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# Amazon MSK

## API Reference 2.0



## **Amazon MSK: API Reference 2.0**

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# Amazon Managed Streaming for Apache Kafka API Reference 2.0

Welcome to API Reference 2.0. This API reference describes three new Amazon MSK operations: `CreateClusterV2`, `ListClustersV2`, and `DescribeClusterV2`. We recommend that you use these operations instead of the `CreateCluster`, `ListClusters`, and `DescribeCluster` that are described in [Amazon MSK API Reference 1.0](#).

# Operations

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

- [CreateClusterV2 \(p. 22\)](#)

Creates a serverless or provisioned cluster.

- [DescribeClusterV2 \(p. 3\)](#)

Returns information about a cluster.

- [ListClustersV2 \(p. 21\)](#)

Lists all serverless and provisioned clusters.

# Resources

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

## Topics

- [Cluster \(p. 3\)](#)
- [Clusters \(p. 20\)](#)

## Cluster

Represents an Amazon MSK cluster.

## URI

`/api/v2/clusters/clusterArn`

## HTTP methods

### GET

**Operation ID:** DescribeClusterV2

Returns information about a cluster.

### Path parameters

Name	Type	Required	Description
<i>clusterArn</i>	String	True	ARN of the cluster to be described.

### Responses

Status code	Response model	Description
200	<a href="#">DescribeClusterV2Response</a> (HTTP)	HTTP Status Code 200: OK.
400	None	HTTP Status Code 400: Bad request due to incorrect input. Correct your request and then retry it.
401	None	HTTP Status Code 401: Unauthorized request. The provided credentials couldn't be validated.

Status code	Response model	Description
403	None	HTTP Status Code 403: Access forbidden. Correct your credentials and then retry your request.
404	None	HTTP Status Code 404: Resource not found due to incorrect input. Correct your request and then retry it.
429	None	HTTP Status Code 429: Limit exceeded. Resource limit reached.
500	None	HTTP Status Code 500: Unexpected internal server error. Retrying your request might resolve the issue.
503	None	HTTP Status Code 503: Service Unavailable. Retrying your request in some time might resolve the issue.

## OPTIONS

Enable CORS by returning correct headers

### Path parameters

Name	Type	Required	Description
<i>clusterArn</i>	String	True	ARN of the cluster to be described.

### Responses

Status code	Response model	Description
200	None	200 response

## Schemas

### Response bodies

#### DescribeClusterV2Response schema

```
{
  "clusterInfo": {
    "clusterType": enum,
    "clusterArn": "string",
    "activeOperationArn": "string",
    "provisioned": {
```

```
"encryptionInfo": {
  "encryptionInTransit": {
    "inCluster": boolean,
    "clientBroker": enum
  },
  "encryptionAtRest": {
    "dataVolumeKMSKeyId": "string"
  }
},
"numberOfBrokerNodes": integer,
"zookeeperConnectString": "string",
"enhancedMonitoring": enum,
"zookeeperConnectStringTls": "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": {
      "provisionedThroughput": {
```



```
        "volumeThroughput": integer,  
        "enabled": boolean  
    },  
    "volumeSize": integer  
  }  
},  
"openMonitoring": {  
  "prometheus": {  
    "nodeExporter": {  
      "enabledInBroker": boolean  
    },  
    "jmxExporter": {  
      "enabledInBroker": boolean  
    }  
  }  
},  
"currentBrokerSoftwareInfo": {  
  "configurationRevision": integer,  
  "kafkaVersion": "string",  
  "configurationArn": "string"  
}  
},  
"creationTime": "string",  
"clusterName": "string",  
"serverless": {  
  "vpcConfigs": [  
    {  
      "securityGroupIds": [  
        "string"  
      ],  
      "subnetIds": [  
        "string"  
      ]  
    }  
  ],  
  "kafkaVersion": "string",  
  "clientAuthentication": {  
    "sasl": {  
      "iam": {  
        "enabled": boolean  
      }  
    }  
  }  
},  
"stateInfo": {  
  "code": "string",  
  "message": "string"  
},  
"state": enum,  
"currentVersion": "string",  
"tags": {  
}  
}
```

## Properties

### BrokerAZDistribution

The distribution of broker nodes across Availability Zones.

DEFAULT

## BrokerLogs

Broker Logs details for cluster.

### s3

S3 Log destination details.

**Type:** [S3 \(p. 17\)](#)  
**Required:** False

### firehose

**Type:** [Firehose \(p. 13\)](#)  
**Required:** False

### cloudWatchLogs

CloudWatch Log destination details.

**Type:** [CloudWatchLogs \(p. 9\)](#)  
**Required:** False

## BrokerNodeGroupInfo

Describes the setup to be used for the brokers.

### clientSubnets

The list of subnets in the client VPC to connect to.

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

### instanceType

The type of broker used for the cluster.

**Type:** string  
**Required:** True  
**MinLength:** 5  
**MaxLength:** 32

### connectivityInfo

Information about the cluster access configuration.

**Type:** [ConnectivityInfo \(p. 11\)](#)  
**Required:** False

### securityGroups

The security groups to attach to the ENIs for the broker nodes.

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

### **brokerAZDistribution**

The distribution of broker nodes across Availability Zones.

**Type:** [BrokerAZDistribution \(p. 6\)](#)  
**Required:** False

### **storageInfo**

Data volume information.

**Type:** [StorageInfo \(p. 19\)](#)  
**Required:** False

## **BrokerSoftwareInfo**

Information about current software installed in the cluster.

### **configurationRevision**

Revision of the configuration to use.

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

### **kafkaVersion**

The version of Apache Kafka to install and run on the cluster.

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

### **configurationArn**

ARN of the configuration used on the cluster.

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

## **ClientAuthentication**

Includes all client authentication information.

### **sasl**

Details for ClientAuthentication using SASL.

**Type:** [Sasl \(p. 17\)](#)

**Required:** False

### **unauthenticated**

Details for ClientAuthentication using no authentication.

**Type:** [Unauthenticated \(p. 19\)](#)

**Required:** False

### **tls**

Details for ClientAuthentication using TLS.

**Type:** [Tls \(p. 19\)](#)

**Required:** False

## ClientBroker

Client-broker encryption in transit setting.

TLS  
TLS\_PLAINTEXT  
PLAINTEXT

## CloudWatchLogs

CloudWatchLogs details for BrokerLogs.

### **logGroup**

CloudWatch LogGroup where the logs will be delivered.

**Type:** string

**Required:** False

### **enabled**

Broker logs for destination CW enabled or not.

**Type:** boolean

**Required:** True

## Cluster

Returns information about a cluster.

### **clusterType**

Type of the backend cluster.

**Type:** [ClusterType \(p. 11\)](#)

**Required:** False

### **clusterArn**

The Amazon Resource Name (ARN) of the cluster.

**Type:** string

**Required:** False

### **activeOperationArn**

Arn of active cluster operation.

**Type:** string

**Required:** False

### **provisioned**

Properties of a provisioned cluster.

**Type:** [Provisioned \(p. 15\)](#)

**Required:** False

### **creationTime**

The time when the cluster was created.

**Type:** string

**Required:** False

### **clusterName**

The name of the cluster.

**Type:** string

**Required:** False

### **serverless**

Properties of a serverless cluster.

**Type:** [Serverless \(p. 18\)](#)

**Required:** False

### **stateInfo**

Includes information of the cluster state.

**Type:** [StateInfo \(p. 19\)](#)

**Required:** False

### **state**

State of the cluster.

**Type:** [ClusterState \(p. 11\)](#)

**Required:** False

### **currentVersion**

Current version of cluster.

**Type:** string

**Required:** False

### **tags**

Tags attached to the cluster.

**Type:** object

**Required:** False

## ClusterState

The state of an MSK cluster.

ACTIVE  
CREATING  
UPDATING  
DELETING  
FAILED  
MAINTENANCE  
REBOOTING\_BROKER  
HEALING

## ClusterType

The type of backend cluster.

PROVISIONED  
SERVERLESS

## ConnectivityInfo

Broker access controls

### **publicAccess**

Access control settings for brokers

**Type:** [PublicAccess](#) (p. 16)

**Required:** False

## DescribeClusterV2Response

Returns information about a cluster.

### **clusterInfo**

Cluster information

**Type:** [Cluster \(p. 9\)](#)

**Required:** False

## **EBSStorageInfo**

Contains information about the EBS storage volumes that are attached to the brokers.

### **provisionedThroughput**

EBS volume provisioned throughput information.

**Type:** [ProvisionedThroughput \(p. 16\)](#)

**Required:** False

### **volumeSize**

The size of the EBS volumes for the data drive on each of the brokers in GiB.

**Type:** integer

**Required:** False

**Minimum:** 1

**Maximum:** 16384

## **EncryptionAtRest**

Details for encryption at rest.

### **dataVolumeKMSKeyId**

KMS key used for data volume encryption.

**Type:** string

**Required:** True

## **EncryptionInTransit**

Details for encryption in transit.

### **inCluster**

In-cluster encryption in transit setting.

**Type:** boolean

**Required:** False

### **clientBroker**

Client-broker encryption in transit setting.

**Type:** [ClientBroker \(p. 9\)](#)

**Required:** False

## EncryptionInfo

Includes all encryption related information.

### **encryptionInTransit**

Details for encryption in transit.

**Type:** [EncryptionInTransit \(p. 12\)](#)

**Required:** False

### **encryptionAtRest**

Details for encryption at rest.

**Type:** [EncryptionAtRest \(p. 12\)](#)

**Required:** False

## EnhancedMonitoring

Controls level of cluster metrics Amazon pushes to customer's cloudwatch account.

```
DEFAULT
PER_BROKER
PER_TOPIC_PER_BROKER
PER_TOPIC_PER_PARTITION
```

## Firehose

Firehose details for BrokerLogs.

### **deliveryStream**

Firehose delivery stream where the logs will be delivered.

**Type:** string

**Required:** False

### **enabled**

Broker logs for destination firehose enabled or not.

**Type:** boolean

**Required:** True

## IAM

Details for SASL/IAM client authentication.

### **enabled**

SASL/IAM authentication is enabled or not.

**Type:** boolean



**Required:** False

## JmxExporter

JMX Exporter details.

### **enabledInBroker**

JMX Exporter being enabled in broker.

**Type:** boolean

**Required:** True

## LoggingInfo

Logging info details for the cluster.

### **brokerLogs**

Broker Logs details.

**Type:** [BrokerLogs \(p. 7\)](#)

**Required:** True

## NodeExporter

Node Exporter details.

### **enabledInBroker**

Node Exporter being enabled in broker.

**Type:** boolean

**Required:** True

## OpenMonitoring

JMX and Node monitoring for cluster.

### **prometheus**

Prometheus details.

**Type:** [Prometheus \(p. 14\)](#)

**Required:** True

## Prometheus

Prometheus details.

### **nodeExporter**

Node Exporter details.

**Type:** [NodeExporter](#) (p. 14)  
**Required:** False

### **jmxExporter**

JMX Exporter details.

**Type:** [JmxExporter](#) (p. 14)  
**Required:** False

## Provisioned

Properties of a provisioned cluster.

### **encryptionInfo**

Includes all encryption related information.

**Type:** [EncryptionInfo](#) (p. 13)  
**Required:** False

### **numberOfBrokerNodes**

The number of brokers to create in the cluster.

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

### **zookeeperConnectionString**

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

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

### **enhancedMonitoring**

This knob controls level of metrics pushed customer's cloudwatch account.

**Type:** [EnhancedMonitoring](#) (p. 13)  
**Required:** False

### **zookeeperConnectionStringTls**

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

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

### **clientAuthentication**

Includes all client authentication information.

**Type:** [ClientAuthentication](#) (p. 8)

**Required:** False

### **loggingInfo**

Logging Info details.

**Type:** [LoggingInfo](#) (p. 14)

**Required:** False

### **brokerNodeGroupInfo**

Information about the brokers of the cluster.

**Type:** [BrokerNodeGroupInfo](#) (p. 7)

**Required:** False

### **openMonitoring**

Open monitoring details.

**Type:** [OpenMonitoring](#) (p. 14)

**Required:** False

### **currentBrokerSoftwareInfo**

Information about the version of the software that is deployed on the brokers of the cluster.

**Type:** [BrokerSoftwareInfo](#) (p. 8)

**Required:** False

## **ProvisionedThroughput**

Contains information about provisioned throughput for the EBS storage volumes that are attached to the brokers.

### **volumeThroughput**

Throughput value of the EBS volumes for the data drive on each broker in MiB per second.

**Type:** integer

**Required:** False

### **enabled**

Whether provisioned throughput is turned on.

**Type:** boolean

**Required:** False

## **PublicAccess**

Broker access controls

### **type**

If public access is disabled, or if enabled the EIP provider

**Type:** string

**Required:** False

## S3

S3 details for BrokerLogs.

### **bucket**

Name of the bucket where the logs will be delivered.

**Type:** string

**Required:** False

### **prefix**

prefix to the S3 bucket where the logs will be delivered.

**Type:** string

**Required:** False

### **enabled**

Broker logs for destination S3 enabled or not.

**Type:** boolean

**Required:** True

## Sasl

Details for client authentication using SASL.

### **iam**

Details for ClientAuthentication using IAM.

**Type:** [IAM \(p. 13\)](#)

**Required:** False

### **scram**

Details for SASL/SCRAM client authentication.

**Type:** [Scram \(p. 17\)](#)

**Required:** False

## Scram

Details for SASL/SCRAM client authentication.

### **enabled**

SASL/SCRAM authentication is enabled or not.

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

## Serverless

Properties to create a serverless cluster

### **vpcConfigs**

VPC configuration information

**Type:** Array of type [VpcConfig \(p. 20\)](#)  
**Required:** True

### **kafkaVersion**

The version of Apache Kafka for the serverless cluster.

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

### **clientAuthentication**

Includes all client authentication related information.

**Type:** [ServerlessClientAuthentication \(p. 18\)](#)  
**Required:** True

## ServerlessClientAuthentication

Details for client authentication using SASL.

### **sasl**

Details for ClientAuthentication using IAM.

**Type:** [ServerlessSasl \(p. 18\)](#)  
**Required:** False

## ServerlessSasl

Details for client authentication using SASL for Serverless Cluster.

### **iam**

Details for ClientAuthentication using IAM for Serverless Cluster.

**Type:** [IAM \(p. 13\)](#)

**Required:** False

## StateInfo

Includes information about the cluster state.

### code

Code for cluster state.

**Type:** string

**Required:** False

### message

Message for cluster state.

**Type:** string

**Required:** False

## StorageInfo

Contains information about the storage volumes that are attached to the brokers.

### ebsStorageInfo

EBS volume information.

**Type:** [EBSStorageInfo \(p. 12\)](#)

**Required:** False

## Tls

The details of client authentication using TLS.

### certificateAuthorityArnList

List of ACM CertificateAuthority ARNs.

**Type:** Array of type string

**Required:** False

### enabled

Whether TLS authentication is turned on.

**Type:** boolean

**Required:** False

## Unauthenticated

Details for allowing no client authentication.

### **enabled**

Unauthenticated is enabled or not.

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

## VpcConfig

Includes information about subnets and security groups of customer VPC

### **securityGroupIds**

The security groups to attach to the ENIs for the broker nodes.

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

### **subnetIds**

The list of subnets in the client VPC to connect to.

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

## See also

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

## DescribeClusterV2

- [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](#)

## Clusters

Represents the Amazon MSK clusters in an account.

### URI

`/api/v2/clusters`

## HTTP methods

### GET

**Operation ID:** `ListClustersV2`

Lists all serverless and provisioned clusters.

#### Query parameters

Name	Type	Required	Description
<code>nextToken</code>	String	False	If the response of <code>ListClusters</code> is truncated, it returns a <code>nextToken</code> in the response. This <code>nextToken</code> should be sent in the subsequent request to <code>ListClusters</code> .
<code>clusterNameFilter</code>	String	False	Returns clusters starting with given name.
<code>maxResults</code>	String	False	Maximum number of clusters to fetch in one get request.
<code>clusterTypeFilter</code>	String	False	Returns clusters with the given type.

#### Responses

Status code	Response model	Description
200	<a href="#">ListClustersV2Response</a> (p. 45)	HTTP Status Code 200: OK.
400	None	HTTP Status Code 400: Bad request due to incorrect input. Correct your request and then retry it.
401	None	HTTP Status Code 401: Unauthorized request. The provided credentials couldn't be validated.
403	None	HTTP Status Code 403: Access forbidden. Correct your credentials and then retry your request.
404	None	HTTP Status Code 404: Resource not found due to incorrect input. Correct your request and then retry it.



Status code	Response model	Description
429	None	HTTP Status Code 429: Limit exceeded. Resource limit reached.
500	None	HTTP Status Code 500: Unexpected internal server error. Retrying your request might resolve the issue.
503	None	HTTP Status Code 503: Service Unavailable. Retrying your request in some time might resolve the issue.

## POST

**Operation ID:** `CreateClusterV2`

Creates a serverless or provisioned cluster.

### Responses

Status code	Response model	Description
200	<a href="#">CreateClusterV2Response</a> ( <a href="#">p. 177</a> )	HTTP Status Code 200: OK.
400	None	HTTP Status Code 400: Bad request due to incorrect input. Correct your request and then retry it.
401	None	HTTP Status Code 401: Unauthorized request. The provided credentials couldn't be validated.
403	None	HTTP Status Code 403: Access forbidden. Correct your credentials and then retry your request.
404	None	HTTP Status Code 404: Resource not found due to incorrect input. Correct your request and then retry it.
409	None	HTTP Status Code 409: Conflict. This cluster name already exists. Retry your request with another name.
429	None	HTTP Status Code 429: Limit exceeded. Resource limit reached.
500	None	HTTP Status Code 500: Unexpected internal server error.

Status code	Response model	Description
503	None	Retrying your request might resolve the issue.  HTTP Status Code 503: Service Unavailable. Retrying your request in some time might resolve the issue.

## OPTIONS

Enable CORS by returning correct headers

### Responses

Status code	Response model	Description
200	None	200 response

## Schemas

### Request bodies

#### POST schema

```
{
  "provisioned": {
    "encryptionInfo": {
      "encryptionInTransit": {
        "inCluster": boolean,
        "clientBroker": enum
      },
      "encryptionAtRest": {
        "dataVolumeKMSKeyId": "string"
      }
    },
    "numberOfBrokerNodes": integer,
    "configurationInfo": {
      "arn": "string",
      "revision": integer
    },
    "enhancedMonitoring": enum,
    "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": {
            "provisionedThroughput": {
                "volumeThroughput": integer,
                "enabled": boolean
            },
            "volumeSize": integer
        }
    }
},
"openMonitoring": {
    "prometheus": {
        "nodeExporter": {
            "enabledInBroker": boolean
        },
        "jmxExporter": {
            "enabledInBroker": boolean
        }
    }
},
"clusterName": "string",
"serverless": {
    "vpcConfigs": [
        {
            "securityGroupIds": [
                "string"
            ],
            "subnetIds": [
                "string"
            ]
        }
    ]
}
}

```

```

    ]
  }
],
"clientAuthentication": {
  "sasl": {
    "iam": {
      "enabled": boolean
    }
  }
}
},
"tags": {
}
}

```

## Response bodies

### ListClustersV2Response schema

```

{
  "nextToken": "string",
  "clusterInfoList": [
    {
      "clusterType": enum,
      "clusterArn": "string",
      "activeOperationArn": "string",
      "provisioned": {
        "encryptionInfo": {
          "encryptionInTransit": {
            "inCluster": boolean,
            "clientBroker": enum
          },
          "encryptionAtRest": {
            "dataVolumeKMSKeyId": "string"
          }
        },
        "numberOfBrokerNodes": integer,
        "zookeeperConnectString": "string",
        "enhancedMonitoring": enum,
        "zookeeperConnectStringTls": "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": {
        "provisionedThroughput": {
          "volumeThroughput": integer,
          "enabled": boolean
        },
        "volumeSize": integer
      }
    },
    "openMonitoring": {
      "prometheus": {
        "nodeExporter": {
          "enabledInBroker": boolean
        },
        "jmxExporter": {
          "enabledInBroker": boolean
        }
      }
    },
    "currentBrokerSoftwareInfo": {
      "configurationRevision": integer,
      "kafkaVersion": "string",
      "configurationArn": "string"
    }
  },
  "creationTime": "string",
  "clusterName": "string",
  "serverless": {
    "vpcConfigs": [
      {
        "securityGroupIds": [
          "string"
        ],
        "subnetIds": [
          "string"
        ]
      }
    ]
  },
  "kafkaVersion": "string",
```

```
    "clientAuthentication": {
      "sasl": {
        "iam": {
          "enabled": boolean
        }
      }
    },
    "stateInfo": {
      "code": "string",
      "message": "string"
    },
    "state": enum,
    "currentVersion": "string",
    "tags": {
    }
  }
]
```

### CreateClusterV2Response schema

```
{
  "clusterType": enum,
  "clusterArn": "string",
  "clusterName": "string",
  "state": enum
}
```

## Properties

### BrokerAZDistribution

The distribution of broker nodes across Availability Zones.

DEFAULT

### BrokerLogs

Broker Logs details for cluster.

#### s3

S3 Log destination details.

**Type:** [S3 \(p. 41\)](#)  
**Required:** False

#### firehose

**Type:** [Firehose \(p. 35\)](#)  
**Required:** False

#### cloudWatchLogs

CloudWatch Log destination details.

**Type:** [CloudWatchLogs](#) (p. 30)  
**Required:** False

## BrokerNodeGroupInfo

Describes the setup to be used for the brokers.

### clientSubnets

The list of subnets in the client VPC to connect to.

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

### instanceType

The type of broker used for the cluster.

**Type:** string  
**Required:** True  
**MinLength:** 5  
**MaxLength:** 32

### connectivityInfo

Information about the cluster access configuration.

**Type:** [ConnectivityInfo](#) (p. 32)  
**Required:** False

### securityGroups

The security groups to attach to the ENIs for the broker nodes.

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

### brokerAZDistribution

The distribution of broker nodes across Availability Zones.

**Type:** [BrokerAZDistribution](#) (p. 27)  
**Required:** False

### storageInfo

Data volume information.

**Type:** [StorageInfo](#) (p. 43)  
**Required:** False

## BrokerSoftwareInfo

Information about current software installed in the cluster.

### **configurationRevision**

Revision of the configuration to use.

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

### **kafkaVersion**

The version of Apache Kafka to install and run on the cluster.

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

### **configurationArn**

ARN of the configuration used on the cluster.

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

## **ClientAuthentication**

Includes all client authentication information.

### **sasl**

Details for ClientAuthentication using SASL.

**Type:** [Sasl \(p. 41\)](#)  
**Required:** False

### **unauthenticated**

Details for ClientAuthentication using no authentication.

**Type:** [Unauthenticated \(p. 44\)](#)  
**Required:** False

### **tls**

Details for ClientAuthentication using TLS.

**Type:** [Tls \(p. 44\)](#)  
**Required:** False

## **ClientBroker**

Client-broker encryption in transit setting.

TLS  
TLS\_PLAINTEXT  
PLAINTEXT



## CloudWatchLogs

CloudWatchLogs details for BrokerLogs.

### logGroup

CloudWatch LogGroup where the logs will be delivered.

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

### enabled

Broker logs for destination CW enabled or not.

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

## Cluster

Returns information about a cluster.

### clusterType

Type of the backend cluster.

**Type:** [ClusterType](#) (p. 32)  
**Required:** False

### clusterArn

The Amazon Resource Name (ARN) of the cluster.

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

### activeOperationArn

Arn of active cluster operation.

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

### provisioned

Properties of a provisioned cluster.

**Type:** [Provisioned](#) (p. 38)  
**Required:** False

### creationTime

The time when the cluster was created.

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

### **clusterName**

The name of the cluster.

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

### **serverless**

Properties of a serverless cluster.

**Type:** [Serverless \(p. 42\)](#)  
**Required:** False

### **stateInfo**

Includes information of the cluster state.

**Type:** [StateInfo \(p. 43\)](#)  
**Required:** False

### **state**

State of the cluster.

**Type:** [ClusterState \(p. 31\)](#)  
**Required:** False

### **currentVersion**

Current version of cluster.

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

### **tags**

Tags attached to the cluster.

**Type:** object  
**Required:** False

## **ClusterState**

The state of an MSK cluster.

ACTIVE  
CREATING  
UPDATING  
DELETING  
FAILED  
MAINTENANCE  
REBOOTING\_BROKER  
HEALING

## ClusterType

The type of backend cluster.

PROVISIONED  
SERVERLESS

## ConfigurationInfo

Specifies the configuration to be used on 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 brokers

**Type:** [PublicAccess \(p. 41\)](#)  
**Required:** False

## CreateClusterV2Request

Creates a provisioned or serverless cluster.

### provisioned

Properties required for creating a provisioned cluster.

**Type:** [ProvisionedRequest \(p. 39\)](#)  
**Required:** False

### clusterName

The name of the cluster.

**Type:** string

**Required:** True  
**MinLength:** 1  
**MaxLength:** 64

### **serverless**

Properties required for creating a serverless cluster.

**Type:** [ServerlessRequest](#) (p. 43)  
**Required:** False

### **tags**

Create tags when creating the cluster.

**Type:** object  
**Required:** False

## CreateClusterV2Response

Returns information about the created cluster.

### **clusterType**

Type of the backend cluster.

**Type:** [ClusterType](#) (p. 32)  
**Required:** False

### **clusterArn**

The Amazon Resource Name (ARN) of the cluster.

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

### **clusterName**

Name of the cluster provided by the customer.

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

### **state**

State of the cluster.

**Type:** [ClusterState](#) (p. 31)  
**Required:** False

## EBSStorageInfo

Contains information about the EBS storage volumes that are attached to the brokers.

### **provisionedThroughput**

EBS volume provisioned throughput information.

**Type:** [ProvisionedThroughput \(p. 40\)](#)

**Required:** False

### **volumeSize**

The size of the EBS volumes for the data drive on each of the brokers in GiB.

**Type:** integer

**Required:** False

**Minimum:** 1

**Maximum:** 16384

## **EncryptionAtRest**

Details for encryption at rest.

### **dataVolumeKMSKeyId**

KMS key used for data volume encryption.

**Type:** string

**Required:** True

## **EncryptionInTransit**

Details for encryption in transit.

### **inCluster**

In-cluster encryption in transit setting.

**Type:** boolean

**Required:** False

### **clientBroker**

Client-broker encryption in transit setting.

**Type:** [ClientBroker \(p. 29\)](#)

**Required:** False

## **EncryptionInfo**

Includes all encryption related information.

### **encryptionInTransit**

Details for encryption in transit.

**Type:** [EncryptionInTransit \(p. 34\)](#)

**Required:** False

### **encryptionAtRest**

Details for encryption at rest.

**Type:** [EncryptionAtRest \(p. 34\)](#)

**Required:** False

## EnhancedMonitoring

Controls level of cluster metrics Amazon pushes to customer's cloudwatch account.

DEFAULT  
PER\_BROKER  
PER\_TOPIC\_PER\_BROKER  
PER\_TOPIC\_PER\_PARTITION

## Firehose

Firehose details for BrokerLogs.

### **deliveryStream**

Firehose delivery stream where the logs will be delivered.

**Type:** string

**Required:** False

### **enabled**

Broker logs for destination firehose enabled or not.

**Type:** boolean

**Required:** True

## IAM

Details for SASL/IAM client authentication.

### **enabled**

SASL/IAM authentication is enabled or not.

**Type:** boolean

**Required:** False

## JmxExporter

JMX Exporter details.

### **enabledInBroker**

JMX Exporter being enabled in broker.

**Type:** boolean

**Required:** True

## JmxExporterInfo

JMX Exporter details.

### **enabledInBroker**

JMX Exporter being enabled in broker.

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

## ListClustersV2Response

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

### **nextToken**

If the response of ListClustersV2 is truncated, it returns a NextToken in the response. Pass this NextToken in a subsequent request to ListClustersV2 to get the next set of results.

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

### **clusterInfoList**

An array of clusters.

**Type:** Array of type [Cluster \(p. 30\)](#)  
**Required:** False

## LoggingInfo

Logging info details for the cluster.

### **brokerLogs**

Broker Logs details.

**Type:** [BrokerLogs \(p. 27\)](#)  
**Required:** True

## NodeExporter

Node Exporter details.

### **enabledInBroker**

Node Exporter being enabled in broker.

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

## NodeExporterInfo

Node Exporter details.

### **enabledInBroker**

Node Exporter being enabled in broker.

**Type:** boolean

**Required:** True

## OpenMonitoring

JMX and Node monitoring for cluster.

### **prometheus**

Prometheus details.

**Type:** [Prometheus \(p. 37\)](#)

**Required:** True

## OpenMonitoringInfo

JMX and Node monitoring for the cluster.

### **prometheus**

Prometheus details.

**Type:** [PrometheusInfo \(p. 37\)](#)

**Required:** True

## Prometheus

Prometheus details.

### **nodeExporter**

Node Exporter details.

**Type:** [NodeExporter \(p. 36\)](#)

**Required:** False

### **jmxExporter**

JMX Exporter details.

**Type:** [JmxExporter \(p. 35\)](#)

**Required:** False

## PrometheusInfo

Prometheus details.

### **nodeExporter**

Node Exporter details.



**Type:** [NodeExporterInfo](#) (p. 36)  
**Required:** False

### **jmxExporter**

JMX Exporter details.

**Type:** [JmxExporterInfo](#) (p. 36)  
**Required:** False

## Provisioned

Properties of a provisioned cluster.

### **encryptionInfo**

Includes all encryption related information.

**Type:** [EncryptionInfo](#) (p. 34)  
**Required:** False

### **numberOfBrokerNodes**

The number of brokers to create in the cluster.

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

### **zookeeperConnectionString**

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

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

### **enhancedMonitoring**

This knob controls level of metrics pushed customer's cloudwatch account.

**Type:** [EnhancedMonitoring](#) (p. 35)  
**Required:** False

### **zookeeperConnectionStringTls**

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

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

### **clientAuthentication**

Includes all client authentication information.

**Type:** [ClientAuthentication](#) (p. 29)

**Required:** False

### **loggingInfo**

Logging Info details.

**Type:** [LoggingInfo](#) (p. 36)

**Required:** False

### **brokerNodeGroupInfo**

Information about the brokers of the cluster.

**Type:** [BrokerNodeGroupInfo](#) (p. 28)

**Required:** False

### **openMonitoring**

Open monitoring details.

**Type:** [OpenMonitoring](#) (p. 37)

**Required:** False

### **currentBrokerSoftwareInfo**

Information about the version of the software that is deployed on the brokers of the cluster.

**Type:** [BrokerSoftwareInfo](#) (p. 28)

**Required:** False

## **ProvisionedRequest**

Properties for creating a provisioned cluster.

### **encryptionInfo**

Includes all encryption related information.

**Type:** [EncryptionInfo](#) (p. 34)

**Required:** False

### **numberOfBrokerNodes**

The number of brokers to create in the cluster.

**Type:** integer

**Required:** False

### **configurationInfo**

The configuration to be used on the brokers.

**Type:** [ConfigurationInfo](#) (p. 32)

**Required:** False

### **enhancedMonitoring**

Specifies the monitoring level for the cluster.

**Type:** [EnhancedMonitoring](#) (p. 35)

**Required:** False

### **kafkaVersion**

The version of Apache Kafka to install and run on the cluster.

**Type:** string

**Required:** False

**MinLength:** 1

**MaxLength:** 128

### **clientAuthentication**

Includes all client authentication related information.

**Type:** [ClientAuthentication](#) (p. 29)

**Required:** False

### **loggingInfo**

Logging Info details.

**Type:** [LoggingInfo](#) (p. 36)

**Required:** False

### **brokerNodeGroupInfo**

Information about the brokers of the cluster.

**Type:** [BrokerNodeGroupInfo](#) (p. 28)

**Required:** False

### **openMonitoring**

The open-monitoring details.

**Type:** [OpenMonitoringInfo](#) (p. 37)

**Required:** False

## **ProvisionedThroughput**

Contains information about provisioned throughput for the EBS storage volumes that are attached to the brokers.

### **volumeThroughput**

Throughput value of the EBS volumes for the data drive on each broker in MiB per second.

**Type:** integer

**Required:** False

### **enabled**

Whether provisioned throughput is turned on.

**Type:** boolean

**Required:** False

## PublicAccess

Broker access controls

### **type**

If public access is disabled, or if enabled the EIP provider

**Type:** string

**Required:** False

## S3

S3 details for BrokerLogs.

### **bucket**

Name of the bucket where the logs will be delivered.

**Type:** string

**Required:** False

### **prefix**

prefix to the S3 bucket where the logs will be delivered.

**Type:** string

**Required:** False

### **enabled**

Broker logs for destination S3 enabled or not.

**Type:** boolean

**Required:** True

## Sasl

Details for client authentication using SASL.

### **iam**

Details for ClientAuthentication using IAM.

**Type:** [IAM \(p. 35\)](#)

**Required:** False

### **scram**

Details for SASL/SCRAM client authentication.

**Type:** [Scram \(p. 42\)](#)

**Required:** False

## Scram

Details for SASL/SCRAM client authentication.

### **enabled**

SASL/SCRAM authentication is enabled or not.

**Type:** boolean

**Required:** False

## Serverless

Properties to create a serverless cluster

### **vpcConfigs**

VPC configuration information

**Type:** Array of type [VpcConfig \(p. 44\)](#)

**Required:** True

### **kafkaVersion**

The version of Apache Kafka for the serverless cluster.

**Type:** string

**Required:** False

### **clientAuthentication**

Includes all client authentication related information.

**Type:** [ServerlessClientAuthentication \(p. 42\)](#)

**Required:** True

## ServerlessClientAuthentication

Details for client authentication using SASL.

### **sasl**

Details for ClientAuthentication using IAM.

**Type:** [ServerlessSasl \(p. 43\)](#)

**Required:** False

## ServerlessRequest

Properties for creating a serverless cluster.

### vpcConfigs

VPC configuration information

**Type:** Array of type [VpcConfig \(p. 44\)](#)

**Required:** True

### clientAuthentication

Includes all client authentication related information.

**Type:** [ServerlessClientAuthentication \(p. 42\)](#)

**Required:** True

## ServerlessSasl

Details for client authentication using SASL for Serverless Cluster.

### iam

Details for ClientAuthentication using IAM for Serverless Cluster.

**Type:** [IAM \(p. 35\)](#)

**Required:** False

## StateInfo

Includes information about the cluster state.

### code

Code for cluster state.

**Type:** string

**Required:** False

### message

Message for cluster state.

**Type:** string

**Required:** False

## StorageInfo

Contains information about the storage volumes that are attached to the brokers.

### **ebsStorageInfo**

EBS volume information.

**Type:** [EBSStorageInfo \(p. 33\)](#)

**Required:** False

## Tls

The details of client authentication using TLS.

### **certificateAuthorityArnList**

List of ACM CertificateAuthority ARNs.

**Type:** Array of type string

**Required:** False

### **enabled**

Whether TLS authentication is turned on.

**Type:** boolean

**Required:** False

## Unauthenticated

Details for allowing no client authentication.

### **enabled**

Unauthenticated is enabled or not.

**Type:** boolean

**Required:** False

## VpcConfig

Includes information about subnets and security groups of customer VPC

### **securityGroupIds**

The security groups to attach to the ENIs for the broker nodes.

**Type:** Array of type string

**Required:** False

### **subnetIds**

The list of subnets in the client VPC to connect to.

**Type:** Array of type string

**Required:** True

## See also

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

### ListClustersV2

- [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](#)

### CreateClusterV2

- [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 API Reference 2.0

The following table describes the documentation for this release of ServiceName.

- **API version:** latest
- **Latest documentation update:** Month DD, YYYY

update-history-change	update-history-description	update-history-date
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# AWS glossary

For the latest AWS terminology, see the [AWS glossary](#) in the *AWS General Reference*.