)
• AWS SDK for Java V2
• AWS SDK for Ruby V3
PhoneNumberField

Service: AWS WAFV2

The name of a field in the request payload that contains part or all of your customer's primary phone number.

This data type is used in the RequestInspectionACFP data type.

Contents

Identifier

The name of a single primary phone number field.

How you specify the phone number fields depends on the request inspection payload type.

• For JSON payloads, specify the field identifiers in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation [JavaScript Object Notation (JSON) Pointer](https://tools.ietf.org/html/rfc6901).

  For example, for the JSON payload `{ "form": { "primary phoneline1": "THE_PHONE1", "primary phoneline2": "THE_PHONE2", "primary phoneline3": "THE_PHONE3" } }`, the phone number field identifiers are `/form/primary phoneline1`, `/form/primary phoneline2`, and `/form/primary phoneline3`.

• For form encoded payload types, use the HTML form names.

  For example, for an HTML form with input elements named primary phoneline1, primary phoneline2, and primary phoneline3, the phone number field identifiers are primary phoneline1, primary phoneline2, and primary phoneline3.

Type: String


Pattern: . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**QueryString**

Service: AWS WAFV2

Inspect the query string of the web request. This is the part of a URL that appears after a ? character, if any.

This is used in the [FieldToMatch](#) specification for some web request component types.

JSON specification: "QueryString": {}  

**Contents**

The members of this exception structure are context-dependent.

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RateBasedStatement
Service: AWS WAFV2

A rate-based rule counts incoming requests and rate limits requests when they are coming at too fast a rate. The rule categorizes requests according to your aggregation criteria, collects them into aggregation instances, and counts and rate limits the requests for each instance.

You can specify individual aggregation keys, like IP address or HTTP method. You can also specify aggregation key combinations, like IP address and HTTP method, or HTTP method, query argument, and cookie.

Each unique set of values for the aggregation keys that you specify is a separate aggregation instance, with the value from each key contributing to the aggregation instance definition.

For example, assume the rule evaluates web requests with the following IP address and HTTP method values:

- IP address 10.1.1.1, HTTP method POST
- IP address 10.1.1.1, HTTP method GET
- IP address 127.0.0.0, HTTP method POST
- IP address 10.1.1.1, HTTP method GET

The rule would create different aggregation instances according to your aggregation criteria, for example:

- If the aggregation criteria is just the IP address, then each individual address is an aggregation instance, and AWS WAF counts requests separately for each. The aggregation instances and request counts for our example would be the following:
  - IP address 10.1.1.1: count 3
  - IP address 127.0.0.0: count 1
- If the aggregation criteria is HTTP method, then each individual HTTP method is an aggregation instance. The aggregation instances and request counts for our example would be the following:
  - HTTP method POST: count 2
  - HTTP method GET: count 2
- If the aggregation criteria is IP address and HTTP method, then each IP address and each HTTP method would contribute to the combined aggregation instance. The aggregation instances and request counts for our example would be the following:
• IP address 10.1.1.1, HTTP method POST: count 1
• IP address 10.1.1.1, HTTP method GET: count 2
• IP address 127.0.0.0, HTTP method POST: count 1

For any n-tuple of aggregation keys, each unique combination of values for the keys defines a separate aggregation instance, which AWS WAF counts and rate-limits individually.

You can optionally nest another statement inside the rate-based statement, to narrow the scope of the rule so that it only counts and rate limits requests that match the nested statement. You can use this nested scope-down statement in conjunction with your aggregation key specifications or you can just count and rate limit all requests that match the scope-down statement, without additional aggregation. When you choose to just manage all requests that match a scope-down statement, the aggregation instance is singular for the rule.

You cannot nest a RateBasedStatement inside another statement, for example inside a NotStatement or OrStatement. You can define a RateBasedStatement inside a web ACL and inside a rule group.

For additional information about the options, see [Rate limiting web requests using rate-based rules](https://docs.aws.amazon.com/waf/latest/developerguide/rate-limiting-web-requests-using-rate-based-rules.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

If you only aggregate on the individual IP address or forwarded IP address, you can retrieve the list of IP addresses that AWS WAF is currently rate limiting for a rule through the API call GetRateBasedStatementManagedKeys. This option is not available for other aggregation configurations.

AWS WAF tracks and manages web requests separately for each instance of a rate-based rule that you use. For example, if you provide the same rate-based rule settings in two web ACLs, each of the two rule statements represents a separate instance of the rate-based rule and gets its own tracking and management by AWS WAF. If you define a rate-based rule inside a rule group, and then use that rule group in multiple places, each use creates a separate instance of the rate-based rule that gets its own tracking and management by AWS WAF.

### Contents

**AggregateKeyType**

Setting that indicates how to aggregate the request counts.
Note

Web requests that are missing any of the components specified in the aggregation keys are omitted from the rate-based rule evaluation and handling.

- **CONSTANT** - Count and limit the requests that match the rate-based rule's scope-down statement. With this option, the counted requests aren't further aggregated. The scope-down statement is the only specification used. When the count of all requests that satisfy the scope-down statement goes over the limit, AWS WAF applies the rule action to all requests that satisfy the scope-down statement.

  With this option, you must configure the `ScopeDownStatement` property.

- **CUSTOM_KEYS** - Aggregate the request counts using one or more web request components as the aggregate keys.

  With this option, you must specify the aggregate keys in the `CustomKeys` property.

  To aggregate on only the IP address or only the forwarded IP address, don't use custom keys. Instead, set the aggregate key type to `IP` or `FORWARDED_IP`.

- **FORWARDED_IP** - Aggregate the request counts on the first IP address in an HTTP header.

  With this option, you must specify the header to use in the `ForwardedIPConfig` property.

  To aggregate on a combination of the forwarded IP address with other aggregate keys, use `CUSTOM_KEYS`.

- **IP** - Aggregate the request counts on the IP address from the web request origin.

  To aggregate on a combination of the IP address with other aggregate keys, use `CUSTOM_KEYS`.

Type: String

Valid Values: `IP` | `FORWARDED_IP` | `CUSTOM_KEYS` | `CONSTANT`

Required: Yes
Limit

The limit on requests per 5-minute period for a single aggregation instance for the rate-based rule. If the rate-based statement includes a ScopeDownStatement, this limit is applied only to the requests that match the statement.

Examples:
- If you aggregate on just the IP address, this is the limit on requests from any single IP address.
- If you aggregate on the HTTP method and the query argument name "city", then this is the limit on requests for any single method, city pair.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

CustomKeys

Specifies the aggregate keys to use in a rate-base rule.

Type: Array of RateBasedStatementCustomKey objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

ForwardedIPConfig

The configuration for inspecting IP addresses in an HTTP header that you specify, instead of using the IP address that's reported by the web request origin. Commonly, this is the X-Forwarded-For (XFF) header, but you can specify any header name.

Note

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

This is required if you specify a forwarded IP in the rule's aggregate key settings.
Type: **ForwardedIPConfig** object

Required: No

**ScopeDownStatement**

An optional nested statement that narrows the scope of the web requests that are evaluated and managed by the rate-based statement. When you use a scope-down statement, the rate-based rule only tracks and rate limits requests that match the scope-down statement. You can use any nestable **Statement** in the scope-down statement, and you can nest statements at any level, the same as you can for a rule statement.

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RateBasedStatementCustomKey
Service: AWS WAFV2

Specifies a single custom aggregate key for a rate-base rule.

Note
Web requests that are missing any of the components specified in the aggregation keys are omitted from the rate-based rule evaluation and handling.

Contents

Cookie

Use the value of a cookie in the request as an aggregate key. Each distinct value in the cookie contributes to the aggregation instance. If you use a single cookie as your custom key, then each value fully defines an aggregation instance.

Type: RateLimitCookie object

Required: No

ForwardedIP

Use the first IP address in an HTTP header as an aggregate key. Each distinct forwarded IP address contributes to the aggregation instance.

When you specify an IP or forwarded IP in the custom key settings, you must also specify at least one other key to use. You can aggregate on only the forwarded IP address by specifying FORWARDED_IP in your rate-based statement's AggregateKeyType.

With this option, you must specify the header to use in the rate-based rule's ForwardedIPConfig property.

Type: RateLimitForwardedIP object

Required: No
Header

Use the value of a header in the request as an aggregate key. Each distinct value in the header contributes to the aggregation instance. If you use a single header as your custom key, then each value fully defines an aggregation instance.

Type: RateLimitHeader object

Required: No

HTTPMethod

Use the request's HTTP method as an aggregate key. Each distinct HTTP method contributes to the aggregation instance. If you use just the HTTP method as your custom key, then each method fully defines an aggregation instance.

Type: RateLimitHTTPMethod object

Required: No

IP

Use the request's originating IP address as an aggregate key. Each distinct IP address contributes to the aggregation instance.

When you specify an IP or forwarded IP in the custom key settings, you must also specify at least one other key to use. You can aggregate on only the IP address by specifying IP in your rate-based statement's AggregateKeyType.

Type: RateLimitIP object

Required: No

LabelNamespace

Use the specified label namespace as an aggregate key. Each distinct fully qualified label name that has the specified label namespace contributes to the aggregation instance. If you use just one label namespace as your custom key, then each label name fully defines an aggregation instance.

This uses only labels that have been added to the request by rules that are evaluated before this rate-based rule in the web ACL.
For information about label namespaces and names, see Label syntax and naming requirements in the AWS WAF Developer Guide.

**Type:** RateLimitLabelNamespace object

**Required:** No

**QueryArgument**

Use the specified query argument as an aggregate key. Each distinct value for the named query argument contributes to the aggregation instance. If you use a single query argument as your custom key, then each value fully defines an aggregation instance.

**Type:** RateLimitQueryArgument object

**Required:** No

**QueryString**

Use the request's query string as an aggregate key. Each distinct string contributes to the aggregation instance. If you use just the query string as your custom key, then each string fully defines an aggregation instance.

**Type:** RateLimitQueryString object

**Required:** No

**UriPath**

Use the request's URI path as an aggregate key. Each distinct URI path contributes to the aggregation instance. If you use just the URI path as your custom key, then each URI path fully defines an aggregation instance.

**Type:** RateLimitUriPath object

**Required:** No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
RateBasedStatementManagedKeysIPSet

The set of IP addresses that are currently blocked for a RateBasedStatement. This is only available for rate-based rules that aggregate on just the IP address, with the AggregateKeyType set to IP or FORWARDED_IP.

A rate-based rule applies its rule action to requests from IP addresses that are in the rule's managed keys list and that match the rule's scope-down statement. When a rule has no scope-down statement, it applies the action to all requests from the IP addresses that are in the list. The rule applies its rule action to rate limit the matching requests. The action is usually Block but it can be any valid rule action except for Allow.

The maximum number of IP addresses that can be rate limited by a single rate-based rule instance is 10,000. If more than 10,000 addresses exceed the rate limit, AWS WAF limits those with the highest rates.

Contents

Addresses

The IP addresses that are currently blocked.

Type: Array of strings


Pattern: . *\S . *

Required: No

IPAddressVersion

The version of the IP addresses, either IPV4 or IPV6.

Type: String

Valid Values: IPV4  |  IPV6

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RateLimitCookie

Service: AWS WAFV2

Specifies a cookie as an aggregate key for a rate-based rule. Each distinct value in the cookie contributes to the aggregation instance. If you use a single cookie as your custom key, then each value fully defines an aggregation instance.

Contents

Name

The name of the cookie to use.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\S.*

Required: Yes

TextTransformations

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. Text transformations are used in rule match statements, to transform the FieldToMatch request component before inspecting it, and they're used in rate-based rule statements, to transform request components before using them as custom aggregation keys. If you specify one or more transformations to apply, AWS WAF performs all transformations on the specified content, starting from the lowest priority setting, and then uses the transformed component contents.

Type: Array of TextTransformation objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RateLimitForwardedIP

Service: AWS WAFV2

Specifies the first IP address in an HTTP header as an aggregate key for a rate-based rule. Each distinct forwarded IP address contributes to the aggregation instance.

This setting is used only in the RateBasedStatementCustomKey specification of a rate-based rule statement. When you specify an IP or forwarded IP in the custom key settings, you must also specify at least one other key to use. You can aggregate on only the forwarded IP address by specifying FORWARDED_IP in your rate-based statement's AggregateKeyType.

This data type supports using the forwarded IP address in the web request aggregation for a rate-based rule, in RateBasedStatementCustomKey. The JSON specification for using the forwarded IP address doesn't explicitly use this data type.

JSON specification: "ForwardedIP": {}

When you use this specification, you must also configure the forwarded IP address in the rate-based statement's ForwardedIPConfig.

Contents

The members of this exception structure are context-dependent.

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RateLimitHeader
Service: AWS WAFV2

Specifies a header as an aggregate key for a rate-based rule. Each distinct value in the header contributes to the aggregation instance. If you use a single header as your custom key, then each value fully defines an aggregation instance.

Contents

Name

The name of the header to use.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\S.*

Required: Yes

TextTransformations

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. Text transformations are used in rule match statements, to transform the FieldToMatch request component before inspecting it, and they're used in rate-based rule statements, to transform request components before using them as custom aggregation keys. If you specify one or more transformations to apply, AWS WAF performs all transformations on the specified content, starting from the lowest priority setting, and then uses the transformed component contents.

Type: Array of TextTransformation objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• **AWS SDK for C++**
• **AWS SDK for Go**
• **AWS SDK for Java V2**
• **AWS SDK for Ruby V3**
RateLimitHTTPMethod

Service: AWS WAFV2

Specifies the request's HTTP method as an aggregate key for a rate-based rule. Each distinct HTTP method contributes to the aggregation instance. If you use just the HTTP method as your custom key, then each method fully defines an aggregation instance.

JSON specification: "RateLimitHTTPMethod": {}

Contents

The members of this exception structure are context-dependent.

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RateLimitIP
Service: AWS WAFV2

Specifies the IP address in the web request as an aggregate key for a rate-based rule. Each distinct IP address contributes to the aggregation instance.

This setting is used only in the RateBasedStatementCustomKey specification of a rate-based rule statement. To use this in the custom key settings, you must specify at least one other key to use, along with the IP address. To aggregate on only the IP address, in your rate-based statement’s AggregateKeyType, specify IP.

JSON specification: "RateLimitIP": {}
RateLimitLabelNamespace
Service: AWS WAFV2

Specifies a label namespace to use as an aggregate key for a rate-based rule. Each distinct fully qualified label name that has the specified label namespace contributes to the aggregation instance. If you use just one label namespace as your custom key, then each label name fully defines an aggregation instance.

This uses only labels that have been added to the request by rules that are evaluated before this rate-based rule in the web ACL.

For information about label namespaces and names, see Label syntax and naming requirements in the AWS WAF Developer Guide.

Contents

Namespace

The namespace to use for aggregation.

Type: String


Pattern: ^[0-9A-Za-z_\-\:\]+:$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RateLimitQueryArgument

Service: AWS WAFV2

Specifies a query argument in the request as an aggregate key for a rate-based rule. Each distinct value for the named query argument contributes to the aggregation instance. If you use a single query argument as your custom key, then each value fully defines an aggregation instance.

Contents

Name

The name of the query argument to use.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\S. *

Required: Yes

TextTransformations

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. Text transformations are used in rule match statements, to transform the FieldToMatch request component before inspecting it, and they're used in rate-based rule statements, to transform request components before using them as custom aggregation keys. If you specify one or more transformations to apply, AWS WAF performs all transformations on the specified content, starting from the lowest priority setting, and then uses the transformed component contents.

Type: Array of TextTransformation objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
RateLimitQueryString
Service: AWS WAFV2

Specifies the request's query string as an aggregate key for a rate-based rule. Each distinct string contributes to the aggregation instance. If you use just the query string as your custom key, then each string fully defines an aggregation instance.

Contents

TextTransformations

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. Text transformations are used in rule match statements, to transform the `FieldToMatch` request component before inspecting it, and they're used in rate-based rule statements, to transform request components before using them as custom aggregation keys. If you specify one or more transformations to apply, AWS WAF performs all transformations on the specified content, starting from the lowest priority setting, and then uses the transformed component contents.

Type: Array of `TextTransformation` objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RateLimitUriPath

Service: AWS WAFV2

Specifies the request's URI path as an aggregate key for a rate-based rule. Each distinct URI path contributes to the aggregation instance. If you use just the URI path as your custom key, then each URI path fully defines an aggregation instance.

Contents

TextTransformations

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. Text transformations are used in rule match statements, to transform the `FieldToMatch` request component before inspecting it, and they're used in rate-based rule statements, to transform request components before using them as custom aggregation keys. If you specify one or more transformations to apply, AWS WAF performs all transformations on the specified content, starting from the lowest priority setting, and then uses the transformed component contents.

Type: Array of `TextTransformation` objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**Regex**

Service: AWS WAFV2

A single regular expression. This is used in a [RegexPatternSet](#).

**Contents**

**RegexString**

The string representing the regular expression.

Type: String


Pattern: . *

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**RegexMatchStatement**

Service: AWS WAFV2

A rule statement used to search web request components for a match against a single regular expression.

**Contents**

**FieldToMatch**

The part of the web request that you want AWS WAF to inspect.

Type: `FieldToMatch` object

Required: Yes

**RegexString**

The string representing the regular expression.

Type: String


Pattern: `.*`

Required: Yes

**TextTransformations**

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. Text transformations are used in rule match statements, to transform the `FieldToMatch` request component before inspecting it, and they're used in rate-based rule statements, to transform request components before using them as custom aggregation keys. If you specify one or more transformations to apply, AWS WAF performs all transformations on the specified content, starting from the lowest priority setting, and then uses the transformed component contents.

Type: Array of `TextTransformation` objects

Array Members: Minimum number of 1 item.

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**RegexPatternSet**

Service: AWS WAFV2

Contains one or more regular expressions.

AWS WAF assigns an ARN to each `RegexPatternSet` that you create. To use a set in a rule, you provide the ARN to the `Rule` statement `RegexPatternSetReferenceStatement`.

**Contents**

**ARN**

The Amazon Resource Name (ARN) of the entity.

Type: String


Pattern: . * \S *

Required: No

**Description**

A description of the set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[\w+=:#@/-,.\]\\[\w+=:#@/-,.\\s]+[\w+=:#@/-,.\\]$`

Required: No

**Id**

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`
Required: No

**Name**

The name of the set. You cannot change the name after you create the set.

Type: String


Pattern: `^[\w\-]+$`

Required: No

**RegularExpressionList**

The regular expression patterns in the set.

Type: Array of [Regex](#) objects

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**RegexPatternSetReferenceStatement**

Service: AWS WAFV2

A rule statement used to search web request components for matches with regular expressions. To use this, create a [RegexPatternSet](#) that specifies the expressions that you want to detect, then use the ARN of that set in this statement. A web request matches the pattern set rule statement if the request component matches any of the patterns in the set. To create a regex pattern set, see [CreateRegexPatternSet](#).

Each regex pattern set rule statement references a regex pattern set. You create and maintain the set independent of your rules. This allows you to use the single set in multiple rules. When you update the referenced set, AWS WAF automatically updates all rules that reference it.

**Contents**

**ARN**

The Amazon Resource Name (ARN) of the [RegexPatternSet](#) that this statement references.

Type: String


Pattern: .*

Required: Yes

**FieldToMatch**

The part of the web request that you want AWS WAF to inspect.

Type: [FieldToMatch](#) object

Required: Yes

**TextTransformations**

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. Text transformations are used in rule match statements, to transform the [FieldToMatch](#) request component before inspecting it, and they're used in rate-based rule statements, to transform request components before using them as custom aggregation keys. If you specify one or more transformations to apply, AWS WAF
performs all transformations on the specified content, starting from the lowest priority setting, and then uses the transformed component contents.

Type: Array of TextTransformation objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**RegexPatternSetSummary**

**Service:** AWS WAFV2

High-level information about a [RegexPatternSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateRegexPatternSet.html), returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage a `RegexPatternSet`, and the ARN, that you provide to the [RegexPatternSetReferenceStatement](https://docs.aws.amazon.com/waf/latest/APIReference/API_RegexPatternSetReferenceStatement.html) to use the pattern set in a [Rule](https://docs.aws.amazon.com/waf/latest/APIReference/API_RuleStatement.html).

**Contents**

**ARN**

The Amazon Resource Name (ARN) of the entity.

Type: String


Pattern: . *\S . *

Required: No

**Description**

A description of the set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^\[\w+=:#@/-,\.][\w+=:#@/-,\s]+[\w+=:#@/-,\.]+$

Required: No

**Id**

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$
LockToken

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Name

The name of the data type instance. You cannot change the name after you create the instance.

Type: String


Pattern: ^[\w-]+$
ReleaseSummary
Service: AWS WAFV2

High level information for an SDK release.

Contents

ReleaseVersion

The release version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[\w#:\.\/-]+$

Required: No

Timestamp

The timestamp of the release.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RequestBodyAssociatedResourceTypeConfig

Service: AWS WAFV2

Customizes the maximum size of the request body that your protected CloudFront distributions forward to AWS WAF for inspection. The default size is 16 KB (16,384 bytes).

⚠️ **Note**

You are charged additional fees when your protected resources forward body sizes that are larger than the default. For more information, see [AWS WAF Pricing](#).

This is used in the `AssociationConfig` of the web ACL.

**Contents**

**DefaultSizeInspectionLimit**

Specifies the maximum size of the web request body component that an associated CloudFront distribution should send to AWS WAF for inspection. This applies to statements in the web ACL that inspect the body or JSON body.

Default: 16 KB (16,384 bytes)

Type: String

Valid Values: `KB_16` | `KB_32` | `KB_48` | `KB_64`

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RequestInspection
Service: AWS WAFV2

The criteria for inspecting login requests, used by the ATP rule group to validate credentials usage.

This is part of the AWSManagedRulesATPRuleSet configuration in ManagedRuleGroupConfig.

In these settings, you specify how your application accepts login attempts by providing the request payload type and the names of the fields within the request body where the username and password are provided.

Contents

PasswordField

The name of the field in the request payload that contains your customer's password.

How you specify this depends on the request inspection payload type.

• For JSON payloads, specify the field name in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation JavaScript Object Notation (JSON) Pointer.

    For example, for the JSON payload `{ "form": { "password": "THE_PASSWORD" } }`, the password field specification is `/form/password`.

• For form encoded payload types, use the HTML form names.

    For example, for an HTML form with the input element named `password1`, the password field specification is `password1`.

Type: PasswordField object

Required: Yes

PayloadType

The payload type for your login endpoint, either JSON or form encoded.

Type: String

Valid Values: JSON | FORM_ENCODED

Required: Yes
**UsernameField**

The name of the field in the request payload that contains your customer's username.

How you specify this depends on the request inspection payload type.

- For JSON payloads, specify the field name in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation [JavaScript Object Notation (JSON) Pointer](https://tools.ietf.org/html/rfc6901).

  For example, for the JSON payload `{ "form": { "username": "THE_USERNAME" } }`, the username field specification is `/form/username`.

- For form encoded payload types, use the HTML form names.

  For example, for an HTML form with the input element named `username1`, the username field specification is `username1`

**Type:** [UsernameField](#) object

**Required:** Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RequestInspectionACFP

Service: AWS WAFV2

The criteria for inspecting account creation requests, used by the ACFP rule group to validate and track account creation attempts.

This is part of the AWSManagedRulesACFPRuleSet configuration in ManagedRuleGroupConfig.

In these settings, you specify how your application accepts account creation attempts by providing the request payload type and the names of the fields within the request body where the username, password, email, and primary address and phone number fields are provided.

Contents

PayloadType

The payload type for your account creation endpoint, either JSON or form encoded.

Type: String

Valid Values: JSON | FORM_ENCODED

Required: Yes

AddressFields

The names of the fields in the request payload that contain your customer's primary physical address.

Order the address fields in the array exactly as they are ordered in the request payload.

How you specify the address fields depends on the request inspection payload type.

- For JSON payloads, specify the field identifiers in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation JavaScript Object Notation (JSON) Pointer.

  For example, for the JSON payload { "form": { "primaryaddressline1": "THE_ADDRESS1", "primaryaddressline2": "THE_ADDRESS2", "primaryaddressline3": "THE_ADDRESS3" } }, the address field identifiers are /form/primaryaddressline1, /form/primaryaddressline2, and /form/primaryaddressline3.
• For form encoded payload types, use the HTML form names.

  For example, for an HTML form with input elements named primaryaddressline1, primaryaddressline2, and primaryaddressline3, the address fields identifiers are primaryaddressline1, primaryaddressline2, and primaryaddressline3.

  Type: Array of AddressField objects

  Required: No

EmailField

The name of the field in the request payload that contains your customer's email.

How you specify this depends on the request inspection payload type.

• For JSON payloads, specify the field name in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation JavaScript Object Notation (JSON) Pointer.

  For example, for the JSON payload { "form": { "email": "THE_EMAIL" } }, the email field specification is /form/email.

• For form encoded payload types, use the HTML form names.

  For example, for an HTML form with the input element named email1, the email field specification is email1.

  Type: EmailField object

  Required: No

PasswordField

The name of the field in the request payload that contains your customer's password.

How you specify this depends on the request inspection payload type.

• For JSON payloads, specify the field name in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation JavaScript Object Notation (JSON) Pointer.

  For example, for the JSON payload { "form": { "password": "THE_PASSWORD" } }, the password field specification is /form/password.

• For form encoded payload types, use the HTML form names.
For example, for an HTML form with the input element named `password1`, the password field specification is `password1`.

**Type:** `PasswordField` object

**Required:** No

**PhoneNumberFields**

The names of the fields in the request payload that contain your customer’s primary phone number.

Order the phone number fields in the array exactly as they are ordered in the request payload.

How you specify the phone number fields depends on the request inspection payload type.

- For JSON payloads, specify the field identifiers in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation [JavaScript Object Notation (JSON) Pointer](https://tools.ietf.org/html/rfc6901).

  For example, for the JSON payload `{ "form": { "primaryphoneline1": "THE_PHONE1", "primaryphoneline2": "THE_PHONE2", "primaryphoneline3": "THE_PHONE3" } }`, the phone number field identifiers are `/form/primaryphoneline1`, `/form/primaryphoneline2`, and `/form/primaryphoneline3`.

- For form encoded payload types, use the HTML form names.

  For example, for an HTML form with input elements named `primaryphoneline1`, `primaryphoneline2`, and `primaryphoneline3`, the phone number field identifiers are `primaryphoneline1`, `primaryphoneline2`, and `primaryphoneline3`.

**Type:** Array of `PhoneNumberField` objects

**Required:** No

**UsernameField**

The name of the field in the request payload that contains your customer’s username.

How you specify this depends on the request inspection payload type.

- For JSON payloads, specify the field name in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation [JavaScript Object Notation (JSON) Pointer](https://tools.ietf.org/html/rfc6901).
For example, for the JSON payload `{ "form": { "username": "THE_USERNAME" } }`, the username field specification is `/form/username`.

- For form encoded payload types, use the HTML form names.

  For example, for an HTML form with the input element named `username1`, the username field specification is `username1`

**Type:** [UsernameField](#) object

**Required:** No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
ResponseInspection

Service: AWS WAFV2

The criteria for inspecting responses to login requests and account creation requests, used by the ATP and ACFP rule groups to track login and account creation success and failure rates.

**Note**

Response inspection is available only in web ACLs that protect Amazon CloudFront distributions.

The rule groups evaluate the responses that your protected resources send back to client login and account creation attempts, keeping count of successful and failed attempts from each IP address and client session. Using this information, the rule group labels and mitigates requests from client sessions and IP addresses with too much suspicious activity in a short amount of time.

This is part of the AWSManagedRulesATPRuleSet and AWSManagedRulesACFPRuleSet configurations in ManagedRuleGroupConfig.

Enable response inspection by configuring exactly one component of the response to inspect, for example, `Header` or `StatusCode`. You can't configure more than one component for inspection. If you don't configure any of the response inspection options, response inspection is disabled.

**Contents**

**BodyContains**

Configures inspection of the response body for success and failure indicators. AWS WAF can inspect the first 65,536 bytes (64 KB) of the response body.

Type: `ResponseInspectionBodyContains` object

Required: No

**Header**

Configures inspection of the response header for success and failure indicators.

Type: `ResponseInspectionHeader` object

Required: No
Json

Configures inspection of the response JSON for success and failure indicators. AWS WAF can inspect the first 65,536 bytes (64 KB) of the response JSON.

Type: ResponseInspectionJson object

Required: No

StatusCode

Configures inspection of the response status code for success and failure indicators.

Type: ResponseInspectionStatusCode object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ResponseInspectionBodyContains

Service: AWS WAFV2

Configures inspection of the response body. AWS WAF can inspect the first 65,536 bytes (64 KB) of the response body. This is part of the ResponseInspection configuration for AWSMANagedRulesATPRuleSet and AWSMANagedRulesACFPRuleSet.

**Note**

Response inspection is available only in web ACLs that protect Amazon CloudFront distributions.

**Contents**

**FailureStrings**

Strings in the body of the response that indicate a failed login or account creation attempt. To be counted as a failure, the string can be anywhere in the body and must be an exact match, including case. Each string must be unique among the success and failure strings.

**JSON example:** "FailureStrings": [ "Request failed" ]

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: .*\S.*

Required: Yes

**SuccessStrings**

Strings in the body of the response that indicate a successful login or account creation attempt. To be counted as a success, the string can be anywhere in the body and must be an exact match, including case. Each string must be unique among the success and failure strings.

**JSON examples:** "SuccessStrings": [ "Login successful" ] and "SuccessStrings": [ "Account creation successful", "Welcome to our site!" ]
Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: .\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
ResponseInspectionHeader

Service: AWS WAFV2

Configures inspection of the response header. This is part of the ResponseInspection configuration for AWSManagedRulesATPRuleSet and AWSManagedRulesACFPRuleSet.

Note

Response inspection is available only in web ACLs that protect Amazon CloudFront distributions.

Contents

FailureValues

Values in the response header with the specified name that indicate a failed login or account creation attempt. To be counted as a failure, the value must be an exact match, including case. Each value must be unique among the success and failure values.

JSON examples:
"FailureValues": [ "LoginFailed", "Failed login" ] and
"FailureValues": [ "AccountCreationFailed" ]

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: .*\S.*

Required: Yes

Name

The name of the header to match against. The name must be an exact match, including case.

JSON example: "Name": [ "RequestResult" ]

Type: String

Pattern: . *\S.*

Required: Yes

**SuccessValues**

Values in the response header with the specified name that indicate a successful login or account creation attempt. To be counted as a success, the value must be an exact match, including case. Each value must be unique among the success and failure values.

JSON examples: "SuccessValues": [ "LoginPassed", "Successful login" ] and "SuccessValues": [ "AccountCreated", "Successful account creation" ]

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: . *\S.*

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
ResponseInspectionJson

Service: AWS WAFV2

Configures inspection of the response JSON. AWS WAF can inspect the first 65,536 bytes (64 KB) of the response JSON. This is part of the ResponseInspection configuration for AWSManagedRulesATPRuleSet and AWSManagedRulesACFPRuleSet.

**Note**
Response inspection is available only in web ACLs that protect Amazon CloudFront distributions.

### Contents

**FailureValues**

Values for the specified identifier in the response JSON that indicate a failed login or account creation attempt. To be counted as a failure, the value must be an exact match, including case. Each value must be unique among the success and failure values.

JSON example: 
```
"FailureValues": [ "False", "Failed" ]
```

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: .\S.*

Required: Yes

**Identifier**

The identifier for the value to match against in the JSON. The identifier must be an exact match, including case.

JSON examples: 
```
"Identifier": [ "/login/success" ]
```

Type: String

Pattern: .\S.*

Required: Yes

**SuccessValues**

Values for the specified identifier in the response JSON that indicate a successful login or account creation attempt. To be counted as a success, the value must be an exact match, including case. Each value must be unique among the success and failure values.

JSON example: "SuccessValues": [ "True", "Succeeded" ]

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: .\S.*

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**ResponseInspectionStatusCode**

**Service:** AWS WAFV2

Configures inspection of the response status code. This is part of the ResponseInspection configuration for AWSManagedRulesATPRuleSet and AWSManagedRulesACFPRuleSet.

**Note**

Response inspection is available only in web ACLs that protect Amazon CloudFront distributions.

**Contents**

**FailureCodes**

Status codes in the response that indicate a failed login or account creation attempt. To be counted as a failure, the response status code must match one of these. Each code must be unique among the success and failure status codes.

JSON example:

```
"FailureCodes": [ 400, 404 ]
```

Type: Array of integers

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Valid Range: Minimum value of 0. Maximum value of 999.

Required: Yes

**SuccessCodes**

Status codes in the response that indicate a successful login or account creation attempt. To be counted as a success, the response status code must match one of these. Each code must be unique among the success and failure status codes.

JSON example:

```
"SuccessCodes": [ 200, 201 ]
```

Type: Array of integers

Array Members: Minimum number of 1 item. Maximum number of 10 items.
Valid Range: Minimum value of 0. Maximum value of 999.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
Rule

Service: AWS WAFV2

A single rule, which you can use in a WebACL or RuleGroup to identify web requests that you want to manage in some way. Each rule includes one top-level Statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Contents

Name

The name of the rule.

If you change the name of a Rule after you create it and you want the rule's metric name to reflect the change, update the metric name in the rule's VisibilityConfig settings. AWS WAF doesn't automatically update the metric name when you update the rule name.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

Priority

If you define more than one Rule in a WebACL, AWS WAF evaluates each request against the Rules in order based on the value of Priority. AWS WAF processes rules with lower priority first. The priorities don't need to be consecutive, but they must all be different.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

Statement

The AWS WAF processing statement for the rule, for example ByteMatchStatement or SizeConstraintStatement.

Type: Statement object
Required: Yes

VisibilityConfig

Defines and enables Amazon CloudWatch metrics and web request sample collection.

If you change the name of a Rule after you create it and you want the rule's metric name to reflect the change, update the metric name as well. AWS WAF doesn't automatically update the metric name.

Type: VisibilityConfig object

Required: Yes

Action

The action that AWS WAF should take on a web request when it matches the rule statement. Settings at the web ACL level can override the rule action setting.

This is used only for rules whose statements do not reference a rule group. Rule statements that reference a rule group include RuleGroupReferenceStatement and ManagedRuleGroupStatement.

You must specify either this Action setting or the rule OverrideAction setting, but not both:

• If the rule statement does not reference a rule group, use this rule action setting and not the rule override action setting.

• If the rule statement references a rule group, use the override action setting and not this action setting.

Type: RuleAction object

Required: No

CaptchaConfig

Specifies how AWS WAF should handle CAPTCHA evaluations. If you don't specify this, AWS WAF uses the CAPTCHA configuration that's defined for the web ACL.

Type: CaptchaConfig object

Required: No
ChallengeConfig

Specifies how AWS WAF should handle Challenge evaluations. If you don't specify this, AWS WAF uses the challenge configuration that's defined for the web ACL.

Type: ChallengeConfig object

Required: No

OverrideAction

The action to use in the place of the action that results from the rule group evaluation. Set the override action to none to leave the result of the rule group alone. Set it to count to override the result to count only.

You can only use this for rule statements that reference a rule group, like RuleGroupReferenceStatement and ManagedRuleGroupStatement.

Note

This option is usually set to none. It does not affect how the rules in the rule group are evaluated. If you want the rules in the rule group to only count matches, do not use this and instead use the rule action override option, with Count action, in your rule group reference statement settings.

Type: OverrideAction object

Required: No

RuleLabels

Labels to apply to web requests that match the rule match statement. AWS WAF applies fully qualified labels to matching web requests. A fully qualified label is the concatenation of a label namespace and a rule label. The rule's rule group or web ACL defines the label namespace.

Rules that run after this rule in the web ACL can match against these labels using a LabelMatchStatement.

For each label, provide a case-sensitive string containing optional namespaces and a label name, according to the following guidelines:

- Separate each component of the label with a colon.
Each namespace or name can have up to 128 characters.

You can specify up to 5 namespaces in a label.

Don't use the following reserved words in your label specification: aws, waf, managed, rulegroup, webacl, regexpatternset, or ipset.

For example, myLabelName or nameSpace1:nameSpace2:myLabelName.

Type: Array of Label objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RuleAction

Service: AWS WAFV2

The action that AWS WAF should take on a web request when it matches a rule's statement. Settings at the web ACL level can override the rule action setting.

Contents

Allow

Instructs AWS WAF to allow the web request.

Type: AllowAction object

Required: No

Block

Instructs AWS WAF to block the web request.

Type: BlockAction object

Required: No

Captcha

Instructs AWS WAF to run a CAPTCHA check against the web request.

Type: CaptchaAction object

Required: No

Challenge

Instructs AWS WAF to run a Challenge check against the web request.

Type: ChallengeAction object

Required: No

Count

Instructs AWS WAF to count the web request and then continue evaluating the request using the remaining rules in the web ACL.

Type: CountAction object
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RuleActionOverride

Service: AWS WAFV2

Action setting to use in the place of a rule action that is configured inside the rule group. You specify one override for each rule whose action you want to change.

You can use overrides for testing, for example you can override all of rule actions to Count and then monitor the resulting count metrics to understand how the rule group would handle your web traffic. You can also permanently override some or all actions, to modify how the rule group manages your web traffic.

Contents

ActionToUse

The override action to use, in place of the configured action of the rule in the rule group.

Type: RuleAction object

Required: Yes

Name

The name of the rule to override.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
RuleGroup

Service: AWS WAFV2

A rule group defines a collection of rules to inspect and control web requests that you can use in a WebACL. When you create a rule group, you define an immutable capacity limit. If you update a rule group, you must stay within the capacity. This allows others to reuse the rule group with confidence in its capacity requirements.

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String


Pattern: .\S.*

Required: Yes

Capacity

The web ACL capacity units (WCUs) required for this rule group.

When you create your own rule group, you define this, and you cannot change it after creation. When you add or modify the rules in a rule group, AWS WAF enforces this limit. You can check the capacity for a set of rules using CheckCapacity.

AWS WAF uses WCUs to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect the relative cost of each rule. Simple rules that cost little to run use fewer WCUs than more complex rules that use more processing power. Rule group capacity is fixed at creation, which helps users plan their web ACL WCU usage when they use a rule group. For more information, see AWS WAF web ACL capacity units (WCU) in the AWS WAF Developer Guide.

Type: Long

Valid Range: Minimum value of 1.

Required: Yes
Id

A unique identifier for the rule group. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: Yes

Name

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String


Pattern: `^[\w\-]+$`

Required: Yes

VisibilityConfig

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: `VisibilityConfig` object

Required: Yes

AvailableLabels

The labels that one or more rules in this rule group add to matching web requests. These labels are defined in the RuleLabels for a Rule.

Type: Array of `LabelSummary` objects

Required: No

ConsumedLabels

The labels that one or more rules in this rule group match against in label match statements. These labels are defined in a LabelMatchStatement specification, in the `Statement` definition of a rule.
Type: Array of LabelSummary objects

Required: No

CustomResponseBodies

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the rule group, and then use them in the rules that you define in the rule group.

For information about customizing web requests and responses, see Customizing web requests and responses in AWS WAF in the AWS WAF Developer Guide.

For information about the limits on count and size for custom request and response settings, see AWS WAF quotas in the AWS WAF Developer Guide.

Type: String to CustomResponseBody object map

Map Entries: Maximum number of items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: ^\w-]+$

Required: No

Description

A description of the rule group that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^\w+=:#@\/%-\,\s+[\w+=:#@\/%-\,\s]+$

Required: No

LabelNamespace

The label namespace prefix for this rule group. All labels added by rules in this rule group have this prefix.

- The syntax for the label namespace prefix for your rule groups is the following:

  awswaf:<account ID>:rulegroup:<rule group name>:
• When a rule with a label matches a web request, AWS WAF adds the fully qualified label to the request. A fully qualified label is made up of the label namespace from the rule group or web ACL where the rule is defined and the label from the rule, separated by a colon:

    <label namespace>::<label from rule>

Type: String


Pattern: ^[0-9A-Za-z_\-:]+$

Required: No

**Rules**

The **Rule** statements used to identify the web requests that you want to manage. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Type: Array of **Rule** objects

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateWebACL.html)
- [AWS SDK for Go](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateWebACL.html)
- [AWS SDK for Java V2](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateWebACL.html)
- [AWS SDK for Ruby V3](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateWebACL.html)
**RuleGroupReferenceStatement**

Service: AWS WAFV2

A rule statement used to run the rules that are defined in a `RuleGroup`. To use this, create a rule group with your rules, then provide the ARN of the rule group in this statement.

You cannot nest a `RuleGroupReferenceStatement`, for example for use inside a `NotStatement` or `OrStatement`. You cannot use a rule group reference statement inside another rule group. You can only reference a rule group as a top-level statement within a rule that you define in a web ACL.

**Contents**

**ARN**

The Amazon Resource Name (ARN) of the entity.

Type: String


Pattern: . *\S . *

Required: Yes

**ExcludedRules**

Rules in the referenced rule group whose actions are set to Count.

**Note**

Instead of this option, use `RuleActionOverrides`. It accepts any valid action setting, including Count.

Type: Array of `ExcludedRule` objects

Array Members: Maximum number of 100 items.

Required: No
**RuleActionOverrides**

Action settings to use in the place of the rule actions that are configured inside the rule group. You specify one override for each rule whose action you want to change.

You can use overrides for testing, for example you can override all of rule actions to Count and then monitor the resulting count metrics to understand how the rule group would handle your web traffic. You can also permanently override some or all actions, to modify how the rule group manages your web traffic.

Type: Array of [RuleActionOverride](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RuleGroupSummary
Service: AWS WAFV2

High-level information about a RuleGroup, returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage a RuleGroup, and the ARN, that you provide to the RuleGroupReferenceStatement to use the rule group in a Rule.

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String


Pattern: . *\S . *

Required: No

Description

A description of the rule group that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[\w+=:#@/-,.]\[\w+=:#@/-,.\s]+[\w+=:#@/-,.]$?

Required: No

Id

A unique identifier for the rule group. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$
LockToken

A token used for optimistic locking. AWS WAF returns a token to your `get` and `list` requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like `update` and `delete`. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another `get`, and use the new token returned by that operation.

Type: String


Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Name

The name of the data type instance. You cannot change the name after you create the instance.

Type: String


Pattern: `^[\w\-]+$`

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**RuleSummary**

Service: AWS WAFV2

High-level information about a Rule, returned by operations like `DescribeManagedRuleGroup`. This provides information like the ID, that you can use to retrieve and manage a RuleGroup, and the ARN, that you provide to the `RuleGroupReferenceStatement` to use the rule group in a Rule.

**Contents**

**Action**

The action that AWS WAF should take on a web request when it matches a rule's statement. Settings at the web ACL level can override the rule action setting.

Type: `RuleAction` object

Required: No

**Name**

The name of the rule.

Type: String


Pattern: `^[\w\-]+$`

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
SampledHTTPRequest
Service: AWS WAFV2

Represents a single sampled web request. The response from GetSampledRequests includes a SampledHTTPRequests complex type that appears as SampledRequests in the response syntax. SampledHTTPRequests contains an array of SampledHTTPRequest objects.

Contents

Request

A complex type that contains detailed information about the request.

Type: HTTPRequest object

Required: Yes

Weight

A value that indicates how one result in the response relates proportionally to other results in the response. For example, a result that has a weight of 2 represents roughly twice as many web requests as a result that has a weight of 1.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

Action

The action that AWS WAF applied to the request.

Type: String

Required: No

CaptchaResponse

The CAPTCHA response for the request.

Type: CaptchaResponse object

Required: No
**ChallengeResponse**

The Challenge response for the request.

Type: [ChallengeResponse](#) object

Required: No

**Labels**

Labels applied to the web request by matching rules. AWS WAF applies fully qualified labels to matching web requests. A fully qualified label is the concatenation of a label namespace and a rule label. The rule's rule group or web ACL defines the label namespace.

For example,

awswaf:111122223333:myRuleGroup:testRules:testNS1:testNS2:labelNameA or


Type: Array of [Label](#) objects

Required: No

**OverriddenAction**

Used only for rule group rules that have a rule action override in place in the web ACL. This is the action that the rule group rule is configured for, and not the action that was applied to the request. The action that AWS WAF applied is the Action value.

Type: String

Required: No

**RequestHeadersInserted**

Custom request headers inserted by AWS WAF into the request, according to the custom request configuration for the matching rule action.

Type: Array of [HTTPHeader](#) objects

Required: No

**ResponseCodeSent**

The response code that was sent for the request.
Type: Integer


Required: No

**RuleNameWithinRuleGroup**

The name of the Rule that the request matched. For managed rule groups, the format for this name is `<vendor name>#<managed rule group name>#<rule name>`. For your own rule groups, the format for this name is `<rule group name>#<rule name>`. If the rule is not in a rule group, this field is absent.

Type: String


Pattern: `^[\w\-]+$`

Required: No

**Timestamp**

The time at which AWS WAF received the request from your AWS resource, in Unix time format (in seconds).

Type: Timestamp

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**SingleHeader**

*Service: AWS WAFV2*

Inspect one of the headers in the web request, identified by name, for example, *User-Agent* or *Referer*. The name isn't case sensitive.

You can filter and inspect all headers with the `FieldToMatch` setting `Headers`.

This is used to indicate the web request component to inspect, in the `FieldToMatch` specification.

Example JSON: "SingleHeader": { "Name": "haystack" }

**Contents**

**Name**

The name of the query header to inspect.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\S .*

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
SingleQueryArgument

Service: AWS WAFV2

Inspect one query argument in the web request, identified by name, for example *UserName* or *SalesRegion*. The name isn't case sensitive.

This is used to indicate the web request component to inspect, in the [FieldToMatch](#) specification.

Example JSON: "SingleQueryArgument": { "Name": "myArgument" }

Contents

Name

The name of the query argument to inspect.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
SizeConstraintStatement

Service: AWS WAFV2

A rule statement that compares a number of bytes against the size of a request component, using a comparison operator, such as greater than (>) or less than (<). For example, you can use a size constraint statement to look for query strings that are longer than 100 bytes.

If you configure AWS WAF to inspect the request body, AWS WAF inspects only the number of bytes of the body up to the limit for the web ACL. By default, for regional web ACLs, this limit is 8 KB (8,192 bytes) and for CloudFront web ACLs, this limit is 16 KB (16,384 bytes). For CloudFront web ACLs, you can increase the limit in the web ACL AssociationConfig, for additional fees. If you know that the request body for your web requests should never exceed the inspection limit, you could use a size constraint statement to block requests that have a larger request body size.

If you choose URI for the value of Part of the request to filter on, the slash (/) in the URI counts as one character. For example, the URI `/logo.jpg` is nine characters long.

Contents

ComparisonOperator

The operator to use to compare the request part to the size setting.

Type: String

Valid Values: EQ | NE | LE | LT | GE | GT

Required: Yes

FieldToMatch

The part of the web request that you want AWS WAF to inspect.

Type: FieldToMatch object

Required: Yes

Size

The size, in byte, to compare to the request part, after any transformations.

Type: Long
Valid Range: Minimum value of 0. Maximum value of 21474836480.

Required: Yes

**TextTransformations**

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. Text transformations are used in rule match statements, to transform the **FieldToMatch** request component before inspecting it, and they're used in rate-based rule statements, to transform request components before using them as custom aggregation keys. If you specify one or more transformations to apply, AWS WAF performs all transformations on the specified content, starting from the lowest priority setting, and then uses the transformed component contents.

Type: Array of [TextTransformation](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**SqlMapStatement**

Service: AWS WAFV2

A rule statement that inspects for malicious SQL code. Attackers insert malicious SQL code into web requests to do things like modify your database or extract data from it.

**Contents**

**FieldToMatch**

The part of the web request that you want AWS WAF to inspect.

Type: [FieldToMatch](#) object

Required: Yes

**TextTransformations**

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. Text transformations are used in rule match statements, to transform the FieldToMatch request component before inspecting it, and they're used in rate-based rule statements, to transform request components before using them as custom aggregation keys. If you specify one or more transformations to apply, AWS WAF performs all transformations on the specified content, starting from the lowest priority setting, and then uses the transformed component contents.

Type: Array of [TextTransformation](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

**SensitivityLevel**

The sensitivity that you want AWS WAF to use to inspect for SQL injection attacks.

HIGH detects more attacks, but might generate more false positives, especially if your web requests frequently contain unusual strings. For information about identifying and mitigating false positives, see [Testing and tuning](#) in the [AWS WAF Developer Guide](#).

LOW is generally a better choice for resources that already have other protections against SQL injection attacks or that have a low tolerance for false positives.
Default: LOW

Type: String

Valid Values: LOW | HIGH

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
Statement
Service: AWS WAFV2

The processing guidance for a Rule, used by AWS WAF to determine whether a web request matches the rule.

For example specifications, see the examples section of CreateWebACL.

Contents

AndStatement

A logical rule statement used to combine other rule statements with AND logic. You provide more than one Statement within the AndStatement.

Type: AndStatement object

Required: No

ByteMatchStatement

A rule statement that defines a string match search for AWS WAF to apply to web requests. The byte match statement provides the bytes to search for, the location in requests that you want AWS WAF to search, and other settings. The bytes to search for are typically a string that corresponds with ASCII characters. In the AWS WAF console and the developer guide, this is called a string match statement.

Type: ByteMatchStatement object

Required: No

GeoMatchStatement

A rule statement that labels web requests by country and region and that matches against web requests based on country code. A geo match rule labels every request that it inspects regardless of whether it finds a match.

- To manage requests only by country, you can use this statement by itself and specify the countries that you want to match against in the CountryCodes array.
- Otherwise, configure your geo match rule with Count action so that it only labels requests. Then, add one or more label match rules to run after the geo match rule and configure them to match against the geographic labels and handle the requests as needed.
AWS WAF labels requests using the alpha-2 country and region codes from the International Organization for Standardization (ISO) 3166 standard. AWS WAF determines the codes using either the IP address in the web request origin or, if you specify it, the address in the geo match ForwardedIPConfig.

If you use the web request origin, the label formats are

If you use a forwarded IP address, the label formats are

For additional details, see Geographic match rule statement in the AWS WAF Developer Guide.

Type: GeoMatchStatement object

Required: No

IPSetReferenceStatement

A rule statement used to detect web requests coming from particular IP addresses or address ranges. To use this, create an IPSet that specifies the addresses you want to detect, then use the ARN of that set in this statement. To create an IP set, see CreateIPSet.

Each IP set rule statement references an IP set. You create and maintain the set independent of your rules. This allows you to use the single set in multiple rules. When you update the referenced set, AWS WAF automatically updates all rules that reference it.

Type: IPSetReferenceStatement object

Required: No

LabelMatchStatement

A rule statement to match against labels that have been added to the web request by rules that have already run in the web ACL.

The label match statement provides the label or namespace string to search for. The label string can represent a part or all of the fully qualified label name that had been added to the web request. Fully qualified labels have a prefix, optional namespaces, and label name. The prefix
identifies the rule group or web ACL context of the rule that added the label. If you do not provide the fully qualified name in your label match string, AWS WAF performs the search for labels that were added in the same context as the label match statement.

Type: LabelMatchStatement object

Required: No

ManagedRuleGroupStatement

A rule statement used to run the rules that are defined in a managed rule group. To use this, provide the vendor name and the name of the rule group in this statement. You can retrieve the required names by calling ListAvailableManagedRuleGroups.

You cannot nest a ManagedRuleGroupStatement, for example for use inside a NotStatement or OrStatement. You cannot use a managed rule group inside another rule group. You can only reference a managed rule group as a top-level statement within a rule that you define in a web ACL.

Note

You are charged additional fees when you use the AWS WAF Bot Control managed rule group AWSManagedRulesBotControlRuleSet, the AWS WAF Fraud Control account takeover prevention (ATP) managed rule group AWSManagedRulesATPRuleSet, or the AWS WAF Fraud Control account creation fraud prevention (ACFP) managed rule group AWSManagedRulesACFPRuleSet. For more information, see AWS WAF Pricing.

Type: ManagedRuleGroupStatement object

Required: No

NotStatement

A logical rule statement used to negate the results of another rule statement. You provide one Statement within the NotStatement.

Type: NotStatement object

Required: No
OrStatement

A logical rule statement used to combine other rule statements with OR logic. You provide more than one Statement within the OrStatement.

Type: OrStatement object

Required: No

RateBasedStatement

A rate-based rule counts incoming requests and rate limits requests when they are coming at too fast a rate. The rule categorizes requests according to your aggregation criteria, collects them into aggregation instances, and counts and rate limits the requests for each instance.

You can specify individual aggregation keys, like IP address or HTTP method. You can also specify aggregation key combinations, like IP address and HTTP method, or HTTP method, query argument, and cookie.

Each unique set of values for the aggregation keys that you specify is a separate aggregation instance, with the value from each key contributing to the aggregation instance definition.

For example, assume the rule evaluates web requests with the following IP address and HTTP method values:

- IP address 10.1.1.1, HTTP method POST
- IP address 10.1.1.1, HTTP method GET
- IP address 127.0.0.0, HTTP method POST
- IP address 10.1.1.1, HTTP method GET

The rule would create different aggregation instances according to your aggregation criteria, for example:

- If the aggregation criteria is just the IP address, then each individual address is an aggregation instance, and AWS WAF counts requests separately for each. The aggregation instances and request counts for our example would be the following:
  - IP address 10.1.1.1: count 3
  - IP address 127.0.0.0: count 1

- If the aggregation criteria is HTTP method, then each individual HTTP method is an aggregation instance. The aggregation instances and request counts for our example would be the following:
HTTP method POST: count 2
HTTP method GET: count 2

If the aggregation criteria is IP address and HTTP method, then each IP address and each HTTP method would contribute to the combined aggregation instance. The aggregation instances and request counts for our example would be the following:

- IP address 10.1.1.1, HTTP method POST: count 1
- IP address 10.1.1.1, HTTP method GET: count 2
- IP address 127.0.0.0, HTTP method POST: count 1

For any n-tuple of aggregation keys, each unique combination of values for the keys defines a separate aggregation instance, which AWS WAF counts and rate-limits individually.

You can optionally nest another statement inside the rate-based statement, to narrow the scope of the rule so that it only counts and rate limits requests that match the nested statement. You can use this nested scope-down statement in conjunction with your aggregation key specifications or you can just count and rate limit all requests that match the scope-down statement, without additional aggregation. When you choose to just manage all requests that match a scope-down statement, the aggregation instance is singular for the rule.

You cannot nest a RateBasedStatement inside another statement, for example inside a NotStatement or OrStatement. You can define a RateBasedStatement inside a web ACL and inside a rule group.

For additional information about the options, see [Rate limiting web requests using rate-based rules](https://docs.aws.amazon.com/waf/latest/developerguide/rate-limiting-web-requests-using-rate-based-rules.html) in the AWS WAF Developer Guide.

If you only aggregate on the individual IP address or forwarded IP address, you can retrieve the list of IP addresses that AWS WAF is currently rate limiting for a rule through the API call GetRateBasedStatementManagedKeys. This option is not available for other aggregation configurations.

AWS WAF tracks and manages web requests separately for each instance of a rate-based rule that you use. For example, if you provide the same rate-based rule settings in two web ACLs, each of the two rule statements represents a separate instance of the rate-based rule and gets its own tracking and management by AWS WAF. If you define a rate-based rule inside a rule group, and then use that rule group in multiple places, each use creates a separate instance of the rate-based rule that gets its own tracking and management by AWS WAF.
Type: RateBasedStatement object

Required: No

**RegexMatchStatement**

A rule statement used to search web request components for a match against a single regular expression.

Type: RegexMatchStatement object

Required: No

**RegexPatternSetReferenceStatement**

A rule statement used to search web request components for matches with regular expressions. To use this, create a RegexPatternSet that specifies the expressions that you want to detect, then use the ARN of that set in this statement. A web request matches the pattern set rule statement if the request component matches any of the patterns in the set. To create a regex pattern set, see [CreateRegexPatternSet](#).

Each regex pattern set rule statement references a regex pattern set. You create and maintain the set independent of your rules. This allows you to use the single set in multiple rules. When you update the referenced set, AWS WAF automatically updates all rules that reference it.

Type: RegexPatternSetReferenceStatement object

Required: No

**RuleGroupReferenceStatement**

A rule statement used to run the rules that are defined in a RuleGroup. To use this, create a rule group with your rules, then provide the ARN of the rule group in this statement.

You cannot nest a RuleGroupReferenceStatement, for example for use inside a NotStatement or OrStatement. You cannot use a rule group reference statement inside another rule group. You can only reference a rule group as a top-level statement within a rule that you define in a web ACL.

Type: RuleGroupReferenceStatement object

Required: No
SizeConstraintStatement

A rule statement that compares a number of bytes against the size of a request component, using a comparison operator, such as greater than (>) or less than (<). For example, you can use a size constraint statement to look for query strings that are longer than 100 bytes.

If you configure AWS WAF to inspect the request body, AWS WAF inspects only the number of bytes of the body up to the limit for the web ACL. By default, for regional web ACLs, this limit is 8 KB (8,192 bytes) and for CloudFront web ACLs, this limit is 16 KB (16,384 bytes). For CloudFront web ACLs, you can increase the limit in the web ACL AssociationConfig, for additional fees. If you know that the request body for your web requests should never exceed the inspection limit, you could use a size constraint statement to block requests that have a larger request body size.

If you choose URI for the value of Part of the request to filter on, the slash (/) in the URI counts as one character. For example, the URI /logo.jpg is nine characters long.

Type: `SizeConstraintStatement` object

Required: No

SqliMatchStatement

A rule statement that inspects for malicious SQL code. Attackers insert malicious SQL code into web requests to do things like modify your database or extract data from it.

Type: `SqliMatchStatement` object

Required: No

XssMatchStatement

A rule statement that inspects for cross-site scripting (XSS) attacks. In XSS attacks, the attacker uses vulnerabilities in a benign website as a vehicle to inject malicious client-site scripts into other legitimate web browsers.

Type: `XssMatchStatement` object

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
Tag

Service: AWS WAFV2

A tag associated with an AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing or other management. Typically, the tag key represents a category, such as "environment", and the tag value represents a specific value within that category, such as "test," "development," or "production". Or you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

You can tag the AWS resources that you manage through AWS WAF: web ACLs, rule groups, IP sets, and regex pattern sets. You can't manage or view tags through the AWS WAF console.

Contents

Key

Part of the key:value pair that defines a tag. You can use a tag key to describe a category of information, such as "customer." Tag keys are case-sensitive.

Type: String


Pattern: ^([^p\{L}\p{Z}\p{N}\_\.:=\+-@]*)$  

Required: Yes

Value

Part of the key:value pair that defines a tag. You can use a tag value to describe a specific value within a category, such as "companyA" or "companyB." Tag values are case-sensitive.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: ^([^p\{L}\p{Z}\p{N}\_\.:=\+-@]*)$  

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
TagInfoForResource

Service: AWS WAFV2

The collection of tagging definitions for an AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing or other management. Typically, the tag key represents a category, such as "environment", and the tag value represents a specific value within that category, such as "test," "development," or "production". Or you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

You can tag the AWS resources that you manage through AWS WAF: web ACLs, rule groups, IP sets, and regex pattern sets. You can't manage or view tags through the AWS WAF console.

Contents

ResourceARN

The Amazon Resource Name (ARN) of the resource.

Type: String


Pattern: .\S.*

Required: No

TagList

The array of Tag objects defined for the resource.

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
TextTransformation

Service: AWS WAFV2

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection.

Contents

Priority

Sets the relative processing order for multiple transformations. AWS WAF processes all transformations, from lowest priority to highest, before inspecting the transformed content. The priorities don't need to be consecutive, but they must all be different.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

Type

For detailed descriptions of each of the transformation types, see Text transformations in the AWS WAF Developer Guide.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE | BASE64_DECODE | HEX_DECODE | MD5 | REPLACE_COMMENTS | ESCAPE_SEQ_DECODE | SQL_HEX_DECODER | CSS_DECODER | JS_DECODER | NORMALIZE_PATH | NORMALIZE_PATH_WIN | REMOVE_NULLS | REPLACE_NULLS | BASE64_DECODE_EXT | URL_DECODE_UNI | UTF8_TO_UNICODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
TimeWindow

Service: AWS WAFV2

In a `GetSampledRequests` request, the `StartTime` and `EndTime` objects specify the time range for which you want AWS WAF to return a sample of web requests.

You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

In a `GetSampledRequests` response, the `StartTime` and `EndTime` objects specify the time range for which AWS WAF actually returned a sample of web requests. AWS WAF gets the specified number of requests from among the first 5,000 requests that your AWS resource receives during the specified time period. If your resource receives more than 5,000 requests during that period, AWS WAF stops sampling after the 5,000th request. In that case, `EndTime` is the time that AWS WAF received the 5,000th request.

Contents

EndTime

The end of the time range from which you want `GetSampledRequests` to return a sample of the requests that your AWS resource received. You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes

StartTime

The beginning of the time range from which you want `GetSampledRequests` to return a sample of the requests that your AWS resource received. You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
UriPath

Service: AWS WAFV2

Inspect the path component of the URI of the web request. This is the part of the web request that identifies a resource. For example, /images/daily-ad.jpg.

This is used in the FieldToMatch specification for some web request component types.

JSON specification: "UriPath": {}

Contents

The members of this exception structure are context-dependent.

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
UsernameField

Service: AWS WAFV2

The name of the field in the request payload that contains your customer's username.

This data type is used in the RequestInspection and RequestInspectionACFP data types.

Contents

Identifier

The name of the username field.

How you specify this depends on the request inspection payload type.

- For JSON payloads, specify the field name in JSON pointer syntax. For information about the JSON Pointer syntax, see the Internet Engineering Task Force (IETF) documentation [JavaScript Object Notation (JSON) Pointer](https://www.ietf.org/rfc/rfc6901.txt).

  For example, for the JSON payload `{ "form": { "username": "THE_USERNAME" } }`, the username field specification is `/form/username`.

- For form encoded payload types, use the HTML form names.

  For example, for an HTML form with the input element named `username1`, the username field specification is `username1`.

Type: String


Pattern: \.*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](https://docs.aws.amazon.com/sdk-for-cpp/v1/developer-guide/samples-saml.html)
- [AWS SDK for Go](https://aws.amazon.com/sdk-for-golang/)

UsernameField
• AWS SDK for Java V2
• AWS SDK for Ruby V3
**VersionToPublish**

Service: AWS WAFV2

A version of the named managed rule group, that the rule group's vendor publishes for use by customers.

**Note**

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers. Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are ListManagedRuleSets, GetManagedRuleSet, PutManagedRuleSetVersions, and UpdateManagedRuleSetVersionExpireDate.

**Contents**

**AssociatedRuleGroupArn**

The Amazon Resource Name (ARN) of the vendor's rule group that's used in the published managed rule group version.

Type: String


Pattern: .\S.*

Required: No

**ForecastedLifetime**

The amount of time the vendor expects this version of the managed rule group to last, in days.

Type: Integer

Valid Range: Minimum value of 1.

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
VisibilityConfig

Service: AWS WAFV2

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Contents

CloudWatchMetricsEnabled

Indicates whether the associated resource sends metrics to Amazon CloudWatch. For the list of available metrics, see AWS WAF Metrics in the AWS WAF Developer Guide.

For web ACLs, the metrics are for web requests that have the web ACL default action applied. AWS WAF applies the default action to web requests that pass the inspection of all rules in the web ACL without being either allowed or blocked. For more information, see The web ACL default action in the AWS WAF Developer Guide.

Type: Boolean

Required: Yes

MetricName

A name of the Amazon CloudWatch metric dimension. The name can contain only the characters: A-Z, a-z, 0-9, - (hyphen), and _ (underscore). The name can be from one to 128 characters long. It can't contain whitespace or metric names that are reserved for AWS WAF, for example All and Default_Action.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: ^[\w#:\-/-]+$

Required: Yes

SampledRequestsEnabled

Indicates whether AWS WAF should store a sampling of the web requests that match the rules. You can view the sampled requests through the AWS WAF console.

Type: Boolean
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
WebACL

Service: AWS WAFV2

A web ACL defines a collection of rules to use to inspect and control web requests. Each rule has a statement that defines what to look for in web requests and an action that AWS WAF applies to requests that match the statement. In the web ACL, you assign a default action to take (allow, block) for any request that does not match any of the rules. The rules in a web ACL can be a combination of the types Rule, RuleGroup, and managed rule group. You can associate a web ACL with one or more AWS resources to protect. The resources can be an Amazon CloudFront distribution, an Amazon API Gateway REST API, an Application Load Balancer, an AWS AppSync GraphQL API, an Amazon Cognito user pool, an AWS App Runner service, or an AWS Verified Access instance.

Contents

ARN

The Amazon Resource Name (ARN) of the web ACL that you want to associate with the resource.

Type: String


Pattern: .\S.*

Required: Yes

DefaultAction

The action to perform if none of the Rules contained in the WebACL match.

Type: DefaultAction object

Required: Yes

Id

A unique identifier for the WebACL. This ID is returned in the responses to create and list commands. You use this ID to do things like get, update, and delete a WebACL.

Type: String

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: Yes

**Name**

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String


Pattern: ^[\w\-]+$

Required: Yes

**VisibilityConfig**

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: [VisibilityConfig object](#)

Required: Yes

**AssociationConfig**

Specifies custom configurations for the associations between the web ACL and protected resources.

Use this to customize the maximum size of the request body that your protected CloudFront distributions forward to AWS WAF for inspection. The default is 16 KB (16,384 bytes).

**Note**

You are charged additional fees when your protected resources forward body sizes that are larger than the default. For more information, see [AWS WAF Pricing](#).

Type: [AssociationConfig object](#)

Required: No

**Capacity**

The web ACL capacity units (WCUs) currently being used by this web ACL.
AWS WAF uses WCUs to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect the relative cost of each rule. Simple rules that cost little to run use fewer WCUs than more complex rules that use more processing power. Rule group capacity is fixed at creation, which helps users plan their web ACL WCU usage when they use a rule group. For more information, see [AWS WAF web ACL capacity units (WCU)](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-web-acl-capacity-units.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

Type: Long

Valid Range: Minimum value of 0.

Required: No

**CaptchaConfig**

Specifies how AWS WAF should handle CAPTCHA evaluations for rules that don't have their own CaptchaConfig settings. If you don't specify this, AWS WAF uses its default settings for CaptchaConfig.

Type: [CaptchaConfig](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-captchaconfig.html) object

Required: No

**ChallengeConfig**

Specifies how AWS WAF should handle challenge evaluations for rules that don't have their own ChallengeConfig settings. If you don't specify this, AWS WAF uses its default settings for ChallengeConfig.

Type: [ChallengeConfig](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-challengeconfig.html) object

Required: No

**CustomResponseBodies**

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the web ACL, and then use them in the rules and default actions that you define in the web ACL.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-customizing-web-requests-and-responses.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-quota-aws.html) in the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/).
Type: String to `CustomResponseBody` object map

Map Entries: Maximum number of items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `^\w\-]+$`

Required: No

**Description**

A description of the web ACL that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^\w+=:\@\/-,\s]\[\w+=:\@\/-,\s]+\[\w+=:\@\/-,\s]+$`

Required: No

**LabelNamespace**

The label namespace prefix for this web ACL. All labels added by rules in this web ACL have this prefix.

- The syntax for the label namespace prefix for a web ACL is the following:

  `awswaf:<account ID>:webacl:<web ACL name>:`

- When a rule with a label matches a web request, AWS WAF adds the fully qualified label to the request. A fully qualified label is made up of the label namespace from the rule group or web ACL where the rule is defined and the label from the rule, separated by a colon:

  `<label namespace>:<label from rule>

Type: String


Pattern: `^\[0-9A-Za-z_\-]+\$`

Required: No
ManagedByFirewallManager

Indicates whether this web ACL is managed by AWS Firewall Manager. If true, then only AWS Firewall Manager can delete the web ACL or any Firewall Manager rule groups in the web ACL.

Type: Boolean
Required: No

PostProcessFirewallManagerRuleGroups

The last set of rules for AWS WAF to process in the web ACL. This is defined in an AWS Firewall Manager AWS WAF policy and contains only rule group references. You can't alter these. Any rules and rule groups that you define for the web ACL are prioritized before these.

In the Firewall Manager AWS WAF policy, the Firewall Manager administrator can define a set of rule groups to run first in the web ACL and a set of rule groups to run last. Within each set, the administrator prioritizes the rule groups, to determine their relative processing order.

Type: Array of FirewallManagerRuleGroup objects
Required: No

PreProcessFirewallManagerRuleGroups

The first set of rules for AWS WAF to process in the web ACL. This is defined in an AWS Firewall Manager AWS WAF policy and contains only rule group references. You can't alter these. Any rules and rule groups that you define for the web ACL are prioritized after these.

In the Firewall Manager AWS WAF policy, the Firewall Manager administrator can define a set of rule groups to run first in the web ACL and a set of rule groups to run last. Within each set, the administrator prioritizes the rule groups, to determine their relative processing order.

Type: Array of FirewallManagerRuleGroup objects
Required: No

Rules

The Rule statements used to identify the web requests that you want to manage. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Type: Array of Rule objects
TokenDomains

Specifies the domains that AWS WAF should accept in a web request token. This enables the use of tokens across multiple protected websites. When AWS WAF provides a token, it uses the domain of the AWS resource that the web ACL is protecting. If you don't specify a list of token domains, AWS WAF accepts tokens only for the domain of the protected resource. With a token domain list, AWS WAF accepts the resource's host domain plus all domains in the token domain list, including their prefixed subdomains.

Type: Array of strings


Pattern: ^[\w\./-]+$
WebACLSummary
Service: AWS WAFV2

High-level information about a WebACL, returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage a WebACL, and the ARN, that you provide to operations like AssociateWebACL.

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String


Pattern: . *\S.*

Required: No

Description

A description of the web ACL that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^\[\w+=:#@/\-,.\]\[\w+=:#@/\-,.\s\]+[\w+=:#@/\-,.\]$.

Required: No

Id

The unique identifier for the web ACL. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$.
LockToken

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a WAFOptimisticLockException. If this happens, perform another get, and use the new token returned by that operation.

Type: String


Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$

Required: No

Name

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String


Pattern: ^[\w\-]+$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**XssMatchStatement**

Service: AWS WAFV2

A rule statement that inspects for cross-site scripting (XSS) attacks. In XSS attacks, the attacker uses vulnerabilities in a benign website as a vehicle to inject malicious client-site scripts into other legitimate web browsers.

**Contents**

**FieldToMatch**

The part of the web request that you want AWS WAF to inspect.

Type: [FieldToMatch](#) object

Required: Yes

**TextTransformations**

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. Text transformations are used in rule match statements, to transform the FieldToMatch request component before inspecting it, and they're used in rate-based rule statements, to transform request components before using them as custom aggregation keys. If you specify one or more transformations to apply, AWS WAF performs all transformations on the specified content, starting from the lowest priority setting, and then uses the transformed component contents.

Type: Array of [TextTransformation](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
AWS WAF Classic

The following data types are supported by AWS WAF Classic:

- `ActivatedRule`
- `ByteMatchSet`
- `ByteMatchSetSummary`
- `ByteMatchSetUpdate`
- `ByteMatchTuple`
- `ExcludedRule`
- `FieldToMatch`
- `GeoMatchConstraint`
- `GeoMatchSet`
- `GeoMatchSetSummary`
- `GeoMatchSetUpdate`
- `HTTPHeader`
- `HTTPRequest`
- `IPSet`
- `IPSetDescriptor`
- `IPSetSummary`
- `IPSetUpdate`
- `LoggingConfiguration`
- `Predicate`
- `RateBasedRule`
- `RegexMatchSet`
- `RegexMatchSetSummary`
- `RegexMatchSetUpdate`
- `RegexMatchTuple`
- **RegexPatternSet**
- **RegexPatternSetSummary**
- **RegexPatternSetUpdate**
- **Rule**
- **RuleGroup**
- **RuleGroupSummary**
- **RuleGroupUpdate**
- **RuleSummary**
- **RuleUpdate**
- **SampledHTTPRequest**
- **SizeConstraint**
- **SizeConstraintSet**
- **SizeConstraintSetSummary**
- **SizeConstraintSetUpdate**
- **SqlInjectionMatchSet**
- **SqlInjectionMatchSetSummary**
- **SqlInjectionMatchSetUpdate**
- **SqlInjectionMatchTuple**
- **SubscribedRuleGroupSummary**
- **Tag**
- **TagInfoForResource**
- **TimeWindow**
- **WafAction**
- **WafOverrideAction**
- **WebACL**
- **WebACLSummary**
- **WebACLUpdate**
- **XssMatchSet**
- **XssMatchSetSummary**
- **XssMatchSetUpdate**
• **XssMatchTuple**
The ActivatedRule object in an UpdateWebACL request specifies a Rule that you want to insert or delete, the priority of the Rule in the WebACL, and the action that you want AWS WAF to take when a web request matches the Rule (ALLOW, BLOCK, or COUNT).

To specify whether to insert or delete a Rule, use the Action parameter in the WebACLUpdate data type.

Contents

Priority

Specifies the order in which the Rules in a WebACL are evaluated. Rules with a lower value for Priority are evaluated before Rules with a higher value. The value must be a unique integer. If you add multiple Rules to a WebACL, the values don't need to be consecutive.

Type: Integer

Required: Yes

RuleId

The RuleId for a Rule. You use RuleId to get more information about a Rule (see GetRule), update a Rule (see UpdateRule), insert a Rule into a WebACL or delete a one from a WebACL (see UpdateWebACL), or delete a Rule from AWS WAF (see DeleteRule).

RuleId is returned by CreateRule and by ListRules.

Type: String

Pattern: . \S . *

Required: Yes

Action

Specifies the action that Amazon CloudFront or AWS WAF takes when a web request matches the conditions in the Rule. Valid values for Action include the following:

- ALLOW: CloudFront responds with the requested object.
- BLOCK: CloudFront responds with an HTTP 403 (Forbidden) status code.
- COUNT: AWS WAF increments a counter of requests that match the conditions in the rule and then continues to inspect the web request based on the remaining rules in the web ACL.

ActivatedRule|OverrideAction applies only when updating or adding a RuleGroup to a WebACL. In this case, you do not use ActivatedRule|Action. For all other update requests, ActivatedRule|Action is used instead of ActivatedRule|OverrideAction.

Type: WafAction object

Required: No

ExcludedRules

An array of rules to exclude from a rule group. This is applicable only when the ActivatedRule refers to a RuleGroup.

Sometimes it is necessary to troubleshoot rule groups that are blocking traffic unexpectedly (false positives). One troubleshooting technique is to identify the specific rule within the rule group that is blocking the legitimate traffic and then disable (exclude) that particular rule. You can exclude rules from both your own rule groups and AWS Marketplace rule groups that have been associated with a web ACL.

Specifying ExcludedRules does not remove those rules from the rule group. Rather, it changes the action for the rules to COUNT. Therefore, requests that match an ExcludedRule are counted but not blocked. The RuleGroup owner will receive COUNT metrics for each ExcludedRule.

If you want to exclude rules from a rule group that is already associated with a web ACL, perform the following steps:
1. Use the AWS WAF logs to identify the IDs of the rules that you want to exclude. For more information about the logs, see Logging Web ACL Traffic Information.

2. Submit an UpdateWebACL request that has two actions:
   - The first action deletes the existing rule group from the web ACL. That is, in the UpdateWebACL request, the first Updates:Action should be DELETE and Updates:ActivatedRule:RuleId should be the rule group that contains the rules that you want to exclude.
   - The second action inserts the same rule group back in, but specifying the rules to exclude. That is, the second Updates:Action should be INSERT, Updates:ActivatedRule:RuleId should be the rule group that you just removed, and ExcludedRules should contain the rules that you want to exclude.

Type: Array of ExcludedRule objects

Required: No

OverrideAction

Use the OverrideAction to test your RuleGroup.

Any rule in a RuleGroup can potentially block a request. If you set the OverrideAction to None, the RuleGroup will block a request if any individual rule in the RuleGroup matches the request and is configured to block that request. However if you first want to test the RuleGroup, set the OverrideAction to Count. The RuleGroup will then override any block action specified by individual rules contained within the group. Instead of blocking matching requests, those requests will be counted. You can view a record of counted requests using GetSampledRequests.

ActivatedRule|OverrideAction applies only when updating or adding a RuleGroup to a WebACL. In this case you do not use ActivatedRule|Action. For all other update requests, ActivatedRule|Action is used instead of ActivatedRule|OverrideAction.

Type: WafOverrideAction object

Required: No

Type

The rule type, either REGULAR, as defined by Rule, RATE_BASED, as defined by RateBasedRule, or GROUP, as defined by RuleGroup. The default is REGULAR. Although this field is optional,
be aware that if you try to add a RATE_BASED rule to a web ACL without setting the type, the
UpdateWebACL request will fail because the request tries to add a REGULAR rule with the
specified ID, which does not exist.

Type: String

Valid Values: REGULAR | RATE_BASED | GROUP

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the
following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ByteMatchSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In a GetByteMatchSet request, ByteMatchSet is a complex type that contains the ByteMatchSetId and Name of a ByteMatchSet, and the values that you specified when you updated the ByteMatchSet.

A complex type that contains ByteMatchTuple objects, which specify the parts of web requests that you want AWS WAF to inspect and the values that you want AWS WAF to search for. If a ByteMatchSet contains more than one ByteMatchTuple object, a request needs to match the settings in only one ByteMatchTuple to be considered a match.

Contents

ByteMatchSetId

The ByteMatchSetId for a ByteMatchSet. You use ByteMatchSetId to get information about a ByteMatchSet (see GetByteMatchSet), update a ByteMatchSet (see UpdateByteMatchSet), insert a ByteMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete a ByteMatchSet from AWS WAF (see DeleteByteMatchSet).

ByteMatchSetId is returned by CreateByteMatchSet and by ListByteMatchSets.

Type: String


Pattern: .\S\.*

Required: Yes
ByteMatchTuples

Specifies the bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings.

Type: Array of ByteMatchTuple objects

Required: Yes

Name

A friendly name or description of the ByteMatchSet. You can't change Name after you create a ByteMatchSet.

Type: String


Pattern: .*\S.*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ByteMatchSetSummary

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returned by ListByteMatchSets. Each ByteMatchSetSummary object includes the Name and ByteMatchSetId for one ByteMatchSet.

Contents

ByteMatchSetId

The ByteMatchSetId for a ByteMatchSet. You use ByteMatchSetId to get information about a ByteMatchSet, update a ByteMatchSet, remove a ByteMatchSet from a Rule, and delete a ByteMatchSet from AWS WAF.

ByteMatchSetId is returned by CreateByteMatchSet and by ListByteMatchSets.

Type: String


Pattern: .\S.*

Required: Yes

Name

A friendly name or description of the ByteMatchSet. You can't change Name after you create a ByteMatchSet.

Type: String

Pattern: .\S\.*
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](https://aws.amazon.com/c++)
- [AWS SDK for Go](https://aws.amazon.com/go)
- [AWS SDK for Java V2](https://aws.amazon.com/java/v2)
- [AWS SDK for Ruby V3](https://aws.amazon.com/ruby/v3)
ByteMatchSetUpdate
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In an UpdateByteMatchSet request, ByteMatchSetUpdate specifies whether to insert or delete a ByteMatchTuple and includes the settings for the ByteMatchTuple.

Contents

Action

Specifies whether to insert or delete a ByteMatchTuple.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

ByteMatchTuple

Information about the part of a web request that you want AWS WAF to inspect and the value that you want AWS WAF to search for. If you specify DELETE for the value of Action, the ByteMatchTuple values must exactly match the values in the ByteMatchTuple that you want to delete from the ByteMatchSet.

Type: ByteMatchTuple object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ByteMatchTuple

Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings.

Contents

FieldToMatch

The part of a web request that you want AWS WAF to search, such as a specified header or a query string. For more information, see FieldToMatch.

Type: FieldToMatch object

Required: Yes

PositionalConstraint

Within the portion of a web request that you want to search (for example, in the query string, if any), specify where you want AWS WAF to search. Valid values include the following:

CONTAINS

The specified part of the web request must include the value of TargetString, but the location doesn't matter.

CONTAINS_WORD

The specified part of the web request must include the value of TargetString, and TargetString must contain only alphanumeric characters or underscore (A-Z, a-z, 0-9, or _). In addition, TargetString must be a word, which means one of the following:
• TargetString exactly matches the value of the specified part of the web request, such as the value of a header.
• TargetString is at the beginning of the specified part of the web request and is followed by a character other than an alphanumeric character or underscore (_), for example, BadBot;;
• TargetString is at the end of the specified part of the web request and is preceded by a character other than an alphanumeric character or underscore (_), for example, ;BadBot.
• TargetString is in the middle of the specified part of the web request and is preceded and followed by characters other than alphanumeric characters or underscore (_), for example, -BadBot;.

**EXACTLY**

The value of the specified part of the web request must exactly match the value of TargetString.

**STARTS_WITH**

The value of TargetString must appear at the beginning of the specified part of the web request.

**ENDS_WITH**

The value of TargetString must appear at the end of the specified part of the web request.

Type: String

Valid Values: EXACTLY | STARTS_WITH | ENDS_WITH | CONTAINS | CONTAINS_WORD

Required: Yes

**TargetString**

The value that you want AWS WAF to search for. AWS WAF searches for the specified string in the part of web requests that you specified in FieldToMatch. The maximum length of the value is 50 bytes.

Valid values depend on the values that you specified for FieldToMatch:

• HEADER: The value that you want AWS WAF to search for in the request header that you specified in FieldToMatch, for example, the value of the User-Agent or Referer header.
• **METHOD**: The HTTP method, which indicates the type of operation specified in the request. Amazon CloudFront supports the following methods: DELETE, GET, HEAD, OPTIONS, PATCH, POST, and PUT.

• **QUERY_STRING**: The value that you want AWS WAF to search for in the query string, which is the part of a URL that appears after a ? character.

• **URI**: The path component of the URI. This does not include the query string or fragment components of the URI. For information, see Uniform Resource Identifier (URI): Generic Syntax.

• **BODY**: The part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form. The request body immediately follows the request headers. Note that only the first 8192 bytes of the request body are forwarded to AWS WAF for inspection. To allow or block requests based on the length of the body, you can create a size constraint set. For more information, see CreateSizeConstraintSet.

• **SINGLE_QUERY_ARG**: The parameter in the query string that you will inspect, such as UserName or SalesRegion. The maximum length for SINGLE_QUERY_ARG is 30 characters.

• **ALL_QUERY_ARGS**: Similar to SINGLE_QUERY_ARG, but instead of inspecting a single parameter, AWS WAF inspects all parameters within the query string for the value or regex pattern that you specify in TargetString.

    If TargetString includes alphabetic characters A-Z and a-z, note that the value is case sensitive.

**If you're using the AWS WAF API**

Specify a base64-encoded version of the value. The maximum length of the value before you base64-encode it is 50 bytes.

For example, suppose the value of Type is HEADER and the value of Data is User-Agent. If you want to search the User-Agent header for the value BadBot, you base64-encode BadBot using MIME base64-encoding and include the resulting value, QmFkQm90, in the value of TargetString.

**If you're using the AWS CLI or one of the AWS SDKs**

The value that you want AWS WAF to search for. The SDK automatically base64 encodes the value.
Type: Base64-encoded binary data object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on FieldToMatch before inspecting it for a match.

You can only specify a single type of TextTransformation.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / (  
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters. HTML_ENTITY_DECODE performs the following operations:
• Replaces (ampersand)quot; with "
• Replaces (ampersand)nbsp; with a non-breaking space, decimal 160
• Replaces (ampersand)lt; with a "less than" symbol
• Replaces (ampersand)gt; with >
• Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;, with the corresponding characters
• Replaces characters that are represented in decimal format, (ampersand)#nnnn;, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

NONE

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
ExcludedRule
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The rule to exclude from a rule group. This is applicable only when the ActivatedRule refers to a RuleGroup. The rule must belong to the RuleGroup that is specified by the ActivatedRule.

Contents

RuleId

The unique identifier for the rule to exclude from the rule group.

Type: String


Pattern: .\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**FieldToMatch**

Service: AWS WAF Classic

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### Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

---

Specifies where in a web request to look for TargetString.

### Contents

#### Type

The part of the web request that you want AWS WAF to search for a specified string. Parts of a request that you can search include the following:

- **HEADER**: A specified request header, for example, the value of the User-Agent or Referer header. If you choose HEADER for the type, specify the name of the header in Data.
- **METHOD**: The HTTP method, which indicated the type of operation that the request is asking the origin to perform. Amazon CloudFront supports the following methods: DELETE, GET, HEAD, OPTIONS, PATCH, POST, and PUT.
- **QUERY_STRING**: A query string, which is the part of a URL that appears after a ? character, if any.
- **URI**: The path component of the URI. This does not include the query string or fragment components of the URI. For information, see [Uniform Resource Identifier (URI): Generic Syntax](#).
- **BODY**: The part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form. The request body immediately follows the request headers. Note that only the first 8192 bytes of the request body are forwarded to AWS WAF for inspection. To allow or block requests based on the length of the body, you can create a size constraint set. For more information, see [CreateSizeConstraintSet](#).
• SINGLE_QUERY_ARG: The parameter in the query string that you will inspect, such as *UserName* or *SalesRegion*. The maximum length for SINGLE_QUERY_ARG is 30 characters.

• ALL_QUERY_ARGS: Similar to SINGLE_QUERY_ARG, but rather than inspecting a single parameter, AWS WAF will inspect all parameters within the query for the value or regex pattern that you specify in TargetString.

Type: String

Valid Values: URI | QUERY_STRING | HEADER | METHOD | BODY | SINGLE_QUERY_ARG | ALL_QUERY_ARGS

Required: Yes

**Data**

When the value of Type is HEADER, enter the name of the header that you want AWS WAF to search, for example, *User-Agent* or *Referer*. The name of the header is not case sensitive.

When the value of Type is SINGLE_QUERY_ARG, enter the name of the parameter that you want AWS WAF to search, for example, *UserName* or *SalesRegion*. The parameter name is not case sensitive.

If the value of Type is any other value, omit Data.

Type: String


Pattern: .\S.*

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
• AWS SDK for Ruby V3
GeoMatchConstraint
Service: AWS WAF Classic

Note
This is **AWS WAF Classic** documentation. For more information, see **AWS WAF Classic** in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the **AWS WAF Developer Guide**. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The country from which web requests originate that you want AWS WAF to search for.

Contents

Type

The type of geographical area you want AWS WAF to search for. Currently **Country** is the only valid value.

Type: String

Valid Values: **Country**

Required: Yes

Value

The country that you want AWS WAF to search for.

Type: String

Valid Values: AF | AX | AL | DZ | AS | AD | AO | AI | AQ | AG | AR | AM | AW | AU | AT | AZ | BS | BH | BD | BB | BY | BE | BZ | BJ | BM | BT | BO | BQ | BA | BW | BV | BR | IO | BN | BG | BF | BI | KH | CM | CA | CV | KY | CF | TD | CL | CN | CX | CC | CO | KM | CG | CD | CK | CR | CI | HR | CU | CW | CY | CZ | DK | DJ | DM | DO | EC | EG | SV | GQ | ER | EE | ET | FK | FO | FJ | FI | FR | GF | PF | TF | GA | GM | GE | DE | GH | GI | GR | GL | GD | GP | GU | GT | GG | GN | GW | GY | HT | HM | VA | HN | HK
| HU | IS | IN | ID | IR | IQ | IE | IM | IL | IT | JM | JP | JE | JO |
| KZ | KE | KI | KP | KR | KW | KG | LA | LV | LB | LS | LR | LY | LI | LT |
| LU | MO | MK | MG | MW | MY | MV | ML | MT | MH | MQ | MR | MU | YT |
| MX | FM | MD | MC | MN | ME | MS | MA | MZ | MM | NA | NR | NP | NL | NC |
| NZ | NI | NE | NG | NU | NF | MP | NO | OM | PK | PW | PS | PA | PG |
| PY | PE | PH | PN | PL | PT | PR | QA | RE | RO | RU | RW | BL | SH | KN |
| LC | MF | PM | VC | WS | SM | ST | SA | SN | RS | SC | SL | SG | SX |
| SK | SI | SB | SO | ZA | GS | SS | ES | LK | SD | SR | SJ | SZ | SE | CH |
| SY | TW | TJ | TZ | TH | TL | TG | TK | TO | TT | TN | TR | TM | TC |
| TV | UG | UA | AE | GB | US | UM | UY | UZ | VU | VE | VN | VG | VI | WF |
| EH | YE | ZM | ZW |

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
GeoMatchSet

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains one or more countries that AWS WAF will search for.

Contents

GeoMatchConstraints

An array of GeoMatchConstraint objects, which contain the country that you want AWS WAF to search for.

Type: Array of GeoMatchConstraint objects

Required: Yes

GeoMatchSetId

The GeoMatchSetId for an GeoMatchSet. You use GeoMatchSetId to get information about a GeoMatchSet (see GeoMatchSet), update a GeoMatchSet (see UpdateGeoMatchSet), insert a GeoMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete a GeoMatchSet from AWS WAF (see DeleteGeoMatchSet).

GeoMatchSetId is returned by CreateGeoMatchSet and by ListGeoMatchSets.

Type: String


Pattern: \.*\S.*

Required: Yes
**Name**

A friendly name or description of the GeoMatchSet. You can't change the name of a GeoMatchSet after you create it.

Type: String


Pattern: . *\S . *

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**GeoMatchSetSummary**

Service: AWS WAF Classic

ℹ️ **Note**

This is AWS WAF Classic documentation. For more information, see [AWS WAF Classic](https://aws.amazon.com/waf/classic) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the name of the GeoMatchSet.

**Contents**

**GeoMatchSetId**

The `GeoMatchSetId` for an GeoMatchSet. You can use `GeoMatchSetId` in a [GetGeoMatchSet](https://docs.aws.amazon.com/waf/latest/developerguide/API_GetGeoMatchSet.html) request to get detailed information about an GeoMatchSet.

Type: String


Pattern: .\S.*

Required: Yes

**Name**

A friendly name or description of the GeoMatchSet. You can't change the name of an GeoMatchSet after you create it.

Type: String


Pattern: .\S.*

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
GeoMatchSetUpdate

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the type of update to perform to a GeoMatchSet with UpdateGeoMatchSet.

Contents

Action

Specifies whether to insert or delete a country with UpdateGeoMatchSet.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

GeoMatchConstraint

The country from which web requests originate that you want AWS WAF to search for.

Type: GeoMatchConstraint object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
HTTPHeader
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a GetSampledRequests request includes an HTTPHeader complex type that appears as Headers in the response syntax. HTTPHeader contains the names and values of all of the headers that appear in one of the web requests that were returned by GetSampledRequests.

Contents

Name
The name of one of the headers in the sampled web request.
Type: String
Required: No

Value
The value of one of the headers in the sampled web request.
Type: String
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
HTTPRequest
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a GetSampledRequests request includes an HTTPRequest complex type that appears as Request in the response syntax. HTTPRequest contains information about one of the web requests that were returned by GetSampledRequests.

Contents

ClientIP

The IP address that the request originated from. If the WebACL is associated with an Amazon CloudFront distribution, this is the value of one of the following fields in CloudFront access logs:

- c-ip, if the viewer did not use an HTTP proxy or a load balancer to send the request
- x-forwarded-for, if the viewer did use an HTTP proxy or a load balancer to send the request

Type: String
Required: No

Country

The two-letter country code for the country that the request originated from. For a current list of country codes, see the Wikipedia entry ISO 3166-1 alpha-2.

Type: String
Required: No
Headers

A complex type that contains two values for each header in the sampled web request: the name of the header and the value of the header.

Type: Array of HTTPHeader objects

Required: No

HTTPVersion

The HTTP version specified in the sampled web request, for example, HTTP/1.1.

Type: String

Required: No

Method

The HTTP method specified in the sampled web request. Amazon CloudFront supports the following methods: DELETE, GET, HEAD, OPTIONS, PATCH, POST, and PUT.

Type: String

Required: No

URI

The path component of the URI. This does not include the query string or fragment components of the URI. For information, see Uniform Resource Identifier (URI): Generic Syntax.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
• AWS SDK for Ruby V3
**IPSet**

Service: AWS WAF Classic

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**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains one or more IP addresses or blocks of IP addresses specified in Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports IPv4 address ranges: /8 and any range between /16 through /32. AWS WAF supports IPv6 address ranges: /24, /32, /48, /56, /64, and /128.

To specify an individual IP address, you specify the four-part IP address followed by a /32, for example, 192.0.2.0/32. To block a range of IP addresses, you can specify /8 or any range between /16 through /32 (for IPv4) or /24, /32, /48, /56, /64, or /128 (for IPv6). For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](#).

**Contents**

**IPSetDescriptors**

The IP address type (IPV4 or IPV6) and the IP address range (in CIDR notation) that web requests originate from. If the WebACL is associated with an Amazon CloudFront distribution and the viewer did not use an HTTP proxy or a load balancer to send the request, this is the value of the c-ip field in the CloudFront access logs.

- Type: Array of **IPSetDescriptor** objects
- Required: Yes

**IPSetId**

The IPSetId for an IPSet. You use IPSetId to get information about an IPSet (see [GetIPSet](#)), update an IPSet (see [UpdateIPSet](#)), insert an IPSet into a Rule or delete one from a Rule (see [UpdateRule](#)), and delete an IPSet from AWS WAF (see [DeleteIPSet](#)).

IPSetId is returned by [CreateIPSet](#) and by [ListIPSets](#).
Type: String


Pattern: .*\\S\.*

Required: Yes

Name

A friendly name or description of the IPSet. You can't change the name of an IPSet after you create it.

Type: String


Pattern: .*\\S\.*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
IPSetDescriptor

Service: AWS WAF Classic

**Note**

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the IP address type (IPV4 or IPV6) and the IP address range (in CIDR format) that web requests originate from.

**Contents**

**Type**

Specify IPV4 or IPV6.

Type: String

Valid Values: IPV4 | IPV6

Required: Yes

**Value**

Specify an IPv4 address by using CIDR notation. For example:

- To configure AWS WAF to allow, block, or count requests that originated from the IP address 192.0.2.44, specify 192.0.2.44/32.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses from 192.0.2.0 to 192.0.2.255, specify 192.0.2.0/24.

For more information about CIDR notation, see the Wikipedia entry Classless Inter-Domain Routing.

Specify an IPv6 address by using CIDR notation. For example:
- To configure AWS WAF to allow, block, or count requests that originated from the IP address 1111:0000:0000:0000:0000:0000:0000:0111, specify 1111:0000:0000:0000:0000:0000:0000:0111/128.


Type: String


Pattern: .\*S\.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
IPSetSummary

Service: AWS WAF Classic

Contains the identifier and the name of the IPSet.

Contents

IPSetId

The IPSetId for an IPSet. You can use IPSetId in a GetIPSet request to get detailed information about an IPSet.

Type: String


Pattern: .*

Required: Yes

Name

A friendly name or description of the IPSet. You can't change the name of an IPSet after you create it.

Type: String


Pattern: .*

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
IPSetUpdate
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the type of update to perform to an IPSet with UpdateIPSet.

Contents

Action
Specifies whether to insert or delete an IP address with UpdateIPSet.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

IPSetDescriptor
The IP address type (IPV4 or IPV6) and the IP address range (in CIDR notation) that web requests originate from.

Type: IPSetDescriptor object

Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The Amazon Kinesis Data Firehose, RedactedFields information, and the web ACL Amazon Resource Name (ARN).

Contents

LogDestinationConfigs

An array of Amazon Kinesis Data Firehose ARNs.

Type: Array of strings

Array Members: Fixed number of 1 item.


Pattern: \.*\\S.*

Required: Yes

ResourceArn

The Amazon Resource Name (ARN) of the web ACL that you want to associate with LogDestinationConfigs.

Type: String


Pattern: \.*\\S.*
Required: Yes

**RedactedFields**

The parts of the request that you want redacted from the logs. For example, if you redact the cookie field, the cookie field in the firehose will be xxx.

Type: Array of [FieldToMatch](#) objects

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
Predicate
Service: AWS WAF Classic

⚠️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in
the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF
Developer Guide. With the latest version, AWS WAF has a single set of endpoints for
regional and global use.

Specifies the ByteMatchSet, IPSet, SqlInjectionMatchSet, XssMatchSet, RegexMatchSet,
GeoMatchSet, and SizeConstraintSet objects that you want to add to a Rule and, for each object,
indicates whether you want to negate the settings, for example, requests that do NOT originate
from the IP address 192.0.2.44.

Contents
DataId

A unique identifier for a predicate in a Rule, such as ByteMatchSetId or IPSetId. The ID is
returned by the corresponding Create or List command.

Type: String


Pattern: .*\S.*

Required: Yes

Negated

Set Negated to False if you want AWS WAF to allow, block, or count requests based on
the settings in the specified ByteMatchSet, IPSet, SqlInjectionMatchSet, XssMatchSet,
RegexMatchSet, GeoMatchSet, or SizeConstraintSet. For example, if an IPSet includes the IP
address 192.0.2.44, AWS WAF will allow or block requests based on that IP address.

Set Negated to True if you want AWS WAF to allow or block a request based on the negation
of the settings in the ByteMatchSet, IPSet, SqlInjectionMatchSet, XssMatchSet, RegexMatchSet,
**GeoMatchSet**, or **SizeConstraintSet**. For example, if an IPSet includes the IP address 192.0.2.44, AWS WAF will allow, block, or count requests based on all IP addresses except 192.0.2.44.

Type: Boolean

Required: Yes

**Type**

The type of predicate in a Rule, such as ByteMatch or IPSet.

Type: String

Valid Values: IPMatch | ByteMatch | SqlInjectionMatch | GeoMatch | SizeConstraint | XssMatch | RegexMatch

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
A RateBasedRule is identical to a regular Rule, with one addition: a RateBasedRule counts the number of requests that arrive from a specified IP address every five minutes. For example, based on recent requests that you've seen from an attacker, you might create a RateBasedRule that includes the following conditions:

- The requests come from 192.0.2.44.
- They contain the value BadBot in the User-Agent header.

In the rule, you also define the rate limit as 1,000.

Requests that meet both of these conditions and exceed 1,000 requests every five minutes trigger the rule's action (block or count), which is defined in the web ACL.

## Contents

### MetricName

A friendly name or description for the metrics for a RateBasedRule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RateBasedRule.

Type: String

Pattern: .*\S.*

Required: Yes

Name

A friendly name or description for a RateBasedRule. You can't change the name of a RateBasedRule after you create it.

Type: String


Pattern: .*\S.*

Required: Yes

RateKey

The field that AWS WAF uses to determine if requests are likely arriving from single source and thus subject to rate monitoring. The only valid value for RateKey is IP. IP indicates that requests arriving from the same IP address are subject to the RateLimit that is specified in the RateBasedRule.

Type: String

Valid Values: IP

Required: Yes

RateLimit

The maximum number of requests, which have an identical value in the field specified by the RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes
**RuleId**

A unique identifier for a RateBasedRule. You use RuleId to get more information about a RateBasedRule (see [GetRateBasedRule](#)), update a RateBasedRule (see [UpdateRateBasedRule](#)), insert a RateBasedRule into a WebACL or delete one from a WebACL (see [UpdateWebACL](#)), or delete a RateBasedRule from AWS WAF (see [DeleteRateBasedRule](#)).

Type: String


Pattern: ".*/S.*"

Required: Yes

**MatchPredicates**

The Predicates object contains one Predicate element for each [ByteMatchSet](#), [IPSet](#), or [SqlInjectionMatchSet](#) object that you want to include in a RateBasedRule.

Type: Array of [Predicate](#) objects

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**RegexMatchSet**

Service: AWS WAF Classic

⚠️ **Note**

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In a **GetRegexMatchSet** request, RegexMatchSet is a complex type that contains the RegexMatchSetId and Name of a RegexMatchSet, and the values that you specified when you updated the RegexMatchSet.

The values are contained in a RegexMatchTuple object, which specify the parts of web requests that you want AWS WAF to inspect and the values that you want AWS WAF to search for. If a RegexMatchSet contains more than one RegexMatchTuple object, a request needs to match the settings in only one ByteMatchTuple to be considered a match.

**Contents**

**Name**

A friendly name or description of the **RegexMatchSet**. You can't change Name after you create a RegexMatchSet.

Type: String


Pattern: . * \S . *

Required: No

**RegexMatchsetId**

The RegexMatchSetId for a RegexMatchSet. You use RegexMatchSetId to get information about a RegexMatchSet (see **GetRegexMatchSet**), update a RegexMatchSet (see...
UpdateRegexMatchSet), insert a RegexMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete a RegexMatchSet from AWS WAF (see DeleteRegexMatchSet).

RegexMatchSetId is returned by CreateRegexMatchSet and by ListRegexMatchSets.

Type: String


Pattern: . * $ . *

Required: No

RegexMatchTuples

Contains an array of RegexMatchTuple objects. Each RegexMatchTuple object contains:

- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the User-Agent header.
- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see RegexPatternSet.
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

Type: Array of RegexMatchTuple objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**RegexMatchSetSummary**

Service: AWS WAF Classic

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**Note**

This is **AWS WAF Classic** documentation. For more information, see **AWS WAF Classic** in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAF V2 API and see the **AWS WAF Developer Guide**. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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Returned by **ListRegexMatchSets**. Each **RegexMatchSetSummary** object includes the Name and **RegexMatchSetId** for one **RegexMatchSet**.

**Contents**

**Name**

A friendly name or description of the **RegexMatchSet**. You can't change Name after you create a **RegexMatchSet**.

Type: String


Pattern: .*\S.*

Required: Yes

**RegexMatchSetId**

The **RegexMatchSetId** for a **RegexMatchSet**. You use **RegexMatchSetId** to get information about a **RegexMatchSet**, update a **RegexMatchSet**, remove a **RegexMatchSet** from a **Rule**, and delete a **RegexMatchSet** from **AWS WAF**.

**RegexMatchSetId** is returned by **CreateRegexMatchSet** and by **ListRegexMatchSets**.

Type: String

Pattern: . *\S . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RegExMatchSetUpdate
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In an UpdateRegExMatchSet request, RegExMatchSetUpdate specifies whether to insert or delete a RegExMatchTuple and includes the settings for the RegExMatchTuple.

Contents

Action

Specifies whether to insert or delete a RegExMatchTuple.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

RegExMatchTuple

Information about the part of a web request that you want AWS WAF to inspect and the identifier of the regular expression (regex) pattern that you want AWS WAF to search for. If you specify DELETE for the value of Action, the RegExMatchTuple values must exactly match the values in the RegExMatchTuple that you want to delete from the RegExMatchSet.

Type: RegExMatchTuple object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
The regular expression pattern that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings. Each RegexMatchTuple object contains:

- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the User-Agent header.
- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see RegexPatternSet.
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

### Contents

**FieldToMatch**

Specifies where in a web request to look for the RegexPatternSet.

Type: FieldToMatch object

Required: Yes

**RegexPatternSetId**

The RegexPatternSetId for a RegexPatternSet. You use RegexPatternSetId to get information about a RegexPatternSet (see GetRegexPatternSet), update a RegexPatternSet (see UpdateRegexPatternSet), insert a RegexPatternSet into a...
RegexMatchSet or delete one from a RegexMatchSet (see UpdateRegexMatchSet), and delete an RegexPatternSet from AWS WAF (see DeleteRegexPatternSet).

RegexPatternSetId is returned by CreateRegexPatternSet and by ListRegexPatternSets.

Type: String


Pattern: .\S.*

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on RegexPatternSet before inspecting a request for a match.

You can only specify a single type of TextTransformation.

**CMD_LINE**

When you're concerned that attackers are injecting an operating system commandline command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \\"\'\^\n\t
- Delete spaces before the following characters: / (\n\t
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

**COMPRESS_WHITE_SPACE**

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
• non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

**HTML_ENTITY_DECODE**

Use this option to replace HTML-encoded characters with unencoded characters. HTML_ENTITY_DECODE performs the following operations:

• Replaces (ampersand)quot; with "
• Replaces (ampersand)nbsp; with a non-breaking space, decimal 160
• Replaces (ampersand)lt; with a "less than" symbol
• Replaces (ampersand)gt; with >
• Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;,
  with the corresponding characters
• Replaces characters that are represented in decimal format, (ampersand)#nnnn;,
  with the corresponding characters

**LOWERCASE**

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

**URL_DECODE**

Use this option to decode a URL-encoded value.

**NONE**

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• **AWS SDK for C++**
• **AWS SDK for Go**
• **AWS SDK for Java V2**
• **AWS SDK for Ruby V3**
The `RegexPatternSet` specifies the regular expression (regex) pattern that you want AWS WAF to search for, such as `B[a@]dB[o0]t`. You can then configure AWS WAF to reject those requests.

**Contents**

**RegexPatternSetId**

The identifier for the `RegexPatternSet`. You use `RegexPatternSetId` to get information about a `RegexPatternSet`, update a `RegexPatternSet`, remove a `RegexPatternSet` from a `RegexMatchSet`, and delete a `RegexPatternSet` from AWS WAF.

`RegexMatchSetId` is returned by `CreateRegexPatternSet` and by `ListRegexPatternSets`.

Type: String


Pattern: `.*\S.*`

Required: Yes

**RegexPatternStrings**

Specifies the regular expression (regex) patterns that you want AWS WAF to search for, such as `B[a@]dB[o0]t`.

Type: Array of strings

Array Members: Maximum number of 10 items.

Pattern: .*

Required: Yes

**Name**

A friendly name or description of the [RegexPatternSet](#). You can't change Name after you create a RegexPatternSet.

Type: String


Pattern: .*\S.*

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**RegexPatternSetSummary**

Service: AWS WAF Classic

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**Note**

This is AWS WAF Classic documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-classic.html) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFv2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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Returned by [ListRegexPatternSets](https://docs.aws.amazon.com/waf/latest/developerguide/list-regex-pattern-sets.html). Each RegexPatternSetSummary object includes the Name and RegexPatternSetId for one [RegexPatternSet](https://docs.aws.amazon.com/waf/latest/developerguide/).

**Contents**

**Name**

A friendly name or description of the [RegexPatternSet](https://docs.aws.amazon.com/waf/latest/developerguide/regex-pattern-set.html). You can't change Name after you create a RegexPatternSet.

Type: String


Pattern: .*\S.*

Required: Yes

**RegexPatternSetId**

The RegexPatternSetId for a RegexPatternSet. You use RegexPatternSetId to get information about a RegexPatternSet, update a RegexPatternSet, remove a RegexPatternSet from a RegexMatchSet, and delete a RegexPatternSet from AWS WAF.

RegexPatternSetId is returned by [CreateRegexPatternSet](https://docs.aws.amazon.com/waf/latest/developerguide/create-regex-pattern-set.html) and by [ListRegexPatternSets](https://docs.aws.amazon.com/waf/latest/developerguide/list-regex-pattern-sets.html).

Type: String

Pattern: . *\S . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RegexPatternSetUpdate

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In an UpdateRegexPatternSet request, RegexPatternSetUpdate specifies whether to insert or delete a RegexPatternString and includes the settings for the RegexPatternString.

Contents

Action

Specifies whether to insert or delete a RegexPatternString.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

RegexPatternString

Specifies the regular expression (regex) pattern that you want AWS WAF to search for, such as B[a@]dB[o0]t.

Type: String


Pattern: .*

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
Rule
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A combination of ByteMatchSet, IPSet, and/or SqlInjectionMatchSet objects that identify the web requests that you want to allow, block, or count. For example, you might create a Rule that includes the following predicates:

- An IPSet that causes AWS WAF to search for web requests that originate from the IP address 192.0.2.44
- A ByteMatchSet that causes AWS WAF to search for web requests for which the value of the User-Agent header is BadBot.

To match the settings in this Rule, a request must originate from 192.0.2.44 AND include a User-Agent header for which the value is BadBot.

Contents

Predicates
The Predicates object contains one Predicate element for each ByteMatchSet, IPSet, or SqlInjectionMatchSet object that you want to include in a Rule.

| Type: Array of Predicate objects |
| Required: Yes |

RuleId
A unique identifier for a Rule. You use RuleId to get more information about a Rule (see GetRule), update a Rule (see UpdateRule), insert a Rule into a WebACL or delete a one from a WebACL (see UpdateWebACL), or delete a Rule from AWS WAF (see DeleteRule).
RuleId is returned by CreateRule and by ListRules.

Type: String


Pattern: .*\S.*

Required: Yes

MetricName

A friendly name or description for the metrics for this Rule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change MetricName after you create the Rule.

Type: String


Pattern: .*\S.*

Required: No

Name

The friendly name or description for the Rule. You can't change the name of a Rule after you create it.

Type: String


Pattern: .*\S.*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RuleGroup

Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A collection of predefined rules that you can add to a web ACL.

Rule groups are subject to the following limits:

- Three rule groups per account. You can request an increase to this limit by contacting customer support.
- One rule group per web ACL.
- Ten rules per rule group.

Contents

RuleGroupId

A unique identifier for a RuleGroup. You use RuleGroupId to get more information about a RuleGroup (see GetRuleGroup), update a RuleGroup (see UpdateRuleGroup), insert a RuleGroup into a WebACL or delete a one from a WebACL (see UpdateWebACL), or delete a RuleGroup from AWS WAF (see DeleteRuleGroup).

RuleGroupId is returned by CreateRuleGroup and by ListRuleGroups.

Type: String


Pattern: .*\S.*

Required: Yes
MetricName

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

Type: String


Pattern: .\S.*

Required: No

Name

The friendly name or description for the RuleGroup. You can't change the name of a RuleGroup after you create it.

Type: String


Pattern: .\S.*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RuleGroupSummary
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the friendly name or description of the RuleGroup.

Contents

Name
A friendly name or description of the RuleGroup. You can't change the name of a RuleGroup after you create it.
Type: String
Pattern: .\S. *
Required: Yes

RuleGroupId
A unique identifier for a RuleGroup. You use RuleGroupId to get more information about a RuleGroup (see GetRuleGroup), update a RuleGroup (see UpdateRuleGroup), insert a RuleGroup into a WebACL or delete one from a WebACL (see UpdateWebACL), or delete a RuleGroup from AWS WAF (see DeleteRuleGroup).
RuleGroupId is returned by CreateRuleGroup and by ListRuleGroups.
Type: String
Pattern: . *\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RuleGroupUpdate

Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies an ActivatedRule and indicates whether you want to add it to a RuleGroup or delete it from a RuleGroup.

Contents

Action

Specify INSERT to add an ActivatedRule to a RuleGroup. Use DELETE to remove an ActivatedRule from a RuleGroup.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

ActivatedRule

The ActivatedRule object specifies a Rule that you want to insert or delete, the priority of the Rule in the WebACL, and the action that you want AWS WAF to take when a web request matches the Rule (ALLOW, BLOCK, or COUNT).

Type: ActivatedRule object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RuleSummary
Service: AWS WAF Classic

 ş Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the friendly name or description of the Rule.

Contents

Name

A friendly name or description of the Rule. You can't change the name of a Rule after you create it.

Type: String


Pattern: .\S\.

Required: Yes

RuleId

A unique identifier for a Rule. You use RuleId to get more information about a Rule (see GetRule), update a Rule (see UpdateRule), insert a Rule into a WebACL or delete one from a WebACL (see UpdateWebACL), or delete a Rule from AWS WAF (see DeleteRule).

RuleId is returned by CreateRule and by ListRules.

Type: String


Pattern: .\S\.
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RuleUpdate
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies a Predicate (such as an IPSet) and indicates whether you want to add it to a Rule or delete it from a Rule.

Contents

Action

Specify INSERT to add a Predicate to a Rule. Use DELETE to remove a Predicate from a Rule.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

Predicate

The ID of the Predicate (such as an IPSet) that you want to add to a Rule.

Type: Predicate object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
SampledHTTPRequest
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a GetSampledRequests request includes a SampledHTTPRequests complex type that appears as SampledRequests in the response syntax. SampledHTTPRequests contains one SampledHTTPRequest object for each web request that is returned by GetSampledRequests.

Contents

Request

A complex type that contains detailed information about the request.

Type: HTTPRequest object

Required: Yes

Weight

A value that indicates how one result in the response relates proportionally to other results in the response. A result that has a weight of 2 represents roughly twice as many Amazon CloudFront web requests as a result that has a weight of 1.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

Action

The action for the Rule that the request matched: ALLOW, BLOCK, or COUNT.
Type: String

Required: No

**RuleWithinRuleGroup**

This value is returned if the `GetSampledRequests` request specifies the ID of a `RuleGroup` rather than the ID of an individual rule. `RuleWithinRuleGroup` is the rule within the specified `RuleGroup` that matched the request listed in the response.

Type: String


Pattern: .\S\.*

Required: No

**Timestamp**

The time at which AWS WAF received the request from your AWS resource, in Unix time format (in seconds).

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**SizeConstraint**

Service: AWS WAF Classic

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**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

*For the latest version of AWS WAF*, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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Specifies a constraint on the size of a part of the web request. AWS WAF uses the Size, ComparisonOperator, and FieldToMatch to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the SizeConstraint is considered to match.

### Contents

#### ComparisonOperator

The type of comparison you want AWS WAF to perform. AWS WAF uses this in combination with the provided Size and FieldToMatch to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the SizeConstraint is considered to match.

- **EQ**: Used to test if the Size is equal to the size of the FieldToMatch
- **NE**: Used to test if the Size is not equal to the size of the FieldToMatch
- **LE**: Used to test if the Size is less than or equal to the size of the FieldToMatch
- **LT**: Used to test if the Size is strictly less than the size of the FieldToMatch
- **GE**: Used to test if the Size is greater than or equal to the size of the FieldToMatch
- **GT**: Used to test if the Size is strictly greater than the size of the FieldToMatch

Type: String

Valid Values: EQ | NE | LE | LT | GE | GT
**FieldToMatch**

Specifies where in a web request to look for the size constraint.

Type: `FieldToMatch` object

**Size**

The size in bytes that you want AWS WAF to compare against the size of the specified `FieldToMatch`. AWS WAF uses this in combination with `ComparisonOperator` and `FieldToMatch` to build an expression in the form of "Size `ComparisonOperator` size in bytes of `FieldToMatch`". If that expression is true, the `SizeConstraint` is considered to match.

Valid values for size are 0 - 21474836480 bytes (0 - 20 GB).

If you specify URI for the value of Type, the / in the URI path that you specify counts as one character. For example, the URI `/logo.jpg` is nine characters long.

Type: Long

Valid Range: Minimum value of 0. Maximum value of 21474836480.

**TextTransformation**

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on `FieldToMatch` before inspecting it for a match.

You can only specify a single type of `TextTransformation`.

Note that if you choose BODY for the value of Type, you must choose NONE for `TextTransformation` because Amazon CloudFront forwards only the first 8192 bytes for inspection.

**NONE**

Specify NONE if you don't want to perform any text transformations.
CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / ()
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters. HTML_ENTITY_DECODE performs the following operations:

- Replaces (ampersand)quot; with "
- Replaces (ampersand)nbsp; with a non-breaking space, decimal 160
- Replaces (ampersand)lt; with a "less than" symbol
- Replaces (ampersand)gt; with >
- Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;, with the corresponding characters
- Replaces characters that are represented in decimal format, (ampersand)#nnnn;, with the corresponding characters

SizeConstraint
LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
SizeConstraintSet
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A complex type that contains SizeConstraint objects, which specify the parts of web requests that you want AWS WAF to inspect the size of. If a SizeConstraintSet contains more than one SizeConstraint object, a request only needs to match one constraint to be considered a match.

Contents

SizeConstraints

Specifies the parts of web requests that you want to inspect the size of.

Type: Array of SizeConstraint objects

Required: Yes

SizeConstraintSetId

A unique identifier for a SizeConstraintSet. You use SizeConstraintSetId to get information about a SizeConstraintSet (seeGetSizeConstraintSet), update a SizeConstraintSet (see UpdateSizeConstraintSet), insert a SizeConstraintSet into a Rule or delete one from a Rule (see UpdateRule), and delete a SizeConstraintSet from AWS WAF (see DeleteSizeConstraintSet).

SizeConstraintSetId is returned by CreateSizeConstraintSet and by ListSizeConstraintSets.

Type: String


Pattern: .\S.*
Required: Yes

Name

The name, if any, of the SizeConstraintSet.

Type: String


Pattern: .*\S.*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
SizeConstraintSetSummary
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The Id and Name of a SizeConstraintSet.

Contents

Name
The name of the SizeConstraintSet, if any.
Type: String
Pattern: .*\S.*
Required: Yes

SizeConstraintSetId
A unique identifier for a SizeConstraintSet. You use SizeConstraintSetId to get information about a SizeConstraintSet (see GetSizeConstraintSet), update a SizeConstraintSet (see UpdateSizeConstraintSet), insert a SizeConstraintSet into a Rule or delete one from a Rule (see UpdateRule), and delete a SizeConstraintSet from AWS WAF (see DeleteSizeConstraintSet).

SizeConstraintSetId is returned by CreateSizeConstraintSet and by ListSizeConstraintSets.

Type: String
Pattern: . *\S . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
SizeConstraintSetUpdate
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect the size of and indicates whether you want to add the specification to a SizeConstraintSet or delete it from a SizeConstraintSet.

Contents

Action

Specify INSERT to add a SizeConstraintSetUpdate to a SizeConstraintSet. Use DELETE to remove a SizeConstraintSetUpdate from a SizeConstraintSet.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

SizeConstraint

Specifies a constraint on the size of a part of the web request. AWS WAF uses the Size, ComparisonOperator, and FieldToMatch to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the SizeConstraint is considered to match.

Type: SizeConstraint object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
SqlInjectionMatchSet

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A complex type that contains SqlInjectionMatchTuple objects, which specify the parts of web requests that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header. If a SqlInjectionMatchSet contains more than one SqlInjectionMatchTuple object, a request needs to include snippets of SQL code in only one of the specified parts of the request to be considered a match.

Contents

SqlInjectionMatchSetId

A unique identifier for a SqlInjectionMatchSet. You use SqlInjectionMatchSetId to get information about a SqlInjectionMatchSet (see GetSqlInjectionMatchSet), update a SqlInjectionMatchSet (see UpdateSqlInjectionMatchSet), insert a SqlInjectionMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete a SqlInjectionMatchSet from AWS WAF (see DeleteSqlInjectionMatchSet).

SqlInjectionMatchSetId is returned by CreateSqlInjectionMatchSet and by ListSqlInjectionMatchSets.

Type: String


Pattern: .*\\S.*

Required: Yes
**SqlInjectionMatchTuples**

Specifies the parts of web requests that you want to inspect for snippets of malicious SQL code.

Type: Array of [SqlInjectionMatchTuple](#) objects

Required: Yes

**Name**

The name, if any, of the SqlInjectionMatchSet.

Type: String


Pattern: .[^\s]*

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
SqlInjectionMatchSetSummary

Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The Id and Name of a SqlInjectionMatchSet.

Contents

Name

The name of the SqlInjectionMatchSet, if any, specified by Id.

Type: String


Pattern: .*\S.*

Required: Yes

SqlInjectionMatchSetId

A unique identifier for a SqlInjectionMatchSet. You use SqlInjectionMatchSetId to get information about a SqlInjectionMatchSet (see GetSqlInjectionMatchSet), update a SqlInjectionMatchSet (see UpdateSqlInjectionMatchSet), insert a SqlInjectionMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete a SqlInjectionMatchSet from AWS WAF (see DeleteSqlInjectionMatchSet).

SqlInjectionMatchSetId is returned by CreateSqlInjectionMatchSet and by ListSqlInjectionMatchSets.

Type: String

Pattern: \.*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
SqlInjectionMatchSetUpdate

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect for snippets of malicious SQL code and indicates whether you want to add the specification to a SqlInjectionMatchSet or delete it from a SqlInjectionMatchSet.

Contents

Action

Specify INSERT to add a SqlInjectionMatchSetUpdate to a SqlInjectionMatchSet. Use DELETE to remove a SqlInjectionMatchSetUpdate from a SqlInjectionMatchSet.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

SqlInjectionMatchTuple

Specifies the part of a web request that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header.

Type: SqlInjectionMatchTuple object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
SqlInjectionMatchTuple
Service: AWS WAF Classic

Specifies the part of a web request that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header.

Contents

FieldToMatch

Specifies where in a web request to look for snippets of malicious SQL code.

Type: FieldToMatch object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on FieldToMatch before inspecting it for a match.

You can only specify a single type of TextTransformation.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \\ " ' ^
- Delete spaces before the following characters: / (
• Replace the following characters with a space: , ;
• Replace multiple spaces with one space
• Convert uppercase letters (A-Z) to lowercase (a-z)

**COMPRESS_WHITE_SPACE**

Use this option to replace the following characters with a space character (decimal 32):

• \f, formfeed, decimal 12
• \t, tab, decimal 9
• \n, newline, decimal 10
• \r, carriage return, decimal 13
• \v, vertical tab, decimal 11
• non-breaking space, decimal 160

**COMPRESS_WHITE_SPACE** also replaces multiple spaces with one space.

**HTML_ENTITY_DECODE**

Use this option to replace HTML-encoded characters with unencoded characters. **HTML_ENTITY_DECODE** performs the following operations:

• Replaces (ampersand)quot; with "
• Replaces (ampersand)nbsp; with a non-breaking space, decimal 160
• Replaces (ampersand)lt; with a "less than" symbol
• Replaces (ampersand)gt; with >
• Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;, with the corresponding characters
• Replaces characters that are represented in decimal format, (ampersand)#nnnn;, with the corresponding characters

**LOWERCASE**

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

**URL_DECODE**

Use this option to decode a URL-encoded value.
NONE

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
SubscribedRuleGroupSummary

Service: AWS WAF Classic

### Note
This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/developerguide/) in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A summary of the rule groups you are subscribed to.

### Contents

#### MetricName

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

Type: String


Pattern: .\S.*

Required: Yes

#### Name

A friendly name or description of the RuleGroup. You can't change the name of a RuleGroup after you create it.

Type: String


Pattern: .\S.*
Required: Yes

**RuleGroupId**

A unique identifier for a RuleGroup.

Type: String


Pattern: .*\S.*

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
A tag associated with an AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Contents

Key

Type: String


Pattern: .\S.*

Required: Yes

Value

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: .*
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
TagInfoForResource
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Information for a tag associated with an AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Contents

ResourceARN

Type: String


Pattern: .��：. *

Required: No

TagList

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
TimeWindow
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In a GetSampledRequests request, the StartTime and EndTime objects specify the time range for which you want AWS WAF to return a sample of web requests.

You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".

In a GetSampledRequests response, the StartTime and EndTime objects specify the time range for which AWS WAF actually returned a sample of web requests. AWS WAF gets the specified number of requests from among the first 5,000 requests that your AWS resource receives during the specified time period. If your resource receives more than 5,000 requests during that period, AWS WAF stops sampling after the 5,000th request. In that case, EndTime is the time that AWS WAF received the 5,000th request.

Contents

EndTime

The end of the time range from which you want GetSampledRequests to return a sample of the requests that your AWS resource received. You must specify the date and time in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes
**StartTime**

The beginning of the time range from which you want GetSampledRequests to return a sample of the requests that your AWS resource received. You must specify the date and time in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
For the action that is associated with a rule in a WebACL, specifies the action that you want AWS WAF to perform when a web request matches all of the conditions in a rule. For the default action in a WebACL, specifies the action that you want AWS WAF to take when a web request doesn't match all of the conditions in any of the rules in a WebACL.

Contents

Type

Specifies how you want AWS WAF to respond to requests that match the settings in a rule. Valid settings include the following:

- **ALLOW**: AWS WAF allows requests
- **BLOCK**: AWS WAF blocks requests
- **COUNT**: AWS WAF increments a counter of the requests that match all of the conditions in the rule. AWS WAF then continues to inspect the web request based on the remaining rules in the web ACL. You can't specify COUNT for the default action for a WebACL.

Type: String

Valid Values: BLOCK | ALLOW | COUNT

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
WafOverrideAction
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The action to take if any rule within the RuleGroup matches a request.

Contents

Type

COUNT overrides the action specified by the individual rule within a RuleGroup. If set to NONE, the rule's action will take place.

Type: String

Valid Values: NONE | COUNT

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
WebACL
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the Rules that identify the requests that you want to allow, block, or count. In a WebACL, you also specify a default action (ALLOW or BLOCK), and the action for each Rule that you add to a WebACL, for example, block requests from specified IP addresses or block requests from specified referrers. You also associate the WebACL with an Amazon CloudFront distribution to identify the requests that you want AWS WAF to filter. If you add more than one Rule to a WebACL, a request needs to match only one of the specifications to be allowed, blocked, or counted. For more information, see UpdateWebACL.

Contents
DefaultAction

The action to perform if none of the Rules contained in the WebACL match. The action is specified by the WafAction object.

Type: WafAction object

Required: Yes

Rules

An array that contains the action for each Rule in a WebACL, the priority of the Rule, and the ID of the Rule.

Type: Array of ActivatedRule objects

Required: Yes
**WebACLId**

A unique identifier for a WebACL. You use WebACLId to get information about a WebACL (see [GetWebACL](#)), update a WebACL (see [UpdateWebACL](#)), and delete a WebACL from AWS WAF (see [DeleteWebACL](#)).

WebACLId is returned by [CreateWebACL](#) and by [ListWebACLs](#).

Type: String


Pattern: .\S

Required: Yes

**MetricName**

A friendly name or description for the metrics for this WebACL. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change MetricName after you create the WebACL.

Type: String


Pattern: .\S

Required: No

**Name**

A friendly name or description of the WebACL. You can't change the name of a WebACL after you create it.

Type: String


Pattern: .\S

Required: No
**WebACLArn**

The Amazon Resource Name (ARN) of the web ACL.

Type: String


Pattern: . *\S. *

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
WebACLSummary

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the name or description of the WebACL.

Contents

Name

A friendly name or description of the WebACL. You can't change the name of a WebACL after you create it.

Type: String


Pattern: . *

Required: Yes

WebACLId

A unique identifier for a WebACL. You use WebACLId to get information about a WebACL (see GetWebACL), update a WebACL (see UpdateWebACL), and delete a WebACL from AWS WAF (see DeleteWebACL).

WebACLId is returned by CreateWebACL and by ListWebACLs.

Type: String


Pattern: . *\s . *
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
WebACLUpdate

Service: AWS WAF Classic

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies whether to insert a Rule into or delete a Rule from a WebACL.

Contents

Action

Specifies whether to insert a Rule into or delete a Rule from a WebACL.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

ActivatedRule

The ActivatedRule object in an UpdateWebACL request specifies a Rule that you want to insert or delete, the priority of the Rule in the WebACL, and the action that you want AWS WAF to take when a web request matches the Rule (ALLOW, BLOCK, or COUNT).

Type: ActivatedRule object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
A complex type that contains XssMatchTuple objects, which specify the parts of web requests that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header. If a XssMatchSet contains more than one XssMatchTuple object, a request needs to include cross-site scripting attacks in only one of the specified parts of the request to be considered a match.

Contents

XssMatchSetId

A unique identifier for an XssMatchSet. You use XssMatchSetId to get information about an XssMatchSet (see GetXssMatchSet), update an XssMatchSet (see UpdateXssMatchSet), insert an XssMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete an XssMatchSet from AWS WAF (see DeleteXssMatchSet).

XssMatchSetId is returned by CreateXssMatchSet and by ListXssMatchSets.

Type: String


Pattern: .\S.*

Required: Yes

XssMatchTuples

Specifies the parts of web requests that you want to inspect for cross-site scripting attacks.
Type: Array of XssMatchTuple objects

Required: Yes

Name

The name, if any, of the XssMatchSet.

Type: String


Pattern: . *\$ . *

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
XssMatchSetSummary
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contents

Name

The name of the XssMatchSet, if any, specified by Id.

Type: String


Pattern: .*\S.*

Required: Yes

XssMatchSetId

A unique identifier for an XssMatchSet. You use XssMatchSetId to get information about a XssMatchSet (see GetXssMatchSet), update an XssMatchSet (see UpdateXssMatchSet), insert an XssMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete an XssMatchSet from AWS WAF (see DeleteXssMatchSet).

XssMatchSetId is returned by CreateXssMatchSet and by ListXssMatchSets.

Type: String


Pattern: .*\S.*
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
XssMatchSetUpdate
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect for cross-site scripting attacks and indicates whether you want to add the specification to an XssMatchSet or delete it from an XssMatchSet.

Contents

Action

Specify INSERT to add an XssMatchSetUpdate to an XssMatchSet. Use DELETE to remove an XssMatchSetUpdate from an XssMatchSet.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

XssMatchTuple

Specifies the part of a web request that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header.

Type: XssMatchTuple object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
XssMatchTuple
Service: AWS WAF Classic

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header.

Contents

FieldToMatch

Specifies where in a web request to look for cross-site scripting attacks.

Type: FieldToMatch object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on FieldToMatch before inspecting it for a match.

You can only specify a single type of TextTransformation.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / (}
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

**COMPRESS_WHITE_SPACE**

Use this option to replace the following characters with a space character (decimal 32):
- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

**HTML_ENTITY_DECODE**

Use this option to replace HTML-encoded characters with unencoded characters. HTML_ENTITY_DECODE performs the following operations:
- Replaces (ampersand)quot; with "
- Replaces (ampersand)nbsp; with a non-breaking space, decimal 160
- Replaces (ampersand)lt; with a "less than" symbol
- Replaces (ampersand)gt; with >
- Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;, with the corresponding characters
- Replaces characters that are represented in decimal format, (ampersand)#nnnn;, with the corresponding characters

**LOWERCASE**

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

**URL_DECODE**

Use this option to decode a URL-encoded value.
NONE

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS WAF Classic Regional

The following data types are supported by AWS WAF Classic Regional:

- ActivatedRule
- ByteMatchSet
- ByteMatchSetSummary
- ByteMatchSetUpdate
- ByteMatchTuple
- ExcludedRule
- FieldToMatch
- GeoMatchConstraint
- GeoMatchSet
- GeoMatchSetSummary
- GeoMatchSetUpdate
- HTTPHeader
- HTTPRequest
- IPSet
- IPSetDescriptor
- IPSetSummary
- IPSetUpdate
- LoggingConfiguration
- Predicate
- RateBasedRule
- RegexMatchSet
- RegexMatchSetSummary
- RegexMatchSetUpdate
- RegexMatchTuple
- RegexPatternSet
- RegexPatternSetSummary
- RegexPatternSetUpdate
- Rule
- RuleGroup
- RuleGroupSummary
- RuleGroupUpdate
- RuleSummary
- RuleUpdate
- SampledHTTPRequest
- SizeConstraint
- SizeConstraintSet
- SizeConstraintSetSummary
- SizeConstraintSetUpdate
- SqlInjectionMatchSet
- SqlInjectionMatchSetSummary
• SqlInjectionMatchSetUpdate
• SqlInjectionMatchTuple
• SubscribedRuleGroupSummary
• Tag
• TagInfoForResource
• TimeWindow
• WafAction
• WafOverrideAction
• WebACL
• WebACLSummary
• WebACLUpdate
• XssMatchSet
• XssMatchSetSummary
• XssMatchSetUpdate
• XssMatchTuple
ActivatedRule

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The ActivatedRule object in an UpdateWebACL request specifies a Rule that you want to insert or delete, the priority of the Rule in the WebACL, and the action that you want AWS WAF to take when a web request matches the Rule (ALLOW, BLOCK, or COUNT).

To specify whether to insert or delete a Rule, use the Action parameter in the WebACLUpdate data type.

Contents

Priority

Specifies the order in which the Rules in a WebACL are evaluated. Rules with a lower value for Priority are evaluated before Rules with a higher value. The value must be a unique integer.

Type: Integer

Required: Yes

RuleId

The RuleId for a Rule. You use RuleId to get more information about a Rule (see GetRule), update a Rule (see UpdateRule), insert a Rule into a WebACL or delete a one from a WebACL (see UpdateWebACL), or delete a Rule from AWS WAF (see DeleteRule).

RuleId is returned by CreateRule and by ListRules.

Type: String

Pattern: .*\S.*

Required: Yes

**Action**

Specifies the action that Amazon CloudFront or AWS WAF takes when a web request matches the conditions in the Rule. Valid values for Action include the following:

- **ALLOW**: CloudFront responds with the requested object.
- **BLOCK**: CloudFront responds with an HTTP 403 (Forbidden) status code.
- **COUNT**: AWS WAF increments a counter of requests that match the conditions in the rule and then continues to inspect the web request based on the remaining rules in the web ACL.

ActivatedRule|OverrideAction applies only when updating or adding a RuleGroup to a WebACL. In this case, you do not use ActivatedRule|Action. For all other update requests, ActivatedRule|Action is used instead of ActivatedRule|OverrideAction.

Type: [WafAction](#) object

Required: No

**ExcludedRules**

An array of rules to exclude from a rule group. This is applicable only when the ActivatedRule refers to a RuleGroup.

Sometimes it is necessary to troubleshoot rule groups that are blocking traffic unexpectedly (false positives). One troubleshooting technique is to identify the specific rule within the rule group that is blocking the legitimate traffic and then disable (exclude) that particular rule. You can exclude rules from both your own rule groups and AWS Marketplace rule groups that have been associated with a web ACL.

Specifying ExcludedRules does not remove those rules from the rule group. Rather, it changes the action for the rules to COUNT. Therefore, requests that match an ExcludedRule are counted but not blocked. The RuleGroup owner will receive COUNT metrics for each ExcludedRule.

If you want to exclude rules from a rule group that is already associated with a web ACL, perform the following steps:
1. Use the AWS WAF logs to identify the IDs of the rules that you want to exclude. For more information about the logs, see Logging Web ACL Traffic Information.

2. Submit an UpdateWebACL request that has two actions:

   - The first action deletes the existing rule group from the web ACL. That is, in the UpdateWebACL request, the first Updates:Action should be DELETE and Updates:ActivatedRule:RuleId should be the rule group that contains the rules that you want to exclude.

   - The second action inserts the same rule group back in, but specifying the rules to exclude. That is, the second Updates:Action should be INSERT, Updates:ActivatedRule:RuleId should be the rule group that you just removed, and ExcludedRules should contain the rules that you want to exclude.

Type: Array of ExcludedRule objects

Required: No

OverrideAction

Use the OverrideAction to test your RuleGroup.

Any rule in a RuleGroup can potentially block a request. If you set the OverrideAction to None, the RuleGroup will block a request if any individual rule in the RuleGroup matches the request and is configured to block that request. However if you first want to test the RuleGroup, set the OverrideAction to Count. The RuleGroup will then override any block action specified by individual rules contained within the group. Instead of blocking matching requests, those requests will be counted. You can view a record of counted requests using GetSampledRequests.

ActivatedRule|OverrideAction applies only when updating or adding a RuleGroup to a WebACL. In this case you do not use ActivatedRule|Action. For all other update requests, ActivatedRule|Action is used instead of ActivatedRule|OverrideAction.

Type: WafOverrideAction object

Required: No

Type

The rule type, either REGULAR, as defined by Rule, RATE_BASED, as defined by RateBasedRule, or GROUP, as defined by RuleGroup. The default is REGULAR. Although this field is optional,
be aware that if you try to add a RATE_BASED rule to a web ACL without setting the type, the `UpdateWebACL` request will fail because the request tries to add a REGULAR rule with the specified ID, which does not exist.

Type: String

Valid Values: REGULAR | RATE_BASED | GROUP

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
ByteMatchSet
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In a GetByteMatchSet request, ByteMatchSet is a complex type that contains the ByteMatchSetId and Name of a ByteMatchSet, and the values that you specified when you updated the ByteMatchSet.

A complex type that contains ByteMatchTuple objects, which specify the parts of web requests that you want AWS WAF to inspect and the values that you want AWS WAF to search for. If a ByteMatchSet contains more than one ByteMatchTuple object, a request needs to match the settings in only one ByteMatchTuple to be considered a match.

Contents

ByteMatchSetId

The ByteMatchSetId for a ByteMatchSet. You use ByteMatchSetId to get information about a ByteMatchSet (see GetByteMatchSet), update a ByteMatchSet (see UpdateByteMatchSet), insert a ByteMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete a ByteMatchSet from AWS WAF (see DeleteByteMatchSet).

ByteMatchSetId is returned by CreateByteMatchSet and by ListByteMatchSets.

Type: String


Pattern: .\S.*

Required: Yes
ByteMatchTuples

 Specifies the bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings.

 Type: Array of ByteMatchTuple objects

 Required: Yes

 Name

 A friendly name or description of the ByteMatchSet. You can't change Name after you create a ByteMatchSet.

 Type: String


 Pattern: .*\S.*

 Required: No

 See Also

 For more information about using this API in one of the language-specific AWS SDKs, see the following:

 - AWS SDK for C++
 - AWS SDK for Go
 - AWS SDK for Java V2
 - AWS SDK for Ruby V3
ByteMatchSetSummary
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returned by ListByteMatchSets. Each ByteMatchSetSummary object includes the Name and ByteMatchSetId for one ByteMatchSet.

Contents

ByteMatchSetId

The ByteMatchSetId for a ByteMatchSet. You use ByteMatchSetId to get information about a ByteMatchSet, update a ByteMatchSet, remove a ByteMatchSet from a Rule, and delete a ByteMatchSet from AWS WAF.

ByteMatchSetId is returned by CreateByteMatchSet and by ListByteMatchSets.

Type: String


Pattern: .\S. *

Required: Yes

Name

A friendly name or description of the ByteMatchSet. You can't change Name after you create a ByteMatchSet.

Type: String

Pattern: . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**ByteMatchSetUpdate**

Service: AWS WAF Classic Regional

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**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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In an **UpdateByteMatchSet** request, ByteMatchSetUpdate specifies whether to insert or delete a **ByteMatchTuple** and includes the settings for the ByteMatchTuple.

**Contents**

**Action**

Specifies whether to insert or delete a **ByteMatchTuple**.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

**ByteMatchTuple**

Information about the part of a web request that you want AWS WAF to inspect and the value that you want AWS WAF to search for. If you specify DELETE for the value of Action, the ByteMatchTuple values must exactly match the values in the ByteMatchTuple that you want to delete from the ByteMatchSet.

Type: **ByteMatchTuple** object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
ByteMatchTuple

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings.

Contents

FieldToMatch

The part of a web request that you want AWS WAF to search, such as a specified header or a query string. For more information, see FieldToMatch.

Type: FieldToMatch object

Required: Yes

PositionalConstraint

Within the portion of a web request that you want to search (for example, in the query string, if any), specify where you want AWS WAF to search. Valid values include the following:

CONTAINS

The specified part of the web request must include the value of TargetString, but the location doesn't matter.

CONTAINS_WORD

The specified part of the web request must include the value of TargetString, and TargetString must contain only alphanumeric characters or underscore (A-Z, a-z, 0-9, or _). In addition, TargetString must be a word, which means one of the following:
• TargetString exactly matches the value of the specified part of the web request, such as the value of a header.

• TargetString is at the beginning of the specified part of the web request and is followed by a character other than an alphanumeric character or underscore (_), for example, BadBot;.

• TargetString is at the end of the specified part of the web request and is preceded by a character other than an alphanumeric character or underscore (_), for example, ;BadBot.

• TargetString is in the middle of the specified part of the web request and is preceded and followed by characters other than alphanumeric characters or underscore (_), for example, _BadBot;.

EXACTLY

The value of the specified part of the web request must exactly match the value of TargetString.

STARTS_WITH

The value of TargetString must appear at the beginning of the specified part of the web request.

ENDS_WITH

The value of TargetString must appear at the end of the specified part of the web request.

Type: String

Valid Values: EXACTLY | STARTS_WITH | ENDS_WITH | CONTAINS | CONTAINS_WORD

Required: Yes

TargetString

The value that you want AWS WAF to search for. AWS WAF searches for the specified string in the part of web requests that you specified in FieldToMatch. The maximum length of the value is 50 bytes.

Valid values depend on the values that you specified for FieldToMatch:

• HEADER: The value that you want AWS WAF to search for in the request header that you specified in FieldToMatch, for example, the value of the User-Agent or Referer header.
- **METHOD**: The HTTP method, which indicates the type of operation specified in the request. Amazon CloudFront supports the following methods: DELETE, GET, HEAD, OPTIONS, PATCH, POST, and PUT.

- **QUERY_STRING**: The value that you want AWS WAF to search for in the query string, which is the part of a URL that appears after a ? character.

- **URI**: The path component of the URI. This does not include the query string or fragment components of the URI. For information, see Uniform Resource Identifier (URI): Generic Syntax.

- **BODY**: The part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form. The request body immediately follows the request headers. Note that only the first 8192 bytes of the request body are forwarded to AWS WAF for inspection. To allow or block requests based on the length of the body, you can create a size constraint set. For more information, see CreateSizeConstraintSet.

- **SINGLE_QUERY_ARG**: The parameter in the query string that you will inspect, such as UserName or SalesRegion. The maximum length for SINGLE_QUERY_ARG is 30 characters.

- **ALL_QUERY_ARGS**: Similar to SINGLE_QUERY_ARG, but instead of inspecting a single parameter, AWS WAF inspects all parameters within the query string for the value or regex pattern that you specify in TargetString.

If TargetString includes alphabetic characters A-Z and a-z, note that the value is case sensitive.

**If you're using the AWS WAF API**

Specify a base64-encoded version of the value. The maximum length of the value before you base64-encode it is 50 bytes.

For example, suppose the value of Type is HEADER and the value of Data is User-Agent. If you want to search the User-Agent header for the value BadBot, you base64-encode BadBot using MIME base64-encoding and include the resulting value, QmFkQm90, in the value of TargetString.

**If you're using the AWS CLI or one of the AWS SDKs**

The value that you want AWS WAF to search for. The SDK automatically base64 encodes the value.
Type: Base64-encoded binary data object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on FieldToMatch before inspecting it for a match.

You can only specify a single type of TextTransformation.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / ( 
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters. HTML_ENTITY_DECODE performs the following operations:
• Replaces (ampersand)quot; with "
• Replaces (ampersand)nbsp; with a non-breaking space, decimal 160
• Replaces (ampersand)lt; with a "less than" symbol
• Replaces (ampersand)gt; with >
• Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;, with the corresponding characters
• Replaces characters that are represented in decimal format, (ampersand)#nnnn;, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL DECODE

Use this option to decode a URL-encoded value.

NONE

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
ExcludedRule
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The rule to exclude from a rule group. This is applicable only when the ActivatedRule refers to a RuleGroup. The rule must belong to the RuleGroup that is specified by the ActivatedRule.

Contents

RuleId

The unique identifier for the rule to exclude from the rule group.

Type: String


Pattern: .\S+. *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
FieldToMatch
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies where in a web request to look for TargetString.

Contents

Type

The part of the web request that you want AWS WAF to search for a specified string. Parts of a request that you can search include the following:

- HEADER: A specified request header, for example, the value of the User-Agent or Referer header. If you choose HEADER for the type, specify the name of the header in Data.
- METHOD: The HTTP method, which indicated the type of operation that the request is asking the origin to perform. Amazon CloudFront supports the following methods: DELETE, GET, HEAD, OPTIONS, PATCH, POST, and PUT.
- QUERY_STRING: A query string, which is the part of a URL that appears after a ? character, if any.
- URI: The path component of the URI. This does not include the query string or fragment components of the URI. For information, see Uniform Resource Identifier (URI): Generic Syntax.
- BODY: The part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form. The request body immediately follows the request headers. Note that only the first 8192 bytes of the request body are forwarded to AWS WAF for inspection. To allow or block requests based on the length of the body, you can create a size constraint set. For more information, see CreateSizeConstraintSet.
- **SINGLE_QUERY_ARG**: The parameter in the query string that you will inspect, such as `UserName` or `SalesRegion`. The maximum length for SINGLE_QUERY_ARG is 30 characters.

- **ALL_QUERY_ARGS**: Similar to SINGLE_QUERY_ARG, but rather than inspecting a single parameter, AWS WAF will inspect all parameters within the query for the value or regex pattern that you specify in TargetString.

  Type: String

  Valid Values: URI | QUERY_STRING | HEADER | METHOD | BODY | SINGLE_QUERY_ARG | ALL_QUERY_ARGS

  Required: Yes

**Data**

When the value of Type is HEADER, enter the name of the header that you want AWS WAF to search, for example, `User-Agent` or `Referer`. The name of the header is not case sensitive.

When the value of Type is SINGLE_QUERY_ARG, enter the name of the parameter that you want AWS WAF to search, for example, `UserName` or `SalesRegion`. The parameter name is not case sensitive.

If the value of Type is any other value, omit Data.

  Type: String


  Pattern: .\S.*

  Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
• **AWS SDK for Ruby V3**
GeoMatchConstraint
Service: AWS WAF Classic Regional

ℹ️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The country from which web requests originate that you want AWS WAF to search for.

Contents

Type

The type of geographical area you want AWS WAF to search for. Currently Country is the only valid value.

Type: String

Valid Values: Country

Required: Yes

Value

The country that you want AWS WAF to search for.

Type: String

Valid Values: AF | AX | AL | DZ | AS | AD | AO | AI | AQ | AG | AR | AM | AW | AU | AT | AZ | BS | BH | BD | BB | BY | BE | BZ | BJ | BM | BT | BO | BQ | BA | BW | BV | BR | IO | BN | BG | BF | BI | KH | CM | CA | CV | KY | CF | TD | CL | CN | CX | CC | CO | KM | CG | CD | CK | CR | CI | HR | CU | CW | CY | CZ | DK | DJ | DM | DO | EC | EG | SV | GQ | ER | EE | ET | FK | FO | FJ | FI | FR | GF | PF | TF | GA | GM | GE | DE | GH | GI | GR | GL | GD | GP | GU | GT | GG | GN | GW | GY | HT | HM | VA | HN | HK
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
GeoMatchSet

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains one or more countries that AWS WAF will search for.

Contents

GeoMatchConstraints

An array of GeoMatchConstraint objects, which contain the country that you want AWS WAF to search for.

Type: Array of GeoMatchConstraint objects

Required: Yes

GeoMatchSetId

The GeoMatchSetId for an GeoMatchSet. You use GeoMatchSetId to get information about a GeoMatchSet (see GeoMatchSet), update a GeoMatchSet (see UpdateGeoMatchSet), insert a GeoMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete a GeoMatchSet from AWS WAF (see DeleteGeoMatchSet).

GeoMatchSetId is returned by CreateGeoMatchSet and by ListGeoMatchSets.

Type: String


Pattern: .\S.*

Required: Yes
Name

A friendly name or description of the GeoMatchSet. You can't change the name of an GeoMatchSet after you create it.

Type: String


Pattern: .\nS..*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
GeoMatchSetSummary
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the name of the GeoMatchSet.

Contents

GeoMatchSetId

The GeoMatchSetId for an GeoMatchSet. You can use GeoMatchSetId in a GetGeoMatchSet request to get detailed information about an GeoMatchSet.

Type: String


Pattern: .\S+. *

Required: Yes

Name

A friendly name or description of the GeoMatchSet. You can't change the name of an GeoMatchSet after you create it.

Type: String


Pattern: .\S+. *

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
GeoMatchSetUpdate
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the type of update to perform to a GeoMatchSet with UpdateGeoMatchSet.

Contents

Action

Specifies whether to insert or delete a country with UpdateGeoMatchSet.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

GeoMatchConstraint

The country from which web requests originate that you want AWS WAF to search for.

Type: GeoMatchConstraint object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a GetSampledRequests request includes an HttpHeaders complex type that appears as Headers in the response syntax. HttpHeaders contains the names and values of all of the headers that appear in one of the web requests that were returned by GetSampledRequests.

Contents

Name

The name of one of the headers in the sampled web request.

Type: String

Required: No

Value

The value of one of the headers in the sampled web request.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
HTTPRequest

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a GetSampledRequests request includes an HTTPRequest complex type that appears as Request in the response syntax. HTTPRequest contains information about one of the web requests that were returned by GetSampledRequests.

Contents

ClientIP

The IP address that the request originated from. If the WebACL is associated with an Amazon CloudFront distribution, this is the value of one of the following fields in CloudFront access logs:

- c-\ip, if the viewer did not use an HTTP proxy or a load balancer to send the request
- x-forwarded-for, if the viewer did use an HTTP proxy or a load balancer to send the request

Type: String

Required: No

Country

The two-letter country code for the country that the request originated from. For a current list of country codes, see the Wikipedia entry ISO 3166-1 alpha-2.

Type: String

Required: No
**Headers**

A complex type that contains two values for each header in the sampled web request: the name of the header and the value of the header.

Type: Array of [HTTPHeader](#) objects

Required: No

**HTTPVersion**

The HTTP version specified in the sampled web request, for example, HTTP/1.1.

Type: String

Required: No

**Method**

The HTTP method specified in the sampled web request. Amazon CloudFront supports the following methods: DELETE, GET, HEAD, OPTIONS, PATCH, POST, and PUT.

Type: String

Required: No

**URI**

The path component of the URI. This does not include the query string or fragment components of the URI. For information, see [Uniform Resource Identifier (URI): Generic Syntax](#).

Type: String

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
• AWS SDK for Ruby V3
IPSet

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains one or more IP addresses or blocks of IP addresses specified in Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports IPv4 address ranges: /8 and any range between /16 through /32. AWS WAF supports IPv6 address ranges: /24, /32, /48, /56, /64, and /128.

To specify an individual IP address, you specify the four-part IP address followed by a /32, for example, 192.0.2.0/32. To block a range of IP addresses, you can specify /8 or any range between /16 through /32 (for IPv4) or /24, /32, /48, /56, /64, or /128 (for IPv6). For more information about CIDR notation, see the Wikipedia entry Classless Inter-Domain Routing.

Contents

IPSetDescriptors

The IP address type (IPv4 or IPv6) and the IP address range (in CIDR notation) that web requests originate from. If the WebACL is associated with an Amazon CloudFront distribution and the viewer did not use an HTTP proxy or a load balancer to send the request, this is the value of the c-ip field in the CloudFront access logs.

Type: Array of IPSetDescriptor objects

Required: Yes

IPSetId

The IPSetId for an IPSet. You use IPSetId to get information about an IPSet (see GetIPSet), update an IPSet (see UpdateIPSet), insert an IPSet into a Rule or delete one from a Rule (see UpdateRule), and delete an IPSet from AWS WAF (see DeleteIPSet).

IPSetId is returned by CreateIPSet and by ListIPSets.
Type: String


Pattern: . *\S . *

Required: Yes

**Name**

A friendly name or description of the IPSet. You can't change the name of an IPSet after you create it.

Type: String


Pattern: . *\S . *

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
IPSetDescriptor
Service: AWS WAF Classic Regional

### Note
This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://aws.amazon.com/waf-classic) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the IP address type (IPV4 or IPV6) and the IP address range (in CIDR format) that web requests originate from.

### Contents

#### Type

Specify IPV4 or IPV6.

Type: String

Valid Values: IPV4 | IPV6

Required: Yes

#### Value

Specify an IPv4 address by using CIDR notation. For example:

- To configure AWS WAF to allow, block, or count requests that originated from the IP address 192.0.2.44, specify 192.0.2.44/32.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses from 192.0.2.0 to 192.0.2.255, specify 192.0.2.0/24.

For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](https://en.wikipedia.org/wiki/Classless_inter-domain Routing).

Specify an IPv6 address by using CIDR notation. For example:
• To configure AWS WAF to allow, block, or count requests that originated from the IP address 1111:0000:0000:0000:0000:0000:0000:0111, specify 1111:0000:0000:0000:0000:0000:0000:0111/128.

• To configure AWS WAF to allow, block, or count requests that originated from IP addresses 1111:0000:0000:0000:0000:0000:0000:0000 to 1111:0000:0000:0000:ffff:ffff:ffff:ffff, specify 1111:0000:0000:0000:0000:0000:0000:0000/64.

Type: String


Pattern: . *\S . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• [AWS SDK for C++](#)
• [AWS SDK for Go](#)
• [AWS SDK for Java V2](#)
• [AWS SDK for Ruby V3](#)
Contains the identifier and the name of the IPSet.

**Contents**

**IPSetId**

The IPSetId for an IPSet. You can use IPSetId in a GetIPSet request to get detailed information about an IPSet.

Type: String


Pattern: .\S.*

Required: Yes

**Name**

A friendly name or description of the IPSet. You can't change the name of an IPSet after you create it.

Type: String


Pattern: .\S.*

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
IPSetUpdate
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the type of update to perform to an IPSet with UpdateIPSet.

Contents

Action

Specifies whether to insert or delete an IP address with UpdateIPSet.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

IPSetDescriptor

The IP address type (IPV4 or IPV6) and the IP address range (in CIDR notation) that web requests originate from.

Type: IPSetDescriptor object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
The Amazon Kinesis Data Firehose, RedactedFields information, and the web ACL Amazon Resource Name (ARN).

**Contents**

**LogDestinationConfigs**

An array of Amazon Kinesis Data Firehose ARNs.

Type: Array of strings

Array Members: Fixed number of 1 item.


Pattern: \.*\S.*

Required: Yes

**ResourceArn**

The Amazon Resource Name (ARN) of the web ACL that you want to associate with LogDestinationConfigs.

Type: String


Pattern: \.*\S.*
**Required:** Yes

**RedactedFields**

The parts of the request that you want redacted from the logs. For example, if you redact the cookie field, the cookie field in the firehose will be xxx.

Type: Array of `FieldToMatch` objects

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**Predicate**

Service: AWS WAF Classic Regional

ℹ️ Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the ByteMatchSet, IPSet, SqlInjectionMatchSet, XssMatchSet, RegexMatchSet, GeoMatchSet, and SizeConstraintSet objects that you want to add to a Rule and, for each object, indicates whether you want to negate the settings, for example, requests that do NOT originate from the IP address 192.0.2.44.

**Contents**

**DataId**

A unique identifier for a predicate in a Rule, such as ByteMatchSetId or IPSetId. The ID is returned by the corresponding Create or List command.

Type: String


Pattern: .*\S.*

Required: Yes

**Negated**

Set Negated to False if you want AWS WAF to allow, block, or count requests based on the settings in the specified ByteMatchSet, IPSet, SqlInjectionMatchSet, XssMatchSet, RegexMatchSet, GeoMatchSet, or SizeConstraintSet. For example, if an IPSet includes the IP address 192.0.2.44, AWS WAF will allow or block requests based on that IP address.

Set Negated to True if you want AWS WAF to allow or block a request based on the negation of the settings in the ByteMatchSet, IPSet, SqlInjectionMatchSet, XssMatchSet, RegexMatchSet,
GeoMatchSet, or SizeConstraintSet. For example, if an IPSet includes the IP address 192.0.2.44, AWS WAF will allow, block, or count requests based on all IP addresses except 192.0.2.44.

Type: Boolean

Required: Yes

Type

The type of predicate in a Rule, such as ByteMatch or IPSet.

Type: String

Valid Values: IPMatch | ByteMatch | SqlInjectionMatch | GeoMatch | SizeConstraint | XssMatch | RegexMatch

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RateBasedRule

Service: AWS WAF Classic Regional

A RateBasedRule is identical to a regular Rule, with one addition: a RateBasedRule counts the number of requests that arrive from a specified IP address every five minutes. For example, based on recent requests that you've seen from an attacker, you might create a RateBasedRule that includes the following conditions:

- The requests come from 192.0.2.44.
- They contain the value BadBot in the User-Agent header.

In the rule, you also define the rate limit as 1,000.

Requests that meet both of these conditions and exceed 1,000 requests every five minutes trigger the rule's action (block or count), which is defined in the web ACL.

Contents

MetricName

A friendly name or description for the metrics for a RateBasedRule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RateBasedRule.

Type: String

**Pattern**

Pattern: `.*\S.*`

Required: Yes

**Name**

A friendly name or description for a RateBasedRule. You can't change the name of a RateBasedRule after you create it.

Type: String


Pattern: `.*\S.*`

Required: Yes

**RateKey**

The field that AWS WAF uses to determine if requests are likely arriving from single source and thus subject to rate monitoring. The only valid value for RateKey is IP. IP indicates that requests arriving from the same IP address are subject to the RateLimit that is specified in the RateBasedRule.

Type: String

Valid Values: IP

Required: Yes

**RateLimit**

The maximum number of requests, which have an identical value in the field specified by the RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes
RuleId

A unique identifier for a RateBasedRule. You use RuleId to get more information about a RateBasedRule (see GetRateBasedRule), update a RateBasedRule (see UpdateRateBasedRule), insert a RateBasedRule into a WebACL or delete one from a WebACL (see UpdateWebACL), or delete a RateBasedRule from AWS WAF (see DeleteRateBasedRule).

Type: String


Pattern: .\S.*

Required: Yes

MatchPredicates

The Predicates object contains one Predicate element for each ByteMatchSet, IPSet, or SqlInjectionMatchSet object that you want to include in a RateBasedRule.

Type: Array of Predicate objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**Contents**

**Name**

A friendly name or description of the `RegexMatchSet`. You can't change Name after you create a RegexMatchSet.

Type: String


Pattern: `.\S.*`

Required: No

**RegexMatchSetId**

The RegexMatchSetId for a RegexMatchSet. You use RegexMatchSetId to get information about a RegexMatchSet (see [GetRegexMatchSet](#)), update a RegexMatchSet (see [UpdateRegexMatchSet](#)), and delete a RegexMatchSet (see [DeleteRegexMatchSet](#)).
UpdateRegexMatchSet), insert a RegexMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete a RegexMatchSet from AWS WAF (see DeleteRegexMatchSet).

RegexMatchSetId is returned by CreateRegexMatchSet and by ListRegexMatchSets.

Type: String


Pattern: . *\S . *

Required: No

RegexMatchTuples

Contains an array of RegexMatchTuple objects. Each RegexMatchTuple object contains:

- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the User-Agent header.
- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see RegexPatternSet.
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

Type: Array of RegexMatchTuple objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RegexMatchSetSummary
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returned by ListRegexMatchSets. Each RegexMatchSetSummary object includes the Name and RegexMatchSetId for one RegexMatchSet.

Contents

Name
A friendly name or description of the RegexMatchSet. You can't change Name after you create a RegexMatchSet.

Type: String

Pattern: .*\S.*

Required: Yes

RegexMatchSetId
The RegexMatchSetId for a RegexMatchSet. You use RegexMatchSetId to get information about a RegexMatchSet, update a RegexMatchSet, remove a RegexMatchSet from a Rule, and delete a RegexMatchSet from AWS WAF.

RegexMatchSetId is returned by CreateRegexMatchSet and by ListRegexMatchSets.

Type: String
Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
In an `UpdateRegexMatchSet` request, `RegexMatchSetUpdate` specifies whether to insert or delete a `RegexMatchTuple` and includes the settings for the `RegexMatchTuple`.

**Contents**

**Action**

Specifies whether to insert or delete a `RegexMatchTuple`.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

**RegexMatchTuple**

Information about the part of a web request that you want AWS WAF to inspect and the identifier of the regular expression (regex) pattern that you want AWS WAF to search for. If you specify DELETE for the value of Action, the `RegexMatchTuple` values must exactly match the values in the `RegexMatchTuple` that you want to delete from the `RegexMatchSet`.

Type: `RegexMatchTuple` object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
The regular expression pattern that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings. Each RegexMatchTuple object contains:

- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the User-Agent header.
- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see RegexPatternSet.
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

Contents

FieldToMatch

Specifies where in a web request to look for the RegexPatternSet.

Type: FieldToMatch object

Required: Yes

RegexPatternSetId

The RegexPatternSetId for a RegexPatternSet. You use RegexPatternSetId to get information about a RegexPatternSet (see GetRegexPatternSet), update a RegexPatternSet (see UpdateRegexPatternSet), insert a RegexPatternSet into a
RegexMatchSet or delete one from a RegexMatchSet (see UpdateRegexMatchSet), and delete an RegexPatternSet from AWS WAF (see DeleteRegexPatternSet).

RegexPatternSetId is returned by CreateRegexPatternSet and by ListRegexPatternSets.

Type: String


Pattern: .*\S.*

Required: Yes

**TextTransformation**

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on RegexPatternSet before inspecting a request for a match.

You can only specify a single type of TextTransformation.

**CMD_LINE**

When you’re concerned that attackers are injecting an operating system commandline command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: ",", "^"
- Delete spaces before the following characters: / ( 
- Replace the following characters with a space: ; ,
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

**COMPRESS_WHITE_SPACE**

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
• non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

**HTML_ENTITY_DECODE**

Use this option to replace HTML-encoded characters with unencoded characters. HTML_ENTITY_DECODE performs the following operations:

• Replaces (ampersand)quot; with "
• Replaces (ampersand)nbsp; with a non-breaking space, decimal 160
• Replaces (ampersand)lt; with a "less than" symbol
• Replaces (ampersand)gt; with >
• Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;, with the corresponding characters
• Replaces characters that are represented in decimal format, (ampersand)#nnnn;, with the corresponding characters

**LOWERCASE**

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

**URL_DECODE**

Use this option to decode a URL-encoded value.

**NONE**

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
The **RegexPatternSet** specifies the regular expression (regex) pattern that you want AWS WAF to search for, such as `B[a@d]B[00]t`. You can then configure AWS WAF to reject those requests.

### Contents

**RegexPatternSetId**

The identifier for the RegexPatternSet. You use RegexPatternSetId to get information about a RegexPatternSet, update a RegexPatternSet, remove a RegexPatternSet from a RegexMatchSet, and delete a RegexPatternSet from AWS WAF.

RegexMatchSetId is returned by [CreateRegexPatternSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateRegexPatternSet.html) and by [ListRegexPatternSets](https://docs.aws.amazon.com/waf/latest/APIReference/API_ListRegexPatternSets.html).

Type: String


Pattern: `.*\S.*`

Required: Yes

**RegexPatternStrings**

Specifies the regular expression (regex) patterns that you want AWS WAF to search for, such as `B[a@d]B[00]t`.

Type: Array of strings

Array Members: Maximum number of 10 items.

Pattern: . *

Required: Yes

Name

A friendly name or description of the RegexPatternSet. You can't change Name after you create a RegexPatternSet.

Type: String


Pattern: . *

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
### RegexPatternSetSummary

Service: AWS WAF Classic Regional

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**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-classic.html) in the developer guide.

*For the latest version of AWS WAF*, use the AWS WAF2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/aws-waf-v2.html). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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Returned by [ListRegexPatternSets](https://docs.aws.amazon.com/waf/latest/developerguide/list-stages.html). Each RegexPatternSetSummary object includes the Name and RegexPatternSetId for one [RegexPatternSet](https://docs.aws.amazon.com/waf/latest/developerguide/regex-pattern-set.html).

#### Contents

**Name**

A friendly name or description of the [RegexPatternSet](https://docs.aws.amazon.com/waf/latest/developerguide/regex-pattern-set.html). You can't change Name after you create a RegexPatternSet.

Type: String


Pattern: `.\s.*`

Required: Yes

**RegexPatternSetId**

The RegexPatternSetId for a RegexPatternSet. You use RegexPatternSetId to get information about a RegexPatternSet, update a RegexPatternSet, remove a RegexPatternSet from a RegexMatchSet, and delete a RegexPatternSet from AWS WAF.

RegexPatternSetId is returned by [CreateRegexPatternSet](https://docs.aws.amazon.com/waf/latest/developerguide/create-rule.html) and by [ListRegexPatternSets](https://docs.aws.amazon.com/waf/latest/developerguide/list-stages.html).

Type: String

Pattern: . *\$ . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
In an UpdateRegexPatternSet request, RegexPatternSetUpdate specifies whether to insert or delete a RegexPatternString and includes the settings for the RegexPatternString.

Contents

Action

Specifies whether to insert or delete a RegexPatternString.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

RegexPatternString

Specifies the regular expression (regex) pattern that you want AWS WAF to search for, such as B[a@]dB[o0]t.

Type: String


Pattern: .*

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
Rule

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A combination of ByteMatchSet, IPSet, and/or SqlInjectionMatchSet objects that identify the web requests that you want to allow, block, or count. For example, you might create a Rule that includes the following predicates:

- An IPSet that causes AWS WAF to search for web requests that originate from the IP address 192.0.2.44
- A ByteMatchSet that causes AWS WAF to search for web requests for which the value of the User-Agent header is BadBot.

To match the settings in this Rule, a request must originate from 192.0.2.44 AND include a User-Agent header for which the value is BadBot.

Contents

Predicates

The Predicates object contains one Predicate element for each ByteMatchSet, IPSet, or SqlInjectionMatchSet object that you want to include in a Rule.

Type: Array of Predicate objects

Required: Yes

RuleId

A unique identifier for a Rule. You use RuleId to get more information about a Rule (see GetRule), update a Rule (see UpdateRule), insert a Rule into a WebACL or delete a one from a WebACL (see UpdateWebACL), or delete a Rule from AWS WAF (see DeleteRule).
RuleId is returned by CreateRule and by ListRules.

Type: String
Pattern: .*\S.*
Required: Yes

MetricName
A friendly name or description for the metrics for this Rule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change MetricName after you create the Rule.

Type: String
Pattern: .*\S.*
Required: No

Name
The friendly name or description for the Rule. You can't change the name of a Rule after you create it.

Type: String
Pattern: .*\S.*
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](http://aws.amazon.com/sdk/)
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RuleGroup
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A collection of predefined rules that you can add to a web ACL.

Rule groups are subject to the following limits:

- Three rule groups per account. You can request an increase to this limit by contacting customer support.
- One rule group per web ACL.
- Ten rules per rule group.

Contents

RuleGroupId
A unique identifier for a RuleGroup. You use RuleGroupId to get more information about a RuleGroup (see GetRuleGroup), update a RuleGroup (see UpdateRuleGroup), insert a RuleGroup into a WebACL or delete a one from a WebACL (see UpdateWebACL), or delete a RuleGroup from AWS WAF (see DeleteRuleGroup).

RuleGroupId is returned by CreateRuleGroup and by ListRuleGroups.

Type: String


Pattern: .\S.*

Required: Yes
**MetricName**

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

Type: String


Pattern: .\S.*

Required: No

**Name**

The friendly name or description for the RuleGroup. You can't change the name of a RuleGroup after you create it.

Type: String


Pattern: .\S.*

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
RuleGroupSummary
Service: AWS WAF Classic Regional

Contains the identifier and the friendly name or description of the RuleGroup.

Contents

Name

A friendly name or description of the RuleGroup. You can't change the name of a RuleGroup after you create it.

Type: String


Pattern: \S.*

Required: Yes

RuleGroupId

A unique identifier for a RuleGroup. You use RuleGroupId to get more information about a RuleGroup (see GetRuleGroup), update a RuleGroup (see UpdateRuleGroup), insert a RuleGroup into a WebACL or delete one from a WebACL (see UpdateWebACL), or delete a RuleGroup from AWS WAF (see DeleteRuleGroup).

RuleGroupId is returned by CreateRuleGroup and by ListRuleGroups.

Type: String

Pattern: . *\S . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**RuleGroupUpdate**

Service: AWS WAF Classic Regional

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**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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Specifies an ActivatedRule and indicates whether you want to add it to a RuleGroup or delete it from a RuleGroup.

**Contents**

**Action**

Specify INSERT to add an ActivatedRule to a RuleGroup. Use DELETE to remove an ActivatedRule from a RuleGroup.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

**ActivatedRule**

The ActivatedRule object specifies a Rule that you want to insert or delete, the priority of the Rule in the WebACL, and the action that you want AWS WAF to take when a web request matches the Rule (ALLOW, BLOCK, or COUNT).

Type: [ActivatedRule](#) object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the friendly name or description of the Rule.

Contents

Name

A friendly name or description of the Rule. You can't change the name of a Rule after you create it.

Type: String


Pattern: .\S+. *

Required: Yes

RuleId

A unique identifier for a Rule. You use RuleId to get more information about a Rule (see GetRule), update a Rule (see UpdateRule), insert a Rule into a WebACL or delete one from a WebACL (see UpdateWebACL), or delete a Rule from AWS WAF (see DeleteRule).

RuleId is returned by CreateRule and by ListRules.

Type: String


Pattern: .\S+. *
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
RuleUpdate
Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies a Predicate (such as an IPSet) and indicates whether you want to add it to a Rule or delete it from a Rule.

Contents

Action

Specify INSERT to add a Predicate to a Rule. Use DELETE to remove a Predicate from a Rule.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

Predicate

The ID of the Predicate (such as an IPSet) that you want to add to a Rule.

Type: Predicate object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
SampledHTTPRequest
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a GetSampledRequests request includes a SampledHTTPRequests complex type that appears as SampledRequests in the response syntax. SampledHTTPRequests contains one SampledHTTPRequest object for each web request that is returned by GetSampledRequests.

Contents

Request

A complex type that contains detailed information about the request.

Type: HTTPRequest object

Required: Yes

Weight

A value that indicates how one result in the response relates proportionally to other results in the response. A result that has a weight of 2 represents roughly twice as many Amazon CloudFront web requests as a result that has a weight of 1.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

Action

The action for the Rule that the request matched: ALLOW, BLOCK, or COUNT.
Type: String

Required: No

**RuleWithinRuleGroup**

This value is returned if the GetSampledRequests request specifies the ID of a RuleGroup rather than the ID of an individual rule. RuleWithinRuleGroup is the rule within the specified RuleGroup that matched the request listed in the response.

Type: String


Pattern: .*\S.*

Required: No

**Timestamp**

The time at which AWS WAF received the request from your AWS resource, in Unix time format (in seconds).

Type: Timestamp

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
SizeConstraint

Service: AWS WAF Classic Regional

⚠️ Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies a constraint on the size of a part of the web request. AWS WAF uses the Size, ComparisonOperator, and FieldToMatch to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the SizeConstraint is considered to match.

Contents

ComparisonOperator

The type of comparison you want AWS WAF to perform. AWS WAF uses this in combination with the provided Size and FieldToMatch to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the SizeConstraint is considered to match.

**EQ**: Used to test if the Size is equal to the size of the FieldToMatch

**NE**: Used to test if the Size is not equal to the size of the FieldToMatch

**LE**: Used to test if the Size is less than or equal to the size of the FieldToMatch

**LT**: Used to test if the Size is strictly less than the size of the FieldToMatch

**GE**: Used to test if the Size is greater than or equal to the size of the FieldToMatch

**GT**: Used to test if the Size is strictly greater than the size of the FieldToMatch

Type: String

Valid Values: EQ | NE | LE | LT | GE | GT
Required: Yes

**FieldToMatch**

Specifies where in a web request to look for the size constraint.

Type: FieldToMatch object

Required: Yes

**Size**

The size in bytes that you want AWS WAF to compare against the size of the specified FieldToMatch. AWS WAF uses this in combination with ComparisonOperator and FieldToMatch to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the SizeConstraint is considered to match.

Valid values for size are 0 - 21474836480 bytes (0 - 20 GB).

If you specify URI for the value of Type, the / in the URI path that you specify counts as one character. For example, the URI /logo.jpg is nine characters long.

Type: Long

Valid Range: Minimum value of 0. Maximum value of 21474836480.

Required: Yes

**TextTransformation**

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on FieldToMatch before inspecting it for a match.

You can only specify a single type of TextTransformation.

Note that if you choose BODY for the value of Type, you must choose NONE for TextTransformation because Amazon CloudFront forwards only the first 8192 bytes for inspection.

**NONE**

Specify NONE if you don't want to perform any text transformations.
**CMD_LINE**

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / ( 
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

**COMPRESS_WHITE_SPACE**

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

**HTML_ENTITY_DECODE**

Use this option to replace HTML-encoded characters with unencoded characters. HTML_ENTITY_DECODE performs the following operations:

- Replaces (ampersand)quot; with "
- Replaces (ampersand)nbsp; with a non-breaking space, decimal 160
- Replaces (ampersand)lt; with a "less than" symbol
- Replaces (ampersand)gt; with >
- Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;,
  with the corresponding characters
- Replaces characters that are represented in decimal format, (ampersand)#nnnn;,
  with the corresponding characters
LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
**SizeConstraintSet**

Service: AWS WAF Classic Regional

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**Note**

This is AWS WAF Classic documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/classic/) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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A complex type that contains **SizeConstraint** objects, which specify the parts of web requests that you want AWS WAF to inspect the size of. If a **SizeConstraintSet** contains more than one **SizeConstraint** object, a request only needs to match one constraint to be considered a match.

**Contents**

**SizeConstraints**

Specifies the parts of web requests that you want to inspect the size of.

Type: Array of **SizeConstraint** objects

Required: Yes

**SizeConstraintSetId**

A unique identifier for a **SizeConstraintSet**. You use **SizeConstraintSetId** to get information about a **SizeConstraintSet** (see [GetSizeConstraintSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetSizeConstraintSet.html)), update a **SizeConstraintSet** (see [UpdateSizeConstraintSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_UpdateSizeConstraintSet.html)), insert a **SizeConstraintSet** into a Rule or delete one from a Rule (see [UpdateRule](https://docs.aws.amazon.com/waf/latest/APIReference/API_UpdateRule.html)), and delete a **SizeConstraintSet** from AWS WAF (see [DeleteSizeConstraintSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_DeleteSizeConstraintSet.html)).

**SizeConstraintSetId** is returned by [CreateSizeConstraintSet](https://docs.aws.amazon.com/waf/latest/APIReference/API_CreateSizeConstraintSet.html) and by [ListSizeConstraintSets](https://docs.aws.amazon.com/waf/latest/APIReference/API_ListSizeConstraintSets.html).

Type: String


Pattern: .\S.*
Required: Yes

**Name**

The name, if any, of the `SizeConstraintSet`.

Type: String


Pattern: .\S\.

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**SizeConstraintSetSummary**

Service: AWS WAF Classic Regional

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**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/developerguide/) in the developer guide.

For the latest version of **AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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The Id and Name of a SizeConstraintSet.

**Contents**

**Name**

The name of the SizeConstraintSet, if any.

- **Type**: String
- **Length Constraints**: Minimum length of 1. Maximum length of 128.
- **Pattern**: .*
- **Required**: Yes

**SizeConstraintSetId**

A unique identifier for a SizeConstraintSet. You use SizeConstraintSetId to get information about a SizeConstraintSet (see [GetSizeConstraintSet](https://docs.aws.amazon.com/waf/latest/developerguide/)), update a SizeConstraintSet (see [UpdateSizeConstraintSet](https://docs.aws.amazon.com/waf/latest/developerguide/)), insert a SizeConstraintSet into a Rule or delete one from a Rule (see [UpdateRule](https://docs.aws.amazon.com/waf/latest/developerguide/)), and delete a SizeConstraintSet from AWS WAF (see [DeleteSizeConstraintSet](https://docs.aws.amazon.com/waf/latest/developerguide/)).

SizeConstraintSetId is returned by [CreateSizeConstraintSet](https://docs.aws.amazon.com/waf/latest/developerguide/) and by [ListSizeConstraintSets](https://docs.aws.amazon.com/waf/latest/developerguide/).

- **Type**: String
- **Length Constraints**: Minimum length of 1. Maximum length of 128.
Pattern: \.*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
SizeConstraintSetUpdate

Service: AWS WAF Classic Regional

**Note**

This is AWS WAF Classic documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect the size of and indicates whether you want to add the specification to a SizeConstraintSet or delete it from a SizeConstraintSet.

**Contents**

**Action**

Specify INSERT to add a SizeConstraintSetUpdate to a SizeConstraintSet. Use DELETE to remove a SizeConstraintSetUpdate from a SizeConstraintSet.

Type: String

Valid Values: INSERT  |  DELETE

Required: Yes

**SizeConstraint**

Specifies a constraint on the size of a part of the web request. AWS WAF uses the Size, ComparisonOperator, and FieldToMatch to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the SizeConstraint is considered to match.

Type: SizeConstraint object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
SqlInjectionMatchSet

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A complex type that contains SqlInjectionMatchTuple objects, which specify the parts of web requests that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header. If a SqlInjectionMatchSet contains more than one SqlInjectionMatchTuple object, a request needs to include snippets of SQL code in only one of the specified parts of the request to be considered a match.

Contents

SqlInjectionMatchSetId

A unique identifier for a SqlInjectionMatchSet. You use SqlInjectionMatchSetId to get information about a SqlInjectionMatchSet (see GetSqlInjectionMatchSet), update a SqlInjectionMatchSet (see UpdateSqlInjectionMatchSet), insert a SqlInjectionMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete a SqlInjectionMatchSet from AWS WAF (see DeleteSqlInjectionMatchSet).

SqlInjectionMatchSetId is returned by CreateSqlInjectionMatchSet and by ListSqlInjectionMatchSets.

Type: String


Pattern: .\S.*

Required: Yes
SqlInjectionMatchTuples

Specifies the parts of web requests that you want to inspect for snippets of malicious SQL code.

Type: Array of SqlInjectionMatchTuple objects

Required: Yes

Name

The name, if any, of the SqlInjectionMatchSet.

Type: String


Pattern: . *\S . *

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
SqlInjectionMatchSetSummary
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The Id and Name of a SqlInjectionMatchSet.

Contents

Name

The name of the SqlInjectionMatchSet, if any, specified by Id.

Type: String


Pattern: .*\S.*

Required: Yes

SqlInjectionMatchSetId

A unique identifier for a SqlInjectionMatchSet. You use SqlInjectionMatchSetId to get information about a SqlInjectionMatchSet (see GetSqlInjectionMatchSet), update a SqlInjectionMatchSet (see UpdateSqlInjectionMatchSet), insert a SqlInjectionMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete a SqlInjectionMatchSet from AWS WAF (see DeleteSqlInjectionMatchSet).

SqlInjectionMatchSetId is returned by CreateSqlInjectionMatchSet and by ListSqlInjectionMatchSets.

Type: String

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
SqlInjectionMatchSetUpdate

Service: AWS WAF Classic Regional

### Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect for snippets of malicious SQL code and indicates whether you want to add the specification to a SqlInjectionMatchSet or delete it from a SqlInjectionMatchSet.

### Contents

#### Action

Specify INSERT to add a SqlInjectionMatchSetUpdate to a SqlInjectionMatchSet. Use DELETE to remove a SqlInjectionMatchSetUpdate from a SqlInjectionMatchSet.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

#### SqlInjectionMatchTuple

Specifies the part of a web request that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header.

Type: SqlInjectionMatchTuple object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
SqlInjectionMatchTuple
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header.

Contents

FieldToMatch
Specifications the part of a web request that you want AWS WAF to inspect for snippets of malicious SQL code.

Type: FieldToMatch object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on FieldToMatch before inspecting it for a match.

You can only specify a single type of TextTransformation.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \\
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

**COMPRESS_WHITE_SPACE**

Use this option to replace the following characters with a space character (decimal 32):
- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

**HTML_ENTITY_DECODE**

Use this option to replace HTML-encoded characters with unencoded characters. HTML_ENTITY_DECODE performs the following operations:
- Replaces (ampersand)quot; with "
- Replaces (ampersand)nbsp; with a non-breaking space, decimal 160
- Replaces (ampersand)lt; with a "less than" symbol
- Replaces (ampersand)gt; with >
- Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;, with the corresponding characters
- Replaces characters that are represented in decimal format, (ampersand)#nnnn;, with the corresponding characters

**LOWERCASE**

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

**URL_DECODE**

Use this option to decode a URL-encoded value.
NONE

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
A summary of the rule groups you are subscribed to.

Contents

MetricName

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

Type: String


Pattern: .\S.*

Required: Yes

Name

A friendly name or description of the RuleGroup. You can't change the name of a RuleGroup after you create it.

Type: String


Pattern: .\S.*
Required: Yes

RuleGroupId

A unique identifier for a RuleGroup.

Type: String


Pattern: .\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
Tag
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A tag associated with an AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Contents

Key

Type: String


Pattern: .*\S.*

Required: Yes

Value

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: .*
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
TagInfoForResource
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Information for a tag associated with an AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Contents

ResourceARN

Type: String


Pattern: \S.*

Required: No

TagList

Type: Array of Tag objects

Array Members: Minimum number of 1 item.

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**TimeWindow**

Service: AWS WAF Classic Regional

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**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](https://docs.aws.amazon.com/waf/latest/developerguide/) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](https://docs.aws.amazon.com/waf/latest/developerguide/). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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In a [GetSampledRequests](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetSampledRequests.html) request, the `StartTime` and `EndTime` objects specify the time range for which you want AWS WAF to return a sample of web requests.

You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".

In a [GetSampledRequests](https://docs.aws.amazon.com/waf/latest/APIReference/API_GetSampledRequests.html) response, the `StartTime` and `EndTime` objects specify the time range for which AWS WAF actually returned a sample of web requests. AWS WAF gets the specified number of requests from among the first 5,000 requests that your AWS resource receives during the specified time period. If your resource receives more than 5,000 requests during that period, AWS WAF stops sampling after the 5,000th request. In that case, `EndTime` is the time that AWS WAF received the 5,000th request.

---

**Contents**

**EndTime**

The end of the time range from which you want GetSampledRequests to return a sample of the requests that your AWS resource received. You must specify the date and time in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes
**StartTime**

The beginning of the time range from which you want GetSampledRequests to return a sample of the requests that your AWS resource received. You must specify the date and time in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
**WafAction**

Service: AWS WAF Classic Regional

---

**Note**

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

**For the latest version of AWS WAF**, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

---

For the action that is associated with a rule in a WebACL, specifies the action that you want AWS WAF to perform when a web request matches all of the conditions in a rule. For the default action in a WebACL, specifies the action that you want AWS WAF to take when a web request doesn't match all of the conditions in any of the rules in a WebACL.

**Contents**

**Type**

Specifies how you want AWS WAF to respond to requests that match the settings in a Rule.

Valid settings include the following:

- **ALLOW**: AWS WAF allows requests
- **BLOCK**: AWS WAF blocks requests
- **COUNT**: AWS WAF increments a counter of the requests that match all of the conditions in the rule. AWS WAF then continues to inspect the web request based on the remaining rules in the web ACL. You can't specify COUNT for the default action for a WebACL.

**Type**: String

**Valid Values**: BLOCK | ALLOW | COUNT

**Required**: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
WafOverrideAction
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The action to take if any rule within the RuleGroup matches a request.

Contents

Type

COUNT overrides the action specified by the individual rule within a RuleGroup. If set to NONE, the rule's action will take place.

Type: String

Valid Values: NONE | COUNT

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
WebACL

Service: AWS WAF Classic Regional

Contains the Rules that identify the requests that you want to allow, block, or count. In a WebACL, you also specify a default action (ALLOW or BLOCK), and the action for each Rule that you add to a WebACL, for example, block requests from specified IP addresses or block requests from specified referrers. You also associate the WebACL with an Amazon CloudFront distribution to identify the requests that you want AWS WAF to filter. If you add more than one Rule to a WebACL, a request needs to match only one of the specifications to be allowed, blocked, or counted. For more information, see UpdateWebACL.

Contents

DefaultAction

The action to perform if none of the Rules contained in the WebACL match. The action is specified by the WafAction object.

Type: WafAction object

Required: Yes

Rules

An array that contains the action for each Rule in a WebACL, the priority of the Rule, and the ID of the Rule.

Type: Array of ActivatedRule objects

Required: Yes
WebACLId

A unique identifier for a WebACL. You use WebACLId to get information about a WebACL (see GetWebACL), update a WebACL (see UpdateWebACL), and delete a WebACL from AWS WAF (see DeleteWebACL).

WebACLId is returned by CreateWebACL and by ListWebACLs.

Type: String


Pattern: .\S.*

Required: Yes

MetricName

A friendly name or description for the metrics for this WebACL. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change MetricName after you create the WebACL.

Type: String


Pattern: .\S.*

Required: No

Name

A friendly name or description of the WebACL. You can't change the name of a WebACL after you create it.

Type: String


Pattern: .\S.*

Required: No
WebACLArn

The Amazon Resource Name (ARN) of the web ACL.

Type: String


Pattern: . *\S . *

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
WebACL Summary
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide. For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the name or description of the WebACL.

Contents

Name
A friendly name or description of the WebACL. You can't change the name of a WebACL after you create it.

Type: String


Pattern: .*\S.*

Required: Yes

WebACLId
A unique identifier for a WebACL. You use WebACLId to get information about a WebACL (see GetWebACL), update a WebACL (see UpdateWebACL), and delete a WebACL from AWS WAF (see DeleteWebACL).

WebACLId is returned by CreateWebACL and by ListWebACLs.

Type: String


Pattern: .*\S.*
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
WebACLUpdate
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies whether to insert a Rule into or delete a Rule from a WebACL.

Contents

Action

Specifies whether to insert a Rule into or delete a Rule from a WebACL.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

ActivatedRule

The ActivatedRule object in an UpdateWebACL request specifies a Rule that you want to insert or delete, the priority of the Rule in the WebACL, and the action that you want AWS WAF to take when a web request matches the Rule (ALLOW, BLOCK, or COUNT).

Type: ActivatedRule object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for Ruby V3
XssMatchSet

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A complex type that contains XssMatchTuple objects, which specify the parts of web requests that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header. If a XssMatchSet contains more than one XssMatchTuple object, a request needs to include cross-site scripting attacks in only one of the specified parts of the request to be considered a match.

Contents

XssMatchSetId

A unique identifier for an XssMatchSet. You use XssMatchSetId to get information about an XssMatchSet (see GetXssMatchSet), update an XssMatchSet (see UpdateXssMatchSet), insert an XssMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete an XssMatchSet from AWS WAF (see DeleteXssMatchSet).

XssMatchSetId is returned by CreateXssMatchSet and by ListXssMatchSets.

Type: String


Pattern: .\S.*

Required: Yes

XssMatchTuples

Specifies the parts of web requests that you want to inspect for cross-site scripting attacks.
Type: Array of `XssMatchTuple` objects

Required: Yes

**Name**

The name, if any, of the `XssMatchSet`.

Type: String


Pattern: `.\S.`

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
XssMatchSetSummary
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.
For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The Id and Name of an XssMatchSet.

Contents

Name

The name of the XssMatchSet, if any, specified by Id.

Type: String


Pattern: .\S.*

Required: Yes

XssMatchSetId

A unique identifier for an XssMatchSet. You use XssMatchSetId to get information about a XssMatchSet (see GetXssMatchSet), update an XssMatchSet (see UpdateXssMatchSet), insert an XssMatchSet into a Rule or delete one from a Rule (see UpdateRule), and delete an XssMatchSet from AWS WAF (see DeleteXssMatchSet).

XssMatchSetId is returned by CreateXssMatchSet and by ListXssMatchSets.

Type: String


Pattern: .\S.*
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
XssMatchSetUpdate

Service: AWS WAF Classic Regional

Note

This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect for cross-site scripting attacks and indicates whether you want to add the specification to an XssMatchSet or delete it from an XssMatchSet.

Contents

Action

Specify INSERT to add an XssMatchSetUpdate to an XssMatchSet. Use DELETE to remove an XssMatchSetUpdate from an XssMatchSet.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

XssMatchTuple

Specifies the part of a web request that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header.

Type: XssMatchTuple object

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)
XssMatchTuple
Service: AWS WAF Classic Regional

Note
This is AWS WAF Classic documentation. For more information, see AWS WAF Classic in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the AWS WAF Developer Guide. With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header.

Contents

FieldToMatch

Specifies where in a web request to look for cross-site scripting attacks.

Type: FieldToMatch object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on FieldToMatch before inspecting it for a match.

You can only specify a single type of TextTransformation.

CMD_LINE

When you’re concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \\
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

**COMPRESS_WHITE_SPACE**

Use this option to replace the following characters with a space character (decimal 32):
- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

**HTML_ENTITY_DECODE**

Use this option to replace HTML-encoded characters with unencoded characters.

HTML_ENTITY_DECODE performs the following operations:
- Replaces (ampersand)quot; with "
- Replaces (ampersand)nbsp; with a non-breaking space, decimal 160
- Replaces (ampersand)lt; with a "less than" symbol
- Replaces (ampersand)gt; with >
- Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;, with the corresponding characters
- Replaces characters that are represented in decimal format, (ampersand)#nnnn;, with the corresponding characters

**LOWERCASE**

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

**URL_DECODE**

Use this option to decode a URL-encoded value.
NONE

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see Signing AWS API requests in the IAM User Guide.

Action

The action to be performed.

Type: string

Required: Yes

Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: access_key/YYYYMMDD/region/service/aws4_request.
For more information, see Create a signed AWS API request in the IAM User Guide.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

**X-Amz-Date**

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Elements of an AWS API request signature in the IAM User Guide.

Type: string

Required: Conditional

**X-Amz-Security-Token**

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see AWS services that work with IAM in the IAM User Guide.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

**X-Amz-Signature**

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.
Type: string

Required: Conditional

**X-Amz-SignedHeaders**

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Create a signed AWS API request](#) in the [IAM User Guide](#).

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional
Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

**AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 400

**IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 400

**InternalFailure**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

**InvalidAction**

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

**InvalidClientTokenId**

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

**NotAuthorized**

You do not have permission to perform this action.

HTTP Status Code: 400

**OptInRequired**

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403
RequestExpired

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

ServiceUnavailable

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400