Amazon Managed Streaming for Apache Kafka

Amazon MSK API Reference
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Amazon Managed Streaming for Apache Kafka API Reference

Amazon Managed Streaming for Apache Kafka (Amazon MSK) is a fully managed service that makes it easy for you to build and run applications that use Apache Kafka to process streaming data.

Amazon MSK provides the control-plane operations and lets you use Apache Kafka data-plane operations, such as producing and consuming data. It runs open-source versions of Apache Kafka, so existing applications, tooling, and plugins from partners and the Apache Kafka community are supported without requiring changes to application code.

For more information about Amazon MSK, see the Amazon MSK Developer Guide.
Operations

The Amazon Managed Streaming for Apache Kafka REST API includes the following operations.

- **BatchAssociateScramSecret (p. 168)**
  Associates a list of SCRAM secrets with a cluster. SCRAM secrets are stored in the Amazon Secrets Manager service, and are used to authenticate clients using usernames and passwords.

- **BatchDisassociateScramSecret (p. 169)**
  Disassociates a list of SCRAM secrets from a cluster. SCRAM secrets are stored in the Amazon Secrets Manager service, and are used to authenticate clients using usernames and passwords.

- **CreateCluster (p. 107)**
  Creates a new MSK cluster. The following Python 3.6 examples shows how you can create a cluster that's distributed over two Availability Zones. Before you run this Python script, replace the example subnet and security-group IDs with the IDs of your subnets and security group. When you create an MSK cluster, its brokers get evenly distributed over a number of Availability Zones that's equal to the number of subnets that you specify in the BrokerNodeGroupInfo parameter. In this example, you can add a third subnet to get a cluster that's distributed over three Availability Zones.

```python
import boto3

client = boto3.client('kafka')

response = client.create_cluster(
    BrokerNodeGroupInfo={
        'BrokerAZDistribution': 'DEFAULT',
        'ClientSubnets': ['subnet-012345678901fedcba', 'subnet-9876543210abcdef01'],
        'InstanceType': 'kafka.m5.large',
        'SecurityGroups': ['sg-012345abcdef789789']
    },
    ClusterName='SalesCluster',
    EncryptionInfo={
        'EncryptionInTransit': {
            'ClientBroker': 'TLS_PLAINTEXT',
            'InCluster': True
        }
    },
    EnhancedMonitoring='PER_TOPIC_PER_BROKER',
    KafkaVersion='2.2.1',
    NumberOfBrokerNodes=2
)

print(response)
```

- **CreateConfiguration (p. 149)**
  Creates a new MSK configuration. To see an example of how to use this operation, first save the following text to a file and name the file `config-file.txt`.

```python
auto.create.topics.enable = true
```

---

2
zookeeper.connection.timeout.ms = 1000
log.roll.ms = 604800000

Now run the following Python 3.6 script in the folder where you saved config-file.txt. This script uses the properties specified in config-file.txt to create a configuration named SalesClusterConfiguration. This configuration can work with Apache Kafka versions 1.1.1 and 2.1.0.

```python
import boto3
client = boto3.client('kafka')
config_file = open('config-file.txt', 'r')
server_properties = config_file.read()
response = client.create_configuration(
    Name='SalesClusterConfiguration',
    Description='The configuration to use on all sales clusters.',
    KafkaVersions=['1.1.1', '2.1.0'],
    ServerProperties=server_properties
)
print(response)
```

- **DeleteCluster (p. 36)**

  Deletes the MSK cluster specified by the Amazon Resource Name (ARN) in the request, and all its revisions.

- **DeleteConfiguration (p. 134)**

  Deletes a cluster configuration and all its revisions.

- **DescribeCluster (p. 34)**

  Returns a description of the MSK cluster whose Amazon Resource Name (ARN) is specified in the request. The following is a Python 3.6 example of how to use this operation. Before you run this Python script, replace the example cluster ARN with the ARN of the cluster you want to describe. If you don't know the ARN of the cluster, you can use the ListClusters operation to list all the clusters and see their ARNs and full descriptions.

```python
import boto3
client = boto3.client('kafka')
response = client.describe_cluster(
)
print(response)
```

Note that the response to this operation only includes the ZookeeperConnectStringTls node in clusters created with Apache Kafka version 2.5.1 and later.

- **DescribeClusterOperation (p. 65)**

  Returns a description of the cluster operation specified by the ARN.

- **DescribeConfiguration (p. 132)**
Returns a description of this MSK configuration.

- **DescribeConfigurationRevision (p. 140)**

Returns a description of this revision of the configuration.

- **GetBootstrapBrokers (p. 12)**

A list of brokers that a client can use to bootstrap. This list doesn't necessarily include all of the brokers in the cluster. The following Python 3.6 example shows how you can use the ARN of a cluster to get its bootstrap brokers. If you don't know the ARN of your cluster, you can use the ListClusters operation to get the ARNs of all the clusters in this account and Region.

```python
import boto3
client = boto3.client('kafka')
response = client.get_bootstrap_brokers(
)
print(response['BootstrapBrokerString'])
```

- **GetCompatibleKafkaVersions (p. 129)**

Returns a list of the Apache Kafka versions to which you can update this cluster.

- **ListClusterOperations (p. 82)**

Returns a list of all the operations that have been performed on the specified MSK cluster.

- **ListClusters (p. 106)**

Returns a list of all the MSK clusters.

- **ListConfigurationRevisions (p. 144)**

Returns a list of all the revisions of an MSK configuration.

- **ListConfigurations (p. 148)**

Returns a list of all the MSK configurations.

- **ListKafkaVersions (p. 8)**

Returns the Apache Kafka version objects.

- **ListNodes (p. 27)**

Returns a list of the broker nodes in the cluster. The following Python 3.6 example first lists one node of a cluster. Because the cluster has more nodes, the response contains a token that the script then uses to list the remaining nodes.

```python
import boto3
client = boto3.client('kafka')
list_nodes_response = client.list_nodes(
    MaxResults=1
)
print('
')
print('Here is the first node in the list:')
```
```python
print('
')
print(list_nodes_response['NodeInfoList'])

next_token = list_nodes_response['NextToken']

list_nodes_response = client.list_nodes(
    NextToken=next_token
)

print('
')
print('Here are the remaining nodes in the list:')
print('
')
print(list_nodes_response['NodeInfoList'])

• **ListScramSecrets (p. 167)**

Returns a list of SCRAM secrets associated with the cluster. SCRAM secrets are stored in the Amazon Secrets Manager service, and are used to authenticate clients using usernames and passwords.

• **ListTagsForResource (p. 175)**

Returns a list of the tags associated with the specified resource.

• **RebootBroker (p. 163)**

Reboots a broker. In a given cluster, you can reboot one broker at a time.

To reboot a broker, wait for the cluster status to be ACTIVE. This operation returns an error if you invoke it while the cluster status is HEALING. You must wait for the status to change from HEALING to ACTIVE before you reboot the broker.

• **TagResource (p. 175)**

Adds tags to the specified MSK resource.

• **UntagResource (p. 176)**

Removes the tags associated with the keys that are provided in the query.

• **UpdateBrokerCount (p. 16)**

Updates the number of broker nodes in the cluster. You can use this operation to increase the number of brokers in an existing cluster. You can't decrease the number of brokers.

The following Python 3.6 example shows how you can increase the number of brokers in a cluster to 6 brokers. The update operation returns immediately, with a response that includes the ARN that Amazon MSK assigns to this cluster operation. You can use that ARN to check the state of the operation. When the state changes from PENDING to UPDATE_COMPLETE, the operation is complete.

```python
import boto3
import time

client = boto3.client('kafka')

update_broker_count_response = client.update_broker_count(
    CurrentVersion='K12V31B1VIZHZHY',
    TargetNumberOfBrokerNodes=6
)

operation_arn = update_broker_count_response['ClusterOperationArn']

print(operation_arn)
```
describe_cluster_operation_response =
    client.describe_cluster_operation(ClusterOperationArn=operation_arn)
operation_state = describe_cluster_operation_response['ClusterOperationInfo']['OperationState']
print(operation_state)
expanded = False
while not expanded:
    print('Sleeping for 15 seconds before checking to see if the cluster update is done...
    time.sleep(15)
    describe_cluster_operation_response =
    client.describe_cluster_operation(ClusterOperationArn=operation_arn)
    operation_state = describe_cluster_operation_response['ClusterOperationInfo']['OperationState']
if 'UPDATE_COMPLETE' == operation_state:
    expanded = True
    print('The cluster has 6 brokers now.')

• UpdateBrokerStorage (p. 20)

Updates the EBS storage associated with MSK brokers. You can increase the amount of EBS storage per broker. You can't decrease the storage. To increase storage, wait for the cluster to be in the ACTIVE state. Storage volumes remain available during this scaling-up operation.

• UpdateBrokerType (p. 24)

For information about this operation, see Updating the broker type in the developer guide.

• UpdateClusterConfiguration (p. 57)

Updates the cluster with the configuration that is specified in the request body. Before you invoke this operation, ensure that the number of partitions per broker on your MSK cluster is under the limits described in Number of partitions per broker. You can't update the configuration of an MSK cluster that exceeds these limits.

• UpdateClusterKafkaVersion (p. 53)

Updates the cluster to the specified Apache Kafka version. Before you invoke this operation, ensure that the number of partitions per broker on your MSK cluster is under the limits described in Number of partitions per broker. You can't update the Apache Kafka version for an MSK cluster that exceeds these limits.

• UpdateConfiguration (p. 133)

Creates a new revision of the cluster configuration. The configuration must be in the ACTIVE state.

• UpdateConnectivity (p. 61)

Updates the connectivity setting for the cluster.

• UpdateMonitoring (p. 156)

Updates the monitoring settings for the cluster. You can use this operation to specify which Apache Kafka metrics you want Amazon MSK to send to Amazon CloudWatch. You can also specify settings for open monitoring with Prometheus. The following Python 3.6 example enables open monitoring with the Node Exporter. It also sets enhanced monitoring to PER_BROKER. For more information about monitoring, see Monitoring.

```python
import boto3
import time

client = boto3.client('kafka')
```
update_monitoring_response = client.update_monitoring(
    CurrentVersion='K12V31B1VIZHHY',
    EnhancedMonitoring='PER_BROKER',
    OpenMonitoring={"Prometheus":{"JmxExporter":{"EnabledInBroker":False},"NodeExporter":
    {"EnabledInBroker":True}}}{}
)

operation_arn = update_monitoring_response['ClusterOperationArn']
print('The ARN of the update operation is ' + operation_arn)

describe_cluster_operation_response =
    client.describe_cluster_operation(ClusterOperationArn=operation_arn)

operation_state = describe_cluster_operation_response['ClusterOperationInfo']['OperationState']
print('The status of the update operation is ' + operation_state)

updated = False
while not updated:
    print('Sleeping for 15 seconds before checking to see if the monitoring update is
done...')
    time.sleep(15)
    describe_cluster_operation_response =
        client.describe_cluster_operation(ClusterOperationArn=operation_arn)
    operation_state = describe_cluster_operation_response['ClusterOperationInfo']['OperationState']
    if 'UPDATE_COMPLETE' == operation_state:
        updated = True
        print('You have successfully updated the monitoring settings.')

- UpdateSecurity (p. 99)
Resources

The Amazon Managed Streaming for Apache Kafka REST API includes the following resources.

Topics

- Apache Kafka Versions (p. 8)
- BootstrapBrokers (p. 12)
- Broker Count (p. 16)
- Broker Storage (p. 20)
- Broker Type (p. 24)
- Brokers (p. 27)
- Cluster (p. 34)
- Cluster Apache Kafka Version (p. 53)
- Cluster Configuration (p. 57)
- Cluster Connectivity (p. 61)
- Cluster Operation (p. 65)
- Cluster Operations (p. 81)
- Cluster Security (p. 99)
- Clusters (p. 106)
- Compatible Apache Kafka Versions (p. 129)
- Configuration (p. 132)
- Configuration Revision (p. 140)
- Configuration Revisions (p. 144)
- Configurations (p. 147)
- Monitoring Properties (p. 156)
- Reboot Broker (p. 163)
- Scram Secrets (p. 167)
- Tags (p. 174)

Apache Kafka Versions

Objects that represent Apache Kafka versions.

URI

/v1/kafka-versions

HTTP methods

GET

Operation ID: ListKafkaVersions
Returns the Apache Kafka version objects.

**Query parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>nextToken</td>
<td>String</td>
<td>False</td>
<td>The paginated results marker. When the result of the operation is truncated, the call returns <code>nextToken</code> in the response. To get the next batch, provide this token in your next request.</td>
</tr>
<tr>
<td>maxResults</td>
<td>String</td>
<td>False</td>
<td>The maximum number of results to return in the response. If there are more results, the response includes a <code>NextToken</code> parameter.</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>ListKafkaVersionsResponse</td>
<td>200 response</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 10)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 10)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 10)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 10)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 10)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 10)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 10)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

**OPTIONS**

Enable CORS by returning the correct headers.
Responses

<table>
<thead>
<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

Schemas

Response bodies

ListKafkaVersionsResponse schema

```
{
   "nextToken": "string",
   "kafkaVersions": [
   {
      "version": "string",
      "status": enum
   }
   ]
}
```

Error schema

```
{
   "message": "string",
   "invalidParameter": "string"
}
```

Properties

Error

Returns information about an error.

message

The description of the error.

Type: string
Required: False

invalidParameter

The parameter that caused the error.

Type: string
Required: False

KafkaVersion

Information about an Apache Kafka version.
version

The Apache Kafka version.

Type: string
Required: False

status

The status of the Apache Kafka version.

Type: KafkaVersionStatus (p. 11)
Required: False

KafkaVersionStatus

The status of an Apache Kafka version.

ACTIVE
DEPRECATED

ListKafkaVersionsResponse

Response for ListKafkaVersions.

nextToken

Paginated results marker.

Type: string
Required: False

kafkaVersions

An array of Apache Kafka version objects.

Type: Array of type KafkaVersion (p. 10)
Required: False

See also

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

ListKafkaVersions

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java V2
• AWS SDK for JavaScript
BootstrapBrokers

A list of brokers that a client application can use to bootstrap.

URI

/v1/clusters/{clusterArn}/bootstrap-brokers

HTTP methods

GET

Operation ID: GetBootstrapBrokers

A list of brokers that a client can use to bootstrap. This list doesn't necessarily include all of the brokers in the cluster. The following Python 3.6 example shows how you can use the ARN of a cluster to get its bootstrap brokers. If you don't know the ARN of your cluster, you can use the ListClusters operation to get the ARNs of all the clusters in this account and Region.

```python
import boto3
client = boto3.client('kafka')
response = client.get_bootstrap_brokers(
)
print(response['BootstrapBrokerString'])
```

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>GetBootstrapBrokersResponse</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 14)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</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>401</td>
<td>Error (p. 14)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 14)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 14)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 14)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 14)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 14)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

**OPTIONS**

Enable CORS by returning the correct headers.

**Path parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

**Schemas**

**Response bodies**

GetBootstrapBrokersResponse schema

```json
{
    "bootstrapBrokerStringPublicSaslIam": "string",
    "bootstrapBrokerStringPublicTls": "string",
    "bootstrapBrokerStringPublicSaslScram": "string",
    "bootstrapBrokerString": "string",
    "bootstrapBrokerStringSaslIam": "string",
    "bootstrapBrokerStringSaslScram": "string"
}
```
Properties

Error

Returns information about an error.

message

The description of the error.

    Type: string
    Required: False

invalidParameter

The parameter that caused the error.

    Type: string
    Required: False

GetBootstrapBrokersResponse

Returns a string containing one or more hostname:port pairs.

bootstrapBrokerStringPublicSaslIam

A string that is one or more pairs of DNS names (or IP addresses) and SASL IAM ports for public access.

    Type: string
    Required: False

bootstrapBrokerStringPublicTls

A string that is one or more pairs of DNS names (or IP addresses) and SASL IAM ports for public access.

    Type: string
    Required: False

bootstrapBrokerStringPublicSaslScram

A string that is one or more pairs of DNS names (or IP addresses) and SASL IAM ports for public access.
See also

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

GetBootstrapBrokers

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
Broker Count

The number of broker nodes in a cluster.

URI

/v1/clusters/{clusterArn}/nodes/count

HTTP methods

PUT

Operation ID: UpdateBrokerCount

Updates the number of broker nodes in the cluster. You can use this operation to increase the number of brokers in an existing cluster. You can't decrease the number of brokers.

The following Python 3.6 example shows how you can increase the number of brokers in a cluster to 6 brokers. The update operation returns immediately, with a response that includes the ARN that Amazon MSK assigns to this cluster operation. You can use that ARN to check the state of the operation. When the state changes from PENDING to UPDATE_COMPLETE, the operation is complete.

```python
import boto3
import time

client = boto3.client('kafka')

update_broker_count_response = client.update_broker_count(
    CurrentVersion='K12V3IB1VIZHYY',
    TargetNumberOfBrokerNodes=6
)

operation_arn = update_broker_count_response['ClusterOperationArn']

print(operation_arn)

describe_cluster_operation_response = client.describe_cluster_operation(ClusterOperationArn=operation_arn)

operation_state = describe_cluster_operation_response['ClusterOperationInfo']['OperationState']

print(operation_state)

expanded = False

while not expanded:
    print('Sleeping for 15 seconds before checking to see if the cluster update is done...')
    time.sleep(15)
    describe_cluster_operation_response = client.describe_cluster_operation(ClusterOperationArn=operation_arn)
    operation_state = describe_cluster_operation_response['ClusterOperationInfo']['OperationState']
```
if 'UPDATE_COMPLETE' == operation_state:
    expanded = True
print('The cluster has 6 brokers now. ')

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>UpdateBrokerCountResponse</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 18)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 18)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
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<td>Error (p. 18)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
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<td>429</td>
<td>Error (p. 18)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 18)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
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<td>Error (p. 18)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

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<tr>
<th>Name</th>
<th>Type</th>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
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<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

## Schemas

### Request bodies

**PUT schema**

```json
{
  "targetNumberOfBrokerNodes": integer,
  "currentVersion": "string"
}
```

### Response bodies

**UpdateBrokerCountResponse schema**

```json
{
  "clusterArn": "string",
  "clusterOperationArn": "string"
}
```

**Error schema**

```json
{
  "message": "string",
  "invalidParameter": "string"
}
```

## Properties

### Error

Returns information about an error.

**message**

The description of the error.

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

**invalidParameter**

The parameter that caused the error.

- **Type:** string
**UpdateBrokerCountRequest**

Request body for UpdateBrokerCount.

**targetNumberOfBrokerNodes**

The number of broker nodes that you want the cluster to have after this operation completes successfully.

- **Type**: integer
- **Required**: True

**currentVersion**

The current version of the cluster.

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

**UpdateBrokerCountResponse**

Response body for UpdateBrokerCount.

**clusterArn**

The Amazon Resource Name (ARN) of the cluster.

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

**clusterOperationArn**

The Amazon Resource Name (ARN) of the cluster operation.

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

**See also**

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

**UpdateBrokerCount**

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript
Broker Storage

Represents the EBS storage associated with the brokers.

**URI**

/v1/clusters/clusterArn/nodes/storage

**HTTP methods**

**PUT**

**Operation ID:** UpdateBrokerStorage

Updates the EBS storage associated with MSK brokers. You can increase the amount of EBS storage per broker. You can't decrease the storage. To increase storage, wait for the cluster to be in the ACTIVE state. Storage volumes remain available during this scaling-up operation.

**Path parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>UpdateBrokerStorageResponse</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 22)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 22)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 22)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 22)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
</tbody>
</table>
### OPTIONS

Enable CORS by returning the correct headers.

#### Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

### Schemas

#### Request bodies

**PUT schema**

```json
{
  "targetBrokerEBSVolumeInfo": [
    {
      "volumeSizeGB": integer,
      "kafkaBrokerNodeIds": "string"
    },
    "currentVersion": "string"
  }
}
```

#### Response bodies

**UpdateBrokerStorageResponse schema**

```json
{
  "clusterArn": "string",
}
"clusterOperationArn": "string"
}

Error schema

{
  "message": "string",
  "invalidParameter": "string"
}

Properties

BrokerEBSVolumeInfo

Specifies the EBS volume upgrade information. The broker identifier must be set to the keyword ALL. This means the changes apply to all the brokers in the cluster.

volumeSizeGB

Size of the EBS volume to update.

  Type: integer
  Required: True

kafkaBrokerNodeId

The ID of the broker to update. The only allowed value is ALL. This means that Amazon MSK applies the same storage update to all broker nodes.

  Type: string
  Required: True

Error

Returns information about an error.

message

The description of the error.

  Type: string
  Required: False

invalidParameter

The parameter that caused the error.

  Type: string
  Required: False

UpdateBrokerStorageRequest

Request object for UpdateBrokerStorage.
targetBrokerEBSVolumeInfo

Describes the target volume size and the ID of the broker to apply the update to.

The value you specify for Target-Volume-in-GiB must be a whole number that is greater than 100 GiB.

The storage per broker after the update operation can't exceed 16384 GiB.

Type: Array of type BrokerEBSVolumeInfo (p. 22)
Required: True

currentVersion

The version of the MSK cluster to update. Cluster versions aren't simple numbers. You can describe an MSK cluster to find its version. When this update operation is successful, it generates a new cluster version.

Type: string
Required: True

UpdateBrokerStorageResponse

Response body for UpdateBrokerStorage.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

Type: string
Required: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

Type: string
Required: False

See also

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

UpdateBrokerStorage

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

The type of brokers in the cluster. All of the brokers in a cluster are the same type.

URI

/v1/clusters/{clusterArn}/nodes/type

HTTP methods

PUT

Operation ID: UpdateBrokerType

For information about this operation, see Updating the broker type in the developer guide.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
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<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</td>
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</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>UpdateBrokerTypeResponse</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 25)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 25)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 25)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 25)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 25)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 25)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
</tbody>
</table>
### OPTIONS

Enable CORS by returning the correct headers.

#### Path parameters

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</thead>
<tbody>
<tr>
<td><code>clusterArn</code></td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</td>
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</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

### Schemas

#### Request bodies

**PUT schema**

```json
{
   "targetInstanceType": "string",
   "currentVersion": "string"
}
```

#### Response bodies

**UpdateBrokerTypeResponse schema**

```json
{
   "clusterArn": "string",
   "clusterOperationArn": "string"
}
```

**Error schema**

```json
{
   "message": "string",
   "invalidParameter": "string"
}
```
Properties

Error

Returns information about an error.

message

The description of the error.

Type: string
Required: False

invalidParameter

The parameter that caused the error.

Type: string
Required: False

UpdateBrokerTypeRequest

Request body for UpdateBrokerType.

targetInstanceType

The type of Amazon EC2 instances to use for Kafka brokers.

Type: string
Required: True

currentVersion

Current cluster version.

Type: string
Required: True

UpdateBrokerTypeResponse

Response body for UpdateBrokerType.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

Type: string
Required: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

Type: string
See also

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

**UpdateBrokerType**

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

**Brokers**

The broker nodes in the cluster.

**URI**

/v1/clusters/clusterArn/nodes

**HTTP methods**

**GET**

**Operation ID:** ListNodes

Returns a list of the broker nodes in the cluster. The following Python 3.6 example first lists one node of a cluster. Because the cluster has more nodes, the response contains a token that the script then uses to list the remaining nodes.

```python
import boto3

client = boto3.client('kafka')

list_nodes_response = client.list_nodes(
    MaxResults=1
)

print('
')
print('Here is the first node in the list:')
print('
')
print(list_nodes_response['NodeInfoList'])
```
next_token = list_nodes_response['NextToken']

list_nodes_response = client.list_nodes(
    NextToken=next_token
)

print('Here are the remaining nodes in the list: ')
print(list_nodes_response['NodeInfoList'])

### Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>nextToken</td>
<td>String</td>
<td>False</td>
<td>The paginated results marker. When the result of the operation is truncated, the call returns NextToken in the response. To get the next batch, provide this token in your next request.</td>
</tr>
<tr>
<td>maxResults</td>
<td>String</td>
<td>False</td>
<td>The maximum number of results to return in the response. If there are more results, the response includes a NextToken parameter.</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>ListNodesResponse (p. 29)</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 30)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 30)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</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>403</td>
<td>Error (p. 30)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 30)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 30)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 30)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 30)</td>
<td>503 response</td>
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**OPTIONS**

Enable CORS by returning the correct headers.

**Path parameters**

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<th>Name</th>
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<th>Description</th>
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</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
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<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</td>
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</table>

**Responses**

<table>
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<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

**Schemas**

**Response bodies**

**ListNodesResponse schema**

```json
{
  "nextToken": "string",
  "nodeInfoList": [
    {
      "zookeeperNodeInfo": {
        "zookeeperId": number,
        "clientVpcIpAddress": "string",
        "attachedENIId": "string",
        "endpoints": ["string"
```
Properties

BrokerNodeInfo

clientVpcIpAddress
The virtual private cloud (VPC) of the client.

  Type: string
  Required: False

attachedENIId
The attached elastic network interface of the broker.

  Type: string
  Required: False

brokerId
The ID of the broker.

  Type: number
**Required:** False

**endpoints**
Endpoints for accessing the broker.

**Type:** Array of type string

**clientSubnet**
The client subnet to which this broker node belongs.

**Type:** string

**currentBrokerSoftwareInfo**
Information about the version of software currently deployed on the brokers in the cluster.

**Type:** BrokerSoftwareInfo (p. 31)

**BrokerSoftwareInfo**
Information about the current software installed on the cluster.

**configurationRevision**
The revision of the configuration to use. This field isn't visible in this preview release.

**Type:** integer

**kafkaVersion**
The version of Apache Kafka. You can use Amazon MSK to create clusters that use Apache Kafka versions 1.1.1 and 2.2.1.

**Type:** string

**configurationArn**
The Amazon Resource Name (ARN) of the configuration used for the cluster. This field isn't visible in this preview release.

**Type:** string

**Error**
Returns information about an error.
message
The description of the error.
   Type: string
   Required: False

invalidParameter
The parameter that caused the error.
   Type: string
   Required: False

ListNodesResponse
Information about nodes in the cluster.

nextToken
The paginated results marker. When the result of a ListNodes operation is truncated, the call returns NextToken in the response. To get another batch of nodes, provide this token in your next request.
   Type: string
   Required: False

nodeInfoList
List containing a NodeInfo object.
   Type: Array of type NodeInfo (p. 32)
   Required: False

NodeInfo
The node information object.

zookeeperNodeInfo
The ZookeeperNodeInfo.
   Type: ZookeeperNodeInfo (p. 33)
   Required: False

instanceType
The instance type.
   Type: string
   Required: False

nodeType
The node type.
**Properties**

**Type**: `NodeType` (p. 33)
**Required**: False

### nodeARN

The Amazon Resource Name (ARN) of the node.

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

### brokerNodeInfo

The broker node info.

**Type**: `BrokerNodeInfo` (p. 30)  
**Required**: False

### addedToClusterTime

The start time.

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

### NodeType

The broker or Apache ZooKeeper node.

#### BROKER

### ZookeeperNodeInfo

Apache ZooKeeper node information.

#### zookeeperId

The role-specific ID for Apache ZooKeeper.

**Type**: number  
**Required**: False

### clientVpcIpAddress

The virtual private cloud (VPC) IP address of the client.

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

### attachedENIId

The attached elastic network interface of the broker.

**Type**: string
Required: False

epipoints
Endpoints for accessing the Apache ZooKeeper nodes.

Type: Array of type string
Required: False

zookeeperVersion
The version of Apache ZooKeeper.

Type: string
Required: False

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

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

Cluster

Represents an Amazon MSK cluster.

URI
/v1/clusters/clusterArn

HTTP methods
GET

Operation ID: DescribeCluster
Returns a description of the MSK cluster whose Amazon Resource Name (ARN) is specified in the request. The following is a Python 3.6 example of how to use this operation. Before you run this Python script, replace the example cluster ARN with the ARN of the cluster you want to describe. If you don't know the ARN of the cluster, you can use the ListClusters operation to list all the clusters and see their ARNs and full descriptions.

```python
import boto3
client = boto3.client('kafka')
response = client.describe_cluster(
)
print(response)
```

Note that the response to this operation only includes the ZookeeperConnectStringTls node in clusters created with Apache Kafka version 2.5.1 and later.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>DescribeClusterResponse</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 39)</td>
<td>The request isn't valid because the input is incorrect. Correct your input, then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 39)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 39)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 39)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 39)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 39)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
</tbody>
</table>
DELETE

Operation ID: DeleteCluster

Deletes the MSK cluster specified by the Amazon Resource Name (ARN) in the request, and all its revisions.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>currentVersion</td>
<td>String</td>
<td>False</td>
<td>The current version of the MSK cluster.</td>
</tr>
</tbody>
</table>

Responses

<table>
<thead>
<tr>
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<th>Response model</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>200</td>
<td>DeleteClusterResponse (p. 39)</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 39)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 39)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 39)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 39)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 39)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 39)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
</tbody>
</table>
OPTIONS

Enable CORS by returning the correct headers.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

Schemas

Response bodies

DescribeClusterResponse schema

```
{
  "clusterInfo": {
    "encryptionInfo": {
      "encryptionInTransit": {
        "inCluster": boolean,
        "clientBroker": enum
      },
      "encryptionAtRest": {
        "dataVolumeKMSKeyId": "string"
      }
    },
    "zookeeperConnectString": "string",
    "creationTime": "string",
    "zookeeperConnectStringTls": "string",
    "loggingInfo": {
      "brokerLogs": {
        "s3": {
          "bucket": "string",
          "prefix": "string",
          "enabled": boolean
        },
        "firehose": {
          "deliveryStream": "string",
          "enabled": boolean
        },
        "cloudWatchLogs": {
```
"logGroup": "string",
  "enabled": boolean
},
"currentVersion": "string",
"tags": {
},
"numberOfBrokerNodes": integer,
"clusterArn": "string",
"activeOperationArn": "string",
"enhancedMonitoring": enum,
"storageMode": enum,
"clusterName": "string",
"stateInfo": {
  "code": "string",
  "message": "string"
},
"clientAuthentication": {
  "sasl": {
    "iam": {
      "enabled": boolean
    },
    "scram": {
      "enabled": boolean
    }
  },
  "unauthenticated": {
    "enabled": boolean
  },
  "tls": {
    "certificateAuthorityArnList": [
      "string"
    ],
    "enabled": boolean
  }
},
"state": enum,
"brokerNodeGroupInfo": {
  "clientSubnets": [
    "string"
  ],
  "instanceType": "string",
  "connectivityInfo": {
    "publicAccess": {
      "type": "string"
    }
  },
  "securityGroups": [
    "string"
  ],
  "brokerAZDistribution": enum,
  "storageInfo": {
    "ebsStorageInfo": {
      "volumeSize": integer
    }
  }
},
"openMonitoring": {
  "prometheus": {
    "nodeExporter": {
      "enabledInBroker": boolean
    },
    "jmxExporter": {
      "enabledInBroker": boolean
    }
  }
}
Properties

BrokerAZDistribution

This parameter is currently not in use.

DEFAULT

BrokerLogs

The broker logs configuration for this MSK cluster.

s3

Details of the Amazon S3 destination for broker logs.

Type: S3 (p. 50)
Required: False

firehose

Details of the Kinesis Data Firehose delivery stream that is the destination for broker logs.

Type: Firehose (p. 48)
Required: False

cloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.
BrokerNodeGroupInfo

Describes the setup to be used for the broker nodes in the cluster.

clientSubnets

The list of subnets to connect to in the client virtual private cloud (VPC). Amazon creates elastic network interfaces inside these subnets. Client applications use elastic network interfaces to produce and consume data.

Specify exactly two subnets if you are using the US West (N. California) Region. For other Regions where Amazon MSK is available, you can specify either two or three subnets. The subnets that you specify must be in distinct Availability Zones. When you create a cluster, Amazon MSK distributes the broker nodes evenly across the subnets that you specify.

Client subnets can't be in Availability Zone us-east-1e.

instanceType

The type of Amazon EC2 instances to use for brokers. The following instance types are allowed: kafka.m5.large, kafka.m5.xlarge, kafka.m5.2xlarge, kafka.m5.4xlarge, kafka.m5.8xlarge, kafka.m5.12xlarge, kafka.m5.16xlarge, and kafka.m5.24xlarge.

connectivityInfo

Information about the cluster's connectivity setting.

securityGroups

The security groups to associate with the elastic network interfaces in order to specify who can connect to and communicate with the Amazon MSK cluster. If you don't specify a security group, Amazon MSK uses the default security group associated with the VPC. If you specify security groups that were shared with you, you must ensure that you have permissions to them. Specifically, you need the ec2:DescribeSecurityGroups permission.

brokerAZDistribution

This parameter is currently not in use.
**Type:** BrokerAZDistribution (p. 39)
**Required:** False

**storageInfo**
Contains information about storage volumes attached to MSK broker nodes.

**Type:** StorageInfo (p. 51)
**Required:** False

**BrokerSoftwareInfo**
Information about the current software installed on the cluster.

**configurationRevision**
The revision of the configuration to use. This field isn't visible in this preview release.

**Type:** integer
**Required:** False
**Format:** int64

**kafkaVersion**
The version of Apache Kafka. You can use Amazon MSK to create clusters that use Apache Kafka versions 1.1.1 and 2.2.1.

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

**configurationArn**
The Amazon Resource Name (ARN) of the configuration used for the cluster. This field isn't visible in this preview release.

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

**ClientAuthentication**
Includes all client authentication information.

**sasl**
Details for client authentication using SASL. To turn on SASL, you must also turn on EncryptionInTransit by setting inCluster to true. You must set clientBroker to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set unauthenticated to true.

**Type:** Sasl (p. 50)
**Required:** False

**unauthenticated**
Details for ClientAuthentication using no authentication.
**Properties**

**Type:** Unauthenticated (p. 52)  
**Required:** False

**tls**

Details for ClientAuthentication using TLS. To turn on TLS access control, you must also turn on EncryptionInTransit by setting inCluster to true and clientBroker to TLS.

**Type:** Tls (p. 52)  
**Required:** False

**ClientBroker**

Client-broker encryption in transit setting.

- TLS
- TLS_PLAINTEXT
- PLAINTEXT

**CloudWatchLogs**

Details of the CloudWatch Logs destination for broker logs.

**logGroup**

The CloudWatch log group that is the destination for broker logs.

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

**enabled**

Specifies whether broker logs get sent to the specified CloudWatch Logs destination.

**Type:** boolean  
**Required:** True

**ClusterInfo**

Returns information about a cluster.

**encryptionInfo**

Includes all encryption-related information.

**Type:** EncryptionInfo (p. 47)  
**Required:** False

**zookeeperConnectString**

The connection string to use to connect to zookeeper cluster on plaintext port.

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

The time when the cluster was created.

*Type: string*

*Required: False*

**zookeeperConnectStringTls**

The connection string to use to connect to the Apache ZooKeeper cluster on a TLS port.

*Type: string*

*Required: False*

**loggingInfo**

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

*Type: LoggingInfo (p. 49)*

*Required: False*

**currentVersion**

The current version of the MSK cluster. Cluster versions aren't simple integers. You can obtain the current version by describing the cluster. An example version is KTVPDKIKX0DER.

*Type: string*

*Required: False*

**tags**

Tags attached to the cluster.

*Type: object*

*Required: False*

**numberOfBrokerNodes**

The number of broker nodes in the cluster.

*Type: integer*

*Required: False*

**clusterArn**

The Amazon Resource Name (ARN) that uniquely identifies the cluster.

*Type: string*

*Required: False*

**activeOperationArn**

Arn of active cluster operation.
**enhancedMonitoring**

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see Monitoring.

*Type: EnhancedMonitoring (p. 47)*

*Required: False*

**storageMode**

This controls storage mode for supported storage tiers.

*Type: StorageMode (p. 51)*

*Required: False*

**clusterName**

The name of the cluster.

*Type: string*

*Required: False*

**stateInfo**

Includes information of the cluster state.

*Type: StateInfo (p. 51)*

*Required: False*

**clientAuthentication**

Includes all client authentication information.

*Type: ClientAuthentication (p. 41)*

*Required: False*

**state**

The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to MAINTENANCE when it starts the certificate-update operation. It sets it back to ACTIVE when the update is done. While a cluster is in the MAINTENANCE state, you can continue to produce and consume data, but you can't perform any update operations on it. You can perform update operations on a cluster when it is in the ACTIVE state.

*Type: ClusterState (p. 45)*

*Required: False*

**brokerNodeGroupInfo**

Information about the broker nodes.
openMonitoring
Settings for open monitoring using Prometheus.

Type: OpenMonitoring (p. 49)
Required: False

currentBrokerSoftwareInfo
Information about the version of software currently deployed on the brokers in the cluster.

Type: BrokerSoftwareInfo (p. 41)
Required: False

ClusterState
The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to MAINTENANCE when it starts the certificate-update operation. It sets it back to ACTIVE when the update is done. While a cluster is in the MAINTENANCE state, you can continue to produce and consume data, but you can't perform any update operations on it. You can perform update operations on a cluster when it is in the ACTIVE state.

ACTIVE
CREATING
UPDATING
DELETING
FAILED
MAINTENANCE
REBOOTING_BROKER
HEALING

ConnectivityInfo
Broker access controls.

publicAccess
Access control settings for the cluster's brokers.

Type: PublicAccess (p. 50)
Required: False

DeleteClusterResponse
Returns information about the deleted cluster.

clusterArn
The Amazon Resource Name (ARN) of the cluster.

Type: string
**state**

The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to MAINTENANCE when it starts the certificate-update operation. It sets it back to ACTIVE when the update is done. While a cluster is in the MAINTENANCE state, you can continue to produce and consume data, but you can't perform any update operations on it. You can perform update operations on a cluster when it is in the ACTIVE state.

**Type:** ClusterState (p. 45)  
**Required:** False

---

**DescribeClusterResponse**

Returns information about a cluster.

**clusterInfo**

The cluster information.

**Type:** ClusterInfo (p. 42)  
**Required:** False

---

**EBSStorageInfo**

Contains information about the EBS storage volumes attached to the broker nodes.

**volumeSize**

The size in GiB of the EBS volume for the data drive on each broker node.

**Type:** integer  
**Required:** False  
**Minimum:** 1  
**Maximum:** 16384

---

**EncryptionAtRest**

The data-volume encryption details.

**dataVolumeKMSKeyId**

The ARN of the Amazon KMS key for encrypting data at rest. If you don't specify a KMS key, MSK creates one for you and uses it.

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

---

**EncryptionInTransit**

The settings for encrypting data in transit.
inCluster

When set to true, it indicates that data communication among the broker nodes of the cluster is encrypted. When set to false, the communication happens in plaintext.

The default value is true.

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

clientBroker

Indicates the encryption setting for data in transit between clients and brokers. You must set it to one of the following values.

**TLS** means that client-broker communication is enabled with TLS only.

**TLS_PLAINTEXT** means that client-broker communication is enabled for both TLS-encrypted, as well as plaintext data.

**PLAINTEXT** means that client-broker communication is enabled in plaintext only.

The default value is **TLS**.

  **Type:** ClientBroker (p. 42)  
  **Required:** False

EncryptionInfo

Includes encryption-related information, such as the Amazon KMS key used for encrypting data at rest and whether you want MSK to encrypt your data in transit.

encryptionInTransit

The details for encryption in transit.

  **Type:** EncryptionInTransit (p. 46)  
  **Required:** False

encryptionAtRest

The data-volume encryption details.

  **Type:** EncryptionAtRest (p. 46)  
  **Required:** False

EnhancedMonitoring

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: **DEFAULT**, **PER_BROKER**, and **PER_TOPIC_PER_BROKER**. For a list of the metrics associated with each of these three levels of monitoring, see Monitoring.

  **DEFAULT**  
  **PER_BROKER**  
  **PER_TOPIC_PER_BROKER**
PER_TOPIC_PER_PARTITION

Error
Returns information about an error.

message
The description of the error.
  Type: string
  Required: False

invalidParameter
The parameter that caused the error.
  Type: string
  Required: False

Firehose
Firehose details for BrokerLogs.

deliveryStream
The Kinesis Data Firehose delivery stream that is the destination for broker logs.
  Type: string
  Required: False

enabled
Specifies whether broker logs get send to the specified Kinesis Data Firehose delivery stream.
  Type: boolean
  Required: True

IAM
Details for SASL/IAM client authentication.

enabled
SASL/IAM authentication is enabled or not.
  Type: boolean
  Required: False

JmxExporter
Indicates whether you want to enable or disable the JMX Exporter.
enabledInBroker

Indicates whether you want to enable or disable the JMX Exporter.

Type: boolean
Required: True

LoggingInfo

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

brokerLogs

You can configure your MSK cluster to send broker logs to different destination types. This configuration specifies the details of these destinations.

Type: BrokerLogs (p. 39)
Required: True

NodeExporter

Indicates whether you want to enable or disable the Node Exporter.

enabledInBroker

Indicates whether you want to enable or disable the Node Exporter.

Type: boolean
Required: True

OpenMonitoring

JMX and Node monitoring for the MSK cluster.

prometheus

Prometheus exporter settings.

Type: Prometheus (p. 49)
Required: True

Prometheus

Prometheus settings for open monitoring.

nodeExporter

Indicates whether you want to enable or disable the Node Exporter.

Type: NodeExporter (p. 49)
Required: False
jmxExporter
Indicates whether you want to enable or disable the JMX Exporter.

Type: JmxExporter (p. 48)
Required: False

PublicAccess
Broker access controls

type
DISABLED means that public access is turned off. SERVICE_PROVIDED_EIPS means that public access is turned on.

Type: string
Required: False

S3
The details of the Amazon S3 destination for broker logs.

bucket
The name of the S3 bucket that is the destination for broker logs.

Type: string
Required: False

prefix
The S3 prefix that is the destination for broker logs.

Type: string
Required: False

enabled
Specifies whether broker logs get sent to the specified Amazon S3 destination.

Type: boolean
Required: True

Sasl
Details for client authentication using SASL. To turn on SASL, you must also turn on EncryptionInTransit by setting inCluster to true. You must set clientBroker to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set unauthenticated to true.

iam
Details for ClientAuthentication using IAM.

Type: IAM (p. 48)
Required: False

scram
Details for SASL/SCRAM client authentication.

Type: Scram (p. 51)
Required: False

Scram
Details for SASL/SCRAM client authentication.

enabled
SASL/SCRAM authentication is enabled or not.

Type: boolean
Required: False

StateInfo
Includes information about the state of the cluster.

code
If the cluster is in an unusable state, this field contains the code that describes the issue.

Type: string
Required: False

message
If the cluster is in an unusable state, this field contains a message that describes the issue.

Type: string
Required: False

StorageInfo
Contains information about storage volumes attached to MSK broker nodes.

ebsStorageInfo
EBS volume information.

Type: EBSStorageInfo (p. 46)
Required: False

StorageMode
Controls storage mode for various supported storage tiers.

LOCAL
TIERED

Tls
Details for client authentication using TLS.

certificateAuthorityArnList
List of ACM Certificate Authority ARNs.
    Type: Array of type string
    Required: False

enabled
TLS authentication is enabled or not.
    Type: boolean
    Required: False

Unauthenticated
Details for allowing no client authentication.

enabled
Unauthenticated is enabled or not.
    Type: boolean
    Required: False

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

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

DeleteCluster
- AWS Command Line Interface
Cluster Apache Kafka Version

The Apache Kafka version that is on the cluster.

URI

/v1/clusters/<clusterArn>/version

HTTP methods

PUT

Operation ID: UpdateClusterKafkaVersion

Updates the cluster to the specified Apache Kafka version. Before you invoke this operation, ensure that the number of partitions per broker on your MSK cluster is under the limits described in Number of partitions per broker. You can't update the Apache Kafka version for an MSK cluster that exceeds these limits.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>UpdateClusterKafkaVersionResponse</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 55)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 55)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</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>403</td>
<td>Error (p. 55)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 55)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 55)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 55)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 55)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

**OPTIONS**

Enable CORS by returning the correct headers.

**Path parameters**

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<th>Name</th>
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</thead>
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<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</td>
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</thead>
<tbody>
<tr>
<td>200</td>
<td>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

**Schemas**

**Request bodies**

**PUT schema**

```json
{
    "targetKafkaVersion": "string",
    "configurationInfo": {
        "arn": "string",
        "revision": integer
    },
    "currentVersion": "string"
}
```

**Response bodies**
UpdateClusterKafkaVersionResponse schema

```json
{
  "clusterArn": "string",
  "clusterOperationArn": "string"
}
```

Error schema

```json
{
  "message": "string",
  "invalidParameter": "string"
}
```

Properties

ConfigurationInfo

Specifies the configuration to use for the brokers.

- **arn**
  - ARN of the configuration to use.
    - **Type:** string
      - **Required:** True

- **revision**
  - The revision of the configuration to use.
    - **Type:** integer
      - **Required:** True
      - **Format:** int64
      - **Minimum:** 1

Error

Returns information about an error.

- **message**
  - The description of the error.
    - **Type:** string
      - **Required:** False

- **invalidParameter**
  - The parameter that caused the error.
    - **Type:** string
Required: False

**UpdateClusterKafkaVersionRequest**
Request body for UpdateClusterKafkaVersion.

**targetKafkaVersion**
Target Apache Kafka version.

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

**configurationInfo**
The custom configuration that should be applied on the new version of cluster.

  - **Type**: ConfigurationInfo (p. 55)
  - **Required**: False

**currentVersion**
Current cluster version.

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

**UpdateClusterKafkaVersionResponse**
Response body for UpdateClusterKafkaVersion.

**clusterArn**
The Amazon Resource Name (ARN) of the cluster.

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

**clusterOperationArn**
The Amazon Resource Name (ARN) of the cluster operation.

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

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

**UpdateClusterKafkaVersion**
- AWS Command Line Interface
Cluster Configuration

Represents the configuration of a specific cluster.

URI

/v1/clusters/{clusterArn}/configuration

HTTP methods

PUT

Operation ID: UpdateClusterConfiguration

Updates the cluster with the configuration that is specified in the request body. Before you invoke this operation, ensure that the number of partitions per broker on your MSK cluster is under the limits described in Number of partitions per broker. You can't update the configuration of an MSK cluster that exceeds these limits.

Path parameters

<table>
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<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</td>
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</table>

Responses

<table>
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<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>UpdateClusterConfigurationResponse</td>
<td>Successful response. The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 59)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
</tbody>
</table>
Status code | Response model | Description
--- | --- | ---
403 | Error (p. 59) | Access forbidden. Check your credentials and then retry your request.
404 | Error (p. 59) | The resource could not be found due to incorrect input. Correct the input, then retry the request.
429 | Error (p. 59) | 429 response
500 | Error (p. 59) | There was an unexpected internal server error. Retrying your request might resolve the issue.
503 | Error (p. 59) | 503 response

**OPTIONS**

Enable CORS by returning the correct headers.

**Path parameters**

<table>
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<tbody>
<tr>
<td>200</td>
<td>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

**Schemas**

**Request bodies**

**PUT schema**

```json
{
  "configurationInfo": {
    "arn": "string",
    "revision": integer
  },
  "currentVersion": "string"
}
```

**Response bodies**
UpdateClusterConfigurationResponse schema

```json
{
  "clusterArn": "string",
  "clusterOperationArn": "string"
}
```

Error schema

```json
{
  "message": "string",
  "invalidParameter": "string"
}
```

Properties

ConfigurationInfo

Specifies the configuration to use for the brokers.

**arn**

ARN of the configuration to use.

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

**revision**

The revision of the configuration to use.

- **Type**: integer
- **Required**: True
- **Format**: int64
- **Minimum**: 1

Error

Returns information about an error.

**message**

The description of the error.

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

**invalidParameter**

The parameter that caused the error.

- **Type**: string
UpdateClusterConfigurationRequest

Request body for UpdateClusterConfiguration.

configurationInfo

Represents the configuration that you want MSK to use for the cluster.

Type: ConfigurationInfo (p. 59)
Required: True

currentVersion

The version of the cluster that you want to update.

Type: string
Required: True

UpdateClusterConfigurationResponse

Response body for UpdateClusterConfiguration.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

Type: string
Required: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

Type: string
Required: False

See also

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

UpdateClusterConfiguration

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
Cluster Connectivity

Use this resource to update the connectivity setting for an MSK cluster.

URI

/v1/clusters/clusterArn/connectivity

HTTP methods

PUT

Operation ID: UpdateConnectivity

Updates the connectivity setting for the cluster.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>UpdateConnectivityResponse</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 63)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 63)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 63)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 63)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
</tbody>
</table>
OPTIONS

Enable CORS by returning the correct headers.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

Schemas

Request bodies

PUT schema

```json
{
    "connectivityInfo": {
        "publicAccess": {
            "type": "string"
        }
    },
    "currentVersion": "string"
}
```

Response bodies

UpdateConnectivityResponse schema

```json
{
    "clusterArn": "string",
```
Error schema

```json
{
  "message": "string",
  "invalidParameter": "string"
}
```

**Properties**

**ConnectivityInfo**

Broker access controls.

**publicAccess**

Access control settings for the cluster's brokers.

**Type:** PublicAccess (p. 63)

**Required:** False

**Error**

Returns information about an error.

**message**

The description of the error.

**Type:** string

**Required:** False

**invalidParameter**

The parameter that caused the error.

**Type:** string

**Required:** False

**PublicAccess**

Broker access controls

**type**

DISABLED means that public access is turned off. SERVICE_PROVIDED_EIPS means that public access is turned on.

**Type:** string
UpdateConnectivityRequest

Request body for UpdateConnectivity.

connectivityInfo

The target connectivity setting for the cluster.

Type: ConnectivityInfo (p. 63)
Required: True

currentVersion

The current version of the cluster.

Type: string
Required: True

UpdateConnectivityResponse

Response body for UpdateConnectivity.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

Type: string
Required: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

Type: string
Required: False

See also

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

UpdateConnectivity

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript
Cluster Operation

Represents an operation that was performed on an MSK cluster.

URI

/v1/operations/{clusterOperationArn}

HTTP methods

GET

Operation ID: DescribeClusterOperation

Returns a description of the cluster operation specified by the ARN.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterOperationArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the MSK cluster operation.</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>DescribeClusterOperationResponse</td>
<td>200 response (66)</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 69)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 69)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 69)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 69)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 69)</td>
<td>429 response</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>500</td>
<td>Error (p. 69)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 69)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

**OPTIONS**

Enable CORS by returning the correct headers.

**Path parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterOperationArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the MSK cluster operation.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

**Schemas**

**Response bodies**

DescribeClusterOperationResponse schema

```json
{
    "clusterOperationInfo": {
        "clusterArn": "string",
        "creationTime": "string",
        "clientRequestId": "string",
        "operationState": "string",
        "sourceClusterInfo": {
            "encryptionInfo": {
                "encryptionInTransit": {
                    "inCluster": boolean,
                    "clientBroker": enum
                },
                "encryptionAtRest": {
                    "dataVolumeKMSKeyId": "string"
                }
            },
            "numberOfBrokerNodes": integer,
            "configurationInfo": {
                "arn": "string",
                "revision": integer
            }
        }
    }
}
```
"enhancedMonitoring": enum,
"storageMode": enum,
"kafkaVersion": "string",
"instanceType": "string",
"connectivityInfo": {
    "publicAccess": {
        "type": "string"
    }
},
"clientAuthentication": {
    "sasl": {
        "iam": {
            "enabled": boolean
        },
        "scram": {
            "enabled": boolean
        }
    },
    "unauthenticated": {
        "enabled": boolean
    },
    "tls": {
        "certificateAuthorityArnList": ["string"
    ],
        "enabled": boolean
    }
},
"loggingInfo": {
    "brokerLogs": {
        "s3": {
            "bucket": "string",
            "prefix": "string",
            "enabled": boolean
        },
        "firehose": {
            "deliveryStream": "string",
            "enabled": boolean
        },
        "cloudWatchLogs": {
            "logGroup": "string",
            "enabled": boolean
        }
    }
},
"brokerEBSVolumeInfo": [
    {
        "volumeSizeGB": integer,
        "kafkaBrokerNodeID": "string"
    }
],
"openMonitoring": {
    "prometheus": {
        "nodeExporter": {
            "enabledInBroker": boolean
        },
        "jmxExporter": {
            "enabledInBroker": boolean
        }
    }
},
"errorInfo": {
    "errorString": "string",
    "errorCode": "string"}
"operationType": "string",
"endTime": "string",
"operationSteps": [
    {
      "stepName": "string",
      "stepInfo": {
        "stepStatus": "string"
      }
    }
  ],
"targetClusterInfo": {
    "encryptionInfo": {
      "encryptionInTransit": {
        "inCluster": boolean,
        "clientBroker": enum
      },
      "encryptionAtRest": {
        "dataVolumeKMSKeyId": "string"
      }
    },
    "numberOfBrokerNodes": integer,
    "configurationInfo": {
      "arn": "string",
      "revision": integer
    },
    "enhancedMonitoring": enum,
    "storageMode": enum,
    "kafkaVersion": "string",
    "instanceType": "string",
    "connectivityInfo": {
      "publicAccess": {
        "type": "string"
      }
    },
    "clientAuthentication": {
      "sasl": {
        "iam": {
          "enabled": boolean
        },
        "scram": {
          "enabled": boolean
        }
      },
      "unauthenticated": {
        "enabled": boolean
      },
      "tls": {
        "certificateAuthorityArnList": ["string"],
        "enabled": boolean
      }
    },
    "loggingInfo": {
      "brokerLogs": {
        "s3": {
          "bucket": "string",
          "prefix": "string",
          "enabled": boolean
        },
        "firehose": {
          "deliveryStream": "string",
          "enabled": boolean
        },
        "cloudWatchLogs": {
          "logGroup": "string",
          },
"enabled": boolean
},

"brokerEBSVolumeInfo": [
  {
    "volumeSizeGB": integer,
    "kafkaBrokerNodeId": "string"
  }
],

"openMonitoring": {
  "prometheus": {
    "nodeExporter": {
      "enabledInBroker": boolean
    },
    "jmxExporter": {
      "enabledInBroker": boolean
    }
  }
},

"operationArn": "string"
}

Error schema

{
  "message": "string",
  "invalidParameter": "string"
}

Properties

**BrokerEBSVolumeInfo**

Specifies the EBS volume upgrade information. The broker identifier must be set to the keyword **ALL**. This means the changes apply to all the brokers in the cluster.

**volumeSizeGB**

Size of the EBS volume to update.

  **Type:** integer  
  **Required:** True

**kafkaBrokerNodeId**

The ID of the broker to update. The only allowed value is **ALL**. This means that Amazon MSK applies the same storage update to all broker nodes.

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

**BrokerLogs**

The broker logs configuration for this MSK cluster.
**s3**

Details of the Amazon S3 destination for broker logs.

- **Type:** S3 (p. 79)
- **Required:** False

**firehose**

Details of the Kinesis Data Firehose delivery stream that is the destination for broker logs.

- **Type:** Firehose (p. 76)
- **Required:** False

**cloudWatchLogs**

Details of the CloudWatch Logs destination for broker logs.

- **Type:** CloudWatchLogs (p. 71)
- **Required:** False

### ClientAuthentication

Includes all client authentication information.

**sasl**

Details for client authentication using SASL. To turn on SASL, you must also turn on EncryptionInTransit by setting inCluster to true. You must set clientBroker to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set unauthenticated to true.

- **Type:** Sasl (p. 80)
- **Required:** False

**unauthenticated**

Details for ClientAuthentication using no authentication.

- **Type:** Unauthenticated (p. 81)
- **Required:** False

**tls**

Details for ClientAuthentication using TLS. To turn on TLS access control, you must also turn on EncryptionInTransit by setting inCluster to true and clientBroker to TLS.

- **Type:** Tls (p. 80)
- **Required:** False

### ClientBroker

Client-broker encryption in transit setting.

- **TLS**
TLS_PLAINTEXT
PLAINTEXT

CloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

logGroup

The CloudWatch log group that is the destination for broker logs.

Type: string
Required: False

enabled

Specifies whether broker logs get sent to the specified CloudWatch Logs destination.

Type: boolean
Required: True

ClusterOperationInfo

Returns information about a cluster operation.

clusterArn

ARN of the cluster.

Type: string
Required: False

creationTime

The time that the operation was created.

Type: string
Required: False

clientRequestId

The ID of the API request that triggered this operation.

Type: string
Required: False

operationState

State of the cluster operation.

Type: string
Required: False
sourceClusterInfo
Information about cluster attributes before a cluster is updated.

  Type: MutableClusterInfo (p. 77)
  Required: False

errorInfo
Describes the error if the operation fails.

  Type: ErrorInfo (p. 75)
  Required: False

operationType
Type of the cluster operation.

  Type: string
  Required: False

d endTime
The time at which the operation finished.

  Type: string
  Required: False

operationSteps
Steps completed during the operation.

  Type: Array of type ClusterOperationStep (p. 72)
  Required: False

targetClusterInfo
Information about cluster attributes after a cluster is updated.

  Type: MutableClusterInfo (p. 77)
  Required: False

operationArn
ARN of the cluster operation.

  Type: string
  Required: False

ClusterOperationStep
Step taken during a cluster operation.
stepName
The name of the step.
  Type: string
  Required: False

stepInfo
Information about the step and its status.
  Type: ClusterOperationStepInfo (p. 73)
  Required: False

ClusterOperationStepInfo
Information about a step in an operation.

stepStatus
The step's current status.
  Type: string
  Required: False

ConfigurationInfo
Specifies the configuration to use for the brokers.

arn
ARN of the configuration to use.
  Type: string
  Required: True

revision
The revision of the configuration to use.
  Type: integer
  Required: True
  Format: int64
  Minimum: 1

ConnectivityInfo
Broker access controls.

publicAccess
Access control settings for the cluster's brokers.
  Type: PublicAccess (p. 79)
DescribeClusterOperationResponse

Information about a cluster operation.

clusterOperationInfo

Cluster operation information

Type: ClusterOperationInfo (p. 71)
Required: False

EncryptionAtRest

The data-volume encryption details.

dataVolumeKMSKeyId

The ARN of the Amazon KMS key for encrypting data at rest. If you don't specify a KMS key, MSK creates one for you and uses it.

Type: string
Required: True

EncryptionInTransit

The settings for encrypting data in transit.

inCluster

When set to true, it indicates that data communication among the broker nodes of the cluster is encrypted. When set to false, the communication happens in plaintext.

The default value is true.

Type: boolean
Required: False

clientBroker

Indicates the encryption setting for data in transit between clients and brokers. You must set it to one of the following values.

TLS means that client-broker communication is enabled with TLS only.

TLS_PLAINTEXT means that client-broker communication is enabled for both TLS-encrypted, as well as plaintext data.

PLAINTEXT means that client-broker communication is enabled in plaintext only.

The default value is TLS.

Type: ClientBroker (p. 70)
Required: False

**EncryptionInfo**

Includes encryption-related information, such as the Amazon KMS key used for encrypting data at rest and whether you want MSK to encrypt your data in transit.

**encryptionInTransit**

The details for encryption in transit.

<table>
<thead>
<tr>
<th>Type</th>
<th>EncryptionInTransit (p. 74)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>False</td>
</tr>
</tbody>
</table>

**encryptionAtRest**

The data-volume encryption details.

<table>
<thead>
<tr>
<th>Type</th>
<th>EncryptionAtRest (p. 74)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>False</td>
</tr>
</tbody>
</table>

**EnhancedMonitoring**

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see Monitoring.

<table>
<thead>
<tr>
<th>DEFAULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>PER_BROKER</td>
</tr>
<tr>
<td>PER_TOPIC_PER_BROKER</td>
</tr>
<tr>
<td>PER_TOPIC_PER_PARTITION</td>
</tr>
</tbody>
</table>

**Error**

Returns information about an error.

**message**

The description of the error.

<table>
<thead>
<tr>
<th>Type</th>
<th>string</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>False</td>
</tr>
</tbody>
</table>

**invalidParameter**

The parameter that caused the error.

<table>
<thead>
<tr>
<th>Type</th>
<th>string</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>False</td>
</tr>
</tbody>
</table>

**ErrorInfo**

Returns information about an error state of the cluster.
errorString

An optional field to provide more details about the error.

  Type: string
  Required: False

errorCode

A number describing the error programmatically.

  Type: string
  Required: False

Firehose

Firehose details for BrokerLogs.

deliveryStream

The Kinesis Data Firehose delivery stream that is the destination for broker logs.

  Type: string
  Required: False

enabled

Specifies whether broker logs get send to the specified Kinesis Data Firehose delivery stream.

  Type: boolean
  Required: True

IAM

Details for SASL/IAM client authentication.

enabled

SASL/IAM authentication is enabled or not.

  Type: boolean
  Required: False

JmxExporter

Indicates whether you want to enable or disable the JMX Exporter.

enabledInBroker

Indicates whether you want to enable or disable the JMX Exporter.

  Type: boolean
  Required: True
LoggingInfo

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

brokerLogs

You can configure your MSK cluster to send broker logs to different destination types. This configuration specifies the details of these destinations.

Type: BrokerLogs (p. 69)
Required: True

MutableClusterInfo

Information about cluster attributes that can be updated via update APIs.

encryptionInfo

Encryption details.

Type: EncryptionInfo (p. 75)
Required: False

numberOfBrokerNodes

The number of broker nodes in the cluster.

Type: integer
Required: False

configurationInfo

Information about the changes in the configuration of the brokers.

Type: ConfigurationInfo (p. 73)
Required: False

enhancedMonitoring

The monitoring level.

Type: EnhancedMonitoring (p. 75)
Required: False

storageMode

This controls storage mode for supported storage tiers.

Type: StorageMode (p. 80)
Required: False

kafkaVersion

The Apache Kafka version.
**Properties**

**Type**: string  
 Required: False

**instanceType**  
The broker type.  
 **Type**: string  
 Required: False

**connectivityInfo**  
Defines the connectivity setting of the cluster.  
 **Type**: ConnectivityInfo (p. 73)  
 Required: False

**clientAuthentication**  
Client Authentication details.  
 **Type**: ClientAuthentication (p. 70)  
 Required: False

**loggingInfo**  
LoggingInfo details.  
 **Type**: LoggingInfo (p. 77)  
 Required: False

**brokerEBSVolumeInfo**  
Specifies the size of the EBS volume and the ID of the associated broker.  
 **Type**: Array of type BrokerEBSVolumeInfo (p. 69)  
 Required: False

**openMonitoring**  
Open monitoring details.  
 **Type**: OpenMonitoring (p. 79)  
 Required: False

**NodeExporter**  
Indicates whether you want to enable or disable the Node Exporter.  
 **enabledInBroker**  
Indicates whether you want to enable or disable the Node Exporter.  
 **Type**: boolean  
 Required: True
OpenMonitoring
JMX and Node monitoring for the MSK cluster.

prometheus
Prometheus exporter settings.

  Type: Prometheus (p. 79)
  Required: True

Prometheus
Prometheus settings for open monitoring.
	nodeExporter
Indicates whether you want to enable or disable the Node Exporter.

  Type: NodeExporter (p. 78)
  Required: False

jmxExporter
Indicates whether you want to enable or disable the JMX Exporter.

  Type: JmxExporter (p. 76)
  Required: False

PublicAccess
Broker access controls

type
DISABLED means that public access is turned off. SERVICE_PROVIDED_EIPS means that public access is turned on.

  Type: string
  Required: False

S3
The details of the Amazon S3 destination for broker logs.

bucket
The name of the S3 bucket that is the destination for broker logs.

  Type: string
  Required: False

prefix
The S3 prefix that is the destination for broker logs.
Properties

enabled

Specifies whether broker logs get sent to the specified Amazon S3 destination.

Type: boolean
Required: True

Sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on EncryptionInTransit by setting inCluster to true. You must set clientBroker to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set unauthenticated to true.

iam

Details for ClientAuthentication using IAM.

Type: IAM (p. 76)
Required: False

scram

Details for SASL/SCRAM client authentication.

Type: Scram (p. 80)
Required: False

Scram

Details for SASL/SCRAM client authentication.

enabled

SASL/SCRAM authentication is enabled or not.

Type: boolean
Required: False

StorageMode

Controls storage mode for various supported storage tiers.

LOCAL
TIERED

Tls

Details for client authentication using TLS.
Certificate Authority Arn List
List of ACM Certificate Authority ARNs.

Type: Array of type string
Required: False

Enabled
TLS authentication is enabled or not.

Type: boolean
Required: False

Unauthenticated
Details for allowing no client authentication.

Enabled
Unauthenticated is enabled or not.

Type: boolean
Required: False

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

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

Cluster Operations
Represents the operations that have been performed on an MSK cluster.

URI
/v1/clusters/clusterArn/operations
## HTTP methods

### GET

**Operation ID:** ListClusterOperations

Returns a list of all the operations that have been performed on the specified MSK cluster.

### Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>nextToken</td>
<td>String</td>
<td>False</td>
<td>The paginated results marker. When the result of the operation is truncated, the call returns NextToken in the response. To get the next batch, provide this token in your next request.</td>
</tr>
<tr>
<td>maxResults</td>
<td>String</td>
<td>False</td>
<td>The maximum number of results to return in the response. If there are more results, the response includes a NextToken parameter.</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>ListClusterOperationsResponse</td>
<td>Successful response. The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 86)</td>
<td>Error (p. 86)</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 86)</td>
<td>Error (p. 86)</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 86)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
</tbody>
</table>
### OPTIONS

Enable CORS by returning the correct headers.

### Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

### Schemas

#### Response bodies

**ListClusterOperationsResponse schema**

```json
{
    "nextToken": "string",
    "clusterOperationInfoList": [
        {
            "clusterArn": "string",
            "creationTime": "string",
            "clientRequestId": "string",
            "operationState": "string",
            "sourceClusterInfo": {
                "encryptionInfo": {
                    "encryptionInTransit": {
                        "inCluster": boolean,
                        "clientBroker": enum
                    },
                    "encryptionAtRest": {
```

```json
```
"dataVolumeKMSKeyId": "string"
},
"numberOfBrokerNodes": integer,
"configurationInfo": {
  "arn": "string",
  "revision": integer
},
"enhancedMonitoring": enum,
"storageMode": enum,
"kafkaVersion": "string",
"instanceType": "string",
"connectivityInfo": {
  "publicAccess": {
    "type": "string"
  }
},
"clientAuthentication": {
  "sasl": {
    "iam": {
      "enabled": boolean
    },
    "scram": {
      "enabled": boolean
    }
  },
  "unauthenticated": {
    "enabled": boolean
  },
  "tls": {
    "certificateAuthorityArnList": [
      "string"
    ],
    "enabled": boolean
  },
  "loggingInfo": {
    "brokerLogs": {
      "s3": {
        "bucket": "string",
        "prefix": "string",
        "enabled": boolean
      },
      "firehose": {
        "deliveryStream": "string",
        "enabled": boolean
      },
      "cloudWatchLogs": {
        "logGroup": "string",
        "enabled": boolean
      }
    },
    "brokerEBSVolumeInfo": [
      {
        "volumeSizeGB": integer,
        "KafkaBrokerNode1Id": "string"
      }
    ],
    "openMonitoring": {
      "prometheus": {
        "nodeExporter": {
          "enabledInBroker": boolean
        },
        "jmxExporter": {
          "enabledInBroker": boolean
        }
      }
    }
  }
}
Amazon Managed Streaming for Apache
Kafka Amazon MSK API Reference
Schemas
"enabled": boolean },
"firehose": {
  "deliveryStream": "string",
  "enabled": boolean
},
"cloudWatchLogs": {
  "logGroup": "string",
  "enabled": boolean
}
},
"brokerEBSVolumeInfo": [
{
  "volumeSizeGB": integer,
  "kafkaBrokerNodeId": "string"
}
],
"openMonitoring": {
  "prometheus": {
    "nodeExporter": {
      "enabledInBroker": boolean
    },
    "jmxExporter": {
      "enabledInBroker": boolean
    }
  }
},
"operationArn": "string" ]

Error schema

{
  "message": "string",
  "invalidParameter": "string"
}

# Properties

## BrokerEBSVolumeInfo

Specifies the EBS volume upgrade information. The broker identifier must be set to the keyword **ALL**. This means the changes apply to all the brokers in the cluster.

### volumeSizeGB

Size of the EBS volume to update.

**Type:** integer  
**Required:** True

### kafkaBrokerNodeId

The ID of the broker to update. The only allowed value is **ALL**. This means that Amazon MSK applies the same storage update to all broker nodes.
**Properties**

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

### BrokerLogs

The broker logs configuration for this MSK cluster.

#### s3

Details of the Amazon S3 destination for broker logs.

**Type**: S3 (p. 97)  
**Required**: False

#### firehose

Details of the Kinesis Data Firehose delivery stream that is the destination for broker logs.

**Type**: Firehose (p. 93)  
**Required**: False

#### cloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

**Type**: CloudWatchLogs (p. 88)  
**Required**: False

### ClientAuthentication

Includes all client authentication information.

#### sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on EncryptionInTransit by setting inCluster to true. You must set clientBroker to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set unauthenticated to true.

**Type**: Sasl (p. 97)  
**Required**: False

#### unauthenticated

Details for ClientAuthentication using no authentication.

**Type**: Unauthenticated (p. 98)  
**Required**: False

#### tls

Details for ClientAuthentication using TLS. To turn on TLS access control, you must also turn on EncryptionInTransit by setting inCluster to true and clientBroker to TLS.

**Type**: Tls (p. 98)
Required: False

**ClientBroker**

Client-broker encryption in transit setting.

- **TLS**
- **TLS_PLAINTEXT**
- **PLAINTEXT**

**CloudWatchLogs**

Details of the CloudWatch Logs destination for broker logs.

**logGroup**

The CloudWatch log group that is the destination for broker logs.

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

**enabled**

Specifies whether broker logs get sent to the specified CloudWatch Logs destination.

- **Type**: boolean
- **Required**: True

**ClusterOperationInfo**

Returns information about a cluster operation.

**clusterArn**

ARN of the cluster.

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

**creationTime**

The time that the operation was created.

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

**clientRequestId**

The ID of the API request that triggered this operation.

- **Type**: string
- **Required**: False
**operationState**
State of the cluster operation.

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

**sourceClusterInfo**
Information about cluster attributes before a cluster is updated.

- **Type**: MutableClusterInfo (p. 94)
- **Required**: False

**errorInfo**
Describes the error if the operation fails.

- **Type**: ErrorInfo (p. 92)
- **Required**: False

**operationType**
Type of the cluster operation.

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

**endTime**
The time at which the operation finished.

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

**operationSteps**
Steps completed during the operation.

- **Type**: Array of type ClusterOperationStep (p. 90)
- **Required**: False

**targetClusterInfo**
Information about cluster attributes after a cluster is updated.

- **Type**: MutableClusterInfo (p. 94)
- **Required**: False

**operationArn**
ARN of the cluster operation.

- **Type**: string
Required: False

ClusterOperationStep
Step taken during a cluster operation.

stepName
The name of the step.

Type: string
Required: False

stepInfo
Information about the step and its status.

Type: ClusterOperationStepInfo (p. 90)
Required: False

ClusterOperationStepInfo
Information about a step in an operation.

stepStatus
The step's current status.

Type: string
Required: False

ConfigurationInfo
Specifies the configuration to use for the brokers.

arn
ARN of the configuration to use.

Type: string
Required: True

revision
The revision of the configuration to use.

Type: integer
Required: True
Format: int64
Minimum: 1

ConnectivityInfo
Broker access controls.
publicAccess

Access control settings for the cluster’s brokers.

Type: PublicAccess (p. 96)
Required: False

EncryptionAtRest

The data-volume encryption details.

dataVolumeKMSKeyId

The ARN of the Amazon KMS key for encrypting data at rest. If you don't specify a KMS key, MSK creates one for you and uses it.

Type: string
Required: True

EncryptionInTransit

The settings for encrypting data in transit.

inCluster

When set to true, it indicates that data communication among the broker nodes of the cluster is encrypted. When set to false, the communication happens in plaintext.

The default value is true.

Type: boolean
Required: False

clientBroker

Indicates the encryption setting for data in transit between clients and brokers. You must set it to one of the following values.

TLS means that client-broker communication is enabled with TLS only.

TLS_PLAINTEXT means that client-broker communication is enabled for both TLS-encrypted, as well as plaintext data.

PLAINTEXT means that client-broker communication is enabled in plaintext only.

The default value is TLS.

Type: ClientBroker (p. 88)
Required: False

EncryptionInfo

Includes encryption-related information, such as the Amazon KMS key used for encrypting data at rest and whether you want MSK to encrypt your data in transit.
encryptionInTransit
The details for encryption in transit.

Type: EncryptionInTransit (p. 91)
Required: False

encryptionAtRest
The data-volume encryption details.

Type: EncryptionAtRest (p. 91)
Required: False

EnhancedMonitoring
Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see Monitoring.

- DEFAULT
- PER_BROKER
- PER_TOPIC_PER_BROKER
- PER_TOPIC_PER_PARTITION

Error
Returns information about an error.

message
The description of the error.

Type: string
Required: False

invalidParameter
The parameter that caused the error.

Type: string
Required: False

ErrorInfo
Returns information about an error state of the cluster.

errorString
An optional field to provide more details about the error.

Type: string
Required: False
errorCode
A number describing the error programmatically.

    Type: string
    Required: False

Firehose
Firehose details for BrokerLogs.

deliveryStream
The Kinesis Data Firehose delivery stream that is the destination for broker logs.

    Type: string
    Required: False

enabled
Specifies whether broker logs get send to the specified Kinesis Data Firehose delivery stream.

    Type: boolean
    Required: True

IAM
Details for SASL/IAM client authentication.

enabled
SASL/IAM authentication is enabled or not.

    Type: boolean
    Required: False

JmxExporter
Indicates whether you want to enable or disable the JMX Exporter.

enabledInBroker
Indicates whether you want to enable or disable the JMX Exporter.

    Type: boolean
    Required: True

ListClusterOperationsResponse
The response contains an array containing cluster operation information and a next token if the response is truncated.

nextToken
If the response of ListClusterOperations is truncated, Amazon MSK returns a NextToken in the response. Send this NextToken in your subsequent request to ListClusterOperations.
Properties

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

**clusterOperationInfoList**

An array of cluster operation information objects.

**Type**: Array of type `ClusterOperationInfo (p. 88)`
**Required**: False

**LoggingInfo**

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

**brokerLogs**

You can configure your MSK cluster to send broker logs to different destination types. This configuration specifies the details of these destinations.

**Type**: `BrokerLogs (p. 87)`
**Required**: True

**MutableClusterInfo**

Information about cluster attributes that can be updated via update APIs.

**encryptionInfo**

Encryption details.

**Type**: `EncryptionInfo (p. 91)`
**Required**: False

**numberOfBrokerNodes**

The number of broker nodes in the cluster.

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

**configurationInfo**

Information about the changes in the configuration of the brokers.

**Type**: `ConfigurationInfo (p. 90)`
**Required**: False

**enhancedMonitoring**

The monitoring level.

**Type**: `EnhancedMonitoring (p. 92)`
**Required:** False

**storageMode**
This controls storage mode for supported storage tiers.

*Type:* StorageMode (p. 98)
*Required:* False

**kafkaVersion**
The Apache Kafka version.

*Type:* string
*Required:* False

**instanceType**
The broker type.

*Type:* string
*Required:* False

**connectivityInfo**
Defines the connectivity setting of the cluster.

*Type:* ConnectivityInfo (p. 90)
*Required:* False

**clientAuthentication**
Client Authentication details.

*Type:* ClientAuthentication (p. 87)
*Required:* False

**loggingInfo**
LoggingInfo details.

*Type:* LoggingInfo (p. 94)
*Required:* False

**brokerEBSVolumeInfo**
Specifies the size of the EBS volume and the ID of the associated broker.

*Type:* Array of type BrokerEBSVolumeInfo (p. 86)
*Required:* False

**openMonitoring**
Open monitoring details.
**NodeExporter**

Indicates whether you want to enable or disable the Node Exporter.

**enabledInBroker**

Indicates whether you want to enable or disable the Node Exporter.

- **Type:** boolean
- **Required:** True

**OpenMonitoring**

JMX and Node monitoring for the MSK cluster.

**prometheus**

Prometheus exporter settings.

- **Type:** Prometheus (p. 96)
- **Required:** True

**Prometheus**

Prometheus settings for open monitoring.

**nodeExporter**

Indicates whether you want to enable or disable the Node Exporter.

- **Type:** NodeExporter (p. 96)
- **Required:** False

**jmxExporter**

Indicates whether you want to enable or disable the JMX Exporter.

- **Type:** JmxExporter (p. 93)
- **Required:** False

**PublicAccess**

Broker access controls

**type**

DISABLED means that public access is turned off. SERVICE_PROVIDED_EIPS means that public access is turned on.

- **Type:** string
**S3**

The details of the Amazon S3 destination for broker logs.

**bucket**

The name of the S3 bucket that is the destination for broker logs.

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

**prefix**

The S3 prefix that is the destination for broker logs.

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

**enabled**

Specifies whether broker logs get sent to the specified Amazon S3 destination.

  - **Type**: boolean
  - **Required**: True

**Sasl**

Details for client authentication using SASL. To turn on SASL, you must also turn on `EncryptionInTransit` by setting `inCluster` to true. You must set `clientBroker` to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set `unauthenticated` to true.

**iam**

Details for ClientAuthentication using IAM.

  - **Type**: IAM (p. 93)
  - **Required**: False

**scram**

Details for SASL/SCRAM client authentication.

  - **Type**: Scram (p. 97)
  - **Required**: False

**Scram**

Details for SASL/SCRAM client authentication.

**enabled**

SASL/SCRAM authentication is enabled or not.
Type: boolean  
Required: False

**StorageMode**

Controls storage mode for various supported storage tiers.

- LOCAL
- TIERED

**Tls**

Details for client authentication using TLS.

**certificateAuthorityArnList**

List of ACM Certificate Authority ARNs.

- Type: Array of type string  
  - Required: False

**enabled**

TLS authentication is enabled or not.

- Type: boolean  
  - Required: False

**Unauthenticated**

Details for allowing no client authentication.

**enabled**

Unauthenticated is enabled or not.

- Type: boolean  
  - Required: False

**See also**

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

**ListClusterOperations**

- AWS Command Line Interface  
- AWS SDK for .NET  
- AWS SDK for C++  
- AWS SDK for Go
Cluster Security

Use this resource to update the security settings of a cluster.

URI

/v1/clusters/{clusterArn}/security

HTTP methods

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

PATCH

Operation ID: UpdateSecurity

Updates security settings of the specified cluster.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>UpdateSecurityResponse</td>
<td>200 response</td>
</tr>
<tr>
<td>400</td>
<td>Error</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error</td>
<td>503 response</td>
</tr>
</tbody>
</table>

## Schemas

### Request bodies

**PATCH schema**

```json
{
    "encryptionInfo": {
        "encryptionInTransit": {
            "inCluster": boolean,
            "clientBroker": enum
        },
        "encryptionAtRest": {
            "dataVolumeKMSKeyId": "string"
        }
    },
    "clientAuthentication": {
        "sasl": {
            "iam": {
                "enabled": boolean
            },
            "scram": {
                "enabled": boolean
            }
        },
        "unauthenticated": {
            "enabled": boolean
        }
    }
}
```
Properties

ClientAuthentication

Includes all client authentication information.

sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on EncryptionInTransit by setting inCluster to true. You must set clientBroker to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set unauthenticated to true.

Type: Sasl (p. 103)
Required: False

unauthenticated

Details for ClientAuthentication using no authentication.

Type: Unauthenticated (p. 104)
Required: False

tls

Details for ClientAuthentication using TLS. To turn on TLS access control, you must also turn on EncryptionInTransit by setting inCluster to true and clientBroker to TLS.
**ClientBroker**

Client-broker encryption in transit setting.

- **TLS**
- **TLS_PLAINTEXT**
- **PLAINTEXT**

**EncryptionAtRest**

The data-volume encryption details.

**dataVolumeKMSKeyId**

The ARN of the Amazon KMS key for encrypting data at rest. If you don't specify a KMS key, MSK creates one for you and uses it.

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

**EncryptionInTransit**

The settings for encrypting data in transit.

**inCluster**

When set to true, it indicates that data communication among the broker nodes of the cluster is encrypted. When set to false, the communication happens in plaintext.

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

**clientBroker**

Indicates the encryption setting for data in transit between clients and brokers. You must set it to one of the following values.

- **TLS** means that client-broker communication is enabled with TLS only.
- **TLS_PLAINTEXT** means that client-broker communication is enabled for both TLS-encrypted, as well as plaintext data.
- **PLAINTEXT** means that client-broker communication is enabled in plaintext only.

- **Type**: ClientBroker (p. 102)
- **Required**: False
EncryptionInfo

Includes encryption-related information, such as the Amazon KMS key used for encrypting data at rest and whether you want MSK to encrypt your data in transit.

**encryptionInTransit**

The details for encryption in transit.

Type: EncryptionInTransit (p. 102)  
Required: False

**encryptionAtRest**

The data-volume encryption details.

Type: EncryptionAtRest (p. 102)  
Required: False

Error

Returns information about an error.

**message**

The description of the error.

Type: string  
Required: False

**invalidParameter**

The parameter that caused the error.

Type: string  
Required: False

IAM

Details for SASL/IAM client authentication.

**enabled**

SASL/IAM authentication is enabled or not.

Type: boolean  
Required: False

Sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on EncryptionInTransit by setting inCluster to true. You must set clientBroker to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set unauthenticated to true.
iam
Details for ClientAuthentication using IAM.

- **Type:** IAM (p. 103)
- **Required:** False

scram
Details for SASL/SCRAM client authentication.

- **Type:** Scram (p. 104)
- **Required:** False

Scram
Details for SASL/SCRAM client authentication.

enabled
SASL/SCRAM authentication is enabled or not.

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

Tls
Details for client authentication using TLS.

certificateAuthorityArnList
List of ACM Certificate Authority ARNs.

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

enabled
TLS authentication is enabled or not.

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

Unauthenticated
Details for allowing no client authentication.

enabled
Unauthenticated is enabled or not.

- **Type:** boolean
- **Required:** False
UpdateSecurityRequest

Request body for UpdateSecurity.

encryptionInfo

The encryption info details.

  Type: EncryptionInfo (p. 103)
  Required: False

clientAuthentication

The client authentication info details.

  Type: ClientAuthentication (p. 101)
  Required: False

currentVersion

Current cluster version.

  Type: string
  Required: True

UpdateSecurityResponse

Response body for UpdateSecurity.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

  Type: string
  Required: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

  Type: string
  Required: False

See also

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

UpdateSecurity

- AWS Command Line Interface
- AWS SDK for .NET
Clusters

Use this resource to create an Amazon MSK cluster and to get a list of existing clusters.

URI

/v1/clusters

HTTP methods

GET

Operation ID: ListClusters

Returns a list of all the MSK clusters.

Query parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>nextToken</td>
<td>String</td>
<td>False</td>
<td>The paginated results marker. When the result of the operation is truncated, the call returns NextToken in the response. To get the next batch, provide this token in your next request.</td>
</tr>
<tr>
<td>clusterNameFilter</td>
<td>String</td>
<td>False</td>
<td>Specify a prefix of the name of the clusters that you want to list. The service lists all the clusters whose names start with this prefix.</td>
</tr>
<tr>
<td>maxResults</td>
<td>String</td>
<td>False</td>
<td>The maximum number of results to return in the response. If there are more results, the response includes a NextToken parameter.</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>ListClustersResponse (p. 110)</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 112)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 112)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 112)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 112)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 112)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 112)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 112)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

POST

**Operation ID: CreateCluster**

Creates a new MSK cluster. The following Python 3.6 examples shows how you can create a cluster that's distributed over two Availability Zones. Before you run this Python script, replace the example subnet and security-group IDs with the IDs of your subnets and security group. When you create an MSK cluster, its brokers get evenly distributed over a number of Availability Zones that's equal to the number of subnets that you specify in the BrokerNodeGroupInfo parameter. In this example, you can add a third subnet to get a cluster that's distributed over three Availability Zones.

```python
import boto3

client = boto3.client('kafka')

response = client.create_cluster(
    BrokerNodeGroupInfo={
        'BrokerAZDistribution': 'DEFAULT',
        'ClientSubnets': [
            'subnet-012345678901fedcba',
            'subnet-9876543210abcdef01'
        ],
        'InstanceType': 'kafka.m5.large',
        'SecurityGroups': [
            'sg-012345abcdef789789'
        ]
    },
    ClusterName='SalesCluster',
)`
EncryptionInfo={
    'EncryptionInTransit': {
        'ClientBroker': 'TLS_PLAINTEXT',
        'InCluster': True
    }
},
EnhancedMonitoring='PER_TOPIC_PER_BROKER',
KafkaVersion='2.2.1',
NumberOfBrokerNodes=2
)
print(response)

### Responses

<table>
<thead>
<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>CreateClusterResponse (p. 112)</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 112)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 112)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 112)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 112)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>409</td>
<td>Error (p. 112)</td>
<td>This cluster name already exists. Retry your request using another name.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 112)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 112)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 112)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

### OPTIONS

Enable CORS by returning the correct headers.

### Responses

<table>
<thead>
<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>None</td>
<td>The default response for a CORS method.</td>
</tr>
</tbody>
</table>
Schemas

Request bodies

POST schema

```json
{
  "encryptionInfo": {
    "encryptionInTransit": {
      "inCluster": boolean,
      "clientBroker": enum
    },
    "encryptionAtRest": {
      "dataVolumeKMSKeyId": "string"
    }
  },
  "numberOfBrokerNodes": integer,
  "configurationInfo": {
    "arn": "string",
    "revision": integer
  },
  "enhancedMonitoring": enum,
  "storageMode": enum,
  "clusterName": "string",
  "kafkaVersion": "string",
  "clientAuthentication": {
    "sasl": {
      "iam": {
        "enabled": boolean
      },
      "scram": {
        "enabled": boolean
      }
    },
    "unauthenticated": {
      "enabled": boolean
    },
    "tls": {
      "certificateAuthorityArnList": [
        "string"
      ],
      "enabled": boolean
    }
  },
  "loggingInfo": {
    "brokerLogs": {
      "s3": {
        "bucket": "string",
        "prefix": "string",
        "enabled": boolean
      },
      "firehose": {
        "deliveryStream": "string",
        "enabled": boolean
      },
      "cloudWatchLogs": {
        "logGroup": "string",
        "enabled": boolean
      }
    }
  },
  "brokerNodeGroupInfo": {
    "clientSubnets": [
```
"string",
"instanceType": "string",
"connectivityInfo": {
  "publicAccess": {
    "type": "string"
  }
},
"securityGroups": [
  "string"
],
"brokerAZDistribution": enum,
"storageInfo": {
  "ebsStorageInfo": {
    "volumeSize": integer
  }
}
},
"openMonitoring": {
  "prometheus": {
    "nodeExporter": {
      "enabledInBroker": boolean
    },
    "jmxExporter": {
      "enabledInBroker": boolean
    }
  }
},
"tags": {
}
}

Response bodies

ListClustersResponse schema

{
  "nextToken": "string",
  "clusterInfoList": [
  {
    "encryptionInfo": {
      "encryptionInTransit": {
        "inCluster": boolean,
        "clientBroker": enum
      },
      "encryptionAtRest": {
        "dataVolumeKMSKeyId": "string"
      }
    },
    "zookeeperConnectString": "string",
    "creationTime": "string",
    "zookeeperConnectStringTls": "string",
    "loggingInfo": {
      "brokerLogs": {
        "s3": {
          "bucket": "string",
          "prefix": "string",
          "enabled": boolean
        },
        "firehose": {
          "deliveryStream": "string",
          "enabled": boolean
        }
      }
    }
  }
  ]
}
"logGroup": "string",
  "enabled": boolean
}
},
"currentVersion": "string",
"tags": {
},
"numberOfBrokerNodes": integer,
"clusterArn": "string",
"activeOperationArn": "string",
"enhancedMonitoring": enum,
"storageMode": enum,
"clusterName": "string",
"stateInfo": {
  "code": "string",
  "message": "string"
},
"clientAuthentication": {
  "sasl": {
    "iam": {
      "enabled": boolean
    },
    "scram": {
      "enabled": boolean
    }
  },
  "unauthenticated": {
    "enabled": boolean
  },
  "tls": {
    "certificateAuthorityArnList": [ 
      "string"
    ],
    "enabled": boolean
  }
},
"state": enum,
"brokerNodeGroupInfo": {
  "clientSubnets": [ 
    "string"
  ],
  "instanceType": "string",
  "connectivityInfo": {
    "publicAccess": {
      "type": "string"
    }
  },
  "securityGroups": [ 
    "string"
  ],
  "brokerAZDistribution": enum,
  "storageInfo": {
    "ebsStorageInfo": {
      "volumeSize": integer
    }
  }
},
"openMonitoring": {
  "prometheus": {
    "nodeExporter": {
      "enabledInBroker": boolean
    },
    "jmxExporter": {
      "enabledInBroker": boolean
    }
  }
}
Properties

BrokerAZDistribution

This parameter is currently not in use.

DEFAULT

BrokerLogs

The broker logs configuration for this MSK cluster.

s3

Details of the Amazon S3 destination for broker logs.

Type: S3 (p. 126)
Required: False

firehose

Details of the Kinesis Data Firehose delivery stream that is the destination for broker logs.

Type: Firehose (p. 123)
Required: False

cloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.
**Properties**

**Type**: CloudWatchLogs (p. 115)

**Required**: False

**BrokerNodeGroupInfo**

Describes the setup to be used for the broker nodes in the cluster.

**clientSubnets**

The list of subnets to connect to in the client virtual private cloud (VPC). Amazon creates elastic network interfaces inside these subnets. Client applications use elastic network interfaces to produce and consume data.

Specify exactly two subnets if you are using the US West (N. California) Region. For other Regions where Amazon MSK is available, you can specify either two or three subnets. The subnets that you specify must be in distinct Availability Zones. When you create a cluster, Amazon MSK distributes the broker nodes evenly across the subnets that you specify.

Client subnets can't be in Availability Zone us-east-1e.

**Type**: Array of type string

**Required**: True

**instanceType**

The type of Amazon EC2 instances to use for brokers. The following instance types are allowed: kafka.m5.large, kafka.m5.xlarge, kafka.m5.2xlarge, kafka.m5.4xlarge, kafka.m5.8xlarge, kafka.m5.12xlarge, kafka.m5.16xlarge, and kafka.m5.24xlarge.

**Type**: string

**Required**: True

**MinLength**: 5

**MaxLength**: 32

**connectivityInfo**

Information about the cluster’s connectivity setting.

**Type**: ConnectivityInfo (p. 119)

**Required**: False

**securityGroups**

The security groups to associate with the elastic network interfaces in order to specify who can connect to and communicate with the Amazon MSK cluster. If you don't specify a security group, Amazon MSK uses the default security group associated with the VPC. If you specify security groups that were shared with you, you must ensure that you have permissions to them. Specifically, you need the `ec2:DescribeSecurityGroups` permission.

**Type**: Array of type string

**Required**: False

**brokerAZDistribution**

This parameter is currently not in use.
Properties

Type: BrokerAZDistribution (p. 112)
Required: False

storageInfo
Contains information about storage volumes attached to MSK broker nodes.

Type: StorageInfo (p. 127)
Required: False

BrokerSoftwareInfo
Information about the current software installed on the cluster.

configurationRevision
The revision of the configuration to use. This field isn't visible in this preview release.

Type: integer
Required: False
Format: int64

topicVersion
The version of Apache Kafka. You can use Amazon MSK to create clusters that use Apache Kafka versions 1.1.1 and 2.2.1.

Type: string
Required: False

configurationArn
The Amazon Resource Name (ARN) of the configuration used for the cluster. This field isn't visible in this preview release.

Type: string
Required: False

ClientAuthentication
Includes all client authentication information.

sasl
Details for client authentication using SASL. To turn on SASL, you must also turn on EncryptionInTransit by setting inCluster to true. You must set clientBroker to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set unauthenticated to true.

Type: Sasl (p. 127)
Required: False

unauthenticated
Details for ClientAuthentication using no authentication.
**Properties**

**Type**: Unauthenticated (p. 128)
*Required*: False

**tls**

Details for ClientAuthentication using TLS. To turn on TLS access control, you must also turn on EncryptionInTransit by setting inCluster to true and clientBroker to TLS.

*Type*: Tls (p. 128)
*Required*: False

**ClientBroker**

Client-broker encryption in transit setting.

- **TLS**
- **TLS_PLAINTEXT**
- **PLAINTEXT**

**CloudWatchLogs**

Details of the CloudWatch Logs destination for broker logs.

**logGroup**

The CloudWatch log group that is the destination for broker logs.

*Type*: string
*Required*: False

**enabled**

Specifies whether broker logs get sent to the specified CloudWatch Logs destination.

*Type*: boolean
*Required*: True

**ClusterInfo**

Returns information about a cluster.

**encryptionInfo**

Includes all encryption-related information.

*Type*: EncryptionInfo (p. 122)
*Required*: False

**zookeeperConnectString**

The connection string to use to connect to zookeeper cluster on plaintext port.

*Type*: string
*Required*: False
creationTime
The time when the cluster was created.

Type: string
Required: False

zookeeperConnectStringTls
The connection string to use to connect to the Apache ZooKeeper cluster on a TLS port.

Type: string
Required: False

loggingInfo
You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

Type: LoggingInfo (p. 124)
Required: False

currentVersion
The current version of the MSK cluster. Cluster versions aren't simple integers. You can obtain the current version by describing the cluster. An example version is KTVPDKIKX0DER.

Type: string
Required: False

tags
Tags attached to the cluster.

Type: object
Required: False

numberOfBrokerNodes
The number of broker nodes in the cluster.

Type: integer
Required: False

clusterArn
The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Type: string
Required: False

activeOperationArn
Arn of active cluster operation.
**enhancedMonitoring**

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see [Monitoring](#).

- **Type:** EnhancedMonitoring (p. 122)
- **Required:** False

**storageMode**

This controls storage mode for supported storage tiers.

- **Type:** StorageMode (p. 128)
- **Required:** False

**clusterName**

The name of the cluster.

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

**stateInfo**

Includes information of the cluster state.

- **Type:** StateInfo (p. 127)
- **Required:** False

**clientAuthentication**

Includes all client authentication information.

- **Type:** ClientAuthentication (p. 114)
- **Required:** False

**state**

The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to MAINTENANCE when it starts the certificate-update operation. It sets it back to ACTIVE when the update is done. While a cluster is in the MAINTENANCE state, you can continue to produce and consume data, but you can't perform any update operations on it. You can perform update operations on a cluster when it is in the ACTIVE state.

- **Type:** ClusterState (p. 118)
- **Required:** False

**brokerNodeGroupInfo**

Information about the broker nodes.
Properties

**Type**: BrokerNodeGroupInfo (p. 113)
**Required**: False

**openMonitoring**
Settings for open monitoring using Prometheus.

**Type**: OpenMonitoring (p. 125)
**Required**: False

**currentBrokerSoftwareInfo**
Information about the version of software currently deployed on the brokers in the cluster.

**Type**: BrokerSoftwareInfo (p. 114)
**Required**: False

**ClusterState**
The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to MAINTENANCE when it starts the certificate-update operation. It sets it back to ACTIVE when the update is done. While a cluster is in the MAINTENANCE state, you can continue to produce and consume data, but you can't perform any update operations on it. You can perform update operations on a cluster when it is in the ACTIVE state.

- ACTIVE
- CREATING
- UPDATING
- DELETING
- FAILED
- MAINTENANCE
- REBOOTING_BROKER
- HEALING

**ConfigurationInfo**
Specifies the configuration to use for the brokers.

**arn**
ARN of the configuration to use.

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

**revision**
The revision of the configuration to use.

**Type**: integer
**Required**: True
**Format**: int64
**Minimum**: 1
**ConnectivityInfo**

Broker access controls.

**publicAccess**

Access control settings for the cluster’s brokers.

- **Type:** PublicAccess (p. 126)
- **Required:** False

**CreateClusterRequest**

Creates a cluster.

**encryptionInfo**

Includes all encryption-related information.

- **Type:** EncryptionInfo (p. 122)
- **Required:** False

**numberOfBrokerNodes**

The number of broker nodes in the cluster.

- **Type:** integer
- **Required:** True

**configurationInfo**

Represents the configuration that you want MSK to use for the cluster.

- **Type:** ConfigurationInfo (p. 118)
- **Required:** False

**enhancedMonitoring**

Specifies the level of monitoring for the MSK cluster. The possible values are DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER.

- **Type:** EnhancedMonitoring (p. 122)
- **Required:** False

**storageMode**

This controls storage mode for supported storage tiers.

- **Type:** StorageMode (p. 128)
- **Required:** False

**clusterName**

The name of the cluster.
Type: string  
Required: True  
MinLength: 1  
MaxLength: 64

**kafkaVersion**

The version of Apache Kafka. You can use Amazon MSK to create clusters that use Apache Kafka versions 1.1.1 and 2.2.1.

Type: string  
Required: True  
MinLength: 1  
MaxLength: 128

**clientAuthentication**

Includes all client authentication related information.

Type: ClientAuthentication (p. 114)  
Required: False

**loggingInfo**

Logging Info details.

Type: LoggingInfo (p. 124)  
Required: False

**brokerNodeGroupInfo**

Information about the broker nodes in the cluster.

Type: BrokerNodeGroupInfo (p. 113)  
Required: True

**openMonitoring**

The settings for open monitoring.

Type: OpenMonitoringInfo (p. 125)  
Required: False

**tags**

Create tags when creating the cluster.

Type: object  
Required: False

**CreateClusterResponse**

Returns information about the created cluster.
clusterArn
The Amazon Resource Name (ARN) of the cluster.

Type: string
Required: False

clusterName
The name of the MSK cluster.

Type: string
Required: False

state
The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to MAINTENANCE when it starts the certificate-update operation. It sets it back to ACTIVE when the update is done. While a cluster is in the MAINTENANCE state, you can continue to produce and consume data, but you can't perform any update operations on it. You can perform update operations on a cluster when it is in the ACTIVE state.

Type: ClusterState (p. 118)
Required: False

EBSStorageInfo
Contains information about the EBS storage volumes attached to the broker nodes.

volumeSize
The size in GiB of the EBS volume for the data drive on each broker node.

Type: integer
Required: False
Minimum: 1
Maximum: 16384

EncryptionAtRest
The data-volume encryption details.

dataVolumeKMSKeyId
The ARN of the Amazon KMS key for encrypting data at rest. If you don't specify a KMS key, MSK creates one for you and uses it.

Type: string
Required: True

EncryptionInTransit
The settings for encrypting data in transit.
**inCluster**

When set to true, it indicates that data communication among the broker nodes of the cluster is encrypted. When set to false, the communication happens in plaintext.

The default value is true.

*Type: boolean  
Required: False*

**clientBroker**

Indicates the encryption setting for data in transit between clients and brokers. You must set it to one of the following values.

**TLS** means that client-broker communication is enabled with TLS only.

**TLS_PLAINTEXT** means that client-broker communication is enabled for both TLS-encrypted, as well as plaintext data.

**PLAINTEXT** means that client-broker communication is enabled in plaintext only.

The default value is **TLS**.

*Type: ClientBroker (p. 115)  
Required: False*

**EncryptionInfo**

Includes encryption-related information, such as the Amazon KMS key used for encrypting data at rest and whether you want MSK to encrypt your data in transit.

**encryptionInTransit**

The details for encryption in transit.

*Type: EncryptionInTransit (p. 121)  
Required: False*

**encryptionAtRest**

The data-volume encryption details.

*Type: EncryptionAtRest (p. 121)  
Required: False*

**EnhancedMonitoring**

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: **DEFAULT**, **PER_BROKER**, and **PER_TOPIC_PER_BROKER**. For a list of the metrics associated with each of these three levels of monitoring, see Monitoring.

- **DEFAULT**
- **PER_BROKER**
- **PER_TOPIC_PER_BROKER**
- **PER_TOPIC_PER_PARTITION**
**Error**

Returns information about an error.

**message**

The description of the error.

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

**invalidParameter**

The parameter that caused the error.

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

**Firehose**

Firehose details for BrokerLogs.

**deliveryStream**

The Kinesis Data Firehose delivery stream that is the destination for broker logs.

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

**enabled**

Specifies whether broker logs get send to the specified Kinesis Data Firehose delivery stream.

- **Type**: boolean
- **Required**: True

**IAM**

Details for SASL/IAM client authentication.

**enabled**

SASL/IAM authentication is enabled or not.

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

**JmxExporter**

Indicates whether you want to enable or disable the JMX Exporter.

**enabledInBroker**

Indicates whether you want to enable or disable the JMX Exporter.
**Properties**

**Type**: boolean

**Required**: True

### JmxExporterInfo

JMX Exporter details.

**enabledInBroker**

JMX Exporter being enabled in broker.

**Type**: boolean

**Required**: True

### ListClustersResponse

The response contains an array containing cluster information and a next token if the response is truncated.

**nextToken**

The paginated results marker. When the result of a `ListClusters` operation is truncated, the call returns `nextToken` in the response. To get another batch of clusters, provide this token in your next request.

**Type**: string

**Required**: False

**clusterInfoList**

Information on each of the MSK clusters in the response.

**Type**: Array of type `ClusterInfo` (p. 115)

**Required**: False

### LoggingInfo

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

**brokerLogs**

You can configure your MSK cluster to send broker logs to different destination types. This configuration specifies the details of these destinations.

**Type**: `BrokerLogs` (p. 112)

**Required**: True

### NodeExporter

Indicates whether you want to enable or disable the Node Exporter.

**enabledInBroker**

Indicates whether you want to enable or disable the Node Exporter.
**NodeExporterInfo**

Node Exporter details.

**enabledInBroker**

Node Exporter being enabled in broker.

  **Type**: boolean  
  **Required**: True

**OpenMonitoring**

JMX and Node monitoring for the MSK cluster.

**prometheus**

Prometheus exporter settings.

  **Type**: Prometheus (p. 125)  
  **Required**: True

**OpenMonitoringInfo**

JMX and Node monitoring for cluster.

**prometheus**

Prometheus details.

  **Type**: PrometheusInfo (p. 126)  
  **Required**: True

**Prometheus**

Prometheus settings for open monitoring.

**nodeExporter**

Indicates whether you want to enable or disable the Node Exporter.

  **Type**: NodeExporter (p. 124)  
  **Required**: False

**jmxExporter**

Indicates whether you want to enable or disable the JMX Exporter.

  **Type**: JmxExporter (p. 123)  
  **Required**: False
PrometheusInfo
Prometheus details.

nodeExporter
Node Exporter details.

  Type: NodeExporterInfo (p. 125)
  Required: False

jmxExporter
JMX Exporter details.

  Type: JmxExporterInfo (p. 124)
  Required: False

PublicAccess
Broker access controls

type
DISABLED means that public access is turned off. SERVICE_PROVIDED_EIPS means that public access is turned on.

  Type: string
  Required: False

S3
The details of the Amazon S3 destination for broker logs.

bucket
The name of the S3 bucket that is the destination for broker logs.

  Type: string
  Required: False

prefix
The S3 prefix that is the destination for broker logs.

  Type: string
  Required: False

enabled
Specifies whether broker logs get sent to the specified Amazon S3 destination.

  Type: boolean
Required: True

Sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on EncryptionInTransit by setting inCluster to true. You must set clientBroker to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set unauthenticated to true.

iam

Details for ClientAuthentication using IAM.

Type: IAM (p. 123)
Required: False

scram

Details for SASL/SCRAM client authentication.

Type: Scram (p. 127)
Required: False

Scram

Details for SASL/SCRAM client authentication.

enabled

SASL/SCRAM authentication is enabled or not.

Type: boolean
Required: False

StateInfo

Includes information about the state of the cluster.

code

If the cluster is in an unusable state, this field contains the code that describes the issue.

Type: string
Required: False

message

If the cluster is in an unusable state, this field contains a message that describes the issue.

Type: string
Required: False

StoragesInfo

Contains information about storage volumes attached to MSK broker nodes.
ebsStorageInfo

EBS volume information.

Type: EBSStorageInfo (p. 121)
Required: False

StorageMode

Controls storage mode for various supported storage tiers.

LOCAL
TIERED

TLs

Details for client authentication using TLS.

certificateAuthorityArnList

List of ACM Certificate Authority ARNs.

Type: Array of type string
Required: False

enabled

TLS authentication is enabled or not.

Type: boolean
Required: False

Unauthenticated

Details for allowing no client authentication.

enabled

Unauthenticated is enabled or not.

Type: boolean
Required: False

See also

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

ListClusters

- AWS Command Line Interface
- AWS SDK for .NET
Compatible Apache Kafka Versions

The Apache Kafka versions to which you can update the cluster.

**URI**

/v1/compatible-kafka-versions

**HTTP methods**

**GET**

**Operation ID:** GetCompatibleKafkaVersions

Returns a list of the Apache Kafka versions to which you can update this cluster.

**Query parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>False</td>
<td>The Amazon Resource Name (ARN) of the cluster check.</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>GetCompatibleKafkaVersionsResponse (p. 130)</td>
<td>200 response</td>
</tr>
</tbody>
</table>
### Status code | Response model | Description
--- | --- | ---
400 | Error (p. 131) | The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401 | Error (p. 131) | The request is not authorized. The provided credentials couldn't be validated.
403 | Error (p. 131) | Access forbidden. Check your credentials and then retry your request.
404 | Error (p. 131) | The resource could not be found due to incorrect input. Correct the input, then retry the request.
429 | Error (p. 131) | 429 response
500 | Error (p. 131) | There was an unexpected internal server error. Retrying your request might resolve the issue.
503 | Error (p. 131) | 503 response

### OPTIONS
Enable CORS by returning the correct headers.

### Responses

<table>
<thead>
<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

### Schemas

#### Response bodies

**GetCompatibleKafkaVersionsResponse schema**

```json
{
  "compatibleKafkaVersions": [
    {
      "sourceVersion": "string",
      "targetVersions": ["string"
    ]
  }
}
```
Error schema

```json
{
    "message": "string",
    "invalidParameter": "string"
}
```

Properties

CompatibleKafkaVersion

Contains source Apache Kafka versions and compatible target Apache Kafka versions.

sourceVersion

An Apache Kafka version.

  Type: string
  Required: False

targetVersions

A list of Apache Kafka versions.

  Type: Array of type string
  Required: False

Error

Returns information about an error.

message

The description of the error.

  Type: string
  Required: False

invalidParameter

The parameter that caused the error.

  Type: string
  Required: False

GetCompatibleKafkaVersionsResponse

Response body for GetCompatibleKafkaVersions.

compatibleKafkaVersions

A list of CompatibleKafkaVersion objects.

  Type: Array of type CompatibleKafkaVersion (p. 131)
Required: False

See also

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

GetCompatibleKafkaVersions

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

Configuration

Represents an MSK configuration. Use this path to describe the configuration.

URI

/v1/configurations/arn

HTTP methods

GET

Operation ID: DescribeConfiguration

Returns a description of this MSK configuration.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>arn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.</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>DescribeConfigurationResponse</td>
<td>200 response</td>
</tr>
<tr>
<td>Status code</td>
<td>Response model</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
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<td>Error (p. 136)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
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<tr>
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<td>Error (p. 136)</td>
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</tr>
<tr>
<td>429</td>
<td>Error (p. 136)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 136)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 136)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

**PUT**

**Operation ID:** UpdateConfiguration

Creates a new revision of the cluster configuration. The configuration must be in the ACTIVE state.

**Path parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>arn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.</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>UpdateConfigurationResponse</td>
<td>200 response</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 136)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 136)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
</tbody>
</table>
## DELETE

**Operation ID:** DeleteConfiguration

Deletes a cluster configuration and all its revisions.

### Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>arn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.</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>DeleteConfigurationResponse</td>
<td>200 response</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 136)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 136)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 136)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
</tbody>
</table>
### OPTIONS

Enable CORS by returning the correct headers.

#### Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>arn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

### Schemas

#### Request bodies

**PUT schema**

```json
{
  "description": "string",
  "serverProperties": "string"
}
```

#### Response bodies

**DescribeConfigurationResponse schema**

```json
{
  "creationTime": "string",
}
Properties

ConfigurationRevision

Describes a configuration revision.

creationTime

The time when the configuration revision was created.

Type: string
Required: True

description

The description of the configuration revision.
Properties

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

**revision**
The revision number.

- **Type**: integer  
- **Required**: True  
- **Format**: int64

**ConfigurationState**
State of a kafka configuration

- ACTIVE
- DELETING
- DELETE_FAILED

**DeleteConfigurationResponse**
Returns information about the deleted configuration.

- **state**
  State of the configuration.
  - **Type**: ConfigurationState (p. 137)  
  - **Required**: False

- **Arn**
The Amazon Resource Name (ARN) of the configuration.
  - **Type**: string  
  - **Required**: False

**DescribeConfigurationResponse**
Response body for DescribeConfiguration.

- **creationTime**
The time when the configuration was created.
  - **Type**: string  
  - **Required**: True

- **name**
The name of the configuration. Configuration names are strings that match the regex "^[0-9A-Za-z][0-9A-Za-z-]{0,}\$".
  - **Type**: string
Required: True

description
The description of the configuration.
Type: string
Required: True

kafkaVersions
The versions of Apache Kafka with which you can use this MSK configuration.
Type: Array of type string
Required: True

state
State of the configuration.
Type: ConfigurationState (p. 137)
Required: False

arn
The Amazon Resource Name (ARN) of the configuration.
Type: string
Required: True

latestRevision
Latest revision of the configuration.
Type: ConfigurationRevision (p. 136)
Required: True

Error
Returns information about an error.

message
The description of the error.
Type: string
Required: False

invalidParameter
The parameter that caused the error.
Type: string
Required: False

**UpdateConfigurationRequest**

Update an MSK configuration.

description

The description of the configuration.

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

**serverProperties**

Contents of the `server.properties` file. When using the API, you must ensure that the contents of the file are base64 encoded. When using the console, the SDK, or the CLI, the contents of `server.properties` can be in plaintext.

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

**UpdateConfigurationResponse**

Response body for UpdateConfiguration

**arn**

The Amazon Resource Name (ARN) of the configuration.

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

**latestRevision**

Latest revision of the configuration.

- **Type**: `ConfigurationRevision` (p. 136)
- **Required**: False

**See also**

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

**DescribeConfiguration**

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
**Configuration Revision**

Represents a specific revision of an MSK configuration.

**URI**

```
/v1/configurations/<arn>/revisions/<revision>
```

**HTTP methods**

**GET**

**Operation ID:** DescribeConfigurationRevision

Returns a description of this revision of the configuration.
Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>revision</td>
<td>String</td>
<td>True</td>
<td>A string that uniquely identifies a revision of an MSK configuration.</td>
</tr>
<tr>
<td>arn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.</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>DescribeConfigurationRevisionResponse (p. 142)</td>
<td>200 response</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 142)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 142)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 142)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 142)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 142)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 142)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 142)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

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<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>revision</td>
<td>String</td>
<td>True</td>
<td>A string that uniquely identifies a revision of an MSK configuration.</td>
</tr>
<tr>
<td>Name</td>
<td>Type</td>
<td>Required</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>arn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

**Schemas**

**Response bodies**

**DescribeConfigurationRevisionResponse schema**

```json
{
    "creationTime": "string",
    "description": "string",
    "serverProperties": "string",
    "arn": "string",
    "revision": integer
}
```

**Error schema**

```json
{
    "message": "string",
    "invalidParameter": "string"
}
```

**Properties**

**DescribeConfigurationRevisionResponse**

Response body for DescribeConfigurationRevision.

**creationTime**

The time when the configuration was created.

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

**description**

The description of the configuration.

- **Type**: string
serverProperties

Contents of the server.properties file. When using the API, you must ensure that the contents of the file are base64 encoded. When using the console, the SDK, or the CLI, the contents of server.properties can be in plaintext.

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

arn

The Amazon Resource Name (ARN) of the configuration.

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

revision

The revision number.

- **Type**: integer
- **Required**: True
- **Format**: int64

Error

Returns information about an error.

message

The description of the error.

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

invalidParameter

The parameter that caused the error.

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

See also

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

DescribeConfigurationRevision

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
Configuration Revisions

Represents the revisions of an MSK configuration.

**URI**

/v1/configurations/arn/revisions

**HTTP methods**

**GET**

**Operation ID:** ListConfigurationRevisions

Returns a list of all the revisions of an MSK configuration.

**Path parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>arn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.</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>nextToken</td>
<td>String</td>
<td>False</td>
<td>The paginated results marker. When the result of the operation is truncated, the call returns NextToken in the response. To get the next batch, provide this token in your next request.</td>
</tr>
<tr>
<td>maxResults</td>
<td>String</td>
<td>False</td>
<td>The maximum number of results to return in the response. If there are more results, the response includes a NextToken parameter.</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>ListConfigurationRevisionsResponse (p. 146)</td>
<td>200 response</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 146)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 146)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 146)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 146)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 146)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 146)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 146)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

**OPTIONS**

Enable CORS by returning the correct headers.

**Path parameters**

<table>
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<tr>
<th>Name</th>
<th>Type</th>
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<th>Description</th>
</tr>
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<tbody>
<tr>
<td>arn</td>
<td>String</td>
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<td>The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.</td>
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</table>

**Responses**

<table>
<thead>
<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

**Schemas**

**Response bodies**
ListConfigurationRevisionsResponse schema

```json
{
  "nextToken": "string",
  "revisions": [
    {
      "creationTime": "string",
      "description": "string",
      "revision": integer
    }
  ]
}
```

Error schema

```json
{
  "message": "string",
  "invalidParameter": "string"
}
```

Properties

ConfigurationRevision

Describes a configuration revision.

creationTime

The time when the configuration revision was created.

  Type: string
  Required: True

description

The description of the configuration revision.

  Type: string
  Required: False

revision

The revision number.

  Type: integer
  Required: True
  Format: int64

Error

Returns information about an error.

message

The description of the error.
See also

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

**ListConfigurationRevisions**

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

**Configurations**

A collection of MSK configurations.
URI

/v1/configurations

HTTP methods

GET

Operation ID: ListConfigurations

Returns a list of all the MSK configurations.

Query parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>nextToken</td>
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Responses

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<tr>
<th>Status code</th>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>ListConfigurationsResponse</td>
<td>200 response</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 151)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 151)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 151)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 151)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 151)</td>
<td>429 response</td>
</tr>
</tbody>
</table>
### POST

**Operation ID:** CreateConfiguration

Creates a new MSK configuration. To see an example of how to use this operation, first save the following text to a file and name the file `config-file.txt`.

```python
auto.create.topics.enable = true
zookeeper.connection.timeout.ms = 1000
log.roll.ms = 604800000
```

Now run the following Python 3.6 script in the folder where you saved `config-file.txt`. This script uses the properties specified in `config-file.txt` to create a configuration named `SalesClusterConfiguration`. This configuration can work with Apache Kafka versions 1.1.1 and 2.1.0.

```python
import boto3
client = boto3.client('kafka')
config_file = open('config-file.txt', 'r')
server_properties = config_file.read()
response = client.create_configuration(
    Name='SalesClusterConfiguration',
    Description='The configuration to use on all sales clusters.',
    KafkaVersions=['1.1.1', '2.1.0'],
    ServerProperties=server_properties
)
print(response)
```

<table>
<thead>
<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>Error (p. 151)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 151)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>CreateConfigurationResponse</td>
<td>200 response</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 151)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 151)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
</tbody>
</table>
### Options

Enable CORS by returning the correct headers.

### Responses

<table>
<thead>
<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

### Schemas

#### Request bodies

**POST schema**

```json
{
  "name": "string",
  "description": "string",
  "kafkaVersions": [
    "string"
  ],
  "serverProperties": "string"
}
```

#### Response bodies

**ListConfigurationsResponse schema**

```json
{
  "nextToken": "string",
```
"configurations": [
  {
    "creationTime": "string",
    "name": "string",
    "description": "string",
    "kafkaVersions": [
      "string"
    ],
    "state": enum,
    "arn": "string",
    "latestRevision": {
      "creationTime": "string",
      "description": "string",
      "revision": integer
    }
  }
]

CreateConfigurationResponse schema

{
  "creationTime": "string",
  "name": "string",
  "state": enum,
  "arn": "string",
  "latestRevision": {
    "creationTime": "string",
    "description": "string",
    "revision": integer
  }
}

Error schema

{
  "message": "string",
  "invalidParameter": "string"
}

Properties

Configuration

Represents an MSK Configuration.

creationTime

The time when the configuration was created.

  Type: string
  Required: True

name

The name of the configuration. Configuration names are strings that match the regex "^[0-9A-Za-z\[0-9A-Za-z-_][0,]$".
Properties

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

**description**

The description of the configuration.

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

**kafkaVersions**

An array of the versions of Apache Kafka with which you can use this MSK configuration. You can use this configuration for an MSK cluster only if the Apache Kafka version specified for the cluster appears in this array.

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

**state**

State of the configuration.

**Type**: ConfigurationState (p. 153)
**Required**: False

**arn**

The Amazon Resource Name (ARN) of the configuration.

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

**latestRevision**

Latest revision of the configuration.

**Type**: ConfigurationRevision (p. 152)
**Required**: True

**ConfigurationRevision**

Describes a configuration revision.

**creationTime**

The time when the configuration revision was created.

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

**description**

The description of the configuration revision.
Properties

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

**revision**

The revision number.

**Type**: integer
**Required**: True
**Format**: int64

**ConfigurationState**

State of a kafka configuration

- ACTIVE
- DELETING
- DELETE_FAILED

**CreateConfigurationRequest**

Request body for CreateConfiguration.

**name**

The name of the configuration. Configuration names are strings that match the regex "^[0-9A-Za-z] [0-9A-Za-z-]{0,}$".

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

**description**

The description of the configuration.

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

**kafkaVersions**

The versions of Apache Kafka with which you can use this MSK configuration.

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

**serverProperties**

Contents of the `server.properties` file. When using the API, you must ensure that the contents of the file are base64 encoded. When using the console, the SDK, or the CLI, the contents of `server.properties` can be in plaintext.

**Type**: string
**Required**: True
CreateConfigurationResponse

Response body for CreateConfiguration

creationTime

The time when the configuration was created.

Type: string
Required: False

name

The name of the configuration. Configuration names are strings that match the regex "^[0-9A-Za-z][0-9A-Za-z-]{0,}$".

Type: string
Required: False

state

State of the configuration.

Type: ConfigurationState (p. 153)
Required: False

arn

The Amazon Resource Name (ARN) of the configuration.

Type: string
Required: False

latestRevision

Latest revision of the configuration.

Type: ConfigurationRevision (p. 152)
Required: False

Error

Returns information about an error.

message

The description of the error.

Type: string
Required: False

invalidParameter

The parameter that caused the error.
ListConfigurationsResponse

The response contains an array of Configuration and a next token if the response is truncated.

nextToken

The paginated results marker. When the result of a ListConfigurations operation is truncated, the call returns NextToken in the response. To get another batch of configurations, provide this token in your next request.

configurations

An array of MSK configurations.

See also

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

ListConfigurations

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

CreateConfiguration

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

The options for monitoring an Amazon MSK cluster. You can specify which Apache Kafka metrics you want Amazon MSK to gather and send to Amazon CloudWatch. You can also configure open monitoring to gather metrics with Prometheus or Prometheus-compatible tools.

URI

/v1/clusters/clusterArn/monitoring

HTTP methods

PUT

Operation ID: UpdateMonitoring

Updates the monitoring settings for the cluster. You can use this operation to specify which Apache Kafka metrics you want Amazon MSK to send to Amazon CloudWatch. You can also specify settings for open monitoring with Prometheus. The following Python 3.6 example enables open monitoring with the Node Exporter. It also sets enhanced monitoring to PER_BROKER. For more information about monitoring, see Monitoring.

```python
import boto3
import time

client = boto3.client('kafka')

update_monitoring_response = client.update_monitoring(
    CurrentVersion='K12V3IB1VIZHHY',
    EnhancedMonitoring='PER_BROKER',
    OpenMonitoring={"Prometheus":{"JmxExporter":{"EnabledInBroker":False},"NodeExporter":{"EnabledInBroker":True}}}
)

operation_arn = update_monitoring_response['ClusterOperationArn']
print('The ARN of the update operation is ' + operation_arn)

describe_cluster_operation_response = client.describe_cluster_operation(ClusterOperationArn=operation_arn)

operation_state = describe_cluster_operation_response['ClusterOperationInfo']['OperationState']
print('The status of the update operation is ' + operation_state)

updated = False
while not updated:
    print('Sleeping for 15 seconds before checking to see if the monitoring update is done...')
    time.sleep(15)
    describe_cluster_operation_response = client.describe_cluster_operation(ClusterOperationArn=operation_arn)
    operation_state = describe_cluster_operation_response['ClusterOperationInfo']['OperationState']
```

156
if 'UPDATE_COMPLETE' == operation_state:
    updated = True
    print('You have successfully updated the monitoring settings.')

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>UpdateMonitoringRequest (p. 158)</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 158)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 158)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 158)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 158)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 158)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 158)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 158)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

Schemas

Request bodies

PUT schema

```json
{
  "enhancedMonitoring": enum,
  "loggingInfo": {
    "brokerLogs": {
      "s3": {
        "bucket": "string",
        "prefix": "string",
        "enabled": boolean
      },
      "firehose": {
        "deliveryStream": "string",
        "enabled": boolean
      },
      "cloudWatchLogs": {
        "logGroup": "string",
        "enabled": boolean
      }
    },
    "openMonitoring": {
      "prometheus": {
        "nodeExporter": {
          "enabledInBroker": boolean
        },
        "jmxExporter": {
          "enabledInBroker": boolean
        }
      },
      "currentVersion": "string"
    }
  }
}
```

Response bodies

UpdateMonitoringRequest schema

```json
{
  "clusterArn": "string",
  "clusterOperationArn": "string"
}
```

Error schema

```json
{
  "message": "string",

```

```
```
Properties

BrokerLogs
The broker logs configuration for this MSK cluster.

s3
Details of the Amazon S3 destination for broker logs.

  Type: S3 (p. 161)
  Required: False

firehose
Details of the Kinesis Data Firehose delivery stream that is the destination for broker logs.

  Type: Firehose (p. 160)
  Required: False

cloudWatchLogs
Details of the CloudWatch Logs destination for broker logs.

  Type: CloudWatchLogs (p. 159)
  Required: False

CloudWatchLogs
Details of the CloudWatch Logs destination for broker logs.

logGroup
The CloudWatch log group that is the destination for broker logs.

  Type: string
  Required: False

enabled
Specifies whether broker logs get sent to the specified CloudWatch Logs destination.

  Type: boolean
  Required: True

EnhancedMonitoring
Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see Monitoring.
PER_BROKER
PER_TOPIC_PER_BROKER
PER_TOPIC_PER_PARTITION

Error
Returns information about an error.

message
The description of the error.

  Type: string
  Required: False

invalidParameter
The parameter that caused the error.

  Type: string
  Required: False

Firehose
Firehose details for BrokerLogs.

deliveryStream
The Kinesis Data Firehose delivery stream that is the destination for broker logs.

  Type: string
  Required: False

enabled
Specifies whether broker logs get send to the specified Kinesis Data Firehose delivery stream.

  Type: boolean
  Required: True

JmxExporterInfo
JMX Exporter details.

enabledInBroker
JMX Exporter being enabled in broker.

  Type: boolean
  Required: True

LoggingInfo
You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.
**brokerLogs**

You can configure your MSK cluster to send broker logs to different destination types. This configuration specifies the details of these destinations.

- **Type**: BrokerLogs (p. 159)
- **Required**: True

**NodeExporterInfo**

Node Exporter details.

**enabledInBroker**

Node Exporter being enabled in broker.

- **Type**: boolean
- **Required**: True

**OpenMonitoringInfo**

JMX and Node monitoring for cluster.

**prometheus**

Prometheus details.

- **Type**: PrometheusInfo (p. 161)
- **Required**: True

**PrometheusInfo**

Prometheus details.

**nodeExporter**

Node Exporter details.

- **Type**: NodeExporterInfo (p. 161)
- **Required**: False

**jmxExporter**

JMX Exporter details.

- **Type**: JmxExporterInfo (p. 160)
- **Required**: False

**S3**

The details of the Amazon S3 destination for broker logs.
bucket

The name of the S3 bucket that is the destination for broker logs.

   Type: string
   Required: False

prefix

The S3 prefix that is the destination for broker logs.

   Type: string
   Required: False

disabled

Specifies whether broker logs get sent to the specified Amazon S3 destination.

   Type: boolean
   Required: True

UpdateMonitoringRequest

Request body for UpdateMonitoring.

disabledMonitoring

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster.

   Type: EnhancedMonitoring (p. 159)
   Required: False

disabledLogging

LoggingInfo details.

   Type: LoggingInfo (p. 160)
   Required: False

disabledOpenMonitoring

The settings for open monitoring.

   Type: OpenMonitoringInfo (p. 161)
   Required: False

currentVersion

The version of the MSK cluster to update. Cluster versions aren't simple numbers. You can describe an MSK cluster to find its version. When this update operation is successful, it generates a new cluster version.

   Type: string
**UpdateMonitoringResponse**

Request body for UpdateMonitoring.

**clusterArn**

The Amazon Resource Name (ARN) of the cluster.

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

**clusterOperationArn**

The Amazon Resource Name (ARN) of the cluster operation.

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

**See also**

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

**UpdateMonitoring**

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

**Reboot Broker**

**URI**

/v1/clusters/{clusterArn}/reboot-broker

**HTTP methods**

PUT

**Operation ID:** RebootBroker
Reboots a broker. In a given cluster, you can reboot one broker at a time.

To reboot a broker, wait for the cluster status to be ACTIVE. This operation returns an error if you invoke it while the cluster status is HEALING. You must wait for the status to change from HEALING to ACTIVE before you reboot the broker.

**Path parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>RebootBrokerResponse</td>
<td>Successful response.</td>
</tr>
<tr>
<td>400</td>
<td>Error</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error</td>
<td>503 response</td>
</tr>
</tbody>
</table>

**OPTIONS**

Enable CORS by returning the correct headers.

**Path parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</td>
</tr>
</tbody>
</table>
### Schemas

#### Request bodies

**PUT schema**

```json
{
    "brokerIds": [
        "string"
    ]
}
```

#### Response bodies

**RebootBrokerResponse schema**

```json
{
    "clusterArn": "string",
    "clusterOperationArn": "string"
}
```

**Error schema**

```json
{
    "message": "string",
    "invalidParameter": "string"
}
```

### Properties

#### Error

Returns information about an error.

**message**

The description of the error.

- **Type**: string
- **Required**: False
invalidParameter
The parameter that caused the error.

  Type: string
  Required: False

RebootBrokerRequest
The request body for the RebootBroker action.

brokerIds
The list of broker IDs to be rebooted. Specify only one broker ID.

  Type: Array of type string
  Required: True

RebootBrokerResponse
The response body for RebootBroker.

clusterArn
The Amazon Resource Name (ARN) of the cluster.

  Type: string
  Required: False

clusterOperationArn
The Amazon Resource Name (ARN) of the cluster operation.

  Type: string
  Required: False

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

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

Represents a secret stored in the Amazon Secrets Manager that can be used to authenticate with a cluster using a user name and password.

URI

/v1/clusters/clusterArn/scram-secrets

HTTP methods

GET

Operation ID: ListScramSecrets

Returns a list of SCRAM secrets associated with the cluster. SCRAM secrets are stored in the Amazon Secrets Manager service, and are used to authenticate clients using usernames and passwords.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>nextToken</td>
<td>String</td>
<td>False</td>
<td>The paginated results marker. When the result of the operation is truncated, the call returns NextToken in the response. To get the next batch, provide this token in your next request.</td>
</tr>
<tr>
<td>maxResults</td>
<td>String</td>
<td>False</td>
<td>The maximum number of results to return in the response. If there are more results, the response includes a NextToken parameter.</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>ListScramSecretsResponse</td>
<td>Successful response.</td>
</tr>
</tbody>
</table>
### Status code | Response model | Description
--- | --- | ---
400 | Error (p. 171) | The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401 | Error (p. 171) | The request is not authorized. The provided credentials couldn't be validated.
403 | Error (p. 171) | Access forbidden. Check your credentials and then retry your request.
404 | Error (p. 171) | The resource could not be found due to incorrect input. Correct the input, then retry the request.
429 | Error (p. 171) | 429 response
500 | Error (p. 171) | There was an unexpected internal server error. Retrying your request might resolve the issue.
503 | Error (p. 171) | 503 response

## POST

**Operation ID:** BatchAssociateScramSecret

Associates a list of SCRAM secrets with a cluster. SCRAM secrets are stored in the Amazon Secrets Manager service, and are used to authenticate clients using usernames and passwords.

### Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>BatchAssociateScramSecretResponse</td>
<td>Successful response</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 171)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 171)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</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>403</td>
<td>Error (p. 171)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 171)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 171)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 171)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 171)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

**OPTIONS**

Enable CORS by returning the correct headers.

**Path parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

**PATCH**

**Operation ID:** BatchDisassociateScramSecret

Disassociates a list of SCRAM secrets from a cluster. SCRAM secrets are stored in the Amazon Secrets Manager service, and are used to authenticate clients using usernames and passwords.

**Path parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clusterArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the cluster.</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>BatchDisassociateScramSecretResponse (p. 171)</td>
<td>200 response</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 171)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 171)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 171)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 171)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 171)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 171)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 171)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

## Schemas

### Request bodies

#### POST schema

```
{
   "secretArnList": [
      "string"
   ]
}
```

#### PATCH schema

```
{
   "secretArnList": [
      "string"
   ]
}
```

### Response bodies

#### ListScramSecretsResponse schema

```
{
}
```
"secretArnList": [
  "string"
],
"nextToken": "string"

BatchAssociateScramSecretResponse schema

{
  "clusterArn": "string",
  "unprocessedScramSecrets": [
    {
      "secretArn": "string",
      "errorMessage": "string",
      "errorCode": "string"
    }
  ]
}

BatchDisassociateScramSecretResponse schema

{
  "clusterArn": "string",
  "unprocessedScramSecrets": [
    {
      "secretArn": "string",
      "errorMessage": "string",
      "errorCode": "string"
    }
  ]
}

Error schema

{
  "message": "string",
  "invalidParameter": "string"
}

Properties

BatchAssociateScramSecretRequest

Request body for BatchAssociateScramSecret.

secretArnList

List of Amazon Secrets Manager secret ARNs.

  Type: Array of type string
  Required: True

BatchAssociateScramSecretResponse

Response body for BatchAssociateScramSecret.
clusterArn

The Amazon Resource Name (ARN) of the cluster.

Type: string
Required: False

unprocessedScramSecrets

List of errors when associating secrets to cluster.

Type: Array of type UnprocessedScramSecret (p. 173)
Required: False

BatchDisassociateScramSecretRequest

Request body for BatchDisassociateScramSecret.

secretArnList

List of Amazon Secrets Manager secret ARNs.

Type: Array of type string
Required: True

BatchDisassociateScramSecretResponse

Response body for BatchDisassociateScramSecret.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

Type: string
Required: False

unprocessedScramSecrets

List of errors when disassociating secrets to cluster.

Type: Array of type UnprocessedScramSecret (p. 173)
Required: False

Error

Returns information about an error.

message

The description of the error.

Type: string
Required: False
invalidParameter
The parameter that caused the error.

  Type: string
  Required: False

ListScramSecretsResponse
Information about scram secrets associated to the cluster.

secretArnList
The list of scram secrets associated with the cluster.

  Type: Array of type string
  Required: False

nextToken
Paginated results marker.

  Type: string
  Required: False

UnprocessedScramSecret
Error info for scram secret associate/disassociate failure.

secretArn
Amazon Secrets Manager secret ARN.

  Type: string
  Required: False

errorMessage
Error message for associate/disassociate failure.

  Type: string
  Required: False

errorCode
Error code for associate/disassociate failure.

  Type: string
  Required: False

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

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

BatchAssociateScramSecret

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

BatchDisassociateScramSecret

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

Tags

Represents the set of tags for an MSK resource. A tag is a key-value pair that you define for the cluster. Using tags is a simple yet powerful way to manage Amazon resources and organize data, including billing data.

URI

/v1/tags/resourceArn
HTTP methods

GET

Operation ID: ListTagsForResource

Returns a list of the tags associated with the specified resource.

Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>resourceArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the resource that's associated with the tags.</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>ListTagsForResourceResponse</td>
<td>Success response.</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 179)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 179)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 179)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 179)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 179)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 179)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 179)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

POST

Operation ID: TagResource

Adds tags to the specified MSK resource.
### Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>resourceArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the resource that's associated with the tags.</td>
</tr>
</tbody>
</table>

### Responses

<table>
<thead>
<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>204</td>
<td>None</td>
<td>204 response</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 179)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</td>
</tr>
<tr>
<td>401</td>
<td>Error (p. 179)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 179)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 179)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 179)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 179)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 179)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

### DELETE

**Operation ID:** UntagResource

Removes the tags associated with the keys that are provided in the query.

### Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>resourceArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the resource that's associated with the tags.</td>
</tr>
</tbody>
</table>
## HTTP methods

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>associated with the tags.</td>
</tr>
</tbody>
</table>

### Query parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
</table>
| tagKeys | String | True | Tag keys must be unique for a given cluster. In addition, the following restrictions apply:  
  - Each tag key must be unique. If you add a tag with a key that's already in use, your new tag overwrites the existing key-value pair.  
  - You can't start a tag key with `aws:` because this prefix is reserved for use by Amazon. Amazon creates tags that begin with this prefix on your behalf, but you can't edit or delete them.  
  - Tag keys must be between 1 and 128 Unicode characters in length.  
  - Tag keys must consist of the following characters: Unicode letters, digits, white space, and the following special characters: _ . / = + - @. |

### Responses

<table>
<thead>
<tr>
<th>Status code</th>
<th>Response model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>204</td>
<td>None</td>
<td>204 response</td>
</tr>
<tr>
<td>400</td>
<td>Error (p. 179)</td>
<td>The request isn't valid because the input is incorrect. Correct your input and then submit it again.</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>401</td>
<td>Error (p. 179)</td>
<td>The request is not authorized. The provided credentials couldn't be validated.</td>
</tr>
<tr>
<td>403</td>
<td>Error (p. 179)</td>
<td>Access forbidden. Check your credentials and then retry your request.</td>
</tr>
<tr>
<td>404</td>
<td>Error (p. 179)</td>
<td>The resource could not be found due to incorrect input. Correct the input, then retry the request.</td>
</tr>
<tr>
<td>429</td>
<td>Error (p. 179)</td>
<td>429 response</td>
</tr>
<tr>
<td>500</td>
<td>Error (p. 179)</td>
<td>There was an unexpected internal server error. Retrying your request might resolve the issue.</td>
</tr>
<tr>
<td>503</td>
<td>Error (p. 179)</td>
<td>503 response</td>
</tr>
</tbody>
</table>

### OPTIONS

Enable CORS by returning the correct headers.

### Path parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>resourceArn</td>
<td>String</td>
<td>True</td>
<td>The Amazon Resource Name (ARN) that uniquely identifies the resource that's associated with the tags.</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>None</td>
<td>Default response for CORS method</td>
</tr>
</tbody>
</table>

### Schemas

### Request bodies

**POST schema**

```json
{
   "tags": {
   }
}
```
Response bodies

ListTagsForResourceResponse schema

```json
{
  "tags": {

  }
}
```

Error schema

```json
{
  "message": "string",
  "invalidParameter": "string"
}
```

Properties

Error

Returns information about an error.

message

The description of the error.

  Type: string
  Required: False

invalidParameter

The parameter that caused the error.

  Type: string
  Required: False

ListTagsForResourceResponse

Response of listing tags for a resource.

tags

The key-value pair for the resource tag.

  Type: object
  Required: True

TagResourceRequest

Tag a resource.
tags

The key-value pair for the resource tag.

**Type:** object  
**Required:** True

See also

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

**ListTagsForResource**

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

**TagResource**

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

**UntagResource**

- AWS Command Line Interface  
- AWS SDK for .NET  
- AWS SDK for C++  
- AWS SDK for Go  
- AWS SDK for Java V2  
- AWS SDK for JavaScript  
- AWS SDK for PHP V3  
- AWS SDK for Python  
- AWS SDK for Ruby V3
# Document History for Amazon Managed Streaming for Apache Kafka API Reference

The following table describes the documentation for this release of the *Amazon Managed Streaming for Apache Kafka API Reference*.

- **API version**: 2019-05-30

<table>
<thead>
<tr>
<th>Change</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amazon MSK GA release</td>
<td>This is the general-availability release of the Amazon MSK API Reference.</td>
<td>May 30, 2019</td>
</tr>
<tr>
<td>Amazon MSK preview release</td>
<td>This is the preview release of the Amazon MSK API Reference.</td>
<td>November 29, 2018</td>
</tr>
</tbody>
</table>
AWS glossary

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