AWS Lambda: API Reference

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Welcome

This section contains the AWS Lambda API Reference documentation. Instead of making requests to the API directly from your application, we recommend that you use one of the AWS Software Development Kits (SDKs) for your programming language. The AWS SDKs take care of request authentication, serialization, and connection management. If you don't use the AWS SDK, you will need to authenticate your request by providing a signature. AWS Lambda supports signature version 4. For more information, see Signature Version 4 signing process in the Amazon Web Services General Reference.

Certificate errors when using an SDK

Because AWS SDKs use the CA certificates from your computer, changes to the certificates on the AWS servers can cause connection failures when you attempt to use an SDK. You can prevent these failures by keeping your computer's CA certificates and operating system up-to-date. If you encounter this issue in a corporate environment and do not manage your own computer, you might need to ask an administrator to assist with the update process. The following list shows minimum operating system and Java versions:

- Microsoft Windows versions that have updates from January 2005 or later installed contain at least one of the required CAs in their trust list.
- Mac OS X 10.4 with Java for Mac OS X 10.4 Release 5 (February 2007), Mac OS X 10.5 (October 2007), and later versions contain at least one of the required CAs in their trust list.
- Red Hat Enterprise Linux 5 (March 2007), 6, and 7 and CentOS 5, 6, and 7 all contain at least one of the required CAs in their default trusted CA list.
- Java 1.4.2_12 (May 2006), 5 Update 2 (March 2005), and all later versions, including Java 6 (December 2006), 7, and 8, contain at least one of the required CAs in their default trusted CA list.

When accessing the AWS Lambda management console or AWS Lambda API endpoints, whether through browsers or programmatically, you will need to ensure your client machines support any of the following CAs:

- Amazon Root CA 1
- Starfield Services Root Certificate Authority - G2
• Starfield Class 2 Certification Authority

Root certificates from the first two authorities are available from Amazon trust services, but keeping your computer up-to-date is the more straightforward solution. To learn more about ACM-provided certificates, see AWS Certificate Manager FAQs.
Actions

The following actions are supported:

- AddLayerVersionPermission
- AddPermission
- CreateAlias
- CreateCodeSigningConfig
- CreateEventSourceMapping
- CreateFunction
- CreateFunctionUrlConfig
- DeleteAlias
- DeleteCodeSigningConfig
- DeleteEventSourceMapping
- DeleteFunction
- DeleteFunctionCodeSigningConfig
- DeleteFunctionConcurrency
- DeleteFunctionEventInvokeConfig
- DeleteFunctionUrlConfig
- DeleteLayerVersion
- DeleteProvisionedConcurrencyConfig
- GetAccountSettings
- GetAlias
- GetCodeSigningConfig
- GetEventSourceMapping
- GetFunction
- GetFunctionCodeSigningConfig
- GetFunctionConcurrency
- GetFunctionConfiguration
- GetFunctionEventInvokeConfig
- GetFunctionUrlConfig
- GetLayerVersion
- GetLayerVersionByArn
- GetLayerVersionPolicy
- GetPolicy
- GetProvisionedConcurrencyConfig
- GetRuntimeManagementConfig
- Invoke
- InvokeAsync
- InvokeWithResponseStream
- ListAliases
- ListCodeSigningConfigs
- ListEventSourceMappings
- ListFunctionEventInvokeConfigs
- ListFunctions
- ListFunctionsByCodeSigningConfig
- ListFunctionUrlConfigs
- ListLayers
- ListLayerVersions
- ListProvisionedConcurrencyConfigs
- ListTags
- ListVersionsByFunction
- PublishLayerVersion
- PublishVersion
- PutFunctionCodeSigningConfig
- PutFunctionConcurrency
- PutFunctionEventInvokeConfig
- PutProvisionedConcurrencyConfig
- PutRuntimeManagementConfig
- RemoveLayerVersionPermission
- RemovePermission
- TagResource
- UntagResource
- UpdateAlias
- UpdateCodeSigningConfig
- UpdateEventSourceMapping
- UpdateFunctionCode
- UpdateFunctionConfiguration
- UpdateFunctionEventInvokeConfig
- UpdateFunctionUrlConfig
AddLayerVersionPermission

Adds permissions to the resource-based policy of a version of an AWS Lambda layer. Use this action to grant layer usage permission to other accounts. You can grant permission to a single account, all accounts in an organization, or all AWS accounts.

To revoke permission, call RemoveLayerVersionPermission with the statement ID that you specified when you added it.

Request Syntax

```json
POST /2018-10-31/layers/LayerName/versions/VersionNumber/policy?RevisionId=RevisionId
HTTP/1.1
Content-type: application/json

{
    "Action": "string",
    "OrganizationId": "string",
    "Principal": "string",
    "StatementId": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

**LayerName**

The name or Amazon Resource Name (ARN) of the layer.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-\_]+)[a-zA-Z0-9-\_]+

Required: Yes

**RevisionId**

Only update the policy if the revision ID matches the ID specified. Use this option to avoid modifying a policy that has changed since you last read it.
**VersionNumber**

The version number.

Required: Yes

**Request Body**

The request accepts the following data in JSON format.

**Action**

The API action that grants access to the layer. For example, `lambda:GetLayerVersion`.

Type: String

Length Constraints: Maximum length of 22.

Pattern: `lambda:GetLayerVersion`

Required: Yes

**OrganizationId**

With the principal set to *, grant permission to all accounts in the specified organization.

Type: String

Length Constraints: Maximum length of 34.

Pattern: `o-[a-z0-9]{10,32}`

Required: No

**Principal**

An account ID, or * to grant layer usage permission to all accounts in an organization, or all AWS accounts (if organizationId is not specified). For the last case, make sure that you really do want all AWS accounts to have usage permission to this layer.

Type: String

Pattern: `\d{12}|\*|arn:(aws[a-zA-Z-]*):iam::\d{12}:root`
**StatementId**

An identifier that distinguishes the policy from others on the same layer version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ([a-zA-Z0-9-_]+)

Required: Yes

**Response Syntax**

```
HTTP/1.1 201
Content-type: application/json

{
  "RevisionId": "string",
  "Statement": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 201 response.

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

**RevisionId**

A unique identifier for the current revision of the policy.

Type: String

**Statement**

The permission statement.

Type: String
Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

PolicyLengthExceededException

The permissions policy for the resource is too large. For more information, see Lambda quotas.

HTTP Status Code: 400

PreconditionFailedException

The RevisionId provided does not match the latest RevisionId for the Lambda function or alias. Call the GetFunction or the GetAlias API operation to retrieve the latest RevisionId for your resource.

HTTP Status Code: 412

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429
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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
AddPermission

Grants an AWS service, AWS account, or AWS organization permission to use a function. You can apply the policy at the function level, or specify a qualifier to restrict access to a single version or alias. If you use a qualifier, the invoker must use the full Amazon Resource Name (ARN) of that version or alias to invoke the function. Note: Lambda does not support adding policies to version $LATEST.

To grant permission to another account, specify the account ID as the Principal. To grant permission to an organization defined in AWS Organizations, specify the organization ID as the PrincipalOrgID. For AWS services, the principal is a domain-style identifier that the service defines, such as s3.amazonaws.com or sns.amazonaws.com. For AWS services, you can also specify the ARN of the associated resource as the SourceArn. If you grant permission to a service principal without specifying the source, other accounts could potentially configure resources in their account to invoke your Lambda function.

This operation adds a statement to a resource-based permissions policy for the function. For more information about function policies, see Using resource-based policies for Lambda.

Request Syntax

POST /2015-03-31/functions/FunctionName/policy?Qualifier=Qualifier HTTP/1.1
Content-type: application/json

```
{
    "Action": "string",
    "EventSourceToken": "string",
    "FunctionUrlAuthType": "string",
    "Principal": "string",
    "PrincipalOrgID": "string",
    "RevisionId": "string",
    "SourceAccount": "string",
    "SourceArn": "string",
    "StatementId": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.
**FunctionName**

The name or ARN of the Lambda function, version, or alias.

**Name formats**

- **Function name** – my-function (name-only), my-function:v1 (with alias).
- **Partial ARN** – 123456789012:function:my-function.

You can append a version number or alias to any of the formats. The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\_]*)\(\$LATEST\|[a-zA-Z0-9-\_]\)+

Required: Yes

**Qualifier**

Specify a version or alias to add permissions to a published version of the function.


Pattern: ([a-zA-Z0-9-\_]+)

**Request Body**

The request accepts the following data in JSON format.

**Action**

The action that the principal can use on the function. For example, lambda:InvokeFunction or lambda:GetFunction.

Type: String

Pattern: (lambda:[*]|lambda:[a-zA-Z]+[\*])
**EventSourceToken**

For Alexa Smart Home functions, a token that the invoker must supply.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: [a-zA-Z0-9._-]+

Required: No

**FunctionUrlAuthType**

The type of authentication that your function URL uses. Set to AWS_IAM if you want to restrict access to authenticated users only. Set to NONE if you want to bypass IAM authentication to create a public endpoint. For more information, see Security and auth model for Lambda function URLs.

Type: String

Valid Values: NONE | AWS_IAM

Required: No

**Principal**

The AWS service or AWS account that invokes the function. If you specify a service, use SourceArn or SourceAccount to limit who can invoke the function through that service.

Type: String

Pattern: [^\s]+

Required: Yes

**PrincipalOrgID**

The identifier for your organization in AWS Organizations. Use this to grant permissions to all the AWS accounts under this organization.

Type: String

Pattern: ^o-[a-z0-9]{10,32}$

Required: No

**RevisionId**

Update the policy only if the revision ID matches the ID that's specified. Use this option to avoid modifying a policy that has changed since you last read it.

Type: String

Required: No

**SourceAccount**

For AWS service, the ID of the AWS account that owns the resource. Use this together with **SourceArn** to ensure that the specified account owns the resource. It is possible for an Amazon S3 bucket to be deleted by its owner and recreated by another account.

Type: String

Length Constraints: Maximum length of 12.

Pattern: \d{12}

Required: No

**SourceArn**

For AWS services, the ARN of the AWS resource that invokes the function. For example, an Amazon S3 bucket or Amazon SNS topic.

Note that Lambda configures the comparison using the StringLike operator.

Type: String

Pattern: arn:(aws[a-zA-Z0-9-]*):([a-zA-Z0-9-]+):([a-z]{2}(-gov)?-[a-z]+-\d{1})?:(\d{12})?:(.*)

Required: No

**StatementId**

A statement identifier that differentiates the statement from others in the same policy.

Type: String
Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ([a-zA-Z0-9-_.]+)

Required: Yes

Response Syntax

HTTP/1.1 201
Content-type: application/json

{
   "Statement": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 201 response.

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

**Statement**

The permission statement that's added to the function policy.

Type: String

Errors

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**PolicyLengthExceededException**

The permissions policy for the resource is too large. For more information, see Lambda quotas.

HTTP Status Code: 400
PreconditionFailedException

The RevisionId provided does not match the latest RevisionId for the Lambda function or alias. Call the GetFunction or the GetAlias API operation to retrieve the latest RevisionId for your resource.

HTTP Status Code: 412

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
CreateAlias

Creates an alias for a Lambda function version. Use aliases to provide clients with a function identifier that you can update to invoke a different version.

You can also map an alias to split invocation requests between two versions. Use the RoutingConfig parameter to specify a second version and the percentage of invocation requests that it receives.

Request Syntax

POST /2015-03-31/functions/FunctionName/aliases HTTP/1.1
Content-type: application/json

```
{
    "Description": "string",
    "FunctionVersion": "string",
    "Name": "string",
    "RoutingConfig": {
        "AdditionalVersionWeights": {
            "string": number
        }
    }
}
```

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** - MyFunction.
- **Partial ARN** - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.
Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?(:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\_]+)(:\$LATEST|[a-zA-Z0-9-\_]+))?  

Required: Yes

**Request Body**

The request accepts the following data in JSON format.

**Description**

A description of the alias.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

**FunctionVersion**

The function version that the alias invokes.

Type: String


Pattern: ($LATEST | [0-9]+)

Required: Yes

**Name**

The name of the alias.

Type: String


Pattern: (?!^[0-9]+)$([a-zA-Z0-9-\_]+)
Required: Yes

**RoutingConfig**

The routing configuration of the alias.

Type: `AliasRoutingConfiguration` object

Required: No

**Response Syntax**

HTTP/1.1 201
Content-type: application/json

```
{
   "AliasArn": "string",
   "Description": "string",
   "FunctionVersion": "string",
   "Name": "string",
   "RevisionId": "string",
   "RoutingConfig": {
      "AdditionalVersionWeights": {
         "string": number
      }
   }
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 201 response.

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

**AliasArn**

The Amazon Resource Name (ARN) of the alias.

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}: \d{12}:function:[a-zA-Z0-9-_]\+\+(?:\$LATEST|[a-zA-Z0-9-]+)\+\+`
**Description**

A description of the alias.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

**FunctionVersion**

The function version that the alias invokes.

Type: String


Pattern: (`\$LATEST | [0-9]+`)  

**Name**

The name of the alias.

Type: String


Pattern: (`?[^0-9]+([a-zA-Z0-9-]+)`)

**RevisionId**

A unique identifier that changes when you update the alias.

Type: String

**RoutingConfig**

The routing configuration of the alias.

Type: `AliasRoutingConfiguration` object

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.
HTTP Status Code: 400

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](https://docs.aws.amazon.com/lambda/latest/dg/limits.html).

HTTP Status Code: 429

**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://aws.amazon.com/sdk-for-net/)
- [AWS SDK for C++](https://aws.amazon.com/sdk-for-cpp/)
- [AWS SDK for Go v2](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-lambda/)
- [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/)

CreateCodeSigningConfig

Creates a code signing configuration. A code signing configuration defines a list of allowed signing profiles and defines the code-signing validation policy (action to be taken if deployment validation checks fail).

**Request Syntax**

```plaintext
POST /2020-04-22/code-signing-configs/ HTTP/1.1
Content-type: application/json

{
   "AllowedPublishers": {
      "SigningProfileVersionArns": [ "string" ]
   },
   "CodeSigningPolicies": {
      "UntrustedArtifactOnDeployment": "string"
   },
   "Description": "string"
}
```

**URI Request Parameters**

The request does not use any URI parameters.

**Request Body**

The request accepts the following data in JSON format.

- **AllowedPublishers**
  
  Signing profiles for this code signing configuration.
  
  Type: `AllowedPublishers` object
  
  Required: Yes

- **CodeSigningPolicies**
  
  The code signing policies define the actions to take if the validation checks fail.
  
  Type: `CodeSigningPolicies` object
Required: No

**Description**

Descriptive name for this code signing configuration.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

**Response Syntax**

HTTP/1.1 201
Content-type: application/json

```
{
    "CodeSigningConfig": {
        "AllowedPublishers": {
            "SigningProfileVersionArns": [ "string" ]
        },
        "CodeSigningConfigArn": "string",
        "CodeSigningConfigId": "string",
        "CodeSigningPolicies": {
            "UntrustedArtifactOnDeployment": "string"
        },
        "Description": "string",
        "LastModified": "string"
    }
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 201 response.

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

**CodeSigningConfig**

The code signing configuration.

Type: [CodeSigningConfig](#) object
Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ServiceException

The AWS Lambda service encountered an internal error.

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateEventSourceMapping

Creates a mapping between an event source and an AWS Lambda function. Lambda reads items from the event source and invokes the function.

For details about how to configure different event sources, see the following topics.

- [Amazon DynamoDB Streams](#)
- [Amazon Kinesis](#)
- [Amazon SQS](#)
- [Amazon MQ and RabbitMQ](#)
- [Amazon MSK](#)
- [Apache Kafka](#)
- [Amazon DocumentDB](#)

The following error handling options are available only for stream sources (DynamoDB and Kinesis):

- **BisectBatchOnFunctionError** – If the function returns an error, split the batch in two and retry.
- **DestinationConfig** – Send discarded records to an Amazon SQS queue or Amazon SNS topic.
- **MaximumRecordAgeInSeconds** – Discard records older than the specified age. The default value is infinite (-1). When set to infinite (-1), failed records are retried until the record expires.
- **MaximumRetryAttempts** – Discard records after the specified number of retries. The default value is infinite (-1). When set to infinite (-1), failed records are retried until the record expires.
- **ParallelizationFactor** – Process multiple batches from each shard concurrently.

For information about which configuration parameters apply to each event source, see the following topics.

- [Amazon DynamoDB Streams](#)
- [Amazon Kinesis](#)
- [Amazon SQS](#)
- [Amazon MQ and RabbitMQ](#)
- [Amazon MSK](#)
Request Syntax

POST /2015-03-31/event-source-mappings/ HTTP/1.1
Content-type: application/json

```json
{
    "AmazonManagedKafkaEventSourceConfig": {
        "ConsumerGroupId": "string",
    },
    "BatchSize": number,
    "BisectBatchOnFunctionError": boolean,
    "DestinationConfig": {
        "OnFailure": {
            "Destination": "string"
        },
        "OnSuccess": {
            "Destination": "string"
        }
    },
    "DocumentDBEventSourceConfig": {
        "CollectionName": "string",
        "DatabaseName": "string",
        "FullDocument": "string"
    },
    "Enabled": boolean,
    "EventSourceArn": "string",
    "FilterCriteria": {
        "Filters": [
            {
                "Pattern": "string"
            }
        ]
    },
    "FunctionName": "string",
    "FunctionResponseTypes": [ "string" ],
    "MaximumBatchingWindowInSeconds": number,
    "MaximumRecordAgeInSeconds": number,
    "MaximumRetryAttempts": number,
    "ParallelizationFactor": number,
}
```
"Queues": [ "string" ],
"ScalingConfig": {
   "MaximumConcurrency": number
},
"SelfManagedEventSource": {
   "Endpoints": {
      "string": [ "string" ]
   }
},
"SelfManagedKafkaEventSourceConfig": {
   "ConsumerGroupId": "string"
},
"SourceAccessConfigurations": [
   {
      "Type": "string",
      "URI": "string"
   }
],
"StartingPosition": "string",
"StartingPositionTimestamp": number,
"Topics": [ "string" ],
"TumblingWindowInSeconds": number
}

**URI Request Parameters**

The request does not use any URI parameters.

**Request Body**

The request accepts the following data in JSON format.

**AmazonManagedKafkaEventSourceConfig**

Specific configuration settings for an Amazon Managed Streaming for Apache Kafka (Amazon MSK) event source.

Type: AmazonManagedKafkaEventSourceConfig object

Required: No
**BatchSize**

The maximum number of records in each batch that Lambda pulls from your stream or queue and sends to your function. Lambda passes all of the records in the batch to the function in a single call, up to the payload limit for synchronous invocation (6 MB).

- **Amazon Kinesis** – Default 100. Max 10,000.
- **Amazon DynamoDB Streams** – Default 100. Max 10,000.
- **Amazon Simple Queue Service** – Default 10. For standard queues the max is 10,000. For FIFO queues the max is 10.
- **Amazon Managed Streaming for Apache Kafka** – Default 100. Max 10,000.
- **Self-managed Apache Kafka** – Default 100. Max 10,000.
- **Amazon MQ (ActiveMQ and RabbitMQ)** – Default 100. Max 10,000.
- **DocumentDB** – Default 100. Max 10,000.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10000.

Required: No

**BisectBatchOnFunctionError**

(Kinesis and DynamoDB Streams only) If the function returns an error, split the batch in two and retry.

Type: Boolean

Required: No

**DestinationConfig**

(Kinesis, DynamoDB Streams, Amazon MSK, and self-managed Kafka only) A configuration object that specifies the destination of an event after Lambda processes it.

Type: DestinationConfig object

Required: No

**DocumentDBEventSourceConfig**

Specific configuration settings for a DocumentDB event source.
Type: `DocumentDBEventSourceConfig` object

Required: No

**Enabled**

When true, the event source mapping is active. When false, Lambda pauses polling and invocation.

Default: True

Type: Boolean

Required: No

**EventSourceArn**

The Amazon Resource Name (ARN) of the event source.

- **Amazon Kinesis** – The ARN of the data stream or a stream consumer.
- **Amazon DynamoDB Streams** – The ARN of the stream.
- **Amazon Simple Queue Service** – The ARN of the queue.
- **Amazon Managed Streaming for Apache Kafka** – The ARN of the cluster or the ARN of the VPC connection (for cross-account event source mappings).
- **Amazon MQ** – The ARN of the broker.
- **Amazon DocumentDB** – The ARN of the DocumentDB change stream.

Type: String

Pattern: `arn:(aws[a-zA-Z\-0-9\-]*):(\[a-zA-Z\-0-9\-\]+):(\[a-z\]{2}(-gov)?-[a-z]+-\d{1})?:(\d\{12}\)?:(.*)`

Required: No

**FilterCriteria**

An object that defines the filter criteria that determine whether Lambda should process an event. For more information, see [Lambda event filtering](#).

Type: `FilterCriteria` object

Required: No
**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – MyFunction.
- **Partial ARN** – 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it's limited to 64 characters in length.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-)[a-z0-9-]+(\d{1}):)?(\d{12}):?function:)?([a-zA-Z0-9-]+):?(:($LATEST|[a-zA-Z0-9-]+))?

Required: Yes

**FunctionResponseTypes**

(Kinesis, DynamoDB Streams, and Amazon SQS) A list of current response type enums applied to the event source mapping.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1 item.

Valid Values: ReportBatchItemFailures

Required: No

**MaximumBatchingWindowInSeconds**

The maximum amount of time, in seconds, that Lambda spends gathering records before invoking the function. You can configure MaximumBatchingWindowInSeconds to any value from 0 seconds to 300 seconds in increments of seconds.
For Kinesis, DynamoDB, and Amazon SQS event sources, the default batching window is 0 seconds. For Amazon MSK, Self-managed Apache Kafka, Amazon MQ, and DocumentDB event sources, the default batching window is 500 ms. Note that because you can only change `MaximumBatchingWindowInSeconds` in increments of seconds, you cannot revert back to the 500 ms default batching window after you have changed it. To restore the default batching window, you must create a new event source mapping.

Related setting: For Kinesis, DynamoDB, and Amazon SQS event sources, when you set `BatchSize` to a value greater than 10, you must set `MaximumBatchingWindowInSeconds` to at least 1.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 300.

Required: No

**MaximumRecordAgeInSeconds**

(Kinesis and DynamoDB Streams only) Discard records older than the specified age. The default value is infinite (-1).

Type: Integer


Required: No

**MaximumRetryAttempts**

(Kinesis and DynamoDB Streams only) Discard records after the specified number of retries. The default value is infinite (-1). When set to infinite (-1), failed records are retried until the record expires.

Type: Integer

Valid Range: Minimum value of -1. Maximum value of 10000.

Required: No

**ParallelizationFactor**

(Kinesis and DynamoDB Streams only) The number of batches to process from each shard concurrently.
Type: Integer


Required: No

**Queues**

(MQ) The name of the Amazon MQ broker destination queue to consume.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: \[\s\S\]*

Required: No

**ScalingConfig**

(Amazon SQS only) The scaling configuration for the event source. For more information, see Configuring maximum concurrency for Amazon SQS event sources.

Type: `ScalingConfig` object

Required: No

**SelfManagedEventSource**

The self-managed Apache Kafka cluster to receive records from.

Type: `SelfManagedEventSource` object

Required: No

**SelfManagedKafkaEventSourceConfig**

Specific configuration settings for a self-managed Apache Kafka event source.

Type: `SelfManagedKafkaEventSourceConfig` object

Required: No

**SourceAccessConfigurations**

An array of authentication protocols or VPC components required to secure your event source.
Type: Array of `SourceAccessConfiguration` objects

Array Members: Minimum number of 0 items. Maximum number of 22 items.

Required: No

**StartingPosition**

The position in a stream from which to start reading. Required for Amazon Kinesis and Amazon DynamoDB Stream event sources. `AT_TIMESTAMP` is supported only for Amazon Kinesis streams, Amazon DocumentDB, Amazon MSK, and self-managed Apache Kafka.

Type: String

Valid Values: TRIM_HORIZON | LATEST | AT_TIMESTAMP

Required: No

**StartingPositionTimestamp**

With `StartingPosition` set to `AT_TIMESTAMP`, the time from which to start reading, in Unix time seconds. `StartingPositionTimestamp` cannot be in the future.

Type: Timestamp

Required: No

**Topics**

The name of the Kafka topic.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 249.

Pattern: `^[^.]([a-zA-Z0-9\-_.]+)`

Required: No

**TumblingWindowInSeconds**

(Kinesis and DynamoDB Streams only) The duration in seconds of a processing window for DynamoDB and Kinesis Streams event sources. A value of 0 seconds indicates no tumbling window.
Type: Integer

Valid Range: Minimum value of 0. Maximum value of 900.

Required: No

Response Syntax

HTTP/1.1 202
Content-type: application/json

```json
{
    "AmazonManagedKafkaEventSourceConfig": {
        "ConsumerGroupId": "string"
    },
    "BatchSize": number,
    "BisectBatchOnFunctionError": boolean,
    "DestinationConfig": {
        "OnFailure": {
            "Destination": "string"
        },
        "OnSuccess": {
            "Destination": "string"
        }
    },
    "DocumentDBEventSourceConfig": {
        "CollectionName": "string",
        "DatabaseName": "string",
        "FullDocument": "string"
    },
    "EventSourceArn": "string",
    "FilterCriteria": {
        "Filters": [
            {
                "Pattern": "string"
            }
        ]
    },
    "FunctionArn": "string",
    "FunctionResponseTypes": [ "string" ],
    "LastModified": number,
    "LastProcessingResult": "string",
    "MaximumBatchingWindowInSeconds": number,
    "MaximumNumberOfEventsInBatch": number,
    "MaximumRecordSequenceNumber": string,
    "OnDelete": boolean,
    "OnPut": boolean,
    "OnUpdate": boolean
}
```
"MaximumRecordAgeInSeconds": number,
"MaximumRetryAttempts": number,
"ParallelizationFactor": number,
"Queues": [ "string" ],
"ScalingConfig": {
    "MaximumConcurrency": number
},
"SelfManagedEventSource": {
    "Endpoints": {
        "string": [ "string" ]
    }
},
"SelfManagedKafkaEventSourceConfig": {
    "ConsumerGroupId": "string"
},
"SourceAccessConfigurations": [
    {
        "Type": "string",
        "URI": "string"
    }
],
"StartingPosition": "string",
"StartingPositionTimestamp": number,
"State": "string",
"StateTransitionReason": "string",
"Topics": [ "string" ],
"TumblingWindowInSeconds": number,
"UUID": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 202 response.

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

**AmazonManagedKafkaEventSourceConfig**

Specific configuration settings for an Amazon Managed Streaming for Apache Kafka (Amazon MSK) event source.

Type: **AmazonManagedKafkaEventSourceConfig** object
**BatchSize**

The maximum number of records in each batch that Lambda pulls from your stream or queue and sends to your function. Lambda passes all of the records in the batch to the function in a single call, up to the payload limit for synchronous invocation (6 MB).

Default value: Varies by service. For Amazon SQS, the default is 10. For all other services, the default is 100.

Related setting: When you set BatchSize to a value greater than 10, you must set MaximumBatchingWindowInSeconds to at least 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10000.

**BisectBatchOnFunctionError**

(Kinesis and DynamoDB Streams only) If the function returns an error, split the batch in two and retry. The default value is false.

Type: Boolean

**DestinationConfig**

(Kinesis, DynamoDB Streams, Amazon MSK, and self-managed Apache Kafka event sources only) A configuration object that specifies the destination of an event after Lambda processes it.

Type: [DestinationConfig](#) object

**DocumentDBEventSourceConfig**

Specific configuration settings for a DocumentDB event source.

Type: [DocumentDBEventSourceConfig](#) object

**EventSourceArn**

The Amazon Resource Name (ARN) of the event source.

Type: String

Pattern: *arn:*aws:*[a-zA-Z0-9-]*:*([a-zA-Z0-9-]+(*([a-z]{2}(-gov)?-[a-z]+-[d{1}])?:(*([d{12}])?:(*.*)*))
FilterCriteria

An object that defines the filter criteria that determine whether Lambda should process an event. For more information, see Lambda event filtering.

Type: FilterCriteria object

FunctionArn

The ARN of the Lambda function.

Type: String

Pattern: arn:(aws[a-zA-Z-]*):lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-_.]+(:($LATEST|[a-zA-Z0-9-_.]+))?

FunctionResponseTypes

(Kinesis, DynamoDB Streams, and Amazon SQS) A list of current response type enums applied to the event source mapping.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1 item.

Valid Values: ReportBatchItemFailures

LastModified

The date that the event source mapping was last updated or that its state changed, in Unix time seconds.

Type: Timestamp

LastProcessingResult

The result of the last Lambda invocation of your function.

Type: String

MaximumBatchingWindowInSeconds

The maximum amount of time, in seconds, that Lambda spends gathering records before invoking the function. You can configure MaximumBatchingWindowInSeconds to any value from 0 seconds to 300 seconds in increments of seconds.
For streams and Amazon SQS event sources, the default batching window is 0 seconds. For Amazon MSK, Self-managed Apache Kafka, Amazon MQ, and DocumentDB event sources, the default batching window is 500 ms. Note that because you can only change `MaximumBatchingWindowInSeconds` in increments of seconds, you cannot revert back to the 500 ms default batching window after you have changed it. To restore the default batching window, you must create a new event source mapping.

Related setting: For streams and Amazon SQS event sources, when you set `BatchSize` to a value greater than 10, you must set `MaximumBatchingWindowInSeconds` to at least 1.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 300.

### MaximumRecordAgeInSeconds

(Kinesis and DynamoDB Streams only) Discard records older than the specified age. The default value is -1, which sets the maximum age to infinite. When the value is set to infinite, Lambda never discards old records.

**Note**

The minimum valid value for maximum record age is 60s. Although values less than 60 and greater than -1 fall within the parameter's absolute range, they are not allowed

Type: Integer


### MaximumRetryAttempts

(Kinesis and DynamoDB Streams only) Discard records after the specified number of retries. The default value is -1, which sets the maximum number of retries to infinite. When `MaximumRetryAttempts` is infinite, Lambda retries failed records until the record expires in the event source.

Type: Integer

Valid Range: Minimum value of -1. Maximum value of 10000.
**ParallelizationFactor**

(Kinesis and DynamoDB Streams only) The number of batches to process concurrently from each shard. The default value is 1.

Type: Integer


**Queues**

(Amazon MQ) The name of the Amazon MQ broker destination queue to consume.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: \[\s\S\]*

**ScalingConfig**

(Amazon SQS only) The scaling configuration for the event source. For more information, see Configuring maximum concurrency for Amazon SQS event sources.

Type: ScalingConfig object

**SelfManagedEventSource**

The self-managed Apache Kafka cluster for your event source.

Type: SelfManagedEventSource object

**SelfManagedKafkaEventSourceConfig**

Specific configuration settings for a self-managed Apache Kafka event source.

Type: SelfManagedKafkaEventSourceConfig object

**SourceAccessConfigurations**

An array of the authentication protocol, VPC components, or virtual host to secure and define your event source.
Type: Array of `SourceAccessConfiguration` objects

Array Members: Minimum number of 0 items. Maximum number of 22 items.

**StartingPosition**

The position in a stream from which to start reading. Required for Amazon Kinesis and Amazon DynamoDB Stream event sources. AT_TIMESTAMP is supported only for Amazon Kinesis streams, Amazon DocumentDB, Amazon MSK, and self-managed Apache Kafka.

Type: String

Valid Values: TRIM_HORIZON | LATEST | AT_TIMESTAMP

**StartingPositionTimestamp**

With `StartingPosition` set to AT_TIMESTAMP, the time from which to start reading, in Unix time seconds. `StartingPositionTimestamp` cannot be in the future.

Type: Timestamp

**State**

The state of the event source mapping. It can be one of the following: Creating, Enabling, Enabled, Disabling, Disabled, Updating, or Deleting.

Type: String

**StateTransitionReason**

Indicates whether a user or Lambda made the last change to the event source mapping.

Type: String

**Topics**

The name of the Kafka topic.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 249.

Pattern: `^[^.]([a-zA-Z0-9\-_.]+)\+$`
**TumblingWindowInSeconds**

(Kinesis and DynamoDB Streams only) The duration in seconds of a processing window for DynamoDB and Kinesis Streams event sources. A value of 0 seconds indicates no tumbling window.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 900.

**UUID**

The identifier of the event source mapping.

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500
TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateFunction

Creates a Lambda function. To create a function, you need a deployment package and an execution role. The deployment package is a .zip file archive or container image that contains your function code. The execution role grants the function permission to use AWS services, such as Amazon CloudWatch Logs for log streaming and AWS X-Ray for request tracing.

If the deployment package is a container image, then you set the package type to Image. For a container image, the code property must include the URI of a container image in the Amazon ECR registry. You do not need to specify the handler and runtime properties.

If the deployment package is a .zip file archive, then you set the package type to Zip. For a .zip file archive, the code property specifies the location of the .zip file. You must also specify the handler and runtime properties. The code in the deployment package must be compatible with the target instruction set architecture of the function (x86-64 or arm64). If you do not specify the architecture, then the default value is x86-64.

When you create a function, Lambda provisions an instance of the function and its supporting resources. If your function connects to a VPC, this process can take a minute or so. During this time, you can't invoke or modify the function. The State, StateReason, and StateReasonCode fields in the response from GetFunctionConfiguration indicate when the function is ready to invoke. For more information, see Lambda function states.

A function has an unpublished version, and can have published versions and aliases. The unpublished version changes when you update your function's code and configuration. A published version is a snapshot of your function code and configuration that can't be changed. An alias is a named resource that maps to a version, and can be changed to map to a different version. Use the Publish parameter to create version 1 of your function from its initial configuration.

The other parameters let you configure version-specific and function-level settings. You can modify version-specific settings later with UpdateFunctionConfiguration. Function-level settings apply to both the unpublished and published versions of the function, and include tags (TagResource) and per-function concurrency limits (PutFunctionConcurrency).

You can use code signing if your deployment package is a .zip file archive. To enable code signing for this function, specify the ARN of a code-signing configuration. When a user attempts to deploy a code package with UpdateFunctionCode, Lambda checks that the code package has a valid signature from a trusted publisher. The code-signing configuration includes set of signing profiles, which define the trusted publishers for this function.
If another AWS account or an AWS service invokes your function, use `AddPermission` to grant permission by creating a resource-based AWS Identity and Access Management (IAM) policy. You can grant permissions at the function level, on a version, or on an alias.

To invoke your function directly, use `Invoke`. To invoke your function in response to events in other AWS services, create an event source mapping (`CreateEventSourceMapping`), or configure a function trigger in the other service. For more information, see `Invoking Lambda functions`.

**Request Syntax**

```json
POST /2015-03-31/functions HTTP/1.1
Content-type: application/json

{
    "Architectures": [ "string" ],
    "Code": {
        "ImageUri": "string",
        "S3Bucket": "string",
        "S3Key": "string",
        "S3ObjectVersion": "string",
        "ZipFile": "blob"
    },
    "CodeSigningConfigArn": "string",
    "DeadLetterConfig": {
        "TargetArn": "string"
    },
    "Description": "string",
    "Environment": {
        "Variables": {
            "string": "string"
        }
    },
    "EphemeralStorage": {
        "Size": number
    },
    "FileSystemConfigs": [ {
        "Arn": "string",
        "LocalMountPath": "string"
    } ],
    "FunctionName": "string",
    "Handler": "string",
}
"ImageConfig": {  
    "Command": [ "string" ],  
    "EntryPoint": [ "string" ],  
    "WorkingDirectory": "string"  
},  
"KMSKeyArn": "string",  
"Layers": [ "string" ],  
"LoggingConfig": {  
    "ApplicationLogLevel": "string",  
    "LogFormat": "string",  
    "LogGroup": "string",  
    "SystemLogLevel": "string"  
},  
"MemorySize": number,  
"PackageType": "string",  
"Publish": boolean,  
"Role": "string",  
"Runtime": "string",  
"SnapStart": {  
    "ApplyOn": "string"  
},  
"Tags": {  
    "string": "string"  
},  
"Timeout": number,  
"TracingConfig": {  
    "Mode": "string"  
},  
"VpcConfig": {  
    "Ipv6AllowedForDualStack": boolean,  
    "SecurityGroupIds": [ "string" ],  
    "SubnetIds": [ "string" ]  
}  
}

### URI Request Parameters

The request does not use any URI parameters.

### Request Body

The request accepts the following data in JSON format.
Architectures

The instruction set architecture that the function supports. Enter a string array with one of the valid values (arm64 or x86_64). The default value is x86_64.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: x86_64 | arm64

Required: No

Code

The code for the function.

Type: FunctionCode object

Required: Yes

CodeSigningConfigArn

To enable code signing for this function, specify the ARN of a code-signing configuration. A code-signing configuration includes a set of signing profiles, which define the trusted publishers for this function.

Type: String

Length Constraints: Maximum length of 200.

Pattern: arn:(aws[a-zA-Z-]*)?::lambda:[a-z]{2}((-gov)|(-iso(b?)))?-[a-z]+-\d{1}::\d{12}:code-signing-config:csc-[a-z0-9]{17}

Required: No

DeadLetterConfig

A dead-letter queue configuration that specifies the queue or topic where Lambda sends asynchronous events when they fail processing. For more information, see Dead-letter queues.

Type: DeadLetterConfig object

Required: No
**Description**

A description of the function.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

**Environment**

Environment variables that are accessible from function code during execution.

Type: Environment object

Required: No

**EphemeralStorage**

The size of the function's /tmp directory in MB. The default value is 512, but can be any whole number between 512 and 10,240 MB. For more information, see Configuring ephemeral storage (console).

Type: EphemeralStorage object

Required: No

**FileSystemConfigs**

Connection settings for an Amazon EFS file system.

Type: Array of FileSystemConfig objects

Array Members: Maximum number of 1 item.

Required: No

**FunctionName**

The name or ARN of the Lambda function.

Name formats

- Function name – my-function.
• **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-__]+)(:\$LATEST|[a-zA-Z0-9-__]+)?

Required: Yes

**Handler**

The name of the method within your code that Lambda calls to run your function. Handler is required if the deployment package is a .zip file archive. The format includes the file name. It can also include namespaces and other qualifiers, depending on the runtime. For more information, see [Lambda programming model](#).

Type: String

Length Constraints: Maximum length of 128.

Pattern: [^\s]+

Required: No

**ImageConfig**

Container image [configuration values](#) that override the values in the container image Dockerfile.

Type: [ImageConfig](#) object

Required: No

**KMSKeyArn**

The ARN of the AWS Key Management Service (AWS KMS) customer managed key that's used to encrypt your function's [environment variables](#). When [Lambda SnapStart](#) is activated, Lambda also uses this key to encrypt your function's snapshot. If you deploy your function using a container image, Lambda also uses this key to encrypt your function when it's deployed. Note that this is not the same key that's used to protect your container image in the Amazon Elastic
Container Registry (Amazon ECR). If you don't provide a customer managed key, Lambda uses a default service key.

Type: String

Pattern: (arn:(aws[a-zA-Z-]*)?:[a-zA-Z0-9- .]+:.*)|()

Required: No

**Layers**

A list of function layers to add to the function's execution environment. Specify each layer by its ARN, including the version.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:.\d{12}:layer:[a-zA-Z0-9- _]+:[0-9]+

Required: No

**LoggingConfig**

The function's Amazon CloudWatch Logs configuration settings.

Type: LoggingConfig object

Required: No

**MemorySize**

The amount of memory available to the function at runtime. Increasing the function memory also increases its CPU allocation. The default value is 128 MB. The value can be any multiple of 1 MB.

Type: Integer


Required: No

**PackageType**

The type of deployment package. Set to Image for container image and set to Zip for .zip file archive.
Type: String

Valid Values: Zip | Image

Required: No

**Publish**

Set to true to publish the first version of the function during creation.

Type: Boolean

Required: No

**Role**

The Amazon Resource Name (ARN) of the function's execution role.

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@-_/]+`

Required: Yes

**Runtime**

The identifier of the function's runtime. Runtime is required if the deployment package is a .zip file archive. Specifying a runtime results in an error if you're deploying a function using a container image.

The following list includes deprecated runtimes. Lambda blocks creating new functions and updating existing functions shortly after each runtime is deprecated. For more information, see [Runtime use after deprecation](#).

For a list of all currently supported runtimes, see [Supported runtimes](#).

Type: String

Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 | dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided | provided.al2 | nodejs18.x | python3.10 | java17 | ruby3.2 | python3.11 | nodejs20.x | provided.al2023 | python3.12 | java21
**SnapStart**

The function's SnapStart setting.

Type: SnapStart object

Required: No

**Tags**

A list of tags to apply to the function.

Type: String to string map

Required: No

**Timeout**

The amount of time (in seconds) that Lambda allows a function to run before stopping it. The default is 3 seconds. The maximum allowed value is 900 seconds. For more information, see Lambda execution environment.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

**TracingConfig**

Set Mode to Active to sample and trace a subset of incoming requests with X-Ray.

Type: TracingConfig object

Required: No

**VpcConfig**

For network connectivity to AWS resources in a VPC, specify a list of security groups and subnets in the VPC. When you connect a function to a VPC, it can access resources and the internet only through that VPC. For more information, see Configuring a Lambda function to access resources in a VPC.

Type: VpcConfig object

Required: No
Response Syntax

HTTP/1.1 201
Content-type: application/json

{
    "Architectures": [ "string" ],
    "CodeSha256": "string",
    "CodeSize": number,
    "DeadLetterConfig": {
        "TargetArn": "string"
    },
    "Description": "string",
    "Environment": {
        "Error": {
            "ErrorCode": "string",
            "Message": "string"
        },
        "Variables": {
            "string": "string"
        }
    },
    "EphemeralStorage": {
        "Size": number
    },
    "FileSystemConfigs": [
        {
            "Arn": "string",
            "LocalMountPath": "string"
        }
    ],
    "FunctionArn": "string",
    "FunctionName": "string",
    "Handler": "string",
    "ImageConfigResponse": {
        "Error": {
            "ErrorCode": "string",
            "Message": "string"
        },
        "ImageConfig": {
            "Command": [ "string" ],
            "EntryPoint": [ "string" ],
            "WorkingDirectory": "string"
        }
    }
}
},
"KMSKeyArn": "string",
"LastModified": "string",
"LastUpdateStatus": "string",
"LastUpdateStatusReason": "string",
"LastUpdateStatusReasonCode": "string",
"Layers": [
{
  "Arn": "string",
  "CodeSize": number,
  "SigningJobArn": "string",
  "SigningProfileVersionArn": "string"
}
],
"LoggingConfig": {
  "ApplicationLogLevel": "string",
  "LogFormat": "string",
  "LogGroup": "string",
  "SystemLogLevel": "string"
},
"MasterArn": "string",
"MemorySize": number,
"PackageType": "string",
"RevisionId": "string",
"Role": "string",
"Runtime": "string",
"RuntimeVersionConfig": {
  "Error": {
    "ErrorCode": "string",
    "Message": "string"
  },
  "RuntimeVersionArn": "string"
},
"SigningJobArn": "string",
"SigningProfileVersionArn": "string",
"SnapStart": {
  "ApplyOn": "string",
  "OptimizationStatus": "string"
}
],
"State": "string",
"StateReason": "string",
"StateReasonCode": "string",
"Timeout": number,
"TracingConfig": {
  "Mode": "string"
},
"Version": "string",
"VpcConfig": {
  "Ipv6AllowedForDualStack": boolean,
  "SecurityGroupIds": [ "string" ],
  "SubnetIds": [ "string" ],
  "VpcId": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 201 response.

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

Architectures

The instruction set architecture that the function supports. Architecture is a string array with one of the valid values. The default architecture value is x86_64.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: x86_64 | arm64

CodeSha256

The SHA256 hash of the function's deployment package.

Type: String

CodeSize

The size of the function's deployment package, in bytes.

Type: Long

DeadLetterConfig

The function's dead letter queue.
**Type:** DeadLetterConfig object

**Description**

The function's description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

**Environment**

The function's environment variables. Omitted from AWS CloudTrail logs.

Type: EnvironmentResponse object

**EphemeralStorage**

The size of the function's /tmp directory in MB. The default value is 512, but can be any whole number between 512 and 10,240 MB. For more information, see Configuring ephemeral storage (console).

Type: EphemeralStorage object

**FileSystemConfigs**

Connection settings for an Amazon EFS file system.

Type: Array of FileSystemConfig objects

Array Members: Maximum number of 1 item.

**FunctionArn**

The function's Amazon Resource Name (ARN).

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-_.]+(:($LATEST|[a-zA-Z0-9-_.]+))?`

**FunctionName**

The name of the function.

Type: String

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+\-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\._]+):?(:\$LATEST|[a-zA-Z0-9-\._]+))?

**Handler**

The function that Lambda calls to begin running your function.

Type: String

Length Constraints: Maximum length of 128.

Pattern: [^\s]+

**ImageConfigResponse**

The function's image configuration values.

Type: ImageConfigResponse object

**KMSKeyArn**

The AWS KMS key that's used to encrypt the function's environment variables. When Lambda SnapStart is activated, this key is also used to encrypt the function's snapshot. This key is returned only if you've configured a customer managed key.

Type: String

Pattern: (arn:(aws[a-zA-Z-]*)?:[a-z0-9-.]+:.*)()|

**LastModified**

The date and time that the function was last updated, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

**LastUpdateStatus**

The status of the last update that was performed on the function. This is first set to Successful after function creation completes.

Type: String

Valid Values: Successful | Failed | InProgress
LastUpdateStatusReason

The reason for the last update that was performed on the function.

Type: String

LastUpdateStatusReasonCode

The reason code for the last update that was performed on the function.

Type: String


Layers

The function's layers.

Type: Array of Layer objects

LoggingConfig

The function's Amazon CloudWatch Logs configuration settings.

Type: LoggingConfig object

MasterArn

For Lambda@Edge functions, the ARN of the main function.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?::lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-_.]+(?:($LATEST|[a-zA-Z0-9-_.]+))?

MemorySize

The amount of memory available to the function at runtime.

Type: Integer

**PackageType**

The type of deployment package. Set to Image for container image and set Zip for .zip file archive.

Type: String

Valid Values: Zip | Image

**RevisionId**

The latest updated revision of the function or alias.

Type: String

**Role**

The function's execution role.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@\-_\//]+

**Runtime**

The identifier of the function's runtime. Runtime is required if the deployment package is a .zip file archive. Specifying a runtime results in an error if you're deploying a function using a container image.

The following list includes deprecated runtimes. Lambda blocks creating new functions and updating existing functions shortly after each runtime is deprecated. For more information, see Runtime use after deprecation.

For a list of all currently supported runtimes, see Supported runtimes.

Type: String

Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 | dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided |
**RuntimeVersionConfig**

The ARN of the runtime and any errors that occurred.

Type: `RuntimeVersionConfig` object

**SigningJobArn**

The ARN of the signing job.

Type: String

Pattern: `arn:(aws[a-zA-Z0-9-]*):([a-zA-Z0-9-]+([-a-zA-Z0-9_.]*)[a-zA-Z0-9-]*):([a-z]{2}([-a-zA-Z0-9_.]*[a-zA-Z0-9-])?:(\d{12})?:(.*)?)`

**SigningProfileVersionArn**

The ARN of the signing profile version.

Type: String

Pattern: `arn:(aws[a-zA-Z0-9-]*):([a-zA-Z0-9-]+([-a-zA-Z0-9_.]*)[a-zA-Z0-9-]*):([a-z]{2}([-a-zA-Z0-9_.]*[a-zA-Z0-9-])?:(\d{12})?:(.*)?)`

**SnapStart**

Set `ApplyOn` to `PublishedVersions` to create a snapshot of the initialized execution environment when you publish a function version. For more information, see [Improving startup performance with Lambda SnapStart](#).

Type: `SnapStartResponse` object

**State**

The current state of the function. When the state is `Inactive`, you can reactivate the function by invoking it.

Type: String

Valid Values: Pending | Active | Inactive | Failed

**StateReason**

The reason for the function's current state.
**StateReasonCode**

The reason code for the function's current state. When the code is Creating, you can't invoke or modify the function.

Type: String


**Timeout**

The amount of time in seconds that Lambda allows a function to run before stopping it.

Type: Integer

Valid Range: Minimum value of 1.

**TracingConfig**

The function's AWS X-Ray tracing configuration.

Type: `TracingConfigResponse` object

**Version**

The version of the Lambda function.

Type: String


Pattern: `($LATEST|[0-9]+)`

**VpcConfig**

The function's networking configuration.

Type: `VpcConfigResponse` object
Errors

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

**CodeSigningConfigNotFoundException**

The specified code signing configuration does not exist.

HTTP Status Code: 404

**CodeStorageExceededException**

Your AWS account has exceeded its maximum total code size. For more information, see [Lambda quotas](#).

HTTP Status Code: 400

**CodeVerificationFailedException**

The code signature failed one or more of the validation checks for signature mismatch or expiry, and the code signing policy is set to ENFORCE. Lambda blocks the deployment.

HTTP Status Code: 400

**InvalidCodeSignatureException**

The code signature failed the integrity check. If the integrity check fails, then Lambda blocks deployment, even if the code signing policy is set to WARN.

HTTP Status Code: 400

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.
HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](https://docs.aws.amazon.com/lambda/latest/dg/lambda quotas).

HTTP Status Code: 429

**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/reference/)
- [AWS SDK for .NET](https://docs.aws.amazon.com/sdk-for-net/v3/)
- [AWS SDK for C++](https://docs.aws.amazon.com/sdk-for-cpp/v1/)
- [AWS SDK for Go v2](https://docs.aws.amazon.com/sdk-for-go/v2/)
- [AWS SDK for Java V2](https://docs.aws.amazon.com/java-sdk/latest/)
- [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/)
- [AWS SDK for Python](https://docs.aws.amazon.com/sdk-for-python/)
- [AWS SDK for Ruby V3](https://docs.aws.amazon.com/sdk-for-ruby/v3/)

See Also
CreateFunctionUrlConfig

Creates a Lambda function URL with the specified configuration parameters. A function URL is a dedicated HTTP(S) endpoint that you can use to invoke your function.

Request Syntax

POST /2021-10-31/functions/FunctionName/url?Qualifier=Qualifier HTTP/1.1
Content-type: application/json

{
    "AuthType": "string",
    "Cors": {
        "AllowCredentials": boolean,
        "AllowHeaders": [ "string" ],
        "AllowMethods": [ "string" ],
        "AllowOrigins": [ "string" ],
        "ExposeHeaders": [ "string" ],
        "MaxAge": number
    },
    "InvokeMode": "string"
}

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.
Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}):(\d{12}:)?(function:)?([a-zA-Z0-9-_.]+):?$

Required: Yes

**Qualifier**

The alias name.


Pattern: (\$LATEST$)|((?!^[0-9]+$)(([^a-zA-Z0-9]+))

**Request Body**

The request accepts the following data in JSON format.

**AuthType**

The type of authentication that your function URL uses. Set to AWS_IAM if you want to restrict access to authenticated users only. Set to NONE if you want to bypass IAM authentication to create a public endpoint. For more information, see Security and auth model for Lambda function URLs.

Type: String

Valid Values: NONE | AWS_IAM

Required: Yes

**Cors**

The cross-origin resource sharing (CORS) settings for your function URL.

Type: Cors object

Required: No

**InvokeMode**

Use one of the following options:

- BUFFERED – This is the default option. Lambda invokes your function using the Invoke API operation. Invocation results are available when the payload is complete. The maximum payload size is 6 MB.
- **RESPONSE_STREAM** – Your function streams payload results as they become available. Lambda invokes your function using the `InvokeWithResponseStream` API operation. The maximum response payload size is 20 MB, however, you can request a quota increase.

Type: String

Valid Values: BUFFERED | RESPONSE_STREAM

Required: No

**Response Syntax**

HTTP/1.1 201
Content-type: application/json

```json
{
    "AuthType": "string",
    "Cors": {
        "AllowCredentials": boolean,
        "AllowHeaders": [ "string" ],
        "AllowMethods": [ "string" ],
        "AllowOrigins": [ "string" ],
        "ExposeHeaders": [ "string" ],
        "MaxAge": number
    },
    "CreationTime": "string",
    "FunctionArn": "string",
    "FunctionUrl": "string",
    "InvokeMode": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 201 response.

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

**AuthType**

The type of authentication that your function URL uses. Set to AWS_IAM if you want to restrict access to authenticated users only. Set to NONE if you want to bypass IAM authentication to
create a public endpoint. For more information, see Security and auth model for Lambda function URLs.

Type: String

Valid Values: NONE | AWS_IAM

Cors

The cross-origin resource sharing (CORS) settings for your function URL.

Type: Cors object

CreationTime

When the function URL was created, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

FunctionArn

The Amazon Resource Name (ARN) of your function.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:
\d{12}:function:[a-zA-Z0-9-]+(:($LATEST|[a-zA-Z0-9-]+))? 

FunctionUrl

The HTTP URL endpoint for your function.

Type: String

Length Constraints: Minimum length of 40. Maximum length of 100.

InvokeMode

Use one of the following options:

- BUFFERED – This is the default option. Lambda invokes your function using the Invoke API operation. Invocation results are available when the payload is complete. The maximum payload size is 6 MB.
- RESPONSE_STREAM – Your function streams payload results as they become available. Lambda invokes your function using the InvokeWithResponseStream API operation. The maximum response payload size is 20 MB, however, you can request a quota increase.
Type: String

Valid Values: BUFFERED | RESPONSE_STREAM

Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteAlias

Deletes a Lambda function alias.

Request Syntax

```
DELETE /2015-03-31/functions/FunctionName/aliases/Name HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** - MyFunction.
- **Partial ARN** - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

**Length Constraints:** Minimum length of 1. Maximum length of 140.

**Pattern:** `(arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}):(\d{12}:)?(function:)?([a-zA-Z0-9-\_]+):?(:($LATEST|[a-zA-Z0-9-\_]+))?

**Required:** Yes

**Name**

The name of the alias.

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

**Pattern:** `(?![0-9]+$)([a-zA-Z0-9-\_]+)

**Required:** Yes`
Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 204

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteCodeSigningConfig

Deletes the code signing configuration. You can delete the code signing configuration only if no function is using it.

Request Syntax

DELETE /2020-04-22/code-signing-configs/CodeSigningConfigArn HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

CodeSigningConfigArn

The Amazon Resource Name (ARN) of the code signing configuration.

- Length Constraints: Maximum length of 200.
- Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}((-gov)|(-iso(b?)))?-[a-z]+-\d{1}:\d{12}:code-signing-config:csc-[a-z0-9]{17}

- Required: Yes

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 204

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
DeleteEventSourceMapping

Deletes an event source mapping. You can get the identifier of a mapping from the output of ListEventSourceMappings.

When you delete an event source mapping, it enters a Deleting state and might not be completely deleted for several seconds.

Request Syntax

DELETE /2015-03-31/event-source-mappings/UUID HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

UUID

The identifier of the event source mapping.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 202
Content-type: application/json

{  
   "AmazonManagedKafkaEventSourceConfig": {  
      "ConsumerGroupId": "string"
   },  
   "BatchSize": number,  
   "BisectBatchOnFunctionError": boolean,  
   "DestinationConfig": {  
      "OnFailure": {  
         "Destination": "string"
      }
   }
}


"OnSuccess": {
    "Destination": "string"
  },
"DocumentDBEventSourceConfig": {
    "CollectionName": "string",
    "DatabaseName": "string",
    "FullDocument": "string"
  },
"EventSourceArn": "string",
"FilterCriteria": {
    "Filters": [
      {
        "Pattern": "string"
      }
    ]
  },
"FunctionArn": "string",
"FunctionResponseTypes": [ "string" ],
"LastModified": number,
"LastProcessingResult": "string",
"MaximumBatchingWindowInSeconds": number,
"MaximumRecordAgeInSeconds": number,
"MaximumRetryAttempts": number,
"ParallelizationFactor": number,
"Queues": [ "string" ],
"ScalingConfig": {
    "MaximumConcurrency": number
  },
"SelfManagedEventSource": {
    "Endpoints": {
      "string": [ "string" ]
    }
  },
"SelfManagedKafkaEventSourceConfig": {
    "ConsumerGroupId": "string"
  },
"SourceAccessConfigurations": [
  {
    "Type": "string",
    "URI": "string"
  }
],
"StartingPosition": "string",
"Response Syntax"
"StartingPositionTimestamp": number,
"State": "string",
"StateTransitionReason": "string",
"Topics": [ "string" ],
"TumblingWindowInSeconds": number,
"UUID": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 202 response.

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

AmazonManagedKafkaEventSourceConfig

Specific configuration settings for an Amazon Managed Streaming for Apache Kafka (Amazon MSK) event source.

Type: AmazonManagedKafkaEventSourceConfig object

BatchSize

The maximum number of records in each batch that Lambda pulls from your stream or queue and sends to your function. Lambda passes all of the records in the batch to the function in a single call, up to the payload limit for synchronous invocation (6 MB).

Default value: Varies by service. For Amazon SQS, the default is 10. For all other services, the default is 100.

Related setting: When you set BatchSize to a value greater than 10, you must set MaximumBatchingWindowInSeconds to at least 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10000.

BisectBatchOnFunctionError

(Kinesis and DynamoDB Streams only) If the function returns an error, split the batch in two and retry. The default value is false.

Type: Boolean
**DestinationConfig**

(Kinesis, DynamoDB Streams, Amazon MSK, and self-managed Apache Kafka event sources only) A configuration object that specifies the destination of an event after Lambda processes it.

Type: `DestinationConfig` object

**DocumentDBEventSourceConfig**

Specific configuration settings for a DocumentDB event source.

Type: `DocumentDBEventSourceConfig` object

**EventSourceArn**

The Amazon Resource Name (ARN) of the event source.

Type: String

Pattern: `arn:(aws[a-zA-Z0-9-]*):([a-zA-Z0-9-]+\-):([a-z]{2}(-gov)?-[a-z]+-\d{1})?:(\d{12})?:(.*)`

**FilterCriteria**

An object that defines the filter criteria that determine whether Lambda should process an event. For more information, see [Lambda event filtering](#).

Type: `FilterCriteria` object

**FunctionArn**

The ARN of the Lambda function.

Type: String

Pattern: `arn:(aws[a-zA-Z-]*):lambda:[a-zA-Z0-9-]+\-\d{1}:\d{12}:function:[a-zA-Z][a-zA-Z0-9-]+(\$LATEST|[a-zA-Z0-9-]+)?`?

**FunctionResponseTypes**

(Kinesis, DynamoDB Streams, and Amazon SQS) A list of current response type enums applied to the event source mapping.

Type: Array of strings
Array Members: Minimum number of 0 items. Maximum number of 1 item.

Valid Values: ReportBatchItemFailures

**LastModified**

The date that the event source mapping was last updated or that its state changed, in Unix time seconds.

Type: Timestamp

**LastProcessingResult**

The result of the last Lambda invocation of your function.

Type: String

**MaximumBatchingWindowIn Seconds**

The maximum amount of time, in seconds, that Lambda spends gathering records before invoking the function. You can configure MaximumBatchingWindowIn Seconds to any value from 0 seconds to 300 seconds in increments of seconds.

For streams and Amazon SQS event sources, the default batching window is 0 seconds. For Amazon MSK, Self-managed Apache Kafka, Amazon MQ, and DocumentDB event sources, the default batching window is 500 ms. Note that because you can only change MaximumBatchingWindowIn Seconds in increments of seconds, you cannot revert back to the 500 ms default batching window after you have changed it. To restore the default batching window, you must create a new event source mapping.

Related setting: For streams and Amazon SQS event sources, when you set BatchSize to a value greater than 10, you must set MaximumBatchingWindowIn Seconds to at least 1.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 300.

**MaximumRecordAgeInSeconds**

(Kinesis and DynamoDB Streams only) Discard records older than the specified age. The default value is -1, which sets the maximum age to infinite. When the value is set to infinite, Lambda never discards old records.
**Note**

The minimum valid value for maximum record age is 60s. Although values less than 60 and greater than -1 fall within the parameter's absolute range, they are not allowed.

Type: Integer


**MaximumRetryAttempts**

(Kinesis and DynamoDB Streams only) Discard records after the specified number of retries. The default value is -1, which sets the maximum number of retries to infinite. When MaximumRetryAttempts is infinite, Lambda retries failed records until the record expires in the event source.

Type: Integer

Valid Range: Minimum value of -1. Maximum value of 10000.

**ParallelizationFactor**

(Kinesis and DynamoDB Streams only) The number of batches to process concurrently from each shard. The default value is 1.

Type: Integer


**Queues**

(Amazon MQ) The name of the Amazon MQ broker destination queue to consume.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: \[\s\S\] *

**ScalingConfig**

(Amazon SQS only) The scaling configuration for the event source. For more information, see [Configuring maximum concurrency for Amazon SQS event sources](#).
Type: `ScalingConfig` object

**SelfManagedEventSource**

The self-managed Apache Kafka cluster for your event source.

Type: `SelfManagedEventSource` object

**SelfManagedKafkaEventSourceConfig**

Specific configuration settings for a self-managed Apache Kafka event source.

Type: `SelfManagedKafkaEventSourceConfig` object

**SourceAccessConfigurations**

An array of the authentication protocol, VPC components, or virtual host to secure and define your event source.

Type: Array of `SourceAccessConfiguration` objects

Array Members: Minimum number of 0 items. Maximum number of 22 items.

**StartingPosition**

The position in a stream from which to start reading. Required for Amazon Kinesis and Amazon DynamoDB Stream event sources. AT_TIMESTAMP is supported only for Amazon Kinesis streams, Amazon DocumentDB, Amazon MSK, and self-managed Apache Kafka.

Type: String

Valid Values: TRIM_HORIZON | LATEST | AT_TIMESTAMP

**StartingPositionTimestamp**

With `StartingPosition` set to AT_TIMESTAMP, the time from which to start reading, in Unix time seconds. `StartingPositionTimestamp` cannot be in the future.

Type: Timestamp

**State**

The state of the event source mapping. It can be one of the following: Creating, Enabling, Enabled, Disabling, Disabled, Updating, or Deleting.

Type: String
**StateTransitionReason**

Indicates whether a user or Lambda made the last change to the event source mapping.

Type: String

**Topics**

The name of the Kafka topic.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 249.

Pattern: `^[^.]([a-zA-Z0-9\-._]+)`

**TumblingWindowInSeconds**

(Kinesis and DynamoDB Streams only) The duration in seconds of a processing window for DynamoDB and Kinesis Streams event sources. A value of 0 seconds indicates no tumbling window.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 900.

**UUID**

The identifier of the event source mapping.

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400
ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceInUseException

The operation conflicts with the resource's availability. For example, you tried to update an event source mapping in the CREATING state, or you tried to delete an event source mapping currently UPDATING.

HTTP Status Code: 400

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteFunction

Deletes a Lambda function. To delete a specific function version, use the Qualifier parameter. Otherwise, all versions and aliases are deleted. This doesn't require the user to have explicit permissions for `DeleteAlias`.

To delete Lambda event source mappings that invoke a function, use `DeleteEventSourceMapping`. For AWS services and resources that invoke your function directly, delete the trigger in the service where you originally configured it.

Request Syntax

```
DELETE /2015-03-31/functions/FunctionName?Qualifier=Qualifier HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function or version.

**Name formats**

- **Function name** – my-function (name-only), my-function:1 (with version).
- **Partial ARN** – 123456789012:function:my-function.

You can append a version number or alias to any of the formats. The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\_]*)?(+$LATEST|\d{12})?\1)

Required: Yes
**Qualifier**

Specify a version to delete. You can't delete a version that an alias references.


Pattern: ( | [a-zA-Z0-9$_-]+ )

**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 204
```

**Response Elements**

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404
ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see [Lambda quotas](https://docs.aws.amazon.com/lambda/latest/dg/quotas.html).

HTTP Status Code: 429

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/reference/lambda/)
- [AWS SDK for .NET](https://docs.aws.amazon.com/sdkfor-net/v3/)
- [AWS SDK for C++](https://docs.aws.amazon.com/sdkfortcpp/v3/)
- [AWS SDK for Go v2](https://docs.aws.amazon.com/sdkfortgo/v2/)
- [AWS SDK for Java V2](https://docs.aws.amazon.com/sdkfortjava/v2/)
- [AWS SDK for JavaScript V3](https://docs.aws.amazon.com/jsdk/latest/)
- [AWS SDK for PHP V3](https://docs.aws.amazon.com/sdkfortphp/v3/)
- [AWS SDK for Python](https://docs.aws.amazon.com/sdkfortpython/)
- [AWS SDK for Ruby V3](https://docs.aws.amazon.com/sdkfortruby/v3/)
DeleteFunctionCodeSigningConfig

Removes the code signing configuration from the function.

Request Syntax

DELETE /2020-06-30/functions/FunctionName/code-signing-config HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

FunctionName

The name or ARN of the Lambda function.

Name formats

- **Function name** - MyFunction.
- **Partial ARN** - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\_]+)(:(\$LATEST|[a-zA-Z0-9-\_]+))?

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 204
Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

**CodeSigningConfigNotFoundException**

The specified code signing configuration does not exist.

HTTP Status Code: 404

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429
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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteFunctionConcurrency

Removes a concurrent execution limit from a function.

**Request Syntax**

```
DELETE /2017-10-31/functions/FunctionName/concurrency HTTP/1.1
```

**URI Request Parameters**

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\_]*)?($\{LATEST|[a-zA-Z0-9-\_]+\})?

Required: Yes

**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 204
```
Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteFunctionEventInvokeConfig

Deletes the configuration for asynchronous invocation for a function, version, or alias.

To configure options for asynchronous invocation, use [PutFunctionEventInvokeConfig](https://aws.amazon.com).

**Request Syntax**

```
DELETE /2019-09-25/functions/FunctionName/event-invoke-config?Qualifier=Qualifier
HTTP/1.1
```

**URI Request Parameters**

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function, version, or alias.

- **Name formats**
  - **Function name** - my-function (name-only), my-function:v1 (with alias).
  - **Partial ARN** - 123456789012:function:my-function.

You can append a version number or alias to any of the formats. The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

- **Length Constraints**: Minimum length of 1. Maximum length of 140.

  Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\_]+)(:\$LATEST|\[a-zA-Z0-9-\_]\+))?

- **Required**: Yes

**Qualifier**

A version number or alias name.

- **Length Constraints**: Minimum length of 1. Maximum length of 128.
Pattern: ( | [a-zA-Z0-9$-_]+ )

**Request Body**

The request does not have a request body.

**Response Syntax**

HTTP/1.1 204

**Response Elements**

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500
TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteFunctionUrlConfig

Deletes a Lambda function URL. When you delete a function URL, you can't recover it. Creating a new function URL results in a different URL address.

Request Syntax

```
DELETE /2021-10-31/functions/{FunctionName}/url?Qualifier={Qualifier} HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

- **Name formats**
  - **Function name** – my-function.
  - **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (`arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-[a-z0-9-]+(-\d[1:]{1}:+)?)?(\d{12}:)?(function:)?([a-zA-Z0-9-]+)((:($LATEST|[a-zA-Z0-9-]+)+)?)

Required: Yes

**Qualifier**

The alias name.


Pattern: (`^\$LATEST$)|((?!^[0-9]+$)([a-zA-Z0-9-]+))
Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 204

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteLayerVersion

Deletes a version of an AWS Lambda layer. Deleted versions can no longer be viewed or added to functions. To avoid breaking functions, a copy of the version remains in Lambda until no functions refer to it.

Request Syntax

```
DELETE /2018-10-31/layers/LayerName/versions/VersionNumber HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

**LayerName**

The name or Amazon Resource Name (ARN) of the layer.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-\_]+)|[a-zA-Z0-9-\_]+

Required: Yes

**VersionNumber**

The version number.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 204
```
Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteProvisionedConcurrencyConfig

Deletes the provisioned concurrency configuration for a function.

**Request Syntax**

```plaintext
DELETE /2019-09-30/functions/FunctionName/provisioned-concurrency?Qualifier=Qualifier
HTTP/1.1
```

**URI Request Parameters**

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

**Length Constraints:** Minimum length of 1. Maximum length of 140.

**Pattern:** (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-_.]+)((\$$LATEST|[a-zA-Z0-9-_.]+))?((\$$LATEST|[a-zA-Z0-9-_.]+))?(

**Required:** Yes

**Qualifier**

The version number or alias name.

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

**Pattern:** ([a-zA-Z0-9-_.]+)
Required: Yes

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 204

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500
TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetAccountSettings

Retrieves details about your account's limits and usage in an AWS Region.

Request Syntax

GET /2016-08-19/account-settings/ HTTP/1.1

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
    "AccountLimit": {
        "CodeSizeUnzipped": number,
        "CodeSizeZipped": number,
        "ConcurrentExecutions": number,
        "TotalCodeSize": number,
        "UnreservedConcurrentExecutions": number
    },
    "AccountUsage": {
        "FunctionCount": number,
        "TotalCodeSize": 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.
**AccountLimit**

Limits that are related to concurrency and code storage.

Type: AccountLimit object

**AccountUsage**

The number of functions and amount of storage in use.

Type: AccountUsage object

**Errors**

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

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
• AWS SDK for Python
• AWS SDK for Ruby V3
GetAlias

Returns details about a Lambda function alias.

Request Syntax

GET /2015-03-31/functions/FunctionName/aliases/Name HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** - MyFunction.
- **Partial ARN** - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\_]*)+((\$LATEST|[a-zA-Z0-9-\_]+))?  

Required: Yes

**Name**

The name of the alias.


Pattern: (?![0-9]+$)([a-zA-Z0-9-\_]*)  

Required: Yes
Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

```json
{
    "AliasArn": "string",
    "Description": "string",
    "FunctionVersion": "string",
    "Name": "string",
    "RevisionId": "string",
    "RoutingConfig": {
        "AdditionalVersionWeights": {
            "string": 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.

**AliasArn**

The Amazon Resource Name (ARN) of the alias.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]-\d{1}:\d{12}:function:[a-zA-Z0-9-\_]+(:($LATEST|[a-zA-Z0-9\-\_]*)+)

**Description**

A description of the alias.

Type: String
Length Constraints: Minimum length of 0. Maximum length of 256.

**FunctionVersion**

The function version that the alias invokes.

Type: String


Pattern: \($LATEST | \[0-9\]+\)

**Name**

The name of the alias.

Type: String


Pattern: \(?! ^[0-9]+\)\([-zA-Z0-9-\_]\+)

**RevisionId**

A unique identifier that changes when you update the alias.

Type: String

**RoutingConfig**

The routing configuration of the alias.

Type: **AliasRoutingConfiguration** object

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.
HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetCodeSigningConfig

Returns information about the specified code signing configuration.

Request Syntax

GET /2020-04-22/code-signing-configs/CodeSigningConfigArn HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**CodeSigningConfigArn**

The Amazon Resource Name (ARN) of the code signing configuration.

Length Constraints: Maximum length of 200.

Pattern: arn:(aws[a-zA-Z-]*):lambda:[a-z]{2}((-gov)|(-iso(b?))?)?-\d{12}:code-signing-config:csc-[a-z0-9]{17}

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

```json
{
   "CodeSigningConfig": {
      "AllowedPublishers": {
         "SigningProfileVersionArns": [ "string" ]
      },
      "CodeSigningConfigArn": "string",
      "CodeSigningConfigId": "string",
      "CodeSigningPolicies": {
         "UntrustedArtifactOnDeployment": "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.

**CodeSigningConfig**

The code signing configuration

Type: CodeSigningConfig object

Errors

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetEventSourceMapping

Returns details about an event source mapping. You can get the identifier of a mapping from the output of [ListEventSourceMappings](#).

**Request Syntax**

```
GET /2015-03-31/event-source-mappings/UUID HTTP/1.1
```

**URI Request Parameters**

The request uses the following URI parameters.

**UUID**

The identifier of the event source mapping.

Required: Yes

**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 200
Content-type: application/json

{
   "AmazonManagedKafkaEventSourceConfig": {
      "ConsumerGroupId": "string"
   },
   "BatchSize": number,
   "BisectBatchOnFunctionError": boolean,
   "DestinationConfig": {
      "OnFailure": {
         "Destination": "string"
      },
      "OnSuccess": {
         "Destination": "string"
      }
   }
}
```
},
"DocumentDBEventSourceConfig": {
  "CollectionName": "string",
  "DatabaseName": "string",
  "FullDocument": "string"
},
"EventSourceArn": "string",
"FilterCriteria": {
  "Filters": [
  {
    "Pattern": "string"
  }
],
"FunctionArn": "string",
"FunctionResponseTypes": [ "string" ],
"LastModified": number,
"LastProcessingResult": "string",
"MaximumBatchingWindowInSeconds": number,
"MaximumRecordAgeInSeconds": number,
"MaximumRetryAttempts": number,
"ParallelizationFactor": number,
"Queues": [ "string" ],
"ScalingConfig": {
  "MaximumConcurrency": number
},
"SelfManagedEventSource": {
  "Endpoints": {
    "string": [ "string" ]
  }
},
"SelfManagedKafkaEventSourceConfig": {
  "ConsumerGroupId": "string"
},
"SourceAccessConfigurations": [ {
  "Type": "string",
  "URI": "string"
} ],
"StartingPosition": "string",
"StartingPositionTimestamp": number,
"State": "string",
"StateTransitionReason": "string"}
"Topics": [ "string" ],
"TumblingWindowInSeconds": number,
"UUID": "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.

**AmazonManagedKafkaEventSourceConfig**

Specific configuration settings for an Amazon Managed Streaming for Apache Kafka (Amazon MSK) event source.

Type: **AmazonManagedKafkaEventSourceConfig** object

**BatchSize**

The maximum number of records in each batch that Lambda pulls from your stream or queue and sends to your function. Lambda passes all of the records in the batch to the function in a single call, up to the payload limit for synchronous invocation (6 MB).

Default value: Varies by service. For Amazon SQS, the default is 10. For all other services, the default is 100.

Related setting: When you set **BatchSize** to a value greater than 10, you must set **MaximumBatchingWindowInSeconds** to at least 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10000.

**BisectBatchOnError**

(Kinesis and DynamoDB Streams only) If the function returns an error, split the batch in two and retry. The default value is false.

Type: Boolean
**DestinationConfig**

(Kinesis, DynamoDB Streams, Amazon MSK, and self-managed Apache Kafka event sources only) A configuration object that specifies the destination of an event after Lambda processes it.

Type: `DestinationConfig` object

**DocumentDBEventSourceConfig**

Specific configuration settings for a DocumentDB event source.

Type: `DocumentDBEventSourceConfig` object

**EventSourceArn**

The Amazon Resource Name (ARN) of the event source.

Type: String

Pattern: `arn:(aws[a-zA-Z0-9-]*):([a-zA-Z0-9-\]+)\+:([a-z]{2}\-gov)?-\[a-z]+-\d\{1\}\?:\(\d\{12\}\):(\.*

**FilterCriteria**

An object that defines the filter criteria that determine whether Lambda should process an event. For more information, see [Lambda event filtering](#).

Type: `FilterCriteria` object

**FunctionArn**

The ARN of the Lambda function.

Type: String

Pattern: `arn:(aws[a-zA-Z-]*):lambda:([a-zA-Z0-9-\]+)\+:([a-z]{2}\-gov)?-\[a-z]+-\d\{1\}:\d\{12\}:function:([a-zA-Z0-9\-]+)(:\(\$LATEST\)[a-zA-Z0-9\-]+)\?)`

**FunctionResponseTypes**

(Kinesis, DynamoDB Streams, and Amazon SQS) A list of current response type enums applied to the event source mapping.

Type: Array of strings
Array Members: Minimum number of 0 items. Maximum number of 1 item.

Valid Values: ReportBatchItemFailures

**LastModified**

The date that the event source mapping was last updated or that its state changed, in Unix time seconds.

Type: Timestamp

**LastProcessingResult**

The result of the last Lambda invocation of your function.

Type: String

**MaximumBatchingWindowInSeconds**

The maximum amount of time, in seconds, that Lambda spends gathering records before invoking the function. You can configure `MaximumBatchingWindowInSeconds` to any value from 0 seconds to 300 seconds in increments of seconds.

For streams and Amazon SQS event sources, the default batching window is 0 seconds. For Amazon MSK, Self-managed Apache Kafka, Amazon MQ, and DocumentDB event sources, the default batching window is 500 ms. Note that because you can only change `MaximumBatchingWindowInSeconds` in increments of seconds, you cannot revert back to the 500 ms default batching window after you have changed it. To restore the default batching window, you must create a new event source mapping.

Related setting: For streams and Amazon SQS event sources, when you set `BatchSize` to a value greater than 10, you must set `MaximumBatchingWindowInSeconds` to at least 1.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 300.

**MaximumRecordAgeInSeconds**

(Kinesis and DynamoDB Streams only) Discard records older than the specified age. The default value is -1, which sets the maximum age to infinite. When the value is set to infinite, Lambda never discards old records.
**Note**

The minimum valid value for maximum record age is 60s. Although values less than 60 and greater than -1 fall within the parameter's absolute range, they are not allowed.

Type: Integer


**MaximumRetryAttempts**

(Kinesis and DynamoDB Streams only) Discard records after the specified number of retries. The default value is -1, which sets the maximum number of retries to infinite. When MaximumRetryAttempts is infinite, Lambda retries failed records until the record expires in the event source.

Type: Integer

Valid Range: Minimum value of -1. Maximum value of 10000.

**ParallelizationFactor**

(Kinesis and DynamoDB Streams only) The number of batches to process concurrently from each shard. The default value is 1.

Type: Integer


**Queues**

(Amazon MQ) The name of the Amazon MQ broker destination queue to consume.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: "[\s\S]*"

**ScalingConfig**

(Amazon SQS only) The scaling configuration for the event source. For more information, see Configuring maximum concurrency for Amazon SQS event sources.
**Type:** ScalingConfig object

**SelfManagedEventSource**

The self-managed Apache Kafka cluster for your event source.

**Type:** SelfManagedEventSource object

**SelfManagedKafkaEventSourceConfig**

Specific configuration settings for a self-managed Apache Kafka event source.

**Type:** SelfManagedKafkaEventSourceConfig object

**SourceAccessConfigurations**

An array of the authentication protocol, VPC components, or virtual host to secure and define your event source.

**Type:** Array of SourceAccessConfiguration objects

Array Members: Minimum number of 0 items. Maximum number of 22 items.

**StartingPosition**

The position in a stream from which to start reading. Required for Amazon Kinesis and Amazon DynamoDB Stream event sources. AT_TIMESTAMP is supported only for Amazon Kinesis streams, Amazon DocumentDB, Amazon MSK, and self-managed Apache Kafka.

**Type:** String

Valid Values: TRIM_HORIZON | LATEST | AT_TIMESTAMP

**StartingPositionTimestamp**

With StartingPosition set to AT_TIMESTAMP, the time from which to start reading, in Unix time seconds. StartingPositionTimestamp cannot be in the future.

**Type:** Timestamp

**State**

The state of the event source mapping. It can be one of the following: Creating, Enabling, Enabled, Disabling, Disabled, Updating, or Deleting.

**Type:** String
**StateTransitionReason**

Indicates whether a user or Lambda made the last change to the event source mapping.

Type: String

**Topics**

The name of the Kafka topic.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 249.

Pattern: \^[^\.]\([a-zA-Z0-9\-._]+\)

**TumblingWindowInSeconds**

(Kinesis and DynamoDB Streams only) The duration in seconds of a processing window for DynamoDB and Kinesis Streams event sources. A value of 0 seconds indicates no tumbling window.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 900.

**UUID**

The identifier of the event source mapping.

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400
ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetFunction

Returns information about the function or function version, with a link to download the deployment package that's valid for 10 minutes. If you specify a function version, only details that are specific to that version are returned.

Request Syntax

GET /2015-03-31/functions/FunctionName?Qualifier=Qualifier HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function, version, or alias.

**Name formats**

- **Function name** – my-function (name-only), my-function:v1 (with alias).
- **Partial ARN** – 123456789012:function:my-function.

You can append a version number or alias to any of the formats. The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.


Pattern: (arn:(aws[za-Z]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\._]+)(:\($LATEST|[a-zA-Z0-9-\._]+$))?

Required: Yes

**Qualifier**

Specify a version or alias to get details about a published version of the function.


Pattern: ([a-zA-Z0-9-\._]+)
Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
    "Code": {
        "ImageUri": "string",
        "Location": "string",
        "RepositoryType": "string",
        "ResolvedImageUri": "string"
    },
    "Concurrency": {
        "ReservedConcurrentExecutions": number
    },
    "Configuration": {
        "Architectures": [ "string" ],
        "CodeSha256": "string",
        "CodeSize": number,
        "DeadLetterConfig": {
            "TargetArn": "string"
        },
        "Description": "string",
        "Environment": {
            "Error": {
                "ErrorCode": "string",
                "Message": "string"
            },
            "Variables": {
                "string": "string"
            }
        },
        "EphemeralStorage": {
            "Size": number
        },
        "FileSystemConfigs": [
            {
                "Arn": "string",
                "LocalMountPath": "string"
            }
        ]
    }
}
"FunctionArn": "string",
"FunctionName": "string",
"Handler": "string",
"ImageConfigResponse": {
  "Error": {
    "ErrorCode": "string",
    "Message": "string"
  },
  "ImageConfig": {
    "Command": [ "string" ],
    "EntryPoint": [ "string" ],
    "WorkingDirectory": "string"
  }
},
"KMSKeyArn": "string",
"LastModified": "string",
"LastUpdateStatus": "string",
"LastUpdateStatusReason": "string",
"LastUpdateStatusReasonCode": "string",
"Layers": [
  {
    "Arn": "string",
    "CodeSize": number,
    "SigningJobArn": "string",
    "SigningProfileVersionArn": "string"
  }
],
"LoggingConfig": {
  "ApplicationLogLevel": "string",
  "LogFormat": "string",
  "LogGroup": "string",
  "SystemLogLevel": "string"
},
"MasterArn": "string",
"MemorySize": number,
"PackageType": "string",
"RevisionId": "string",
"Role": "string",
"Runtime": "string",
"RuntimeVersionConfig": {
  "Error": {
    "ErrorCode": "string"
  }
}
"Message": "string",
"RuntimeVersionArn": "string",
,"SigningJobArn": "string",
"SigningProfileVersionArn": "string",
"SnapStart": {
  "ApplyOn": "string",
  "OptimizationStatus": "string"
},
"State": "string",
"StateReason": "string",
"StateReasonCode": "string",
"Timeout": number,
"TracingConfig": {
  "Mode": "string"
},
"Version": "string",
"VpcConfig": {
  "Ipv6AllowedForDualStack": boolean,
  "SecurityGroupIds": [ "string" ],
  "SubnetIds": [ "string" ],
  "VpcId": "string"
}
"Tags": {
  "string": "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.

**Code**

The deployment package of the function or version.

Type: [FunctionCodeLocation](#) object
Concurrency

The function's reserved concurrency.

Type: Concurrency object

Configuration

The configuration of the function or version.

Type: FunctionConfiguration object

Tags

The function's tags.

Type: String to string map

Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429
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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetFunctionCodeSigningConfig

Returns the code signing configuration for the specified function.

**Request Syntax**

```
GET /2020-06-30/functions/FunctionName/code-signing-config HTTP/1.1
```

**URI Request Parameters**

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

*Name formats*

- **Function name** - MyFunction.
- **Partial ARN** - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\_]+)(:($LATEST|[a-zA-Z0-9-\_]+))?

Required: Yes

**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 200
```
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.

**CodeSigningConfigArn**

The The Amazon Resource Name (ARN) of the code signing configuration.

Type: String

Length Constraints: Maximum length of 200.

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z][2]((-gov)|(-iso(b?)))?-[a-z]+-
\d{1}:\d{12}:code-signing-config:csc-[a-z0-9]{17}

**FunctionName**

The name or ARN of the Lambda function.

Name formats

- **Function name** - MyFunction.
- **Partial ARN** - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?(\[a-z]{2}([-gov]|(-iso(b?)))?-[a-z]+-
\d{1}:\d{12}:code-signing-config:csc-[a-z0-9]{17}){(\$LATEST|[a-zA-Z0-9-._]+)+}?
Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
• AWS SDK for Ruby V3
GetFunctionConcurrency

Returns details about the reserved concurrency configuration for a function. To set a concurrency limit for a function, use **PutFunctionConcurrency**.

**Request Syntax**

```
GET /2019-09-30/functions/{FunctionName}/concurrency HTTP/1.1
```

**URI Request Parameters**

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-]+)?(:($LATEST|[a-zA-Z0-9-]+))?(

Required: Yes

**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 200
```
Content-type: application/json

{
   "ReservedConcurrentExecutions": 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.

**ReservedConcurrentExecutions**

The number of simultaneous executions that are reserved for the function.

Type: Integer

Valid Range: Minimum value of 0.

Errors

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).
HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetFunctionConfiguration

Returns the version-specific settings of a Lambda function or version. The output includes only options that can vary between versions of a function. To modify these settings, use \texttt{UpdateFunctionConfiguration}.

To get all of a function's details, including function-level settings, use \texttt{GetFunction}.

Request Syntax

\texttt{GET /2015-03-31/functions/FunctionName/configuration?Qualifier=Qualifier HTTP/1.1}

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function, version, or alias.

**Name formats**

- **Function name** – my-function (name-only), my-function:v1 (with alias).
- **Partial ARN** – 123456789012:function:my-function.

You can append a version number or alias to any of the formats. The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.


Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\._]+)(:\$LATEST|[a-zA-Z0-9-\._]+)?

Required: Yes

**Qualifier**

Specify a version or alias to get details about a published version of the function.

Pattern: (\[a-zA-Z0-9$-_]+)

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
   "Architectures": ["string"],
   "CodeSha256": "string",
   "CodeSize": numbr,
   "DeadLetterConfig": {
      "TargetArn": "string"
   },
   "Description": "string",
   "Environment": {
      "Error": {
         "ErrorCode": "string",
         "Message": "string"
      },
      "Variables": {
         "string": "string"
      }
   },
   "EphemeralStorage": {
      "Size": numbr
   },
   "FileSystemConfigs": [
      {
         "Arn": "string",
         "LocalMountPath": "string"
      }
   ],
   "FunctionArn": "string",
   "FunctionName": "string",
   "Handler": "string",
   "ImageConfigResponse": {
      "Error": {

"ErrorCode": "string",
"Message": "string"
},
"ImageConfig": {
"Command": [ "string" ],
"EntryPoint": [ "string" ],
"WorkingDirectory": "string"
},
"KMSKeyArn": "string",
"LastModified": "string",
"LastUpdateStatus": "string",
"LastUpdateStatusReason": "string",
"LastUpdateStatusReasonCode": "string",
"Layers": [
{
"Arn": "string",
"CodeSize": number,
"SigningJobArn": "string",
"SigningProfileVersionArn": "string"
}
],
"LoggingConfig": {
"ApplicationLogLevel": "string",
"LogFormat": "string",
"LogGroup": "string",
"SystemLogLevel": "string"
},
"MasterArn": "string",
"MemorySize": number,
"PackageType": "string",
"RevisionId": "string",
"Role": "string",
"Runtime": "string",
"RuntimeVersionConfig": {
"Error": {
"ErrorCode": "string",
"Message": "string"
},
"RuntimeVersionArn": "string"
},
"SigningJobArn": "string",
"SigningProfileVersionArn": "string",
"SnapStart": {
"ErrorCode": "string",
"Message": "string"
}
"ApplyOn": "string",
    "OptimizationStatus": "string"
},
"State": "string",
"StateReason": "string",
"StateReasonCode": "string",
"Timeout": number,
"TracingConfig": {
    "Mode": "string"
},
"Version": "string",
"VpcConfig": {
    "Ipv6AllowedForDualStack": boolean,
    "SecurityGroupIds": [ "string" ],
    "SubnetIds": [ "string" ],
    "VpcId": "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.

**Architectures**

The instruction set architecture that the function supports. Architecture is a string array with one of the valid values. The default architecture value is `x86_64`.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `x86_64` | `arm64`

**CodeSha256**

The SHA256 hash of the function's deployment package.

Type: String

**CodeSize**

The size of the function's deployment package, in bytes.
Type: Long

**DeadLetterConfig**

The function's dead letter queue.

Type: `DeadLetterConfig` object

**Description**

The function's description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

**Environment**

The function's [environment variables](#). Omitted from AWS CloudTrail logs.

Type: `EnvironmentResponse` object

**EphemeralStorage**

The size of the function's `/tmp` directory in MB. The default value is 512, but can be any whole number between 512 and 10,240 MB. For more information, see [Configuring ephemeral storage (console)](#).

Type: `EphemeralStorage` object

**FileSystemConfigs**

Connection settings for an [Amazon EFS file system](#).

Type: Array of `FileSystemConfig` objects

Array Members: Maximum number of 1 item.

**FunctionArn**

The function's Amazon Resource Name (ARN).

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-_]\+(:(\$LATEST|[a-zA-Z0-9-_]\+))?
**FunctionName**

The name of the function.

Type: String


Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-[d1]:)?([d12]:)?(function:)?([a-zA-Z0-9-_.]+)(:(\$LATEST|[a-zA-Z0-9-_.]+))?*

**Handler**

The function that Lambda calls to begin running your function.

Type: String

Length Constraints: Maximum length of 128.

Pattern: [^\s]+

**ImageConfigResponse**

The function's image configuration values.

Type: `ImageConfigResponse` object

**KMSKeyArn**

The AWS KMS key that's used to encrypt the function's environment variables. When Lambda SnapStart is activated, this key is also used to encrypt the function's snapshot. This key is returned only if you've configured a customer managed key.

Type: String

Pattern: (arn:(aws[a-zA-Z-]*)?:[a-z0-9-.:]+\.)()

**LastModified**

The date and time that the function was last updated, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

**LastUpdateStatus**

The status of the last update that was performed on the function. This is first set to Successful after function creation completes.
Type: String

Valid Values: Successful | Failed | InProgress

LastUpdateStatusReason

The reason for the last update that was performed on the function.

Type: String

LastUpdateStatusReasonCode

The reason code for the last update that was performed on the function.

Type: String


Layers

The function's layers.

Type: Array of Layer objects

LoggingConfig

The function's Amazon CloudWatch Logs configuration settings.

Type: LoggingConfig object

MasterArn

For Lambda@Edge functions, the ARN of the main function.

Type: String

Pattern: arn:(aws[a-zA-Z-]*):lambda:[a-z]{2}(-gov)?-[a-z]+--\d{1}:\d{12}:function:[a-zA-Z0-9-]+(:($LATEST|[a-zA-Z0-9-]+))?
**MemorySize**

The amount of memory available to the function at runtime.

Type: Integer


**PackageType**

The type of deployment package. Set to Image for container image and set Zip for .zip file archive.

Type: String

Valid Values: Zip | Image

**RevisionId**

The latest updated revision of the function or alias.

Type: String

**Role**

The function's execution role.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:iam::\d{12}:role/?[a-zA-Z-Z_0-9+=,.@-_-/]+?

**Runtime**

The identifier of the function's runtime. Runtime is required if the deployment package is a .zip file archive. Specifying a runtime results in an error if you're deploying a function using a container image.

The following list includes deprecated runtimes. Lambda blocks creating new functions and updating existing functions shortly after each runtime is deprecated. For more information, see [Runtime use after deprecation](#).

For a list of all currently supported runtimes, see [Supported runtimes](#).

Type: String
Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 | dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided | provided.al2 | nodejs18.x | python3.10 | java17 | ruby3.2 | python3.11 | nodejs20.x | provided.al2023 | python3.12 | java21

**RuntimeVersionConfig**

The ARN of the runtime and any errors that occurred.

Type: [RuntimeVersionConfig](#) object

**SigningJobArn**

The ARN of the signing job.

Type: String

Pattern: `arn:(aws[a-zA-Z0-9-]*)/([a-zA-Z0-9\-]+)([a-z]{2}(-gov)?-[a-z]+\d{1})?:(/\d{12})?:(.*)`

**SigningProfileVersionArn**

The ARN of the signing profile version.

Type: String

Pattern: `arn:(aws[a-zA-Z0-9-]*)/([a-zA-Z0-9\-]+)([a-z]{2}(-gov)?-[a-z]+\d{1})?:(/\d{12})?:(.*)`

**SnapStart**

Set `ApplyOn` to `PublishedVersions` to create a snapshot of the initialized execution environment when you publish a function version. For more information, see [Improving startup performance with Lambda SnapStart](#).

Type: [SnapStartResponse](#) object

**State**

The current state of the function. When the state is `Inactive`, you can reactivate the function by invoking it.
Type: String

Valid Values: Pending | Active | Inactive | Failed

**StateReason**

The reason for the function's current state.

Type: String

**StateReasonCode**

The reason code for the function's current state. When the code is Creating, you can't invoke or modify the function.

Type: String


**Timeout**

The amount of time in seconds that Lambda allows a function to run before stopping it.

Type: Integer

Valid Range: Minimum value of 1.

**TracingConfig**

The function's AWS X-Ray tracing configuration.

Type: [TracingConfigResponse](#) object

**Version**

The version of the Lambda function.

Type: String

Pattern: (\$LATEST\[0-9]+)

**VpcConfig**

The function's networking configuration.

Type: [VpcConfigResponse](#) object

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

**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 v2
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
GetFunctionEventInvokeConfig

Retrieves the configuration for asynchronous invocation for a function, version, or alias.

To configure options for asynchronous invocation, use PutFunctionEventInvokeConfig.

Request Syntax

GET /2019-09-25/functions/FunctionName/event-invoke-config?Qualifier=Qualifier HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function, version, or alias.

**Name formats**

- **Function name** - my-function (name-only), my-function:v1 (with alias).
- **Partial ARN** - 123456789012:function:my-function.

You can append a version number or alias to any of the formats. The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

**Length Constraints: Minimum length of 1. Maximum length of 140.**

**Pattern:** (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-zA-Z]{2}(-gov)?-[a-zA-Z]+-\d{1}):(\d{12}):(function:)?([a-zA-Z0-9-\_]+)(($LATEST|[a-zA-Z0-9-\_]+))?**

**Required:** Yes

**Qualifier**

A version number or alias name.

**Length Constraints: Minimum length of 1. Maximum length of 128.**
Pattern: (\[a-zA-Z0-9$_-]+)

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{  
  "DestinationConfig": {  
    "OnFailure": {  
      "Destination": "string"
    },  
    "OnSuccess": {  
      "Destination": "string"
    }
  },  
  "FunctionArn": "string",  
  "LastModified": number,  
  "MaximumEventAgeInSeconds": number,  
  "MaximumRetryAttempts": 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.

**DestinationConfig**

A destination for events after they have been sent to a function for processing.

**Destinations**

- **Function** - The Amazon Resource Name (ARN) of a Lambda function.
- **Queue** - The ARN of a standard SQS queue.
- **Topic** - The ARN of a standard SNS topic.
- **Event Bus** - The ARN of an Amazon EventBridge event bus.
  
  Type: **DestinationConfig** object

**FunctionArn**

The Amazon Resource Name (ARN) of the function.

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-\_]+(:($LATEST|[a-zA-Z0-9-\_]+))?`

**LastModified**

The date and time that the configuration was last updated, in Unix time seconds.

Type: Timestamp

**MaximumEventAgeInSeconds**

The maximum age of a request that Lambda sends to a function for processing.

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 21600.

**MaximumRetryAttempts**

The maximum number of times to retry when the function returns an error.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2.

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400
ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetFunctionUrlConfig

Returns details about a Lambda function URL.

Request Syntax

GET /2021-10-31/functions/FunctionName/url?Qualifier=Qualifier HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-_.]+)((\$LATEST|[a-zA-Z0-9-_.]+))?

Required: Yes

**Qualifier**

The alias name.


Pattern: (^\$LATEST$)|((?!^[0-9]+$)[a-zA-Z0-9-_.]+)
Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
    "AuthType": "string",
    "Cors": {
        "AllowCredentials": boolean,
        "AllowHeaders": [ "string" ],
        "AllowMethods": [ "string" ],
        "AllowOrigins": [ "string" ],
        "ExposeHeaders": [ "string" ],
        "MaxAge": number
    },
    "CreationTime": "string",
    "FunctionArn": "string",
    "FunctionUrl": "string",
    "InvokeMode": "string",
    "LastModifiedTime": "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.

**AuthType**

The type of authentication that your function URL uses. Set to AWS_IAM if you want to restrict access to authenticated users only. Set to NONE if you want to bypass IAM authentication to create a public endpoint. For more information, see Security and auth model for Lambda function URLs.

Type: String

Valid Values: NONE | AWS_IAM
Cors

The cross-origin resource sharing (CORS) settings for your function URL.

Type: Cors object

CreationTime

When the function URL was created, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

FunctionArn

The Amazon Resource Name (ARN) of your function.

Type: String

FunctionArn Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-d{1}:
d{12}:function:[a-zA-Z0-9-._]+:(($LATEST|[a-zA-Z0-9-._]+)?

FunctionUrl

The HTTP URL endpoint for your function.

Type: String

Length Constraints: Minimum length of 40. Maximum length of 100.

InvokeMode

Use one of the following options:

- BUFFERED – This is the default option. Lambda invokes your function using the Invoke API operation. Invocation results are available when the payload is complete. The maximum payload size is 6 MB.

- RESPONSE_STREAM – Your function streams payload results as they become available. Lambda invokes your function using the InvokeWithResponseStream API operation. The maximum response payload size is 20 MB, however, you can request a quota increase.

Type: String

Valid Values: BUFFERED | RESPONSE_STREAM
**LastModifiedTime**

When the function URL configuration was last updated, in [ISO-8601 format](https://en.wikipedia.org/wiki/ISO_8601) (*YYYY-MM-DDThh:mm:ss.sTZD*).

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](https://aws.amazon.com/premiumsupport/EOL/quotas/).

HTTP Status Code: 429

**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/)

---

*Errors*

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• AWS SDK for Ruby V3
GetLayerVersion

Returns information about a version of an AWS Lambda layer, with a link to download the layer archive that's valid for 10 minutes.

**Request Syntax**

```
GET /2018-10-31/layers/LayerName/versions/VersionNumber HTTP/1.1
```

**URI Request Parameters**

The request uses the following URI parameters.

**LayerName**

The name or Amazon Resource Name (ARN) of the layer.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+::layers:[a-zA-Z0-9-]+)\|([a-zA-Z0-9-]+)

Required: Yes

**VersionNumber**

The version number.

Required: Yes

**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 200
Content-type: application/json

{
```
"CompatibleArchitectures": [ "string" ],
"CompatibleRuntimes": [ "string" ],
"Content": {
  "CodeSha256": "string",
  "CodeSize": number,
  "Location": "string",
  "SigningJobArn": "string",
  "SigningProfileVersionArn": "string"
},
"CreatedDate": "string",
"Description": "string",
"LayerArn": "string",
"LayerVersionArn": "string",
"LicenseInfo": "string",
"Version": 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.

CompatibleArchitectures

A list of compatible instruction set architectures.

Type: Array of strings

Array Members: Maximum number of 2 items.

Valid Values: x86_64 | arm64

CompatibleRuntimes

The layer's compatible runtimes.

The following list includes deprecated runtimes. For more information, see Runtime use after deprecation.

For a list of all currently supported runtimes, see Supported runtimes.

Type: Array of strings
Array Members: Maximum number of 15 items.

Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 | dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided | provided.al2 | nodejs18.x | python3.10 | java17 | ruby3.2 | python3.11 | nodejs20.x | provided.al2023 | python3.12 | java21

**Content**

Details about the layer version.

Type: [LayerVersionContentOutput](#) object

**CreatedDate**

The date that the layer version was created, in **ISO-8601 format** (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

**Description**

The description of the version.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

**LayerArn**

The ARN of the layer.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: `arn:([a-zA-Z0-9-]+):lambda:([a-zA-Z0-9-]+):\d{12}:layer:([a-zA-Z0-9-]+)`

**LayerVersionArn**

The ARN of the layer version.

Type: String
Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-]+:[0-9]+

**LicenseInfo**

The layer's software license.

Type: String

Length Constraints: Maximum length of 512.

**Version**

The version number.

Type: Long

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429
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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetLayerVersionByArn

Returns information about a version of an AWS Lambda layer, with a link to download the layer archive that's valid for 10 minutes.

Request Syntax

GET /2018-10-31/layers?find=LayerVersion&Arn=Arn HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

Arn

The ARN of the layer version.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+::d{12}:layer:[a-zA-Z0-9-]+::[0-9]+

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
   "CompatibleArchitectures": [ "string" ],
   "CompatibleRuntimes": [ "string" ],
   "Content": {
      "CodeSha256": "string",
      "CodeSize": number
   }
}
"Location": "string",
"SigningJobArn": "string",
"SigningProfileVersionArn": "string"
},
"CreatedAt": "string",
"Description": "string",
"LayerArn": "string",
"LayerVersionArn": "string",
"LicenseInfo": "string",
"Version": 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.

## CompatibleArchitectures

A list of compatible instruction set architectures.

Type: Array of strings

Array Members: Maximum number of 2 items.

Valid Values: x86_64 | arm64

## CompatibleRuntimes

The layer's compatible runtimes.

The following list includes deprecated runtimes. For more information, see [Runtime use after deprecation](#).

For a list of all currently supported runtimes, see [Supported runtimes](#).

Type: Array of strings

Array Members: Maximum number of 15 items.

Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x
| nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11
Content

Details about the layer version.

Type: LayerVersionContentOutput object

CreatedDate

The date that the layer version was created, in ISO-8601 format (YYYY-MM-DDThh:mm:ssZ).

Type: String

Description

The description of the version.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

LayerArn

The ARN of the layer.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-]+

LayerVersionArn

The ARN of the layer version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.
Pattern: arn:^[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-_-]+:[0-9]+

LicenseInfo

The layer's software license.

Type: String

Length Constraints: Maximum length of 512.

Version

The version number.

Type: Long

Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429
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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetLayerVersionPolicy

Returns the permission policy for a version of an AWS Lambda layer. For more information, see AddLayerVersionPermission.

Request Syntax

GET /2018-10-31/layers/LayerName/versions/VersionNumber/policy HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**LayerName**

The name or Amazon Resource Name (ARN) of the layer.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-\_]+)|[a-zA-Z0-9-\_]+

- Required: Yes

**VersionNumber**

The version number.

- Required: Yes

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
"Policy": "string",
"RevisionId": "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 policy document.

Type: String

**RevisionId**

A unique identifier for the current revision of the policy.

Type: String

Errors

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500
TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetPolicy

Returns the resource-based IAM policy for a function, version, or alias.

**Request Syntax**

```
GET /2015-03-31/functions/FunctionName/policy?Qualifier=Qualifier HTTP/1.1
```

**URI Request Parameters**

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function, version, or alias.

**Name formats**

- **Function name** – my-function (name-only), my-function:v1 (with alias).
- **Partial ARN** – 123456789012:function:my-function.

You can append a version number or alias to any of the formats. The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

**Length Constraints:** Minimum length of 1. Maximum length of 170.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-9-\.]+)(:(\$LATEST|[a-zA-Z0-9-9-\.]\d+))?

**Required:** Yes

**Qualifier**

Specify a version or alias to get the policy for that resource.

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

Pattern: ( | [a-zA-Z0-9$-_]+)
Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
   "Policy": "string",
   "RevisionId": "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 resource-based policy.

Type: String

RevisionId

A unique identifier for the current revision of the policy.

Type: String

Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400
ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetProvisionedConcurrencyConfig

Retrieves the provisioned concurrency configuration for a function's alias or version.

Request Syntax

GET /2019-09-30/functions/FunctionName/provisioned-concurrency?Qualifier=Qualifier
HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

**Length Constraints:** Minimum length of 1. Maximum length of 140.

**Pattern:** (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-9-\_]+)((\$LATEST|[a-zA-Z0-9-9-\_]+))?

**Required:** Yes

**Qualifier**

The version number or alias name.

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

**Pattern:** ( | [a-zA-Z0-9-9\$-\_]+)
Required: Yes

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
   "AllocatedProvisionedConcurrentExecutions": number,
   "AvailableProvisionedConcurrentExecutions": number,
   "LastModified": "string",
   "RequestedProvisionedConcurrentExecutions": number,
   "Status": "string",
   "StatusReason": "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.

AllocatedProvisionedConcurrentExecutions

The amount of provisioned concurrency allocated. When a weighted alias is used during linear and canary deployments, this value fluctuates depending on the amount of concurrency that is provisioned for the function versions.

Type: Integer

Valid Range: Minimum value of 0.

AvailableProvisionedConcurrentExecutions

The amount of provisioned concurrency available.

Type: Integer
Valid Range: Minimum value of 0.

**LastModified**

The date and time that a user last updated the configuration, in ISO 8601 format.

Type: String

**RequestedProvisionedConcurrentExecutions**

The amount of provisioned concurrency requested.

Type: Integer

Valid Range: Minimum value of 1.

**Status**

The status of the allocation process.

Type: String

Valid Values: IN_PROGRESS | READY | FAILED

**StatusReason**

For failed allocations, the reason that provisioned concurrency could not be allocated.

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ProvisionedConcurrencyConfigNotFoundException**

The specified configuration does not exist.

HTTP Status Code: 404
**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
GetRuntimeManagementConfig

Retrieves the runtime management configuration for a function's version. If the runtime update mode is Manual, this includes the ARN of the runtime version and the runtime update mode. If the runtime update mode is Auto or Function update, this includes the runtime update mode and null is returned for the ARN. For more information, see Runtime updates.

Request Syntax

GET /2021-07-20/functions/FunctionName/runtime-management-config?Qualifier=Qualifier
HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

FunctionName

The name or ARN of the Lambda function.

Name formats

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.


Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-_.]+)(:\$LATEST|[a-zA-Z0-9-_.]+)?

Required: Yes

Qualifier

Specify a version of the function. This can be $LATEST or a published version number. If no value is specified, the configuration for the $LATEST version is returned.

Pattern: ( | [a-zA-Z0-9_\-]+ )

**Request Body**

The request does not have a request body.

**Response Syntax**

HTTP/1.1 200
Content-type: application/json

```
{
    "FunctionArn": "string",
    "RuntimeVersionArn": "string",
    "UpdateRuntimeOn": "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.

**FunctionArn**

The Amazon Resource Name (ARN) of your function.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-\._]+(:($LATEST|[a-zA-Z0-9-\._]+))?

**RuntimeVersionArn**

The ARN of the runtime the function is configured to use. If the runtime update mode is Manual, the ARN is returned, otherwise null is returned.

Type: String

Pattern: ^arn:(aws[a-zA-Z-]*)::lambda:[a-z]{2}((-gov)|(-iso(b?)))?[a-z]+-[\d{1}]:\:runtime:.+$

**UpdateRuntimeOn**

The current runtime update mode of the function.

Type: String

Valid Values: Auto | Manual | FunctionUpdate

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
Invoke

Invokes a Lambda function. You can invoke a function synchronously (and wait for the response), or asynchronously. By default, Lambda invokes your function synchronously (i.e. the InvocationType is RequestResponse). To invoke a function asynchronously, set InvocationType to Event. Lambda passes the ClientContext object to your function for synchronous invocations only.

For **synchronous invocation**, details about the function response, including errors, are included in the response body and headers. For either invocation type, you can find more information in the execution log and trace.

When an error occurs, your function may be invoked multiple times. Retry behavior varies by error type, client, event source, and invocation type. For example, if you invoke a function asynchronously and it returns an error, Lambda executes the function up to two more times. For more information, see Error handling and automatic retries in Lambda.

For **asynchronous invocation**, Lambda adds events to a queue before sending them to your function. If your function does not have enough capacity to keep up with the queue, events may be lost. Occasionally, your function may receive the same event multiple times, even if no error occurs. To retain events that were not processed, configure your function with a dead-letter queue.

The status code in the API response doesn't reflect function errors. Error codes are reserved for errors that prevent your function from executing, such as permissions errors, quota errors, or issues with your function's code and configuration. For example, Lambda returns TooManyRequestsException if running the function would cause you to exceed a concurrency limit at either the account level (ConcurrentInvocationLimitExceeded) or function level (ReservedFunctionConcurrentInvocationLimitExceeded).

For functions with a long timeout, your client might disconnect during synchronous invocation while it waits for a response. Configure your HTTP client, SDK, firewall, proxy, or operating system to allow for long connections with timeout or keep-alive settings.

This operation requires permission for the lambda:InvokeFunction action. For details on how to set up permissions for cross-account invocations, see Granting function access to other accounts.

**Request Syntax**

```plaintext
POST /2015-03-31/functions/FunctionName/invocations?Qualifier=Qualifier HTTP/1.1
X-Amz-Invocation-Type: InvocationType
```
**URI Request Parameters**

The request uses the following URI parameters.

**ClientContext**

Up to 3,583 bytes of base64-encoded data about the invoking client to pass to the function in the context object. Lambda passes the ClientContext object to your function for synchronous invocations only.

**FunctionName**

The name or ARN of the Lambda function, version, or alias.

**Name formats**

- **Function name** – my-function (name-only), my-function:v1 (with alias).
- **Partial ARN** – 123456789012:function:my-function.

You can append a version number or alias to any of the formats. The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.


Pattern: (arn:(aws[a-zA-Z-]*):lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-._]+)(:\$LATEST|[a-zA-Z0-9-._]+)?

Required: Yes

**InvocationType**

Choose from the following options.

- **RequestResponse** (default) – Invoke the function synchronously. Keep the connection open until the function returns a response or times out. The API response includes the function response and additional data.
- **Event** – Invoke the function asynchronously. Send events that fail multiple times to the function's dead-letter queue (if one is configured). The API response only includes a status code.

- **DryRun** – Validate parameter values and verify that the user or role has permission to invoke the function.

Valid Values: Event | RequestResponse | DryRun

**LogType**

Set to Tail to include the execution log in the response. Applies to synchronously invoked functions only.

Valid Values: None | Tail

**Qualifier**

Specify a version or alias to invoke a published version of the function.


Pattern: ([a-zA-Z0-9$_-]+)

**Request Body**

The request accepts the following binary data.

**Payload**

The JSON that you want to provide to your Lambda function as input.

You can enter the JSON directly. For example, --payload '{ "key": "value" }'. You can also specify a file path. For example, --payload file://payload.json.

**Response Syntax**

HTTP/1.1 StatusCode
X-Amz-Function-Error: FunctionError
X-Amz-Log-Result: LogResult
X-Amz-Executed-Version: ExecutedVersion
Response Elements

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

**StatusCode**

The HTTP status code is in the 200 range for a successful request. For the RequestResponse invocation type, this status code is 200. For the Event invocation type, this status code is 202. For the DryRun invocation type, the status code is 204.

The response returns the following HTTP headers.

**ExecutedVersion**

The version of the function that executed. When you invoke a function with an alias, this indicates which version the alias resolved to.


Pattern: ($LATEST | [0-9]+)

**FunctionError**

If present, indicates that an error occurred during function execution. Details about the error are included in the response payload.

**LogResult**

The last 4 KB of the execution log, which is base64-encoded.

The response returns the following as the HTTP body.

**Payload**

The response from the function, or an error object.

**Errors**

For information about the errors that are common to all actions, see [Common Errors](#).
**EC2AccessDeniedException**

Need additional permissions to configure VPC settings.

HTTP Status Code: 502

**EC2ThrottledException**

Amazon EC2 throttled AWS Lambda during Lambda function initialization using the execution role provided for the function.

HTTP Status Code: 502

**EC2UnexpectedException**

AWS Lambda received an unexpected Amazon EC2 client exception while setting up for the Lambda function.

HTTP Status Code: 502

**EFSIOException**

An error occurred when reading from or writing to a connected file system.

HTTP Status Code: 410

**EFSMountConnectivityException**

The Lambda function couldn't make a network connection to the configured file system.

HTTP Status Code: 408

**EFSMountFailureException**

The Lambda function couldn't mount the configured file system due to a permission or configuration issue.

HTTP Status Code: 403

**EFSMountTimeoutException**

The Lambda function made a network connection to the configured file system, but the mount operation timed out.

HTTP Status Code: 408
ENILimitReachedException

AWS Lambda couldn't create an elastic network interface in the VPC, specified as part of Lambda function configuration, because the limit for network interfaces has been reached. For more information, see Lambda quotas.

HTTP Status Code: 502

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

InvalidRequestContentException

The request body could not be parsed as JSON.

HTTP Status Code: 400

InvalidRuntimeException

The runtime or runtime version specified is not supported.

HTTP Status Code: 502

InvalidSecurityGroupIDException

The security group ID provided in the Lambda function VPC configuration is not valid.

HTTP Status Code: 502

InvalidSubnetIDException

The subnet ID provided in the Lambda function VPC configuration is not valid.

HTTP Status Code: 502

InvalidZipFileException

AWS Lambda could not unzip the deployment package.

HTTP Status Code: 502

KMSAccessDeniedException

Lambda couldn't decrypt the environment variables because AWS KMS access was denied. Check the Lambda function's KMS permissions.
HTTP Status Code: 502

**KMSDisabledException**

Lambda couldn't decrypt the environment variables because the AWS KMS key used is disabled. Check the Lambda function's KMS key settings.

HTTP Status Code: 502

**KMSInvalidStateException**

Lambda couldn't decrypt the environment variables because the state of the AWS KMS key used is not valid for Decrypt. Check the function's KMS key settings.

HTTP Status Code: 502

**KMSNotFoundException**

Lambda couldn't decrypt the environment variables because the AWS KMS key was not found. Check the function's KMS key settings.

HTTP Status Code: 502

**RecursiveInvocationException**

Lambda has detected your function being invoked in a recursive loop with other AWS resources and stopped your function's invocation.

HTTP Status Code: 400

**RequestTooLargeException**

The request payload exceeded the Invoke request body JSON input quota. For more information, see [Lambda quotas](https://docs.aws.amazon.com/lambda/latest/dg/limits.html).

HTTP Status Code: 413

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.
HTTP Status Code: 404

ResourceNotReadyException

The function is inactive and its VPC connection is no longer available. Wait for the VPC connection to reestablish and try again.

HTTP Status Code: 502

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

SnapStartException

The afterRestore() runtime hook encountered an error. For more information, check the Amazon CloudWatch logs.

HTTP Status Code: 400

SnapStartNotReadyException

Lambda is initializing your function. You can invoke the function when the function state becomes Active.

HTTP Status Code: 409

SnapStartTimeoutException

Lambda couldn't restore the snapshot within the timeout limit.

HTTP Status Code: 408

SubnetIPAddressLimitReachedException

AWS Lambda couldn't set up VPC access for the Lambda function because one or more configured subnets has no available IP addresses.

HTTP Status Code: 502

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429
UnsupportedMediaTypeException

The content type of the Invoke request body is not JSON.

HTTP Status Code: 415

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
InvokeAsync

This action has been deprecated.

⚠️ Important
For asynchronous function invocation, use **Invoke**.

Invokes a function asynchronously.

.generic-note

If you do use the InvokeAsync action, note that it doesn't support the use of X-Ray active tracing. Trace ID is not propagated to the function, even if X-Ray active tracing is turned on.

Request Syntax

POST /2014-11-13/functions/FunctionName/invoke-async/ HTTP/1.1

**InvokeArgs**

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?(\[a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-_.]+)(:($LATEST|[a-zA-Z0-9-_.]+))?

Required: Yes

Request Body

The request accepts the following binary data.

**InvokeArgs**

The JSON that you want to provide to your Lambda function as input.

Required: Yes

Response Syntax

HTTP/1.1 **Status**

Response Elements

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

**Status**

The status code.

Errors

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

**InvalidRequestContentException**

The request body could not be parsed as JSON.

HTTP Status Code: 400
InvalidRuntimeException

The runtime or runtime version specified is not supported.

HTTP Status Code: 502

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
InvokeWithResponseStream

Configure your Lambda functions to stream response payloads back to clients. For more information, see Configuring a Lambda function to stream responses.

This operation requires permission for the lambda:InvokeFunction action. For details on how to set up permissions for cross-account invocations, see Granting function access to other accounts.

Request Syntax

POST /2021-11-15/functions/FunctionName/response-streaming-invocations?
Qualifier=Qualifier HTTP/1.1
X-Amz-Invocation-Type: InvocationType
X-Amz-Log-Type: LogType
X-Amz-Client-Context: ClientContext

Payload

URI Request Parameters

The request uses the following URI parameters.

ClientContext

Up to 3,583 bytes of base64-encoded data about the invoking client to pass to the function in the context object.

FunctionName

The name or ARN of the Lambda function.

Name formats

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-_.]+)(:\$LATEST|[a-zA-Z0-9-_.]+))? Required: Yes

**InvocationType**

Use one of the following options:

- **RequestResponse (default)** – Invoke the function synchronously. Keep the connection open until the function returns a response or times out. The API operation response includes the function response and additional data.
- **DryRun** – Validate parameter values and verify that the IAM user or role has permission to invoke the function.

Valid Values: RequestResponse | DryRun

**LogType**

Set to Tail to include the execution log in the response. Applies to synchronously invoked functions only.

Valid Values: None | Tail

**Qualifier**

The alias name.


Pattern: ([a-zA-Z0-9-9$-_]+)

**Request Body**

The request accepts the following binary data.

**Payload**

The JSON that you want to provide to your Lambda function as input.

You can enter the JSON directly. For example, `--payload '{ "key": "value" }'`. You can also specify a file path. For example, `--payload file:///payload.json`. 
Response Syntax

HTTP/1.1  Status Code
X-Amz-Executed-Version: ExecutedVersion
Content-Type: ResponseStreamContentType
Content-type: application/json

{
  "InvokeComplete": {
    "ErrorCode": "string",
    "ErrorDetails": "string",
    "LogResult": "string"
  },
  "PayloadChunk": {
    "Payload": blob
  }
}

Response Elements

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

**StatusCode**

For a successful request, the HTTP status code is in the 200 range. For the RequestResponse invocation type, this status code is 200. For the DryRun invocation type, this status code is 204.

The response returns the following HTTP headers.

**ExecutedVersion**

The version of the function that executed. When you invoke a function with an alias, this indicates which version the alias resolved to.


   Pattern: (\$LATEST|\[0-9\]+)

**ResponseStreamContentType**

The type of data the stream is returning.
The following data is returned in JSON format by the service.

**InvokeComplete**

An object that's returned when the stream has ended and all the payload chunks have been returned.

Type: `InvokeWithResponseStreamCompleteEvent` object

**PayloadChunk**

A chunk of the streamed response payload.

Type: `InvokeResponseStreamUpdate` object

**Errors**

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

**EC2AccessDeniedException**

Need additional permissions to configure VPC settings.

HTTP Status Code: 502

**EC2ThrottledException**

Amazon EC2 throttled AWS Lambda during Lambda function initialization using the execution role provided for the function.

HTTP Status Code: 502

**EC2UnexpectedException**

AWS Lambda received an unexpected Amazon EC2 client exception while setting up for the Lambda function.

HTTP Status Code: 502

**EFSIOException**

An error occurred when reading from or writing to a connected file system.

HTTP Status Code: 410
EFSMountConnectivityException

The Lambda function couldn't make a network connection to the configured file system.

HTTP Status Code: 408

EFSMountFailureException

The Lambda function couldn't mount the configured file system due to a permission or configuration issue.

HTTP Status Code: 403

EFSMountTimeoutException

The Lambda function made a network connection to the configured file system, but the mount operation timed out.

HTTP Status Code: 408

ENILimitReachedException

AWS Lambda couldn't create an elastic network interface in the VPC, specified as part of Lambda function configuration, because the limit for network interfaces has been reached. For more information, see Lambda quotas.

HTTP Status Code: 502

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

InvalidRequestContentException

The request body could not be parsed as JSON.

HTTP Status Code: 400

InvalidRuntimeException

The runtime or runtime version specified is not supported.

HTTP Status Code: 502
InvalidSecurityGroupIDException

The security group ID provided in the Lambda function VPC configuration is not valid.

HTTP Status Code: 502

InvalidSubnetIDException

The subnet ID provided in the Lambda function VPC configuration is not valid.

HTTP Status Code: 502

InvalidZipFileException

AWS Lambda could not unzip the deployment package.

HTTP Status Code: 502

KMSAccessDeniedException

Lambda couldn't decrypt the environment variables because AWS KMS access was denied. Check the Lambda function's KMS permissions.

HTTP Status Code: 502

KMSDisabledException

Lambda couldn't decrypt the environment variables because the AWS KMS key used is disabled. Check the Lambda function's KMS key settings.

HTTP Status Code: 502

KMSInvalidStateException

Lambda couldn't decrypt the environment variables because the state of the AWS KMS key used is not valid for Decrypt. Check the function's KMS key settings.

HTTP Status Code: 502

KMSNotFoundException

Lambda couldn't decrypt the environment variables because the AWS KMS key was not found. Check the function's KMS key settings.

HTTP Status Code: 502
RecursiveInvocationException

Lambda has detected your function being invoked in a recursive loop with other AWS resources and stopped your function's invocation.

HTTP Status Code: 400

RequestTooLargeException

The request payload exceeded the Invoke request body JSON input quota. For more information, see [Lambda quotas](#).

HTTP Status Code: 413

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ResourceNotReadyException

The function is inactive and its VPC connection is no longer available. Wait for the VPC connection to reestablish and try again.

HTTP Status Code: 502

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

SnapStartException

The afterRestore() runtime hook encountered an error. For more information, check the Amazon CloudWatch logs.

HTTP Status Code: 400
SnapStartNotReadyException

Lambda is initializing your function. You can invoke the function when the function state becomes Active.

HTTP Status Code: 409

SnapStartTimeoutException

Lambda couldn't restore the snapshot within the timeout limit.

HTTP Status Code: 408

SubnetIPAddressLimitReachedException

AWS Lambda couldn't set up VPC access for the Lambda function because one or more configured subnets has no available IP addresses.

HTTP Status Code: 502

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

UnsupportedMediaTypeException

The content type of the Invoke request body is not JSON.

HTTP Status Code: 415

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 v2
- AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListAliases

Returns a list of aliases for a Lambda function.

Request Syntax

GET /2015-03-31/functions/FunctionName/aliases?
FunctionVersion=FunctionVersion&Marker=Marker&MaxItems=MaxItems HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

Name formats

- Function name - MyFunction.
- Partial ARN - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?(\d{12}:)?(function:)?([a-zA-Z0-9-_.]+)(:\$LATEST|[a-zA-Z0-9-_.]+)?)

Required: Yes

**FunctionVersion**

Specify a function version to only list aliases that invoke that version.


Pattern: (\$LATEST|[0-9]+)
Marker

Specify the pagination token that's returned by a previous request to retrieve the next page of results.

MaxItems

Limit the number of aliases returned.

Valid Range: Minimum value of 1. Maximum value of 10000.

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

```
{
    "Aliases": [
        {
            "AliasArn": "string",
            "Description": "string",
            "FunctionVersion": "string",
            "Name": "string",
            "RevisionId": "string",
            "RoutingConfig": {
                "AdditionalVersionWeights": {
                    "string": number
                }
            }
        },
        
    ],
    "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.
**Aliases**

A list of aliases.

Type: Array of `AliasConfiguration` objects

**NextMarker**

The pagination token that's included if more results are available.

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListCodeSigningConfigs

Returns a list of code signing configurations. A request returns up to 10,000 configurations per call. You can use the MaxItems parameter to return fewer configurations per call.

Request Syntax

GET /2020-04-22/code-signing-configs/?Marker=Marker&MaxItems=MaxItems HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**Marker**

Specify the pagination token that's returned by a previous request to retrieve the next page of results.

**MaxItems**

Maximum number of items to return.

Valid Range: Minimum value of 1. Maximum value of 10000.

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

```json
{
    "CodeSigningConfigs": [
        {
            "AllowedPublishers": {
                "SigningProfileVersionArns": [ "string" ]
            },
            "CodeSigningConfigArn": "string",
```
"CodeSigningConfigId": "string",
"CodeSigningPolicies": {
   "UntrustedArtifactOnDeployment": "string"
 },
"Description": "string",
"LastModified": "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.

**CodeSigningConfigs**

The code signing configurations

Type: Array of [CodeSigningConfig](https://docs.aws.amazon.com/lambda/latest/api/CodeSigningConfig) objects

**NextMarker**

The pagination token that's included if more results are available.

Type: String

Errors

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ServiceException**

The AWS Lambda service encountered an internal error.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
ListEventSourceMappings

Lists event source mappings. Specify an EventSourceArn to show only event source mappings for a single event source.

Request Syntax

GET /2015-03-31/event-source-mappings/?
EventSourceArn=EventSourceArn&FunctionName=FunctionName&Marker=Marker&MaxItems=MaxItems
HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**EventSourceArn**

The Amazon Resource Name (ARN) of the event source.

- **Amazon Kinesis** – The ARN of the data stream or a stream consumer.
- **Amazon DynamoDB Streams** – The ARN of the stream.
- **Amazon Simple Queue Service** – The ARN of the queue.
- **Amazon Managed Streaming for Apache Kafka** – The ARN of the cluster or the ARN of the VPC connection (for cross-account event source mappings).
- **Amazon MQ** – The ARN of the broker.
- **Amazon DocumentDB** – The ARN of the DocumentDB change stream.

Pattern: arn:(aws[a-zA-Z0-9-]*):([a-zA-Z0-9\-])+([a-zA-Z]{2}(-gov)?-[a-zA-Z]+-[d]{1})?:(\d{12})?:(.*)

**FunctionName**

The name or ARN of the Lambda function.

Name formats

- **Function name** – MyFunction.
- **Partial ARN** – `123456789012:function:MyFunction`.

  The length constraint applies only to the full ARN. If you specify only the function name, it's limited to 64 characters in length.

  Length Constraints: Minimum length of 1. Maximum length of 140.

  Pattern: `(arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}::)?(\d{12}::)?(function:)?([a-zA-Z0-9-9-]+)+(:($\LATEST|a-zA-Z0-9-9-]+))?

**Marker**

A pagination token returned by a previous call.

**MaxItems**

The maximum number of event source mappings to return. Note that ListEventSourceMappings returns a maximum of 100 items in each response, even if you set the number higher.

Valid Range: Minimum value of 1. Maximum value of 10000.

**Request Body**

The request does not have a request body.

**Response Syntax**

```json
HTTP/1.1 200
Content-type: application/json

{
    "EventSourceMappings": [
        {
            "AmazonManagedKafkaEventSourceConfig": {
                "ConsumerGroupId": "string"
            },
            "BatchSize": number,
            "BisectBatchOnFunctionError": boolean,
            "DestinationConfig": {
                "OnFailure": {
                    "Destination": "string"
                },
                "OnSuccess": {
                    "Destination": "string"
                }
            }
        }
    ]
}
```
"DocumentDBEventSourceConfig": {
  "CollectionName": "string",
  "DatabaseName": "string",
  "FullDocument": "string"
},
"EventSourceArn": "string",
"FilterCriteria": {
  "Filters": [
    {
      "Pattern": "string"
    }
  ]
},
"FunctionArn": "string",
"FunctionResponseTypes": [ "string" ],
"LastModified": number,
"LastProcessingResult": "string",
"MaximumBatchingWindowInSeconds": number,
"MaximumRecordAgeInSeconds": number,
"MaximumRetryAttempts": number,
"ParallelizationFactor": number,
"Queues": [ "string" ],
"ScalingConfig": {
  "MaximumConcurrency": number
},
"SelfManagedEventSource": {
  "Endpoints": {
    "string": [ "string" ]
  }
},
"SelfManagedKafkaEventSourceConfig": {
  "ConsumerGroupId": "string"
},
"SourceAccessConfigurations": [ {
    "Type": "string",
    "URI": "string"
  }
],
"StartingPosition": "string",
"StartingPositionTimestamp": number,
"State": "string",
"StateTransitionReason": "string",
"Topics": [ "string" ],
"TumblingWindowInSeconds": number,
"UUID": "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.

EventSourceMappings

A list of event source mappings.

Type: Array of EventSourceMappingConfiguration objects

NextMarker

A pagination token that's returned when the response doesn't contain all event source mappings.

Type: String

Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404
**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
ListFunctionEventInvokeConfigs

Retrieves a list of configurations for asynchronous invocation for a function.

To configure options for asynchronous invocation, use [PutFunctionEventInvokeConfig](#).

**Request Syntax**

```
GET /2019-09-25/functions/FunctionName/event-invoke-config/list?
Marker=Marker&MaxItems=MaxItems HTTP/1.1
```

**URI Request Parameters**

The request uses the following URI parameters.

- **FunctionName**
  
  The name or ARN of the Lambda function.
  
  **Name formats**
  
  - **Function name** - my-function.
  - **Partial ARN** - 123456789012:function:my-function.

  The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

  **Length Constraints:**
  
  Minimum length of 1. Maximum length of 140.

  **Pattern:**
  
  (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z\-Z0-9\_]+)(:\$LATEST|[a-zA-Z\-Z0-9\_]+)?

  **Required:** Yes

- **Marker**
  
  Specify the pagination token that's returned by a previous request to retrieve the next page of results.

- **MaxItems**
  
  The maximum number of configurations to return.

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
    "FunctionEventInvokeConfigs": [
    {
        "DestinationConfig": {
            "OnFailure": {
                "Destination": "string"
            },
            "OnSuccess": {
                "Destination": "string"
            }
        },
        "FunctionArn": "string",
        "LastModified": number,
        "MaximumEventAgeInSeconds": number,
        "MaximumRetryAttempts": number
    }
    ],
    "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.

FunctionEventInvokeConfigs

A list of configurations.

Type: Array of FunctionEventInvokeConfig objects
NextMarker

The pagination token that's included if more results are available.

Type: String

Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

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 v2
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListFunctions

Returns a list of Lambda functions, with the version-specific configuration of each. Lambda returns up to 50 functions per call.

Set FunctionVersion to ALL to include all published versions of each function in addition to the unpublished version.

ℹ️ Note

The ListFunctions operation returns a subset of the FunctionConfiguration fields. To get the additional fields (State, StateReasonCode, StateReason, LastUpdateStatus, LastUpdateStatusReason, LastUpdateStatusReasonCode, RuntimeVersionConfig) for a function or version, use GetFunction.

Request Syntax

GET /2015-03-31/functions/?
FunctionVersion=FunctionVersion&Marker=Marker&MasterRegion=MasterRegion&MaxItems=MaxItems
HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**FunctionVersion**

Set to ALL to include entries for all published versions of each function.

Valid Values: ALL

**Marker**

Specify the pagination token that's returned by a previous request to retrieve the next page of results.

**MasterRegion**

For Lambda@Edge functions, the AWS Region of the master function. For example, us-east-1 filters the list of functions to include only Lambda@Edge functions replicated from a master function in US East (N. Virginia). If specified, you must set FunctionVersion to ALL.
Pattern: ALL|[a-z]{2}(-gov)?-[a-z]+-\d{1}

MaxItems

The maximum number of functions to return in the response. Note that ListFunctions returns a maximum of 50 items in each response, even if you set the number higher.

Valid Range: Minimum value of 1. Maximum value of 10000.

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
   "Functions": [ 
   {
      "Architectures": [ "string" ],
      "CodeSha256": "string",
      "CodeSize": number,
      "DeadLetterConfig": {
         "TargetArn": "string"
      },
      "Description": "string",
      "Environment": {
         "Error": {
            "ErrorCode": "string",
            "Message": "string"
         },
         "Variables": {
            "string": "string"
         }
      }
   },
   "EphemeralStorage": {
      "Size": number
   },
   "FileSystemConfigs": [ 
      {
         "Arn": "string",
      }
   ]
}
"LocalMountPath": "string",
],
"FunctionArn": "string",
"FunctionName": "string",
"Handler": "string",
"ImageConfigResponse": {
  "Error": {
    "ErrorCode": "string",
    "Message": "string"
  },
  "ImageConfig": {
    "Command": [ "string" ],
    "EntryPoint": [ "string" ],
    "WorkingDirectory": "string"
  }
},
"KMSKeyArn": "string",
"LastModified": "string",
"LastUpdateStatus": "string",
"LastUpdateStatusReason": "string",
"LastUpdateStatusReasonCode": "string",
"Layers": [
  {
    "Arn": "string",
    "CodeSize": number,
    "SigningJobArn": "string",
    "SigningProfileVersionArn": "string"
  }
],
"LoggingConfig": {
  "ApplicationLogLevel": "string",
  "LogFormat": "string",
  "LogGroup": "string",
  "SystemLogLevel": "string"
},
"MasterArn": "string",
"MemorySize": number,
"PackageType": "string",
"RevisionId": "string",
"Role": "string",
"Runtime": "string",
"RuntimeVersionConfig": {
  "Error": {
  
}
"ErrorCode": "string",
"Message": "string"
},
"RuntimeVersionArn": "string"
},
"SigningJobArn": "string",
"SigningProfileVersionArn": "string",
"SnapStart": {
  "ApplyOn": "string",
  "OptimizationStatus": "string"
},
"State": "string",
"StateReason": "string",
"StateReasonCode": "string",
"Timeout": number,
"TracingConfig": {
  "Mode": "string"
},
"Version": "string",
"VpcConfig": {
  "Ipv6AllowedForDualStack": boolean,
  "SecurityGroupIds": [ "string" ],
  "SubnetIds": [ "string" ],
  "VpcId": "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.

**Functions**

A list of Lambda functions.

Type: Array of [FunctionConfiguration objects](#)
**NextMarker**

The pagination token that's included if more results are available.

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
See Also

- AWS SDK for Python
- AWS SDK for Ruby V3
ListFunctionsByCodeSigningConfig

List the functions that use the specified code signing configuration. You can use this method prior to deleting a code signing configuration, to verify that no functions are using it.

**Request Syntax**

```
GET /2020-04-22/code-signing-configs/CodeSigningConfigArn/functions?
Marker=Marker&MaxItems=MaxItems HTTP/1.1
```

**URI Request Parameters**

The request uses the following URI parameters.

- **CodeSigningConfigArn**
  
  The The Amazon Resource Name (ARN) of the code signing configuration.

  Length Constraints: Maximum length of 200.

  Pattern: arn:(aws[a-zA-Z-]*):lambda:[a-z][2]((-gov)|(-iso(b?)))?-[a-z]+-
  \d{1}:\d{12}:code-signing-config:csc-[a-z0-9]{17}

  Required: Yes

- **Marker**

  Specify the pagination token that's returned by a previous request to retrieve the next page of results.

- **MaxItems**

  Maximum number of items to return.

  Valid Range: Minimum value of 1. Maximum value of 10000.

**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 200
```
Content-type: application/json

{
    "FunctionArns": [ "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.

**FunctionArns**

The function ARNs.

Type: Array of strings

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:
\d{12}:function:[a-zA-Z0-9-\-_]+(:($LATEST|[a-zA-Z0-9-\-_]+))? 

**NextMarker**

The pagination token that's included if more results are available.

Type: String

Errors

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404
ServiceException

The AWS Lambda service encountered an internal error.

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListFunctionUrlConfigs

Returns a list of Lambda function URLs for the specified function.

Request Syntax

GET /2021-10-31/functions/FunctionName/urls?Marker=Marker&MaxItems=MaxItems HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*):lambda:)?([a-zA-Z]{2}(-gov)?-[a-zA-Z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-_]*)((\$LATEST|[a-zA-Z0-9-_]\+))?

Required: Yes

**Marker**

Specify the pagination token that's returned by a previous request to retrieve the next page of results.

**MaxItems**

The maximum number of function URLs to return in the response. Note that ListFunctionUrlConfigs returns a maximum of 50 items in each response, even if you set the number higher.

**Request Body**

The request does not have a request body.

**Response Syntax**

```json
HTTP/1.1 200
Content-type: application/json

{
    "FunctionUrlConfigs": [
        {
            "AuthType": "string",
            "Cors": {
                "AllowCredentials": boolean,
                "AllowHeaders": [ "string" ],
                "AllowMethods": [ "string" ],
                "AllowOrigins": [ "string" ],
                "ExposeHeaders": [ "string" ],
                "MaxAge": number
            },
            "CreationTime": "string",
            "FunctionArn": "string",
            "FunctionUrl": "string",
            "InvokeMode": "string",
            "LastModifiedTime": "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.

**FunctionUrlConfigs**

A list of function URL configurations.
Type: Array of FunctionUrlConfig objects

**NextMarker**

The pagination token that’s included if more results are available.

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListLayers

Lists AWS Lambda layers and shows information about the latest version of each. Specify a runtime identifier to list only layers that indicate that they're compatible with that runtime. Specify a compatible architecture to include only layers that are compatible with that instruction set architecture.

Request Syntax

GET /2018-10-31/layers?
CompatibleArchitecture=CompatibleArchitecture&CompatibleRuntime=CompatibleRuntime&Marker=Marker
HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

CompatibleArchitecture

The compatible instruction set architecture.

Valid Values: x86_64 | arm64

CompatibleRuntime

A runtime identifier.

The following list includes deprecated runtimes. For more information, see Runtime use after deprecation.

For a list of all currently supported runtimes, see Supported runtimes.

Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 | dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided | provided.al2 | nodejs18.x | python3.10 | java17 | ruby3.2 | python3.11 | nodejs20.x | provided.al2023 | python3.12 | java21
**Marker**

A pagination token returned by a previous call.

**MaxItems**

The maximum number of layers to return.


**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 200
Content-type: application/json

{
  "Layers": [
    {
      "LatestMatchingVersion": {
        "CompatibleArchitectures": [ "string" ],
        "CompatibleRuntimes": [ "string" ],
        "CreatedDate": "string",
        "Description": "string",
        "LayerVersionArn": "string",
        "LicenseInfo": "string",
        "Version": number
      },
      "LayerArn": "string",
      "LayerName": "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.

**Layers**

A list of function layers.

Type: Array of `LayersListItem` objects

**NextMarker**

A pagination token returned when the response doesn't contain all layers.

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListLayerVersions

Lists the versions of an AWS Lambda layer. Versions that have been deleted aren't listed. Specify a runtime identifier to list only versions that indicate that they're compatible with that runtime. Specify a compatible architecture to include only layer versions that are compatible with that architecture.

Request Syntax

GET /2018-10-31/layers/LayerName/versions?
CompatibleArchitecture=CompatibleArchitecture&CompatibleRuntime=CompatibleRuntime&Marker=Marker
HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

CompatibleArchitecture

The compatible instruction set architecture.

Valid Values: x86_64  |  arm64

CompatibleRuntime

A runtime identifier.

The following list includes deprecated runtimes. For more information, see Runtime use after deprecation.

For a list of all currently supported runtimes, see Supported runtimes.

Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 | dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided | provided.al2 | nodejs18.x | python3.10 | java17 | ruby3.2 | python3.11 | nodejs20.x | provided.al2023 | python3.12 | java21
LayerName

The name or Amazon Resource Name (ARN) of the layer.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-\_]+)|[a-zA-Z0-9-\_]+)

Required: Yes

Marker

A pagination token returned by a previous call.

MaxItems

The maximum number of versions to return.


Request Body

The request does not have a request body.

Response Syntax

```json
HTTP/1.1 200
Content-type: application/json

{
   "LayerVersions": [
      {
         "CompatibleArchitectures": [ "string" ],
         "CompatibleRuntimes": [ "string" ],
         "CreatedDate": "string",
         "Description": "string",
         "LayerVersionArn": "string",
         "LicenseInfo": "string",
         "Version": number
      }
   ],
   "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.

**LayerVersions**

A list of versions.

Type: Array of `LayerVersionsListItem` objects

**NextMarker**

A pagination token returned when the response doesn't contain all versions.

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).
HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListProvisionedConcurrencyConfigs

Retrieves a list of provisioned concurrency configurations for a function.

Request Syntax

```
GET /2019-09-30/functions/FunctionName/provisioned-concurrency?
List=ALL&Marker=Marker&MaxItems=MaxItems HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

Name formats

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-]+)(:(\$LATEST|[a-zA-Z0-9-]+))?(

Required: Yes

**Marker**

Specify the pagination token that's returned by a previous request to retrieve the next page of results.

**MaxItems**

Specify a number to limit the number of configurations returned.

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
    "NextMarker": "string",
    "ProvisionedConcurrencyConfigs": [
        {
            "AllocatedProvisionedConcurrentExecutions": number,
            "AvailableProvisionedConcurrentExecutions": number,
            "FunctionArn": "string",
            "LastModified": "string",
            "RequestedProvisionedConcurrentExecutions": number,
            "Status": "string",
            "StatusReason": "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

The pagination token that's included if more results are available.

Type: String

ProvisionedConcurrencyConfigs

A list of provisioned concurrency configurations.
Type: Array of `ProvisionedConcurrencyConfigListItem` objects

Errors

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListTags

Returns a function's tags. You can also view tags with GetFunction.

Request Syntax

GET /2017-03-31/tags/ARN HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

ARN

The function's Amazon Resource Name (ARN). Note: Lambda does not support adding tags to aliases or versions.

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]++-\d{1}:\d{12}:function:[a-zA-Z0-9-9-__]+(:($LATEST|[a-zA-Z0-9-9-__]+))? Required: Yes

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
   "Tags": {
      "string" : "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.

**Tags**

The function's tags.

Type: String to string map

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListVersionsByFunction

Returns a list of versions, with the version-specific configuration of each. Lambda returns up to 50 versions per call.

Request Syntax

```
GET /2015-03-31/functions/FunctionName/versions?Marker=Marker&MaxItems=MaxItems
HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

Name formats

- **Function name** - MyFunction.
- **Partial ARN** - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.


Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\._]+)(:\($LATEST|[a-zA-Z0-9-\._]+\))?

Required: Yes

**Marker**

Specify the pagination token that's returned by a previous request to retrieve the next page of results.

**MaxItems**

The maximum number of versions to return. Note that ListVersionsByFunction returns a maximum of 50 items in each response, even if you set the number higher.
Valid Range: Minimum value of 1. Maximum value of 10000.

**Request Body**

The request does not have a request body.

**Response Syntax**

HTTP/1.1 200
Content-type: application/json

```json
{
    "NextMarker": "string",
    "Versions": [
        {
            "Architectures": [ "string" ],
            "CodeSha256": "string",
            "CodeSize": number,
            "DeadLetterConfig": {
                "TargetArn": "string"
            },
            "Description": "string",
            "Environment": {
                "Error": {
                    "ErrorCode": "string",
                    "Message": "string"
                },
                "Variables": {
                    "string": "string"
                }
            },
            "EphemeralStorage": {
                "Size": number
            },
            "FileSystemConfigs": [
                {
                    "Arn": "string",
                    "LocalMountPath": "string"
                }
            ],
            "FunctionArn": "string",
            "FunctionName": "string",
        }
    ]
}
```
"Handler": "string",
"ImageConfigResponse": {
    "Error": {
        "ErrorCode": "string",
        "Message": "string"
    },
    "ImageConfig": {
        "Command": [ "string" ],
        "EntryPoint": [ "string" ],
        "WorkingDirectory": "string"
    }
},
"KMSKeyArn": "string",
"LastModified": "string",
"LastUpdateStatus": "string",
"LastUpdateStatusReason": "string",
"LastUpdateStatusReasonCode": "string",
"Layers": [
    {
        "Arn": "string",
        "CodeSize": number,
        "SigningJobArn": "string",
        "SigningProfileVersionArn": "string"
    }
],
"LoggingConfig": {
    "ApplicationLogLevel": "string",
    "LogFormat": "string",
    "LogGroup": "string",
    "SystemLogLevel": "string"
},
"MasterArn": "string",
"MemorySize": number,
"PackageType": "string",
"RevisionId": "string",
"Role": "string",
"Runtime": "string",
"RuntimeVersionConfig": {
    "Error": {
        "ErrorCode": "string",
        "Message": "string"
    },
    "RuntimeVersionArn": "string"
},
"ResponseSyntax": "API Version 2015-03-31"
"SigningJobArn": "string",
"SigningProfileVersionArn": "string",
"SnapStart": {
    "ApplyOn": "string",
    "OptimizationStatus": "string"
},
"State": "string",
"StateReason": "string",
"StateReasonCode": "string",
"Timeout": number,
"TracingConfig": {
    "Mode": "string"
},
"Version": "string",
"VpcConfig": {
    "Ipv6AllowedForDualStack": boolean,
    "SecurityGroupIds": [ "string" ],
    "SubnetIds": [ "string" ],
    "VpcId": "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**

The pagination token that's included if more results are available.

Type: String

**Versions**

A list of Lambda function versions.

Type: Array of [FunctionConfiguration](#) objects
Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
• AWS SDK for Ruby V3
PublishLayerVersion

Creates an AWS Lambda layer from a ZIP archive. Each time you call PublishLayerVersion with the same layer name, a new version is created.

Add layers to your function with CreateFunction or UpdateFunctionConfiguration.

Request Syntax

POST /2018-10-31/layers/{LayerName}/versions HTTP/1.1
Content-type: application/json

{
    "CompatibleArchitectures": [ "string" ],
    "CompatibleRuntimes": [ "string" ],
    "Content": {
        "S3Bucket": "string",
        "S3Key": "string",
        "S3ObjectVersion": "string",
        "ZipFile": "blob"
    },
    "Description": "string",
    "LicenseInfo": "string"
}

URI Request Parameters

The request uses the following URI parameters.

LayerName

The name or Amazon Resource Name (ARN) of the layer.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d[12]:layer:[a-zA-Z0-9-_.]+) | [a-zA-Z0-9-_.]+

Required: Yes
**Request Body**

The request accepts the following data in JSON format.

**CompatibleArchitectures**

A list of compatible instruction set architectures.

Type: Array of strings

Array Members: Maximum number of 2 items.

Valid Values: x86_64 | arm64

Required: No

**CompatibleRuntimes**

A list of compatible function runtimes. Used for filtering with ListLayers and ListLayerVersions.

The following list includes deprecated runtimes. For more information, see [Runtime deprecation policy](#).

Type: Array of strings

Array Members: Maximum number of 15 items.

Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 | dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided | provided.al2 | nodejs18.x | python3.10 | java17 | ruby3.2 | python3.11 | nodejs20.x | provided.al2023 | python3.12 | java21

Required: No

**Content**

The function layer archive.

Type: [LayerVersionContentInput](#) object

Required: Yes
Description

The description of the version.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

LicenseInfo

The layer's software license. It can be any of the following:

- An SPDX license identifier. For example, MIT.
- The URL of a license hosted on the internet. For example, https://opensource.org/licenses/MIT.
- The full text of the license.

Type: String

Length Constraints: Maximum length of 512.

Required: No

Response Syntax

HTTP/1.1 201
Content-type: application/json

{
  "CompatibleArchitectures": [ "string" ],
  "CompatibleRuntimes": [ "string" ],
  "Content": {
    "CodeSha256": "string",
    "CodeSize": number,
    "Location": "string",
    "SigningJobArn": "string",
    "SigningProfileVersionArn": "string"
  },
  "CreatedDate": "string",
  "Description": "string",
}
"LayerArn": "string",
"LayerVersionArn": "string",
"LicenseInfo": "string",
"Version": number
}

Response Elements

If the action is successful, the service sends back an HTTP 201 response.

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

**CompatibleArchitectures**

A list of compatible instruction set architectures.

Type: Array of strings

Array Members: Maximum number of 2 items.

Valid Values: x86_64  |  arm64

**CompatibleRuntimes**

The layer's compatible runtimes.

The following list includes deprecated runtimes. For more information, see [Runtime use after deprecation](#).

For a list of all currently supported runtimes, see [Supported runtimes](#).

Type: Array of strings

Array Members: Maximum number of 15 items.

Valid Values: nodejs  |  nodejs4.3  |  nodejs6.10  |  nodejs8.10  |  nodejs10.x  |  nodejs12.x  |  nodejs14.x  |  nodejs16.x  |  java8  |  java8.al2  |  java11  |  python2.7  |  python3.6  |  python3.7  |  python3.8  |  python3.9  |  dotnetcore1.0  |  dotnetcore2.0  |  dotnetcore2.1  |  dotnetcore3.1  |  dotnet6  |  dotnet8  |  nodejs4.3-edge  |  go1.x  |  ruby2.5  |  ruby2.7  |  provided  |  provided.al2  |  nodejs18.x  |  python3.10  |  java17  |  ruby3.2  |  python3.11  |  nodejs20.x  |  provided.al2023  |  python3.12  |  java21
Content

Details about the layer version.

Type: LayerVersionContentOutput object

CreatedDate

The date that the layer version was created, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

Description

The description of the version.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

LayerArn

The ARN of the layer.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-]+_

LayerVersionArn

The ARN of the layer version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-][0-9]+

LicenseInfo

The layer's software license.
Type: String

Length Constraints: Maximum length of 512.

Version

The version number.

Type: Long

Errors

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

CodeStorageExceededException

Your AWS account has exceeded its maximum total code size. For more information, see Lambda quotas.

HTTP Status Code: 400

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429
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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
PublishVersion

Creates a version from the current code and configuration of a function. Use versions to create a snapshot of your function code and configuration that doesn't change.

AWS Lambda doesn't publish a version if the function's configuration and code haven't changed since the last version. Use UpdateFunctionCode or UpdateFunctionConfiguration to update the function before publishing a version.

Clients can invoke versions directly or with an alias. To create an alias, use CreateAlias.

Request Syntax

POST /2015-03-31/functions/FunctionName/versions HTTP/1.1
Content-type: application/json

```json
{
    "CodeSha256": "string",
    "Description": "string",
    "RevisionId": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** - MyFunction.
- **Partial ARN** - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.
**Request Body**

The request accepts the following data in JSON format.

**CodeSha256**

Only publish a version if the hash value matches the value that's specified. Use this option to avoid publishing a version if the function code has changed since you last updated it. You can get the hash for the version that you uploaded from the output of [UpdateFunctionCode](https://docs.aws.amazon.com/lambda/latest/dg/API_UpdateFunctionCode.html).

Type: String

Required: No

**Description**

A description for the version to override the description in the function configuration.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

**RevisionId**

Only update the function if the revision ID matches the ID that's specified. Use this option to avoid publishing a version if the function configuration has changed since you last updated it.

Type: String

Required: No

**Response Syntax**

```
HTTP/1.1 201
Content-type: application/json
```
```json
{
    "Architectures": [ "string" ],
    "CodeSha256": "string",
    "CodeSize": number,
    "DeadLetterConfig": {
        "TargetArn": "string"
    },
    "Description": "string",
    "Environment": {
        "Error": {
            "ErrorCode": "string",
            "Message": "string"
        },
        "Variables": {
            "string": "string"
        }
    },
    "EphemeralStorage": {
        "Size": number
    },
    "FileSystemConfigs": [
        {
            "Arn": "string",
            "LocalMountPath": "string"
        }
    ],
    "FunctionArn": "string",
    "FunctionName": "string",
    "Handler": "string",
    "ImageConfigResponse": {
        "Error": {
            "ErrorCode": "string",
            "Message": "string"
        },
        "ImageConfig": {
            "Command": [ "string" ],
            "EntryPoint": [ "string" ],
            "WorkingDirectory": "string"
        }
    },
    "KMSKeyArn": "string",
    "LastModified": "string",
    "LastUpdateStatus": "string",
    "LastUpdateStatusReason": "string"
}
```
"LastUpdateStatusReasonCode": "string",
"Layers": [
  {
    "Arn": "string",
    "CodeSize": number,
    "SigningJobArn": "string",
    "SigningProfileVersionArn": "string"
  }
],
"LoggingConfig": {
  "ApplicationLogLevel": "string",
  "LogFormat": "string",
  "LogGroup": "string",
  "SystemLogLevel": "string"
},
"MasterArn": "string",
"MemorySize": number,
"PackageType": "string",
"RevisionId": "string",
"Role": "string",
"Runtime": "string",
"RuntimeVersionConfig": {
  "Error": {
    "ErrorCode": "string",
    "Message": "string"
  },
  "RuntimeVersionArn": "string"
},
"SigningJobArn": "string",
"SigningProfileVersionArn": "string",
"SnapStart": {
  "ApplyOn": "string",
  "OptimizationStatus": "string"
},
"State": "string",
"StateReason": "string",
"StateReasonCode": "string",
"Timeout": number,
"TracingConfig": {
  "Mode": "string"
},
"Version": "string",
"VpcConfig": {
  "Ipv6AllowedForDualStack": boolean,
"SecurityGroupIds": [ "string" ],
"SubnetIds": [ "string" ],
"VpcId": "string"
}
}

**Response Elements**

If the action is successful, the service sends back an HTTP 201 response.

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

**Architectures**

The instruction set architecture that the function supports. Architecture is a string array with one of the valid values. The default architecture value is `x86_64`.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `x86_64` | `arm64`

**CodeSha256**

The SHA256 hash of the function's deployment package.

Type: String

**CodeSize**

The size of the function's deployment package, in bytes.

Type: Long

**DeadLetterConfig**

The function's dead letter queue.

Type: `DeadLetterConfig` object

**Description**

The function's description.
Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

**Environment**

The function's environment variables. Omitted from AWS CloudTrail logs.

Type: EnvironmentResponse object

**EphemeralStorage**

The size of the function's /tmp directory in MB. The default value is 512, but can be any whole number between 512 and 10,240 MB. For more information, see Configuring ephemeral storage (console).

Type: EphemeralStorage object

**FileSystemConfigs**

Connection settings for an Amazon EFS file system.

Type: Array of FileSystemConfig objects

Array Members: Maximum number of 1 item.

**FunctionArn**

The function's Amazon Resource Name (ARN).

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-_.]+(:($LATEST|[a-zA-Z0-9-_.]+))? 

**FunctionName**

The name of the function.

Type: String


Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-_.]+):(:($LATEST|[a-zA-Z0-9-_.]+))?
**Handler**

The function that Lambda calls to begin running your function.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[^\s]+`

**ImageConfigResponse**

The function's image configuration values.

Type: `ImageConfigResponse` object

**KMSKeyArn**

The AWS KMS key that's used to encrypt the function's environment variables. When Lambda SnapStart is activated, this key is also used to encrypt the function's snapshot. This key is returned only if you've configured a customer managed key.

Type: String

Pattern: `(arn:(aws[a-zA-Z-]*)?:[a-zA-Z0-9-]+:.*|())`

**LastModified**

The date and time that the function was last updated, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

**LastUpdateStatus**

The status of the last update that was performed on the function. This is first set to Successful after function creation completes.

Type: String

Valid Values: Successful | Failed | InProgress

**LastUpdateStatusReason**

The reason for the last update that was performed on the function.
Type: String

**LastUpdateStatusReasonCode**

The reason code for the last update that was performed on the function.

Type: String


**Layers**

The function's layers.

Type: Array of [Layer](#) objects

**LoggingConfig**

The function's Amazon CloudWatch Logs configuration settings.

Type: [LoggingConfig](#) object

**MasterArn**

For Lambda@Edge functions, the ARN of the main function.

Type: String

Pattern: arn:(aws[a-zA-Z-]*):lambda:a-z\{2\}(-gov)?-[a-z]+-\d\{1\}: \d\{12\}:function:a-zA-Z0-9-\d*:(:($LATEST|[a-zA-Z0-9-\d*])?)

**MemorySize**

The amount of memory available to the function at runtime.

Type: Integer

**PackageType**

The type of deployment package. Set to Image for container image and set Zip for .zip file archive.

Type: String

Valid Values: Zip | Image

**RevisionId**

The latest updated revision of the function or alias.

Type: String

**Role**

The function's execution role.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@-_/*]+

**Runtime**

The identifier of the function's runtime. Runtime is required if the deployment package is a .zip file archive. Specifying a runtime results in an error if you're deploying a function using a container image.

The following list includes deprecated runtimes. Lambda blocks creating new functions and updating existing functions shortly after each runtime is deprecated. For more information, see Runtime use after deprecation.

For a list of all currently supported runtimes, see Supported runtimes.

Type: String

Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 | dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided | provided.al2 | nodejs18.x | python3.10 | java17 | ruby3.2 | python3.11 | nodejs20.x | provided.al2023 | python3.12 | java21
**RuntimeVersionConfig**

The ARN of the runtime and any errors that occurred.

Type: `RuntimeVersionConfig` object

**SigningJobArn**

The ARN of the signing job.

Type: String

Pattern: `arn:(aws[a-zA-Z0-9-]*):(([a-zA-Z0-9\-]+):([a-zA-Z]{2}(-gov)?-[a-zA-Z]+-\d{1})?:(\d{12})?:(.*)`  

**SigningProfileVersionArn**

The ARN of the signing profile version.

Type: String

Pattern: `arn:(aws[a-zA-Z0-9-]*):(([a-zA-Z0-9\-]+):([a-zA-Z]{2}(-gov)?-[a-zA-Z]+-\d{1})?:(\d{12})?:(.*)`  

**SnapStart**

Set `ApplyOn` to `PublishedVersions` to create a snapshot of the initialized execution environment when you publish a function version. For more information, see [Improving startup performance with Lambda SnapStart](#).

Type: `SnapStartResponse` object

**State**

The current state of the function. When the state is `Inactive`, you can reactivate the function by invoking it.

Type: String

Valid Values: Pending | Active | Inactive | Failed

**StateReason**

The reason for the function's current state.

Type: String
**StateReasonCode**

The reason code for the function's current state. When the code is Creating, you can't invoke or modify the function.

Type: String


**Timeout**

The amount of time in seconds that Lambda allows a function to run before stopping it.

Type: Integer

Valid Range: Minimum value of 1.

**TracingConfig**

The function's AWS X-Ray tracing configuration.

Type: **TracingConfigResponse** object

**Version**

The version of the Lambda function.

Type: String


Pattern: (\$LATEST|[0-9]+)

**VpcConfig**

The function's networking configuration.

Type: **VpcConfigResponse** object
Errors

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

**CodeStorageExceededException**

Your AWS account has exceeded its maximum total code size. For more information, see Lambda quotas.

HTTP Status Code: 400

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**PreconditionFailedException**

The RevisionId provided does not match the latest RevisionId for the Lambda function or alias. Call the GetFunction or the GetAlias API operation to retrieve the latest RevisionId for your resource.

HTTP Status Code: 412

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see Lambda quotas.
HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
PutFunctionCodeSigningConfig

Update the code signing configuration for the function. Changes to the code signing configuration take effect the next time a user tries to deploy a code package to the function.

Request Syntax

PUT /2020-06-30/functions/FunctionName/code-signing-config HTTP/1.1
Content-type: application/json

{
   "CodeSigningConfigArn": "string"
}

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** - MyFunction.
- **Partial ARN** - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*):lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-_]+)(:\$LATEST|[a-zA-Z0-9-_]+)?)

Required: Yes

Request Body

The request accepts the following data in JSON format.
CodeSigningConfigArn

The Amazon Resource Name (ARN) of the code signing configuration.

Type: String

Length Constraints: Maximum length of 200.

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}((-gov)|(-iso(b?)))?-[a-z]+-\d{1}:\d{12}:code-signing-config:csc-[a-z0-9]{17}

Required: Yes

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
    "CodeSigningConfigArn": "string",
    "FunctionName": "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.

CodeSigningConfigArn

The Amazon Resource Name (ARN) of the code signing configuration.

Type: String

Length Constraints: Maximum length of 200.

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}((-gov)|(-iso(b?)))?-[a-z]+-\d{1}:\d{12}:code-signing-config:csc-[a-z0-9]{17}

FunctionName

The name or ARN of the Lambda function.
Name formats

- **Function name** - MyFunction.
- **Partial ARN** - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\_]+)(:(\$LATEST|[a-zA-Z0-9-\_]+))?

Errors

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

**CodeSigningConfigNotFoundException**

The specified code signing configuration does not exist.

HTTP Status Code: 404

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404
**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
PutFunctionConcurrency

Sets the maximum number of simultaneous executions for a function, and reserves capacity for that concurrency level.

Concurrency settings apply to the function as a whole, including all published versions and the unpublished version. Reserving concurrency both ensures that your function has capacity to process the specified number of events simultaneously, and prevents it from scaling beyond that level. Use GetFunction to see the current setting for a function.

Use GetAccountSettings to see your Regional concurrency limit. You can reserve concurrency for as many functions as you like, as long as you leave at least 100 simultaneous executions unreserved for functions that aren't configured with a per-function limit. For more information, see Lambda function scaling.

Request Syntax

PUT /2017-10-31/functions/FunctionName/concurrency HTTP/1.1
Content-type: application/json

{  
  "ReservedConcurrentExecutions": number
}

URI Request Parameters

The request uses the following URI parameters.

FunctionName

The name or ARN of the Lambda function.

Name formats

• Function name – my-function.
• Partial ARN – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.
Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:([a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-?[a-z]+-\d{1}:)((\d{12}:)?(function:)?([a-zA-Z0-9-_]+)(:(\$LATEST|[a-zA-Z0-9-_]++))?)

Required: Yes

Request Body

The request accepts the following data in JSON format.

**ReservedConcurrentExecutions**

The number of simultaneous executions to reserve for the function.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

Response Syntax

HTTP/1.1 200
Content-type: application/json

```json
{
   "ReservedConcurrentExecutions": 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.

**ReservedConcurrentExecutions**

The number of concurrent executions that are reserved for this function. For more information, see [Managing Lambda reserved concurrency](#).
Type: Integer

Valid Range: Minimum value of 0.

Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
PutFunctionEventInvokeConfig

Configures options for asynchronous invocation on a function, version, or alias. If a configuration already exists for a function, version, or alias, this operation overwrites it. If you exclude any settings, they are removed. To set one option without affecting existing settings for other options, use UpdateFunctionEventInvokeConfig.

By default, Lambda retries an asynchronous invocation twice if the function returns an error. It retains events in a queue for up to six hours. When an event fails all processing attempts or stays in the asynchronous invocation queue for too long, Lambda discards it. To retain discarded events, configure a dead-letter queue with UpdateFunctionConfiguration.

To send an invocation record to a queue, topic, function, or event bus, specify a destination. You can configure separate destinations for successful invocations (on-success) and events that fail all processing attempts (on-failure). You can configure destinations in addition to or instead of a dead-letter queue.

Request Syntax

```
PUT /2019-09-25/functions/FunctionName/event-invoke-config?Qualifier=Qualifier HTTP/1.1
Content-type: application/json

{
   "DestinationConfig": {
      "OnFailure": {
         "Destination": "string"
      },
      "OnSuccess": {
         "Destination": "string"
      }
   },
   "MaximumEventAgeInSeconds": number,
   "MaximumRetryAttempts": number
}
```

URI Request Parameters

The request uses the following URI parameters.
**FunctionName**

The name or ARN of the Lambda function, version, or alias.

**Name formats**

- **Function name** - my-function (name-only), my-function:v1 (with alias).
- **Partial ARN** - 123456789012:function:my-function.

You can append a version number or alias to any of the formats. The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}::)?(\d{12}::)(function::)?([a-zA-Z0-9-@]+)(:(\$LATEST|[a-zA-Z0-9-@]+))?  

Required: Yes

**Qualifier**

A version number or alias name.


Pattern: ([a-zA-Z0-9-@]+)

**Request Body**

The request accepts the following data in JSON format.

**DestinationConfig**

A destination for events after they have been sent to a function for processing.

**Destinations**

- **Function** - The Amazon Resource Name (ARN) of a Lambda function.
- **Queue** - The ARN of a standard SQS queue.
- **Topic** - The ARN of a standard SNS topic.
- **Event Bus** - The ARN of an Amazon EventBridge event bus.

**Type**: `DestinationConfig` object

**Required**: No

**MaximumEventAgeInSeconds**

The maximum age of a request that Lambda sends to a function for processing.

**Type**: Integer

**Valid Range**: Minimum value of 60. Maximum value of 21600.

**Required**: No

**MaximumRetryAttempts**

The maximum number of times to retry when the function returns an error.

**Type**: Integer

**Valid Range**: Minimum value of 0. Maximum value of 2.

**Required**: No

**Response Syntax**

```
HTTP/1.1 200
Content-type: application/json

{
   "DestinationConfig": {
      "OnFailure": {
         "Destination": "string"
      },
      "OnSuccess": {
         "Destination": "string"
      }
   },
   "FunctionArn": "string"
}
```
"LastModified": number,
"MaximumEventAgeInSeconds": number,
"MaximumRetryAttempts": 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.

**DestinationConfig**

A destination for events after they have been sent to a function for processing.

**Destinations**

- **Function** - The Amazon Resource Name (ARN) of a Lambda function.
- **Queue** - The ARN of a standard SQS queue.
- **Topic** - The ARN of a standard SNS topic.
- **Event Bus** - The ARN of an Amazon EventBridge event bus.

Type: DestinationConfig object

**FunctionArn**

The Amazon Resource Name (ARN) of the function.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:
\d{12}:function:[a-zA-Z0-9-_.]+:(?:\$LATEST|[a-zA-Z0-9-_.]+)?

**LastModified**

The date and time that the configuration was last updated, in Unix time seconds.

Type: Timestamp

**MaximumEventAgeInSeconds**

The maximum age of a request that Lambda sends to a function for processing.
Type: Integer

Valid Range: Minimum value of 60. Maximum value of 21600.

**MaximumRetryAttempts**

The maximum number of times to retry when the function returns an error.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2.

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429
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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
PutProvisionedConcurrencyConfig

Adds a provisioned concurrency configuration to a function's alias or version.

Request Syntax

```
PUT /2019-09-30/functions/FunctionName/provisioned-concurrency?Qualifier=Qualifier
HTTP/1.1
Content-type: application/json

{
   "ProvisionedConcurrentExecutions": number
}
```

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

Name formats

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}?):\d{12}:?function:?[a-zA-Z0-9-\_]+(?:($LATEST|[a-zA-Z0-9-\_]+))?

Required: Yes

**Qualifier**

The version number or alias name.

Pattern: ( | [a-zA-Z0-9$_-]+ )

Required: Yes

Request Body

The request accepts the following data in JSON format.

**ProvisionedConcurrentExecutions**

The amount of provisioned concurrency to allocate for the version or alias.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

Response Syntax

HTTP/1.1 202
Content-type: application/json

```
{
    "AllocatedProvisionedConcurrentExecutions": number,
    "AvailableProvisionedConcurrentExecutions": number,
    "LastModified": "string",
    "RequestedProvisionedConcurrentExecutions": number,
    "Status": "string",
    "StatusReason": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 202 response.

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

The amount of provisioned concurrency allocated. When a weighted alias is used during linear and canary deployments, this value fluctuates depending on the amount of concurrency that is provisioned for the function versions.

Type: Integer

Valid Range: Minimum value of 0.

AvailableProvisionedConcurrentExecutions

The amount of provisioned concurrency available.

Type: Integer

Valid Range: Minimum value of 0.

LastModified

The date and time that a user last updated the configuration, in ISO 8601 format.

Type: String

RequestedProvisionedConcurrentExecutions

The amount of provisioned concurrency requested.

Type: Integer

Valid Range: Minimum value of 1.

Status

The status of the allocation process.

Type: String

Valid Values: IN_PROGRESS | READY | FAILED

StatusReason

For failed allocations, the reason that provisioned concurrency could not be allocated.

Type: String
Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
PutRuntimeManagementConfig

Sets the runtime management configuration for a function's version. For more information, see Runtime updates.

Request Syntax

```plaintext
PUT /2021-07-20/functions/FunctionName/runtime-management-config?Qualifier=Qualifier
HTTP/1.1
Content-type: application/json

{
   "RuntimeVersionArn": "string",
   "UpdateRuntimeOn": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

**Length Constraints:** Minimum length of 1. Maximum length of 140.

Pattern: `(arn:(aws[a-zA-Z-]*):lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-]+)(($LATEST|[a-zA-Z0-9-]+))?`

**Required:** Yes
**Qualifier**

Specify a version of the function. This can be $LATEST$ or a published version number. If no value is specified, the configuration for the $LATEST$ version is returned.


Pattern: ([a-zA-Z0-9$_-]+)

**Request Body**

The request accepts the following data in JSON format.

**RuntimeVersionArn**

The ARN of the runtime version you want the function to use.

- **Note**
  
  This is only required if you're using the Manual runtime update mode.

  Type: String


  Pattern: ^arn:(aws[a-zA-Z-Z]*):lambda:[a-zA-Z]{2}((-gov)|(-iso(b?)))?-\d{1}::runtime:.+$

  Required: No

**UpdateRuntimeOn**

Specify the runtime update mode.

- **Auto (default)** - Automatically update to the most recent and secure runtime version using a Two-phase runtime version rollout. This is the best choice for most customers to ensure they always benefit from runtime updates.

- **Function update** - Lambda updates the runtime of your function to the most recent and secure runtime version when you update your function. This approach synchronizes runtime updates with function deployments, giving you control over when runtime updates are
applied and allowing you to detect and mitigate rare runtime update incompatibilities early. When using this setting, you need to regularly update your functions to keep their runtime up-to-date.

- **Manual** - You specify a runtime version in your function configuration. The function will use this runtime version indefinitely. In the rare case where a new runtime version is incompatible with an existing function, this allows you to roll back your function to an earlier runtime version. For more information, see [Roll back a runtime version](#).

  Type: String

  Valid Values: Auto | Manual | FunctionUpdate

  Required: Yes

### Response Syntax

**HTTP/1.1 200**
Content-type: application/json

```json
{
   "FunctionArn": "string",
   "RuntimeVersionArn": "string",
   "UpdateRuntimeOn": "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.

**FunctionArn**

The ARN of the function

Type: String

Pattern: `arn:(aws[a-z\-A-Z]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-\_]+(:(:\$LATEST|[a-zA-Z0-9-\_]+))?`
**RuntimeVersionArn**

The ARN of the runtime the function is configured to use. If the runtime update mode is manual, the ARN is returned, otherwise null is returned.

Type: String


Pattern: ^arn:(aws[a-zA-Z-]*):lambda:[a-z]{2}((-gov)|(-iso(b?)))-[a-z]+-\d{1}::runtime:.+$

**UpdateRuntimeOn**

The runtime update mode.

Type: String

Valid Values: Auto | Manual | FunctionUpdate

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.
HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
RemoveLayerVersionPermission

Removes a statement from the permissions policy for a version of an AWS Lambda layer. For more information, see AddLayerVersionPermission.

Request Syntax

DELETE /2018-10-31/layers/LayerName/versions/VersionNumber/policy/StatementId?RevisionId=RevisionId HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**LayerName**

The name or Amazon Resource Name (ARN) of the layer.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-]+)+|[a-zA-Z0-9-]+

Required: Yes

**RevisionId**

Only update the policy if the revision ID matches the ID specified. Use this option to avoid modifying a policy that has changed since you last read it.

**StatementId**

The identifier that was specified when the statement was added.

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ([a-zA-Z0-9-]+)

Required: Yes

**VersionNumber**

The version number.
Required: Yes

**Request Body**

The request does not have a request body.

**Response Syntax**

```plaintext
HTTP/1.1 204
```

**Response Elements**

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**PreconditionFailedException**

The RevisionId provided does not match the latest RevisionId for the Lambda function or alias. Call the GetFunction or the GetAlias API operation to retrieve the latest RevisionId for your resource.

HTTP Status Code: 412

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500
TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
RemovePermission

Revokes function-use permission from an AWS service or another AWS account. You can get the ID of the statement from the output of `GetPolicy`.

Request Syntax

DELETE /2015-03-31/functions/FunctionName/policy/StatementId?
Qualifier=Qualifier&RevisionId=RevisionId HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function, version, or alias.

**Name formats**

- **Function name** – my-function (name-only), my-function:v1 (with alias).
- **Partial ARN** – 123456789012:function:my-function.

You can append a version number or alias to any of the formats. The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

**Length Constraints:** Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?(function:)?([a-zA-Z0-9-\d{1}]:)?([-\d{2}]:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\d{1}]+):([\$LATEST]|[a-zA-Z0-9-\d{1}]+))?

Required: Yes

**Qualifier**

Specify a version or alias to remove permissions from a published version of the function.

Pattern: ( | [a-zA-Z0-9$_-]+ )

**RevisionId**

Update the policy only if the revision ID matches the ID that's specified. Use this option to avoid modifying a policy that has changed since you last read it.

**StatementId**

Statement ID of the permission to remove.

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ( [a-zA-Z0-9-_. ]+ )

Required: Yes

**Request Body**

The request does not have a request body.

**Response Syntax**

HTTP/1.1 204

**Response Elements**

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400
PreconditionFailedException

The RevisionId provided does not match the latest RevisionId for the Lambda function or alias. Call the GetFunction or the GetAlias API operation to retrieve the latest RevisionId for your resource.

HTTP Status Code: 412

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see [Lambda quotas](https://docs.aws.amazon.com/lambda/latest/dg/limits.html).

HTTP Status Code: 429

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://docs.aws.amazon.com/sdk-for-net/latest/developerguide/get-started-download.html)
- [AWS SDK for C++](https://docs.aws.amazon.com/sdk-for-cpp/v1/developer-guide/get-started.html)
- [AWS SDK for Go v2](https://docs.aws.amazon.com/sdk-for-go/api/)
- [AWS SDK for Java V2](https://docs.aws.amazon.com/sdk-for-java/2.0/developer-guide/get-started.html)
- [AWS SDK for JavaScript V3](https://docs.aws.amazon.com/javascript-sdk/latest/developerguide/get-started-node.html)
- [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/developer-guide/home.html)
TagResource

Adds tags to a function.

Request Syntax

```
POST /2017-03-31/tags/ARN HTTP/1.1
Content-type: application/json

{
    "Tags": {
        "string" : "string"
    }
}
```

URI Request Parameters

The request uses the following URI parameters.

**ARN**

The function's Amazon Resource Name (ARN).

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:
\d{12}:function:[a-zA-Z0-9-_.]+:(\$LATEST|[a-zA-Z0-9-_.]+)"

Required: Yes

Request Body

The request accepts the following data in JSON format.

**Tags**

A list of tags to apply to the function.

Type: String to string map

Required: Yes
Response Syntax

HTTP/1.1 204

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429
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 v2
- 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

Removes tags from a function.

Request Syntax

DELETE /2017-03-31/tags/{ARN}?tagKeys={TagKeys} HTTP/1.1

URI Request Parameters

The request uses the following URI parameters.

**ARN**

The function's Amazon Resource Name (ARN).

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-\_]+(:(\$LATEST|[a-zA-Z0-9-\_]+))? Required: Yes

**TagKeys**

A list of tag keys to remove from the function.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 204

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.
Errors

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

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
**UpdateAlias**

Updates the configuration of a Lambda function alias.

**Request Syntax**

```
PUT /2015-03-31/functions/FunctionName/aliases/Name HTTP/1.1
Content-type: application/json

{
   "Description": "string",
   "FunctionVersion": "string",
   "RevisionId": "string",
   "RoutingConfig": {
      "AdditionalVersionWeights": {
         "string": number
      }
   }
}
```

**URI Request Parameters**

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** - MyFunction.
- **Partial ARN** - 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

**Length Constraints:** Minimum length of 1. Maximum length of 140.

```
Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?\d{12}:?function:)?([a-zA-Z0-9-_]*)\:(\$LATEST|[a-zA-Z0-9-_]*)
```
**Name**

The name of the alias.


Pattern: (?!(^\d+)$)(([a-zA-Z0-9-]+)+)

Required: Yes

**Request Body**

The request accepts the following data in JSON format.

**Description**

A description of the alias.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

**FunctionVersion**

The function version that the alias invokes.

Type: String


Pattern: ($LATEST | \d+)

Required: No

**RevisionId**

Only update the alias if the revision ID matches the ID that's specified. Use this option to avoid modifying an alias that has changed since you last read it.

Type: String
Required: No

**RoutingConfig**

The *routing configuration* of the alias.

Type: *AliasRoutingConfiguration* object

Required: No

**Response Syntax**

HTTP/1.1 200
Content-type: application/json

```json
{
    "AliasArn": "string",
    "Description": "string",
    "FunctionVersion": "string",
    "Name": "string",
    "RevisionId": "string",
    "RoutingConfig": {
        "AdditionalVersionWeights": {
            "string": 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.

**AliasArn**

The Amazon Resource Name (ARN) of the alias.

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-_]++(:($\{\$LATEST|\{a-zA-Z0-9-\}]++))`
**Description**

A description of the alias.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

**FunctionVersion**

The function version that the alias invokes.

Type: String


Pattern: (`\$LATEST | [0-9]+`)  

**Name**

The name of the alias.

Type: String


Pattern: (`(?![0-9]+$)([a-zA-Z0-9-]+)`)

**RevisionId**

A unique identifier that changes when you update the alias.

Type: String

**RoutingConfig**

The routing configuration of the alias.

Type: `AliasRoutingConfiguration` object

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.
HTTP Status Code: 400

**PreconditionFailedException**

The RevisionId provided does not match the latest RevisionId for the Lambda function or alias. Call the GetFunction or the GetAlias API operation to retrieve the latest RevisionId for your resource.

HTTP Status Code: 412

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

**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 v2](#)
• AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
UpdateCodeSigningConfig

Update the code signing configuration. Changes to the code signing configuration take effect the next time a user tries to deploy a code package to the function.

Request Syntax

PUT /2020-04-22/code-signing-configs/{CodeSigningConfigArn} HTTP/1.1
Content-type: application/json

```
{
    "AllowedPublishers": {
        "SigningProfileVersionArns": [ "string" ]
    },
    "CodeSigningPolicies": {
        "UntrustedArtifactOnDeployment": "string"
    },
    "Description": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

**CodeSigningConfigArn**

The The Amazon Resource Name (ARN) of the code signing configuration.

Length Constraints: Maximum length of 200.

Pattern: \arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}((-gov)|(-iso(b?)))?-[a-z]+-\d{1}:\d{12}:code-signing-config:csc-[a-z0-9]{17}

Required: Yes

Request Body

The request accepts the following data in JSON format.

**AllowedPublishers**

Signing profiles for this code signing configuration.
Type: **AllowedPublishers** object

Required: No

**CodeSigningPolicies**

The code signing policy.

Type: **CodeSigningPolicies** object

Required: No

**Description**

Descriptive name for this code signing configuration.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

**Response Syntax**

```
HTTP/1.1 200
Content-type: application/json

{
    "CodeSigningConfig": {
        "AllowedPublishers": {
            "SigningProfileVersionArns": [ "string" ]
        },
        "CodeSigningConfigArn": "string",
        "CodeSigningConfigId": "string",
        "CodeSigningPolicies": {
            "UntrustedArtifactOnDeployment": "string"
        },
        "Description": "string",
        "LastModified": "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.

**CodeSigningConfig**

The code signing configuration

Type: [CodeSigningConfig object](#)

Errors

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
**UpdateEventSourceMapping**

Updates an event source mapping. You can change the function that AWS Lambda invokes, or pause invocation and resume later from the same location.

For details about how to configure different event sources, see the following topics.

- [Amazon DynamoDB Streams](#)
- [Amazon Kinesis](#)
- [Amazon SQS](#)
- [Amazon MQ and RabbitMQ](#)
- [Amazon MSK](#)
- [Apache Kafka](#)
- [Amazon DocumentDB](#)

The following error handling options are available only for stream sources (DynamoDB and Kinesis):

- **BisectBatchOnFunctionError** – If the function returns an error, split the batch in two and retry.
- **DestinationConfig** – Send discarded records to an Amazon SQS queue or Amazon SNS topic.
- **MaximumRecordAgeInSeconds** – Discard records older than the specified age. The default value is infinite (-1). When set to infinite (-1), failed records are retried until the record expires.
- **MaximumRetryAttempts** – Discard records after the specified number of retries. The default value is infinite (-1). When set to infinite (-1), failed records are retried until the record expires.
- **ParallelizationFactor** – Process multiple batches from each shard concurrently.

For information about which configuration parameters apply to each event source, see the following topics.

- [Amazon DynamoDB Streams](#)
- [Amazon Kinesis](#)
- [Amazon SQS](#)
- [Amazon MQ and RabbitMQ](#)
- [Amazon MSK](#)
Request Syntax

PUT /2015-03-31/event-source-mappings/UUID HTTP/1.1
Content-type: application/json

{
    "BatchSize": number,
    "BisectBatchOnFunctionError": boolean,
    "DestinationConfig": {
        "OnFailure": {
            "Destination": "string"
        },
        "OnSuccess": {
            "Destination": "string"
        }
    },
    "DocumentDBEventSourceConfig": {
        "CollectionName": "string",
        "DatabaseName": "string",
        "FullDocument": "string"
    },
    "Enabled": boolean,
    "FilterCriteria": {
        "Filters": [
            { "Pattern": "string" }
        ]
    },
    "FunctionName": "string",
    "FunctionResponseTypes": [ "string" ],
    "MaximumBatchingWindowInSeconds": number,
    "MaximumRecordAgeInSeconds": number,
    "MaximumRetryAttempts": number,
    "ParallelizationFactor": number,
    "ScalingConfig": {
        "MaximumConcurrent": number
    },
    "SourceAccessConfigurations": [}
```
{
    "Type": "string",
    "URI": "string"
}
```

**URI Request Parameters**

The request uses the following URI parameters.

**UUID**

The identifier of the event source mapping.

Required: Yes

**Request Body**

The request accepts the following data in JSON format.

**BatchSize**

The maximum number of records in each batch that Lambda pulls from your stream or queue and sends to your function. Lambda passes all of the records in the batch to the function in a single call, up to the payload limit for synchronous invocation (6 MB).

- **Amazon Kinesis** – Default 100. Max 10,000.
- **Amazon DynamoDB Streams** – Default 100. Max 10,000.
- **Amazon Simple Queue Service** – Default 10. For standard queues the max is 10,000. For FIFO queues the max is 10.
- **Amazon Managed Streaming for Apache Kafka** – Default 100. Max 10,000.
- **Self-managed Apache Kafka** – Default 100. Max 10,000.
- **Amazon MQ (ActiveMQ and RabbitMQ)** – Default 100. Max 10,000.
- **DocumentDB** – Default 100. Max 10,000.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10000.
**BisectBatchOnFunctionError**

(Kinesis and DynamoDB Streams only) If the function returns an error, split the batch in two and retry.

Type: Boolean

Required: No

**DestinationConfig**

(Kinesis, DynamoDB Streams, Amazon MSK, and self-managed Kafka only) A configuration object that specifies the destination of an event after Lambda processes it.

Type: `DestinationConfig` object

Required: No

**DocumentDBEventSourceConfig**

Specific configuration settings for a DocumentDB event source.

Type: `DocumentDBEventSourceConfig` object

Required: No

**Enabled**

When true, the event source mapping is active. When false, Lambda pauses polling and invocation.

Default: True

Type: Boolean

Required: No

**FilterCriteria**

An object that defines the filter criteria that determine whether Lambda should process an event. For more information, see [Lambda event filtering](#).

Type: `FilterCriteria` object

Required: No
**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – MyFunction.
- **Partial ARN** – 123456789012:function:MyFunction.

The length constraint applies only to the full ARN. If you specify only the function name, it's limited to 64 characters in length.

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 140.

**Pattern:** (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-[a-zA-Z0-9-]+)(\d{12}:)?(function:)?([a-zA-Z0-9-_.]+)(($LATEST|[a-zA-Z0-9-_.]+))?

**Required:** No

**FunctionResponseTypes**

(Kinesis, DynamoDB Streams, and Amazon SQS) A list of current response type enums applied to the event source mapping.

**Type:** Array of strings

**Array Members:** Minimum number of 0 items. Maximum number of 1 item.

**Valid Values:** ReportBatchItemFailures

**Required:** No

**MaximumBatchingWindowInSeconds**

The maximum amount of time, in seconds, that Lambda spends gathering records before invoking the function. You can configure MaximumBatchingWindowInSeconds to any value from 0 seconds to 300 seconds in increments of seconds.

For Kinesis, DynamoDB, and Amazon SQS event sources, the default batching window is 0 seconds. For Amazon MSK, Self-managed Apache Kafka, Amazon MQ, and DocumentDB event
sources, the default batching window is 500 ms. Note that because you can only change MaximumBatchingWindowInSeconds in increments of seconds, you cannot revert back to the 500 ms default batching window after you have changed it. To restore the default batching window, you must create a new event source mapping.

Related setting: For Kinesis, DynamoDB, and Amazon SQS event sources, when you set BatchSize to a value greater than 10, you must set MaximumBatchingWindowInSeconds to at least 1.

Type: Integer
Valid Range: Minimum value of 0. Maximum value of 300.
Required: No

**MaximumRecordAgeInSeconds**

(Kinesis and DynamoDB Streams only) Discard records older than the specified age. The default value is infinite (-1).

Type: Integer
Required: No

**MaximumRetryAttempts**

(Kinesis and DynamoDB Streams only) Discard records after the specified number of retries. The default value is infinite (-1). When set to infinite (-1), failed records are retried until the record expires.

Type: Integer
Valid Range: Minimum value of -1. Maximum value of 10000.
Required: No

**ParallelizationFactor**

(Kinesis and DynamoDB Streams only) The number of batches to process from each shard concurrently.

Type: Integer
Required: No

**ScalingConfig**

(Amazon SQS only) The scaling configuration for the event source. For more information, see Configuring maximum concurrency for Amazon SQS event sources.

Type: `ScalingConfig` object

Required: No

**SourceAccessConfigurations**

An array of authentication protocols or VPC components required to secure your event source.

Type: Array of `SourceAccessConfiguration` objects

Array Members: Minimum number of 0 items. Maximum number of 22 items.

Required: No

**TumblingWindowInSeconds**

(Kinesis and DynamoDB Streams only) The duration in seconds of a processing window for DynamoDB and Kinesis Streams event sources. A value of 0 seconds indicates no tumbling window.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 900.

Required: No

**Response Syntax**

```json
HTTP/1.1 202
Content-type: application/json

{
   "AmazonManagedKafkaEventSourceConfig": {
      "ConsumerGroupId": "string"
   },
   "BatchSize": number,
   "BisectBatchOnFunctionError": boolean,
   "DestinationConfig": {
```
"OnFailure": {
   "Destination": "string"
 },
"OnSuccess": {
   "Destination": "string"
 }
 },
"DocumentDBEventSourceConfig": {
   "CollectionName": "string",
   "DatabaseName": "string",
   "FullDocument": "string"
 },
"EventSourceArn": "string",
"FilterCriteria": {
   "Filters": [
      {
         "Pattern": "string"
      }
   ]
 },
"FunctionArn": "string",
"FunctionResponseTypes": [ "string" ],
"LastModified": number,
"LastProcessingResult": "string",
"MaximumBatchingWindowInSeconds": number,
"MaximumRecordAgeInSeconds": number,
"MaximumRetryAttempts": number,
"ParallelizationFactor": number,
"Queues": [ "string" ],
"ScalingConfig": {
   "MaximumConcurrency": number
 },
"SelfManagedEventSource": {
   "Endpoints": {
      "string": [ "string" ]
   }
 },
"SelfManagedKafkaEventSourceConfig": {
   "ConsumerGroupId": "string"
 },
"SourceAccessConfigurations": [
   {
      "Type": "string",
      "URI": "string"
   }]}
{
  "StartingPosition": "string",
  "StartingPositionTimestamp": "number",
  "State": "string",
  "StateTransitionReason": "string",
  "Topics": ["string"],
  "TumblingWindowInSeconds": "number",
  "UUID": "string"
}

**Response Elements**

If the action is successful, the service sends back an HTTP 202 response.

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

**AmazonManagedKafkaEventSourceConfig**

Specific configuration settings for an Amazon Managed Streaming for Apache Kafka (Amazon MSK) event source.

Type: [AmazonManagedKafkaEventSourceConfig](http://aws.amazon.com) object

**BatchSize**

The maximum number of records in each batch that Lambda pulls from your stream or queue and sends to your function. Lambda passes all of the records in the batch to the function in a single call, up to the payload limit for synchronous invocation (6 MB).

Default value: Varies by service. For Amazon SQS, the default is 10. For all other services, the default is 100.

Related setting: When you set BatchSize to a value greater than 10, you must set MaximumBatchingWindowInSeconds to at least 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10000.

**BisectBatchOnFunctionError**

(Kinesis and DynamoDB Streams only) If the function returns an error, split the batch in two and retry. The default value is false.
**Type:** Boolean

**DestinationConfig**

(Kinesis, DynamoDB Streams, Amazon MSK, and self-managed Apache Kafka event sources only) A configuration object that specifies the destination of an event after Lambda processes it.

**Type:** `DestinationConfig` object

**DocumentDBEventSourceConfig**

Specific configuration settings for a DocumentDB event source.

**Type:** `DocumentDBEventSourceConfig` object

**EventSourceArn**

The Amazon Resource Name (ARN) of the event source.

**Type:** String

**Pattern:** arn:(aws[a-zA-Z0-9-]*):(a-zA-Z0-9\-]+):([a-zA-Z]{2}(-gov)?-[a-zA-Z]+-\d{1}):\d{12}:([^.]*)

**FilterCriteria**

An object that defines the filter criteria that determine whether Lambda should process an event. For more information, see [Lambda event filtering](#).

**Type:** `FilterCriteria` object

**FunctionArn**

The ARN of the Lambda function.

**Type:** String

**Pattern:** arn:(aws[a-zA-Z-]*):lambda:[a-zA-Z]{2}(-gov)?-[a-zA-Z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-\_]+(\$\{LATEST\}|[a-zA-Z0-9-\_]+)

**FunctionResponseTypes**

(Kinesis, DynamoDB Streams, and Amazon SQS) A list of current response type enums applied to the event source mapping.
Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1 item.

Valid Values: ReportBatchItemFailures

**LastModified**

The date that the event source mapping was last updated or that its state changed, in Unix time seconds.

Type: Timestamp

**LastProcessingResult**

The result of the last Lambda invocation of your function.

Type: String

**MaximumBatchingWindowInSeconds**

The maximum amount of time, in seconds, that Lambda spends gathering records before invoking the function. You can configure `MaximumBatchingWindowInSeconds` to any value from 0 seconds to 300 seconds in increments of seconds.

For streams and Amazon SQS event sources, the default batching window is 0 seconds. For Amazon MSK, Self-managed Apache Kafka, Amazon MQ, and DocumentDB event sources, the default batching window is 500 ms. Note that because you can only change `MaximumBatchingWindowInSeconds` in increments of seconds, you cannot revert back to the 500 ms default batching window after you have changed it. To restore the default batching window, you must create a new event source mapping.

Related setting: For streams and Amazon SQS event sources, when you set `BatchSize` to a value greater than 10, you must set `MaximumBatchingWindowInSeconds` to at least 1.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 300.

**MaximumRecordAgeInSeconds**

(Kinesis and DynamoDB Streams only) Discard records older than the specified age. The default value is -1, which sets the maximum age to infinite. When the value is set to infinite, Lambda never discards old records.
**Note**

The minimum valid value for maximum record age is 60s. Although values less than 60 and greater than -1 fall within the parameter's absolute range, they are not allowed

Type: Integer


**MaximumRetryAttempts**

(Kinesis and DynamoDB Streams only) Discard records after the specified number of retries. The default value is -1, which sets the maximum number of retries to infinite. When MaximumRetryAttempts is infinite, Lambda retries failed records until the record expires in the event source.

Type: Integer

Valid Range: Minimum value of -1. Maximum value of 10000.

**ParallelizationFactor**

(Kinesis and DynamoDB Streams only) The number of batches to process concurrently from each shard. The default value is 1.

Type: Integer


**Queues**

(Amazon MQ) The name of the Amazon MQ broker destination queue to consume.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: \[\S\S\] *

**ScalingConfig**

(Amazon SQS only) The scaling configuration for the event source. For more information, see Configuring maximum concurrency for Amazon SQS event sources.
**SelfManagedEventSource**

The self-managed Apache Kafka cluster for your event source.

Type: `SelfManagedEventSource` object

**SelfManagedKafkaEventSourceConfig**

Specific configuration settings for a self-managed Apache Kafka event source.

Type: `SelfManagedKafkaEventSourceConfig` object

**SourceAccessConfigurations**

An array of the authentication protocol, VPC components, or virtual host to secure and define your event source.

Type: Array of `SourceAccessConfiguration` objects

Array Members: Minimum number of 0 items. Maximum number of 22 items.

**StartingPosition**

The position in a stream from which to start reading. Required for Amazon Kinesis and Amazon DynamoDB Stream event sources. `AT_TIMESTAMP` is supported only for Amazon Kinesis streams, Amazon DocumentDB, Amazon MSK, and self-managed Apache Kafka.

Type: String

Valid Values: TRIM_HORIZON | LATEST | AT_TIMESTAMP

**StartingPositionTimestamp**

With `StartingPosition` set to `AT_TIMESTAMP`, the time from which to start reading, in Unix time seconds. `StartingPositionTimestamp` cannot be in the future.

Type: Timestamp

**State**

The state of the event source mapping. It can be one of the following: Creating, Enabling, Enabled, Disabling, Disabled, Updating, or Deleting.

Type: String
**StateTransitionReason**

Indicates whether a user or Lambda made the last change to the event source mapping.

Type: String

**Topics**

The name of the Kafka topic.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 249.

Pattern: `^[^\.]([a-zA-Z0-9\-_.]+)`

**TumblingWindowInSeconds**

(Kinesis and DynamoDB Streams only) The duration in seconds of a processing window for DynamoDB and Kinesis Streams event sources. A value of 0 seconds indicates no tumbling window.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 900.

**UUID**

The identifier of the event source mapping.

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400
ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceInUseException

The operation conflicts with the resource's availability. For example, you tried to update an event source mapping in the CREATING state, or you tried to delete an event source mapping currently UPDATING.

HTTP Status Code: 400

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
• AWS SDK for JavaScript V3
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
UpdateFunctionCode

Updates a Lambda function's code. If code signing is enabled for the function, the code package must be signed by a trusted publisher. For more information, see Configuring code signing for Lambda.

If the function's package type is Image, then you must specify the code package in ImageUri as the URI of a container image in the Amazon ECR registry.

If the function's package type is Zip, then you must specify the deployment package as a .zip file archive. Enter the Amazon S3 bucket and key of the code .zip file location. You can also provide the function code inline using the ZipFile field.

The code in the deployment package must be compatible with the target instruction set architecture of the function (x86-64 or arm64).

The function's code is locked when you publish a version. You can't modify the code of a published version, only the unpublished version.

Note

For a function defined as a container image, Lambda resolves the image tag to an image digest. In Amazon ECR, if you update the image tag to a new image, Lambda does not automatically update the function.

Request Syntax

```
PUT /2015-03-31/functions/FunctionName/code HTTP/1.1
Content-type: application/json

{
    "Architectures": [ "string" ],
    "DryRun": boolean,
    "ImageUri": "string",
    "Publish": boolean,
    "RevisionId": "string",
    "S3Bucket": "string",
    "S3Key": "string",
    "S3ObjectVersion": "string",
    "ZipFile": blob
}  ```
**URI Request Parameters**

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function.

**Name formats**

- **Function name** – `my-function`.
- **Partial ARN** – `123456789012:function:my-function`.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: `(arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-9-]+)(:(\$LATEST|[a-zA-Z0-9-9-]+))?

Required: Yes

**Request Body**

The request accepts the following data in JSON format.

**Architectures**

The instruction set architecture that the function supports. Enter a string array with one of the valid values (`arm64` or `x86_64`). The default value is `x86_64`.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `x86_64` | `arm64`

Required: No
DryRun

Set to true to validate the request parameters and access permissions without modifying the function code.

Type: Boolean

Required: No

ImageUri

URI of a container image in the Amazon ECR registry. Do not use for a function defined with a .zip file archive.

Type: String

Required: No

Publish

Set to true to publish a new version of the function after updating the code. This has the same effect as calling PublishVersion separately.

Type: Boolean

Required: No

RevisionId

Update the function only if the revision ID matches the ID that's specified. Use this option to avoid modifying a function that has changed since you last read it.

Type: String

Required: No

S3Bucket

An Amazon S3 bucket in the same AWS Region as your function. The bucket can be in a different AWS account. Use only with a function defined with a .zip file archive deployment package.

Type: String


Pattern: ^[0-9A-Za-z\.-_]*(?<!\.)$
**S3Key**

The Amazon S3 key of the deployment package. Use only with a function defined with a .zip file archive deployment package.

Type: String


Required: No

**S3ObjectVersion**

For versioned objects, the version of the deployment package object to use.

Type: String


Required: No

**ZipFile**

The base64-encoded contents of the deployment package. AWS SDK and AWS CLI clients handle the encoding for you. Use only with a function defined with a .zip file archive deployment package.

Type: Base64-encoded binary data object

Required: No

**Response Syntax**

```
HTTP/1.1 200
Content-type: application/json

{
    "Architectures": [ "string" ],
    "CodeSha256": "string",
    "CodeSize": number,
    "DeadLetterConfig": {
        "TargetArn": "string"
    },
}
"Description": "string",
"Environment": {
   "Error": {
      "ErrorCode": "string",
      "Message": "string"
   },
   "Variables": {
      "string": "string"
   }
},
"EphemeralStorage": {
   "Size": number
},
"FileSystemConfigs": [
   {
      "Arn": "string",
      "LocalMountPath": "string"
   }
],
"FunctionArn": "string",
"FunctionName": "string",
"Handler": "string",
"ImageConfigResponse": {
   "Error": {
      "ErrorCode": "string",
      "Message": "string"
   },
   "ImageConfig": {
      "Command": [ "string" ],
      "EntryPoint": [ "string" ],
      "WorkingDirectory": "string"
   }
},
"KMSKeyArn": "string",
"LastModified": "string",
"LastUpdateStatus": "string",
"LastUpdateStatusReason": "string",
"LastUpdateStatusReasonCode": "string",
"Layers": [
   {
      "Arn": "string",
      "CodeSize": number,
      "SigningJobArn": "string",
      "SigningProfileVersionArn": "string"
   }
]


Response Syntax

API Version 2015-03-31
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.

**Architectures**

The instruction set architecture that the function supports. Architecture is a string array with one of the valid values. The default architecture value is `x86_64`.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `x86_64` | `arm64`

**CodeSha256**

The SHA256 hash of the function's deployment package.

Type: String

**CodeSize**

The size of the function's deployment package, in bytes.

Type: Long

**DeadLetterConfig**

The function's dead letter queue.

Type: `DeadLetterConfig` object

**Description**

The function's description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

**Environment**

The function's environment variables. Omitted from AWS CloudTrail logs.
Type: **EnvironmentResponse** object

**EphemeralStorage**

The size of the function's /tmp directory in MB. The default value is 512, but can be any whole number between 512 and 10,240 MB. For more information, see Configuring ephemeral storage (console).

Type: **EphemeralStorage** object

**FileSystemConfigs**

Connection settings for an Amazon EFS file system.

Type: Array of **FileSystemConfig** objects

Array Members: Maximum number of 1 item.

**FunctionArn**

The function's Amazon Resource Name (ARN).

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-._]+(:($LATEST|[a-zA-Z0-9-._]+))?`

**FunctionName**

The name of the function.

Type: String


Pattern: `(arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-._]+)+(:($LATEST|[a-zA-Z0-9-._]+))?`

**Handler**

The function that Lambda calls to begin running your function.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[^\s]+`
ImageConfigResponse

The function's image configuration values.

Type: ImageConfigResponse object

KMSKeyArn

The AWS KMS key that's used to encrypt the function's environment variables. When Lambda SnapStart is activated, this key is also used to encrypt the function's snapshot. This key is returned only if you've configured a customer managed key.

Type: String

Pattern: (arn:(aws[a-zA-Z-]*)?:[a-z0-9-].[a-z0-9-]*)|()?

LastModified

The date and time that the function was last updated, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

LastUpdateStatus

The status of the last update that was performed on the function. This is first set to Successful after function creation completes.

Type: String

Valid Values: Successful | Failed | InProgress

LastUpdateStatusReason

The reason for the last update that was performed on the function.

Type: String

LastUpdateStatusReasonCode

The reason code for the last update that was performed on the function.

Type: String

Valid Values: EniLimitExceeded | InsufficientRolePermissions | InvalidConfiguration | InternalError | SubnetOutOfIPAddresses
| InvalidSubnet | InvalidSecurityGroup | ImageDeleted | ImageAccessDenied | InvalidImage | KMSKeyAccessDenied | KMSKeyNotFound | InvalidStateKMSKey | DisabledKMSKey | EFSIOError | EFSMountConnectivityError | EFSMountFailure | EFSMountTimeout | InvalidRuntime | InvalidZipFileException | FunctionError |

**Layers**

The function's layers.

Type: Array of Layer objects

**LoggingConfig**

The function's Amazon CloudWatch Logs configuration settings.

Type: LoggingConfig object

**MasterArn**

For Lambda@Edge functions, the ARN of the main function.

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-_.]+(?:\$LATEST|[a-zA-Z0-9-_.]+)?`

**MemorySize**

The amount of memory available to the function at runtime.

Type: Integer


**PackageType**

The type of deployment package. Set to Image for container image and set Zip for .zip file archive.

Type: String

Valid Values: Zip | Image

**RevisionId**

The latest updated revision of the function or alias.
**Role**

The function's execution role.

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@-\-_/]`

**Runtime**

The identifier of the function's runtime. Runtime is required if the deployment package is a .zip file archive. Specifying a runtime results in an error if you're deploying a function using a container image.

The following list includes deprecated runtimes. Lambda blocks creating new functions and updating existing functions shortly after each runtime is deprecated. For more information, see [Runtime use after deprecation](#).

For a list of all currently supported runtimes, see [Supported runtimes](#).

Type: String

Valid Values: `nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 | dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided | provided.al2 | nodejs18.x | python3.10 | java17 | ruby3.2 | python3.11 | nodejs20.x | provided.al2023 | python3.12 | java21

**RuntimeVersionConfig**

The ARN of the runtime and any errors that occurred.

Type: `RuntimeVersionConfig` object

**SigningJobArn**

The ARN of the signing job.

Type: String
Pattern: arn:(aws[a-zA-Z0-9-]*):([a-zA-Z0-9\-]+):(\[a-z\]{2}(-gov)?-[a-z]+\d{1})?:(\d{12})?:(.*)

**SigninProfileVersionArn**

The ARN of the signing profile version.

Type: String

Pattern: arn:(aws[a-zA-Z0-9-]*):([a-zA-Z0-9\-]+):(\[a-z\]{2}(-gov)?-[a-z]+\d{1})?:(\d{12})?:(.*)

**SnapStart**

Set ApplyOn to PublishedVersions to create a snapshot of the initialized execution environment when you publish a function version. For more information, see [Improving startup performance with Lambda SnapStart](https://docs.aws.amazon.com/lambda/latest/dg/snapstart.html).

Type: SnapStartResponse object

**State**

The current state of the function. When the state is Inactive, you can reactivate the function by invoking it.

Type: String

Valid Values: Pending | Active | Inactive | Failed

**StateReason**

The reason for the function's current state.

Type: String

**StateReasonCode**

The reason code for the function's current state. When the code is Creating, you can't invoke or modify the function.

Type: String

Valid Values: Idle | Creating | Restoring | EniLimitExceeded | InsufficientRolePermissions | InvalidConfiguration | InternalError | SubnetOutOfIPAddresses | InvalidSubnet | InvalidSecurityGroup |
ImageDeleted | ImageAccessDenied | InvalidImage | KMSKeyAccessDenied | KMSKeyNotFound | InvalidStateKMSKey | DisabledKMSKey | EFSIOError | EFSMountConnectivityError | EFSMountFailure | EFSMountTimeout | InvalidRuntime | InvalidZipFileException | FunctionError

**Timeout**

The amount of time in seconds that Lambda allows a function to run before stopping it.

Type: Integer

Valid Range: Minimum value of 1.

**TracingConfig**

The function's AWS X-Ray tracing configuration.

Type: [TracingConfigResponse](#) object

**Version**

The version of the Lambda function.

Type: String


Pattern: (\$LATEST|[0-9]+)

**VpcConfig**

The function's networking configuration.

Type: [VpcConfigResponse](#) object

**Errors**

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

**CodeSigningConfigNotFoundException**

The specified code signing configuration does not exist.

HTTP Status Code: 404
CodeStorageExceededException

Your AWS account has exceeded its maximum total code size. For more information, see Lambda quotas.

HTTP Status Code: 400

CodeVerificationFailedException

The code signature failed one or more of the validation checks for signature mismatch or expiry, and the code signing policy is set to ENFORCE. Lambda blocks the deployment.

HTTP Status Code: 400

InvalidCodeSignatureException

The code signature failed the integrity check. If the integrity check fails, then Lambda blocks deployment, even if the code signing policy is set to WARN.

HTTP Status Code: 400

InvalidParameterValueException

One of the parameters in the request is not valid.

HTTP Status Code: 400

PreconditionFailedException

The RevisionId provided does not match the latest RevisionId for the Lambda function or alias. Call the GetFunction or the GetAlias API operation to retrieve the latest RevisionId for your resource.

HTTP Status Code: 412

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404
ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateFunctionConfiguration

Modify the version-specific settings of a Lambda function.

When you update a function, Lambda provisions an instance of the function and its supporting resources. If your function connects to a VPC, this process can take a minute. During this time, you can't modify the function, but you can still invoke it. The LastUpdateStatus, LastUpdateStatusReason, and LastUpdateStatusReasonCode fields in the response from GetFunctionConfiguration indicate when the update is complete and the function is processing events with the new configuration. For more information, see Lambda function states.

These settings can vary between versions of a function and are locked when you publish a version. You can't modify the configuration of a published version, only the unpublished version.

To configure function concurrency, use PutFunctionConcurrency. To grant invoke permissions to an AWS account or AWS service, use AddPermission.

Request Syntax

```json
PUT /2015-03-31/functions/FunctionName/configuration HTTP/1.1
Content-type: application/json

{
  "DeadLetterConfig": {
    "TargetArn": "string"
  },
  "Description": "string",
  "Environment": {
    "Variables": {
      "string": "string"
    }
  },
  "EphemeralStorage": {
    "Size": number
  },
  "FileSystemConfigs": [
    {
      "Arn": "string",
      "LocalMountPath": "string"
    }
  ]
}
```
"Handler": "string",
"ImageConfig": {
  "Command": [ "string" ],
  "EntryPoint": [ "string" ],
  "WorkingDirectory": "string"
},
"KMSKeyArn": "string",
"Layers": [ "string" ],
"LoggingConfig": {
  "ApplicationLogLevel": "string",
  "LogFormat": "string",
  "LogGroup": "string",
  "SystemLogLevel": "string"
},
"MemorySize": number,
"RevisionId": "string",
"Role": "string",
"Runtime": "string",
"SnapStart": {
  "ApplyOn": "string"
},
"Timeout": number,
"TracingConfig": {
  "Mode": "string"
},
"VpcConfig": {
  "Ipv6AllowedForDualStack": boolean,
  "SecurityGroupIds": [ "string" ],
  "SubnetIds": [ "string" ]
}

• **Partial ARN** – `123456789012:function:my-function`.

  The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

  Length Constraints: Minimum length of 1. Maximum length of 140.

  Pattern: `(arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-\_]+)(:($LATEST|[a-zA-Z0-9-\_]+))?`  

  Required: Yes

**Request Body**

The request accepts the following data in JSON format.

**DeadLetterConfig**

A dead-letter queue configuration that specifies the queue or topic where Lambda sends asynchronous events when they fail processing. For more information, see [Dead-letter queues](#).

Type: `DeadLetterConfig` object

Required: No

**Description**

A description of the function.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

**Environment**

Environment variables that are accessible from function code during execution.

Type: `Environment` object
**EphemeralStorage**

The size of the function's /tmp directory in MB. The default value is 512, but can be any whole number between 512 and 10,240 MB. For more information, see [Configuring ephemeral storage (console)](https://docs.aws.amazon.com/lambda/latest/dg/configuring-ephemeral-storage.html).

Type: **EphemeralStorage** object

**FileSystemConfigs**

Connection settings for an Amazon EFS file system.

Type: Array of **FileSystemConfig** objects

Array Members: Maximum number of 1 item.

**Handler**

The name of the method within your code that Lambda calls to run your function. Handler is required if the deployment package is a .zip file archive. The format includes the file name. It can also include namespaces and other qualifiers, depending on the runtime. For more information, see [Lambda programming model](https://docs.aws.amazon.com/lambda/latest/dg/lambda-program-model.html).

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[^\s]+`

**ImageConfig**

Container image configuration values that override the values in the container image Docker file.

Type: **ImageConfig** object

Required: No
**KMSKeyArn**

The ARN of the AWS Key Management Service (AWS KMS) customer managed key that's used to encrypt your function's **environment variables**. When **Lambda SnapStart** is activated, Lambda also uses this key to encrypt your function's snapshot. If you deploy your function using a container image, Lambda also uses this key to encrypt your function when it's deployed. Note that this is not the same key that's used to protect your container image in the Amazon Elastic Container Registry (Amazon ECR). If you don't provide a customer managed key, Lambda uses a default service key.

Type: String

Pattern: `(arn:(aws[a-zA-Z-]*)?:[a-z0-9-\.]+:\.[a-z0-9-\.:]*):()`

Required: No

**Layers**

A list of **function layers** to add to the function's execution environment. Specify each layer by its ARN, including the version.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: `arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-_]+:[0-9]+`

Required: No

**LoggingConfig**

The function's Amazon CloudWatch Logs configuration settings.

Type: **LoggingConfig** object

Required: No

**MemorySize**

The amount of **memory available to the function** at runtime. Increasing the function memory also increases its CPU allocation. The default value is 128 MB. The value can be any multiple of 1 MB.
**Type**: Integer


**Required**: No

---

**RevisionId**

Update the function only if the revision ID matches the ID that's specified. Use this option to avoid modifying a function that has changed since you last read it.

**Type**: String

**Required**: No

---

**Role**

The Amazon Resource Name (ARN) of the function's execution role.

**Type**: String

**Pattern**: arn:(aws[a-zA-Z-]*)?:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@-_]+

**Required**: No

---

**Runtime**

The identifier of the function's runtime. Runtime is required if the deployment package is a .zip file archive. Specifying a runtime results in an error if you're deploying a function using a container image.

The following list includes deprecated runtimes. Lambda blocks creating new functions and updating existing functions shortly after each runtime is deprecated. For more information, see Runtime use after deprecation.

For a list of all currently supported runtimes, see Supported runtimes.

**Type**: String

**Valid Values**: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6
SnapStart

The function's SnapStart setting.

Type: SnapStart object

Required: No

Timeout

The amount of time (in seconds) that Lambda allows a function to run before stopping it. The default is 3 seconds. The maximum allowed value is 900 seconds. For more information, see Lambda execution environment.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

TracingConfig

Set Mode to Active to sample and trace a subset of incoming requests with X-Ray.

Type: TracingConfig object

Required: No

VpcConfig

For network connectivity to AWS resources in a VPC, specify a list of security groups and subnets in the VPC. When you connect a function to a VPC, it can access resources and the internet only through that VPC. For more information, see Configuring a Lambda function to access resources in a VPC.

Type: VpcConfig object

Required: No
Response Syntax

HTTP/1.1 200
Content-type: application/json

{
    "Architectures": [ "string" ],
    "CodeSha256": "string",
    "CodeSize": number,
    "DeadLetterConfig": {
        "TargetArn": "string"
    },
    "Description": "string",
    "Environment": {
        "Error": {
            "ErrorCode": "string",
            "Message": "string"
        },
        "Variables": {
            "string": "string"
        }
    },
    "EphemeralStorage": {
        "Size": number
    },
    "FileSystemConfigs": [ {
        "Arn": "string",
        "LocalMountPath": "string"
    } ],
    "FunctionArn": "string",
    "FunctionName": "string",
    "Handler": "string",
    "ImageConfigResponse": {
        "Error": {
            "ErrorCode": "string",
            "Message": "string"
        },
        "ImageConfig": {
            "Command": [ "string" ],
            "EntryPoint": [ "string" ],
            "WorkingDirectory": "string"
        }
    }
}
{
  "KMSKeyArn": "string",
  "LastModified": "string",
  "LastUpdateStatus": "string",
  "LastUpdateStatusReason": "string",
  "LastUpdateStatusReasonCode": "string",
  "Layers": [
    {
      "Arn": "string",
      "CodeSize": number,
      "SigningJobArn": "string",
      "SigningProfileVersionArn": "string"
    }
  ],
  "LoggingConfig": {
    "ApplicationLogLevel": "string",
    "LogFormat": "string",
    "LogGroup": "string",
    "SystemLogLevel": "string"
  },
  "MasterArn": "string",
  "MemorySize": number,
  "PackageType": "string",
  "RevisionId": "string",
  "Role": "string",
  "Runtime": "string",
  "RuntimeVersionConfig": {"Error": {
                         "ErrorCode": "string",
                         "Message": "string"
                        },
                           "RuntimeVersionArn": "string"
  },
  "SigningJobArn": "string",
  "SigningProfileVersionArn": "string",
  "SnapStart": {
    "ApplyOn": "string",
    "OptimizationStatus": "string"
  },
  "State": "string",
  "StateReason": "string",
  "StateReasonCode": "string",
  "Timeout": number,
}
"TracingConfig": {
  "Mode": "string"
},
"Version": "string",
"VpcConfig": {
  "Ipv6AllowedForDualStack": boolean,
  "SecurityGroupIds": [ "string" ],
  "SubnetIds": [ "string" ],
  "VpcId": "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.

Architectures

The instruction set architecture that the function supports. Architecture is a string array with one of the valid values. The default architecture value is x86_64.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: x86_64 | arm64

CodeSha256

The SHA256 hash of the function's deployment package.

Type: String

CodeSize

The size of the function's deployment package, in bytes.

Type: Long

DeadLetterConfig

The function's dead letter queue.
Type: `DeadLetterConfig` object

**Description**

The function's description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

**Environment**

The function's environment variables. Omitted from AWS CloudTrail logs.

Type: `EnvironmentResponse` object

**EphemeralStorage**

The size of the function's `/tmp` directory in MB. The default value is 512, but can be any whole number between 512 and 10,240 MB. For more information, see Configuring ephemeral storage (console).

Type: `EphemeralStorage` object

**FileSystemConfigs**

Connection settings for an Amazon EFS file system.

Type: Array of `FileSystemConfig` objects

Array Members: Maximum number of 1 item.

**FunctionArn**

The function's Amazon Resource Name (ARN).

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-_.]+(:($LATEST|[a-zA-Z0-9-_.]+))?

**FunctionName**

The name of the function.

Type: String

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-d\d{1}:)?(d\d{12}:)?(function:)?([a-zA-Z0-9-\.]+)(:\$LATEST|[a-zA-Z0-9-\.]+))?

**Handler**

The function that Lambda calls to begin running your function.

Type: String

Length Constraints: Maximum length of 128.

Pattern: [\^\s]+

**ImageConfigResponse**

The function's image configuration values.

Type: ImageConfigResponse object

**KMSKeyArn**

The AWS KMS key that's used to encrypt the function's environment variables. When Lambda SnapStart is activated, this key is also used to encrypt the function's snapshot. This key is returned only if you've configured a customer managed key.

Type: String

Pattern: (arn:(aws[a-zA-Z-]*)?:[a-z0-9-.]+.*)()|

**LastModified**

The date and time that the function was last updated, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

**LastUpdateStatus**

The status of the last update that was performed on the function. This is first set to Successful after function creation completes.

Type: String

Valid Values: Successful | Failed | InProgress
**LastUpdateStatusReason**

The reason for the last update that was performed on the function.

Type: String

**LastUpdateStatusReasonCode**

The reason code for the last update that was performed on the function.

Type: String


**Layers**

The function's layers.

Type: Array of Layer objects

**LoggingConfig**

The function's Amazon CloudWatch Logs configuration settings.

Type: LoggingConfig object

**MasterArn**

For Lambda@Edge functions, the ARN of the main function.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}: \d{12}:function:[a-zA-Z0-9-_.]+(:($LATEST|[a-zA-Z0-9-_.]+))?

**MemorySize**

The amount of memory available to the function at runtime.

Type: Integer

**PackageType**

The type of deployment package. Set to Image for container image and set Zip for .zip file archive.

Type: String

Valid Values: Zip | Image

**RevisionId**

The latest updated revision of the function or alias.

Type: String

**Role**

The function's execution role.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@-\_\\/]+  

**Runtime**

The identifier of the function's runtime. Runtime is required if the deployment package is a .zip file archive. Specifying a runtime results in an error if you're deploying a function using a container image.

The following list includes deprecated runtimes. Lambda blocks creating new functions and updating existing functions shortly after each runtime is deprecated. For more information, see Runtime use after deprecation.

For a list of all currently supported runtimes, see Supported runtimes.

Type: String

Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 |
| python2.7 | python3.6 | python3.7 | python3.8 | python3.9 |
| dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 |
| dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided |
The ARN of the runtime and any errors that occurred.

Type: RuntimeVersionConfig object

The ARN of the signing job.

Type: String

Pattern: arn:(aws[a-zA-Z0-9-]*):(a-zA-Z0-9\-]+([a-zA-Z]{2}(-gov)?-[a-zA-Z]+\d{1})?:\d{12}?:(.*)

The ARN of the signing profile version.

Type: String

Pattern: arn:(aws[a-zA-Z0-9-]*):(a-zA-Z0-9\-]+([a-zA-Z]{2}(-gov)?-[a-zA-Z]+\d{1})?:\d{12}?:(.*)

Set ApplyOn to PublishedVersions to create a snapshot of the initialized execution environment when you publish a function version. For more information, see Improving startup performance with Lambda SnapStart.

Type: SnapStartResponse object

The current state of the function. When the state is Inactive, you can reactivate the function by invoking it.

Type: String

Valid Values: Pending | Active | Inactive | Failed

The reason for the function's current state.
**Type: String**

**StateReasonCode**

The reason code for the function's current state. When the code is Creating, you can't invoke or modify the function.

Type: String


**Timeout**

The amount of time in seconds that Lambda allows a function to run before stopping it.

Type: Integer

Valid Range: Minimum value of 1.

**TracingConfig**

The function's AWS X-Ray tracing configuration.

Type: `TracingConfigResponse` object

**Version**

The version of the Lambda function.

Type: String


Pattern: (\$LATEST|[0-9]+)

**VpcConfig**

The function's networking configuration.

Type: `VpcConfigResponse` object
Errors

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

**CodeSigningConfigNotFoundException**

The specified code signing configuration does not exist.

HTTP Status Code: 404

**CodeVerificationFailedException**

The code signature failed one or more of the validation checks for signature mismatch or expiry, and the code signing policy is set to ENFORCE. Lambda blocks the deployment.

HTTP Status Code: 400

**InvalidCodeSignatureException**

The code signature failed the integrity check. If the integrity check fails, then Lambda blocks deployment, even if the code signing policy is set to WARN.

HTTP Status Code: 400

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**PreconditionFailedException**

The RevisionId provided does not match the latest RevisionId for the Lambda function or alias. Call the GetFunction or the GetAlias API operation to retrieve the latest RevisionId for your resource.

HTTP Status Code: 412

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.
HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
UpdateFunctionEventInvokeConfig

Updates the configuration for asynchronous invocation for a function, version, or alias.

To configure options for asynchronous invocation, use **PutFunctionEventInvokeConfig**.

**Request Syntax**

```
POST /2019-09-25/functions/FunctionName/event-invoke-config?Qualifier=Qualifier
HTTP/1.1
Content-type: application/json

{
    "DestinationConfig": {
        "OnFailure": {
            "Destination": "string"
        },
        "OnSuccess": {
            "Destination": "string"
        }
    },
    "MaximumEventAgeInSeconds": number,
    "MaximumRetryAttempts": number
}
```

**URI Request Parameters**

The request uses the following URI parameters.

**FunctionName**

The name or ARN of the Lambda function, version, or alias.

**Name formats**

- **Function name** - my-function (name-only), my-function:v1 (with alias).
- **Partial ARN** - 123456789012:function:my-function.

You can append a version number or alias to any of the formats. The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.
Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-9]+)(:(\$LATEST|[a-zA-Z0-9-9]+))? Required: Yes

**Qualifier**

A version number or alias name.


Pattern: ([a-zA-Z0-9$-]+)

**Request Body**

The request accepts the following data in JSON format.

**DestinationConfig**

A destination for events after they have been sent to a function for processing.

**Destinations**

- **Function** - The Amazon Resource Name (ARN) of a Lambda function.
- **Queue** - The ARN of a standard SQS queue.
- **Topic** - The ARN of a standard SNS topic.
- **Event Bus** - The ARN of an Amazon EventBridge event bus.

Type: DestinationConfig object

Required: No

**MaximumEventAgeInSeconds**

The maximum age of a request that Lambda sends to a function for processing.

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 21600.

Required: No
**MaximumRetryAttempts**

The maximum number of times to retry when the function returns an error.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2.

Required: No

**Response Syntax**

HTTP/1.1 200
Content-type: application/json

```json
{
    "DestinationConfig": {
        "OnFailure": {
            "Destination": "string"
        },
        "OnSuccess": {
            "Destination": "string"
        }
    },
    "FunctionArn": "string",
    "LastModified": number,
    "MaximumEventAgeInSeconds": number,
    "MaximumRetryAttempts": 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.

**DestinationConfig**

A destination for events after they have been sent to a function for processing.

**Destinations**

- **Function** - The Amazon Resource Name (ARN) of a Lambda function.
• **Queue** - The ARN of a standard SQS queue.
• **Topic** - The ARN of a standard SNS topic.
• **Event Bus** - The ARN of an Amazon EventBridge event bus.

Type: [DestinationConfig](#) object

**FunctionArn**

The Amazon Resource Name (ARN) of the function.

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-\_]+(:\($LATEST|[a-zA-Z0-9-\_]+\)+)?`

**LastModified**

The date and time that the configuration was last updated, in Unix time seconds.

Type: Timestamp

**MaximumEventAgeInSeconds**

The maximum age of a request that Lambda sends to a function for processing.

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 21600.

**MaximumRetryAttempts**

The maximum number of times to retry when the function returns an error.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2.

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.
HTTP Status Code: 400

ResourceConflictException

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceException

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

TooManyRequestsException

The request throughput limit was exceeded. For more information, see Lambda quotas.

HTTP Status Code: 429

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 v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateFunctionUrlConfig

Updates the configuration for a Lambda function URL.

Request Syntax

PUT /2021-10-31/functions/{FunctionName}/url?Qualifier={Qualifier} HTTP/1.1
Content-type: application/json

{
   "AuthType": "string",
   "Cors": {
      "AllowCredentials": boolean,
      "AllowHeaders": [ "string" ],
      "AllowMethods": [ "string" ],
      "AllowOrigins": [ "string" ],
      "ExposeHeaders": [ "string" ],
      "MaxAge": number
   },
   "InvokeMode": "string"
}

URI Request Parameters

The request uses the following URI parameters.

FunctionName

The name or ARN of the Lambda function.

Name formats

- **Function name** – my-function.
- **Partial ARN** – 123456789012:function:my-function.

The length constraint applies only to the full ARN. If you specify only the function name, it is limited to 64 characters in length.

Length Constraints: Minimum length of 1. Maximum length of 140.
Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)?(\d{12}:)?(function:)?([a-zA-Z0-9-]+)(:(\$LATEST|[a-zA-Z0-9-]+))?

Required: Yes

**Qualifier**

The alias name.


Pattern: (^\$LATEST$)|((?!^[0-9]+$)([a-zA-Z0-9-]+))

**Request Body**

The request accepts the following data in JSON format.

**AuthType**

The type of authentication that your function URL uses. Set to AWS_IAM if you want to restrict access to authenticated users only. Set to NONE if you want to bypass IAM authentication to create a public endpoint. For more information, see [Security and auth model for Lambda function URLs](#).

Type: String

Valid Values: NONE | AWS_IAM

Required: No

**Cors**

The cross-origin resource sharing (CORS) settings for your function URL.

Type: Cors object

Required: No

**InvokeMode**

Use one of the following options:

- BUFFERED – This is the default option. Lambda invokes your function using the Invoke API operation. Invocation results are available when the payload is complete. The maximum payload size is 6 MB.
- **RESPONSE_STREAM** – Your function streams payload results as they become available. Lambda invokes your function using the `InvokeWithResponseStream` API operation. The maximum response payload size is 20 MB, however, you can request a quota increase.

  Type: String

  Valid Values: BUFFERED | RESPONSE_STREAM

  Required: No

**Response Syntax**

HTTP/1.1 200
Content-type: application/json

```json
{
  "AuthType": "string",
  "Cors": {
    "AllowCredentials": boolean,
    "AllowHeaders": [ "string" ],
    "AllowMethods": [ "string" ],
    "AllowOrigins": [ "string" ],
    "ExposeHeaders": [ "string" ],
    "MaxAge": number
  },
  "CreationTime": "string",
  "FunctionArn": "string",
  "FunctionUrl": "string",
  "InvokeMode": "string",
  "LastModifiedTime": "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.

**AuthType**

The type of authentication that your function URL uses. Set to AWS_IAM if you want to restrict access to authenticated users only. Set to NONE if you want to bypass IAM authentication to
create a public endpoint. For more information, see Security and auth model for Lambda function URLs.

Type: String

Valid Values: NONE | AWS_IAM

**Cors**

The cross-origin resource sharing (CORS) settings for your function URL.

Type: Cors object

**CreationTime**

When the function URL was created, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

**FunctionArn**

The Amazon Resource Name (ARN) of your function.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-_]\+:((\$LATEST|[a-zA-Z0-9-_]\+))?

**FunctionUrl**

The HTTP URL endpoint for your function.

Type: String

Length Constraints: Minimum length of 40. Maximum length of 100.

**InvokeMode**

Use one of the following options:

- **BUFFERED** – This is the default option. Lambda invokes your function using the Invoke API operation. Invocation results are available when the payload is complete. The maximum payload size is 6 MB.
- **RESPONSE_STREAM** – Your function streams payload results as they become available. Lambda invokes your function using the InvokeWithResponseStream API operation. The maximum response payload size is 20 MB, however, you can request a quota increase.
Type: String

Valid Values: BUFFERED | RESPONSE__STREAM

**LastModifiedTime**

When the function URL configuration was last updated, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

**Errors**

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

**InvalidParameterValueException**

One of the parameters in the request is not valid.

HTTP Status Code: 400

**ResourceConflictException**

The resource already exists, or another operation is in progress.

HTTP Status Code: 409

**ResourceNotFoundException**

The resource specified in the request does not exist.

HTTP Status Code: 404

**ServiceException**

The AWS Lambda service encountered an internal error.

HTTP Status Code: 500

**TooManyRequestsException**

The request throughput limit was exceeded. For more information, see [Lambda quotas](#).

HTTP Status Code: 429
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 v2](#)
- [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 AWS Lambda API contains several data types that various actions use. This section describes each data type in detail.

Note

The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- AccountLimit
- AccountUsage
- AliasConfiguration
- AliasRoutingConfiguration
- AllowedPublishers
- AmazonManagedKafkaEventSourceConfig
- CodeSigningConfig
- CodeSigningPolicies
- Concurrency
- Cors
- DeadLetterConfig
- DestinationConfig
- DocumentDBEventSourceConfig
- Environment
- EnvironmentError
- EnvironmentResponse
- EphemeralStorage
- EventSourceMappingConfiguration
- FileSystemConfig
- Filter
• FilterCriteria
• FunctionCode
• FunctionCodeLocation
• FunctionConfiguration
• FunctionEventInvokeConfig
• FunctionUrlConfig
• ImageConfig
• ImageConfigError
• ImageConfigResponse
• InvokeResponseStreamUpdate
• InvokeWithResponseStreamCompleteEvent
• InvokeWithResponseStreamResponseEvent
• Layer
• LayersListItem
• LayerVersionContentInput
• LayerVersionContentOutput
• LayerVersionsListItem
• LoggingConfig
• OnFailure
• OnSuccess
• ProvisionedConcurrencyConfigListItem
• RuntimeVersionConfig
• RuntimeVersionError
• ScalingConfig
• SelfManagedEventSource
• SelfManagedKafkaEventSourceConfig
• SnapStart
• SnapStartResponse
• SourceAccessConfiguration
• TracingConfig
- `TracingConfigResponse`
- `VpcConfig`
- `VpcConfigResponse`
AccountLimit

Limits that are related to concurrency and storage. All file and storage sizes are in bytes.

Contents

CodeSizeUnzipped

The maximum size of a function's deployment package and layers when they're extracted.

Type: Long

Required: No

CodeSizeZipped

The maximum size of a deployment package when it's uploaded directly to Lambda. Use Amazon S3 for larger files.

Type: Long

Required: No

ConcurrentExecutions

The maximum number of simultaneous function executions.

Type: Integer

Required: No

TotalCodeSize

The amount of storage space that you can use for all deployment packages and layer archives.

Type: Long

Required: No

UnreservedConcurrentExecutions

The maximum number of simultaneous function executions, minus the capacity that's reserved for individual functions with PutFunctionConcurrency.

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 Java V2
- AWS SDK for Ruby V3
AccountUsage

The number of functions and amount of storage in use.

Contents

FunctionCount

The number of Lambda functions.

Type: Long

Required: No

TotalCodeSize

The amount of storage space, in bytes, that's being used by deployment packages and layer archives.

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++](https://aws.amazon.com/sdk-for-cpp/
- [AWS SDK for Java V2](https://aws.amazon.com/sdk-for-java/
- [AWS SDK for Ruby V3](https://aws.amazon.com/sdk-for-ruby/
AliasConfiguration

Provides configuration information about a Lambda function alias.

Contents

AliasArn

The Amazon Resource Name (ARN) of the alias.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+--\d{1}:
\d{12}:function:[a-zA-Z0-9-_]++($LATEST|[a-zA-Z0-9-_]++)?

Required: No

Description

A description of the alias.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

FunctionVersion

The function version that the alias invokes.

Type: String


Pattern: (\$LATEST|[0-9]+)

Required: No

Name

The name of the alias.

Type: String

Pattern: (?!^[0-9]+$)([a-zA-Z0-9-._]+)

Required: No

RevisionId

A unique identifier that changes when you update the alias.

Type: String

Required: No

RoutingConfig

The routing configuration of the alias.

Type: AliasRoutingConfiguration 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 Java V2
- AWS SDK for Ruby V3
AliasRoutingConfiguration

The traffic-shifting configuration of a Lambda function alias.

Contents

AdditionalVersionWeights

The second version, and the percentage of traffic that's routed to it.

Type: String to double map

Key Length Constraints: Minimum length of 1. Maximum length of 1024.

Key Pattern: [0-9]+

Valid Range: Minimum value of 0.0. Maximum value of 1.0.

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 Java V2
- AWS SDK for Ruby V3
AllowedPublishers

List of signing profiles that can sign a code package.

Contents

SigningProfileVersionArns

The Amazon Resource Name (ARN) for each of the signing profiles. A signing profile defines a trusted user who can sign a code package.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Pattern: \d\D+:([\dA-Za-z\D-]+):([\dA-Za-z\D-]+)+:([a-zA-Z]+(-gov)?-\d\d\d):([\dA-Za-z\D-]+)+:\d{1}:\d{12}:.*

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/documentation/c++/
- [AWS SDK for Java V2](https://aws.amazon.com/documentation/java/
- [AWS SDK for Ruby V3](https://aws.amazon.com/documentation/ruby/)
AmazonManagedKafkaEventSourceConfig

Specific configuration settings for an Amazon Managed Streaming for Apache Kafka (Amazon MSK) event source.

Contents

ConsumerGroupId

The identifier for the Kafka consumer group to join. The consumer group ID must be unique among all your Kafka event sources. After creating a Kafka event source mapping with the consumer group ID specified, you cannot update this value. For more information, see Customizable consumer group ID.

Type: String


Pattern: [a-zA-Z0-9-\0-9-\*/_+=.@-]*

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 Java V2
- AWS SDK for Ruby V3
**CodeSigningConfig**

Details about a Code signing configuration.

**Contents**

**AllowedPublishers**

List of allowed publishers.

Type: `AllowedPublishers` object

Required: Yes

**CodeSigningConfigArn**

The Amazon Resource Name (ARN) of the Code signing configuration.

Type: String

Length Constraints: Maximum length of 200.

Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}((-gov)|(-iso(b?)))?-[a-zA-Z]+-\d{1}:\d{12}:code-signing-config:csc-[a-zA-Z0-9]{17}`

Required: Yes

**CodeSigningConfigId**

Unique identifier for the Code signing configuration.

Type: String

Pattern: `csc-[a-zA-Z0-9-_.]{17}`

Required: Yes

**CodeSigningPolicies**

The code signing policy controls the validation failure action for signature mismatch or expiry.

Type: `CodeSigningPolicies` object

Required: Yes
LastModified

The date and time that the Code signing configuration was last modified, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

Required: Yes

Description

Code signing configuration description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

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 Java V2
- AWS SDK for Ruby V3
CodeSigningPolicies

Code signing configuration policies specify the validation failure action for signature mismatch or expiry.

Contents

UntrustedArtifactOnDeployment

Code signing configuration policy for deployment validation failure. If you set the policy to Enforce, Lambda blocks the deployment request if signature validation checks fail. If you set the policy to Warn, Lambda allows the deployment and creates a CloudWatch log.

Default value: Warn

Type: String

Valid Values: Warn | Enforce

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 Java V2
- AWS SDK for Ruby V3
Concurrency

Contents

ReservedConcurrentExecutions

The number of concurrent executions that are reserved for this function. For more information, see Managing Lambda reserved concurrency.

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 Java V2
- AWS SDK for Ruby V3
Cors

The cross-origin resource sharing (CORS) settings for your Lambda function URL. Use CORS to grant access to your function URL from any origin. You can also use CORS to control access for specific HTTP headers and methods in requests to your function URL.

Contents

AllowCredentials

Whether to allow cookies or other credentials in requests to your function URL. The default is false.

Type: Boolean

Required: No

AllowHeaders

The HTTP headers that origins can include in requests to your function URL. For example: Date, Keep-Alive, X-Custom-Header.

Type: Array of strings

Array Members: Maximum number of 100 items.

Length Constraints: Maximum length of 1024.

Pattern: .*

Required: No

AllowMethods

The HTTP methods that are allowed when calling your function URL. For example: GET, POST, DELETE, or the wildcard character (*).

Type: Array of strings

Array Members: Maximum number of 6 items.

Length Constraints: Maximum length of 6.

Pattern: .*
Required: No

**AllowOrigins**

The origins that can access your function URL. You can list any number of specific origins, separated by a comma. For example: https://www.example.com, http://localhost:60905.

Alternatively, you can grant access to all origins using the wildcard character (*).

Type: Array of strings

Array Members: Maximum number of 100 items.


Pattern: .*

Required: No

**ExposeHeaders**

The HTTP headers in your function response that you want to expose to origins that call your function URL. For example: Date, Keep-Alive, X-Custom-Header.

Type: Array of strings

Array Members: Maximum number of 100 items.

Length Constraints: Maximum length of 1024.

Pattern: .*

Required: No

**MaxAge**

The maximum amount of time, in seconds, that web browsers can cache results of a preflight request. By default, this is set to 0, which means that the browser doesn't cache results.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 86400.

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 Java V2](#)
- [AWS SDK for Ruby V3](#)
DeadLetterConfig

The dead-letter queue for failed asynchronous invocations.

Contents

TargetArn

The Amazon Resource Name (ARN) of an Amazon SQS queue or Amazon SNS topic.

Type: String

Pattern: (arn:(aws[a-zA-Z-]*)?:[a-z0-9-.]+:.*|()/)

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 Java V2
- AWS SDK for Ruby V3
DestinationConfig

A configuration object that specifies the destination of an event after Lambda processes it.

Contents

OnFailure

The destination configuration for failed invocations.

Type: OnFailure object

Required: No

OnSuccess

The destination configuration for successful invocations.

Type: OnSuccess 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 Java V2
- AWS SDK for Ruby V3
DocumentDBEventSourceConfig

Specific configuration settings for a DocumentDB event source.

Contents

**CollectionName**

The name of the collection to consume within the database. If you do not specify a collection, Lambda consumes all collections.

Type: String


Pattern: (^[^-!system\x2e])(^[_a-zA-Z0-9])([^$]*

Required: No

**DatabaseName**

The name of the database to consume within the DocumentDB cluster.

Type: String


Pattern: [^[^-!system\x2e](^[_a-zA-Z0-9])([^$]*

Required: No

**FullDocument**

Determines what DocumentDB sends to your event stream during document update operations. If set to UpdateLookup, DocumentDB sends a delta describing the changes, along with a copy of the entire document. Otherwise, DocumentDB sends only a partial document that contains the changes.

Type: String

Valid Values: UpdateLookup | Default

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 Java V2
- AWS SDK for Ruby V3
Environment

A function's environment variable settings. You can use environment variables to adjust your function's behavior without updating code. An environment variable is a pair of strings that are stored in a function's version-specific configuration.

Contents

Variables

Environment variable key-value pairs. For more information, see Using Lambda environment variables.

Type: String to string map

Key Pattern: [a-zA-Z][a-zA-Z0-9_]++

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 Java V2
- AWS SDK for Ruby V3
EnvironmentError

Error messages for environment variables that couldn't be applied.

Contents

ErrorCode

The error code.

Type: String

Required: No

Message

The error message.

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 Java V2](#)
- [AWS SDK for Ruby V3](#)
EnvironmentResponse

The results of an operation to update or read environment variables. If the operation succeeds, the response contains the environment variables. If it fails, the response contains details about the error.

Contents

Error

Error messages for environment variables that couldn't be applied.

Type: EnvironmentError object

Required: No

Variables

Environment variable key-value pairs. Omitted from AWS CloudTrail logs.

Type: String to string map

Key Pattern: [a-zA-Z][a-zA-Z0-9_]`

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 Java V2
- AWS SDK for Ruby V3
EphemeralStorage

The size of the function's `/tmp` directory in MB. The default value is 512, but can be any whole number between 512 and 10,240 MB. For more information, see Configuring ephemeral storage (console).

Contents

Size

The size of the function's `/tmp` directory.

Type: Integer


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 Java V2
- AWS SDK for Ruby V3
EventSourceMappingConfiguration

A mapping between an AWS resource and a Lambda function. For details, see CreateEventSourceMapping.

Contents

AmazonManagedKafkaEventSourceConfig

Specific configuration settings for an Amazon Managed Streaming for Apache Kafka (Amazon MSK) event source.

Type: AmazonManagedKafkaEventSourceConfig object

Required: No

BatchSize

The maximum number of records in each batch that Lambda pulls from your stream or queue and sends to your function. Lambda passes all of the records in the batch to the function in a single call, up to the payload limit for synchronous invocation (6 MB).

Default value: Varies by service. For Amazon SQS, the default is 10. For all other services, the default is 100.

Related setting: When you set BatchSize to a value greater than 10, you must set MaximumBatchingWindowInSeconds to at least 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10000.

Required: No

BisectBatchOnFunctionError

(Kinesis and DynamoDB Streams only) If the function returns an error, split the batch in two and retry. The default value is false.

Type: Boolean

Required: No
**DestinationConfig**

(Kinesis, DynamoDB Streams, Amazon MSK, and self-managed Apache Kafka event sources only) A configuration object that specifies the destination of an event after Lambda processes it.

Type: `DestinationConfig` object

Required: No

**DocumentDBEventSourceConfig**

Specific configuration settings for a DocumentDB event source.

Type: `DocumentDBEventSourceConfig` object

Required: No

**EventSourceArn**

The Amazon Resource Name (ARN) of the event source.

Type: String

Pattern: `arn:(aws[a-zA-Z0-9-]*)*:([a-zA-Z-Z0-9\-\ ])+([a-zA-Z]{2}(-gov)?-[a-zA-Z]+-\d{1})?:(\d{12})?:(.*)`

Required: No

**FilterCriteria**

An object that defines the filter criteria that determine whether Lambda should process an event. For more information, see [Lambda event filtering](#).

Type: `FilterCriteria` object

Required: No

**FunctionArn**

The ARN of the Lambda function.

Type: String

Pattern: `arn:(aws[a-zA-Z-A-Z-]*)?:lambda:[a-zA-Z]{2}(-gov)?-[a-zA-Z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-\_]+:(\$LATEST|[a-zA-Z0-9-\_]*)`
FunctionResponseTypes

(Kinesis, DynamoDB Streams, and Amazon SQS) A list of current response type enums applied to the event source mapping.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1 item.

Valid Values: ReportBatchItemFailures

Required: No

LastModified

The date that the event source mapping was last updated or that its state changed, in Unix time seconds.

Type: Timestamp

Required: No

LastProcessingResult

The result of the last Lambda invocation of your function.

Type: String

Required: No

MaximumBatchingWindowInSeconds

The maximum amount of time, in seconds, that Lambda spends gathering records before invoking the function. You can configure MaximumBatchingWindowInSeconds to any value from 0 seconds to 300 seconds in increments of seconds.

For streams and Amazon SQS event sources, the default batching window is 0 seconds. For Amazon MSK, Self-managed Apache Kafka, Amazon MQ, and DocumentDB event sources, the default batching window is 500 ms. Note that because you can only change MaximumBatchingWindowInSeconds in increments of seconds, you cannot revert back to the 500 ms default batching window after you have changed it. To restore the default batching window, you must create a new event source mapping.
Related setting: For streams and Amazon SQS event sources, when you set BatchSize to a value greater than 10, you must set MaximumBatchingWindowInSeconds to at least 1.

**Type:** Integer

**Valid Range:** Minimum value of 0. Maximum value of 300.

**Required:** No

**MaximumRecordAgeInSeconds**

(Kinesis and DynamoDB Streams only) Discard records older than the specified age. The default value is -1, which sets the maximum age to infinite. When the value is set to infinite, Lambda never discards old records.

**Note**

The minimum valid value for maximum record age is 60s. Although values less than 60 and greater than -1 fall within the parameter's absolute range, they are not allowed

**Type:** Integer

**Valid Range:** Minimum value of -1. Maximum value of 604800.

**Required:** No

**MaximumRetryAttempts**

(Kinesis and DynamoDB Streams only) Discard records after the specified number of retries. The default value is -1, which sets the maximum number of retries to infinite. When MaximumRetryAttempts is infinite, Lambda retries failed records until the record expires in the event source.

**Type:** Integer

**Valid Range:** Minimum value of -1. Maximum value of 10000.

**Required:** No

**ParallelizationFactor**

(Kinesis and DynamoDB Streams only) The number of batches to process concurrently from each shard. The default value is 1.
Type: Integer


Required: No

Queues

(Amazon MQ) The name of the Amazon MQ broker destination queue to consume.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: [\s\S]*

Required: No

ScalingConfig

(Amazon SQS only) The scaling configuration for the event source. For more information, see Configuring maximum concurrency for Amazon SQS event sources.

Type: ScalingConfig object

Required: No

SelfManagedEventSource

The self-managed Apache Kafka cluster for your event source.

Type: SelfManagedEventSource object

Required: No

SelfManagedKafkaEventSourceConfig

Specific configuration settings for a self-managed Apache Kafka event source.

Type: SelfManagedKafkaEventSourceConfig object

Required: No
SourceAccessConfigurations

An array of the authentication protocol, VPC components, or virtual host to secure and define your event source.

Type: Array of SourceAccessConfiguration objects

Array Members: Minimum number of 0 items. Maximum number of 22 items.

Required: No

StartingPosition

The position in a stream from which to start reading. Required for Amazon Kinesis and Amazon DynamoDB Stream event sources. AT_TIMESTAMP is supported only for Amazon Kinesis streams, Amazon DocumentDB, Amazon MSK, and self-managed Apache Kafka.

Type: String

Valid Values: TRIM_HORIZON | LATEST | AT_TIMESTAMP

Required: No

StartingPositionTimestamp

With StartingPosition set to AT_TIMESTAMP, the time from which to start reading, in Unix time seconds. StartingPositionTimestamp cannot be in the future.

Type: Timestamp

Required: No

State

The state of the event source mapping. It can be one of the following: Creating, Enabling, Enabled, Disabling, Disabled, Updating, or Deleting.

Type: String

Required: No

StateTransitionReason

Indicates whether a user or Lambda made the last change to the event source mapping.

Type: String
Required: No

**Topics**

The name of the Kafka topic.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 249.

Pattern: `^[^.]([a-zA-Z0-9\-_.]+)`

Required: No

**TumblingWindowInSeconds**

(Kinesis and DynamoDB Streams only) The duration in seconds of a processing window for DynamoDB and Kinesis Streams event sources. A value of 0 seconds indicates no tumbling window.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 900.

Required: No

**UUID**

The identifier of the event source mapping.

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 Java V2](#)
• **AWS SDK for Ruby V3**
FileSystemConfig

Details about the connection between a Lambda function and an Amazon EFS file system.

Contents

Arn

The Amazon Resource Name (ARN) of the Amazon EFS access point that provides access to the file system.

Type: String

Length Constraints: Maximum length of 200.

Pattern: arn:aws[a-zA-Z]*:elasticfilesystem:[a-z][2]((-gov)?(-iso(b?))?)?[a-z]+\d[1]\d[12]:access-point/fsap-[a-f0-9]{17}

Required: Yes

LocalMountPath

The path where the function can access the file system, starting with /mnt/.

Type: String

Length Constraints: Maximum length of 160.

Pattern: ^/mnt/[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 Java V2](#)
- [AWS SDK for Ruby V3](#)
Filter

A structure within a FilterCriteria object that defines an event filtering pattern.

Contents

Pattern

A filter pattern. For more information on the syntax of a filter pattern, see Filter rule syntax.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 4096.

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 Java V2
- AWS SDK for Ruby V3
FilterCriteria

An object that contains the filters for an event source.

Contents

Filters

A list of filters.

Type: Array of Filter 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 Java V2
- AWS SDK for Ruby V3
FunctionCode

The code for the Lambda function. You can either specify an object in Amazon S3, upload a .zip file archive deployment package directly, or specify the URI of a container image.

Contents

ImageUri

URI of a container image in the Amazon ECR registry.

Type: String

Required: No

S3Bucket

An Amazon S3 bucket in the same AWS Region as your function. The bucket can be in a different AWS account.

Type: String


Pattern: ^[0-9A-Za-z\./-_]*(?!\.)$

Required: No

S3Key

The Amazon S3 key of the deployment package.

Type: String


Required: No

S3ObjectVersion

For versioned objects, the version of the deployment package object to use.

Type: String

Required: No

**ZipFile**

The base64-encoded contents of the deployment package. AWS SDK and AWS CLI clients handle the encoding for you.

Type: Base64-encoded binary data 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 Java V2](#)
- [AWS SDK for Ruby V3](#)
FunctionCodeLocation

Details about a function's deployment package.

Contents

ImageUri

URI of a container image in the Amazon ECR registry.

Type: String

Required: No

Location

A presigned URL that you can use to download the deployment package.

Type: String

Required: No

RepositoryType

The service that's hosting the file.

Type: String

Required: No

ResolvedImageUri

The resolved URI for the image.

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 Java V2
• AWS SDK for Ruby V3
FunctionConfiguration

Details about a function's configuration.

Contents

Architectures

The instruction set architecture that the function supports. Architecture is a string array with one of the valid values. The default architecture value is x86_64.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: x86_64 | arm64

Required: No

CodeSha256

The SHA256 hash of the function's deployment package.

Type: String

Required: No

CodeSize

The size of the function's deployment package, in bytes.

Type: Long

Required: No

DeadLetterConfig

The function's dead letter queue.

Type: DeadLetterConfig object

Required: No

Description

The function's description.
Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

Environment

The function's environment variables. Omitted from AWS CloudTrail logs.

Type: EnvironmentResponse object

Required: No

EphemeralStorage

The size of the function's /tmp directory in MB. The default value is 512, but can be any whole number between 512 and 10,240 MB. For more information, see Configuring ephemeral storage (console).

Type: EphemeralStorage object

Required: No

FileSystemConfigs

Connection settings for an Amazon EFS file system.

Type: Array of FileSystemConfig objects

Array Members: Maximum number of 1 item.

Required: No

FunctionArn

The function's Amazon Resource Name (ARN).

Type: String

Pattern: \n
Required: No
**FunctionName**

The name of the function.

Type: String


Pattern: (arn:(aws[a-zA-Z-]*)?:lambda:)?([a-z]{2}(-gov)?-[a-z]+-\d{1}:)? (\d{12}:)?(function:)?([a-zA-Z0-9-_.]+):($LATEST|[a-zA-Z0-9-_.]+)?

Required: No

**Handler**

The function that Lambda calls to begin running your function.

Type: String

Length Constraints: Maximum length of 128.

Pattern: [^\s]+

Required: No

**ImageConfigResponse**

The function's image configuration values.

Type: ImageConfigResponse object

Required: No

**KMSKeyArn**

The AWS KMS key that's used to encrypt the function's environment variables. When Lambda SnapStart is activated, this key is also used to encrypt the function's snapshot. This key is returned only if you've configured a customer managed key.

Type: String

Pattern: (arn:(aws[a-zA-Z-]*)?:[a-zA-Z0-9-]+:.*|())

Required: No
**LastModified**

The date and time that the function was last updated, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

Required: No

**LastUpdateStatus**

The status of the last update that was performed on the function. This is first set to `Successful` after function creation completes.

Type: String

Valid Values: Successful | Failed | InProgress

Required: No

**LastUpdateStatusReason**

The reason for the last update that was performed on the function.

Type: String

Required: No

**LastUpdateStatusReasonCode**

The reason code for the last update that was performed on the function.

Type: String


Required: No
Layers

The function's layers.

Type: Array of Layer objects

Required: No

LoggingConfig

The function's Amazon CloudWatch Logs configuration settings.

Type: LoggingConfig object

Required: No

MasterArn

For Lambda@Edge functions, the ARN of the main function.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-]+(:(\$LATEST|[a-zA-Z0-9-]+))?)

Required: No

MemorySize

The amount of memory available to the function at runtime.

Type: Integer


Required: No

PackageType

The type of deployment package. Set to Image for container image and set Zip for .zip file archive.

Type: String

Valid Values: Zip | Image
RevisionId

The latest updated revision of the function or alias.

Type: String

Required: No

Role

The function's execution role.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@-_\/]+

Required: No

Runtime

The identifier of the function's runtime. Runtime is required if the deployment package is a .zip file archive. Specifying a runtime results in an error if you're deploying a function using a container image.

The following list includes deprecated runtimes. Lambda blocks creating new functions and updating existing functions shortly after each runtime is deprecated. For more information, see Runtime use after deprecation.

For a list of all currently supported runtimes, see Supported runtimes.

Type: String

Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 | dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided | provided.al2 | nodejs18.x | python3.10 | java17 | ruby3.2 | python3.11 | nodejs20.x | provided.al2023 | python3.12 | java21

Required: No
### RuntimeVersionConfig

The ARN of the runtime and any errors that occurred.

Type: `RuntimeVersionConfig` object

Required: No

### SigningJobArn

The ARN of the signing job.

Type: String

Pattern: `arn:(aws[a-zA-Z0-9-]*):[a-zA-Z0-9-]+:[a-z]{2}(-gov)?-[a-z]+\d{1}?:\d{12}?:(.*)`

Required: No

### SigningProfileVersionArn

The ARN of the signing profile version.

Type: String

Pattern: `arn:(aws[a-zA-Z0-9-]*):[a-zA-Z0-9-]+:[a-z]{2}(-gov)?-[a-z]+\d{1}?:\d{12}?:(.*)`

Required: No

### SnapStart

Set `ApplyOn` to `PublishedVersions` to create a snapshot of the initialized execution environment when you publish a function version. For more information, see [Improving startup performance with Lambda SnapStart](#).

Type: `SnapStartResponse` object

Required: No

### State

The current state of the function. When the state is `Inactive`, you can reactivate the function by invoking it.

Type: String
Valid Values: Pending | Active | Inactive | Failed

Required: No

**StateReason**

The reason for the function's current state.

Type: String

Required: No

**StateReasonCode**

The reason code for the function's current state. When the code is Creating, you can't invoke or modify the function.

Type: String


Required: No

**Timeout**

The amount of time in seconds that Lambda allows a function to run before stopping it.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

**TracingConfig**

The function's AWS X-Ray tracing configuration.

Type: [TracingConfigResponse](#) object
Required: No

**Version**

The version of the Lambda function.

Type: String


Pattern: (\$LATEST | [0-9]+)

Required: No

**VpcConfig**

The function's networking configuration.

Type: [VpcConfigResponse](#) 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 Java V2](#)
- [AWS SDK for Ruby V3](#)
FunctionEventInvokeConfig

Contents

DestinationConfig

A destination for events after they have been sent to a function for processing.

Destinations

- **Function** - The Amazon Resource Name (ARN) of a Lambda function.
- **Queue** - The ARN of a standard SQS queue.
- **Topic** - The ARN of a standard SNS topic.
- **Event Bus** - The ARN of an Amazon EventBridge event bus.

Type: [DestinationConfig](DestinationConfig) object

Required: No

FunctionArn

The Amazon Resource Name (ARN) of the function.

Type: String

Pattern: `arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-d{1}:d{12}:function:[a-zA-Z0-9-\_]+(:\($LATEST|[a-zA-Z0-9-\_]+\))+`?

Required: No

LastModified

The date and time that the configuration was last updated, in Unix time seconds.

Type: Timestamp

Required: No

MaximumEventAgeInSeconds

The maximum age of a request that Lambda sends to a function for processing.

Type: Integer
Valid Range: Minimum value of 60. Maximum value of 21600.

Required: No

**MaximumRetryAttempts**

The maximum number of times to retry when the function returns an error.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2.

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 Java V2](#)
- [AWS SDK for Ruby V3](#)
FunctionUrlConfig

Details about a Lambda function URL.

Contents

AuthType

The type of authentication that your function URL uses. Set to AWS_IAM if you want to restrict access to authenticated users only. Set to NONE if you want to bypass IAM authentication to create a public endpoint. For more information, see Security and auth model for Lambda function URLs.

Type: String

Valid Values: NONE | AWS_IAM

Required: Yes

CreationTime

When the function URL was created, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

Required: Yes

FunctionArn

The Amazon Resource Name (ARN) of your function.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-$d{1}:
\d{12}:function:[a-zA-Z0-9-_.]+:(\$LATEST|[a-zA-Z0-9-_.]+))?

Required: Yes

FunctionUrl

The HTTP URL endpoint for your function.

Type: String
Length Constraints: Minimum length of 40. Maximum length of 100.

Required: Yes

**LastModifiedTime**

When the function URL configuration was last updated, in ISO-8601 format (YYYY-MM-DDThh:mm:ss.sTZD).

Type: String

Required: Yes

**Cors**

The cross-origin resource sharing (CORS) settings for your function URL.

Type: Cors object

Required: No

**InvokeMode**

Use one of the following options:

- **BUFFERED** – This is the default option. Lambda invokes your function using the Invoke API operation. Invocation results are available when the payload is complete. The maximum payload size is 6 MB.
- **RESPONSE_STREAM** – Your function streams payload results as they become available. Lambda invokes your function using the InvokeWithResponseStream API operation. The maximum response payload size is 20 MB, however, you can request a quota increase.

Type: String

Valid Values: BUFFERED | RESPONSE_STREAM

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 Java V2**
• **AWS SDK for Ruby V3**
ImageConfig

Configuration values that override the container image Dockerfile settings. For more information, see [Container image settings](#).

Contents

**Command**

Specifies parameters that you want to pass in with ENTRYPOINT.

Type: Array of strings

Array Members: Maximum number of 1500 items.

Required: No

**EntryPoint**

Specifies the entry point to their application, which is typically the location of the runtime executable.

Type: Array of strings

Array Members: Maximum number of 1500 items.

Required: No

**WorkingDirectory**

Specifies the working directory.

Type: String

Length Constraints: Maximum length of 1000.

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 Java V2
• AWS SDK for Ruby V3
ImageConfigError

Error response to GetFunctionConfiguration.

Contents

ErrorCode

Error code.

Type: String
Required: No

ErrorMessage

Error message.

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 Java V2
- AWS SDK for Ruby V3
ImageConfigResponse

Response to a GetFunctionConfiguration request.

Contents

Error

Error response to GetFunctionConfiguration.

Type: ImageConfigError object

Required: No

ImageConfig

Configuration values that override the container image Dockerfile.

Type: ImageConfig 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 Java V2
- AWS SDK for Ruby V3
InvokeResponseStreamUpdate

A chunk of the streamed response payload.

Contents

Payload

Data returned by your Lambda function.

Type: Base64-encoded binary data 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 Java V2
- AWS SDK for Ruby V3
InvokeWithResponseStreamCompleteEvent

A response confirming that the event stream is complete.

Contents

**ErrorCode**

An error code.

Type: String

Required: No

**ErrorDetails**

The details of any returned error.

Type: String

Required: No

**LogResult**

The last 4 KB of the execution log, which is base64-encoded.

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++](https://aws.amazon.com/sdk-for-cpp/)
- [AWS SDK for Java V2](https://aws.amazon.com/sdk-for-java/)
- [AWS SDK for Ruby V3](https://aws.amazon.com/sdk-for-ruby/)

InvokeWithResponseStreamResponseEvent

An object that includes a chunk of the response payload. When the stream has ended, Lambda includes a InvokeComplete object.

Contents

InvokeComplete

An object that's returned when the stream has ended and all the payload chunks have been returned.

Type: InvokeWithResponseStreamCompleteEvent object

Required: No

PayloadChunk

A chunk of the streamed response payload.

Type: InvokeResponseStreamUpdate 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 Java V2
- AWS SDK for Ruby V3
Layer

An AWS Lambda layer.

Contents

Arn

The Amazon Resource Name (ARN) of the function layer.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:\d{12}:layer:[a-zA-Z0-9-_.]+:[0-9]+

Required: No

CodeSize

The size of the layer archive in bytes.

Type: Long

Required: No

SigningJobArn

The Amazon Resource Name (ARN) of a signing job.

Type: String

Pattern: arn:(aws[a-zA-Z0-9-]*):([-a-zA-Z0-9\-]+:+([a-z]{2}(-gov)?-[a-z]+-[a-zA-Z0-9-_.]+:[\d{12}]+:[\d{12}]*)

Required: No

SigningProfileVersionArn

The Amazon Resource Name (ARN) for a signing profile version.

Type: String
Pattern: arn:(aws[a-zA-Z0-9-]*):([a-zA-Z0-9\-]+):([a-z]{2}(-gov)?-[a-z]+-\d{1}):(\d{12}):(.*

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 Java V2
- AWS SDK for Ruby V3
LayersListItem

Details about an AWS Lambda layer.

Contents

LatestMatchingVersion

The newest version of the layer.

Type: LayerVersionsListItem object

Required: No

LayerArn

The Amazon Resource Name (ARN) of the function layer.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+::\d{12}:layer:[a-zA-Z0-9-_.]+|

Required: No

LayerName

The name of the layer.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: (arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+::\d{12}:layer:[a-zA-Z0-9-_.]+)+|[a-zA-Z0-9-_.]+|

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 Java V2
• AWS SDK for Ruby V3
LayerVersionContentInput

A ZIP archive that contains the contents of an AWS Lambda layer. You can specify either an Amazon S3 location, or upload a layer archive directly.

Contents

S3Bucket

The Amazon S3 bucket of the layer archive.

Type: String


Pattern: ^[0-9A-Za-z\-_]*(?!\.)$

Required: No

S3Key

The Amazon S3 key of the layer archive.

Type: String


Required: No

S3ObjectVersion

For versioned objects, the version of the layer archive object to use.

Type: String


Required: No

ZipFile

The base64-encoded contents of the layer archive. AWS SDK and AWS CLI clients handle the encoding for you.

Type: Base64-encoded binary data 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 Java V2](#)
- [AWS SDK for Ruby V3](#)
LayerVersionContentOutput

Details about a version of an AWS Lambda layer.

Contents

CodeSha256

The SHA-256 hash of the layer archive.

Type: String

Required: No

CodeSize

The size of the layer archive in bytes.

Type: Long

Required: No

Location

A link to the layer archive in Amazon S3 that is valid for 10 minutes.

Type: String

Required: No

SigningJobArn

The Amazon Resource Name (ARN) of a signing job.

Type: String

Required: No

SigningProfileVersionArn

The Amazon Resource Name (ARN) for a signing profile version.

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 Java V2]
- [AWS SDK for Ruby V3]
LayerVersionsListItem

Details about a version of an AWS Lambda layer.

Contents

CompatibleArchitectures

A list of compatible instruction set architectures.

Type: Array of strings

Array Members: Maximum number of 2 items.

Valid Values: x86_64 | arm64

Required: No

CompatibleRuntimes

The layer's compatible runtimes.

The following list includes deprecated runtimes. For more information, see Runtime use after deprecation.

For a list of all currently supported runtimes, see Supported runtimes.

Type: Array of strings

Array Members: Maximum number of 15 items.

Valid Values: nodejs | nodejs4.3 | nodejs6.10 | nodejs8.10 | nodejs10.x | nodejs12.x | nodejs14.x | nodejs16.x | java8 | java8.al2 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | python3.9 | dotnetcore1.0 | dotnetcore2.0 | dotnetcore2.1 | dotnetcore3.1 | dotnet6 | dotnet8 | nodejs4.3-edge | go1.x | ruby2.5 | ruby2.7 | provided | provided.al2 | nodejs18.x | python3.10 | java17 | ruby3.2 | python3.11 | nodejs20.x | provided.al2023 | python3.12 | java21

Required: No
**CreatedDate**

The date that the version was created, in ISO 8601 format. For example, 2018-11-27T15:10:45.123+0000.

Type: String

Required: No

**Description**

The description of the version.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

**LayerVersionArn**

The ARN of the layer version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 140.

Pattern: arn:[a-zA-Z0-9-]+:lambda:[a-zA-Z0-9-]+:d{12}:layer:[a-zA-Z0-9-_]+:[0-9]+

Required: No

**LicenseInfo**

The layer's open-source license.

Type: String

Length Constraints: Maximum length of 512.

Required: No

**Version**

The version number.
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 Java V2
- AWS SDK for Ruby V3
LoggingConfig

The function's Amazon CloudWatch Logs configuration settings.

Contents

ApplicationLogLevel

Set this property to filter the application logs for your function that Lambda sends to CloudWatch. Lambda only sends application logs at the selected level of detail and lower, where TRACE is the highest level and FATAL is the lowest.

Type: String

Valid Values: TRACE | DEBUG | INFO | WARN | ERROR | FATAL

Required: No

LogFormat

The format in which Lambda sends your function's application and system logs to CloudWatch. Select between plain text and structured JSON.

Type: String

Valid Values: JSON | Text

Required: No

LogGroup

The name of the Amazon CloudWatch log group the function sends logs to. By default, Lambda functions send logs to a default log group named /aws/lambda/<function name>. To use a different log group, enter an existing log group or enter a new log group name.

Type: String


Pattern: [\./-_#/A-Za-z0-9]+ 

Required: No
SystemLogLevel

Set this property to filter the system logs for your function that Lambda sends to CloudWatch. Lambda only sends system logs at the selected level of detail and lower, where DEBUG is the highest level and WARN is the lowest.

Type: String

Valid Values: DEBUG | INFO | WARN

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 Java V2
- AWS SDK for Ruby V3
OnFailure

A destination for events that failed processing.

Contents

Destination

The Amazon Resource Name (ARN) of the destination resource.

To retain records of asynchronous invocations, you can configure an Amazon SNS topic, Amazon SQS queue, Lambda function, or Amazon EventBridge event bus as the destination.

To retain records of failed invocations from Kinesis and DynamoDB event sources, you can configure an Amazon SNS topic or Amazon SQS queue as the destination.

To retain records of failed invocations from self-managed Kafka or Amazon MSK, you can configure an Amazon SNS topic, Amazon SQS queue, or Amazon S3 bucket as the destination.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 350.

Pattern: ^$|arn:(aws[a-zA-Z0-9-]*)*(:([a-zA-Z0-9\-]+)(([a-zA-Z][\-a-zA-Z0-9\-]+)*\d{1})?:\d{12})?:(.*)

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 Java V2
- AWS SDK for Ruby V3
OnSuccess

A destination for events that were processed successfully.

Contents

Destination

The Amazon Resource Name (ARN) of the destination resource.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 350.

Pattern: `^$|arn:(aws[a-zA-Z0-9-]*):[(a-zA-Z0-9\-]+:[[a-z]{2}(-gov)?-[a-zA-Z]+-\d{12}[:\d\{12}\:]?)\:\([.*])`

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 Java V2](#)
- [AWS SDK for Ruby V3](#)
ProvisionedConcurrencyConfigListItem

Details about the provisioned concurrency configuration for a function alias or version.

Contents

AllocatedProvisionedConcurrentExecutions

The amount of provisioned concurrency allocated. When a weighted alias is used during linear and canary deployments, this value fluctuates depending on the amount of concurrency that is provisioned for the function versions.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

AvailableProvisionedConcurrentExecutions

The amount of provisioned concurrency available.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

FunctionArn

The Amazon Resource Name (ARN) of the alias or version.

Type: String

Pattern: arn:(aws[a-zA-Z-]*)?:lambda:[a-z]{2}(-gov)?-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-\_]+(?:\$LATEST|[a-zA-Z0-9-\_]+)?

Required: No

LastModified

The date and time that a user last updated the configuration, in ISO 8601 format.

Type: String
Required: No

**RequestedProvisionedConcurrentExecutions**

The amount of provisioned concurrency requested.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

**Status**

The status of the allocation process.

Type: String

Valid Values: IN_PROGRESS | READY | FAILED

Required: No

**StatusReason**

For failed allocations, the reason that provisioned concurrency could not be allocated.

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 Java V2](#)
- [AWS SDK for Ruby V3](#)
RuntimeVersionConfig

The ARN of the runtime and any errors that occurred.

Contents

Error

Error response when Lambda is unable to retrieve the runtime version for a function.

Type: RuntimeVersionError object

Required: No

RuntimeVersionArn

The ARN of the runtime version you want the function to use.

Type: String


Pattern: ^arn:(aws[a-zA-Z-]*):lambda:[a-zA-Z]{2}((gov)(iso[b]?))?[a-zA-Z][-d{1}::runtime:.]+$

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 Java V2
- AWS SDK for Ruby V3
**RuntimeVersionError**

Any error returned when the runtime version information for the function could not be retrieved.

**Contents**

**ErrorCode**

The error code.

Type: String

Required: No

**Message**

The error message.

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 Java V2](#)
- [AWS SDK for Ruby V3](#)
ScalingConfig

(Amazon SQS only) The scaling configuration for the event source. To remove the configuration, pass an empty value.

Contents

MaximumConcurrency

Limits the number of concurrent instances that the Amazon SQS event source can invoke.

Type: Integer


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 Java V2](#)
- [AWS SDK for Ruby V3](#)
SelfManagedEventSource

The self-managed Apache Kafka cluster for your event source.

Contents

Endpoints

The list of bootstrap servers for your Kafka brokers in the following format:
"KAFKA_BOOTSTRAP_SERVERS": ["abc.xyz.com:xxxx","abc2.xyz.com:xxxx"].

Type: String to array of strings map

Map Entries: Maximum number of 2 items.

Valid Keys: KAFKA_BOOTSTRAP_SERVERS

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 300.

Pattern: ^((\[a-zA-Z0-9]\|[a-zA-Z0-9]\[a-zA-Z0-9-]\])*([a-zA-Z0-9]\|[a-zA-Z0-9]\[a-zA-Z0-9-]\])*([A-Za-z0-9]\|[A-Za-z0-9]\[A-Za-z0-9-]\)*([A-Za-z0-9]):[0-9]{1,5}$

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 Java V2
- AWS SDK for Ruby V3
SelfManagedKafkaEventSourceConfig

Specific configuration settings for a self-managed Apache Kafka event source.

Contents

ConsumerGroupId

The identifier for the Kafka consumer group to join. The consumer group ID must be unique among all your Kafka event sources. After creating a Kafka event source mapping with the consumer group ID specified, you cannot update this value. For more information, see Customizable consumer group ID.

Type: String


Pattern: [ a-zA-Z0-9-\/*:._+=.@-]*

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 Java V2
- AWS SDK for Ruby V3
SnapStart

The function's Lambda SnapStart setting. Set ApplyOn to PublishedVersions to create a snapshot of the initialized execution environment when you publish a function version.

Contents

ApplyOn

Set to PublishedVersions to create a snapshot of the initialized execution environment when you publish a function version.

Type: String

Valid Values: PublishedVersions | None

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 Java V2
- AWS SDK for Ruby V3
SnapStartResponse

The function's SnapStart setting.

Contents

ApplyOn

When set to PublishedVersions, Lambda creates a snapshot of the execution environment when you publish a function version.

Type: String

Valid Values: PublishedVersions | None

Required: No

OptimizationStatus

When you provide a qualified Amazon Resource Name (ARN), this response element indicates whether SnapStart is activated for the specified function version.

Type: String

Valid Values: On | Off

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 Java V2
- AWS SDK for Ruby V3
SourceAccessConfiguration

To secure and define access to your event source, you can specify the authentication protocol, VPC components, or virtual host.

Contents

Type

The type of authentication protocol, VPC components, or virtual host for your event source. For example: "Type": "SASL_SCRAM_512_AUTH".

- **BASIC_AUTH** – (Amazon MQ) The AWS Secrets Manager secret that stores your broker credentials.
- **BASIC_AUTH** – (Self-managed Apache Kafka) The Secrets Manager ARN of your secret key used for SASL/PLAIN authentication of your Apache Kafka brokers.
- **VPC_SUBNET** – (Self-managed Apache Kafka) The subnets associated with your VPC. Lambda connects to these subnets to fetch data from your self-managed Apache Kafka cluster.
- **VPC_SECURITY_GROUP** – (Self-managed Apache Kafka) The VPC security group used to manage access to your self-managed Apache Kafka brokers.
- **SASL_SCRAM_256_AUTH** – (Self-managed Apache Kafka) The Secrets Manager ARN of your secret key used for SASL SCRAM-256 authentication of your self-managed Apache Kafka brokers.
- **SASL_SCRAM_512_AUTH** – (Amazon MSK, Self-managed Apache Kafka) The Secrets Manager ARN of your secret key used for SASL SCRAM-512 authentication of your self-managed Apache Kafka brokers.
- **VIRTUAL_HOST** – (RabbitMQ) The name of the virtual host in your RabbitMQ broker. Lambda uses this RabbitMQ host as the event source. This property cannot be specified in an UpdateEventSourceMapping API call.
- **CLIENT_CERTIFICATE_TLS_AUTH** – (Amazon MSK, self-managed Apache Kafka) The Secrets Manager ARN of your secret key containing the certificate chain (X.509 PEM), private key (PKCS#8 PEM), and private key password (optional) used for mutual TLS authentication of your MSK/Apache Kafka brokers.
- **SERVER_ROOT_CA_CERTIFICATE** – (Self-managed Apache Kafka) The Secrets Manager ARN of your secret key containing the root CA certificate (X.509 PEM) used for TLS encryption of your Apache Kafka brokers.
Type: String

Valid Values: BASIC_AUTH | VPC_SUBNET | VPC_SECURITY_GROUP | SASL_SCRAM_512_AUTH | SASL_SCRAM_256_AUTH | VIRTUAL_HOST | CLIENT_CERTIFICATE_TLS_AUTH | SERVER_ROOT_CA_CERTIFICATE

Required: No

**URI**

The value for your chosen configuration in Type. For example: "URI": "arn:aws:secretsmanager:us-east-1:01234567890:secret:MyBrokerSecretName".

Type: String


Pattern: [a-zA-Z0-9-\/*-_+=.@-]*

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 Java V2](#)
- [AWS SDK for Ruby V3](#)
TracingConfig

The function's AWS X-Ray tracing configuration. To sample and record incoming requests, set Mode to Active.

Contents

Mode

The tracing mode.

Type: String

Valid Values: Active | PassThrough

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 Java V2
- AWS SDK for Ruby V3
TracingConfigResponse

The function's AWS X-Ray tracing configuration.

Contents

Mode

The tracing mode.

Type: String

Valid Values: Active | PassThrough

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 Java V2
- AWS SDK for Ruby V3
VpcConfig

The VPC security groups and subnets that are attached to a Lambda function. For more information, see Configuring a Lambda function to access resources in a VPC.

Contents

Ipv6AllowedForDualStack

Allows outbound IPv6 traffic on VPC functions that are connected to dual-stack subnets.

Type: Boolean

Required: No

SecurityGroupIds

A list of VPC security group IDs.

Type: Array of strings

Array Members: Maximum number of 5 items.

Required: No

SubnetIds

A list of VPC subnet IDs.

Type: Array of strings

Array Members: Maximum number of 16 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 Java V2
• **AWS SDK for Ruby V3**
VpcConfigResponse

The VPC security groups and subnets that are attached to a Lambda function.

Contents

Ipv6AllowedForDualStack

Allows outbound IPv6 traffic on VPC functions that are connected to dual-stack subnets.

Type: Boolean

Required: No

SecurityGroupIds

A list of VPC security group IDs.

Type: Array of strings

Array Members: Maximum number of 5 items.

Required: No

SubnetIds

A list of VPC subnet IDs.

Type: Array of strings

Array Members: Maximum number of 16 items.

Required: No

VpcId

The ID of the VPC.

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 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: 403

**ExpiredTokenException**

The security token included in the request is expired

HTTP Status Code: 403

**IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 403

**InternalFailure**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

**MalformedHttpRequestException**

Problems with the request at the HTTP level, e.g. we can't decompress the body according to the decompression algorithm specified by the content-encoding.

HTTP Status Code: 400

**NotAuthorized**

You do not have permission to perform this action.

HTTP Status Code: 401

**OptInRequired**

The AWS access key ID needs a subscription for the service.
HTTP Status Code: 403

**RequestAbortedException**

Convenient exception that can be used when a request is aborted before a reply is sent back (e.g. client closed connection).

HTTP Status Code: 400

**RequestEntityTooLargeException**

Problems with the request at the HTTP level. The request entity is too large.

HTTP Status Code: 413

**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

**RequestTimeoutException**

Problems with the request at the HTTP level. Reading the Request timed out.

HTTP Status Code: 408

**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

**UnrecognizedClientException**

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403
UnknownOperationException

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 404

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400