# Table of Contents

What Is the AWS Serverless Application Repository? (Preview) ................................................................. 1
Consuming Applications and Publishing Applications ................................................................................ 2
  Consuming Applications (Preview) ............................................................................................................... 2
  Browsing and Searching for Applications .............................................................................................. 2
  Deploying and Configuring Applications ............................................................................................... 2
Publishing Applications (Preview) ............................................................................................................ 3
  Publishing an Application Through the AWS Management Console ................................................... 4
  Using the AWS Serverless Application Model (AWS SAM) ................................................................. 5

Resources .................................................................................................................................................. 18
  Applications ........................................................................................................................................ 18
  URI ...................................................................................................................................................... 18
  HTTP Methods ................................................................................................................................. 18
  Schemas ............................................................................................................................................ 19
  Properties ........................................................................................................................................... 22
  Applications applicationId ..................................................................................................................... 32
    URI .................................................................................................................................................. 32
    HTTP Methods .............................................................................................................................. 32
    Schemas ......................................................................................................................................... 34
    Properties ....................................................................................................................................... 36
  Applications applicationId Changesets .............................................................................................. 44
    URI .................................................................................................................................................. 44
    HTTP Methods .............................................................................................................................. 44
    Schemas ......................................................................................................................................... 44
    Properties ....................................................................................................................................... 45
  Applications applicationId Policy .......................................................................................................... 48
    URI .................................................................................................................................................. 48
    HTTP Methods .............................................................................................................................. 48
    Schemas ......................................................................................................................................... 50
    Properties ....................................................................................................................................... 51
  Applications applicationId Versions .................................................................................................... 53
    URI .................................................................................................................................................. 53
    HTTP Methods .............................................................................................................................. 53
    Schemas ......................................................................................................................................... 54
    Properties ....................................................................................................................................... 55
  Applications applicationId Versions semanticVersion ........................................................................... 58
    URI .................................................................................................................................................. 58
    HTTP Methods .............................................................................................................................. 58
    Schemas ......................................................................................................................................... 58
    Properties ....................................................................................................................................... 60

Document History .............................................................................................................................. 66
AWS Glossary ................................................................................................................................. 67
What Is the AWS Serverless Application Repository? (Preview)

To request access to the AWS Serverless Application Repository, sign up for the preview.

The AWS Serverless Application Repository makes it easy for developers and enterprises to quickly find and deploy serverless applications in the AWS Cloud. For more information about serverless applications, see Serverless Computing and Applications on the AWS website.

The AWS Serverless Application Repository is deeply integrated with the AWS Lambda console. So as a developer, you don’t need to learn anything new. You can browse for applications by using category keywords, such as web and mobile backends, data processing applications, or chatbots. You can easily search for applications by name, publisher, or event source. To use an application, you simply choose it, configure any required fields, and deploy it with a few clicks.

You can also easily publish applications, sharing them publicly with the community at large, or privately within your team or across your organizations. To publish a serverless application (or app), you can use the AWS Management Console, AWS Command Line Interface (AWS CLI), or AWS SDKs to upload the code. Along with the code, you upload a simple manifest file, also known as the AWS Serverless Application Model (AWS SAM) template. For more information about AWS SAM, see AWS Serverless Application Model (AWS SAM).

In this guide, you can find out about the two developer experiences available through the AWS Serverless Repository:

- **Consuming Applications (Preview) (p. 2)** – Browse for applications and view information about them, including source code and readme files. Also install, configure, and launch applications of your choosing.
- **Publishing Applications (Preview) (p. 3)** – Configure and upload applications to make them available to other developers, and publish new versions of applications.
Consuming Applications and Publishing Applications

Following, you can find information on how to consume and publish serverless applications through the AWS Serverless Application Repository.

Topics
- Consuming Applications (Preview) (p. 2)
- Publishing Applications (Preview) (p. 3)

Consuming Applications (Preview)

To request access to the AWS Serverless Application Repository, sign up for the preview.

Following, you can find out how to find and deploy serverless applications that have been published to the AWS Serverless Application Repository. You can browse for applications that are publicly available without having an AWS account by visiting the public site. Alternatively, you can browse for applications from within the AWS Lambda console.

Browsing and Searching for Applications

Find an application in the AWS Serverless Application Repository by using the following procedure.

To find an application in the AWS Serverless Application Repository

1. Open the AWS Serverless Application Repository public home page, or open the AWS Lambda console and choose Serverless Application Repository.
2. Browse or search for an application.
3. Choose an application to get more details about it, such as its capabilities and the number of times it has been deployed by AWS customers.
4. (Optional) On the application detail page, view the Readme.txt file or License.txt file for the application, or choose the View code link to go to the GitHub page for applications that are publicly shared. On the application GitHub page, you can view the application's source code, GitHub star rating, and GitHub user comments.
5. On the application detail page, choose Deploy. Doing this takes you to the AWS Lambda console, where you can configure and deploy the application to your account. If you are on the public site, you are prompted to sign in using a valid AWS account before proceeding.

Find more information about deploying and configuring AWS Serverless Application Repository applications in the following sections.

Deploying and Configuring Applications

Deploy and configure an application in the AWS Serverless Application Repository by using the following procedure, after locating and getting details about the application as described in Browsing and Searching for Applications (p. 2).
To deploy and configure an application from the AWS Serverless Application Repository

1. On the Lambda console page, configure the application as required. Application configurations vary. For guidance on configuring the application, see the application's readme.txt file.
   For example, requirements might include specifying the name of an Amazon DynamoDB table, an Amazon S3 bucket, or an Amazon API Gateway API that you want the application to have access to.
2. Choose **Deploy**, and then wait for the application to be successfully deployed in your account.

When an application has been successfully deployed, you can review the resources created using existing AWS tools. You can also navigate to the Lambda Application Designer to customize the application as needed.

---

**Publishing Applications (Preview)**

To request access to the AWS Serverless Application Repository, [sign up for the preview.](#)

Following, you can find out how to make your serverless applications available for others to find and deploy. You can publish serverless applications by using the AWS Management Console, the AWS Command Line Interface (AWS CLI), or an AWS SDK.

To publish an application, you upload the application code. With the code, you upload a simple manifest file, also known as an **AWS Serverless Application Model (AWS SAM) template**. For more information about using AWS SAM, see Using the AWS Serverless Application Model (AWS SAM) (p. 5).

**Note**

To make the serverless applications that you publish available to developers in other AWS Regions, publish your applications to either US East (N. Virginia) (us-east-1) or US East (Ohio) (us-east-2). Publishing your application in any other AWS Region restricts its availability to that AWS Region.

Before you publish an application to the AWS Serverless Application Repository, you need the following:

- A valid AWS account.
- A valid AWS Serverless Application Model (AWS SAM) template that defines the AWS resources used. For more information about SAM, see [AWS Serverless Application Model (AWS SAM)].
- A package for your application that you created using the AWS CloudFormation `package` command for the AWS CLI. This command packages the local artifacts (local paths) that your AWS SAM template references. For more details, see `package` in the AWS CloudFormation documentation.
- A URL pointing to your application's source code, in case you want to publish your application publicly.
- A `readme.txt` file. This file should describe how customers can use your application, and how to configure it before deploying it in their own AWS accounts.
- A `license.txt` file.
- A valid S3 bucket policy that grants the service read permissions for artifacts uploaded to S3 when you packaged your application. Following is an example of such a policy.

```json
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Principal": {
                "Service": "serverlessrepo.amazonaws.com"
            }
        }
    ]
}
```
Publishing an Application Through the AWS Management Console

Creating a New Application Through the Console

Create a new application in the AWS Serverless Application Repository by using the following console procedure.

To create a new application in the AWS Serverless Application Repository

1. Because this feature is in Preview, first make sure that you are signed up for the Preview.
2. After you are approved for the Preview, sign in to the AWS Serverless Application Repository console using the link provided in your acceptance email.
3. On the Create Application page, type the indicated application information into the following boxes:
   - Publisher Name
   - Application Name
   - Description
   - Source code URL (required only for publicly shared applications)
   - License.txt file
   - Readme.txt file
   - AWS SAM template file
   - Search labels (space delimited)
4. Choose Create Application.

Sharing an Application Through the Console

Make your application publicly available using the following procedure.

To make your application publicly available

1. Open the AWS Serverless Application Repository console.
2. On the navigation pane, choose My Applications to bring up the list of applications that you have created.
3. Choose the application that you want to share.
4. In the Application Details section, move the Visibility slider to Application is public.

Publishing a New Version of an Existing Application Through the Console

Publish a new version of an application that you already created using the following procedure.
To publish a new version of an application

1. Open the AWS Serverless Application Repository console.
2. On the navigation pane, choose My Applications to bring up the list of applications that you have created.
3. Choose the application that you want to publish a new version for.
5. For AWS SAM template file, type the name of the new AWS SAM template file for this version.
6. Choose Publish.

Using the AWS Serverless Application Model (AWS SAM)

The AWS Serverless Application Model (AWS SAM) is a model that defines serverless applications. AWS SAM is natively supported by AWS CloudFormation and defines simplified syntax for expressing serverless resources. The specification currently covers APIs, AWS Lambda functions, and Amazon DynamoDB tables. The specification is available under Apache 2.0 for AWS partners and customers to adopt and extend within their own tool sets. For details on the specification, see AWS Serverless Application Model.

AWS SAM supports special resource types that simplify how to express functions, APIs, mappings, and DynamoDB tables for serverless applications, in addition to some features for these services like environment variables. The AWS CloudFormation description of these resources conforms to the AWS Serverless Application Model. To deploy your application, specify the resources that you need as part of your application. You specify these along with their associated permissions policies in an AWS CloudFormation template file (written in either JSON or YAML). You then package your deployment artifacts, and deploy the template.

Supported AWS Resources in the AWS Serverless Application Repository

Serverless applications that you publish to the AWS Serverless Application Repository can include additional AWS CloudFormation resources. The following is a complete list of supported resources:

- AWS::Serverless::Function
- AWS::Serverless::Api
- AWS::Serverless::SimpleTable
- AWS::Lambda::Alias
- AWS::Lambda::Version
- AWS::Lambda::EventSourceMapping
- AWS::ApiGateway::Account
- AWS::ApiGateway::ApiKey
- AWS::ApiGateway::Authorizer
- AWS::ApiGateway::BasePathMapping
- AWS::ApiGateway::ClientCertificate
- AWS::ApiGateway::Deployment
- AWS::ApiGateway::DocumentationPart
- AWS::ApiGateway::DocumentationVersion
- AWS::ApiGateway::DomainName
Policy Templates

When you add a serverless application to the AWS Serverless Application Repository, AWS SAM allows you to choose from a list of policy templates. When you choose one of these templates, your Lambda functions are scoped to the resources that are used by your application. The following lists the permissions that are applied to each policy template in the policy templates list. AWS SAM automatically populates the placeholder items (such as region and account ID) with the appropriate information.

The following example shows that the SQSPollerPolicy policy expects a QueueName as a resource. The AWS SAM template retrieves the name of the "MyQueue" SQS queue, which can be created in the same application or requested as a parameter to the application.

```yaml
MyFunction:
  Type: 'AWS::Serverless::Function'
  Properties:
    CodeUri: ${codeuri}
    Handler: hello.handler
    Runtime: python2.7
    Policies:
      - SQSPollerPolicy:
          QueueName: Fn::GetAtt: ["MyQueue", "QueueName"]
```
SQSPollerPolicy: Gives Permissions to Poll an SQS Queue

```
"Statement": [
    {
      "Effect": "Allow",
      "Action": ["sqs:DeleteMessage", "sqs:ReceiveMessage"],
      "Resource": {
        "Fn::Sub": [
          "arn:${AWS::Partition}:sqs:${AWS::Region}:${AWS::AccountId}:${queueName}",
          {
            "queueName": {
              "Ref": "QueueName"
            }
          }
        ]
      }
    }
]
```

LambdaInvokePolicy: Gives Permission to Invoke a Lambda Function, Alias, or Version

```
"Statement": [
    {
      "Effect": "Allow",
      "Action": ["lambda:InvokeFunction"],
      "Resource": {
        "Fn::Sub": [
          "arn:${AWS::Partition}:lambda:${AWS::Region}:${AWS::AccountId}:function:*",
          {
            "functionName": {
              "Ref": "FunctionName"
            }
          }
        ]
      }
    }
]
```

CloudWatchPutMetricPolicy: Gives Permissions to Put Metrics to CloudWatch

```
"Statement": [
    {
      "Effect": "Allow",
      "Action": [*]
    }
]
```
"cloudwatch:PutMetricData"
],
"Resource": "*"
}
]

**EC2DescribePolicy:** Gives Permission to Describe Amazon EC2 Instances

```
"Statement": [
{
  "Effect": "Allow",
  "Action": [
    "ec2:DescribeRegions",
    "ec2:DescribeInstances"
  ],
  "Resource": "*"
}
]
```

**DynamoDBCrudPolicy:** Gives CRUD Access to a DynamoDB Table

```
"Statement": [
{
  "Effect": "Allow",
  "Action": [
    "dynamodb:GetItem",
    "dynamodb:DeleteItem",
    "dynamodb:PutItem",
    "dynamodb:Scan",
    "dynamodb:Query",
    "dynamodb:UpdateItem",
    "dynamodb:BatchWriteItem",
    "dynamodb:BatchGetItem"
  ],
  "Resource": {
    "Fn::Sub": [
      "arn:${AWS::Partition}:dynamodb:${AWS::Region}:${AWS::AccountId}:table/
      ${tableName}",
      {
        "tableName": {
          "Ref": "TableName"
        }
      }
    ]
  }
}
]
```

**DynamoDBReadPolicy:** Gives Read-Only Access to a DynamoDB Table

```
"Statement": [

{ "Effect": "Allow",  
"Action": [  
"dynamodb:GetItem",  
"dynamodb:Scan",  
"dynamodb:Query",  
"dynamodb:BatchGetItem"  
],  
"Resource": {  
"Fn::Sub": [  
"arn:${AWS::Partition}:dynamodb:${AWS::Region}:${AWS::AccountId}:table/${tableName}",  
{  
"tableName": {  
"Ref": "TableName"  
}  
}  
]  
}  
}  

SESSendBouncePolicy: Gives SendBounce Permission to an Amazon SES Identity

"Statement": [  
{  
"Effect": "Allow",  
"Action": [  
"ses:SendBounce"  
],  
"Resource": {  
"Fn::Sub": [  
"arn:${AWS::Partition}:ses:${AWS::Region}:${AWS::AccountId}:identity/${identityName}",  
{  
"identityName": {  
"Ref": "IdentityName"  
}  
}  
]  
}  
}  
]

ElasticsearchHttpPostPolicy: Gives POST Permissions to Elasticsearch

"Statement": [  
{  
"Effect": "Allow",  
"Action": [  
"es:ESHttpPost"  
],  
"Resource": {  
"Fn::Sub": [  
"arn:${AWS::Partition}:es:${AWS::Region}:${AWS::AccountId}:domain/${domainName}"  
]  
}  
}  
]
S3ReadPolicy: Gives Read Permissions to Objects in the S3 Bucket

```
"Statement": [
    {
        "Effect": "Allow",
        "Action": [
            "s3:GetObject",
            "s3:ListBucket",
            "s3:GetBucketLocation",
            "s3:GetObjectVersion",
            "s3:GetLifecycleConfiguration"
        ],
        "Resource": [
            {
                "Fn::Sub": [
                    "arn:${AWS::Partition}:s3:::${bucketName}",
                    {
                        "bucketName": {
                            "Ref": "BucketName"
                        }
                    }
                ]
            },
            {
                "Fn::Sub": [
                    "arn:${AWS::Partition}:s3:::${bucketName}/*",
                    {
                        "bucketName": {
                            "Ref": "BucketName"
                        }
                    }
                ]
            }
        ]
    }
]
```

S3CrudPolicy: Gives CRUD Permissions to Objects in the S3 Bucket

```
"Statement": [
    {
        "Effect": "Allow",
```

---

10
"Action": [
    "s3:GetObject",
    "s3:ListBucket",
    "s3:GetBucketLocation",
    "s3:GetObjectVersion",
    "s3:PutObject",
    "s3:GetLifecycleConfiguration",
    "s3:PutLifecycleConfiguration"
],
"Resource": [
    {
        "Fn::Sub": [
            "arn:${AWS::Partition}:s3:::${bucketName}",
            {
                "bucketName": {
                    "Ref": "BucketName"
                }
            }
        ],
        "Fn::Sub": [
            "arn:${AWS::Partition}:s3:::${bucketName}/*",
            {
                "bucketName": {
                    "Ref": "BucketName"
                }
            }
        ]
    }
]

AMIDescribePolicy: Gives Permissions to Describe AMIs

"Statement": [
    {
        "Effect": "Allow",
        "Action": [
            "ec2:DescribeImages"
        ],
        "Resource": {
            "Fn::Sub": "arn://${AWS::Partition}:ec2:${AWS::Region}:${AWS::AccountId}:image/*"
        }
    }
]

CloudFormationDescribeStacksPolicy: Gives Permission to Describe AWS CloudFormation Stacks

"Statement": [
    {
        "Effect": "Allow",
        "Action": [
            "cloudformation:DescribeStacks"
        ],
        "Resource": 
    }
]
RekognitionNoDataAccessPolicy: Gives Permission to Compare and Detect Faces and Labels

```
"Statement": [  
  {  
    "Effect": "Allow",  
    "Action": [  
      "rekognition:CompareFaces",  
      "rekognition:DetectFaces",  
      "rekognition:DetectLabels",  
      "rekognition:DetectModerationLabels"  
    ],  
    "Resource": {  
      "Fn::Sub": [  
        "arn:${AWS::Partition}:rekognition:${AWS::Region}:${AWS::AccountId}:collection/${collectionId}",  
        {  
          "collectionId": {  
            "Ref": "CollectionId"  
          }  
        ]  
      }  
    }  
  }]
```

RekognitionReadPolicy: Gives Permission to List and Search Faces

```
"Statement": [  
  {  
    "Effect": "Allow",  
    "Action": [  
      "rekognition:ListCollections",  
      "rekognition:ListFaces",  
      "rekognition:SearchFaces",  
      "rekognition:SearchFacesByImage"  
    ],  
    "Resource": {  
      "Fn::Sub": [  
        "arn:${AWS::Partition}:rekognition:${AWS::Region}:${AWS::AccountId}:collection/${collectionId}",  
        {  
          "collectionId": {  
            "Ref": "CollectionId"  
          }  
        }  
      ]  
    }  
  }]
```
RekognitionWriteOnlyAccessPolicy: Gives Permission to Create Collection and Index Faces

```
"Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "rekognition:CreateCollection",
        "rekognition:IndexFaces"
      ],
      "Resource": {
        "Fn::Sub": [
          "arn:${AWS::Partition}:rekognition:${AWS::Region}:${AWS::AccountId}:collection/${collectionId}",
          { "collectionId": { "Ref": "CollectionId" } }
        ]
      }
    }
  ]
```

SQSSendMessagePolicy: Gives Permission to Send Message to SQS Queue

```
"Statement": [
  {
    "Effect": "Allow",
    "Action": ["sqs:SendMessage*"],
    "Resource": {
      "Fn::Sub": ["arn:${AWS::Partition}:sqs:${AWS::Region}:${AWS::AccountId}:${queueName}",
        { "queueName": { "Ref": "QueueName" } }
      ]
    }
  }
]
```
SNSPublishMessagePolicy: Gives Permission to Publish a Message to an SNS Topic

```
"Statement": [
  {
    "Effect": "Allow",
    "Action": [
      "sns:Publish"
    ],
    "Resource": {
      "Fn::Sub": [
        "arn:${AWS::Partition}:sns:${AWS::Region}:${AWS::AccountId}:${topicName}",
        {
          "topicName": {
            "Ref": "TopicName"
          }
        }
      ]
    }
  }
]
```

VPCAccessPolicy: Gives Access to Create, Delete, Describe, and Detach ENIs

```
"Statement": [
  {
    "Effect": "Allow",
    "Action": ["ec2:CreateNetworkInterface",
                "ec2:DeleteNetworkInterface",
                "ec2:DescribeNetworkInterfaces",
                "ec2:DetachNetworkInterface"],
    "Resource": {
      "Fn::Sub": "arn:${AWS::Partition}:ec2:${AWS::Region}:${AWS::AccountId}:network-interface/*"
    }
  }
]
```

DynamoDBStreamReadPolicy: Gives Permission to Describe and Read a DynamoDB Stream and Records

```
"Statement": [
  {
    "Effect": "Allow",
    "Action": ["dynamodb:DescribeStream",
                "dynamodb:GetRecords",
                "dynamodb:GetShardIterator",
                "dynamodb:ListStreams"],

```

```
"Resource": {
  "Fn::Sub": [
    "arn:${AWS::Partition}:dynamodb:${AWS::Region}:${AWS::AccountId}:table/
    ${tableName}/${streamName}",
    {
      "tableName": {
        "Ref": "TableName"
      },
      "streamName": {
        "Ref": "StreamName"
      }
    }
  ]
}

KinesisStreamReadPolicy: Gives Permission to List and Read an Amazon Kinesis Stream

"Statement": [
  {
    "Effect": "Allow",
    "Action": [
      "kinesis:ListStreams",
      "kinesis:DescribeLimits"
    ],
    "Resource": {
      "Fn::Sub": "arn:${AWS::Partition}:kinesis:${AWS::Region}:
      ${AWS::AccountId}:stream/*"
    }
  },
  {
    "Effect": "Allow",
    "Action": [
      "kinesis:DescribeStream",
      "kinesis:GetRecords",
      "kinesis:GetShardIterator"
    ],
    "Resource": {
      "Fn::Sub": ["arn:${AWS::Partition}:kinesis:${AWS::Region}:${AWS::AccountId}:
      stream/$streamName",
        {
          "streamName": {
            "Ref": "StreamName"
          }
        }
    ]
  }
]

SESCrudPolicy: Gives Permission to Send Email and Verify Identity
"Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "ses:GetIdentityVerificationAttributes",
        "ses:SendEmail",
        "ses:VerifyEmailIdentity"
      ],
      "Resource": {
        "Fn::Sub": [
          "arn:${AWS::Partition}:ses:${AWS::Region}:${AWS::AccountId}:identity/${identityName}",
          { "identityName": { "Ref": "IdentityName" } }
        ]
      }
    }
  ]

SNSCrudPolicy: Gives Permissions to Create, Publish, and Subscribe to SNS Topics

"Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "sns:ListSubscriptionsByTopic",
        "sns:CreateTopic",
        "sns:SetTopicAttributes",
        "sns:Subscribe",
        "sns:Publish"
      ],
      "Resource": {
        "Fn::Sub": [
          "arn:${AWS::Partition}:sns:${AWS::Region}:${AWS::AccountId}:${topicName}*",
          { "topicName": { "Ref": "TopicName" } }
        ]
      }
    }
  ]

KinesisCrudPolicy: Gives Permission to Create, Publish, and Delete a Kinesis Stream

"Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "kinesis:AddTagsToStream",
        "kinesis:DeleteStream",
        "kinesis:PutRecord",
        "kinesis:PutRecords",
        "kinesis:BatchWriteRecord",
        "kinesis:DeleteRecords",
        "kinesis:GetRecords",
        "kinesis:GetShardIterator",
        "kinesis:ListShards",
        "kinesis:ListStreams",
        "kinesis:LookupRole",
        "kinesis:TagResource",
        "kinesis:UnTagResource"
      ],
      "Resource": {
        "Fn::Sub": [
          "arn:${AWS::Partition}:kinesis:${AWS::Region}:${AWS::AccountId}:stream/${streamName}*",
          { "streamName": { "Ref": "StreamName" } }
        ]
      }
    }
  ]
"kinesis:CreateStream",
"kinesis:DecreaseStreamRetentionPeriod",
"kinesis:DeleteStream",
"kinesis:DescribeStream",
"kinesis:GetShardIterator",
"kinesis:IncreaseStreamRetentionPeriod",
"kinesis:ListTagsForStream",
"kinesis:MergeShards",
"kinesis:PutRecord",
"kinesis:PutRecords",
"kinesis:SplitShard",
"kinesis:RemoveTagsFromStream"
],
"Resource": {
"Fn::Sub": [
  "arn:${AWS::Partition}:kinesis:${AWS::Region}:${AWS::AccountId}:stream/>
${streamName}",
  {
    "streamName": {
      "Ref": "StreamName"
    }
  }
}
}
]

KMSDecryptPolicy: Gives Permission to Decrypt with an AWS KMS Key

"Statement": [
  {
    "Action": "kms:Decrypt",
    "Effect": "Allow",
    "Resource": {
      "Fn::Sub": [
        "arn:${AWS::Partition}:kms:${AWS::Region}:${AWS::AccountId}:key/${KeyId}",
        {
          "KeyId": {
            "Ref": "KeyId"
          }
        }
      ]
    }
  }
]

17
Resources

The AWS Serverless Application Repository REST API includes the following resources.

Topics
- Applications (p. 18)
- Applications applicationId (p. 32)
- Applications applicationId Changesets (p. 44)
- Applications applicationId Policy (p. 48)
- Applications applicationId Versions (p. 53)
- Applications applicationId Versions semanticVersion (p. 58)

Applications

URI

/applications

HTTP Methods

GET

Operation ID: ListApplications

Lists applications owned by the requester.

Query Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>maxItems</td>
<td>String</td>
<td>False</td>
<td>The total number of items to return.</td>
</tr>
<tr>
<td>nextToken</td>
<td>String</td>
<td>False</td>
<td>A token to specify where to start paginating.</td>
</tr>
</tbody>
</table>

Responses

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>ApplicationPage (p. 20)</td>
<td>Success</td>
</tr>
<tr>
<td>400</td>
<td>BadRequestException (p. 21)</td>
<td>One of the parameters in the request is invalid.</td>
</tr>
</tbody>
</table>
### Status Code

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>InternalServerErrorException (p. 21)</td>
<td>The AWS Serverless Application Repository service encountered an internal error.</td>
</tr>
<tr>
<td>403</td>
<td>ForbiddenException (p. 21)</td>
<td>The client is not authenticated.</td>
</tr>
<tr>
<td>404</td>
<td>Not Found Exception (p. 21)</td>
<td>The resource (for example, an access policy statement) specified in the request does not exist.</td>
</tr>
</tbody>
</table>

### POST

**Operation ID: CreateApplication**

Creates an application, optionally including an AWS SAM file to create the first application version in the same call.

**Responses**

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>Application (p. 20)</td>
<td>Success</td>
</tr>
<tr>
<td>400</td>
<td>BadRequestException (p. 21)</td>
<td>One of the parameters in the request is invalid.</td>
</tr>
<tr>
<td>500</td>
<td>InternalServerErrorException (p. 21)</td>
<td>The AWS Serverless Application Repository service encountered an internal error.</td>
</tr>
<tr>
<td>403</td>
<td>ForbiddenException (p. 21)</td>
<td>The client is not authenticated.</td>
</tr>
<tr>
<td>429</td>
<td>Too Many Requests Exception (p. 21)</td>
<td>The client is sending more than the allowed number of requests per unit time.</td>
</tr>
<tr>
<td>409</td>
<td>ConflictException (p. 21)</td>
<td>The resource already exists.</td>
</tr>
</tbody>
</table>

### Schemas

**Request Bodies**

**Example POST**

```json
{
  "name (p. 25)": "string",
  "description (p. 26)": "string",
  "author (p. 26)": "string",
  "spdxLicenseId (p. 26)": "string",
  "licenseBody (p. 26)": "string",
  "licenseUrl (p. 26)": "string",
  "readmeBody (p. 26)": "string",
  "readmeUrl (p. 27)": "string"
}
```
Response Bodies

Example ApplicationPage

```json
{
  "applications (p. 23)": [
    {
      "applicationId (p. 24)": "string",
      "name (p. 24)": "string",
      "description (p. 24)": "string",
      "author (p. 24)": "string",
      "spdxLicenseId (p. 24)": "string",
      "labels (p. 24)": [
        "string"
      ],
      "creationTime (p. 25)": "string"
    }
  ],
  "nextToken (p. 23)": "string"
}
```

Example Application

```json
{
  "applicationId (p. 22)": "string",
  "name (p. 22)": "string",
  "description (p. 22)": "string",
  "author (p. 22)": "string",
  "spdxLicenseId (p. 22)": "string",
  "licenseUrl (p. 22)": "string",
  "readmeUrl (p. 23)": "string",
  "labels (p. 23)": [
    "string"
  ],
  "creationTime (p. 23)": "string",
  "version (p. 23)": {
    "applicationId (p. 31)": "string",
    "semanticVersion (p. 31)": "string",
    "sourceCodeUrl (p. 31)": "string",
    "templateUrl (p. 32)": "string",
    "creationTime (p. 32)": "string",
    "parameterDefinitions (p. 32)": [
      {
        "name (p. 28)": "string",
        "defaultValue (p. 29)": "string",
        "description (p. 29)": "string",
        "type (p. 29)": "string",
        "noEcho (p. 29)": boolean,
        "allowedPattern (p. 30)": "string",
        "constraintDescription (p. 30)": "string",
        "minValue (p. 30)": integer,
        "maxValue (p. 30)": integer,
      }
    ]
  }
}
```
"minLength (p. 30)": integer,
"maxLength (p. 30)": integer,
"allowedValues (p. 31)": [
  "string"
],
"referencedByResources (p. 31)": [
  "string"
]
}

Example BadRequestException

{
  "message (p. 25)": "string",
  "errorCode (p. 25)": "string"
}

Example ForbiddenException

{
  "message (p. 28)": "string",
  "errorCode (p. 28)": "string"
}

Example NotFoundException

{
  "message (p. 28)": "string",
  "errorCode (p. 28)": "string"
}

Example ConflictException

{
  "message (p. 25)": "string",
  "errorCode (p. 25)": "string"
}

Example TooManyRequestsException

{
  "message (p. 31)": "string",
  "errorCode (p. 31)": "string"
}

Example InternalServerErrorException

{
  "message (p. 28)": "string",
  "errorCode (p. 28)": "string"
}
Properties

Application

applicationId

The application Amazon Resource Name (ARN).

Type: string
Required: True

name

The name of the application.

Min Length=1. Max Length=140
Pattern: "[a-zA-Z0-9-\-]+";

Type: string
Required: True

description

The description of the application.

Min Length=1. Max Length=256

Type: string
Required: True

author

The name of the author publishing the app.

Min Length=1. Max Length=127.
Pattern: "^[a-z0-9][([a-z0-9]|-(?!-))*[a-z0-9]]?";

Type: string
Required: True

spdxLicenseId

A valid identifier from https://spdx.org/licenses/.

Type: string
Required: False

licenseUrl

A link to a license file of the app that matches the spdxLicenseId of your application.

Max size 5 MB
Properties

**readmeUrl**

A link to the Readme file that contains a more detailed description of the application and how it works in markdown language.

Max size 5 MB

**labels**

Labels to improve discovery of apps in search results.

Min Length=1. Max Length=127. Maximum number of labels: 10

Pattern: "^\[a-zA-Z0-9+\-_:\/@\]+$";

**creationTime**

The date/time this resource was created.

**version**

Version information about the application.

**ApplicationPage**

**applications**

Array of application summaries.

**nextToken**

The token to request the next page of results.
ApplicationSummary

applicationId
The application ARN.

  Type: string  
  Required: True

ame
The name of the application.
Min Length=1. Max Length=140
Pattern: "[a-zA-Z0-9\-]+";

  Type: string  
  Required: True

description
The description of the application.
Min Length=1. Max Length=256

  Type: string  
  Required: True

author
The name of the author publishing the app.
Min Length=1. Max Length=127.
Pattern "^[a-z0-9]([a-z0-9][-?(?!-)][a-z0-9])?$";

  Type: string  
  Required: True

spdxLicenseId
A valid identifier from https://spdx.org/licenses/.

  Type: string  
  Required: False

labels
Labels to improve discovery of apps in search results.
Min Length=1. Max Length=127. Maximum number of labels: 10
Pattern: "^[a-zA-Z0-9+\-:@]+$";
Properties

Type: Array of type string
Required: False

creationTime

The date/time this resource was created.
Type: string
Required: False

BadRequestException

message

One of the parameters in the request is invalid.
Type: string
Required: False

errorCode

400
Type: string
Required: False

ConflictException

message

The resource already exists.
Type: string
Required: False

errorCode

409
Type: string
Required: False

CreateApplicationInput

name

The name of the application you want to publish.
Min Length=1. Max Length=140
Pattern: "[a-zA-Z0-9\-\~\-]";
Type: string
Required: True

description
The description of the application.
Min Length=1. Max Length=256
Type: string
Required: True

author
The name of the author publishing the app.
Min Length=1. Max Length=127.
Pattern "^[a-z0-9][^a-z0-9]*$";
Type: string
Required: True

spdxLicenseId
A valid identifier from https://spdx.org/licenses/.
Type: string
Required: False

licenseBody
A raw text file that contains the license of the app that matches the spdxLicenseID of your application.
Max size 5 MB
Type: string
Required: False

licenseUrl
A link to a license file of the app that matches the spdxLicenseID of your application.
Max size 5 MB
Type: string
Required: False

readmeBody
A raw text Readme file that contains a more detailed description of the application and how it works in markdown language.
Max size 5 MB
Type: string  
Required: False

**ReadmeUrl**

A link to the Readme file that contains a more detailed description of the application and how it works in markdown language.

Max size 5 MB  
Type: string  
Required: False

**Labels**

Labels to improve discovery of apps in search results.

Min Length=1. Max Length=127. Maximum number of labels: 10  
Pattern: "^[a-zA-Z0-9+\-_\:\/@]+$";  
Type: Array of type string  
Required: False

**SemanticVersion**

The semantic version of the application:

https://semver.org/  
Type: string  
Required: False

**TemplateBody**

The raw packaged SAM template of your application.

Type: string  
Required: False

**TemplateUrl**

A link to the packaged SAM template of your application.

Type: string  
Required: False

**SourceCodeUrl**

A link to a public repository for the source code of your application.

Type: string  
Required: False
ForbiddenException

message
The client is not authenticated.

  Type: string
  Required: False

eerrorCode
403

  Type: string
  Required: False

InternalServerErrorException

message
The AWS Serverless Application Repository service encountered an internal error.

  Type: string
  Required: False

eerrorCode
500

  Type: string
  Required: False

NotFoundException

message
The resource (for example, an access policy statement) specified in the request does not exist.

  Type: string
  Required: False

eerrorCode
404

  Type: string
  Required: False

ParameterDefinition

name
The name of the parameter.
**Properties**

- **Type**: string
  - **Required**: True

- **defaultValue**
  A value of the appropriate type for the template to use if no value is specified when a stack is created. If you define constraints for the parameter, you must specify a value that adheres to those constraints.
  - **Type**: string
  - **Required**: False

- **description**
  A string of up to 4,000 characters that describes the parameter.
  - **Type**: string
  - **Required**: False

- **type**
  The type of the parameter.
  - Valid values: String | Number | List<Number> | CommaDelimitedList
  - **String**: A literal string.
    - For example, users could specify "MyUserName".
  - **Number**: An integer or float. AWS CloudFormation validates the parameter value as a number; however, when you use the parameter elsewhere in your template (for example, by using the Ref intrinsic function), the parameter value becomes a string.
    - For example, users could specify "8888".
  - **List<Number>**: An array of integers or floats that are separated by commas. AWS CloudFormation validates the parameter value as numbers; however, when you use the parameter elsewhere in your template (for example, by using the Ref intrinsic function), the parameter value becomes a list of strings.
    - For example, users could specify "80,20", and a Ref results in ["80", "20"].
  - **CommaDelimitedList**: An array of literal strings that are separated by commas. The total number of strings should be one more than the total number of commas. Also, each member string is space-trimmed.
    - For example, users could specify "test,dev,prod", and a Ref results in ["test", "dev", "prod"].
  - **Type**: string
  - **Required**: False

- **noEcho**
  Whether to mask the parameter value whenever anyone makes a call that describes the stack. If you set the value to true, the parameter value is masked with asterisks (****).
  - **Type**: boolean
Properties

**Required**: False

**allowedPattern**

A regular expression that represents the patterns to allow for **String** types.

*Type*: string  
*Required*: False

**constraintDescription**

A string that explains a constraint when the constraint is violated. For example, without a constraint description, a parameter that has an allowed pattern of `[A-Za-z0-9]+` displays the following error message when the user specifies an invalid value:

Malformed input-Parameter MyParameter must match pattern [A-Za-z0-9]+  

By adding a constraint description, such as "must contain only uppercase and lowercase letters, and numbers," you can display the following customized error message:

Malformed input-Parameter MyParameter must contain only uppercase and lowercase letters and numbers.  

*Type*: string  
*Required*: False

**minValue**

A numeric value that determines the smallest numeric value you want to allow for **Number** types.

*Type*: integer  
*Required*: False

**maxValue**

A numeric value that determines the largest numeric value you want to allow for **Number** types.

*Type*: integer  
*Required*: False

**minLength**

An integer value that determines the smallest number of characters you want to allow for **String** types.

*Type*: integer  
*Required*: False

**maxLength**

An integer value that determines the largest number of characters you want to allow for **String** types.

*Type*: integer  
*Required*: False
allowedValues

Array containing the list of values allowed for the parameter.

Type: Array of type string
Required: False

referencedByResources

A list of SAM resources that use this parameter.

Type: Array of type string
Required: True

TooManyRequestsException

message

The client is sending more than the allowed number of requests per unit time.

Type: string
Required: False

errorCode

429

Type: string
Required: False

Version

applicationId

The application Amazon Resource Name (ARN).

Type: string
Required: True

semanticVersion

The semantic version of the application:

https://semver.org/

Type: string
Required: True

sourceCodeUrl

A link to a public repository for the source code of your application.

Type: string
Applications `applicationId`

**URI**

`/applications/applicationId`

**HTTP Methods**

**GET**

Operation ID: GetApplication

Gets the specified application.

**Path Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>applicationId</code></td>
<td>String</td>
<td>True</td>
<td>The ID of the application to get.</td>
</tr>
</tbody>
</table>

**Query Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>semanticVersion</td>
<td>String</td>
<td>False</td>
<td>The semantic version of the application to get.</td>
</tr>
</tbody>
</table>
Responses

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>Application (p. 35)</td>
<td>Success</td>
</tr>
<tr>
<td>400</td>
<td>BadRequestException (p. 35)</td>
<td>One of the parameters in the request is invalid.</td>
</tr>
<tr>
<td>500</td>
<td>InternalServerErrorException (p. 35)</td>
<td>The AWS Serverless Application Repository service encountered an internal error.</td>
</tr>
<tr>
<td>403</td>
<td>ForbiddenException (p. 35)</td>
<td>The client is not authenticated.</td>
</tr>
<tr>
<td>404</td>
<td>NotFoundException (p. 36)</td>
<td>The resource (for example, an access policy statement) specified in the request does not exist.</td>
</tr>
<tr>
<td>429</td>
<td>TooManyRequestsException (p. 36)</td>
<td>The client is sending more than the allowed number of requests per unit time.</td>
</tr>
</tbody>
</table>

DELETE

Operation ID: DeleteApplication

Path Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>applicationId</td>
<td>String</td>
<td>True</td>
<td>The ID of the application to get.</td>
</tr>
</tbody>
</table>

Responses

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>BadRequestException (p. 35)</td>
<td>One of the parameters in the request is invalid.</td>
</tr>
<tr>
<td>500</td>
<td>InternalServerErrorException (p. 35)</td>
<td>The AWS Serverless Application Repository service encountered an internal error.</td>
</tr>
<tr>
<td>204</td>
<td>None</td>
<td>204 response</td>
</tr>
<tr>
<td>403</td>
<td>ForbiddenException (p. 35)</td>
<td>The client is not authenticated.</td>
</tr>
<tr>
<td>404</td>
<td>NotFoundException (p. 36)</td>
<td>The resource (for example, an access policy statement) specified in the request does not exist.</td>
</tr>
<tr>
<td>429</td>
<td>TooManyRequestsException (p. 36)</td>
<td>The client is sending more than the allowed number of requests per unit time.</td>
</tr>
</tbody>
</table>
### PATCH

Operation ID: UpdateApplication

Updates the specified application.

#### Path Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>applicationId</td>
<td>String</td>
<td>True</td>
<td>The ID of the application to get.</td>
</tr>
</tbody>
</table>

#### Responses

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>Application (p. 35)</td>
<td>Success</td>
</tr>
<tr>
<td>400</td>
<td>BadRequestException (p. 35)</td>
<td>One of the parameters in the request is invalid.</td>
</tr>
<tr>
<td>500</td>
<td>InternalServerErrorException (p. 36)</td>
<td>The AWS Serverless Application Repository service encountered an internal error.</td>
</tr>
<tr>
<td>403</td>
<td>ForbiddenException (p. 35)</td>
<td>The client is not authenticated.</td>
</tr>
<tr>
<td>404</td>
<td>NotFoundException (p. 36)</td>
<td>The resource (for example, an access policy statement) specified in the request does not exist.</td>
</tr>
<tr>
<td>429</td>
<td>TooManyRequestsException (p. 36)</td>
<td>The client is sending more than the allowed number of requests per unit time.</td>
</tr>
<tr>
<td>409</td>
<td>ConflictException (p. 36)</td>
<td>The resource already exists.</td>
</tr>
</tbody>
</table>

### Schemas

#### Request Bodies

**Example PATCH**

```json
{
    "description (p. 42)": "string",
    "author (p. 42)": "string",
    "readmeBody (p. 42)": "string",
    "readmeUrl (p. 42)": "string",
    "labels (p. 43)": [  
```
"string"
}

Response Bodies

Example Application

{
  "applicationId (p. 36)" : "string",
  "name (p. 36)" : "string",
  "description (p. 37)" : "string",
  "author (p. 37)" : "string",
  "spdxLicenseId (p. 37)" : "string",
  "licenseUrl (p. 37)" : "string",
  "readmeUrl (p. 37)" : "string",
  "labels (p. 37)" : [
    "string"
  ],
  "creationTime (p. 38)" : "string",
  "version (p. 38)" : {
    "applicationId (p. 43)" : "string",
    "semanticVersion (p. 43)" : "string",
    "sourceCodeUrl (p. 43)" : "string",
    "templateUrl (p. 43)" : "string",
    "creationTime (p. 43)" : "string",
    "parameterDefinitions (p. 44)" : [
      {
        "name (p. 39)" : "string",
        "defaultValue (p. 39)" : "string",
        "description (p. 40)" : "string",
        "type (p. 40)" : "string",
        "noEcho (p. 40)" : boolean,
        "allowedPattern (p. 40)" : "string",
        "constraintDescription (p. 41)" : "string",
        "minValue (p. 41)" : integer,
        "maxValue (p. 41)" : integer,
        "minLength (p. 41)" : integer,
        "maxLength (p. 41)" : integer,
        "allowedValues (p. 41)" : [
          "string"
        ],
        "referencedByResources (p. 41)" : [
          "string"
        ]
      }
    ]
  }
}

Example BadRequestException

{
  "message (p. 38)" : "string",
  "errorCode (p. 38)" : "string"
}

Example ForbiddenException

{ }
Properties

Application

applicationId

The application Amazon Resource Name (ARN).

Type: string
Required: True

name

The name of the application.

Min Length=1. Max Length=140
Pattern: "[a-zA-Z0-9\-]+";

Type: string
Required: True
description
The description of the application.
Min Length=1. Max Length=256
  Type: string
  Required: True

author
The name of the author publishing the app.
Min Length=1. Max Length=127.
Pattern "^[a-z0-9\[(a-z0-9)\-(?!-)][a-z0-9]*)a-z0-9]+$";
  Type: string
  Required: True

spdxLicenseId
A valid identifier from https://spdx.org/licenses/.
  Type: string
  Required: False

licenseUrl
A link to a license file of the app that matches the spdxLicenseId of your application.
Max size 5 MB
  Type: string
  Required: False

readmeUrl
A link to the Readme file that contains a more detailed description of the application and how it works in markdown language.
Max size 5 MB
  Type: string
  Required: False

labels
Labels to improve discovery of apps in search results.
Min Length=1. Max Length=127. Maximum number of labels: 10
Pattern: "^[a-zA-Z0-9]+$";
  Type: Array of type string
  Required: False
creationTime

The date/time this resource was created.

Type: string
Required: False

version

Version information about the application.

Type: Version (p. 43)
Required: False

BadRequestException

message

One of the parameters in the request is invalid.

Type: string
Required: False

errorCode

400

Type: string
Required: False

ConflictException

message

The resource already exists.

Type: string
Required: False

errorCode

409

Type: string
Required: False

ForbiddenException

message

The client is not authenticated.

Type: string
Required: False
**errorCode**

403

  *Type*: string  
  *Required*: False

**InternalServerErrorException**

**message**

The AWS Serverless Application Repository service encountered an internal error.

  *Type*: string  
  *Required*: False

**errorCode**

500

  *Type*: string  
  *Required*: False

**NotFoundException**

**message**

The resource (for example, an access policy statement) specified in the request does not exist.

  *Type*: string  
  *Required*: False

**errorCode**

404

  *Type*: string  
  *Required*: False

**ParameterDefinition**

**name**

The name of the parameter.

  *Type*: string  
  *Required*: True

**defaultValue**

A value of the appropriate type for the template to use if no value is specified when a stack is created. If you define constraints for the parameter, you must specify a value that adheres to those constraints.
**Properties**

**Type**: string  
**Required**: False

**description**

A string of up to 4,000 characters that describes the parameter.

**Type**: string  
**Required**: False

**type**

The type of the parameter.

**Valid values**: String | Number | List<Number> | CommaDelimitedList

- **String**: A literal string.
  
  For example, users could specify "MyUserName".

- **Number**: An integer or float. AWS CloudFormation validates the parameter value as a number; however, when you use the parameter elsewhere in your template (for example, by using the Ref intrinsic function), the parameter value becomes a string.
  
  For example, users could specify "8888".

- **List<Number>**: An array of integers or floats that are separated by commas. AWS CloudFormation validates the parameter value as numbers; however, when you use the parameter elsewhere in your template (for example, by using the Ref intrinsic function), the parameter value becomes a list of strings.
  
  For example, users could specify "80,20", and a Ref results in ["80", "20"].

- **CommaDelimitedList**: An array of literal strings that are separated by commas. The total number of strings should be one more than the total number of commas. Also, each member string is space-trimmed.
  
  For example, users could specify "test,dev,prod", and a Ref results in ["test", "dev", "prod"].

**Type**: string  
**Required**: False

**noEcho**

Whether to mask the parameter value whenever anyone makes a call that describes the stack. If you set the value to true, the parameter value is masked with asterisks (*****).

**Type**: boolean  
**Required**: False

**allowedPattern**

A regular expression that represents the patterns to allow for String types.

**Type**: string  
**Required**: False
**constraintDescription**

A string that explains a constraint when the constraint is violated. For example, without a constraint description, a parameter that has an allowed pattern of [A-Za-z0-9]+ displays the following error message when the user specifies an invalid value:


By adding a constraint description, such as "must contain only uppercase and lowercase letters, and numbers," you can display the following customized error message:

Malformed input-Parameter MyParameter must contain only uppercase and lowercase letters and numbers.

  **Type:** string  
  **Required:** False

**minValue**

A numeric value that determines the smallest numeric value you want to allow for Number types.

  **Type:** integer  
  **Required:** False

**maxValue**

A numeric value that determines the largest numeric value you want to allow for Number types.

  **Type:** integer  
  **Required:** False

**minLength**

An integer value that determines the smallest number of characters you want to allow for String types.

  **Type:** integer  
  **Required:** False

**maxLength**

An integer value that determines the largest number of characters you want to allow for String types.

  **Type:** integer  
  **Required:** False

**allowedValues**

Array containing the list of values allowed for the parameter.

  **Type:** Array of type string  
  **Required:** False

**referencedByResources**

A list of SAM resources that use this parameter.
Properties

**Type**: Array of type string

**Required**: True

**TooManyRequestsException**

**message**

The client is sending more than the allowed number of requests per unit time.

**Type**: string

**Required**: False

**errorCode**

429

**Type**: string

**Required**: False

**UpdateApplicationInput**

**description**

The description of the application.

Min Length=1. Max Length=256

**Type**: string

**Required**: False

**author**

The name of the author publishing the app.

Min Length=1. Max Length=127.

Pattern "^[a-z0-9][\[a-z0-9]{-}(?!-)][a-z0-9]$";

**Type**: string

**Required**: False

**readmeBody**

A raw text Readme file that contains a more detailed description of the application and how it works in markdown language.

Max size 5 MB

**Type**: string

**Required**: False

**readmeUrl**

A link to the Readme file that contains a more detailed description of the application and how it works in markdown language.
Max size 5 MB

  Type: string
  Required: False

labels

Labels to improve discovery of apps in search results.

Min Length=1. Max Length=127. Maximum number of labels: 10

Pattern: "^[a-zA-Z0-9\-_\/@]+$";

  Type: Array of type string
  Required: False

Version

applicationId

The application Amazon Resource Name (ARN).

  Type: string
  Required: True

semanticVersion

The semantic version of the application:

https://semver.org/

  Type: string
  Required: True

sourceCodeUrl

A link to a public repository for the source code of your application.

  Type: string
  Required: False

templateUrl

A link to the packaged SAM template of your application.

  Type: string
  Required: True

creationTime

The date/time this resource was created.

  Type: string
  Required: True
Applications `applicationId` Changesets

**URI**

```
/applications/applicationId/changesets
```

**HTTP Methods**

**POST**

Operation ID: CreateCloudFormationChangeSet

Creates an AWS CloudFormation ChangeSet for the given application.

**Path Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>applicationId</code></td>
<td>String</td>
<td>True</td>
<td>The ID of the application to get.</td>
</tr>
</tbody>
</table>

**Responses**

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>ChangeSetDetails (p. 45)</td>
<td>Success</td>
</tr>
<tr>
<td>400</td>
<td>BadRequestException (p. 45)</td>
<td>One of the parameters in the request is invalid.</td>
</tr>
<tr>
<td>500</td>
<td>InternalServerException</td>
<td>The AWS Serverless Application Repository service encountered an internal error.</td>
</tr>
<tr>
<td>403</td>
<td>ForbiddenException (p. 45)</td>
<td>The client is not authenticated.</td>
</tr>
<tr>
<td>429</td>
<td>TooManyRequestsException (p. 45)</td>
<td>The client is sending more than the allowed number of requests per unit time.</td>
</tr>
</tbody>
</table>

**Schemas**

**Request Bodies**

**Example POST**

```
{

```

```
Properties

BadRequestException

message

One of the parameters in the request is invalid.

Example ChangeSetDetails

```
{
  "applicationId (p. 46)": "string",
  "semanticVersion (p. 46)": "string",
  "changeSetId (p. 46)": "string",
  "stackId (p. 46)": "string"
}
```

Example BadRequestException

```
{
  "message (p. 45)": "string",
  "errorCode (p. 46)": "string"
}
```

Example ForbiddenException

```
{
  "message (p. 47)": "string",
  "errorCode (p. 47)": "string"
}
```

Example TooManyRequestsException

```
{
  "message (p. 48)": "string",
  "errorCode (p. 48)": "string"
}
```

Example InternalServerErrorException

```
{
  "message (p. 47)": "string",
  "errorCode (p. 47)": "string"
}
```

Properties

BadRequestException

message

One of the parameters in the request is invalid.
Type: string  
Required: False

errorCode

400

Type: string  
Required: False

ChangeSetDetails

applicationId

The application Amazon Resource Name (ARN).

Type: string  
Required: True

semanticVersion

The semantic version of the application:

https://semver.org/

Type: string  
Required: True

changeSetId

The ARN of the change set.

Length Constraints: Minimum length of 1.

Pattern: arn:[-a-zA-Z0-9:/]*

Type: string  
Required: True

stackId

The unique ID of the stack.

Type: string  
Required: True

CreateCloudFormationChangeSetInput

stackName

The name or the unique ID of the stack for which you are creating a change set. AWS CloudFormation generates the change set by comparing this stack's information with the information that you submit, such as a modified template or different parameter input values.
Constraints: Minimum length of 1.
Pattern: ([a-zA-Z]-[a-zA-Z0-9]*)(arn:\b(aws|aws-us-gov|aws-cn)\b:[-a-zA-Z0-9:/._+]*)
  Type: string
  Required: True

**semanticVersion**

The semantic version of the application:

https://semver.org/

  Type: string
  Required: False

**parameterOverrides**

A list of parameter values for the parameters of the application.

  Type: Array of type ParameterValue (p. 48)
  Required: False

**ForbiddenException**

**message**

The client is not authenticated.

  Type: string
  Required: False

**errorCode**

403

  Type: string
  Required: False

**InternalServerErrorException**

**message**

The AWS Serverless Application Repository service encountered an internal error.

  Type: string
  Required: False

**errorCode**

500

  Type: string
ParameterValue

name

The key associated with the parameter. If you don't specify a key and value for a particular parameter, AWS CloudFormation uses the default value that is specified in your template.

   Type: string
   Required: True

type

The input value associated with the parameter.

   Type: string
   Required: True

TooManyRequestsException

message

The client is sending more than the allowed number of requests per unit time.

   Type: string
   Required: False

errorCode

429

   Type: string
   Required: False

Applications applicationId Policy

URI

/applications/applicationId/policy

HTTP Methods

GET

Operation ID: GetApplicationPolicy

Gets the policy for the specified application.
AWS Serverless Application Repository Developer Guide
HTTP Methods

Path Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>applicationId</td>
<td>String</td>
<td>True</td>
<td>The ID of the application to get.</td>
</tr>
</tbody>
</table>

Responses

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>ApplicationPolicy (p. 50)</td>
<td>Success</td>
</tr>
<tr>
<td>400</td>
<td>BadRequestException (p. 50)</td>
<td>One of the parameters in the request is invalid.</td>
</tr>
<tr>
<td>500</td>
<td>InternalServerErrorException (p. 51)</td>
<td>The AWS Serverless Application Repository service encountered an internal error.</td>
</tr>
<tr>
<td>403</td>
<td>ForbiddenException (p. 51)</td>
<td>The client is not authenticated.</td>
</tr>
<tr>
<td>404</td>
<td>NotFoundException (p. 51)</td>
<td>The resource (for example, an access policy statement) specified in the request does not exist.</td>
</tr>
<tr>
<td>429</td>
<td>TooManyRequestsException (p. 51)</td>
<td>The client is sending more than the allowed number of requests per unit time.</td>
</tr>
</tbody>
</table>

PUT

Operation ID: PutApplicationPolicy

Puts the policy for the specified application.

Path Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>applicationId</td>
<td>String</td>
<td>True</td>
<td>The ID of the application to get.</td>
</tr>
</tbody>
</table>

Responses

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>ApplicationPolicy (p. 50)</td>
<td>Success</td>
</tr>
<tr>
<td>400</td>
<td>BadRequestException (p. 50)</td>
<td>One of the parameters in the request is invalid.</td>
</tr>
<tr>
<td>500</td>
<td>InternalServerErrorException (p. 51)</td>
<td>The AWS Serverless Application Repository service encountered an internal error.</td>
</tr>
<tr>
<td>403</td>
<td>ForbiddenException (p. 51)</td>
<td>The client is not authenticated.</td>
</tr>
<tr>
<td>429</td>
<td>TooManyRequestsException (p. 51)</td>
<td>The client is sending more than the allowed number of requests per unit time.</td>
</tr>
<tr>
<td>Status Code</td>
<td>Response Model</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>404</td>
<td>NotFoundException (p. 51)</td>
<td>The resource (for example, an access policy statement) specified in the request does not exist.</td>
</tr>
<tr>
<td>429</td>
<td>TooManyRequestsException (p. 51)</td>
<td>The client is sending more than the allowed number of requests per unit time.</td>
</tr>
</tbody>
</table>

## Schemas

### Request Bodies

#### Example PUT

```json
{
  "statements (p. 51)": [
    {
      "statementId (p. 51)": "string",
      "principals (p. 51)": [
        "string"
      ],
      "actions (p. 52)": [
        "string"
      ]
    }
  ]
}
```

### Response Bodies

#### Example ApplicationPolicy

```json
{
  "statements (p. 51)": [
    {
      "statementId (p. 51)": "string",
      "principals (p. 51)": [
        "string"
      ],
      "actions (p. 52)": [
        "string"
      ]
    }
  ]
}
```

#### Example BadRequestException

```json
{
  "message (p. 52)": "string",
  "errorCode (p. 52)": "string"
}
```
Example ForbiddenException

```json
{
    "message (p. 52)": "string",
    "errorCode (p. 52)": "string"
}
```

Example NotFoundException

```json
{
    "message (p. 53)": "string",
    "errorCode (p. 53)": "string"
}
```

Example TooManyRequestsException

```json
{
    "message (p. 53)": "string",
    "errorCode (p. 53)": "string"
}
```

Example InternalServerErrorException

```json
{
    "message (p. 52)": "string",
    "errorCode (p. 52)": "string"
}
```

Properties

**ApplicationPolicy**

- **statements**
  
  Array of policy statements applied to the application.
  
  **Type:** Array of type ApplicationPolicyStatement (p. 51)
  
  **Required:** True

**ApplicationPolicyStatement**

- **statementId**
  
  A unique ID for the statement.
  
  **Type:** string
  
  **Required:** False

- **principals**
  
  An AWS account ID, or * to make the application public.
  
  **Type:** Array of type string
  
  **Required:** True
**actions**
A list of supported actions:
GetApplication
CreateCloudFormationChangeSet
ListApplicationVersions
SearchApplications
Deploy (Note: This action enables all other actions above.)

- **Type**: Array of type string
- **Required**: True

**BadRequestException**

**message**
One of the parameters in the request is invalid.

- **Type**: string
- **Required**: False

**errorCode**

400

- **Type**: string
- **Required**: False

**ForbiddenException**

**message**
The client is not authenticated.

- **Type**: string
- **Required**: False

**errorCode**

403

- **Type**: string
- **Required**: False

**InternalServerErrorException**

**message**
The AWS Serverless Application Repository service encountered an internal error.

- **Type**: string
Applications applicationId Versions

URI

/applications/applicationId/versions

HTTP Methods

GET

Operation ID: ListApplicationVersions
Lists versions for the specified application.

**Path Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>applicationId</td>
<td>String</td>
<td>True</td>
<td>The ID of the application to get.</td>
</tr>
</tbody>
</table>

**Query Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>maxItems</td>
<td>String</td>
<td>False</td>
<td>The total number of items to return.</td>
</tr>
<tr>
<td>nextToken</td>
<td>String</td>
<td>False</td>
<td>A token to specify where to start paginating.</td>
</tr>
</tbody>
</table>

**Responses**

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>ApplicationVersionPage (p. 55)</td>
<td>Success</td>
</tr>
<tr>
<td>400</td>
<td>BadRequestException (p. 55)</td>
<td>One of the parameters in the request is invalid.</td>
</tr>
<tr>
<td>500</td>
<td>InternalServerErrorException</td>
<td>The AWS Serverless Application Repository service encountered an internal error.</td>
</tr>
<tr>
<td>403</td>
<td>ForbiddenException (p. 55)</td>
<td>The client is not authenticated.</td>
</tr>
<tr>
<td>404</td>
<td>NotFoundException (p. 55)</td>
<td>The resource (for example, an access policy statement) specified in the request does not exist.</td>
</tr>
<tr>
<td>429</td>
<td>TooManyRequestsException (p. 55)</td>
<td>The client is sending more than the allowed number of requests per unit time.</td>
</tr>
</tbody>
</table>

**Schemas**

**Response Bodies**

**Example ApplicationVersionPage**

```json
{
  "versions (p. 55)": [
    {
      "applicationId (p. 57)": "string",
      "semanticVersion (p. 57)": "string",
```

54
Properties

ApplicationVersionPage

versions

Array of version summaries for the application.

Type: Array of type VersionSummary (p. 57)
Required: True
nextToken

The token to request the next page of results.

  Type: string
  Required: False

BadRequestException

message

One of the parameters in the request is invalid.

  Type: string
  Required: False

errorCode

400

  Type: string
  Required: False

ForbiddenException

message

The client is not authenticated.

  Type: string
  Required: False

errorCode

403

  Type: string
  Required: False

InternalServerErrorException

message

The AWS Serverless Application Repository service encountered an internal error.

  Type: string
  Required: False

errorCode

500

  Type: string
  Required: False
NotFoundException

message

The resource (for example, an access policy statement) specified in the request does not exist.

  Type: string
  Required: False

errorCode

404

  Type: string
  Required: False

TooManyRequestsException

message

The client is sending more than the allowed number of requests per unit time.

  Type: string
  Required: False

errorCode

429

  Type: string
  Required: False

VersionSummary

applicationId

The application Amazon Resource Name (ARN).

  Type: string
  Required: True

semanticVersion

The semantic version of the application:

https://semver.org/

  Type: string
  Required: True

sourceCodeUrl

A link to a public repository for the source code of your application.
Type: string
Required: False

creationTime
The date/time this resource was created.
Type: string
Required: True

Applications applicationId Versions semanticVersion

URI
/applications/{applicationId}/versions/{semanticVersion}

HTTP Methods
PUT
Operation ID: CreateApplicationVersion
Creates an application version.

Path Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>applicationId</td>
<td>String</td>
<td>True</td>
<td>The ID of the application to get.</td>
</tr>
<tr>
<td>semanticVersion</td>
<td>String</td>
<td>True</td>
<td>The semantic version of the new version.</td>
</tr>
</tbody>
</table>

Responses

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>Version (p. 59)</td>
<td>Success</td>
</tr>
<tr>
<td>400</td>
<td>BadRequestException (p. 59)</td>
<td>One of the parameters in the request is invalid.</td>
</tr>
<tr>
<td>500</td>
<td>InternalServerErrorException (p. 60)</td>
<td>The AWS Serverless Application Repository service encountered an internal error.</td>
</tr>
<tr>
<td>403</td>
<td>ForbiddenException (p. 60)</td>
<td>The client is not authenticated.</td>
</tr>
<tr>
<td>429</td>
<td>TooManyRequestsException (p. 60)</td>
<td>The client is sending more than the allowed number of requests per unit time.</td>
</tr>
</tbody>
</table>
## Status Code

<table>
<thead>
<tr>
<th>Status Code</th>
<th>Response Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>409</td>
<td>ConflictException (p. 60)</td>
<td>The resource already exists.</td>
</tr>
</tbody>
</table>

## Schemas

### Request Bodies

#### Example PUT

```json
{
  "templateBody (p. 61)": "string",
  "templateUrl (p. 61)": "string",
  "sourceCodeUrl (p. 61)": "string"
}
```

### Response Bodies

#### Example Version

```json
{
  "applicationId (p. 64)": "string",
  "semanticVersion (p. 64)": "string",
  "templateUrl (p. 65)": "string",
  "creationTime (p. 65)": "string",
  "parameterDefinitions (p. 65)": [
    {
      "name (p. 62)": "string",
      "defaultValue (p. 62)": "string",
      "description (p. 62)": "string",
      "type (p. 62)": "string",
      "noEcho (p. 63)": boolean,
      "allowedPattern (p. 63)": "string",
      "constraintDescription (p. 63)": "string",
      "minValue (p. 63)": integer,
      "maxValue (p. 63)": integer,
      "minLength (p. 64)": integer,
      "maxLength (p. 64)": integer,
      "allowedValues (p. 64)": [
        "string"
      ],
      "referencedByResources (p. 64)": [
        "string"
      ]
    }
  ]
}
```

#### Example BadRequestException

```json
{
  "message (p. 60)": "string",
  "errorCode (p. 60)": "string"
}
```
Example ForbiddenException

```json
{
  "message (p. 61)": "string",
  "errorCode (p. 61)": "string"
}
```

Example ConflictException

```json
{
  "message (p. 60)": "string",
  "errorCode (p. 61)": "string"
}
```

Example TooManyRequestsException

```json
{
  "message (p. 64)": "string",
  "errorCode (p. 64)": "string"
}
```

Example InternalServerErrorException

```json
{
  "message (p. 61)": "string",
  "errorCode (p. 62)": "string"
}
```

Properties

BadRequestException

**message**

One of the parameters in the request is invalid.

Type: string
Required: False

**errorCode**

400

Type: string
Required: False

ConflictException

**message**

The resource already exists.

Type: string
Required: False
errorCode
409
   Type: string
   Required: False

CreateApplicationVersionInput

templateBody
The raw packaged SAM template of your application.
   Type: string
   Required: False

templateUrl
A link to the packaged SAM template of your application.
   Type: string
   Required: False

sourceCodeUrl
A link to a public repository for the source code of your application.
   Type: string
   Required: False

ForbiddenException

message
The client is not authenticated.
   Type: string
   Required: False

errorCode
403
   Type: string
   Required: False

InternalServerException

message
The AWS Serverless Application Repository service encountered an internal error.
   Type: string
   Required: False
errorCode
500
  Type: string
  Required: False

ParameterDefinition

name
The name of the parameter.
  Type: string
  Required: True

defaultValue
A value of the appropriate type for the template to use if no value is specified when a stack is created. If you define constraints for the parameter, you must specify a value that adheres to those constraints.
  Type: string
  Required: False

description
A string of up to 4,000 characters that describes the parameter.
  Type: string
  Required: False

type
The type of the parameter.

Valid values: String | Number | List<Number> | CommaDelimitedList

String: A literal string.
  For example, users could specify "MyUserName".

Number: An integer or float. AWS CloudFormation validates the parameter value as a number; however, when you use the parameter elsewhere in your template (for example, by using the Ref intrinsic function), the parameter value becomes a string.
  For example, users could specify "8888".

List<Number>: An array of integers or floats that are separated by commas. AWS CloudFormation validates the parameter value as numbers; however, when you use the parameter elsewhere in your template (for example, by using the Ref intrinsic function), the parameter value becomes a list of strings.
  For example, users could specify "80,20", and a Ref results in ["80", "20"].

CommaDelimitedList: An array of literal strings that are separated by commas. The total number of strings should be one more than the total number of commas. Also, each member string is space-trimmed.
For example, users could specify "test, dev, prod", and a `Ref` results in ["test", "dev", "prod"].

**NoEcho**

Whether to mask the parameter value whenever anyone makes a call that describes the stack. If you set the value to true, the parameter value is masked with asterisks (*****).

**Type**: boolean

**Required**: False

**allowedPattern**

A regular expression that represents the patterns to allow for **String** types.

**Type**: string

**Required**: False

**constraintDescription**

A string that explains a constraint when the constraint is violated. For example, without a constraint description, a parameter that has an allowed pattern of `[A-Za-z0-9]+` displays the following error message when the user specifies an invalid value:

Malformed input-Parameter MyParameter must match pattern [A-Za-z0-9]+. By adding a constraint description, such as "must contain only uppercase and lowercase letters, and numbers," you can display the following customized error message:

Malformed input-Parameter MyParameter must contain only uppercase and lowercase letters and numbers.

**Type**: string

**Required**: False

**minValue**

A numeric value that determines the smallest numeric value you want to allow for **Number** types.

**Type**: integer

**Required**: False

**maxValue**

A numeric value that determines the largest numeric value you want to allow for **Number** types.

**Type**: integer

**Required**: False

**minLength**

An integer value that determines the smallest number of characters you want to allow for **String** types.

**Type**: integer
**Properties**

**Required**: False

**maxLength**
An integer value that determines the largest number of characters you want to allow for `String` types.

*Type*: integer
*Required*: False

**allowedValues**
Array containing the list of values allowed for the parameter.

*Type*: Array of type string
*Required*: False

**referencedByResources**
A list of SAM resources that use this parameter.

*Type*: Array of type string
*Required*: True

**TooManyRequestsException**

**message**
The client is sending more than the allowed number of requests per unit time.

*Type*: string
*Required*: False

**errorCode**
429

*Type*: string
*Required*: False

**Version**

**applicationId**
The application Amazon Resource Name (ARN).

*Type*: string
*Required*: True

**semanticVersion**
The semantic version of the application:

[https://semver.org/](https://semver.org/)
Properties

Type: string
Required: True

sourceCodeUrl

A link to a public repository for the source code of your application.

Type: string
Required: False

templateUrl

A link to the packaged SAM template of your application.

Type: string
Required: True

creationTime

The date/time this resource was created.

Type: string
Required: True

parameterDefinitions

Array of parameter types supported by the application.

Type: Array of type ParameterDefinition (p. 62)
Required: True
Document History

The following table describes the documentation for this release of the AWS Serverless Application Repository.

- API version: latest
- Latest documentation update: November 30, 2017

<table>
<thead>
<tr>
<th>Change</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>New guide</td>
<td>This is the first release of the AWS Serverless Application</td>
<td>November 30, 2017</td>
</tr>
<tr>
<td></td>
<td>Repository Developer Guide.</td>
<td></td>
</tr>
</tbody>
</table>


66
AWS Glossary

For the latest AWS terminology, see the AWS Glossary in the AWS General Reference.