



Welcome

Amazon OpenSearch Service



Amazon OpenSearch Service: Welcome

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Welcome

Amazon OpenSearch Service

Use the Amazon OpenSearch Service configuration API to create, configure, and manage OpenSearch Service domains. The endpoint for configuration service requests is Region specific: *es.region.amazonaws.com*. For example, *es.us-east-1.amazonaws.com*. For a current list of supported Regions and endpoints, see [AWS service endpoints](#).

Amazon OpenSearch Ingestion

Use the Amazon OpenSearch Ingestion API to create and manage ingestion pipelines. OpenSearch Ingestion is a fully managed data collector that delivers real-time log and trace data to OpenSearch Service domains. For more information, see [Getting data into your cluster using OpenSearch Ingestion](#).

Actions

The following actions are supported by Amazon OpenSearch Service:

- [AcceptInboundConnection](#)
- [AddDataSource](#)
- [AddTags](#)
- [AssociatePackage](#)
- [AuthorizeVpcEndpointAccess](#)
- [CancelDomainConfigChange](#)
- [CancelServiceSoftwareUpdate](#)
- [CreateDomain](#)
- [CreateOutboundConnection](#)
- [CreatePackage](#)
- [CreateVpcEndpoint](#)
- [DeleteDataSource](#)
- [DeleteDomain](#)
- [DeleteInboundConnection](#)
- [DeleteOutboundConnection](#)
- [DeletePackage](#)
- [DeleteVpcEndpoint](#)
- [DescribeDomain](#)
- [DescribeDomainAutoTunes](#)
- [DescribeDomainChangeProgress](#)
- [DescribeDomainConfig](#)
- [DescribeDomainHealth](#)
- [DescribeDomainNodes](#)
- [DescribeDomains](#)
- [DescribeDryRunProgress](#)
- [DescribeInboundConnections](#)
- [DescribeInstanceTypeLimits](#)

- [DescribeOutboundConnections](#)
- [DescribePackages](#)
- [DescribeReservedInstanceOfferings](#)
- [DescribeReservedInstances](#)
- [DescribeVpcEndpoints](#)
- [DissociatePackage](#)
- [GetCompatibleVersions](#)
- [GetDataSource](#)
- [GetDomainMaintenanceStatus](#)
- [GetPackageVersionHistory](#)
- [GetUpgradeHistory](#)
- [GetUpgradeStatus](#)
- [ListDataSources](#)
- [ListDomainMaintenances](#)
- [ListDomainNames](#)
- [ListDomainsForPackage](#)
- [ListInstanceTypeDetails](#)
- [ListPackagesForDomain](#)
- [ListScheduledActions](#)
- [ListTags](#)
- [ListVersions](#)
- [ListVpcEndpointAccess](#)
- [ListVpcEndpoints](#)
- [ListVpcEndpointsForDomain](#)
- [PurchaseReservedInstanceOffering](#)
- [RejectInboundConnection](#)
- [RemoveTags](#)
- [RevokeVpcEndpointAccess](#)
- [StartDomainMaintenance](#)
- [StartServiceSoftwareUpdate](#)

- [UpdateDataSource](#)
- [UpdateDomainConfig](#)
- [UpdatePackage](#)
- [UpdateScheduledAction](#)
- [UpdateVpcEndpoint](#)
- [UpgradeDomain](#)

The following actions are supported by Amazon OpenSearch Ingestion:

- [CreatePipeline](#)
- [DeletePipeline](#)
- [GetPipeline](#)
- [GetPipelineBlueprint](#)
- [GetPipelineChangeProgress](#)
- [ListPipelineBlueprints](#)
- [ListPipelines](#)
- [ListTagsForResource](#)
- [StartPipeline](#)
- [StopPipeline](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdatePipeline](#)
- [ValidatePipeline](#)

Amazon OpenSearch Service

The following actions are supported by Amazon OpenSearch Service:

- [AcceptInboundConnection](#)
- [AddDataSource](#)
- [AddTags](#)
- [AssociatePackage](#)

- [AuthorizeVpcEndpointAccess](#)
- [CancelDomainConfigChange](#)
- [CancelServiceSoftwareUpdate](#)
- [CreateDomain](#)
- [CreateOutboundConnection](#)
- [CreatePackage](#)
- [CreateVpcEndpoint](#)
- [DeleteDataSource](#)
- [DeleteDomain](#)
- [DeleteInboundConnection](#)
- [DeleteOutboundConnection](#)
- [DeletePackage](#)
- [DeleteVpcEndpoint](#)
- [DescribeDomain](#)
- [DescribeDomainAutoTunes](#)
- [DescribeDomainChangeProgress](#)
- [DescribeDomainConfig](#)
- [DescribeDomainHealth](#)
- [DescribeDomainNodes](#)
- [DescribeDomains](#)
- [DescribeDryRunProgress](#)
- [DescribeInboundConnections](#)
- [DescribeInstanceTypeLimits](#)
- [DescribeOutboundConnections](#)
- [DescribePackages](#)
- [DescribeReservedInstanceOfferings](#)
- [DescribeReservedInstances](#)
- [DescribeVpcEndpoints](#)
- [DissociatePackage](#)
- [GetCompatibleVersions](#)

- [GetDataSource](#)
- [GetDomainMaintenanceStatus](#)
- [GetPackageVersionHistory](#)
- [GetUpgradeHistory](#)
- [GetUpgradeStatus](#)
- [ListDataSources](#)
- [ListDomainMaintenances](#)
- [ListDomainNames](#)
- [ListDomainsForPackage](#)
- [ListInstanceTypeDetails](#)
- [ListPackagesForDomain](#)
- [ListScheduledActions](#)
- [ListTags](#)
- [ListVersions](#)
- [ListVpcEndpointAccess](#)
- [ListVpcEndpoints](#)
- [ListVpcEndpointsForDomain](#)
- [PurchaseReservedInstanceOffering](#)
- [RejectInboundConnection](#)
- [RemoveTags](#)
- [RevokeVpcEndpointAccess](#)
- [StartDomainMaintenance](#)
- [StartServiceSoftwareUpdate](#)
- [UpdateDataSource](#)
- [UpdateDomainConfig](#)
- [UpdatePackage](#)
- [UpdateScheduledAction](#)
- [UpdateVpcEndpoint](#)
- [UpgradeDomain](#)

AcceptInboundConnection

Service: Amazon OpenSearch Service

Allows the destination Amazon OpenSearch Service domain owner to accept an inbound cross-cluster search connection request. For more information, see [Cross-cluster search for Amazon OpenSearch Service](#).

Request Syntax

```
PUT /2021-01-01/opensearch/cc/inboundConnection/ConnectionId/accept HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

ConnectionId

The ID of the inbound connection to accept.

Length Constraints: Minimum length of 10. Maximum length of 256.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Connection": {
    "ConnectionId": "string",
    "ConnectionMode": "string",
    "ConnectionStatus": {
      "Message": "string",
      "StatusCode": "string"
    }
  }
}
```

```
    },
    "LocalDomainInfo": {
      "AWSDomainInformation": {
        "DomainName": "string",
        "OwnerId": "string",
        "Region": "string"
      }
    },
    "RemoteDomainInfo": {
      "AWSDomainInformation": {
        "DomainName": "string",
        "OwnerId": "string",
        "Region": "string"
      }
    }
  }
}
```

Response Elements

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

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

Connection

Information about the accepted inbound connection.

Type: [InboundConnection](#) object

Errors

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

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

AddDataSource

Service: Amazon OpenSearch Service

Creates a new direct-query data source to the specified domain. For more information, see [Creating Amazon OpenSearch Service data source integrations with Amazon S3](#).

Request Syntax

```
POST /2021-01-01/opensearch/domain/DomainName/dataSource HTTP/1.1
Content-type: application/json
```

```
{
  "DataSourceType": { ... },
  "Description": "string",
  "Name": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

[DomainName](#)

The name of the domain to add the data source to.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

[DataSourceType](#)

The type of data source.

Type: [DataSourceType](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

Description

A description of the data source.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `^([a-zA-Z0-9_])*[\a-zA-Z0-9_@#%*+=:?./!\s-]*$`

Required: No

Name

A name for the data source.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 80.

Pattern: `[a-z][a-z0-9_]+`

Required: Yes

Response Syntax

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

{
  "Message": "string"
}
```

Response Elements

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

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

Message

A message associated with creation of the data source.

Type: String

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DependencyFailureException

An exception for when a failure in one of the dependencies results in the service being unable to fetch details about the resource.

HTTP Status Code: 424

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

AddTags

Service: Amazon OpenSearch Service

Attaches tags to an existing Amazon OpenSearch Service domain. Tags are a set of case-sensitive key-value pairs. A domain can have up to 10 tags. For more information, see [Tagging Amazon OpenSearch Service domains](#).

Request Syntax

```
POST /2021-01-01/tags HTTP/1.1
Content-type: application/json
```

```
{
  "ARN": "string",
  "TagList": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

ARN

Amazon Resource Name (ARN) for the OpenSearch Service domain to which you want to attach resource tags.

Type: String

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

Pattern: . *

Required: Yes

TagList

List of resource tags.

Type: Array of [Tag](#) objects

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of AddTags.

Sample Request

```
POST /2021-01-01/tags HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
Content-Type: application/json
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/
opensearch.add-tags
X-Amz-Date: 20240212T212009Z
X-Amz-Security-Token: IQoJb3JpZ21uX2VjEI3wEaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240212/us-east-1/es/
aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-security-token,
Signature=92f6df10a81b7b553dbdab348594794df6272ea6799e4e9bae8aec96cfa44510
Content-Length: 118
{"ARN": "arn:aws:es:us-east-1:123456789012:domain/marketing", "TagList": [{"Key":
"department", "Value": "marketing"}]}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: 6ab4cde74-63fg-4h65-1101-d1112f029bbb
Content-Type: application/json
Content-Length: 0
Date: Mon, 12 Feb 2024 21:20:10 GMT
Connection: keep-alive
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

AssociatePackage

Service: Amazon OpenSearch Service

Associates a package with an Amazon OpenSearch Service domain. For more information, see [Custom packages for Amazon OpenSearch Service](#).

Request Syntax

```
POST /2021-01-01/packages/associate/PackageID/DomainName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

Name of the domain to associate the package with.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

PackageID

Internal ID of the package to associate with a domain. Use `DescribePackages` to find this value.

Pattern: `^([FG][0-9]+)$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

```
{
  "DomainPackageDetails": {
    "DomainName": "string",
    "DomainPackageStatus": "string",
    "ErrorDetails": {
      "ErrorMessage": "string",
      "ErrorType": "string"
    },
    "LastUpdated": number,
    "PackageID": "string",
    "PackageName": "string",
    "PackageType": "string",
    "PackageVersion": "string",
    "ReferencePath": "string"
  }
}
```

Response Elements

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

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

DomainPackageDetails

Information about a package that is associated with a domain.

Type: [DomainPackageDetails](#) object

Errors

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

AccessDeniedException

An error occurred because you don't have permissions to access the resource.

HTTP Status Code: 403

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

ConflictException

An error occurred because the client attempts to remove a resource that is currently in use.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

AuthorizeVpcEndpointAccess

Service: Amazon OpenSearch Service

Provides access to an Amazon OpenSearch Service domain through the use of an interface VPC endpoint.

Request Syntax

```
POST /2021-01-01/opensearch/domain/DomainName/authorizeVpcEndpointAccess HTTP/1.1
Content-type: application/json
```

```
{
  "Account": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the OpenSearch Service domain to provide access to.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: [a-z][a-z0-9\ -]+

Required: Yes

Request Body

The request accepts the following data in JSON format.

Account

The AWS account ID to grant access to.

Type: String

Pattern: ^[0-9]+\$

Required: Yes

Response Syntax

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

{
  "AuthorizedPrincipal": {
    "Principal": "string",
    "PrincipalType": "string"
  }
}
```

Response Elements

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

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

AuthorizedPrincipal

Information about the AWS account or service that was provided access to the domain.

Type: [AuthorizedPrincipal](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

CancelDomainConfigChange

Service: Amazon OpenSearch Service

Cancels a pending configuration change on an Amazon OpenSearch Service domain.

Request Syntax

```
POST /2021-01-01/opensearch/domain/DomainName/config/cancel HTTP/1.1
Content-type: application/json

{
  "DryRun": boolean
}
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of an OpenSearch Service domain. Domain names are unique across the domains owned by an account within an AWS Region.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

DryRun

When set to `True`, returns the list of change IDs and properties that will be cancelled without actually cancelling the change.

Type: Boolean

Required: No

Response Syntax

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

{
  "CancelledChangeIds": [ "string" ],
  "CancelledChangeProperties": [
    {
      "ActiveValue": "string",
      "CancelledValue": "string",
      "PropertyName": "string"
    }
  ],
  "DryRun": boolean
}
```

Response Elements

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

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

[CancelledChangeIds](#)

The unique identifiers of the changes that were cancelled.

Type: Array of strings

Length Constraints: Fixed length of 36.

Pattern: `\p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}`

[CancelledChangeProperties](#)

The domain change properties that were cancelled.

Type: Array of [CancelledChangeProperty](#) objects

[DryRun](#)

Whether or not the request was a dry run. If `True`, the changes were not actually cancelled.

Type: Boolean

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

CancelServiceSoftwareUpdate

Service: Amazon OpenSearch Service

Cancels a scheduled service software update for an Amazon OpenSearch Service domain. You can only perform this operation before the `AutomatedUpdateDate` and when the domain's `UpdateStatus` is `PENDING_UPDATE`. For more information, see [Service software updates in Amazon OpenSearch Service](#).

Request Syntax

```
POST /2021-01-01/opensearch/serviceSoftwareUpdate/cancel HTTP/1.1
Content-type: application/json

{
  "DomainName": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

[DomainName](#)

Name of the OpenSearch Service domain that you want to cancel the service software update on.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Response Syntax

```
HTTP/1.1 200
```



```
Content-type: application/json

{
  "ServiceSoftwareOptions": {
    "AutomatedUpdateDate": number,
    "Cancellable": boolean,
    "CurrentVersion": "string",
    "Description": "string",
    "NewVersion": "string",
    "OptionalDeployment": boolean,
    "UpdateAvailable": boolean,
    "UpdateStatus": "string"
  }
}
```

Response Elements

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

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

ServiceSoftwareOptions

Container for the state of your domain relative to the latest service software.

Type: [ServiceSoftwareOptions](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

CreateDomain

Service: Amazon OpenSearch Service

Creates an Amazon OpenSearch Service domain. For more information, see [Creating and managing Amazon OpenSearch Service domains](#).

Request Syntax

```
POST /2021-01-01/opensearch/domain HTTP/1.1
Content-type: application/json
```

```
{
  "AccessPolicies": "string",
  "AdvancedOptions": {
    "string": "string"
  },
  "AdvancedSecurityOptions": {
    "AnonymousAuthEnabled": boolean,
    "Enabled": boolean,
    "InternalUserDatabaseEnabled": boolean,
    "JWTOptions": {
      "Enabled": boolean,
      "PublicKey": "string",
      "RolesKey": "string",
      "SubjectKey": "string"
    },
    "MasterUserOptions": {
      "MasterUserARN": "string",
      "MasterUserName": "string",
      "MasterUserPassword": "string"
    },
    "SAMLOptions": {
      "Enabled": boolean,
      "Idp": {
        "EntityId": "string",
        "MetadataContent": "string"
      },
      "MasterBackendRole": "string",
      "MasterUserName": "string",
      "RolesKey": "string",
      "SessionTimeoutMinutes": number,
      "SubjectKey": "string"
    }
  }
}
```

```
},
"AutoTuneOptions": {
  "DesiredState": "string",
  "MaintenanceSchedules": [
    {
      "CronExpressionForRecurrence": "string",
      "Duration": {
        "Unit": "string",
        "Value": number
      },
      "StartAt": number
    }
  ],
  "UseOffPeakWindow": boolean
},
"ClusterConfig": {
  "ColdStorageOptions": {
    "Enabled": boolean
  },
  "DedicatedMasterCount": number,
  "DedicatedMasterEnabled": boolean,
  "DedicatedMasterType": "string",
  "InstanceCount": number,
  "InstanceType": "string",
  "MultiAZWithStandbyEnabled": boolean,
  "WarmCount": number,
  "WarmEnabled": boolean,
  "WarmType": "string",
  "ZoneAwarenessConfig": {
    "AvailabilityZoneCount": number
  },
  "ZoneAwarenessEnabled": boolean
},
"CognitoOptions": {
  "Enabled": boolean,
  "IdentityPoolId": "string",
  "RoleArn": "string",
  "UserPoolId": "string"
},
"DomainEndpointOptions": {
  "CustomEndpoint": "string",
  "CustomEndpointCertificateArn": "string",
  "CustomEndpointEnabled": boolean,
  "EnforceHTTPS": boolean,
```

```
    "TLSSecurityPolicy": "string"
  },
  "DomainName": "string",
  "EBSOptions": {
    "EBSEnabled": boolean,
    "Iops": number,
    "Throughput": number,
    "VolumeSize": number,
    "VolumeType": "string"
  },
  "EncryptionAtRestOptions": {
    "Enabled": boolean,
    "KmsKeyId": "string"
  },
  "EngineVersion": "string",
  "IPAddressType": "string",
  "LogPublishingOptions": {
    "string" : {
      "CloudWatchLogsLogGroupArn": "string",
      "Enabled": boolean
    }
  },
  "NodeToNodeEncryptionOptions": {
    "Enabled": boolean
  },
  "OffPeakWindowOptions": {
    "Enabled": boolean,
    "OffPeakWindow": {
      "WindowStartTime": {
        "Hours": number,
        "Minutes": number
      }
    }
  },
  "SnapshotOptions": {
    "AutomatedSnapshotStartHour": number
  },
  "SoftwareUpdateOptions": {
    "AutoSoftwareUpdateEnabled": boolean
  },
  "TagList": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

```
    }  
  ],  
  "VPCOptions": {  
    "SecurityGroupIds": [ "string" ],  
    "SubnetIds": [ "string" ]  
  }  
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

AccessPolicies

Identity and Access Management (IAM) policy document specifying the access policies for the new domain.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 102400.

Pattern: .*

Required: No

AdvancedOptions

Key-value pairs to specify advanced configuration options. The following key-value pairs are supported:

- "rest.action.multi.allow_explicit_index": "true" | "false" - Note the use of a string rather than a boolean. Specifies whether explicit references to indexes are allowed inside the body of HTTP requests. If you want to configure access policies for domain sub-resources, such as specific indexes and domain APIs, you must disable this property. Default is true.
- "indices fielddata.cache.size": "80" - Note the use of a string rather than a boolean. Specifies the percentage of heap space allocated to field data. Default is unbounded.

- "indices.query.bool.max_clause_count": "1024" - Note the use of a string rather than a boolean. Specifies the maximum number of clauses allowed in a Lucene boolean query. Default is 1,024. Queries with more than the permitted number of clauses result in a TooManyClauses error.
- "override_main_response_version": "true" | "false" - Note the use of a string rather than a boolean. Specifies whether the domain reports its version as 7.10 to allow Elasticsearch OSS clients and plugins to continue working with it. Default is false when creating a domain and true when upgrading a domain.

For more information, see [Advanced cluster parameters](#).

Type: String to string map

Required: No

[AdvancedSecurityOptions](#)

Options for fine-grained access control.

Type: [AdvancedSecurityOptionsInput](#) object

Required: No

[AutoTuneOptions](#)

Options for Auto-Tune.

Type: [AutoTuneOptionsInput](#) object

Required: No

[ClusterConfig](#)

Container for the cluster configuration of a domain.

Type: [ClusterConfig](#) object

Required: No

[CognitoOptions](#)

Key-value pairs to configure Amazon Cognito authentication. For more information, see [Configuring Amazon Cognito authentication for OpenSearch Dashboards](#).

Type: [CognitoOptions](#) object

Required: No

DomainEndpointOptions

Additional options for the domain endpoint, such as whether to require HTTPS for all traffic.

Type: [DomainEndpointOptions](#) object

Required: No

DomainName

Name of the OpenSearch Service domain to create. Domain names are unique across the domains owned by an account within an AWS Region.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

EBSOptions

Container for the parameters required to enable EBS-based storage for an OpenSearch Service domain.

Type: [EBSOptions](#) object

Required: No

EncryptionAtRestOptions

Key-value pairs to enable encryption at rest.

Type: [EncryptionAtRestOptions](#) object

Required: No

EngineVersion

String of format `Elasticsearch_X.Y` or `OpenSearch_X.Y` to specify the engine version for the OpenSearch Service domain. For example, `OpenSearch_1.0` or `Elasticsearch_7.9`. For more information, see [Creating and managing Amazon OpenSearch Service domains](#).

Type: String

Length Constraints: Minimum length of 14. Maximum length of 18.

Pattern: `^Elasticsearch_[0-9]{1}\.[0-9]{1,2}$|^OpenSearch_[0-9]{1,2}\.[0-9]{1,2}$`

Required: No

IPAddressType

Specify either dual stack or IPv4 as your IP address type. Dual stack allows you to share domain resources across IPv4 and IPv6 address types, and is the recommended option. If you set your IP address type to dual stack, you can't change your address type later.

Type: String

Valid Values: `ipv4` | `dualstack`

Required: No

LogPublishingOptions

Key-value pairs to configure log publishing.

Type: String to [LogPublishingOption](#) object map

Valid Keys: `INDEX_SLOW_LOGS` | `SEARCH_SLOW_LOGS` | `ES_APPLICATION_LOGS` | `AUDIT_LOGS`

Required: No

NodeToNodeEncryptionOptions

Enables node-to-node encryption.

Type: [NodeToNodeEncryptionOptions](#) object

Required: No

OffPeakWindowOptions

Specifies a daily 10-hour time block during which OpenSearch Service can perform configuration changes on the domain, including service software updates and Auto-Tune enhancements that require a blue/green deployment. If no options are specified, the default start time of 10:00 P.M. local time (for the Region that the domain is created in) is used.

Type: [OffPeakWindowOptions](#) object

Required: No

SnapshotOptions

DEPRECATED. Container for the parameters required to configure automated snapshots of domain indexes.

Type: [SnapshotOptions](#) object

Required: No

SoftwareUpdateOptions

Software update options for the domain.

Type: [SoftwareUpdateOptions](#) object

Required: No

TagList

List of tags to add to the domain upon creation.

Type: Array of [Tag](#) objects

Required: No

VPCOptions

Container for the values required to configure VPC access domains. If you don't specify these values, OpenSearch Service creates the domain with a public endpoint. For more information, see [Launching your Amazon OpenSearch Service domains using a VPC](#).

Type: [VPCOptions](#) object

Required: No

Response Syntax

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

{
  "DomainStatus": {
    "AccessPolicies": "string",
    "AdvancedOptions": {
```

```

    "string" : "string"
  },
  "AdvancedSecurityOptions": {
    "AnonymousAuthDisableDate": number,
    "AnonymousAuthEnabled": boolean,
    "Enabled": boolean,
    "InternalUserDatabaseEnabled": boolean,
    "JWTOptions": {
      "Enabled": boolean,
      "PublicKey": "string",
      "RolesKey": "string",
      "SubjectKey": "string"
    },
    "SAMLOptions": {
      "Enabled": boolean,
      "Idp": {
        "EntityId": "string",
        "MetadataContent": "string"
      },
      "RolesKey": "string",
      "SessionTimeoutMinutes": number,
      "SubjectKey": "string"
    }
  },
  "ARN": "string",
  "AutoTuneOptions": {
    "ErrorMessage": "string",
    "State": "string",
    "UseOffPeakWindow": boolean
  },
  "ChangeProgressDetails": {
    "ChangeId": "string",
    "ConfigChangeStatus": "string",
    "InitiatedBy": "string",
    "LastUpdatedTime": number,
    "Message": "string",
    "StartTime": number
  },
  "ClusterConfig": {
    "ColdStorageOptions": {
      "Enabled": boolean
    },
    "DedicatedMasterCount": number,
    "DedicatedMasterEnabled": boolean,

```

```

    "DedicatedMasterType": "string",
    "InstanceCount": number,
    "InstanceType": "string",
    "MultiAZWithStandbyEnabled": boolean,
    "WarmCount": number,
    "WarmEnabled": boolean,
    "WarmType": "string",
    "ZoneAwarenessConfig": {
      "AvailabilityZoneCount": number
    },
    "ZoneAwarenessEnabled": boolean
  },
  "CognitoOptions": {
    "Enabled": boolean,
    "IdentityPoolId": "string",
    "RoleArn": "string",
    "UserPoolId": "string"
  },
  "Created": boolean,
  "Deleted": boolean,
  "DomainEndpointOptions": {
    "CustomEndpoint": "string",
    "CustomEndpointCertificateArn": "string",
    "CustomEndpointEnabled": boolean,
    "EnforceHTTPS": boolean,
    "TLSSecurityPolicy": "string"
  },
  "DomainEndpointV2HostedZoneId": "string",
  "DomainId": "string",
  "DomainName": "string",
  "DomainProcessingStatus": "string",
  "EBSOptions": {
    "EBSEnabled": boolean,
    "Iops": number,
    "Throughput": number,
    "VolumeSize": number,
    "VolumeType": "string"
  },
  "EncryptionAtRestOptions": {
    "Enabled": boolean,
    "KmsKeyId": "string"
  },
  "Endpoint": "string",
  "Endpoints": {

```

```
    "string" : "string"
  },
  "EndpointV2": "string",
  "EngineVersion": "string",
  "IPAddressType": "string",
  "LogPublishingOptions": {
    "string" : {
      "CloudWatchLogsLogGroupArn": "string",
      "Enabled": boolean
    }
  },
  "ModifyingProperties": [
    {
      "ActiveValue": "string",
      "Name": "string",
      "PendingValue": "string",
      "ValueType": "string"
    }
  ],
  "NodeToNodeEncryptionOptions": {
    "Enabled": boolean
  },
  "OffPeakWindowOptions": {
    "Enabled": boolean,
    "OffPeakWindow": {
      "WindowStartTime": {
        "Hours": number,
        "Minutes": number
      }
    }
  },
  "Processing": boolean,
  "ServiceSoftwareOptions": {
    "AutomatedUpdateDate": number,
    "Cancellable": boolean,
    "CurrentVersion": "string",
    "Description": "string",
    "NewVersion": "string",
    "OptionalDeployment": boolean,
    "UpdateAvailable": boolean,
    "UpdateStatus": "string"
  },
  "SnapshotOptions": {
    "AutomatedSnapshotStartHour": number
  }
}
```

```
    },
    "SoftwareUpdateOptions": {
      "AutoSoftwareUpdateEnabled": boolean
    },
    "UpgradeProcessing": boolean,
    "VPCOptions": {
      "AvailabilityZones": [ "string" ],
      "SecurityGroupIds": [ "string" ],
      "SubnetIds": [ "string" ],
      "VPCId": "string"
    }
  }
}
```

Response Elements

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

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

DomainStatus

The status of the newly created domain.

Type: [DomainStatus](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

InvalidTypeException

An exception for trying to create or access a sub-resource that's either invalid or not supported.

HTTP Status Code: 409

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ResourceAlreadyExistsException

An exception for creating a resource that already exists.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of CreateDomain.

Sample Request

```
POST /2021-01-01/opensearch/domain HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
Content-Type: application/json
User-Agent: aws-cli/2.15.0 Python/3.11.6 Darwin/23.3.0 exe/x86_64 prompt/off command/
opensearch.create-domain
X-Amz-Date: 20240212T202032Z
X-Amz-Security-Token: IQoJb3JpZ2luX2VjEI3wEaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240212/us-east-1/es/
aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-security-token,
Signature=dfbf9b8975a263d23a24fead9c4a409a6c7ef1c42e67c96252bf9bb794d1ea52
```

Content-Length: 645

```
{
  "DomainName": "my-domain",
  "EngineVersion": "OpenSearch_2.11",
  "ClusterConfig": {
    "InstanceType": "r6g.xlarge.search",
    "InstanceCount": 10,
    "DedicatedMasterEnabled": true,
    "DedicatedMasterType": "r6g.large.search",
    "DedicatedMasterCount": 3,
    "EBSOptions": {
      "EBSEnabled": true,
      "VolumeType": "io1",
      "VolumeSize": 100,
      "Iops": 1000
    },
    "AccessPolicies": "{\n\"Version\": \"2012-10-17\", \"Statement\": [ { \"Effect\": \"Allow\", \"Principal\": { \"AWS\": \"arn:aws:iam::123456789012:root\" }, \"Action\": \"es:*\", \"Resource\": \"arn:aws:es:us-east-1:123456789012:domain/my-domain/*\" } ] }",
    "AutoTuneOptions": {"DesiredState": "ENABLED"}
  }
}
```

Sample Response

```
{
  "DomainStatus": {
    "ARN": "arn:aws:es:us-east-1:123456789012:domain/my-domain",
    "AccessPolicies": "{\n\"Version\": \"2012-10-17\", \"Statement\": [{ \"Effect\": \"Allow\", \"Principal\": { \"AWS\": \"arn:aws:iam::478253424788:root\" }, \"Action\": \"es:*\", \"Resource\": \"arn:aws:es:us-east-1:123456789012:domain/my-domain/*\" } ] }",
    "AdvancedOptions": {
      "override_main_response_version": "false",
      "rest.action.multi.allow_explicit_index": "true"
    },
    "AdvancedSecurityOptions": {
      "AnonymousAuthDisableDate": null,
      "AnonymousAuthEnabled": false,
      "Enabled": false,
      "InternalUserDatabaseEnabled": false,
      "SAMLOptions": null
    },
    "AutoTuneOptions": {
      "ErrorMessage": null,
      "State": "ENABLE_IN_PROGRESS",
      "UseOffPeakWindow": false
    },
    "ChangeProgressDetails": {
      "ChangeId": "388f35e8-5d0c-44ae-bcd1-ffd468df9908",
      "ConfigChangeStatus": "Pending",
      "InitiatedBy": "CUSTOMER",
      "LastUpdatedTime": 1.707769234762E9,
      "Message": null,
      "StartTime": 1.707769234762E9
    }
  }
}
```



```
"ClusterConfig": {
  "ColdStorageOptions": {
    "Enabled": false
  },
  "DedicatedMasterCount": 3,
  "DedicatedMasterEnabled": true,
  "DedicatedMasterType": "r6g.large.search",
  "InstanceCount": 10,
  "InstanceType": "r6g.xlarge.search",
  "MultiAZWithStandbyEnabled": false,
  "WarmCount": null,
  "WarmEnabled": false,
  "WarmStorage": null,
  "WarmType": null,
  "ZoneAwarenessConfig": null,
  "ZoneAwarenessEnabled": false
},
"CognitoOptions": {
  "Enabled": false,
  "IdentityPoolId": null,
  "RoleArn": null,
  "UserPoolId": null
},
"Created": true,
"Deleted": false,
"DomainEndpointOptions": {
  "CustomEndpoint": null,
  "CustomEndpointCertificateArn": null,
  "CustomEndpointEnabled": false,
  "EnforceHTTPS": false,
  "TLSSecurityPolicy": "Policy-Min-TLS-1-0-2019-07"
},
"DomainId": "123456789012/my-domain",
"DomainName": "my-domain",
"DomainProcessingStatus": "Creating",
"EBSOptions": {
  "EBSEnabled": true,
  "Iops": 1000,
  "Throughput": null,
  "VolumeSize": 100,
  "VolumeType": "io1"
},
"EncryptionAtRestOptions": {
  "Enabled": false,
```

```

    "KmsKeyId": null
  },
  "Endpoint": null,
  "Endpoints": null,
  "EngineVersion": "OpenSearch_2.11",
  "IPAddressType": "ipv4",
  "LogPublishingOptions": null,
  "ModifyingProperties": [{
    "ActiveValue": "",
    "Name": "AccessPolicies",
    "PendingValue": "{\"Version\":\"2012-10-17\",\"Statement\":[{\"Effect\":\"Allow\", \"Principal\":{\"AWS\":\"123456789012\"}, \"Action\":\"es:*\", \"Resource\": \"arn:aws:es:us-east-1:123456789012:domain/my-domain/*\"}]}",
    "ValueType": "STRINGIFIED_JSON"
  }, {
    "ActiveValue": "",
    "Name": "AdvancedOptions",
    "PendingValue": "{\"override_main_response_version\":\"false\", \"rest.action.multi.allow_explicit_index\":\"true\"}",
    "ValueType": "STRINGIFIED_JSON"
  }, {
    "ActiveValue": "",
    "Name": "AdvancedSecurityOptions.AnonymousAuthDisableDate",
    "PendingValue": "false",
    "ValueType": "PLAIN_TEXT"
  }, {
    "ActiveValue": "",
    "Name": "AdvancedSecurityOptions.AnonymousAuthEnabled",
    "PendingValue": "false",
    "ValueType": "PLAIN_TEXT"
  }, {
    "ActiveValue": "",
    "Name": "AdvancedSecurityOptions.InternalUserDatabaseEnabled",
    "PendingValue": "false",
    "ValueType": "PLAIN_TEXT"
  }, {
    "ActiveValue": "",
    "Name": "AdvancedSecurityOptions.MasterUserOptions",
    "PendingValue": "false",
    "ValueType": "PLAIN_TEXT"
  }, {
    "ActiveValue": "",
    "Name": "AdvancedSecurityOptions.SAMLOptions",
    "PendingValue": "false",

```

```
"ValueType": "PLAIN_TEXT"
}, {
  "ActiveValue": "",
  "Name": "ClusterConfig.ColdStorageOptions",
  "PendingValue": "{\"Enabled\":false}",
  "ValueType": "STRINGIFIED_JSON"
}, {
  "ActiveValue": "",
  "Name": "ClusterConfig.DedicatedMasterCount",
  "PendingValue": "3",
  "ValueType": "PLAIN_TEXT"
}, {
  "ActiveValue": "",
  "Name": "ClusterConfig.DedicatedMasterEnabled",
  "PendingValue": "true",
  "ValueType": "PLAIN_TEXT"
}, {
  "ActiveValue": "",
  "Name": "ClusterConfig.DedicatedMasterType",
  "PendingValue": "r6g.large.search",
  "ValueType": "PLAIN_TEXT"
}, {
  "ActiveValue": "",
  "Name": "ClusterConfig.InstanceCount",
  "PendingValue": "10",
  "ValueType": "PLAIN_TEXT"
}, {
  "ActiveValue": "",
  "Name": "ClusterConfig.InstanceType",
  "PendingValue": "r6g.xlarge.search",
  "ValueType": "PLAIN_TEXT"
}, {
  "ActiveValue": "",
  "Name": "ClusterConfig.MultiAZWithStandbyEnabled",
  "PendingValue": "false",
  "ValueType": "PLAIN_TEXT"
}, {
  "ActiveValue": "",
  "Name": "ClusterConfig.WarmCount",
  "PendingValue": "",
  "ValueType": "STRINGIFIED_JSON"
}, {
  "ActiveValue": "",
  "Name": "ClusterConfig.WarmEnabled",
```

```

    "PendingValue": "false",
    "ValueType": "PLAIN_TEXT"
  }, {
    "ActiveValue": "",
    "Name": "ClusterConfig.WarmStorage",
    "PendingValue": "",
    "ValueType": "STRINGIFIED_JSON"
  }, {
    "ActiveValue": "",
    "Name": "ClusterConfig.WarmType",
    "PendingValue": "",
    "ValueType": "STRINGIFIED_JSON"
  }, {
    "ActiveValue": "",
    "Name": "ClusterConfig.ZoneAwarenessEnabled",
    "PendingValue": "false",
    "ValueType": "PLAIN_TEXT"
  }, {
    "ActiveValue": "",
    "Name": "EngineVersion",
    "PendingValue": "OpenSearch_2.11",
    "ValueType": "PLAIN_TEXT"
  }, {
    "ActiveValue": "",
    "Name": "IPAddressType",
    "PendingValue": "ipv4",
    "ValueType": "PLAIN_TEXT"
  }, {
    "ActiveValue": "",
    "Name": "TAGS",
    "PendingValue": "",
    "ValueType": "STRINGIFIED_JSON"
  }, {
    "ActiveValue": "",
    "Name": "DomainEndpointOptions",
    "PendingValue": "{\"CustomEndpointEnabled\":false,\"EnforceHTTPS\":false,
\\\"TLSSecurityPolicy\\\":\\\"Policy-Min-TLS-1-0-2019-07\\\"}\",
    "ValueType": "STRINGIFIED_JSON"
  }, {
    "ActiveValue": "",
    "Name": "EBSOptions",
    "PendingValue": "{\"EBSEnabled\":true,\"Iops\":1000,\"VolumeSize\":100,\"VolumeType
\\\":\\\"io1\\\"}\",
    "ValueType": "STRINGIFIED_JSON"
  }

```

```

}, {
  "ActiveValue": "",
  "Name": "EncryptionAtRestOptions",
  "PendingValue": "{\"Enabled\":false}",
  "ValueType": "STRINGIFIED_JSON"
}, {
  "ActiveValue": "",
  "Name": "NodeToNodeEncryptionOptions",
  "PendingValue": "{\"Enabled\":false}",
  "ValueType": "STRINGIFIED_JSON"
}, {
  "ActiveValue": "",
  "Name": "OffPeakWindowOptions",
  "PendingValue": "{\"Enabled\":true,\"OffPeakWindow\":{\"WindowStartTime\":{\"Hours
\":3,\"Minutes\":0}}}",
  "ValueType": "STRINGIFIED_JSON"
}, {
  "ActiveValue": "",
  "Name": "SnapshotOptions",
  "PendingValue": "{\"AutomatedSnapshotStartHour\":0}",
  "ValueType": "STRINGIFIED_JSON"
}, {
  "ActiveValue": "",
  "Name": "SoftwareUpdateOptions",
  "PendingValue": "{\"AutoSoftwareUpdateEnabled\":false}",
  "ValueType": "STRINGIFIED_JSON"
}, {
  "ActiveValue": "",
  "Name": "AutoTuneOptions",
  "PendingValue": "{\"desiredState\":\"ENABLED\",\"rollbackOnDisable\":
\"NO_ROLLBACK\",\"state\":\"ENABLE_IN_PROGRESS\",\"rollbackState\":\"ROLLBACK_OFF\",
\"maintenanceSchedules\":[],\"useOffPeakWindow\":false}",
  "ValueType": "STRINGIFIED_JSON"
}],
"NodeToNodeEncryptionOptions": {
  "Enabled": false
},
"OffPeakWindowOptions": {
  "Enabled": true,
  "OffPeakWindow": {
    "WindowStartTime": {
      "Hours": 3,
      "Minutes": 0
    }
  }
}

```

```
    }
  },
  "Processing": true,
  "ServiceSoftwareOptions": {
    "AutomatedUpdateDate": 0.0,
    "Cancellable": false,
    "CurrentVersion": "",
    "Description": "There is no software update available for this domain.",
    "NewVersion": "",
    "OptionalDeployment": true,
    "UpdateAvailable": false,
    "UpdateStatus": "COMPLETED"
  },
  "SnapshotOptions": {
    "AutomatedSnapshotStartHour": 0
  },
  "SoftwareUpdateOptions": {
    "AutoSoftwareUpdateEnabled": false
  },
  "UpgradeProcessing": false,
  "VPCOptions": null
}
}
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

CreateOutboundConnection

Service: Amazon OpenSearch Service

Creates a new cross-cluster search connection from a source Amazon OpenSearch Service domain to a destination domain. For more information, see [Cross-cluster search for Amazon OpenSearch Service](#).

Request Syntax

```
POST /2021-01-01/opensearch/cc/outboundConnection HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "ConnectionAlias": "string",
  "ConnectionMode": "string",
  "ConnectionProperties": {
    "CrossClusterSearch": {
      "SkipUnavailable": "string"
    },
    "Endpoint": "string"
  },
  "LocalDomainInfo": {
    "AWSDomainInformation": {
      "DomainName": "string",
      "OwnerId": "string",
      "Region": "string"
    }
  },
  "RemoteDomainInfo": {
    "AWSDomainInformation": {
      "DomainName": "string",
      "OwnerId": "string",
      "Region": "string"
    }
  }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

ConnectionAlias

Name of the connection.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 100.

Pattern: `[a-zA-Z][a-zA-Z0-9\-__]+`

Required: Yes

ConnectionMode

The connection mode.

Type: String

Valid Values: DIRECT | VPC_ENDPOINT

Required: No

ConnectionProperties

The `ConnectionProperties` for the outbound connection.

Type: [ConnectionProperties](#) object

Required: No

LocalDomainInfo

Name and Region of the source (local) domain.

Type: [DomainInformationContainer](#) object

Required: Yes

RemoteDomainInfo

Name and Region of the destination (remote) domain.

Type: [DomainInformationContainer](#) object

Required: Yes

Response Syntax

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

{
  "ConnectionAlias": "string",
  "ConnectionId": "string",
  "ConnectionMode": "string",
  "ConnectionProperties": {
    "CrossClusterSearch": {
      "SkipUnavailable": "string"
    },
    "Endpoint": "string"
  },
  "ConnectionStatus": {
    "Message": "string",
    "StatusCode": "string"
  },
  "LocalDomainInfo": {
    "AWSDomainInformation": {
      "DomainName": "string",
      "OwnerId": "string",
      "Region": "string"
    }
  },
  "RemoteDomainInfo": {
    "AWSDomainInformation": {
      "DomainName": "string",
      "OwnerId": "string",
      "Region": "string"
    }
  }
}
```

Response Elements

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

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

ConnectionAlias

Name of the connection.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 100.

Pattern: `[a-zA-Z][a-zA-Z0-9\-_\]+`

ConnectionId

The unique identifier for the created outbound connection, which is used for subsequent operations on the connection.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 256.

Pattern: `[a-z][a-z0-9\ -]+`

ConnectionMode

The connection mode.

Type: String

Valid Values: DIRECT | VPC_ENDPOINT

ConnectionProperties

The `ConnectionProperties` for the newly created connection.

Type: [ConnectionProperties](#) object

ConnectionStatus

The status of the connection.

Type: [OutboundConnectionStatus](#) object

LocalDomainInfo

Information about the source (local) domain.

Type: [DomainInformationContainer](#) object

RemoteDomainInfo

Information about the destination (remote) domain.

Type: [DomainInformationContainer](#) object

Errors

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

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ResourceAlreadyExistsException

An exception for creating a resource that already exists.

HTTP Status Code: 409

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

CreatePackage

Service: Amazon OpenSearch Service

Creates a package for use with Amazon OpenSearch Service domains. For more information, see [Custom packages for Amazon OpenSearch Service](#).

Request Syntax

```
POST /2021-01-01/packages HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "PackageDescription": "string",
  "PackageName": "string",
  "PackageSource": {
    "S3BucketName": "string",
    "S3Key": "string"
  },
  "PackageType": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

PackageDescription

Description of the package.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

PackageName

Unique name for the package.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 256.

Pattern: `[a-z][a-z0-9\-\]+`

Required: Yes

PackageSource

The Amazon S3 location from which to import the package.

Type: [PackageSource](#) object

Required: Yes

PackageType

The type of package.

Type: String

Valid Values: TXT-DICTIONARY | ZIP-PLUGIN

Required: Yes

Response Syntax

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

{
  "PackageDetails": {
    "AvailablePackageVersion": "string",
    "AvailablePluginProperties": {
      "ClassName": "string",
      "Description": "string",
      "Name": "string",
      "UncompressedSizeInBytes": number,
      "Version": "string"
    },
    "CreatedAt": number,
    "EngineVersion": "string",
    "ErrorDetails": {
```

```
    "ErrorMessage": "string",
    "ErrorType": "string"
  },
  "LastUpdatedAt": number,
  "PackageDescription": "string",
  "PackageID": "string",
  "PackageName": "string",
  "PackageStatus": "string",
  "PackageType": "string"
}
```

Response Elements

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

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

PackageDetails

Basic information about an OpenSearch Service package.

Type: [PackageDetails](#) object

Errors

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

AccessDeniedException

An error occurred because you don't have permissions to access the resource.

HTTP Status Code: 403

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

InvalidTypeException

An exception for trying to create or access a sub-resource that's either invalid or not supported.

HTTP Status Code: 409

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ResourceAlreadyExistsException

An exception for creating a resource that already exists.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

CreateVpcEndpoint

Service: Amazon OpenSearch Service

Creates an Amazon OpenSearch Service-managed VPC endpoint.

Request Syntax

```
POST /2021-01-01/opensearch/vpcEndpoints HTTP/1.1
Content-type: application/json
```

```
{
  "ClientToken": "string",
  "DomainArn": "string",
  "VpcOptions": {
    "SecurityGroupIds": [ "string" ],
    "SubnetIds": [ "string" ]
  }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

ClientToken

Unique, case-sensitive identifier to ensure idempotency of the request.

Type: String

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

Required: No

DomainArn

The Amazon Resource Name (ARN) of the domain to create the endpoint for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `arn:aws[a-z\-*]:[a-z]+:[a-z0-9\-*]:[0-9]+:domain\[a-z0-9\-\]+`

Required: Yes

VpcOptions

Options to specify the subnets and security groups for the endpoint.

Type: [VPCOptions](#) object

Required: Yes

Response Syntax

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

{
  "VpcEndpoint": {
    "DomainArn": "string",
    "Endpoint": "string",
    "Status": "string",
    "VpcEndpointId": "string",
    "VpcEndpointOwner": "string",
    "VpcOptions": {
      "AvailabilityZones": [ "string" ],
      "SecurityGroupIds": [ "string" ],
      "SubnetIds": [ "string" ],
      "VPCId": "string"
    }
  }
}
```

Response Elements

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

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

VpcEndpoint

Information about the newly created VPC endpoint.

Type: [VpcEndpoint](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

ConflictException

An error occurred because the client attempts to remove a resource that is currently in use.

HTTP Status Code: 409

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteDataSource

Service: Amazon OpenSearch Service

Deletes a direct-query data source. For more information, see [Deleting an Amazon OpenSearch Service data source with Amazon S3](#).

Request Syntax

```
DELETE /2021-01-01/opensearch/domain/DomainName/dataSource/DataSourceName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

DataSourceName

The name of the data source to delete.

Length Constraints: Minimum length of 3. Maximum length of 80.

Pattern: `[a-z][a-z0-9_]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
  "Message": "string"
}
```

Response Elements

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

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

Message

A message associated with deletion of the data source.

Type: String

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DependencyFailureException

An exception for when a failure in one of the dependencies results in the service being unable to fetch details about the resource.

HTTP Status Code: 424

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteDomain

Service: Amazon OpenSearch Service

Deletes an Amazon OpenSearch Service domain and all of its data. You can't recover a domain after you delete it.

Request Syntax

```
DELETE /2021-01-01/opensearch/domain/DomainName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain you want to permanently delete.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "DomainStatus": {
    "AccessPolicies": "string",
    "AdvancedOptions": {
      "string" : "string"
    },
    "AdvancedSecurityOptions": {
      "AnonymousAuthDisableDate": number,
      "AnonymousAuthEnabled": boolean,
```



```
"Enabled": boolean,
"InternalUserDatabaseEnabled": boolean,
"JWTOptions": {
  "Enabled": boolean,
  "PublicKey": "string",
  "RolesKey": "string",
  "SubjectKey": "string"
},
"SAMLOptions": {
  "Enabled": boolean,
  "Idp": {
    "EntityId": "string",
    "MetadataContent": "string"
  },
  "RolesKey": "string",
  "SessionTimeoutMinutes": number,
  "SubjectKey": "string"
}
},
"ARN": "string",
"AutoTuneOptions": {
  "ErrorMessage": "string",
  "State": "string",
  "UseOffPeakWindow": boolean
},
"ChangeProgressDetails": {
  "ChangeId": "string",
  "ConfigChangeStatus": "string",
  "InitiatedBy": "string",
  "LastUpdatedTime": number,
  "Message": "string",
  "StartTime": number
},
"ClusterConfig": {
  "ColdStorageOptions": {
    "Enabled": boolean
  },
  "DedicatedMasterCount": number,
  "DedicatedMasterEnabled": boolean,
  "DedicatedMasterType": "string",
  "InstanceCount": number,
  "InstanceType": "string",
  "MultiAZWithStandbyEnabled": boolean,
  "WarmCount": number,
```

```
"WarmEnabled": boolean,
"WarmType": "string",
"ZoneAwarenessConfig": {
  "AvailabilityZoneCount": number
},
"ZoneAwarenessEnabled": boolean
},
"CognitoOptions": {
  "Enabled": boolean,
  "IdentityPoolId": "string",
  "RoleArn": "string",
  "UserPoolId": "string"
},
"Created": boolean,
"Deleted": boolean,
"DomainEndpointOptions": {
  "CustomEndpoint": "string",
  "CustomEndpointCertificateArn": "string",
  "CustomEndpointEnabled": boolean,
  "EnforceHTTPS": boolean,
  "TLSSecurityPolicy": "string"
},
"DomainEndpointV2HostedZoneId": "string",
"DomainId": "string",
"DomainName": "string",
"DomainProcessingStatus": "string",
"EBSOptions": {
  "EBSEnabled": boolean,
  "Iops": number,
  "Throughput": number,
  "VolumeSize": number,
  "VolumeType": "string"
},
"EncryptionAtRestOptions": {
  "Enabled": boolean,
  "KmsKeyId": "string"
},
"Endpoint": "string",
"Endpoints": {
  "string": "string"
},
"EndpointV2": "string",
"EngineVersion": "string",
"IPAddressType": "string,
```

```
"LogPublishingOptions": {
  "string" : {
    "CloudWatchLogsLogGroupArn": "string",
    "Enabled": boolean
  }
},
"ModifyingProperties": [
  {
    "ActiveValue": "string",
    "Name": "string",
    "PendingValue": "string",
    "ValueType": "string"
  }
],
"NodeToNodeEncryptionOptions": {
  "Enabled": boolean
},
"OffPeakWindowOptions": {
  "Enabled": boolean,
  "OffPeakWindow": {
    "WindowStartTime": {
      "Hours": number,
      "Minutes": number
    }
  }
},
"Processing": boolean,
"ServiceSoftwareOptions": {
  "AutomatedUpdateDate": number,
  "Cancellable": boolean,
  "CurrentVersion": "string",
  "Description": "string",
  "NewVersion": "string",
  "OptionalDeployment": boolean,
  "UpdateAvailable": boolean,
  "UpdateStatus": "string"
},
"SnapshotOptions": {
  "AutomatedSnapshotStartHour": number
},
"SoftwareUpdateOptions": {
  "AutoSoftwareUpdateEnabled": boolean
},
"UpgradeProcessing": boolean,
```

```
"VPCOptions": {
  "AvailabilityZones": [ "string" ],
  "SecurityGroupIds": [ "string" ],
  "SubnetIds": [ "string" ],
  "VPCId": "string"
}
```

Response Elements

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

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

DomainStatus

The status of the domain being deleted.

Type: [DomainStatus](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteInboundConnection

Service: Amazon OpenSearch Service

Allows the destination Amazon OpenSearch Service domain owner to delete an existing inbound cross-cluster search connection. For more information, see [Cross-cluster search for Amazon OpenSearch Service](#).

Request Syntax

```
DELETE /2021-01-01/opensearch/cc/inboundConnection/ConnectionId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

ConnectionId

The ID of the inbound connection to permanently delete.

Length Constraints: Minimum length of 10. Maximum length of 256.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Connection": {
    "ConnectionId": "string",
    "ConnectionMode": "string",
    "ConnectionStatus": {
      "Message": "string",
      "StatusCode": "string"
    }
  }
}
```

```
    },
    "LocalDomainInfo": {
      "AWSDomainInformation": {
        "DomainName": "string",
        "OwnerId": "string",
        "Region": "string"
      }
    },
    "RemoteDomainInfo": {
      "AWSDomainInformation": {
        "DomainName": "string",
        "OwnerId": "string",
        "Region": "string"
      }
    }
  }
}
```

Response Elements

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

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

Connection

The deleted inbound connection.

Type: [InboundConnection](#) object

Errors

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

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteOutboundConnection

Service: Amazon OpenSearch Service

Allows the source Amazon OpenSearch Service domain owner to delete an existing outbound cross-cluster search connection. For more information, see [Cross-cluster search for Amazon OpenSearch Service](#).

Request Syntax

```
DELETE /2021-01-01/opensearch/cc/outboundConnection/ConnectionId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

ConnectionId

The ID of the outbound connection you want to permanently delete.

Length Constraints: Minimum length of 10. Maximum length of 256.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Connection": {
    "ConnectionAlias": "string",
    "ConnectionId": "string",
    "ConnectionMode": "string",
    "ConnectionProperties": {
      "CrossClusterSearch": {
        "SkipUnavailable": "string"
      }
    }
  }
}
```

```
    },
    "Endpoint": "string"
  },
  "ConnectionStatus": {
    "Message": "string",
    "StatusCode": "string"
  },
  "LocalDomainInfo": {
    "AWSDomainInformation": {
      "DomainName": "string",
      "OwnerId": "string",
      "Region": "string"
    }
  },
  "RemoteDomainInfo": {
    "AWSDomainInformation": {
      "DomainName": "string",
      "OwnerId": "string",
      "Region": "string"
    }
  }
}
```

Response Elements

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

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

Connection

The deleted inbound connection.

Type: [OutboundConnection](#) object

Errors

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

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeletePackage

Service: Amazon OpenSearch Service

Deletes an Amazon OpenSearch Service package. For more information, see [Custom packages for Amazon OpenSearch Service](#).

Request Syntax

```
DELETE /2021-01-01/packages/PackageID HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

PackageID

The internal ID of the package you want to delete. Use DescribePackages to find this value.

Pattern: `^([FG][0-9]+)$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "PackageDetails": {
    "AvailablePackageVersion": "string",
    "AvailablePluginProperties": {
      "ClassName": "string",
      "Description": "string",
      "Name": "string",
      "UncompressedSizeInBytes": number,
      "Version": "string"
    }
  }
}
```

```
    },
    "CreatedAt": number,
    "EngineVersion": "string",
    "ErrorDetails": {
      "ErrorMessage": "string",
      "ErrorType": "string"
    },
    "LastUpdatedAt": number,
    "PackageDescription": "string",
    "PackageID": "string",
    "PackageName": "string",
    "PackageStatus": "string",
    "PackageType": "string"
  }
}
```

Response Elements

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

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

PackageDetails

Information about the deleted package.

Type: [PackageDetails](#) object

Errors

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

AccessDeniedException

An error occurred because you don't have permissions to access the resource.

HTTP Status Code: 403

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

ConflictException

An error occurred because the client attempts to remove a resource that is currently in use.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteVpcEndpoint

Service: Amazon OpenSearch Service

Deletes an Amazon OpenSearch Service-managed interface VPC endpoint.

Request Syntax

```
DELETE /2021-01-01/opensearch/vpcEndpoints/VpcEndpointId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

VpcEndpointId

The unique identifier of the endpoint.

Length Constraints: Minimum length of 5. Maximum length of 256.

Pattern: `^aos-[a-zA-Z0-9]*$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "VpcEndpointSummary": {
    "DomainArn": "string",
    "Status": "string",
    "VpcEndpointId": "string",
    "VpcEndpointOwner": "string"
  }
}
```

Response Elements

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

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

VpcEndpointSummary

Information about the deleted endpoint, including its current status (DELETING or DELETE_FAILED).

Type: [VpcEndpointSummary](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeDomain

Service: Amazon OpenSearch Service

Describes the domain configuration for the specified Amazon OpenSearch Service domain, including the domain ID, domain service endpoint, and domain ARN.

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain that you want information about.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "DomainStatus": {
    "AccessPolicies": "string",
    "AdvancedOptions": {
      "string" : "string"
    },
    "AdvancedSecurityOptions": {
      "AnonymousAuthDisableDate": number,
      "AnonymousAuthEnabled": boolean,
```

```
"Enabled": boolean,
"InternalUserDatabaseEnabled": boolean,
"JWTOptions": {
  "Enabled": boolean,
  "PublicKey": "string",
  "RolesKey": "string",
  "SubjectKey": "string"
},
"SAMLOptions": {
  "Enabled": boolean,
  "Idp": {
    "EntityId": "string",
    "MetadataContent": "string"
  },
  "RolesKey": "string",
  "SessionTimeoutMinutes": number,
  "SubjectKey": "string"
}
},
"ARN": "string",
"AutoTuneOptions": {
  "ErrorMessage": "string",
  "State": "string",
  "UseOffPeakWindow": boolean
},
"ChangeProgressDetails": {
  "ChangeId": "string",
  "ConfigChangeStatus": "string",
  "InitiatedBy": "string",
  "LastUpdatedTime": number,
  "Message": "string",
  "StartTime": number
},
"ClusterConfig": {
  "ColdStorageOptions": {
    "Enabled": boolean
  },
  "DedicatedMasterCount": number,
  "DedicatedMasterEnabled": boolean,
  "DedicatedMasterType": "string",
  "InstanceCount": number,
  "InstanceType": "string",
  "MultiAZWithStandbyEnabled": boolean,
  "WarmCount": number,
```

```
"WarmEnabled": boolean,
"WarmType": "string",
"ZoneAwarenessConfig": {
  "AvailabilityZoneCount": number
},
"ZoneAwarenessEnabled": boolean
},
"CognitoOptions": {
  "Enabled": boolean,
  "IdentityPoolId": "string",
  "RoleArn": "string",
  "UserPoolId": "string"
},
"Created": boolean,
"Deleted": boolean,
"DomainEndpointOptions": {
  "CustomEndpoint": "string",
  "CustomEndpointCertificateArn": "string",
  "CustomEndpointEnabled": boolean,
  "EnforceHTTPS": boolean,
  "TLSSecurityPolicy": "string"
},
"DomainEndpointV2HostedZoneId": "string",
"DomainId": "string",
"DomainName": "string",
"DomainProcessingStatus": "string",
"EBSOptions": {
  "EBSEnabled": boolean,
  "Iops": number,
  "Throughput": number,
  "VolumeSize": number,
  "VolumeType": "string"
},
"EncryptionAtRestOptions": {
  "Enabled": boolean,
  "KmsKeyId": "string"
},
"Endpoint": "string",
"Endpoints": {
  "string": "string"
},
"EndpointV2": "string",
"EngineVersion": "string",
"IPAddressType": "string",
```

```
"LogPublishingOptions": {
  "string" : {
    "CloudWatchLogsLogGroupArn": "string",
    "Enabled": boolean
  }
},
"ModifyingProperties": [
  {
    "ActiveValue": "string",
    "Name": "string",
    "PendingValue": "string",
    "ValueType": "string"
  }
],
"NodeToNodeEncryptionOptions": {
  "Enabled": boolean
},
"OffPeakWindowOptions": {
  "Enabled": boolean,
  "OffPeakWindow": {
    "WindowStartTime": {
      "Hours": number,
      "Minutes": number
    }
  }
},
"Processing": boolean,
"ServiceSoftwareOptions": {
  "AutomatedUpdateDate": number,
  "Cancellable": boolean,
  "CurrentVersion": "string",
  "Description": "string",
  "NewVersion": "string",
  "OptionalDeployment": boolean,
  "UpdateAvailable": boolean,
  "UpdateStatus": "string"
},
"SnapshotOptions": {
  "AutomatedSnapshotStartHour": number
},
"SoftwareUpdateOptions": {
  "AutoSoftwareUpdateEnabled": boolean
},
"UpgradeProcessing": boolean,
```

```
"VPCOptions": {  
  "AvailabilityZones": [ "string" ],  
  "SecurityGroupIds": [ "string" ],  
  "SubnetIds": [ "string" ],  
  "VPCId": "string"  
}  
}  
}
```

Response Elements

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

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

DomainStatus

List that contains the status of each specified OpenSearch Service domain.

Type: [DomainStatus](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of DescribeDomain.

Sample Request

```
GET /2021-01-01/opensearch/domain/movies HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/
opensearch.describe-domain
X-Amz-Date: 20240209T222243Z
X-Amz-Security-Token: IQoJb3JpZ2luX2VjEEcaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240209/us-east-1/
es/aws4_request, SignedHeaders=host;x-amz-date;x-amz-security-token,
Signature=30d6a7dc73d1e649559866aff99b074e516e06e5e0b5d94f103ef608356c7d4e
```

Sample Response

```
{
  "DomainStatus":{
    "ARN":"arn:aws:es:us-east-1:123456789012:domain/movies",
    "AccessPolicies":[{"Effect":"Allow",
    "Principal":{"AWS":"*"},
    "Action":"es:*",
    "Resource":["arn:aws:es:us-east-1:123456789012:domain/movies/*"]}],
    "AdvancedOptions":{
      "indices.fielddata.cache.size":"20",
      "indices.query.bool.max_clause_count":"1024",
      "override_main_response_version":"true",
      "rest.action.multi.allow_explicit_index":"true"
    },
    "AdvancedSecurityOptions":{
      "AnonymousAuthDisableDate":null,
      "AnonymousAuthEnabled":false,
      "Enabled":true,
      "InternalUserDatabaseEnabled":true,

```

```
    "SAMLOptions":null
  },
  "AutoTuneOptions":{
    "ErrorMessage":null,
    "State":"ENABLE_IN_PROGRESS",
    "UseOffPeakWindow":false
  },
  "ChangeProgressDetails":{
    "ChangeId":"c5cba9b5-1083-45a9-836e-bb2e1ccf4347",
    "LastUpdatedTime":1.682350123826E9,
    "Message":null,
    "StartTime":1.682348498501E9
  },
  "ClusterConfig":{
    "ColdStorageOptions":{
      "Enabled":false
    },
    "DedicatedMasterCount":null,
    "DedicatedMasterEnabled":false,
    "DedicatedMasterType":null,
    "InstanceCount":3,
    "InstanceType":"t3.small.search",
    "WarmCount":null,
    "WarmEnabled":false,
    "WarmStorage":null,
    "WarmType":null,
    "ZoneAwarenessConfig":{
      "AvailabilityZoneCount":3
    },
    "ZoneAwarenessEnabled":true
  },
  "CognitoOptions":{
    "Enabled":false,
    "IdentityPoolId":null,
    "RoleArn":null,
    "UserPoolId":null
  },
  "Created":true,
  "Deleted":false,
  "DomainEndpointOptions":{
    "CustomEndpoint":null,
    "CustomEndpointCertificateArn":null,
    "CustomEndpointEnabled":false,
    "EnforceHTTPS":true,
```



```
    "TLSSecurityPolicy":"Policy-Min-TLS-1-0-2019-07"
  },
  "DomainId":"123456789012/movies",
  "DomainName":"movies",
  "DomainProcessingStatus":"Active",
  "EBSOptions":{
    "EBSEnabled":true,
    "Iops":null,
    "Throughput":null,
    "VolumeSize":10,
    "VolumeType":"gp2"
  },
  "EncryptionAtRestOptions":{
    "Enabled":true,
    "KmsKeyId":"arn:aws:kms:us-east-1:123456789012:key/a1b2c3d4-5678-90ab-cdef-
EXAMPLE11111"
  },
  "Endpoint":"search-movies-o36agaraperqwzp7s7vv6xfzwa.us-east-1.es.amazonaws.com",
  "Endpoints":null,
  "EngineVersion":"OpenSearch_1.3",
  "IPAddressType":"ipv4",
  "LogPublishingOptions":null,
  "ModifyingProperties":[

  ],
  "NodeToNodeEncryptionOptions":{
    "Enabled":true
  },
  "OffPeakWindowOptions":{
    "Enabled":false,
    "OffPeakWindow":{
      "WindowStartTime":{
        "Hours":0,
        "Minutes":0
      }
    }
  },
  "Processing":false,
  "ServiceSoftwareOptions":{
    "AutomatedUpdateDate":0.0,
    "Cancellable":false,
    "CurrentVersion":"R20221114-P3",
    "Description":"A newer release OpenSearch_1_3_R20230928-P3 is available.",
    "NewVersion":"OpenSearch_1_3_R20230928-P3",
```

```
    "OptionalDeployment":true,
    "UpdateAvailable":true,
    "UpdateStatus":"ELIGIBLE"
  },
  "SnapshotOptions":{
    "AutomatedSnapshotStartHour":null
  },
  "SoftwareUpdateOptions":{
    "AutoSoftwareUpdateEnabled":false
  },
  "UpgradeProcessing":false,
  "VPCOptions":null
}
}
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeDomainAutoTunes

Service: Amazon OpenSearch Service

Returns the list of optimizations that Auto-Tune has made to an Amazon OpenSearch Service domain. For more information, see [Auto-Tune for Amazon OpenSearch Service](#).

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/autoTunes HTTP/1.1
Content-type: application/json

{
  "MaxResults": number,
  "NextToken": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

Name of the domain that you want Auto-Tune details about.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: [a-z][a-z0-9\ -]+

Required: Yes

Request Body

The request accepts the following data in JSON format.

MaxResults

An optional parameter that specifies the maximum number of results to return. You can use nextToken to get the next page of results.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

NextToken

If your initial DescribeDomainAutoTunes operation returns a nextToken, you can include the returned nextToken in subsequent DescribeDomainAutoTunes operations, which returns results in the next page.

Type: String

Required: No

Response Syntax

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

{
  "AutoTunes": [
    {
      "AutoTuneDetails": {
        "ScheduledAutoTuneDetails": {
          "Action": "string",
          "ActionType": "string",
          "Date": number,
          "Severity": "string"
        }
      },
      "AutoTuneType": "string"
    }
  ],
  "NextToken": "string"
}
```

Response Elements

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

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

AutoTunes

The list of setting adjustments that Auto-Tune has made to the domain.

Type: Array of [AutoTune](#) objects

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeDomainChangeProgress

Service: Amazon OpenSearch Service

Returns information about the current blue/green deployment happening on an Amazon OpenSearch Service domain. For more information, see [Making configuration changes in Amazon OpenSearch Service](#).

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/progress?changeid=ChangeId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

ChangeId

The specific change ID for which you want to get progress information. If omitted, the request returns information about the most recent configuration change.

Length Constraints: Fixed length of 36.

Pattern: `\p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}`

DomainName

The name of the domain to get progress information for.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
  "ChangeProgressStatus": {
    "ChangeId": "string",
    "ChangeProgressStages": [
      {
        "Description": "string",
        "LastUpdated": number,
        "Name": "string",
        "Status": "string"
      }
    ],
    "CompletedProperties": [ "string" ],
    "ConfigChangeStatus": "string",
    "InitiatedBy": "string",
    "LastUpdatedTime": number,
    "PendingProperties": [ "string" ],
    "StartTime": number,
    "Status": "string",
    "TotalNumberOfStages": number
  }
}
```

Response Elements

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

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

ChangeProgressStatus

Container for information about the stages of a configuration change happening on a domain.

Type: [ChangeProgressStatusDetails](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeDomainConfig

Service: Amazon OpenSearch Service

Returns the configuration of an Amazon OpenSearch Service domain.

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/config HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

Name of the OpenSearch Service domain configuration that you want to describe.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "DomainConfig": {
    "AccessPolicies": {
      "Options": "string",
      "Status": {
        "CreationDate": number,
        "PendingDeletion": boolean,
        "State": "string",
        "UpdateDate": number,
        "UpdateVersion": number
      }
    }
  }
}
```

```
    }
  },
  "AdvancedOptions": {
    "Options": {
      "string" : "string"
    },
    "Status": {
      "CreationDate": number,
      "PendingDeletion": boolean,
      "State": "string",
      "UpdateDate": number,
      "UpdateVersion": number
    }
  },
  "AdvancedSecurityOptions": {
    "Options": {
      "AnonymousAuthDisableDate": number,
      "AnonymousAuthEnabled": boolean,
      "Enabled": boolean,
      "InternalUserDatabaseEnabled": boolean,
      "JWTOptions": {
        "Enabled": boolean,
        "PublicKey": "string",
        "RolesKey": "string",
        "SubjectKey": "string"
      },
      "SAMLOptions": {
        "Enabled": boolean,
        "Idp": {
          "EntityId": "string",
          "MetadataContent": "string"
        },
        "RolesKey": "string",
        "SessionTimeoutMinutes": number,
        "SubjectKey": "string"
      }
    },
    "Status": {
      "CreationDate": number,
      "PendingDeletion": boolean,
      "State": "string",
      "UpdateDate": number,
      "UpdateVersion": number
    }
  }
}
```

```
},
  "AutoTuneOptions": {
    "Options": {
      "DesiredState": "string",
      "MaintenanceSchedules": [
        {
          "CronExpressionForRecurrence": "string",
          "Duration": {
            "Unit": "string",
            "Value": number
          },
          "StartAt": number
        }
      ],
      "RollbackOnDisable": "string",
      "UseOffPeakWindow": boolean
    },
    "Status": {
      "CreationDate": number,
      "ErrorMessage": "string",
      "PendingDeletion": boolean,
      "State": "string",
      "UpdateDate": number,
      "UpdateVersion": number
    }
  },
  "ChangeProgressDetails": {
    "ChangeId": "string",
    "ConfigChangeStatus": "string",
    "InitiatedBy": "string",
    "LastUpdatedTime": number,
    "Message": "string",
    "StartTime": number
  },
  "ClusterConfig": {
    "Options": {
      "ColdStorageOptions": {
        "Enabled": boolean
      },
      "DedicatedMasterCount": number,
      "DedicatedMasterEnabled": boolean,
      "DedicatedMasterType": "string",
      "InstanceCount": number,
      "InstanceType": "string",
```

```
    "MultiAZWithStandbyEnabled": boolean,
    "WarmCount": number,
    "WarmEnabled": boolean,
    "WarmType": "string",
    "ZoneAwarenessConfig": {
      "AvailabilityZoneCount": number
    },
    "ZoneAwarenessEnabled": boolean
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
},
"CognitoOptions": {
  "Options": {
    "Enabled": boolean,
    "IdentityPoolId": "string",
    "RoleArn": "string",
    "UserPoolId": "string"
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
},
"DomainEndpointOptions": {
  "Options": {
    "CustomEndpoint": "string",
    "CustomEndpointCertificateArn": "string",
    "CustomEndpointEnabled": boolean,
    "EnforceHTTPS": boolean,
    "TLSecurityPolicy": "string"
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
```

```
        "UpdateDate": number,
        "UpdateVersion": number
    }
},
"EBSOptions": {
    "Options": {
        "EBSEnabled": boolean,
        "Iops": number,
        "Throughput": number,
        "VolumeSize": number,
        "VolumeType": "string"
    },
    "Status": {
        "CreationDate": number,
        "PendingDeletion": boolean,
        "State": "string",
        "UpdateDate": number,
        "UpdateVersion": number
    }
},
"EncryptionAtRestOptions": {
    "Options": {
        "Enabled": boolean,
        "KmsKeyId": "string"
    },
    "Status": {
        "CreationDate": number,
        "PendingDeletion": boolean,
        "State": "string",
        "UpdateDate": number,
        "UpdateVersion": number
    }
},
"EngineVersion": {
    "Options": "string",
    "Status": {
        "CreationDate": number,
        "PendingDeletion": boolean,
        "State": "string",
        "UpdateDate": number,
        "UpdateVersion": number
    }
},
"IPAddressType": {
```

```
"Options": "string",
>Status": {
  "CreationDate": number,
  "PendingDeletion": boolean,
  "State": "string",
  "UpdateDate": number,
  "UpdateVersion": number
},
"LogPublishingOptions": {
  "Options": {
    "string" : {
      "CloudWatchLogsLogGroupArn": "string",
      "Enabled": boolean
    }
  },
>Status": {
  "CreationDate": number,
  "PendingDeletion": boolean,
  "State": "string",
  "UpdateDate": number,
  "UpdateVersion": number
},
"ModifyingProperties": [
  {
    "ActiveValue": "string",
    "Name": "string",
    "PendingValue": "string",
    "ValueType": "string"
  }
],
"NodeToNodeEncryptionOptions": {
  "Options": {
    "Enabled": boolean
  },
>Status": {
  "CreationDate": number,
  "PendingDeletion": boolean,
  "State": "string",
  "UpdateDate": number,
  "UpdateVersion": number
},
},
```

```
"OffPeakWindowOptions": {
  "Options": {
    "Enabled": boolean,
    "OffPeakWindow": {
      "WindowStartTime": {
        "Hours": number,
        "Minutes": number
      }
    }
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
},
"SnapshotOptions": {
  "Options": {
    "AutomatedSnapshotStartHour": number
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
},
"SoftwareUpdateOptions": {
  "Options": {
    "AutoSoftwareUpdateEnabled": boolean
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
},
"VPCOptions": {
  "Options": {
```



```
    "AvailabilityZones": [ "string" ],
    "SecurityGroupIds": [ "string" ],
    "SubnetIds": [ "string" ],
    "VPCId": "string"
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
}
```

Response Elements

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

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

DomainConfig

Container for the configuration of the OpenSearch Service domain.

Type: [DomainConfig](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of DescribeDomainConfig.

Sample Request

```
GET /2021-01-01/opensearch/domain/movies/config HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/
opensearch.describe-domain-config
X-Amz-Date: 20240209T222604Z
X-Amz-Security-Token: IQoJb3JpZ2luX2VjEEcaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240209/us-east-1/
es/aws4_request, SignedHeaders=host;x-amz-date;x-amz-security-token,
Signature=9fe055358029051fbcedaf0b82da320529af57cc6efadc35fb9c187b65252704
```

Sample Response

```
{
  "DomainConfig":{
    "AccessPolicies":{
      "Options":{"Version":"2012-10-17","Statement":[{"Effect":"Allow",
      "Principal":{"AWS":"*"},"Action":"es:*","Resource":"arn:aws:es:us-
      east-1:123456789012:domain/movies/*"}]},
      "Status":{
        "CreationDate":1.655753311082E9,
        "PendingDeletion":false,
```

```
    "State":"Active",
    "UpdateDate":1.655754278102E9,
    "UpdateVersion":7
  }
},
"AdvancedOptions":{
  "Options":{
    "indices fielddata.cache.size":"20",
    "indices.query.bool.max_clause_count":"1024",
    "override_main_response_version":"true",
    "rest.action.multi.allow_explicit_index":"true"
  },
  "Status":{
    "CreationDate":1.655753311082E9,
    "PendingDeletion":false,
    "State":"Active",
    "UpdateDate":1.660244135078E9,
    "UpdateVersion":23
  }
},
"AdvancedSecurityOptions":{
  "Options":{
    "AnonymousAuthDisableDate":null,
    "AnonymousAuthEnabled":false,
    "Enabled":true,
    "InternalUserDatabaseEnabled":true,
    "SAMLOptions":null
  },
  "Status":{
    "CreationDate":1.655753311082E9,
    "PendingDeletion":false,
    "State":"Active",
    "UpdateDate":1.655754278102E9,
    "UpdateVersion":7
  }
},
"AutoTuneOptions":{
  "Options":{
    "DesiredState":"ENABLED",
    "MaintenanceSchedules":[

  ],
    "RollbackOnDisable":"NO_ROLLBACK",
    "UseOffPeakWindow":false
  }
}
```

```
    },
    "Status":{
      "CreationDate":1.655753311082E9,
      "ErrorMessage":null,
      "PendingDeletion":false,
      "State":"ENABLE_IN_PROGRESS",
      "UpdateDate":1.655754278102E9,
      "UpdateVersion":7
    }
  },
  "ChangeProgressDetails":{
    "ChangeId":"c5cba9b5-1083-45a9-836e-bb2e1ccf4347",
    "LastUpdatedTime":1.682350123826E9,
    "Message":null,
    "StartTime":1.682348498501E9
  },
  "ClusterConfig":{
    "Options":{
      "ColdStorageOptions":{
        "Enabled":false
      },
      "DedicatedMasterCount":null,
      "DedicatedMasterEnabled":false,
      "DedicatedMasterType":null,
      "InstanceCount":3,
      "InstanceType":"t3.small.search",
      "WarmCount":null,
      "WarmEnabled":false,
      "WarmStorage":null,
      "WarmType":null,
      "ZoneAwarenessConfig":{
        "AvailabilityZoneCount":3
      },
      "ZoneAwarenessEnabled":true
    },
    "Status":{
      "CreationDate":1.655753311082E9,
      "PendingDeletion":false,
      "State":"Active",
      "UpdateDate":1.655754278102E9,
      "UpdateVersion":7
    }
  },
  "CognitoOptions":{
```

```
"Options":{
  "Enabled":false,
  "IdentityPoolId":null,
  "RoleArn":null,
  "UserPoolId":null
},
"Status":{
  "CreationDate":1.707517564627E9,
  "PendingDeletion":false,
  "State":"Active",
  "UpdateDate":1.707517564627E9,
  "UpdateVersion":33
}
},
"DomainEndpointOptions":{
  "Options":{
    "CustomEndpoint":null,
    "CustomEndpointCertificateArn":null,
    "CustomEndpointEnabled":false,
    "EnforceHTTPS":true,
    "TLSSecurityPolicy":"Policy-Min-TLS-1-0-2019-07"
  },
  "Status":{
    "CreationDate":1.655753311082E9,
    "PendingDeletion":false,
    "State":"Active",
    "UpdateDate":1.655754278102E9,
    "UpdateVersion":7
  }
},
"EBSOptions":{
  "Options":{
    "EBSEnabled":true,
    "Iops":null,
    "Throughput":null,
    "VolumeSize":10,
    "VolumeType":"gp2"
  },
  "Status":{
    "CreationDate":1.655753311082E9,
    "PendingDeletion":false,
    "State":"Active",
    "UpdateDate":1.655754278102E9,
    "UpdateVersion":7
  }
}
```

```
    }
  },
  "EncryptionAtRestOptions":{
    "Options":{
      "Enabled":true,
      "KmsKeyId":"arn:aws:kms:us-east-1:123456789012:key/a1b2c3d4-5678-90ab-cdef-
EXAMPLE111111"
    },
    "Status":{
      "CreationDate":1.655753311082E9,
      "PendingDeletion":false,
      "State":"Active",
      "UpdateDate":1.655754278102E9,
      "UpdateVersion":7
    }
  },
  "EngineVersion":{
    "Options":"OpenSearch_1.3",
    "Status":{
      "CreationDate":1.655753311082E9,
      "PendingDeletion":false,
      "State":"Active",
      "UpdateDate":1.660245682561E9,
      "UpdateVersion":28
    }
  },
  "IPAddressType":{
    "Options":"ipv4",
    "Status":{
      "CreationDate":1.707517564625E9,
      "PendingDeletion":false,
      "State":"Active",
      "UpdateDate":1.707517564625E9,
      "UpdateVersion":33
    }
  },
  "LogPublishingOptions":{
    "Options":{

    },
    "Status":{
      "CreationDate":1.707517564636E9,
      "PendingDeletion":false,
      "State":"Active",
```

```
        "UpdateDate":1.707517564636E9,
        "UpdateVersion":33
    }
},
"ModifyingProperties":[
],
"NodeToNodeEncryptionOptions":{
    "Options":{
        "Enabled":true
    },
    "Status":{
        "CreationDate":1.655753311082E9,
        "PendingDeletion":false,
        "State":"Active",
        "UpdateDate":1.655754278102E9,
        "UpdateVersion":7
    }
},
"OffPeakWindowOptions":{
    "Options":{
        "Enabled":false,
        "OffPeakWindow":{
            "WindowStartTime":{
                "Hours":0,
                "Minutes":0
            }
        }
    },
    "Status":{
        "CreationDate":1.707517564647E9,
        "PendingDeletion":false,
        "State":"Active",
        "UpdateDate":1.707517564647E9,
        "UpdateVersion":33
    }
},
"SnapshotOptions":{
    "Options":{
        "AutomatedSnapshotStartHour":0
    },
    "Status":{
        "CreationDate":1.655753311082E9,
        "PendingDeletion":false,
```

```
        "State":"Active",
        "UpdateDate":1.655754278102E9,
        "UpdateVersion":7
    },
    "SoftwareUpdateOptions":{
        "Options":{
            "AutoSoftwareUpdateEnabled":false
        },
        "Status":{
            "CreationDate":1.707517564648E9,
            "PendingDeletion":false,
            "State":"Active",
            "UpdateDate":1.707517564648E9,
            "UpdateVersion":33
        }
    },
    "VPCOptions":{
        "Options":{
            "AvailabilityZones":null,
            "SecurityGroupIds":null,
            "SubnetIds":null,
            "VPCId":null
        },
        "Status":{
            "CreationDate":1.707517564626E9,
            "PendingDeletion":false,
            "State":"Active",
            "UpdateDate":1.707517564626E9,
            "UpdateVersion":33
        }
    }
}
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

DescribeDomainHealth

Service: Amazon OpenSearch Service

Returns information about domain and node health, the standby Availability Zone, number of nodes per Availability Zone, and shard count per node.

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/health HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-_]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "ActiveAvailabilityZoneCount": "string",
  "AvailabilityZoneCount": "string",
  "ClusterHealth": "string",
  "DataNodeCount": "string",
  "DedicatedMaster": boolean,
  "DomainState": "string",
```

```

"EnvironmentInformation": [
  {
    "AvailabilityZoneInformation": [
      {
        "AvailabilityZoneName": "string",
        "AvailableDataNodeCount": "string",
        "ConfiguredDataNodeCount": "string",
        "TotalShards": "string",
        "TotalUnAssignedShards": "string",
        "ZoneStatus": "string"
      }
    ]
  }
],
"MasterEligibleNodeCount": "string",
"MasterNode": "string",
"StandByAvailabilityZoneCount": "string",
"TotalShards": "string",
"TotalUnAssignedShards": "string",
"WarmNodeCount": "string"
}

```

Response Elements

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

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

ActiveAvailabilityZoneCount

The number of active Availability Zones configured for the domain. If the service is unable to fetch this information, it will return NotAvailable.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

AvailabilityZoneCount

The number of Availability Zones configured for the domain. If the service is unable to fetch this information, it will return NotAvailable.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

ClusterHealth

The current health status of your cluster.

- Red - At least one primary shard is not allocated to any node.
- Yellow - All primary shards are allocated to nodes, but some replicas aren't.
- Green - All primary shards and their replicas are allocated to nodes.
- NotAvailable - Unable to retrieve cluster health.

Type: String

Valid Values: Red | Yellow | Green | NotAvailable

DataNodeCount

The number of data nodes configured for the domain. If the service is unable to fetch this information, it will return NotAvailable.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

DedicatedMaster

A boolean that indicates if dedicated master nodes are activated for the domain.

Type: Boolean

DomainState

The current state of the domain.

- Processing - The domain has updates in progress.
- Active - Requested changes have been processed and deployed to the domain.

Type: String

Valid Values: Active | Processing | NotAvailable

EnvironmentInformation

A list of EnvironmentInfo for the domain.

Type: Array of [EnvironmentInfo](#) objects

[MasterEligibleNodeCount](#)

The number of nodes that can be elected as a master node. If dedicated master nodes is turned on, this value is the number of dedicated master nodes configured for the domain. If the service is unable to fetch this information, it will return `NotAvailable`.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

[MasterNode](#)

Indicates whether the domain has an elected master node.

- **Available** - The domain has an elected master node.
- **UnAvailable** - The master node hasn't yet been elected, and a quorum to elect a new master node hasn't been reached.

Type: String

Valid Values: `Available | UnAvailable`

[StandByAvailabilityZoneCount](#)

The number of standby Availability Zones configured for the domain. If the service is unable to fetch this information, it will return `NotAvailable`.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

[TotalShards](#)

The total number of primary and replica shards for the domain.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

[TotalUnAssignedShards](#)

The total number of primary and replica shards not allocated to any of the nodes for the cluster.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

WarmNodeCount

The number of warm nodes configured for the domain.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of DescribeDomainHealth.

Sample Request

```
GET /2021-01-01/opensearch/domain/amazonrocks/health HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/
opensearch.describe-domain-health
X-Amz-Date: 20240209T222820Z
X-Amz-Security-Token: IQoJb3JpZ22luX2VjEEcaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240209/us-east-1/
es/aws4_request, SignedHeaders=host;x-amz-date;x-amz-security-token,
Signature=786d6e7ab6725d07b29cde81430b8e57dc2e87e4667c2879de84ab1b94dea451
```

Sample Response

```
{
  "ActiveAvailabilityZoneCount": "3",
  "AvailabilityZoneCount": "3",
  "ClusterHealth": "Green",
  "DataNodeCount": "3",
  "DedicatedMaster": false,
  "DomainState": "Active",
  "EnvironmentInformation": [
    {
      "AvailabilityZoneInformation": [
        {
          "AvailabilityZoneName": "us-east-1b",
          "AvailableDataNodeCount": "1",
          "ConfiguredDataNodeCount": "1",
          "TotalShards": "6",
          "TotalUnAssignedShards": "NotAvailable",
          "ZoneStatus": "Active"
        },
        {
          "AvailabilityZoneName": "us-east-1c",
```

```
        "AvailableDataNodeCount": "1",
        "ConfiguredDataNodeCount": "1",
        "TotalShards": "7",
        "TotalUnAssignedShards": "NotAvailable",
        "ZoneStatus": "Active"
    },
    {
        "AvailabilityZoneName": "us-east-1d",
        "AvailableDataNodeCount": "1",
        "ConfiguredDataNodeCount": "1",
        "TotalShards": "6",
        "TotalUnAssignedShards": "NotAvailable",
        "ZoneStatus": "Active"
    }
]
}
],
"MasterEligibleNodeCount": "3",
"MasterNode": "Available",
"StandByAvailabilityZoneCount": "0",
"TotalShards": "19",
"TotalUnAssignedShards": "0",
"WarmNodeCount": "0"
}
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeDomainNodes

Service: Amazon OpenSearch Service

Returns information about domain and nodes, including data nodes, master nodes, ultrawarm nodes, Availability Zone(s), standby nodes, node configurations, and node states.

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/nodes HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-_]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "DomainNodesStatusList": [
    {
      "AvailabilityZone": "string",
      "InstanceType": "string",
      "NodeId": "string",
      "NodeStatus": "string",
```

```
    "NodeType": "string",  
    "StorageSize": "string",  
    "StorageType": "string",  
    "StorageVolumeType": "string"  
  }  
]  
}
```

Response Elements

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

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

DomainNodesStatusList

Contains nodes information list `DomainNodesStatusList` with details about the all nodes on the requested domain.

Type: Array of [DomainNodesStatus](#) objects

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DependencyFailureException

An exception for when a failure in one of the dependencies results in the service being unable to fetch details about the resource.

HTTP Status Code: 424

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of DescribeDomainNodes.

Sample Request

```
GET /2021-01-01/opensearch/domain/amazonrocks/nodes HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/
opensearch.describe-domain-nodes
X-Amz-Date: 20240209T222942Z
X-Amz-Security-Token: IQoJb3JpZ2luX2VjEEcaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240209/us-east-1/
es/aws4_request, SignedHeaders=host;x-amz-date;x-amz-security-token,
Signature=6cc839c3e9dcf0a11a52de4e0c0b9c07ffb0fed0e60a76d01062e3de18502927
```

Sample Response

```
{
  "DomainNodesStatusList": [
```

```
{
  "AvailabilityZone": "us-east-1d",
  "InstanceType": "r6g.large",
  "NodeId": "MRJ8TdTEQBuaMp9kmR9i6Q",
  "NodeStatus": "Active",
  "NodeType": "Data",
  "StorageSize": "10",
  "StorageType": "EBS",
  "StorageVolumeType": "gp2"
},
{
  "AvailabilityZone": "us-east-1c",
  "InstanceType": "r6g.large",
  "NodeId": "-Rx5kkj3RAuf3h2WLS0cpw",
  "NodeStatus": "Active",
  "NodeType": "Data",
  "StorageSize": "10",
  "StorageType": "EBS",
  "StorageVolumeType": "gp2"
},
{
  "AvailabilityZone": "us-east-1b",
  "InstanceType": "r6g.large",
  "NodeId": "VLEn_jYTTzSapI54pdnBtA",
  "NodeStatus": "Active",
  "NodeType": "Data",
  "StorageSize": "10",
  "StorageType": "EBS",
  "StorageVolumeType": "gp2"
}
]
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

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

DescribeDomains

Service: Amazon OpenSearch Service

Returns domain configuration information about the specified Amazon OpenSearch Service domains.

Request Syntax

```
POST /2021-01-01/opensearch/domain-info HTTP/1.1
Content-type: application/json

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

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

DomainNames

Array of OpenSearch Service domain names that you want information about. You must specify at least one domain name.

Type: Array of strings

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Response Syntax

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

{
```

```
"DomainStatusList": [  
  {  
    "AccessPolicies": "string",  
    "AdvancedOptions": {  
      "string": "string"  
    },  
    "AdvancedSecurityOptions": {  
      "AnonymousAuthDisableDate": number,  
      "AnonymousAuthEnabled": boolean,  
      "Enabled": boolean,  
      "InternalUserDatabaseEnabled": boolean,  
      "JWTOptions": {  
        "Enabled": boolean,  
        "PublicKey": "string",  
        "RolesKey": "string",  
        "SubjectKey": "string"  
      },  
      "SAMLOptions": {  
        "Enabled": boolean,  
        "Idp": {  
          "EntityId": "string",  
          "MetadataContent": "string"  
        },  
        "RolesKey": "string",  
        "SessionTimeoutMinutes": number,  
        "SubjectKey": "string"  
      }  
    },  
    "ARN": "string",  
    "AutoTuneOptions": {  
      "ErrorMessage": "string",  
      "State": "string",  
      "UseOffPeakWindow": boolean  
    },  
    "ChangeProgressDetails": {  
      "ChangeId": "string",  
      "ConfigChangeStatus": "string",  
      "InitiatedBy": "string",  
      "LastUpdatedTime": number,  
      "Message": "string",  
      "StartTime": number  
    },  
    "ClusterConfig": {  
      "ColdStorageOptions": {
```



```

    "Enabled": boolean
  },
  "DedicatedMasterCount": number,
  "DedicatedMasterEnabled": boolean,
  "DedicatedMasterType": "string",
  "InstanceCount": number,
  "InstanceType": "string",
  "MultiAZWithStandbyEnabled": boolean,
  "WarmCount": number,
  "WarmEnabled": boolean,
  "WarmType": "string",
  "ZoneAwarenessConfig": {
    "AvailabilityZoneCount": number
  },
  "ZoneAwarenessEnabled": boolean
},
"CognitoOptions": {
  "Enabled": boolean,
  "IdentityPoolId": "string",
  "RoleArn": "string",
  "UserPoolId": "string"
},
"Created": boolean,
"Deleted": boolean,
"DomainEndpointOptions": {
  "CustomEndpoint": "string",
  "CustomEndpointCertificateArn": "string",
  "CustomEndpointEnabled": boolean,
  "EnforceHTTPS": boolean,
  "TLSSecurityPolicy": "string"
},
"DomainEndpointV2HostedZoneId": "string",
"DomainId": "string",
"DomainName": "string",
"DomainProcessingStatus": "string",
"EBSOptions": {
  "EBSEnabled": boolean,
  "Iops": number,
  "Throughput": number,
  "VolumeSize": number,
  "VolumeType": "string"
},
"EncryptionAtRestOptions": {
  "Enabled": boolean,

```

```

    "KmsKeyId": "string"
  },
  "Endpoint": "string",
  "Endpoints": {
    "string" : "string"
  },
  "EndpointV2": "string",
  "EngineVersion": "string",
  "IPAddressType": "string",
  "LogPublishingOptions": {
    "string" : {
      "CloudWatchLogsLogGroupArn": "string",
      "Enabled": boolean
    }
  },
  "ModifyingProperties": [
    {
      "ActiveValue": "string",
      "Name": "string",
      "PendingValue": "string",
      "ValueType": "string"
    }
  ],
  "NodeToNodeEncryptionOptions": {
    "Enabled": boolean
  },
  "OffPeakWindowOptions": {
    "Enabled": boolean,
    "OffPeakWindow": {
      "WindowStartTime": {
        "Hours": number,
        "Minutes": number
      }
    }
  },
  "Processing": boolean,
  "ServiceSoftwareOptions": {
    "AutomatedUpdateDate": number,
    "Cancellable": boolean,
    "CurrentVersion": "string",
    "Description": "string",
    "NewVersion": "string",
    "OptionalDeployment": boolean,
    "UpdateAvailable": boolean,

```

```
    "UpdateStatus": "string"
  },
  "SnapshotOptions": {
    "AutomatedSnapshotStartHour": number
  },
  "SoftwareUpdateOptions": {
    "AutoSoftwareUpdateEnabled": boolean
  },
  "UpgradeProcessing": boolean,
  "VPCOptions": {
    "AvailabilityZones": [ "string" ],
    "SecurityGroupIds": [ "string" ],
    "SubnetIds": [ "string" ],
    "VPCId": "string"
  }
}
]
```

Response Elements

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

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

DomainStatusList

The status of the requested domains.

Type: Array of [DomainStatus](#) objects

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of DescribeDomains.

Sample Request

```
POST /2021-01-01/opensearch/domain-info HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
Content-Type: application/json
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/
opensearch.describe-domains
X-Amz-Date: 20240209T222038Z
X-Amz-Security-Token: IQoJb3JpZ2ZluX2VjEEcaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240209/us-east-1/es/
aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-security-token,
Signature=584535086b2616bb3c1acf1bab39229d2d079327c05c84a0b65b76bed909ed15
Content-Length: 32

{"DomainNames": ["amazonrocks"]}
```

Sample Response

```
{
  "DomainStatusList": [
    {
      "ARN": "arn:aws:es:us-east-1:123456789012:domain/amazonrocks",
      "AccessPolicies": "{\"Version\":\"2012-10-17\",\"Statement\":[{\"Effect\":\"Allow\",\"Principal\":{\"AWS\":\"*\"},\"Action\":\"es:*\",\"Resource\":\"arn:aws:es:us-east-1:123456789012:domain/amazonrocks/*\"}]}",
      "AdvancedOptions": {
```

```
    "indices fielddata.cache.size":"20",
    "indices.query.bool.max_clause_count":"1024",
    "override_main_response_version":"true",
    "rest.action.multi.allow_explicit_index":"true"
  },
  "AdvancedSecurityOptions":{
    "AnonymousAuthDisableDate":null,
    "AnonymousAuthEnabled":false,
    "Enabled":true,
    "InternalUserDatabaseEnabled":true,
    "SAMLOptions":null
  },
  "AutoTuneOptions":{
    "ErrorMessage":null,
    "State":"ENABLED",
    "UseOffPeakWindow":false
  },
  "ChangeProgressDetails":{
    "ChangeId":"42e55b10-16d3-4a49-a54f-0cf5e9a42244",
    "LastUpdatedTime":1.682458752907E9,
    "Message":null,
    "StartTime":1.682456512645E9
  },
  "ClusterConfig":{
    "ColdStorageOptions":{
      "Enabled":false
    },
    "DedicatedMasterCount":null,
    "DedicatedMasterEnabled":false,
    "DedicatedMasterType":null,
    "InstanceCount":3,
    "InstanceType":"r6g.large.search",
    "WarmCount":null,
    "WarmEnabled":false,
    "WarmStorage":null,
    "WarmType":null,
    "ZoneAwarenessConfig":{
      "AvailabilityZoneCount":3
    },
    "ZoneAwarenessEnabled":true
  },
  "CognitoOptions":{
    "Enabled":false,
    "IdentityPoolId":null,
```

```
    "RoleArn":null,
    "UserPoolId":null
  },
  "Created":true,
  "Deleted":false,
  "DomainEndpointOptions":{
    "CustomEndpoint":null,
    "CustomEndpointCertificateArn":null,
    "CustomEndpointEnabled":false,
    "EnforceHTTPS":true,
    "TLSSecurityPolicy":"Policy-Min-TLS-1-0-2019-07"
  },
  "DomainId":"123456789012/amazonrocks",
  "DomainName":"amazonrocks",
  "DomainProcessingStatus":"Active",
  "EBSOptions":{
    "EBSEnabled":true,
    "Iops":null,
    "Throughput":null,
    "VolumeSize":10,
    "VolumeType":"gp2"
  },
  "EncryptionAtRestOptions":{
    "Enabled":true,
    "KmsKeyId":"arn:aws:kms:us-east-1:123456789012:key/a1b2c3d4-5678-90ab-cdef-
EXAMPLE11111"
  },
  "Endpoint":"search-amazonrocks-scuclckuu7bjkxho6du557d4da.us-
east-1.es.amazonaws.com",
  "Endpoints":null,
  "EngineVersion":"OpenSearch_1.3",
  "IPAddressType":"ipv4",
  "LogPublishingOptions":null,
  "ModifyingProperties":[

  ],
  "NodeToNodeEncryptionOptions":{
    "Enabled":true
  },
  "OffPeakWindowOptions":{
    "Enabled":false,
    "OffPeakWindow":{
      "WindowStartTime":{
        "Hours":0,
```

```
        "Minutes":0
      }
    },
    "Processing":false,
    "ServiceSoftwareOptions":{
      "AutomatedUpdateDate":0.0,
      "Cancellable":false,
      "CurrentVersion":"R20221114-P3",
      "Description":"A newer release OpenSearch_1_3_R20230928-P3 is available.",
      "NewVersion":"OpenSearch_1_3_R20230928-P3",
      "OptionalDeployment":true,
      "UpdateAvailable":true,
      "UpdateStatus":"ELIGIBLE"
    },
    "SnapshotOptions":{
      "AutomatedSnapshotStartHour":null
    },
    "SoftwareUpdateOptions":{
      "AutoSoftwareUpdateEnabled":false
    },
    "UpgradeProcessing":false,
    "VPCOptions":null
  }
]
}
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

DescribeDryRunProgress

Service: Amazon OpenSearch Service

Describes the progress of a pre-update dry run analysis on an Amazon OpenSearch Service domain. For more information, see [Determining whether a change will cause a blue/green deployment](#).

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/dryRun?
dryRunId=DryRunId&loadDryRunConfig=LoadDryRunConfig HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

DryRunId

The unique identifier of the dry run.

Length Constraints: Fixed length of 36.

Pattern: `\p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}`

LoadDryRunConfig

Whether to include the configuration of the dry run in the response. The configuration specifies the updates that you're planning to make on the domain.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "DryRunConfig": {
    "AccessPolicies": "string",
    "AdvancedOptions": {
      "string": "string"
    },
    "AdvancedSecurityOptions": {
      "AnonymousAuthDisableDate": number,
      "AnonymousAuthEnabled": boolean,
      "Enabled": boolean,
      "InternalUserDatabaseEnabled": boolean,
      "JWTOptions": {
        "Enabled": boolean,
        "PublicKey": "string",
        "RolesKey": "string",
        "SubjectKey": "string"
      },
      "SAMLOptions": {
        "Enabled": boolean,
        "Idp": {
          "EntityId": "string",
          "MetadataContent": "string"
        },
        "RolesKey": "string",
        "SessionTimeoutMinutes": number,
        "SubjectKey": "string"
      }
    },
    "ARN": "string",
    "AutoTuneOptions": {
      "ErrorMessage": "string",
      "State": "string",
      "UseOffPeakWindow": boolean
    },
    "ChangeProgressDetails": {
      "ChangeId": "string",
      "ConfigChangeStatus": "string",
      "InitiatedBy": "string",
```

```
    "LastUpdatedTime": number,
    "Message": "string",
    "StartTime": number
  },
  "ClusterConfig": {
    "ColdStorageOptions": {
      "Enabled": boolean
    },
    "DedicatedMasterCount": number,
    "DedicatedMasterEnabled": boolean,
    "DedicatedMasterType": "string",
    "InstanceCount": number,
    "InstanceType": "string",
    "MultiAZWithStandbyEnabled": boolean,
    "WarmCount": number,
    "WarmEnabled": boolean,
    "WarmType": "string",
    "ZoneAwarenessConfig": {
      "AvailabilityZoneCount": number
    },
    "ZoneAwarenessEnabled": boolean
  },
  "CognitoOptions": {
    "Enabled": boolean,
    "IdentityPoolId": "string",
    "RoleArn": "string",
    "UserPoolId": "string"
  },
  "Created": boolean,
  "Deleted": boolean,
  "DomainEndpointOptions": {
    "CustomEndpoint": "string",
    "CustomEndpointCertificateArn": "string",
    "CustomEndpointEnabled": boolean,
    "EnforceHTTPS": boolean,
    "TLSecurityPolicy": "string"
  },
  "DomainEndpointV2HostedZoneId": "string",
  "DomainId": "string",
  "DomainName": "string",
  "DomainProcessingStatus": "string",
  "EBSOptions": {
    "EBSEnabled": boolean,
    "Iops": number,
```

```
    "Throughput": number,
    "VolumeSize": number,
    "VolumeType": "string"
  },
  "EncryptionAtRestOptions": {
    "Enabled": boolean,
    "KmsKeyId": "string"
  },
  "Endpoint": "string",
  "Endpoints": {
    "string" : "string"
  },
  "EndpointV2": "string",
  "EngineVersion": "string",
  "IPAddressType": "string",
  "LogPublishingOptions": {
    "string" : {
      "CloudWatchLogsLogGroupArn": "string",
      "Enabled": boolean
    }
  },
  "ModifyingProperties": [
    {
      "ActiveValue": "string",
      "Name": "string",
      "PendingValue": "string",
      "ValueType": "string"
    }
  ],
  "NodeToNodeEncryptionOptions": {
    "Enabled": boolean
  },
  "OffPeakWindowOptions": {
    "Enabled": boolean,
    "OffPeakWindow": {
      "WindowStartTime": {
        "Hours": number,
        "Minutes": number
      }
    }
  },
  "Processing": boolean,
  "ServiceSoftwareOptions": {
    "AutomatedUpdateDate": number,
```

```

    "Cancellable": boolean,
    "CurrentVersion": "string",
    "Description": "string",
    "NewVersion": "string",
    "OptionalDeployment": boolean,
    "UpdateAvailable": boolean,
    "UpdateStatus": "string"
  },
  "SnapshotOptions": {
    "AutomatedSnapshotStartHour": number
  },
  "SoftwareUpdateOptions": {
    "AutoSoftwareUpdateEnabled": boolean
  },
  "UpgradeProcessing": boolean,
  "VPCOptions": {
    "AvailabilityZones": [ "string" ],
    "SecurityGroupIds": [ "string" ],
    "SubnetIds": [ "string" ],
    "VPCId": "string"
  }
},
"DryRunProgressStatus": {
  "CreationDate": "string",
  "DryRunId": "string",
  "DryRunStatus": "string",
  "UpdateDate": "string",
  "ValidationFailures": [
    {
      "Code": "string",
      "Message": "string"
    }
  ]
},
"DryRunResults": {
  "DeploymentType": "string",
  "Message": "string"
}
}

```

Response Elements

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

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

DryRunConfig

Details about the changes you're planning to make on the domain.

Type: [DomainStatus](#) object

DryRunProgressStatus

The current status of the dry run, including any validation errors.

Type: [DryRunProgressStatus](#) object

DryRunResults

The results of the dry run.

Type: [DryRunResults](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeInboundConnections

Service: Amazon OpenSearch Service

Lists all the inbound cross-cluster search connections for a destination (remote) Amazon OpenSearch Service domain. For more information, see [Cross-cluster search for Amazon OpenSearch Service](#).

Request Syntax

```
POST /2021-01-01/opensearch/cc/inboundConnection/search HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "Filters": [
    {
      "Name": "string",
      "Values": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

Filters

A list of filters used to match properties for inbound cross-cluster connections.

Type: Array of [Filter](#) objects

Required: No

MaxResults

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

NextToken

If your initial DescribeInboundConnections operation returns a nextToken, you can include the returned nextToken in subsequent DescribeInboundConnections operations, which returns results in the next page.

Type: String

Required: No

Response Syntax

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

{
  "Connections": [
    {
      "ConnectionId": "string",
      "ConnectionMode": "string",
      "ConnectionStatus": {
        "Message": "string",
        "StatusCode": "string"
      },
      "LocalDomainInfo": {
        "AWSDomainInformation": {
          "DomainName": "string",
          "OwnerId": "string",
          "Region": "string"
        }
      },
      "RemoteDomainInfo": {
        "AWSDomainInformation": {
          "DomainName": "string",
          "OwnerId": "string",
          "Region": "string"
        }
      }
    }
  ]
}
```

```
    }
  }
},
"NextToken": "string"
}
```

Response Elements

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

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

Connections

List of inbound connections.

Type: Array of [InboundConnection](#) objects

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

Errors

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

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InvalidPaginationTokenException

Request processing failed because you provided an invalid pagination token.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeInstanceTypeLimits

Service: Amazon OpenSearch Service

Describes the instance count, storage, and master node limits for a given OpenSearch or Elasticsearch version and instance type.

Request Syntax

```
GET /2021-01-01/opensearch/instanceTypeLimits/EngineVersion/InstanceType?  
domainName=DomainName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain. Only specify if you need the limits for an existing domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

EngineVersion

Version of OpenSearch or Elasticsearch, in the format `Elasticsearch_X.Y` or `OpenSearch_X.Y`. Defaults to the latest version of OpenSearch.

Length Constraints: Minimum length of 14. Maximum length of 18.

Pattern: `^Elasticsearch_[0-9]{1}\.[0-9]{1,2}$|^OpenSearch_[0-9]{1,2}\.[0-9]{1,2}$`

Required: Yes

InstanceType

The OpenSearch Service instance type for which you need limit information.

Valid Values: `m3.medium.search` | `m3.large.search` | `m3.xlarge.search` | `m3.2xlarge.search` | `m4.large.search` | `m4.xlarge.search` | `m4.2xlarge.search` | `m4.4xlarge.search` | `m4.10xlarge.search` | `m5.large.search` | `m5.xlarge.search` | `m5.2xlarge.search` |

m5.4xlarge.search | m5.12xlarge.search | m5.24xlarge.search
| r5.large.search | r5.xlarge.search | r5.2xlarge.search |
r5.4xlarge.search | r5.12xlarge.search | r5.24xlarge.search
| c5.large.search | c5.xlarge.search | c5.2xlarge.search |
c5.4xlarge.search | c5.9xlarge.search | c5.18xlarge.search |
t3.nano.search | t3.micro.search | t3.small.search | t3.medium.search
| t3.large.search | t3.xlarge.search | t3.2xlarge.search |
or1.medium.search | or1.large.search | or1.xlarge.search |
or1.2xlarge.search | or1.4xlarge.search | or1.8xlarge.search |
or1.12xlarge.search | or1.16xlarge.search | ultrawarm1.medium.search |
ultrawarm1.large.search | ultrawarm1.xlarge.search | t2.micro.search |
t2.small.search | t2.medium.search | r3.large.search | r3.xlarge.search
| r3.2xlarge.search | r3.4xlarge.search | r3.8xlarge.search
| i2.xlarge.search | i2.2xlarge.search | d2.xlarge.search
| d2.2xlarge.search | d2.4xlarge.search | d2.8xlarge.search
| c4.large.search | c4.xlarge.search | c4.2xlarge.search |
c4.4xlarge.search | c4.8xlarge.search | r4.large.search |
r4.xlarge.search | r4.2xlarge.search | r4.4xlarge.search |
r4.8xlarge.search | r4.16xlarge.search | i3.large.search |
i3.xlarge.search | i3.2xlarge.search | i3.4xlarge.search |
i3.8xlarge.search | i3.16xlarge.search | r6g.large.search |
r6g.xlarge.search | r6g.2xlarge.search | r6g.4xlarge.search |
r6g.8xlarge.search | r6g.12xlarge.search | m6g.large.search |
m6g.xlarge.search | m6g.2xlarge.search | m6g.4xlarge.search |
m6g.8xlarge.search | m6g.12xlarge.search | c6g.large.search |
c6g.xlarge.search | c6g.2xlarge.search | c6g.4xlarge.search |
c6g.8xlarge.search | c6g.12xlarge.search | r6gd.large.search |
r6gd.xlarge.search | r6gd.2xlarge.search | r6gd.4xlarge.search |
r6gd.8xlarge.search | r6gd.12xlarge.search | r6gd.16xlarge.search |
t4g.small.search | t4g.medium.search

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "LimitsByRole": {
    "string" : {
      "AdditionalLimits": [
        {
          "LimitName": "string",
          "LimitValues": [ "string" ]
        }
      ],
      "InstanceLimits": {
        "InstanceCountLimits": {
          "MaximumInstanceCount": number,
          "MinimumInstanceCount": number
        }
      },
      "StorageTypes": [
        {
          "StorageSubTypeName": "string",
          "StorageTypeLimits": [
            {
              "LimitName": "string",
              "LimitValues": [ "string" ]
            }
          ],
          "StorageTypeName": "string"
        }
      ]
    }
  }
}
```

Response Elements

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

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

LimitsByRole

Map that contains all applicable instance type limits. `data` refers to data nodes. `master` refers to dedicated master nodes.

Type: String to [Limits](#) object map

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

InvalidTypeException

An exception for trying to create or access a sub-resource that's either invalid or not supported.

HTTP Status Code: 409

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of DescribeInstanceTypeLimits.

Sample Request

```
GET /2021-01-01/opensearch/instanceTypeLimits/OpenSearch_1.0/c5.large.search?
domainName=mydomain HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/2.15.0 Python/3.11.6 Darwin/23.2.0 exe/x86_64 prompt/off command/
opensearch.describe-instance-type-limits
X-Amz-Date: 20240118T183818Z
X-Amz-Security-Token: IQoJb3JpZ2luX2VjEI3wEaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240118/us-east-1/
es/aws4_request, SignedHeaders=host;x-amz-date;x-amz-security-token,
Signature=b8e8474eba198ee0a30b422c5196860943c1ed944a599160aa070268db1c17fa
```

Sample Response

```
{
  "LimitsByRole": {
    "data": {
      "AdditionalLimits": [{
        "LimitName": "MaximumNumberOfDataNodesWithoutMasterNode",
        "LimitValues": ["10"]
      }],
      "InstanceLimits": {
        "InstanceCountLimits": {
          "MaximumInstanceCount": 80,
          "MinimumInstanceCount": 1
        }
      },
      "StorageTypes": [{
        "StorageSubTypeName": "standard",
        "StorageTypeLimits": [{
          "LimitName": "MaximumVolumeSize",
          "LimitValues": ["100"]
        }, {
          "LimitName": "MinimumVolumeSize",
          "LimitValues": ["10"]
        }
      ]
    }
  }
}
```



```
    ]],  
    "StorageTypeName": "ebs"  
  }, {  
    "StorageSubTypeName": "io1",  
    "StorageTypeLimits": [{  
      "LimitName": "MaximumVolumeSize",  
      "LimitValues": ["256"]  
    }, {  
      "LimitName": "MinimumVolumeSize",  
      "LimitValues": ["35"]  
    }, {  
      "LimitName": "MaximumIops",  
      "LimitValues": ["16000"]  
    }, {  
      "LimitName": "MinimumIops",  
      "LimitValues": ["1000"]  
    }  
  ]],  
    "StorageTypeName": "ebs"  
  }, {  
    "StorageSubTypeName": "gp2",  
    "StorageTypeLimits": [{  
      "LimitName": "MaximumVolumeSize",  
      "LimitValues": ["256"]  
    }, {  
      "LimitName": "MinimumVolumeSize",  
      "LimitValues": ["10"]  
    }  
  ]],  
    "StorageTypeName": "ebs"  
  }, {  
    "StorageSubTypeName": "gp3",  
    "StorageTypeLimits": [{  
      "LimitName": "MaximumVolumeSize",  
      "LimitValues": ["256"]  
    }, {  
      "LimitName": "MinimumVolumeSize",  
      "LimitValues": ["10"]  
    }, {  
      "LimitName": "MaximumIops",  
      "LimitValues": ["20000"]  
    }, {  
      "LimitName": "MinimumIops",  
      "LimitValues": ["3000"]  
    }, {  
      "LimitName": "MaximumThroughput",
```

```
    "LimitValues": ["593"]
  }, {
    "LimitName": "MinimumThroughput",
    "LimitValues": ["125"]
  }],
  "StorageTypeName": "ebs"
}]
},
"master": {
  "AdditionalLimits": [{
    "LimitName": "MaximumNumberOfDataNodesSupported",
    "LimitValues": ["200"]
  }],
  "InstanceLimits": {
    "InstanceCountLimits": {
      "MaximumInstanceCount": 5,
      "MinimumInstanceCount": 2
    }
  },
  "StorageTypes": null
}
}
}
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeOutboundConnections

Service: Amazon OpenSearch Service

Lists all the outbound cross-cluster connections for a local (source) Amazon OpenSearch Service domain. For more information, see [Cross-cluster search for Amazon OpenSearch Service](#).

Request Syntax

```
POST /2021-01-01/opensearch/cc/outboundConnection/search HTTP/1.1
Content-type: application/json

{
  "Filters": [
    {
      "Name": "string",
      "Values": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

Filters

List of filter names and values that you can use for requests.

Type: Array of [Filter](#) objects

Required: No

MaxResults

An optional parameter that specifies the maximum number of results to return. You can use nextToken to get the next page of results.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

NextToken

If your initial DescribeOutboundConnections operation returns a nextToken, you can include the returned nextToken in subsequent DescribeOutboundConnections operations, which returns results in the next page.

Type: String

Required: No

Response Syntax

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

{
  "Connections": [
    {
      "ConnectionAlias": "string",
      "ConnectionId": "string",
      "ConnectionMode": "string",
      "ConnectionProperties": {
        "CrossClusterSearch": {
          "SkipUnavailable": "string"
        },
        "Endpoint": "string"
      },
      "ConnectionStatus": {
        "Message": "string",
        "StatusCode": "string"
      },
      "LocalDomainInfo": {
        "AWSDomainInformation": {
          "DomainName": "string",
          "OwnerId": "string",
          "Region": "string"
        }
      }
    }
  ]
}
```

```
    },
    "RemoteDomainInfo": {
      "AWSDomainInformation": {
        "DomainName": "string",
        "OwnerId": "string",
        "Region": "string"
      }
    }
  ],
  "NextToken": "string"
}
```

Response Elements

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

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

Connections

List of outbound connections that match the filter criteria.

Type: Array of [OutboundConnection](#) objects

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

Errors

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

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InvalidPaginationTokenException

Request processing failed because you provided an invalid pagination token.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribePackages

Service: Amazon OpenSearch Service

Describes all packages available to OpenSearch Service. For more information, see [Custom packages for Amazon OpenSearch Service](#).

Request Syntax

```
POST /2021-01-01/packages/describe HTTP/1.1
Content-type: application/json
```

```
{
  "Filters": [
    {
      "Name": "string",
      "Value": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

[Filters](#)

Only returns packages that match the DescribePackagesFilterList values.

Type: Array of [DescribePackagesFilter](#) objects

Required: No

[MaxResults](#)

An optional parameter that specifies the maximum number of results to return. You can use nextToken to get the next page of results.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

NextToken

If your initial DescribePackageFilters operation returns a nextToken, you can include the returned nextToken in subsequent DescribePackageFilters operations, which returns results in the next page.

Type: String

Required: No

Response Syntax

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

{
  "NextToken": "string",
  "PackageDetailsList": [
    {
      "AvailablePackageVersion": "string",
      "AvailablePluginProperties": {
        "ClassName": "string",
        "Description": "string",
        "Name": "string",
        "UncompressedSizeInBytes": number,
        "Version": "string"
      },
      "CreatedAt": number,
      "EngineVersion": "string",
      "ErrorDetails": {
        "ErrorMessage": "string",
        "ErrorType": "string"
      },
      "LastUpdatedAt": number,
      "PackageDescription": "string",
      "PackageID": "string",
      "PackageName": "string",
```



```
    "PackageStatus": "string",  
    "PackageType": "string"  
  }  
]  
}
```

Response Elements

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

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

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

PackageDetailsList

Basic information about a package.

Type: Array of [PackageDetails](#) objects

Errors

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

AccessDeniedException

An error occurred because you don't have permissions to access the resource.

HTTP Status Code: 403

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeReservedInstanceOfferings

Service: Amazon OpenSearch Service

Describes the available Amazon OpenSearch Service Reserved Instance offerings for a given Region. For more information, see [Reserved Instances in Amazon OpenSearch Service](#).

Request Syntax

```
GET /2021-01-01/opensearch/reservedInstanceOfferings?  
maxResults=MaxResults&nextToken=NextToken&offeringId=ReservedInstanceOfferingId  
HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

[MaxResults](#)

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

Valid Range: Maximum value of 100.

[NextToken](#)

If your initial `DescribeReservedInstanceOfferings` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `DescribeReservedInstanceOfferings` operations, which returns results in the next page.

[ReservedInstanceOfferingId](#)

The Reserved Instance identifier filter value. Use this parameter to show only the available instance types that match the specified reservation identifier.

Length Constraints: Fixed length of 36.

Pattern: `\p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "NextToken": "string",
  "ReservedInstanceOfferings": [
    {
      "CurrencyCode": "string",
      "Duration": number,
      "FixedPrice": number,
      "InstanceType": "string",
      "PaymentOption": "string",
      "RecurringCharges": [
        {
          "RecurringChargeAmount": number,
          "RecurringChargeFrequency": "string"
        }
      ],
      "ReservedInstanceOfferingId": "string",
      "UsagePrice": number
    }
  ]
}
```

Response Elements

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

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

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

ReservedInstanceOfferings

List of Reserved Instance offerings.

Type: Array of [ReservedInstanceOffering](#) objects

Errors

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

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of DescribeReservedInstanceOfferings.

Sample Request

```
GET /2021-01-01/opensearch/reservedInstanceOfferings HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/
opensearch.describe-reserved-instance-offerings
X-Amz-Date: 20240124T220658Z
```

```
X-Amz-Security-Token: IQoJb3JpZ2luX2VjEI3wEaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240124/us-east-1/
es/aws4_request, SignedHeaders=host;x-amz-date;x-amz-security-token,
Signature=783312e88bf3347692920c6ad8ad623076adad31ba9163f1eeb8bc4d13f18af1
```

Sample Response

```
{
  "NextToken": "AAIAAbxp74VqN95JGZaj8LVBCCmsvixjjXg69X568Wwf4AB16hLb26cZK8txZe5-
JzDAB4SXGW5f0TI=",
  "ReservedInstanceOfferings": [{
    "CurrencyCode": "USD",
    "Duration": 94608000,
    "FixedPrice": 17587.89,
    "InstanceType": "r6g.8xlarge.search",
    "PaymentOption": "PARTIAL_UPFRONT",
    "RecurringCharges": [{
      "RecurringChargeAmount": 0.669,
      "RecurringChargeFrequency": "Hourly"
    }],
    "ReservedInstanceOfferingId": "015f676e-ec97-4d63-9a5b-7f47fe4f3591",
    "UsagePrice": 0.0
  }, {
    "CurrencyCode": "USD",
    "Duration": 31536000,
    "FixedPrice": 0.0,
    "InstanceType": "m6g.4xlarge.search",
    "PaymentOption": "NO_UPFRONT",
    "RecurringCharges": [{
      "RecurringChargeAmount": 0.706,
      "RecurringChargeFrequency": "Hourly"
    }],
    "ReservedInstanceOfferingId": "01cd94a4-8540-44b5-9cc6-a9e2121b4689",
    "UsagePrice": 0.0
  }, {
    "CurrencyCode": "USD",
    "Duration": 31536000,
    "FixedPrice": 12811.29,
    "InstanceType": "im4gn.8xlarge.search",
    "PaymentOption": "PARTIAL_UPFRONT",
    "RecurringCharges": [{
      "RecurringChargeAmount": 1.462,
```

```
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "01e3d453-f2b3-4e00-8750-ef3a1af1f156",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "r5.12xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 2.319,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "02c3becc-bb0c-42c0-b0b3-caf3c59ee2e0",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 25703.0,
  "InstanceType": "c5.18xlarge.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "0345b77e-8f40-480c-926c-fdfa853c256b",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 13247.0,
  "InstanceType": "c5.18xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 1.512,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "03cee79c-9727-4a0d-90eb-cd76fb10236b",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 1473.0,
```

```
"InstanceType": "c5.2xlarge.search",
"PaymentOption": "PARTIAL_UPFRONT",
"RecurringCharges": [{
  "RecurringChargeAmount": 0.168,
  "RecurringChargeFrequency": "Hourly"
}],
"ReservedInstanceOfferingId": "04c5179c-0382-4374-b583-7a6903cd9b74",
"UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 6623.0,
  "InstanceType": "c5.9xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.756,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "066bdd2f-0012-43d4-a2c0-6f70ffecc0e0",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 1611.0,
  "InstanceType": "m5.xlarge.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "0688f67d-1085-4fbd-aca6-03739928ae52",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 6721.11,
  "InstanceType": "m6g.4xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.256,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "07027a1d-8435-4d21-80e5-4fca0804a7d0",
  "UsagePrice": 0.0
```



```
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "c6g.large.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.059,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "073dbec3-4dba-49d2-9003-3ea1dc979b4f",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "c4.large.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.077,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "076da64d-9a9b-43b6-a1c2-236081704c59",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 11371.0,
  "InstanceType": "i3.4xlarge.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "081c153a-a3dc-401d-84c8-7837281d2c55",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 1484.82,
  "InstanceType": "c6g.xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.057,
```

```
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "08784d80-853d-4b78-891c-384afbd4286c",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 0.0,
  "InstanceType": "or1.16xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 4.611,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "08e7ab36-cf38-4c89-aac3-4b81c49a1423",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 1499.581,
  "InstanceType": "m6g.2xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.171,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "097d13c1-0669-45e2-b5a9-1efc885afa2c",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 14340.996,
  "InstanceType": "im4gn.4xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.546,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "0a91faeb-75ee-4607-8edc-1fe3d715d583",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 1326.439,
```

```
"InstanceType": "c6g.2xlarge.search",
"PaymentOption": "PARTIAL_UPFRONT",
"RecurringCharges": [{
  "RecurringChargeAmount": 0.151,
  "RecurringChargeFrequency": "Hourly"
}],
"ReservedInstanceOfferingId": "0ade739a-3ee7-4a3b-a41c-5644cf398c7e",
"UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 9212.0,
  "InstanceType": "r4.8xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 1.052,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "0b38d87c-90fb-4fc5-969b-2520baf4b8e6",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 2509.74,
  "InstanceType": "r6gd.xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.096,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "0ce36cbf-d16e-4792-b1c4-571bb514d197",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 8934.0,
  "InstanceType": "r4.4xlarge.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "0cf79ea1-38a6-4675-8b57-3aa123f34b2b",
  "UsagePrice": 0.0
```

```
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 0.0,
  "InstanceType": "i3.8xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 2.756,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "0df4f876-9fea-4bb0-b98d-c620e55ca8f8",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 5824.962,
  "InstanceType": "m6g.4xlarge.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "105cb1e1-dbae-4854-935c-33cd225521c8",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "m4.10xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 1.569,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "112f905a-29a0-49df-b21a-6324e556f6a5",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 0.0,
  "InstanceType": "r4.4xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 1.083,
```

```
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "116a750e-1e71-4422-a1ea-0e8d392f5e4a",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "r5.4xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.773,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "11c85dc7-1545-4c83-8862-244eafd7f818",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 821.0,
  "InstanceType": "c5.large.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.031,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "1212edd1-2ee7-465b-9d4e-7d8b9c1ea30d",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 992.0,
  "InstanceType": "m4.large.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.038,
    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
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}],
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  "RecurringCharges": [{
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    "RecurringChargeFrequency": "Hourly"
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  "UsagePrice": 0.0
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  "CurrencyCode": "USD",
  "Duration": 94608000,
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  }],
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  "UsagePrice": 0.0
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}, {
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  "PaymentOption": "ALL_UPFRONT",
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    "RecurringChargeFrequency": "Hourly"
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    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
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  "Duration": 31536000,
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  "PaymentOption": "NO_UPFRONT",
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    "RecurringChargeFrequency": "Hourly"
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  "PaymentOption": "ALL_UPFRONT",
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  "UsagePrice": 0.0
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  "Duration": 94608000,
  "FixedPrice": 7713.0,
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    "RecurringChargeFrequency": "Hourly"
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  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 3357.27,
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  "RecurringChargeFrequency": "Hourly"
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"UsagePrice": 0.0
}, {
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}, {
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  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
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    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
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  "FixedPrice": 490.078,
  "InstanceType": "r6g.large.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
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    "RecurringChargeFrequency": "Hourly"
  }],
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  "Duration": 94608000,
  "FixedPrice": 7170.498,
  "InstanceType": "im4gn.2xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
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    "RecurringChargeFrequency": "Hourly"
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  "UsagePrice": 0.0
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  "FixedPrice": 3229.286,
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  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
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    "RecurringChargeFrequency": "Hourly"
  }],
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}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 1190.046,
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  "RecurringChargeFrequency": "Hourly"
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"UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "c5.2xlarge.search",
  "PaymentOption": "NO_UPFRONT",
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}, {
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  "Duration": 31536000,
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  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
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    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "1ff80eab-b0a3-4cc4-b900-c9c3fb51a4c8",
  "UsagePrice": 0.0
}, {
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  "Duration": 31536000,
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  "PaymentOption": "NO_UPFRONT",
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    "RecurringChargeAmount": 0.177,
    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
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}, {
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    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 0.0,
  "InstanceType": "c6g.xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.156,
    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 4604.0,
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  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.526,
    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 2452.8,
  "InstanceType": "or1.2xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
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    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
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  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "r4.16xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 3.265,
    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 40201.83,
  "InstanceType": "r6gd.16xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
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    "RecurringChargeAmount": 1.53,
    "RecurringChargeFrequency": "Hourly"
  }],
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  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 15425.046,
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  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 28681.992,
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"InstanceType": "im4gn.8xlarge.search",
"PaymentOption": "PARTIAL_UPFRONT",
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  "RecurringChargeFrequency": "Hourly"
}],
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"UsagePrice": 0.0
}, {
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  "Duration": 31536000,
  "FixedPrice": 712.0,
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  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "24d2f163-105f-4360-8f25-2419a304c26a",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "r6gd.4xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.796,
    "RecurringChargeFrequency": "Hourly"
  }],
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    "RecurringChargeFrequency": "Hourly"
  }],
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}, {
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    "RecurringChargeFrequency": "Hourly"
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  "PaymentOption": "ALL_UPFRONT",
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    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
}, {
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  "Duration": 31536000,
  "FixedPrice": 0.0,
  "InstanceType": "m5.large.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.098,
    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
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  "Duration": 31536000,
  "FixedPrice": 6001.257,
  "InstanceType": "m6g.8xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
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    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2703ebe7-32c0-4333-942a-ccc66ee4742f",
  "UsagePrice": 0.0
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  "FixedPrice": 546.0,
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  "RecurringCharges": [{
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    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "270e7bdb-0954-4b32-9ffe-c79ceba20ec4",
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  "FixedPrice": 20104.2,
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  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.765,
    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 883.0,
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  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
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    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 597.87,
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"InstanceType": "or1.medium.search",
"PaymentOption": "ALL_UPFRONT",
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  "RecurringChargeFrequency": "Hourly"
}],
"ReservedInstanceOfferingId": "2787cbb4-3900-44ac-895c-381be095eac6",
"UsagePrice": 0.0
}, {
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  "FixedPrice": 12589.0,
  "InstanceType": "i3.2xlarge.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "289ec817-9479-4a93-87f0-b168e8e05acc",
  "UsagePrice": 0.0
}, {
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  "Duration": 31536000,
  "FixedPrice": 38053.002,
  "InstanceType": "or1.16xlarge.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
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    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
}, {
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  "Duration": 94608000,
  "FixedPrice": 0.0,
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  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
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    "RecurringChargeFrequency": "Hourly"
  }],
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}, {
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  "Duration": 31536000,
  "FixedPrice": 0.0,
  "InstanceType": "r5.2xlarge.search",
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  "RecurringCharges": [{
    "RecurringChargeAmount": 0.513,
    "RecurringChargeFrequency": "Hourly"
  }],
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  "UsagePrice": 0.0
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  "Duration": 31536000,
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  "InstanceType": "r6g.4xlarge.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2a5013f1-9a4a-4378-ac10-d529dc71136c",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 575.0,
  "InstanceType": "r4.large.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.066,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2ae48c42-c556-43e4-af03-af472b3d579f",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 0.0,
  "InstanceType": "r5.12xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 3.077,
```

```
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2b3098fc-7fec-4bb8-8f7b-43e454c5be78",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 10052.1,
  "InstanceType": "r6gd.4xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.383,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2b7743ec-ce93-4ae1-827d-83192cba0610",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 10545.638,
  "InstanceType": "or1.2xlarge.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2bdc713e-7240-4b26-82f7-986294e5c489",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 1087.554,
  "InstanceType": "r6gd.large.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2ccd9263-7d0e-4e83-b70b-8f0a259a881a",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 39597.0,
```

```
"InstanceType": "r4.8xlarge.search",
"PaymentOption": "ALL_UPFRONT",
"RecurringCharges": [{
  "RecurringChargeAmount": 0.0,
  "RecurringChargeFrequency": "Hourly"
}],
"ReservedInstanceOfferingId": "2d995bb3-00bd-4924-ba5a-aa50630506b6",
"UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 1097.19,
  "InstanceType": "r6g.large.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.042,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2e380e6e-130b-4cfb-8da3-e458defba6f6",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 2244.969,
  "InstanceType": "r6gd.2xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.256,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2ee4c7c1-f162-40e8-91b9-6a015409f6a2",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 5285.434,
  "InstanceType": "or1.xlarge.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2f36cb75-ef17-4ce2-9082-8b48dd3fd9e9",
  "UsagePrice": 0.0
```

```
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "r4.xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.204,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2f36f1af-4a75-4736-b4d2-c96c747c0f09",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "i3.xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.259,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "2fa008d1-6f07-4f6a-8602-56c0b24ee8a1",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "m6g.large.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.067,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "314ab470-5920-4efb-9ceb-12c3fe3b14ac",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 1425.427,
  "InstanceType": "c6g.large.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
```

```
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "317dfe20-f11d-4524-97cd-360c09f6caa6",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 1859.0,
  "InstanceType": "m5.xlarge.search",
  "PaymentOption": "PARTIAL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.071,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "32215331-1366-4bed-bd07-f345ad3a24eb",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 6685.0,
  "InstanceType": "c4.4xlarge.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "32977df3-b9a3-48b2-af6d-1cd6dc64902d",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 1614.643,
  "InstanceType": "m6g.large.search",
  "PaymentOption": "ALL_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.0,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "32a8e2e4-877c-49bb-aca2-8ac004783acb",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 22781.606,
```

```
"InstanceType": "c6g.8xlarge.search",
"PaymentOption": "ALL_UPFRONT",
"RecurringCharges": [{
  "RecurringChargeAmount": 0.0,
  "RecurringChargeFrequency": "Hourly"
}],
"ReservedInstanceOfferingId": "3559397a-10cc-4e30-a8e8-8c105cd2572c",
"UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 0.0,
  "InstanceType": "r6gd.16xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 4.222,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "35d3c0cc-d935-4847-96f5-240149fd35e3",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 0.0,
  "InstanceType": "m6g.2xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.353,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "3612dd00-b132-43ee-adb8-71666412ca89",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 0.0,
  "InstanceType": "c6g.8xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 1.246,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "361ad9aa-d816-4de5-a5a5-8a129558a1da",
  "UsagePrice": 0.0
```



```
}, {
  "CurrencyCode": "USD",
  "Duration": 31536000,
  "FixedPrice": 0.0,
  "InstanceType": "c5.2xlarge.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.346,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "365cfbb6-2d5c-4973-ad73-b511cebe907a",
  "UsagePrice": 0.0
}, {
  "CurrencyCode": "USD",
  "Duration": 94608000,
  "FixedPrice": 0.0,
  "InstanceType": "c5.large.search",
  "PaymentOption": "NO_UPFRONT",
  "RecurringCharges": [{
    "RecurringChargeAmount": 0.065,
    "RecurringChargeFrequency": "Hourly"
  }],
  "ReservedInstanceOfferingId": "36b7e031-8778-421a-9eb3-232ddfc14ef6",
  "UsagePrice": 0.0
}]
}
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

DescribeReservedInstances

Service: Amazon OpenSearch Service

Describes the Amazon OpenSearch Service instances that you have reserved in a given Region. For more information, see [Reserved Instances in Amazon OpenSearch Service](#).

Request Syntax

```
GET /2021-01-01/opensearch/reservedInstances?  
maxResults=MaxResults&nextToken=NextToken&reservationId=ReservedInstanceId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

[MaxResults](#)

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

Valid Range: Maximum value of 100.

[NextToken](#)

If your initial `DescribeReservedInstances` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `DescribeReservedInstances` operations, which returns results in the next page.

[ReservedInstanceId](#)

The reserved instance identifier filter value. Use this parameter to show only the reservation that matches the specified reserved OpenSearch instance ID.

Length Constraints: Fixed length of 36.

Pattern: `\p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "NextToken": "string",
  "ReservedInstances": [
    {
      "BillingSubscriptionId": number,
      "CurrencyCode": "string",
      "Duration": number,
      "FixedPrice": number,
      "InstanceCount": number,
      "InstanceType": "string",
      "PaymentOption": "string",
      "RecurringCharges": [
        {
          "RecurringChargeAmount": number,
          "RecurringChargeFrequency": "string"
        }
      ],
      "ReservationName": "string",
      "ReservedInstanceId": "string",
      "ReservedInstanceOfferingId": "string",
      "StartTime": number,
      "State": "string",
      "UsagePrice": number
    }
  ]
}
```

Response Elements

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

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

NextToken

When `nextToken` is returned, there are more results available. The value of `nextToken` is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

ReservedInstances

List of Reserved Instances in the current Region.

Type: Array of [ReservedInstance](#) objects

Errors

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

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

DescribeVpcEndpoints

Service: Amazon OpenSearch Service

Describes one or more Amazon OpenSearch Service-managed VPC endpoints.

Request Syntax

```
POST /2021-01-01/opensearch/vpcEndpoints/describe HTTP/1.1
Content-type: application/json

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

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

VpcEndpointIds

The unique identifiers of the endpoints to get information about.

Type: Array of strings

Length Constraints: Minimum length of 5. Maximum length of 256.

Pattern: `^aos-[a-zA-Z0-9]*$`

Required: Yes

Response Syntax

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

{
  "VpcEndpointErrors": [
    {
```

```
    "ErrorCode": "string",
    "ErrorMessage": "string",
    "VpcEndpointId": "string"
  }
],
"VpcEndpoints": [
  {
    "DomainArn": "string",
    "Endpoint": "string",
    "Status": "string",
    "VpcEndpointId": "string",
    "VpcEndpointOwner": "string",
    "VpcOptions": {
      "AvailabilityZones": [ "string" ],
      "SecurityGroupIds": [ "string" ],
      "SubnetIds": [ "string" ],
      "VPCId": "string"
    }
  }
]
}
```

Response Elements

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

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

VpcEndpointErrors

Any errors associated with the request.

Type: Array of [VpcEndpointError](#) objects

VpcEndpoints

Information about each requested VPC endpoint.

Type: Array of [VpcEndpoint](#) objects

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DissociatePackage

Service: Amazon OpenSearch Service

Removes a package from the specified Amazon OpenSearch Service domain. The package can't be in use with any OpenSearch index for the dissociation to succeed. The package is still available in OpenSearch Service for association later. For more information, see [Custom packages for Amazon OpenSearch Service](#).

Request Syntax

```
POST /2021-01-01/packages/dissociate/PackageID/DomainName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

Name of the domain to dissociate the package from.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

PackageID

Internal ID of the package to dissociate from the domain. Use `ListPackagesForDomain` to find this value.

Pattern: `^([FG][0-9]+)$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
  "DomainPackageDetails": {
    "DomainName": "string",
    "DomainPackageStatus": "string",
    "ErrorDetails": {
      "ErrorMessage": "string",
      "ErrorType": "string"
    },
    "LastUpdated": number,
    "PackageID": "string",
    "PackageName": "string",
    "PackageType": "string",
    "PackageVersion": "string",
    "ReferencePath": "string"
  }
}
```

Response Elements

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

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

DomainPackageDetails

Information about a package that has been dissociated from the domain.

Type: [DomainPackageDetails](#) object

Errors

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

AccessDeniedException

An error occurred because you don't have permissions to access the resource.

HTTP Status Code: 403

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

ConflictException

An error occurred because the client attempts to remove a resource that is currently in use.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

GetCompatibleVersions

Service: Amazon OpenSearch Service

Returns a map of OpenSearch or Elasticsearch versions and the versions you can upgrade them to.

Request Syntax

```
GET /2021-01-01/opensearch/compatibleVersions?domainName=DomainName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of an existing domain. Provide this parameter to limit the results to a single domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "CompatibleVersions": [
    {
      "SourceVersion": "string",
      "TargetVersions": [ "string" ]
    }
  ]
}
```

Response Elements

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

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

CompatibleVersions

A map of OpenSearch or Elasticsearch versions and the versions you can upgrade them to.

Type: Array of [CompatibleVersionsMap](#) objects

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of `GetCompatibleVersions`.

Sample Request

```
GET /2021-01-01/opensearch/compatibleVersions HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/opensearch.get-compatible-versions
X-Amz-Date: 20240205T201155Z
X-Amz-Security-Token: IQoJb3JpZ2luX2VjEI3wEaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240205/us-east-1/es/aws4_request, SignedHeaders=host;x-amz-date;x-amz-security-token, Signature=5e11eba0d22362bc27334dd0143baa002edee9d967b2653fd9bd7d87bec71b8c
```

Sample Response

```
{
  "CompatibleVersions": [
    {
      "SourceVersion": "Elasticsearch_7.7",
      "TargetVersions": [
        "Elasticsearch_7.8",
        "Elasticsearch_7.9",
        "Elasticsearch_7.10",
        "OpenSearch_1.0",
        "OpenSearch_1.1",
        "OpenSearch_1.2",
        "OpenSearch_1.3"
      ]
    },
    {
      "SourceVersion": "Elasticsearch_6.8",
      "TargetVersions": [
        "Elasticsearch_7.1",
        "Elasticsearch_7.4",

```

```
    "Elasticsearch_7.7",
    "Elasticsearch_7.8",
    "Elasticsearch_7.9",
    "Elasticsearch_7.10",
    "OpenSearch_1.0",
    "OpenSearch_1.1",
    "OpenSearch_1.2",
    "OpenSearch_1.3"
  ]
},
{
  "SourceVersion": "Elasticsearch_7.8",
  "TargetVersions": [
    "Elasticsearch_7.9",
    "Elasticsearch_7.10",
    "OpenSearch_1.0",
    "OpenSearch_1.1",
    "OpenSearch_1.2",
    "OpenSearch_1.3"
  ]
},
{
  "SourceVersion": "Elasticsearch_7.9",
  "TargetVersions": [
    "Elasticsearch_7.10",
    "OpenSearch_1.0",
    "OpenSearch_1.1",
    "OpenSearch_1.2",
    "OpenSearch_1.3"
  ]
},
{
  "SourceVersion": "OpenSearch_2.3",
  "TargetVersions": [
    "OpenSearch_2.5",
    "OpenSearch_2.7",
    "OpenSearch_2.9",
    "OpenSearch_2.11"
  ]
},
{
  "SourceVersion": "OpenSearch_2.5",
  "TargetVersions": [
    "OpenSearch_2.7",
```



```
        "OpenSearch_2.9",
        "OpenSearch_2.11"
    ]
},
{
    "SourceVersion": "OpenSearch_1.0",
    "TargetVersions": [
        "OpenSearch_1.1",
        "OpenSearch_1.2",
        "OpenSearch_1.3"
    ]
},
{
    "SourceVersion": "OpenSearch_1.1",
    "TargetVersions": [
        "OpenSearch_1.2",
        "OpenSearch_1.3"
    ]
},
{
    "SourceVersion": "OpenSearch_1.2",
    "TargetVersions": [
        "OpenSearch_1.3"
    ]
},
{
    "SourceVersion": "OpenSearch_1.3",
    "TargetVersions": [
        "OpenSearch_2.3",
        "OpenSearch_2.5",
        "OpenSearch_2.7",
        "OpenSearch_2.9",
        "OpenSearch_2.11"
    ]
},
{
    "SourceVersion": "OpenSearch_2.7",
    "TargetVersions": [
        "OpenSearch_2.9",
        "OpenSearch_2.11"
    ]
},
{
    "SourceVersion": "OpenSearch_2.9",
```

```
    "TargetVersions":[
      "OpenSearch_2.11"
    ]
  },
  {
    "SourceVersion":"Elasticsearch_7.10",
    "TargetVersions":[
      "OpenSearch_1.0",
      "OpenSearch_1.1",
      "OpenSearch_1.2",
      "OpenSearch_1.3"
    ]
  },
  {
    "SourceVersion":"Elasticsearch_6.0",
    "TargetVersions":[
      "Elasticsearch_6.3",
      "Elasticsearch_6.4",
      "Elasticsearch_6.5",
      "Elasticsearch_6.7",
      "Elasticsearch_6.8"
    ]
  },
  {
    "SourceVersion":"Elasticsearch_5.1",
    "TargetVersions":[
      "Elasticsearch_5.6"
    ]
  },
  {
    "SourceVersion":"Elasticsearch_7.1",
    "TargetVersions":[
      "Elasticsearch_7.4",
      "Elasticsearch_7.7",
      "Elasticsearch_7.8",
      "Elasticsearch_7.9",
      "Elasticsearch_7.10",
      "OpenSearch_1.0",
      "OpenSearch_1.1",
      "OpenSearch_1.2",
      "OpenSearch_1.3"
    ]
  },
  {
```

```
    "SourceVersion":"Elasticsearch_6.2",
    "TargetVersions":[
      "Elasticsearch_6.3",
      "Elasticsearch_6.4",
      "Elasticsearch_6.5",
      "Elasticsearch_6.7",
      "Elasticsearch_6.8"
    ]
  },
  {
    "SourceVersion":"Elasticsearch_5.3",
    "TargetVersions":[
      "Elasticsearch_5.6"
    ]
  },
  {
    "SourceVersion":"Elasticsearch_6.3",
    "TargetVersions":[
      "Elasticsearch_6.4",
      "Elasticsearch_6.5",
      "Elasticsearch_6.7",
      "Elasticsearch_6.8"
    ]
  },
  {
    "SourceVersion":"Elasticsearch_6.4",
    "TargetVersions":[
      "Elasticsearch_6.5",
      "Elasticsearch_6.7",
      "Elasticsearch_6.8"
    ]
  },
  {
    "SourceVersion":"Elasticsearch_5.5",
    "TargetVersions":[
      "Elasticsearch_5.6"
    ]
  },
  {
    "SourceVersion":"Elasticsearch_7.4",
    "TargetVersions":[
      "Elasticsearch_7.7",
      "Elasticsearch_7.8",
      "Elasticsearch_7.9",
```

```
        "Elasticsearch_7.10",
        "OpenSearch_1.0",
        "OpenSearch_1.1",
        "OpenSearch_1.2",
        "OpenSearch_1.3"
    ]
},
{
    "SourceVersion":"Elasticsearch_6.5",
    "TargetVersions":[
        "Elasticsearch_6.7",
        "Elasticsearch_6.8"
    ]
},
{
    "SourceVersion":"Elasticsearch_5.6",
    "TargetVersions":[
        "Elasticsearch_6.3",
        "Elasticsearch_6.4",
        "Elasticsearch_6.5",
        "Elasticsearch_6.7",
        "Elasticsearch_6.8"
    ]
},
{
    "SourceVersion":"Elasticsearch_6.7",
    "TargetVersions":[
        "Elasticsearch_6.8"
    ]
}
]
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

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

GetDataSource

Service: Amazon OpenSearch Service

Retrieves information about a direct query data source.

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/dataSource/DataSourceName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: [a-z][a-z0-9\ -]+

Required: Yes

DataSourceName

The name of the data source to get information about.

Length Constraints: Minimum length of 3. Maximum length of 80.

Pattern: [a-z][a-z0-9_]+

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

```
{
  "DataSourceType": { ... },
  "Description": "string",
  "Name": "string",
  "Status": "string"
}
```

Response Elements

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

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

DataSourceType

The type of data source.

Type: [DataSourceType](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

Description

A description of the data source.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `^[a-zA-Z0-9_]*[\\a-zA-Z0-9_@#%*+=:?./!\s-]*$`

Name

The name of the data source.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 80.

Pattern: `[a-z][a-z0-9_]+`

Status

The status of the data source.

Type: String

Valid Values: ACTIVE | DISABLED

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DependencyFailureException

An exception for when a failure in one of the dependencies results in the service being unable to fetch details about the resource.

HTTP Status Code: 424

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

GetDomainMaintenanceStatus

Service: Amazon OpenSearch Service

The status of the maintenance action.

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/domainMaintenance?  
maintenanceId=MaintenanceId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

MaintenanceId

The request ID of the maintenance action.

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

Pattern: `^([\s\S]*)$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

```
{  
  "Action": "string",  
  "CreatedAt": number,  
  "NodeId": "string",  
  "Status": "string",  
  "StatusMessage": "string",  
  "UpdatedAt": number  
}
```

Response Elements

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

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

Action

The action name.

Type: String

Valid Values: REBOOT_NODE | RESTART_SEARCH_PROCESS | RESTART_DASHBOARD

CreatedAt

The time at which the action was created.

Type: Timestamp

NodeId

The node ID of the maintenance action.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 40.

Status

The status of the maintenance action.

Type: String

Valid Values: PENDING | IN_PROGRESS | COMPLETED | FAILED | TIMED_OUT

StatusMessage

The status message of the maintenance action.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1000.

Pattern: `^([\s\S]*)$`

UpdatedAt

The time at which the action was updated.

Type: Timestamp

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

GetPackageVersionHistory

Service: Amazon OpenSearch Service

Returns a list of Amazon OpenSearch Service package versions, along with their creation time, commit message, and plugin properties (if the package is a zip plugin package). For more information, see [Custom packages for Amazon OpenSearch Service](#).

Request Syntax

```
GET /2021-01-01/packages/PackageID/history?maxResults=MaxResults&nextToken=NextToken
HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

[MaxResults](#)

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

Valid Range: Maximum value of 100.

[NextToken](#)

If your initial `GetPackageVersionHistory` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `GetPackageVersionHistory` operations, which returns results in the next page.

[PackageID](#)

The unique identifier of the package.

Pattern: `^([FG][0-9]+)$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "NextToken": "string",
  "PackageID": "string",
  "PackageVersionHistoryList": [
    {
      "CommitMessage": "string",
      "CreatedAt": number,
      "PackageVersion": "string",
      "PluginProperties": {
        "ClassName": "string",
        "Description": "string",
        "Name": "string",
        "UncompressedSizeInBytes": number,
        "Version": "string"
      }
    }
  ]
}
```

Response Elements

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

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

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

PackageID

The unique identifier of the package.

Type: String

Pattern: `^([FG][0-9]+)$`

PackageVersionHistoryList

A list of package versions, along with their creation time and commit message.

Type: Array of [PackageVersionHistory](#) objects

Errors

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

AccessDeniedException

An error occurred because you don't have permissions to access the resource.

HTTP Status Code: 403

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

GetUpgradeHistory

Service: Amazon OpenSearch Service

Retrieves the complete history of the last 10 upgrades performed on an Amazon OpenSearch Service domain.

Request Syntax

```
GET /2021-01-01/opensearch/upgradeDomain/DomainName/history?  
maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of an existing domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

MaxResults

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

Valid Range: Maximum value of 100.

NextToken

If your initial `GetUpgradeHistory` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `GetUpgradeHistory` operations, which returns results in the next page.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "NextToken": "string",
  "UpgradeHistories": [
    {
      "StartTimestamp": number,
      "StepsList": [
        {
          "Issues": [ "string" ],
          "ProgressPercent": number,
          "UpgradeStep": "string",
          "UpgradeStepStatus": "string"
        }
      ],
      "UpgradeName": "string",
      "UpgradeStatus": "string"
    }
  ]
}
```

Response Elements

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

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

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

UpgradeHistories

A list of objects corresponding to each upgrade or upgrade eligibility check performed on a domain.

Type: Array of [UpgradeHistory](#) objects

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

GetUpgradeStatus

Service: Amazon OpenSearch Service

Returns the most recent status of the last upgrade or upgrade eligibility check performed on an Amazon OpenSearch Service domain.

Request Syntax

```
GET /2021-01-01/opensearch/upgradeDomain/DomainName/status HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The domain of the domain to get upgrade status information for.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "StepStatus": "string",
  "UpgradeName": "string",
  "UpgradeStep": "string"
}
```

Response Elements

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

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

StepStatus

The status of the current step that an upgrade is on.

Type: String

Valid Values: IN_PROGRESS | SUCCEEDED | SUCCEEDED_WITH_ISSUES | FAILED

UpgradeName

A string that describes the update.

Type: String

UpgradeStep

One of three steps that an upgrade or upgrade eligibility check goes through.

Type: String

Valid Values: PRE_UPGRADE_CHECK | SNAPSHOT | UPGRADE

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListDataSources

Service: Amazon OpenSearch Service

Lists direct-query data sources for a specific domain. For more information, see For more information, see [Working with Amazon OpenSearch Service direct queries with Amazon S3](#).

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/dataSource HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "DataSources": [
    {
      "DataSourceType": { ... },
      "Description": "string",
      "Name": "string",
      "Status": "string"
    }
  ]
}
```

```
]
}
```

Response Elements

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

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

DataSources

A list of data sources associated with specified domain.

Type: Array of [DataSourceDetails](#) objects

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DependencyFailureException

An exception for when a failure in one of the dependencies results in the service being unable to fetch details about the resource.

HTTP Status Code: 424

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListDomainMaintenances

Service: Amazon OpenSearch Service

A list of maintenance actions for the domain.

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/domainMaintenances?  
action=Action&maxResults=MaxResults&nextToken=NextToken&status=Status HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

Action

The name of the action.

Valid Values: REBOOT_NODE | RESTART_SEARCH_PROCESS | RESTART_DASHBOARD

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: [a-z][a-z0-9\ -]+

Required: Yes

MaxResults

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

Valid Range: Maximum value of 100.

NextToken

If your initial `ListDomainMaintenances` operation returns a `nextToken`, include the returned `nextToken` in subsequent `ListDomainMaintenances` operations, which returns results in the next page.

Status

The status of the action.

Valid Values: PENDING | IN_PROGRESS | COMPLETED | FAILED | TIMED_OUT

Request Body

The request does not have a request body.

Response Syntax

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

{
  "DomainMaintenances": [
    {
      "Action": "string",
      "CreatedAt": number,
      "DomainName": "string",
      "MaintenanceId": "string",
      "NodeId": "string",
      "Status": "string",
      "StatusMessage": "string",
      "UpdatedAt": number
    }
  ],
  "NextToken": "string"
}
```

Response Elements

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

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

DomainMaintenances

A list of the submitted maintenance actions.

Type: Array of [DomainMaintenanceDetails](#) objects

NextToken

When `nextToken` is returned, there are more results available. The value of `nextToken` is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListDomainNames

Service: Amazon OpenSearch Service

Returns the names of all Amazon OpenSearch Service domains owned by the current user in the active Region.

Request Syntax

```
GET /2021-01-01/domain?engineType=EngineType HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

EngineType

Filters the output by domain engine type.

Valid Values: OpenSearch | Elasticsearch

Request Body

The request does not have a request body.

Response Syntax

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

{
  "DomainNames": [
    {
      "DomainName": "string",
      "EngineType": "string"
    }
  ]
}
```

Response Elements

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

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

DomainNames

The names of all OpenSearch Service domains owned by the current user and their respective engine types.

Type: Array of [DomainInfo](#) objects

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of ListDomainNames.

Sample Request

```
GET /2021-01-01/domain HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/
opensearch.list-domain-names
X-Amz-Date: 20240209T223114Z
X-Amz-Security-Token: IQoJb3JpZ21uX2VjEEcaCXVz==
```

```
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240209/us-east-1/
es/aws4_request, SignedHeaders=host;x-amz-date;x-amz-security-token,
Signature=47e588909eb82143e199bb6e4ec3c0cae11f20e4778fda277d68b0518bca962a
```

Sample Response

```
{
  "DomainNames": [
    {
      "DomainName": "my-domain-1",
      "EngineType": "OpenSearch"
    },
    {
      "DomainName": "my-domain-2",
      "EngineType": "OpenSearch"
    },
    {
      "DomainName": "my-domain-3",
      "EngineType": "OpenSearch"
    },
    {
      "DomainName": "my-domain-4",
      "EngineType": "OpenSearch"
    },
    {
      "DomainName": "my-domain-5",
      "EngineType": "OpenSearch"
    },
    {
      "DomainName": "my-domain-6",
      "EngineType": "OpenSearch"
    }
  ]
}
```

See Also

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

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListDomainsForPackage

Service: Amazon OpenSearch Service

Lists all Amazon OpenSearch Service domains associated with a given package. For more information, see [Custom packages for Amazon OpenSearch Service](#).

Request Syntax

```
GET /2021-01-01/packages/PackageID/domains?maxResults=MaxResults&nextToken=NextToken
HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MaxResults

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

Valid Range: Maximum value of 100.

NextToken

If your initial `ListDomainsForPackage` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `ListDomainsForPackage` operations, which returns results in the next page.

PackageID

The unique identifier of the package for which to list associated domains.

Pattern: `^([FG][0-9]+)$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
  "DomainPackageDetailsList": [
    {
      "DomainName": "string",
      "DomainPackageStatus": "string",
      "ErrorDetails": {
        "ErrorMessage": "string",
        "ErrorType": "string"
      },
      "LastUpdated": number,
      "PackageID": "string",
      "PackageName": "string",
      "PackageType": "string",
      "PackageVersion": "string",
      "ReferencePath": "string"
    }
  ],
  "NextToken": "string"
}
```

Response Elements

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

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

DomainPackageDetailsList

Information about all domains associated with a package.

Type: Array of [DomainPackageDetails](#) objects

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

Errors

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

AccessDeniedException

An error occurred because you don't have permissions to access the resource.

HTTP Status Code: 403

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

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

ListInstanceTypeDetails

Service: Amazon OpenSearch Service

Lists all instance types and available features for a given OpenSearch or Elasticsearch version.

Request Syntax

```
GET /2021-01-01/opensearch/instanceTypeDetails/EngineVersion?  
domainName=DomainName&instanceType=InstanceType&maxResults=MaxResults&nextToken=NextToken&retri  
HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

EngineVersion

The version of OpenSearch or Elasticsearch, in the format Elasticsearch_X.Y or OpenSearch_X.Y. Defaults to the latest version of OpenSearch.

Length Constraints: Minimum length of 14. Maximum length of 18.

Pattern: `^Elasticsearch_[0-9]{1}\.[0-9]{1,2}$|^OpenSearch_[0-9]{1,2}\.[0-9]{1,2}$`

Required: Yes

InstanceType

An optional parameter that lists information for a given instance type.

Length Constraints: Minimum length of 10. Maximum length of 40.

Pattern: `^.*\..*\.search$`

MaxResults

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

Valid Range: Maximum value of 100.

NextToken

If your initial `ListInstanceTypeDetails` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `ListInstanceTypeDetails` operations, which returns results in the next page.

RetrieveAZs

An optional parameter that specifies the Availability Zones for the domain.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "InstanceTypeDetails": [
    {
      "AdvancedSecurityEnabled": boolean,
      "AppLogsEnabled": boolean,
      "AvailabilityZones": [ "string" ],
      "CognitoEnabled": boolean,
      "EncryptionEnabled": boolean,
      "InstanceRole": [ "string" ],
      "InstanceType": "string",
      "WarmEnabled": boolean
    }
  ],
  "NextToken": "string"
}
```

Response Elements

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

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

InstanceTypeDetails

Lists all supported instance types and features for the given OpenSearch or Elasticsearch version.

Type: Array of [InstanceTypeDetails](#) objects

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of `ListInstanceTypeDetails`.

Sample Request

```
GET /2021-01-01/opensearch/instanceTypeDetails/OpenSearch_2.7 HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/opensearch.list-instance-type-details
X-Amz-Date: 20240205T214608Z
X-Amz-Security-Token: IQoJb3JpZ22luX2VjEIwEaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240205/us-east-1/es/aws4_request, SignedHeaders=host;x-amz-date;x-amz-security-token, Signature=ba339a65cce237509bf48253a8073a034173a5b198f693f9f29665d8bc6d4e48
```

Sample Response

```
{
  "InstanceTypeDetails": [
    {
      "AdvancedSecurityEnabled": true,
      "AppLogsEnabled": true,
      "AvailabilityZones": null,
      "CognitoEnabled": true,
      "EncryptionEnabled": true,
      "InstanceRole": [
        "data",
        "master"
      ],
      "InstanceType": "r5.large.search",
      "WarmEnabled": true
    },
    {
      "AdvancedSecurityEnabled": true,
      "AppLogsEnabled": true,
      "AvailabilityZones": null,
      "CognitoEnabled": true,
```

```
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r4.2xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"c4.2xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"m5.large.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
  ],
```

```
    "InstanceType": "c5.large.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "r6g.8xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "m5.12xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "i3.4xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
```

```
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"im4gn.2xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"c4.8xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r4.xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
```

```
        "data",
        "master"
    ],
    "InstanceType": "r6gd.16xlarge.search",
    "WarmEnabled": true
},
{
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
        "data",
        "master"
    ],
    "InstanceType": "r5.2xlarge.search",
    "WarmEnabled": true
},
{
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
        "data",
        "master"
    ],
    "InstanceType": "i2.2xlarge.search",
    "WarmEnabled": true
},
{
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
        "data",
        "master"
    ],
    "InstanceType": "r6g.2xlarge.search",
    "WarmEnabled": true
}
```

```
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"m6g.2xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r5.12xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r4.large.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
```



```
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r6g.xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":false,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"m3.2xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"m5.xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
```

```
    ],
    "InstanceType": "c6g.12xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": false,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "r3.8xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "c6g.xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "r5.4xlarge.search",
    "WarmEnabled": true
  },
  {
```

```
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"im4gn.8xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"i3.16xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"c5.4xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
```

```
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"c5.9xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"c4.xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"m4.2xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r4.8xlarge.search",
```

```
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":false,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"m3.medium.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"t3.medium.search",
    "WarmEnabled":false
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"t3.small.search",
    "WarmEnabled":false
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
```

```
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"i3.xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"im4gn.xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r6g.12xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
```

```
        "master"
    ],
    "InstanceType": "m5.2xlarge.search",
    "WarmEnabled": true
},
{
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": false,
    "InstanceRole": [
        "data",
        "master"
    ],
    "InstanceType": "r3.xlarge.search",
    "WarmEnabled": true
},
{
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
        "ultra_warm"
    ],
    "InstanceType": "ultrawarm1.large.search",
    "WarmEnabled": false
},
{
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
        "data",
        "master"
    ],
    "InstanceType": "c4.4xlarge.search",
    "WarmEnabled": true
},
{
```

```
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":false,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r3.2xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"i3.large.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":false,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r3.4xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":false,
```



```
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"t2.medium.search",
    "WarmEnabled":false
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r6g.large.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "ultra_warm"
    ],
    "InstanceType":"ultrawarm1.medium.search",
    "WarmEnabled":false
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"c5.xlarge.search",
    "WarmEnabled":true
  }
```

```
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r6gd.4xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":false,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"t2.small.search",
    "WarmEnabled":false
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"m4.xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
```

```
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r6gd.xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":false,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"m3.large.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"c6g.4xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
```

```
    ],
    "InstanceType": "c6g.8xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "c5.18xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "r4.4xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "m6g.4xlarge.search",
    "WarmEnabled": true
  },
  {
```

```
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"i2.xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"m4.10xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"i3.2xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
```

```
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r6gd.8xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"im4gn.4xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r6gd.large.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"c4.large.search",
```

```
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r4.16xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"c6g.large.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"c6g.2xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
```

```
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r6g.4xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"im4gn.large.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"m6g.12xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
```



```
        "master"
    ],
    "InstanceType": "m4.large.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "r6gd.12xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "r5.xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": false,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "r3.large.search",
    "WarmEnabled": true
  },
}
```

```
{
  "AdvancedSecurityEnabled":true,
  "AppLogsEnabled":true,
  "AvailabilityZones":null,
  "CognitoEnabled":true,
  "EncryptionEnabled":true,
  "InstanceRole":[
    "data",
    "master"
  ],
  "InstanceType":"i3.8xlarge.search",
  "WarmEnabled":true
},
{
  "AdvancedSecurityEnabled":true,
  "AppLogsEnabled":true,
  "AvailabilityZones":null,
  "CognitoEnabled":true,
  "EncryptionEnabled":true,
  "InstanceRole":[
    "data",
    "master"
  ],
  "InstanceType":"m5.4xlarge.search",
  "WarmEnabled":true
},
{
  "AdvancedSecurityEnabled":true,
  "AppLogsEnabled":true,
  "AvailabilityZones":null,
  "CognitoEnabled":true,
  "EncryptionEnabled":false,
  "InstanceRole":[
    "data",
    "master"
  ],
  "InstanceType":"m3.xlarge.search",
  "WarmEnabled":true
},
{
  "AdvancedSecurityEnabled":true,
  "AppLogsEnabled":true,
  "AvailabilityZones":null,
  "CognitoEnabled":true,
```

```
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"m6g.xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"r6gd.2xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
    "InstanceType":"im4gn.16xlarge.search",
    "WarmEnabled":true
  },
  {
    "AdvancedSecurityEnabled":true,
    "AppLogsEnabled":true,
    "AvailabilityZones":null,
    "CognitoEnabled":true,
    "EncryptionEnabled":true,
    "InstanceRole":[
      "data",
      "master"
    ],
  ],
```

```
    "InstanceType": "m4.4xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "c5.2xlarge.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "m6g.large.search",
    "WarmEnabled": true
  },
  {
    "AdvancedSecurityEnabled": true,
    "AppLogsEnabled": true,
    "AvailabilityZones": null,
    "CognitoEnabled": true,
    "EncryptionEnabled": true,
    "InstanceRole": [
      "data",
      "master"
    ],
    "InstanceType": "m6g.8xlarge.search",
    "WarmEnabled": true
  }
],
"NextToken": null
```

```
}
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListPackagesForDomain

Service: Amazon OpenSearch Service

Lists all packages associated with an Amazon OpenSearch Service domain. For more information, see [Custom packages for Amazon OpenSearch Service](#).

Request Syntax

```
GET /2021-01-01/domain/DomainName/packages?maxResults=MaxResults&nextToken=NextToken
HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain for which you want to list associated packages.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

MaxResults

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

Valid Range: Maximum value of 100.

NextToken

If your initial `ListPackagesForDomain` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `ListPackagesForDomain` operations, which returns results in the next page.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "DomainPackageDetailsList": [
    {
      "DomainName": "string",
      "DomainPackageStatus": "string",
      "ErrorDetails": {
        "ErrorMessage": "string",
        "ErrorType": "string"
      },
      "LastUpdated": number,
      "PackageID": "string",
      "PackageName": "string",
      "PackageType": "string",
      "PackageVersion": "string",
      "ReferencePath": "string"
    }
  ],
  "NextToken": "string"
}
```

Response Elements

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

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

DomainPackageDetailsList

List of all packages associated with a domain.

Type: Array of [DomainPackageDetails](#) objects

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

Errors

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

AccessDeniedException

An error occurred because you don't have permissions to access the resource.

HTTP Status Code: 403

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

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

ListScheduledActions

Service: Amazon OpenSearch Service

Retrieves a list of configuration changes that are scheduled for a domain. These changes can be [service software updates](#) or [blue/green Auto-Tune enhancements](#).

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/scheduledActions?  
maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

MaxResults

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

Valid Range: Maximum value of 100.

NextToken

If your initial `ListScheduledActions` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `ListScheduledActions` operations, which returns results in the next page.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "NextToken": "string",
  "ScheduledActions": [
    {
      "Cancellable": boolean,
      "Description": "string",
      "Id": "string",
      "Mandatory": boolean,
      "ScheduledBy": "string",
      "ScheduledTime": number,
      "Severity": "string",
      "Status": "string",
      "Type": "string"
    }
  ]
}
```

Response Elements

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

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

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

ScheduledActions

A list of actions that are scheduled for the domain.

Type: Array of [ScheduledAction](#) objects

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

InvalidPaginationTokenException

Request processing failed because you provided an invalid pagination token.

HTTP Status Code: 400

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

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

ListTags

Service: Amazon OpenSearch Service

Returns all resource tags for an Amazon OpenSearch Service domain. For more information, see [Tagging Amazon OpenSearch Service domains](#).

Request Syntax

```
GET /2021-01-01/tags/?arn=ARN HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

ARN

Amazon Resource Name (ARN) for the domain to view tags for.

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

Pattern: .*

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

```
{
  "TagList": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Response Elements

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

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

TagList

List of resource tags associated with the specified domain.

Type: Array of [Tag](#) objects

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of ListTags.

Sample Request

```
GET /2021-01-01/tags/?arn=arn%3Aaws%3Aes%3Aus-east-1%3A302040998751%3Adomain%2Fmarketing HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/opensearch.list-tags
X-Amz-Date: 20240212T221352Z
X-Amz-Security-Token: IQoJb3JpZ22luX2VjEIwEaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240212/us-east-1/es/aws4_request, SignedHeaders=host;x-amz-date;x-amz-security-token, Signature=8f19277a8b3e677b1f8efcfa58e419c04e83b6b79c2db3125b151c1c2f4c8539
```

Sample Response

```
{
  "TagList": [
    {
      "Key": "department",
      "Value": "marketing"
    }
  ]
}
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListVersions

Service: Amazon OpenSearch Service

Lists all versions of OpenSearch and Elasticsearch that Amazon OpenSearch Service supports.

Request Syntax

```
GET /2021-01-01/opensearch/versions?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MaxResults

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

Valid Range: Maximum value of 100.

NextToken

If your initial `ListVersions` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `ListVersions` operations, which returns results in the next page.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "NextToken": "string",
  "Versions": [ "string" ]
}
```

Response Elements

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

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

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

Versions

A list of all versions of OpenSearch and Elasticsearch that Amazon OpenSearch Service supports.

Type: Array of strings

Length Constraints: Minimum length of 14. Maximum length of 18.

Pattern: `^Elasticsearch_[0-9]{1}\.[0-9]{1,2}$|^OpenSearch_[0-9]{1,2}\.[0-9]{1,2}$`

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of ListVersions.

Sample Request

```
GET /2021-01-01/opensearch/versions HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/
opensearch.list-versions
X-Amz-Date: 20240205T211126Z
X-Amz-Security-Token: IQoJb3JpZ2luX2VjEI3wEaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240205/us-east-1/
es/aws4_request, SignedHeaders=host;x-amz-date;x-amz-security-token,
Signature=10e4bd0052c108fb022e79d4f122329d00a6d376054dadedfcd81bb8df728d808
```

Sample Response

```
{
  "NextToken": null,
  "Versions": [
    "OpenSearch_2.11",
    "OpenSearch_2.9",
    "OpenSearch_2.7",
    "OpenSearch_2.5",
    "OpenSearch_2.3",
    "OpenSearch_1.3",
    "OpenSearch_1.2",
    "OpenSearch_1.1",
    "OpenSearch_1.0",
    "Elasticsearch_7.10",
    "Elasticsearch_7.9",
    "Elasticsearch_7.8",
```

```
"Elasticsearch_7.7",  
"Elasticsearch_7.4",  
"Elasticsearch_7.1",  
"Elasticsearch_6.8",  
"Elasticsearch_6.7",  
"Elasticsearch_6.5",  
"Elasticsearch_6.4",  
"Elasticsearch_6.3",  
"Elasticsearch_6.2",  
"Elasticsearch_6.0",  
"Elasticsearch_5.6",  
"Elasticsearch_5.5",  
"Elasticsearch_5.3",  
"Elasticsearch_5.1",  
"Elasticsearch_2.3",  
"Elasticsearch_1.5"  
]  
}
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListVpcEndpointAccess

Service: Amazon OpenSearch Service

Retrieves information about each AWS principal that is allowed to access a given Amazon OpenSearch Service domain through the use of an interface VPC endpoint.

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/listVpcEndpointAccess?nextToken=NextToken
HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the OpenSearch Service domain to retrieve access information for.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

NextToken

If your initial `ListVpcEndpointAccess` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `ListVpcEndpointAccess` operations, which returns results in the next page.

Request Body

The request does not have a request body.

Response Syntax

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

{
```

```
"AuthorizedPrincipalList": [  
  {  
    "Principal": "string",  
    "PrincipalType": "string"  
  }  
],  
"NextToken": "string"  
}
```

Response Elements

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

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

AuthorizedPrincipalList

A list of [IAM principals](#) that can currently access the domain.

Type: Array of [AuthorizedPrincipal](#) objects

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListVpcEndpoints

Service: Amazon OpenSearch Service

Retrieves all Amazon OpenSearch Service-managed VPC endpoints in the current AWS account and Region.

Request Syntax

```
GET /2021-01-01/opensearch/vpcEndpoints?nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

NextToken

If your initial `ListVpcEndpoints` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `ListVpcEndpoints` operations, which returns results in the next page.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "NextToken": "string",
  "VpcEndpointSummaryList": [
    {
      "DomainArn": "string",
      "Status": "string",
      "VpcEndpointId": "string",
      "VpcEndpointOwner": "string"
    }
  ]
}
```

```
}
```

Response Elements

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

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

NextToken

When `nextToken` is returned, there are more results available. The value of `nextToken` is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

VpcEndpointSummaryList

Information about each endpoint.

Type: Array of [VpcEndpointSummary](#) objects

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListVpcEndpointsForDomain

Service: Amazon OpenSearch Service

Retrieves all Amazon OpenSearch Service-managed VPC endpoints associated with a particular domain.

Request Syntax

```
GET /2021-01-01/opensearch/domain/DomainName/vpcEndpoints?nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain to list associated VPC endpoints for.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-]+`

Required: Yes

NextToken

If your initial `ListEndpointsForDomain` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `ListEndpointsForDomain` operations, which returns results in the next page.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "NextToken": "string",
```

```
"VpcEndpointSummaryList": [  
  {  
    "DomainArn": "string",  
    "Status": "string",  
    "VpcEndpointId": "string",  
    "VpcEndpointOwner": "string"  
  }  
]
```

Response Elements

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

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

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Send the request again using the returned token to retrieve the next page.

Type: String

VpcEndpointSummaryList

Information about each endpoint associated with the domain.

Type: Array of [VpcEndpointSummary](#) objects

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

PurchaseReservedInstanceOffering

Service: Amazon OpenSearch Service

Allows you to purchase Amazon OpenSearch Service Reserved Instances.

Request Syntax

```
POST /2021-01-01/opensearch/purchaseReservedInstanceOffering HTTP/1.1
Content-type: application/json

{
  "InstanceCount": number,
  "ReservationName": "string",
  "ReservedInstanceOfferingId": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

InstanceCount

The number of OpenSearch instances to reserve.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

ReservationName

A customer-specified identifier to track this reservation.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 64.

Pattern: .*

Required: Yes

ReservedInstanceOfferingId

The ID of the Reserved Instance offering to purchase.

Type: String

Length Constraints: Fixed length of 36.

Pattern: \p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}

Required: Yes

Response Syntax

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

{
  "ReservationName": "string",
  "ReservedInstanceId": "string"
}
```

Response Elements

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

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

ReservationName

The customer-specified identifier used to track this reservation.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 64.

Pattern: .*

ReservedInstanceId

The ID of the Reserved Instance offering that was purchased.

Type: String

Length Constraints: Fixed length of 36.

Pattern: \p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}

Errors

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

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ResourceAlreadyExistsException

An exception for creating a resource that already exists.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

RejectInboundConnection

Service: Amazon OpenSearch Service

Allows the remote Amazon OpenSearch Service domain owner to reject an inbound cross-cluster connection request.

Request Syntax

```
PUT /2021-01-01/opensearch/cc/inboundConnection/ConnectionId/reject HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

ConnectionId

The unique identifier of the inbound connection to reject.

Length Constraints: Minimum length of 10. Maximum length of 256.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Connection": {
    "ConnectionId": "string",
    "ConnectionMode": "string",
    "ConnectionStatus": {
      "Message": "string",
      "StatusCode": "string"
    }
  }
}
```

```
    },
    "LocalDomainInfo": {
      "AWSDomainInformation": {
        "DomainName": "string",
        "OwnerId": "string",
        "Region": "string"
      }
    },
    "RemoteDomainInfo": {
      "AWSDomainInformation": {
        "DomainName": "string",
        "OwnerId": "string",
        "Region": "string"
      }
    }
  }
}
```

Response Elements

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

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

Connection

Contains details about the rejected inbound connection.

Type: [InboundConnection](#) object

Errors

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

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

RemoveTags

Service: Amazon OpenSearch Service

Removes the specified set of tags from an Amazon OpenSearch Service domain. For more information, see [Tagging Amazon OpenSearch Service domains](#).

Request Syntax

```
POST /2021-01-01/tags-removal HTTP/1.1
Content-type: application/json
```

```
{
  "ARN": "string",
  "TagKeys": [ "string" ]
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

ARN

The Amazon Resource Name (ARN) of the domain from which you want to delete the specified tags.

Type: String

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

Pattern: . *

Required: Yes

TagKeys

The list of tag keys to remove from the domain.

Type: Array of strings

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of RemoveTags.

Sample Request

```
POST /2021-01-01/tags-removal HTTP/1.1
Host: es.us-east-1.amazonaws.com
Accept-Encoding: identity
Content-Type: application/json
User-Agent: aws-cli/2.15.13 Python/3.11.6 Windows/10 exe/AMD64 prompt/off command/
opensearch.remove-tags
X-Amz-Date: 20240212T221612Z
X-Amz-Security-Token: IQoJb3JpZ2luX2VjEI3wEaCXVz==
Authorization: AWS4-HMAC-SHA256 Credential=ASIAU/20240212/us-east-1/es/
aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-security-token,
Signature=8fe55108204bb96b157bd4a5ca747c54264cb3c9c01a8137b1daffdf2eabb654
Content-Length: 100
{"ARN": "arn:aws:es:us-east-1:123456789012:domain/marketing", "TagKeys": ["department",
"marketing"]}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: ab0cd0ef-123g-4h5j-678k-16m534no08p7
Content-Type: application/json
Content-Length: 0
Date: Mon, 12 Feb 2024 22:16:12 GMT
Connection: keep-alive
```

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

RevokeVpcEndpointAccess

Service: Amazon OpenSearch Service

Revokes access to an Amazon OpenSearch Service domain that was provided through an interface VPC endpoint.

Request Syntax

```
POST /2021-01-01/opensearch/domain/DomainName/revokeVpcEndpointAccess HTTP/1.1
Content-type: application/json
```

```
{
  "Account": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the OpenSearch Service domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

Account

The account ID to revoke access from.

Type: String

Pattern: `^[0-9]+$`

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

StartDomainMaintenance

Service: Amazon OpenSearch Service

Starts the node maintenance process on the data node. These processes can include a node reboot, an Opensearch or Elasticsearch process restart, or a Dashboard or Kibana restart.

Request Syntax

```
POST /2021-01-01/opensearch/domain/DomainName/domainMaintenance HTTP/1.1
Content-type: application/json
```

```
{
  "Action": "string",
  "NodeId": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

Action

The name of the action.

Type: String

Valid Values: REBOOT_NODE | RESTART_SEARCH_PROCESS | RESTART_DASHBOARD

Required: Yes

NodeId

The ID of the data node.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 40.

Required: No

Response Syntax

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

{
  "MaintenanceId": "string"
}
```

Response Elements

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

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

MaintenanceId

The request ID of requested action.

Type: String

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

Pattern: $^([\s\S]^*)\$$

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

StartServiceSoftwareUpdate

Service: Amazon OpenSearch Service

Schedules a service software update for an Amazon OpenSearch Service domain. For more information, see [Service software updates in Amazon OpenSearch Service](#).

Request Syntax

```
POST /2021-01-01/opensearch/serviceSoftwareUpdate/start HTTP/1.1
Content-type: application/json
```

```
{
  "DesiredStartTime": number,
  "DomainName": "string",
  "ScheduleAt": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

DesiredStartTime

The Epoch timestamp when you want the service software update to start. You only need to specify this parameter if you set `ScheduleAt` to `TIMESTAMP`.

Type: Long

Required: No

DomainName

The name of the domain that you want to update to the latest service software.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

ScheduleAt

When to start the service software update.

- **NOW** - Immediately schedules the update to happen in the current hour if there's capacity available.
- **TIMESTAMP** - Lets you specify a custom date and time to apply the update. If you specify this value, you must also provide a value for `DesiredStartTime`.
- **OFF_PEAK_WINDOW** - Marks the update to be picked up during an upcoming off-peak window. There's no guarantee that the update will happen during the next immediate window. Depending on capacity, it might happen in subsequent days.

Default: **NOW** if you don't specify a value for `DesiredStartTime`, and **TIMESTAMP** if you do.

Type: String

Valid Values: **NOW** | **TIMESTAMP** | **OFF_PEAK_WINDOW**

Required: No

Response Syntax

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

{
  "ServiceSoftwareOptions": {
    "AutomatedUpdateDate": number,
    "Cancellable": boolean,
    "CurrentVersion": "string",
    "Description": "string",
    "NewVersion": "string",
    "OptionalDeployment": boolean,
    "UpdateAvailable": boolean,
    "UpdateStatus": "string"
  }
}
```

Response Elements

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

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

ServiceSoftwareOptions

The current status of the OpenSearch Service software update.

Type: [ServiceSoftwareOptions](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateDataSource

Service: Amazon OpenSearch Service

Updates a direct-query data source. For more information, see [Working with Amazon OpenSearch Service data source integrations with Amazon S3](#).

Request Syntax

```
PUT /2021-01-01/opensearch/domain/DomainName/dataSource/DataSourceName HTTP/1.1
Content-type: application/json

{
  "DataSourceType": { ... },
  "Description": "string",
  "Status": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

DataSourceName

The name of the data source to modify.

Length Constraints: Minimum length of 3. Maximum length of 80.

Pattern: `[a-z][a-z0-9_]+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

DataSourceType

The type of data source.

Type: [DataSourceType](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

Description

A new description of the data source.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `^([a-zA-Z0-9_])*[\\a-zA-Z0-9_@#%*+=:?./!\s-]*$`

Required: No

Status

The status of the data source update.

Type: String

Valid Values: ACTIVE | DISABLED

Required: No

Response Syntax

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

{
  "Message": "string"
}
```

Response Elements

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

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

Message

A message associated with the updated data source.

Type: String

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DependencyFailureException

An exception for when a failure in one of the dependencies results in the service being unable to fetch details about the resource.

HTTP Status Code: 424

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateDomainConfig

Service: Amazon OpenSearch Service

Modifies the cluster configuration of the specified Amazon OpenSearch Service domain.

Request Syntax

```
POST /2021-01-01/opensearch/domain/DomainName/config HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "AccessPolicies": "string",
  "AdvancedOptions": {
    "string" : "string"
  },
  "AdvancedSecurityOptions": {
    "AnonymousAuthEnabled": boolean,
    "Enabled": boolean,
    "InternalUserDatabaseEnabled": boolean,
    "JWTOptions": {
      "Enabled": boolean,
      "PublicKey": "string",
      "RolesKey": "string",
      "SubjectKey": "string"
    },
    "MasterUserOptions": {
      "MasterUserARN": "string",
      "MasterUserName": "string",
      "MasterUserPassword": "string"
    },
    "SAMLOptions": {
      "Enabled": boolean,
      "Idp": {
        "EntityId": "string",
        "MetadataContent": "string"
      },
      "MasterBackendRole": "string",
      "MasterUserName": "string",
      "RolesKey": "string",
      "SessionTimeoutMinutes": number,
      "SubjectKey": "string"
    }
  },
}
```

```
"AutoTuneOptions": {
  "DesiredState": "string",
  "MaintenanceSchedules": [
    {
      "CronExpressionForRecurrence": "string",
      "Duration": {
        "Unit": "string",
        "Value": number
      },
      "StartAt": number
    }
  ],
  "RollbackOnDisable": "string",
  "UseOffPeakWindow": boolean
},
"ClusterConfig": {
  "ColdStorageOptions": {
    "Enabled": boolean
  },
  "DedicatedMasterCount": number,
  "DedicatedMasterEnabled": boolean,
  "DedicatedMasterType": "string",
  "InstanceCount": number,
  "InstanceType": "string",
  "MultiAZWithStandbyEnabled": boolean,
  "WarmCount": number,
  "WarmEnabled": boolean,
  "WarmType": "string",
  "ZoneAwarenessConfig": {
    "AvailabilityZoneCount": number
  },
  "ZoneAwarenessEnabled": boolean
},
"CognitoOptions": {
  "Enabled": boolean,
  "IdentityPoolId": "string",
  "RoleArn": "string",
  "UserPoolId": "string"
},
"DomainEndpointOptions": {
  "CustomEndpoint": "string",
  "CustomEndpointCertificateArn": "string",
  "CustomEndpointEnabled": boolean,
  "EnforceHTTPS": boolean,
```

```

    "TLSSecurityPolicy": "string"
  },
  "DryRun": boolean,
  "DryRunMode": "string",
  "EBSOptions": {
    "EBSEnabled": boolean,
    "Iops": number,
    "Throughput": number,
    "VolumeSize": number,
    "VolumeType": "string"
  },
  "EncryptionAtRestOptions": {
    "Enabled": boolean,
    "KmsKeyId": "string"
  },
  "IPAddressType": "string",
  "LogPublishingOptions": {
    "string" : {
      "CloudWatchLogsLogGroupArn": "string",
      "Enabled": boolean
    }
  },
  "NodeToNodeEncryptionOptions": {
    "Enabled": boolean
  },
  "OffPeakWindowOptions": {
    "Enabled": boolean,
    "OffPeakWindow": {
      "WindowStartTime": {
        "Hours": number,
        "Minutes": number
      }
    }
  },
  "SnapshotOptions": {
    "AutomatedSnapshotStartHour": number
  },
  "SoftwareUpdateOptions": {
    "AutoSoftwareUpdateEnabled": boolean
  },
  "VPCOptions": {
    "SecurityGroupIds": [ "string" ],
    "SubnetIds": [ "string" ]
  }
}

```

```
}
```

URI Request Parameters

The request uses the following URI parameters.

DomainName

The name of the domain that you're updating.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

AccessPolicies

Identity and Access Management (IAM) access policy as a JSON-formatted string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 102400.

Pattern: `.*`

Required: No

AdvancedOptions

Key-value pairs to specify advanced configuration options. The following key-value pairs are supported:

- `"rest.action.multi.allow_explicit_index": "true" | "false"` - Note the use of a string rather than a boolean. Specifies whether explicit references to indexes are allowed inside the body of HTTP requests. If you want to configure access policies for domain sub-resources, such as specific indexes and domain APIs, you must disable this property. Default is true.

- `"indices.fielddata.cache.size": "80"` - Note the use of a string rather than a boolean. Specifies the percentage of heap space allocated to field data. Default is unbounded.
- `"indices.query.bool.max_clause_count": "1024"` - Note the use of a string rather than a boolean. Specifies the maximum number of clauses allowed in a Lucene boolean query. Default is 1,024. Queries with more than the permitted number of clauses result in a `TooManyClauses` error.

For more information, see [Advanced cluster parameters](#).

Type: String to string map

Required: No

[AdvancedSecurityOptions](#)

Options for fine-grained access control.

Type: [AdvancedSecurityOptionsInput](#) object

Required: No

[AutoTuneOptions](#)

Options for Auto-Tune.

Type: [AutoTuneOptions](#) object

Required: No

[ClusterConfig](#)

Changes that you want to make to the cluster configuration, such as the instance type and number of EC2 instances.

Type: [ClusterConfig](#) object

Required: No

[CognitoOptions](#)

Key-value pairs to configure Amazon Cognito authentication for OpenSearch Dashboards.

Type: [CognitoOptions](#) object

Required: No

DomainEndpointOptions

Additional options for the domain endpoint, such as whether to require HTTPS for all traffic.

Type: [DomainEndpointOptions](#) object

Required: No

DryRun

This flag, when set to True, specifies whether the UpdateDomain request should return the results of a dry run analysis without actually applying the change. A dry run determines what type of deployment the update will cause.

Type: Boolean

Required: No

DryRunMode

The type of dry run to perform.

- `Basic` only returns the type of deployment (blue/green or dynamic) that the update will cause.
- `Verbose` runs an additional check to validate the changes you're making. For more information, see [Validating a domain update](#).

Type: String

Valid Values: `Basic` | `Verbose`

Required: No

EBSOptions

The type and size of the EBS volume to attach to instances in the domain.

Type: [EBSOptions](#) object

Required: No

EncryptionAtRestOptions

Encryption at rest options for the domain.

Type: [EncryptionAtRestOptions](#) object

Required: No

IPAddressType

Specify either dual stack or IPv4 as your IP address type. Dual stack allows you to share domain resources across IPv4 and IPv6 address types, and is the recommended option. If your IP address type is currently set to dual stack, you can't change it.

Type: String

Valid Values: `ipv4` | `dualstack`

Required: No

LogPublishingOptions

Options to publish OpenSearch logs to Amazon CloudWatch Logs.

Type: String to [LogPublishingOption](#) object map

Valid Keys: `INDEX_SLOW_LOGS` | `SEARCH_SLOW_LOGS` | `ES_APPLICATION_LOGS` | `AUDIT_LOGS`

Required: No

NodeToNodeEncryptionOptions

Node-to-node encryption options for the domain.

Type: [NodeToNodeEncryptionOptions](#) object

Required: No

OffPeakWindowOptions

Off-peak window options for the domain.

Type: [OffPeakWindowOptions](#) object

Required: No

SnapshotOptions

Option to set the time, in UTC format, for the daily automated snapshot. Default value is 0 hours.

Type: [SnapshotOptions](#) object

Required: No

SoftwareUpdateOptions

Service software update options for the domain.

Type: [SoftwareUpdateOptions](#) object

Required: No

VPCOptions

Options to specify the subnets and security groups for a VPC endpoint. For more information, see [Launching your Amazon OpenSearch Service domains using a VPC](#).

Type: [VPCOptions](#) object

Required: No

Response Syntax

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

{
  "DomainConfig": {
    "AccessPolicies": {
      "Options": "string",
      "Status": {
        "CreationDate": number,
        "PendingDeletion": boolean,
        "State": "string",
        "UpdateDate": number,
        "UpdateVersion": number
      }
    },
    "AdvancedOptions": {
      "Options": {
        "string" : "string"
      },
      "Status": {
        "CreationDate": number,
        "PendingDeletion": boolean,
        "State": "string",
        "UpdateDate": number,
        "UpdateVersion": number
      }
    }
  }
}
```



```

    }
  },
  "AdvancedSecurityOptions": {
    "Options": {
      "AnonymousAuthDisableDate": number,
      "AnonymousAuthEnabled": boolean,
      "Enabled": boolean,
      "InternalUserDatabaseEnabled": boolean,
      "JWTOptions": {
        "Enabled": boolean,
        "PublicKey": "string",
        "RolesKey": "string",
        "SubjectKey": "string"
      },
      "SAMLOptions": {
        "Enabled": boolean,
        "Idp": {
          "EntityId": "string",
          "MetadataContent": "string"
        },
        "RolesKey": "string",
        "SessionTimeoutMinutes": number,
        "SubjectKey": "string"
      }
    },
    "Status": {
      "CreationDate": number,
      "PendingDeletion": boolean,
      "State": "string",
      "UpdateDate": number,
      "UpdateVersion": number
    }
  },
  "AutoTuneOptions": {
    "Options": {
      "DesiredState": "string",
      "MaintenanceSchedules": [
        {
          "CronExpressionForRecurrence": "string",
          "Duration": {
            "Unit": "string",
            "Value": number
          },
          "StartAt": number
        }
      ]
    }
  }
}

```

```
    }
  ],
  "RollbackOnDisable": "string",
  "UseOffPeakWindow": boolean
},
"Status": {
  "CreationDate": number,
  "ErrorMessage": "string",
  "PendingDeletion": boolean,
  "State": "string",
  "UpdateDate": number,
  "UpdateVersion": number
}
},
"ChangeProgressDetails": {
  "ChangeId": "string",
  "ConfigChangeStatus": "string",
  "InitiatedBy": "string",
  "LastUpdatedTime": number,
  "Message": "string",
  "StartTime": number
},
"ClusterConfig": {
  "Options": {
    "ColdStorageOptions": {
      "Enabled": boolean
    },
    "DedicatedMasterCount": number,
    "DedicatedMasterEnabled": boolean,
    "DedicatedMasterType": "string",
    "InstanceCount": number,
    "InstanceType": "string",
    "MultiAZWithStandbyEnabled": boolean,
    "WarmCount": number,
    "WarmEnabled": boolean,
    "WarmType": "string",
    "ZoneAwarenessConfig": {
      "AvailabilityZoneCount": number
    },
    "ZoneAwarenessEnabled": boolean
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
```

```
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
},
"CognitoOptions": {
  "Options": {
    "Enabled": boolean,
    "IdentityPoolId": "string",
    "RoleArn": "string",
    "UserPoolId": "string"
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
},
"DomainEndpointOptions": {
  "Options": {
    "CustomEndpoint": "string",
    "CustomEndpointCertificateArn": "string",
    "CustomEndpointEnabled": boolean,
    "EnforceHTTPS": boolean,
    "TLSSecurityPolicy": "string"
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
},
"EBSOptions": {
  "Options": {
    "EBSEnabled": boolean,
    "Iops": number,
    "Throughput": number,
    "VolumeSize": number,
    "VolumeType": "string"
  },
}
```

```
    "Status": {
      "CreationDate": number,
      "PendingDeletion": boolean,
      "State": "string",
      "UpdateDate": number,
      "UpdateVersion": number
    }
  },
  "EncryptionAtRestOptions": {
    "Options": {
      "Enabled": boolean,
      "KmsKeyId": "string"
    },
    "Status": {
      "CreationDate": number,
      "PendingDeletion": boolean,
      "State": "string",
      "UpdateDate": number,
      "UpdateVersion": number
    }
  },
  "EngineVersion": {
    "Options": "string",
    "Status": {
      "CreationDate": number,
      "PendingDeletion": boolean,
      "State": "string",
      "UpdateDate": number,
      "UpdateVersion": number
    }
  },
  "IPAddressType": {
    "Options": "string",
    "Status": {
      "CreationDate": number,
      "PendingDeletion": boolean,
      "State": "string",
      "UpdateDate": number,
      "UpdateVersion": number
    }
  },
  "LogPublishingOptions": {
    "Options": {
      "string" : {
```

```
        "CloudWatchLogsLogGroupArn": "string",
        "Enabled": boolean
    }
},
"Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
}
],
"ModifyingProperties": [
    {
        "ActiveValue": "string",
        "Name": "string",
        "PendingValue": "string",
        "ValueType": "string"
    }
],
"NodeToNodeEncryptionOptions": {
    "Options": {
        "Enabled": boolean
    },
    "Status": {
        "CreationDate": number,
        "PendingDeletion": boolean,
        "State": "string",
        "UpdateDate": number,
        "UpdateVersion": number
    }
},
"OffPeakWindowOptions": {
    "Options": {
        "Enabled": boolean,
        "OffPeakWindow": {
            "WindowStartTime": {
                "Hours": number,
                "Minutes": number
            }
        }
    }
},
"Status": {
    "CreationDate": number,
```

```
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
},
"SnapshotOptions": {
  "Options": {
    "AutomatedSnapshotStartHour": number
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
},
"SoftwareUpdateOptions": {
  "Options": {
    "AutoSoftwareUpdateEnabled": boolean
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
},
"VPCOptions": {
  "Options": {
    "AvailabilityZones": [ "string" ],
    "SecurityGroupIds": [ "string" ],
    "SubnetIds": [ "string" ],
    "VPCId": "string"
  },
  "Status": {
    "CreationDate": number,
    "PendingDeletion": boolean,
    "State": "string",
    "UpdateDate": number,
    "UpdateVersion": number
  }
}
```

```
    }
  },
  "DryRunProgressStatus": {
    "CreationDate": "string",
    "DryRunId": "string",
    "DryRunStatus": "string",
    "UpdateDate": "string",
    "ValidationFailures": [
      {
        "Code": "string",
        "Message": "string"
      }
    ]
  },
  "DryRunResults": {
    "DeploymentType": "string",
    "Message": "string"
  }
}
```

Response Elements

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

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

DomainConfig

The status of the updated domain.

Type: [DomainConfig](#) object

DryRunProgressStatus

The status of the dry run being performed on the domain, if any.

Type: [DryRunProgressStatus](#) object

DryRunResults

Results of the dry run performed in the update domain request.

Type: [DryRunResults](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

InvalidTypeException

An exception for trying to create or access a sub-resource that's either invalid or not supported.

HTTP Status Code: 409

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdatePackage

Service: Amazon OpenSearch Service

Updates a package for use with Amazon OpenSearch Service domains. For more information, see [Custom packages for Amazon OpenSearch Service](#).

Request Syntax

```
POST /2021-01-01/packages/update HTTP/1.1
Content-type: application/json
```

```
{
  "CommitMessage": "string",
  "PackageDescription": "string",
  "PackageID": "string",
  "PackageSource": {
    "S3BucketName": "string",
    "S3Key": "string"
  }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

CommitMessage

Commit message for the updated file, which is shown as part of `GetPackageVersionHistoryResponse`.

Type: String

Length Constraints: Maximum length of 160.

Required: No

PackageDescription

A new description of the package.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

PackageID

The unique identifier for the package.

Type: String

Pattern: `^([FG][0-9]+)$`

Required: Yes

PackageSource

Amazon S3 bucket and key for the package.

Type: [PackageSource](#) object

Required: Yes

Response Syntax

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

{
  "PackageDetails": {
    "AvailablePackageVersion": "string",
    "AvailablePluginProperties": {
      "ClassName": "string",
      "Description": "string",
      "Name": "string",
      "UncompressedSizeInBytes": number,
      "Version": "string"
    },
    "CreatedAt": number,
    "EngineVersion": "string",
    "ErrorDetails": {
      "ErrorMessage": "string",
      "ErrorType": "string"
    }
  }
}
```

```
    },  
    "LastUpdatedAt": number,  
    "PackageDescription": "string",  
    "PackageID": "string",  
    "PackageName": "string",  
    "PackageStatus": "string",  
    "PackageType": "string"  
  }  
}
```

Response Elements

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

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

PackageDetails

Information about a package.

Type: [PackageDetails](#) object

Errors

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

AccessDeniedException

An error occurred because you don't have permissions to access the resource.

HTTP Status Code: 403

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateScheduledAction

Service: Amazon OpenSearch Service

Reschedules a planned domain configuration change for a later time. This change can be a scheduled [service software update](#) or a [blue/green Auto-Tune enhancement](#).

Request Syntax

```
PUT /2021-01-01/opensearch/domain/DomainName/scheduledAction/update HTTP/1.1
Content-type: application/json
```

```
{
  "ActionID": "string",
  "ActionType": "string",
  "DesiredStartTime": number,
  "ScheduleAt": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

[DomainName](#)

The name of the domain to reschedule an action for.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-_]+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

[ActionID](#)

The unique identifier of the action to reschedule. To retrieve this ID, send a [ListScheduledActions](#) request.

Type: String

Required: Yes

ActionType

The type of action to reschedule. Can be one of `SERVICE_SOFTWARE_UPDATE`, `JVM_HEAP_SIZE_TUNING`, or `JVM_YOUNG_GEN_TUNING`. To retrieve this value, send a [ListScheduledActions](#) request.

Type: String

Valid Values: `SERVICE_SOFTWARE_UPDATE` | `JVM_HEAP_SIZE_TUNING` | `JVM_YOUNG_GEN_TUNING`

Required: Yes

DesiredStartTime

The time to implement the change, in Coordinated Universal Time (UTC). Only specify this parameter if you set `ScheduleAt` to `TIMESTAMP`.

Type: Long

Required: No

ScheduleAt

When to schedule the action.

- `NOW` - Immediately schedules the update to happen in the current hour if there's capacity available.
- `TIMESTAMP` - Lets you specify a custom date and time to apply the update. If you specify this value, you must also provide a value for `DesiredStartTime`.
- `OFF_PEAK_WINDOW` - Marks the action to be picked up during an upcoming off-peak window. There's no guarantee that the change will be implemented during the next immediate window. Depending on capacity, it might happen in subsequent days.

Type: String

Valid Values: `NOW` | `TIMESTAMP` | `OFF_PEAK_WINDOW`

Required: Yes

Response Syntax

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

{
  "ScheduledAction": {
    "Cancellable": boolean,
    "Description": "string",
    "Id": "string",
    "Mandatory": boolean,
    "ScheduledBy": "string",
    "ScheduledTime": number,
    "Severity": "string",
    "Status": "string",
    "Type": "string"
  }
}
```

Response Elements

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

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

ScheduledAction

Information about the rescheduled action.

Type: [ScheduledAction](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

ConflictException

An error occurred because the client attempts to remove a resource that is currently in use.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

LimitExceededException

An exception for trying to create more than the allowed number of resources or sub-resources.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

SlotNotAvailableException

An exception for attempting to schedule a domain action during an unavailable time slot.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateVpcEndpoint

Service: Amazon OpenSearch Service

Modifies an Amazon OpenSearch Service-managed interface VPC endpoint.

Request Syntax

```
POST /2021-01-01/opensearch/vpcEndpoints/update HTTP/1.1
Content-type: application/json
```

```
{
  "VpcEndpointId": "string",
  "VpcOptions": {
    "SecurityGroupIds": [ "string" ],
    "SubnetIds": [ "string" ]
  }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

VpcEndpointId

The unique identifier of the endpoint.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 256.

Pattern: `^aos-[a-zA-Z0-9]*$`

Required: Yes

VpcOptions

The security groups and/or subnets to add, remove, or modify.

Type: [VPCOptions](#) object

Required: Yes

Response Syntax

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

{
  "VpcEndpoint": {
    "DomainArn": "string",
    "Endpoint": "string",
    "Status": "string",
    "VpcEndpointId": "string",
    "VpcEndpointOwner": "string",
    "VpcOptions": {
      "AvailabilityZones": [ "string" ],
      "SecurityGroupIds": [ "string" ],
      "SubnetIds": [ "string" ],
      "VPCId": "string"
    }
  }
}
```

Response Elements

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

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

VpcEndpoint

The endpoint to be updated.

Type: [VpcEndpoint](#) object

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

ConflictException

An error occurred because the client attempts to remove a resource that is currently in use.

HTTP Status Code: 409

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpgradeDomain

Service: Amazon OpenSearch Service

Allows you to either upgrade your Amazon OpenSearch Service domain or perform an upgrade eligibility check to a compatible version of OpenSearch or Elasticsearch.

Request Syntax

```
POST /2021-01-01/opensearch/upgradeDomain HTTP/1.1
Content-type: application/json
```

```
{
  "AdvancedOptions": {
    "string" : "string"
  },
  "DomainName": "string",
  "PerformCheckOnly": boolean,
  "TargetVersion": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

AdvancedOptions

Only supports the `override_main_response_version` parameter and not other advanced options. You can only include this option when upgrading to an OpenSearch version. Specifies whether the domain reports its version as 7.10 so that it continues to work with Elasticsearch OSS clients and plugins.

Type: String to string map

Required: No

DomainName

Name of the OpenSearch Service domain that you want to upgrade.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

PerformCheckOnly

When true, indicates that an upgrade eligibility check needs to be performed. Does not actually perform the upgrade.

Type: Boolean

Required: No

TargetVersion

OpenSearch or Elasticsearch version to which you want to upgrade, in the format `Opensearch_X.Y` or `Elasticsearch_X.Y`.

Type: String

Length Constraints: Minimum length of 14. Maximum length of 18.

Pattern: `^Elasticsearch_[0-9]{1}\.[0-9]{1,2}$|^OpenSearch_[0-9]{1,2}\.[0-9]{1,2}$`

Required: Yes

Response Syntax

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

{
  "AdvancedOptions": {
    "string" : "string"
  },
  "ChangeProgressDetails": {
    "ChangeId": "string",
    "ConfigChangeStatus": "string",
```



```
    "InitiatedBy": "string",
    "LastUpdatedTime": number,
    "Message": "string",
    "StartTime": number
  },
  "DomainName": "string",
  "PerformCheckOnly": boolean,
  "TargetVersion": "string",
  "UpgradeId": "string"
}
```

Response Elements

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

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

AdvancedOptions

The advanced options configuration for the domain.

Type: String to string map

ChangeProgressDetails

Container for information about a configuration change happening on a domain.

Type: [ChangeProgressDetails](#) object

DomainName

The name of the domain that was upgraded.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: [a-z][a-z0-9\-\-]+

PerformCheckOnly

When true, indicates that an upgrade eligibility check was performed.

Type: Boolean

TargetVersion

OpenSearch or Elasticsearch version that the domain was upgraded to.

Type: String

Length Constraints: Minimum length of 14. Maximum length of 18.

Pattern: ^Elasticsearch_[0-9]{1}\.[0-9]{1,2}\$|^OpenSearch_[0-9]{1,2}\.[0-9]{1,2}\$

UpgradeId

The unique identifier of the domain upgrade.

Type: String

Errors

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

BaseException

An error occurred while processing the request.

HTTP Status Code: 400

DisabledOperationException

An error occurred because the client wanted to access an unsupported operation.

HTTP Status Code: 409

InternalException

Request processing failed because of an unknown error, exception, or internal failure.

HTTP Status Code: 500

ResourceAlreadyExistsException

An exception for creating a resource that already exists.

HTTP Status Code: 409

ResourceNotFoundException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 409

ValidationException

An exception for accessing or deleting a resource that doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Amazon OpenSearch Ingestion

The following actions are supported by Amazon OpenSearch Ingestion:

- [CreatePipeline](#)
- [DeletePipeline](#)
- [GetPipeline](#)
- [GetPipelineBlueprint](#)
- [GetPipelineChangeProgress](#)

- [ListPipelineBlueprints](#)
- [ListPipelines](#)
- [ListTagsForResource](#)
- [StartPipeline](#)
- [StopPipeline](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdatePipeline](#)
- [ValidatePipeline](#)

CreatePipeline

Service: Amazon OpenSearch Ingestion

Creates an OpenSearch Ingestion pipeline. For more information, see [Creating Amazon OpenSearch Ingestion pipelines](#).

Request Syntax

```
POST /2022-01-01/osis/createPipeline HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "BufferOptions": {
    "PersistentBufferEnabled": boolean
  },
  "EncryptionAtRestOptions": {
    "KmsKeyArn": "string"
  },
  "LogPublishingOptions": {
    "CloudWatchLogDestination": {
      "LogGroup": "string"
    },
    "IsLoggingEnabled": boolean
  },
  "MaxUnits": number,
  "MinUnits": number,
  "PipelineConfigurationBody": "string",
  "PipelineName": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "VpcOptions": {
    "SecurityGroupIds": [ "string" ],
    "SubnetIds": [ "string" ],
    "VpcAttachmentOptions": {
      "AttachToVpc": boolean,
      "CidrBlock": "string"
    },
    "VpcEndpointManagement": "string"
  }
}
```

```
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

BufferOptions

Key-value pairs to configure persistent buffering for the pipeline.

Type: [BufferOptions](#) object

Required: No

EncryptionAtRestOptions

Key-value pairs to configure encryption for data that is written to a persistent buffer.

Type: [EncryptionAtRestOptions](#) object

Required: No

LogPublishingOptions

Key-value pairs to configure log publishing.

Type: [LogPublishingOptions](#) object

Required: No

MaxUnits

The maximum pipeline capacity, in Ingestion Compute Units (ICUs).

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

MinUnits

The minimum pipeline capacity, in Ingestion Compute Units (ICUs).

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

PipelineConfigurationBody

The pipeline configuration in YAML format. The command accepts the pipeline configuration as a string or within a .yaml file. If you provide the configuration as a string, each new line must be escaped with `\n`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 24000.

Required: Yes

PipelineName

The name of the OpenSearch Ingestion pipeline to create. Pipeline names are unique across the pipelines owned by an account within an AWS Region.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

Tags

List of tags to add to the pipeline upon creation.

Type: Array of [Tag](#) objects

Required: No

VpcOptions

Container for the values required to configure VPC access for the pipeline. If you don't specify these values, OpenSearch Ingestion creates the pipeline with a public endpoint.

Type: [VpcOptions](#) object

Required: No

Response Syntax

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

{
  "Pipeline": {
    "BufferOptions": {
      "PersistentBufferEnabled": boolean
    },
    "CreatedAt": number,
    "Destinations": [
      {
        "Endpoint": "string",
        "ServiceName": "string"
      }
    ],
    "EncryptionAtRestOptions": {
      "KmsKeyArn": "string"
    },
    "IngestEndpointUrls": [ "string" ],
    "LastUpdatedAt": number,
    "LogPublishingOptions": {
      "CloudWatchLogDestination": {
        "LogGroup": "string"
      },
      "IsLoggingEnabled": boolean
    },
    "MaxUnits": number,
    "MinUnits": number,
    "PipelineArn": "string",
    "PipelineConfigurationBody": "string",
    "PipelineName": "string",
    "ServiceVpcEndpoints": [
      {
        "ServiceName": "string",
        "VpcEndpointId": "string"
      }
    ],
    "Status": "string",
    "StatusReason": {
```



```

    "Description": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "VpcEndpoints": [
    {
      "VpcEndpointId": "string",
      "VpcId": "string",
      "VpcOptions": {
        "SecurityGroupIds": [ "string" ],
        "SubnetIds": [ "string" ],
        "VpcAttachmentOptions": {
          "AttachToVpc": boolean,
          "CidrBlock": "string"
        },
        "VpcEndpointManagement": "string"
      }
    }
  ],
  "VpcEndpointService": "string"
}

```

Response Elements

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

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

Pipeline

Container for information about the created pipeline.

Type: [Pipeline](#) object

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

LimitExceededException

You attempted to create more than the allowed number of tags.

HTTP Status Code: 409

ResourceAlreadyExistsException

You attempted to create a resource that already exists.

HTTP Status Code: 409

ResourceNotFoundException

You attempted to access or delete a resource that does not exist.

HTTP Status Code: 404

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeletePipeline

Service: Amazon OpenSearch Ingestion

Deletes an OpenSearch Ingestion pipeline. For more information, see [Deleting Amazon OpenSearch Ingestion pipelines](#).

Request Syntax

```
DELETE /2022-01-01/osis/deletePipeline/PipelineName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

PipelineName

The name of the pipeline to delete.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-_]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

ConflictException

The client attempted to remove a resource that is currently in use.

HTTP Status Code: 409

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

ResourceNotFoundException

You attempted to access or delete a resource that does not exist.

HTTP Status Code: 404

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

GetPipeline

Service: Amazon OpenSearch Ingestion

Retrieves information about an OpenSearch Ingestion pipeline.

Request Syntax

```
GET /2022-01-01/osis/getPipeline/PipelineName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

PipelineName

The name of the pipeline.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Pipeline": {
    "BufferOptions": {
      "PersistentBufferEnabled": boolean
    },
    "CreatedAt": number,
    "Destinations": [
      {
        "Endpoint": "string",
        "ServiceName": "string"
      }
    ]
  }
}
```

```

    }
  ],
  "EncryptionAtRestOptions": {
    "KmsKeyArn": "string"
  },
  "IngestEndpointUrls": [ "string" ],
  "LastUpdatedAt": number,
  "LogPublishingOptions": {
    "CloudWatchLogDestination": {
      "LogGroup": "string"
    },
    "IsLoggingEnabled": boolean
  },
  "MaxUnits": number,
  "MinUnits": number,
  "PipelineArn": "string",
  "PipelineConfigurationBody": "string",
  "PipelineName": "string",
  "ServiceVpcEndpoints": [
    {
      "ServiceName": "string",
      "VpcEndpointId": "string"
    }
  ],
  "Status": "string",
  "StatusReason": {
    "Description": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "VpcEndpoints": [
    {
      "VpcEndpointId": "string",
      "VpcId": "string",
      "VpcOptions": {
        "SecurityGroupIds": [ "string" ],
        "SubnetIds": [ "string" ],
        "VpcAttachmentOptions": {
          "AttachToVpc": boolean,
          "CidrBlock": "string"
        }
      }
    }
  ]
}

```



```
    },
    "VpcEndpointManagement": "string"
  }
},
],
"VpcEndpointService": "string"
}
```

Response Elements

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

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

Pipeline

Detailed information about the requested pipeline.

Type: [Pipeline](#) object

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

ResourceNotFoundException

You attempted to access or delete a resource that does not exist.

HTTP Status Code: 404

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

GetPipelineBlueprint

Service: Amazon OpenSearch Ingestion

Retrieves information about a specific blueprint for OpenSearch Ingestion. Blueprints are templates for the configuration needed for a CreatePipeline request. For more information, see [Using blueprints to create a pipeline](#).

Request Syntax

```
GET /2022-01-01/osis/getPipelineBlueprint/BlueprintName?format=Format HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

BlueprintName

The name of the blueprint to retrieve.

Required: Yes

Format

The format format of the blueprint to retrieve.

Pattern: (YAML | JSON)

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Blueprint": {
    "BlueprintName": "string",
    "DisplayDescription": "string",
    "DisplayName": "string",
```

```
    "PipelineConfigurationBody": "string",
    "Service": "string",
    "UseCase": "string"
  },
  "Format": "string"
}
```

Response Elements

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

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

Blueprint

The requested blueprint in YAML format.

Type: [PipelineBlueprint](#) object

Format

The format of the blueprint.

Type: String

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

ResourceNotFoundException

You attempted to access or delete a resource that does not exist.

HTTP Status Code: 404

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

GetPipelineChangeProgress

Service: Amazon OpenSearch Ingestion

Returns progress information for the current change happening on an OpenSearch Ingestion pipeline. Currently, this operation only returns information when a pipeline is being created.

For more information, see [Tracking the status of pipeline creation](#).

Request Syntax

```
GET /2022-01-01/osis/getPipelineChangeProgress/PipelineName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

PipelineName

The name of the pipeline.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "ChangeProgressStatuses": [
    {
      "ChangeProgressStages": [
        {
          "Description": "string",
```

```
        "LastUpdatedAt": number,
        "Name": "string",
        "Status": "string"
    }
],
"StartTime": number,
"Status": "string",
"TotalNumberOfStages": number
}
]
```

Response Elements

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

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

ChangeProgressStatuses

The current status of the change happening on the pipeline.

Type: Array of [ChangeProgressStatus](#) objects

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

ResourceNotFoundException

You attempted to access or delete a resource that does not exist.

HTTP Status Code: 404

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListPipelineBlueprints

Service: Amazon OpenSearch Ingestion

Retrieves a list of all available blueprints for Data Prepper. For more information, see [Using blueprints to create a pipeline](#).

Request Syntax

```
POST /2022-01-01/osis/listPipelineBlueprints HTTP/1.1
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Blueprints": [
    {
      "BlueprintName": "string",
      "DisplayDescription": "string",
      "DisplayName": "string",
      "Service": "string",
      "UseCase": "string"
    }
  ]
}
```

Response Elements

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

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

[Blueprints](#)

A list of available blueprints for Data Prepper.

Type: Array of [PipelineBlueprintSummary](#) objects

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

InvalidPaginationTokenException

An invalid pagination token provided in the request.

HTTP Status Code: 400

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListPipelines

Service: Amazon OpenSearch Ingestion

Lists all OpenSearch Ingestion pipelines in the current AWS account and Region. For more information, see [Viewing Amazon OpenSearch Ingestion pipelines](#).

Request Syntax

```
GET /2022-01-01/osis/listPipelines?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MaxResults

An optional parameter that specifies the maximum number of results to return. You can use `nextToken` to get the next page of results.

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

NextToken

If your initial `ListPipelines` operation returns a `nextToken`, you can include the returned `nextToken` in subsequent `ListPipelines` operations, which returns results in the next page.

Length Constraints: Minimum length of 0. Maximum length of 3000.

Pattern: `^([\s\S]*)$`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "NextToken": "string",
  "Pipelines": [
```

```

{
  "CreatedAt": number,
  "Destinations": [
    {
      "Endpoint": "string",
      "ServiceName": "string"
    }
  ],
  "LastUpdatedAt": number,
  "MaxUnits": number,
  "MinUnits": number,
  "PipelineArn": "string",
  "PipelineName": "string",
  "Status": "string",
  "StatusReason": {
    "Description": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}

```

Response Elements

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

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

NextToken

When nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3000.

Pattern: $^([\s\S]^*)\$$

[Pipelines](#)

A list of all existing Data Prepper pipelines.

Type: Array of [PipelineSummary](#) objects

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

InvalidPaginationTokenException

An invalid pagination token provided in the request.

HTTP Status Code: 400

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListTagsForResource

Service: Amazon OpenSearch Ingestion

Lists all resource tags associated with an OpenSearch Ingestion pipeline. For more information, see [Tagging Amazon OpenSearch Ingestion pipelines](#).

Request Syntax

```
GET /2022-01-01/osis/listTagsForResource/?arn=Arn HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

Arn

The Amazon Resource Name (ARN) of the pipeline to retrieve tags for.

Length Constraints: Minimum length of 46. Maximum length of 76.

Pattern: `^arn:(aws|aws\-cn|aws\-us\-gov|aws\-iso|aws\-iso\-b):osis:.\+:\+pipeline\/\.\+$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

```
{
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```



```
]
}
```

Response Elements

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

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

Tags

A list of tags associated with the given pipeline.

Type: Array of [Tag](#) objects

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

ResourceNotFoundException

You attempted to access or delete a resource that does not exist.

HTTP Status Code: 404

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

StartPipeline

Service: Amazon OpenSearch Ingestion

Starts an OpenSearch Ingestion pipeline. For more information, see [Starting an OpenSearch Ingestion pipeline](#).

Request Syntax

```
PUT /2022-01-01/osis/startPipeline/PipelineName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

PipelineName

The name of the pipeline to start.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-_]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Pipeline": {
    "BufferOptions": {
      "PersistentBufferEnabled": boolean
    },
    "CreatedAt": number,
    "Destinations": [
      {
        "Endpoint": "string",
```

```
    "ServiceName": "string"
  }
],
"EncryptionAtRestOptions": {
  "KmsKeyArn": "string"
},
"IngestEndpointUrls": [ "string " ],
"LastUpdatedAt": number,
"LogPublishingOptions": {
  "CloudWatchLogDestination": {
    "LogGroup": "string"
  },
  "IsLoggingEnabled": boolean
},
"MaxUnits": number,
"MinUnits": number,
"PipelineArn": "string",
"PipelineConfigurationBody": "string",
"PipelineName": "string",
"ServiceVpcEndpoints": [
  {
    "ServiceName": "string",
    "VpcEndpointId": "string"
  }
],
"Status": "string",
"StatusReason": {
  "Description": "string"
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"VpcEndpoints": [
  {
    "VpcEndpointId": "string",
    "VpcId": "string",
    "VpcOptions": {
      "SecurityGroupIds": [ "string " ],
      "SubnetIds": [ "string " ],
      "VpcAttachmentOptions": {
        "AttachToVpc": boolean,

```

```
        "CidrBlock": "string"
      },
      "VpcEndpointManagement": "string"
    }
  ],
  "VpcEndpointService": "string"
}
```

Response Elements

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

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

Pipeline

Information about an existing OpenSearch Ingestion pipeline.

Type: [Pipeline](#) object

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

ConflictException

The client attempted to remove a resource that is currently in use.

HTTP Status Code: 409

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

ResourceNotFoundException

You attempted to access or delete a resource that does not exist.

HTTP Status Code: 404

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

StopPipeline

Service: Amazon OpenSearch Ingestion

Stops an OpenSearch Ingestion pipeline. For more information, see [Stopping an OpenSearch Ingestion pipeline](#).

Request Syntax

```
PUT /2022-01-01/osis/stopPipeline/PipelineName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

PipelineName

The name of the pipeline to stop.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-_]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Pipeline": {
    "BufferOptions": {
      "PersistentBufferEnabled": boolean
    },
    "CreatedAt": number,
    "Destinations": [
      {
        "Endpoint": "string",
```

```
    "ServiceName": "string"
  }
],
"EncryptionAtRestOptions": {
  "KmsKeyArn": "string"
},
"IngestEndpointUrls": [ "string " ],
"LastUpdatedAt": number,
"LogPublishingOptions": {
  "CloudWatchLogDestination": {
    "LogGroup": "string"
  },
  "IsLoggingEnabled": boolean
},
"MaxUnits": number,
"MinUnits": number,
"PipelineArn": "string",
"PipelineConfigurationBody": "string",
"PipelineName": "string",
"ServiceVpcEndpoints": [
  {
    "ServiceName": "string",
    "VpcEndpointId": "string"
  }
],
"Status": "string",
"StatusReason": {
  "Description": "string"
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"VpcEndpoints": [
  {
    "VpcEndpointId": "string",
    "VpcId": "string",
    "VpcOptions": {
      "SecurityGroupIds": [ "string " ],
      "SubnetIds": [ "string " ],
      "VpcAttachmentOptions": {
        "AttachToVpc": boolean,

```



```
        "CidrBlock": "string"  
      },  
      "VpcEndpointManagement": "string"  
    }  
  ],  
  "VpcEndpointService": "string"  
}
```

Response Elements

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

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

Pipeline

Information about an existing OpenSearch Ingestion pipeline.

Type: [Pipeline](#) object

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

ConflictException

The client attempted to remove a resource that is currently in use.

HTTP Status Code: 409

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

ResourceNotFoundException

You attempted to access or delete a resource that does not exist.

HTTP Status Code: 404

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

TagResource

Service: Amazon OpenSearch Ingestion

Tags an OpenSearch Ingestion pipeline. For more information, see [Tagging Amazon OpenSearch Ingestion pipelines](#).

Request Syntax

```
POST /2022-01-01/osis/tagResource/?arn=Arn HTTP/1.1
Content-type: application/json

{
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

URI Request Parameters

The request uses the following URI parameters.

Arn

The Amazon Resource Name (ARN) of the pipeline to tag.

Length Constraints: Minimum length of 46. Maximum length of 76.

Pattern: `^arn:(aws|aws\-cn|aws\-us\-gov|aws\-iso|aws\-iso\-b):osis:.+pipeline\/.+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

Tags

The list of key-value tags to add to the pipeline.

Type: Array of [Tag](#) objects

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

LimitExceededException

You attempted to create more than the allowed number of tags.

HTTP Status Code: 409

ResourceNotFoundException

You attempted to access or delete a resource that does not exist.

HTTP Status Code: 404

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UntagResource

Service: Amazon OpenSearch Ingestion

Removes one or more tags from an OpenSearch Ingestion pipeline. For more information, see [Tagging Amazon OpenSearch Ingestion pipelines](#).

Request Syntax

```
POST /2022-01-01/osis/untagResource/?arn=Arn HTTP/1.1
Content-type: application/json

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

URI Request Parameters

The request uses the following URI parameters.

Arn

The Amazon Resource Name (ARN) of the pipeline to remove tags from.

Length Constraints: Minimum length of 46. Maximum length of 76.

Pattern: `^arn:(aws|aws\-cn|aws\-us\-gov|aws\-iso|aws\-iso\-b):osis:.\+:\+pipeline\/\.\+$`

Required: Yes

Request Body

The request accepts the following data in JSON format.

TagKeys

The tag keys to remove.

Type: Array of strings

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

ResourceNotFoundException

You attempted to access or delete a resource that does not exist.

HTTP Status Code: 404

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdatePipeline

Service: Amazon OpenSearch Ingestion

Updates an OpenSearch Ingestion pipeline. For more information, see [Updating Amazon OpenSearch Ingestion pipelines](#).

Request Syntax

```
PUT /2022-01-01/osis/updatePipeline/PipelineName HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "BufferOptions": {
    "PersistentBufferEnabled": boolean
  },
  "EncryptionAtRestOptions": {
    "KmsKeyArn": "string"
  },
  "LogPublishingOptions": {
    "CloudWatchLogDestination": {
      "LogGroup": "string"
    },
    "IsLoggingEnabled": boolean
  },
  "MaxUnits": number,
  "MinUnits": number,
  "PipelineConfigurationBody": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

[PipelineName](#)

The name of the pipeline to update.

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

BufferOptions

Key-value pairs to configure persistent buffering for the pipeline.

Type: [BufferOptions](#) object

Required: No

EncryptionAtRestOptions

Key-value pairs to configure encryption for data that is written to a persistent buffer.

Type: [EncryptionAtRestOptions](#) object

Required: No

LogPublishingOptions

Key-value pairs to configure log publishing.

Type: [LogPublishingOptions](#) object

Required: No

MaxUnits

The maximum pipeline capacity, in Ingestion Compute Units (ICUs)

Type: Integer

Valid Range: Minimum value of 1.

Required: No

MinUnits

The minimum pipeline capacity, in Ingestion Compute Units (ICUs).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

PipelineConfigurationBody

The pipeline configuration in YAML format. The command accepts the pipeline configuration as a string or within a .yaml file. If you provide the configuration as a string, each new line must be escaped with `\n`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 24000.

Required: No

Response Syntax

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

{
  "Pipeline": {
    "BufferOptions": {
      "PersistentBufferEnabled": boolean
    },
    "CreatedAt": number,
    "Destinations": [
      {
        "Endpoint": "string",
        "ServiceName": "string"
      }
    ],
    "EncryptionAtRestOptions": {
      "KmsKeyArn": "string"
    },
    "IngestEndpointUrls": [ "string" ],
    "LastUpdatedAt": number,
    "LogPublishingOptions": {
      "CloudWatchLogDestination": {
        "LogGroup": "string"
      },
      "IsLoggingEnabled": boolean
    },
    "MaxUnits": number,
```

```

    "MinUnits": number,
    "PipelineArn": "string",
    "PipelineConfigurationBody": "string",
    "PipelineName": "string",
    "ServiceVpcEndpoints": [
      {
        "ServiceName": "string",
        "VpcEndpointId": "string"
      }
    ],
    "Status": "string",
    "StatusReason": {
      "Description": "string"
    },
    "Tags": [
      {
        "Key": "string",
        "Value": "string"
      }
    ],
    "VpcEndpoints": [
      {
        "VpcEndpointId": "string",
        "VpcId": "string",
        "VpcOptions": {
          "SecurityGroupIds": [ "string " ],
          "SubnetIds": [ "string " ],
          "VpcAttachmentOptions": {
            "AttachToVpc": boolean,
            "CidrBlock": "string"
          }
        },
        "VpcEndpointManagement": "string"
      }
    ]
  },
  "VpcEndpointService": "string"
}

```

Response Elements

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

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

Pipeline

Container for information about the updated pipeline.

Type: [Pipeline](#) object

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

ConflictException

The client attempted to remove a resource that is currently in use.

HTTP Status Code: 409

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

ResourceNotFoundException

You attempted to access or delete a resource that does not exist.

HTTP Status Code: 404

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ValidatePipeline

Service: Amazon OpenSearch Ingestion

Checks whether an OpenSearch Ingestion pipeline configuration is valid prior to creation. For more information, see [Creating Amazon OpenSearch Ingestion pipelines](#).

Request Syntax

```
POST /2022-01-01/osis/validatePipeline HTTP/1.1
Content-type: application/json

{
  "PipelineConfigurationBody": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

[PipelineConfigurationBody](#)

The pipeline configuration in YAML format. The command accepts the pipeline configuration as a string or within a .yaml file. If you provide the configuration as a string, each new line must be escaped with \n.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 24000.

Required: Yes

Response Syntax

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

```
{
  "Errors": [
    {
      "Message": "string"
    }
  ],
  "isValid": boolean
}
```

Response Elements

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

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

Errors

A list of errors if the configuration is invalid.

Type: Array of [ValidationMessage](#) objects

isValid

A boolean indicating whether or not the pipeline configuration is valid.

Type: Boolean

Errors

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

AccessDeniedException

You don't have permissions to access the resource.

HTTP Status Code: 403

DisabledOperationException

Exception is thrown when an operation has been disabled.

HTTP Status Code: 409

InternalException

The request failed because of an unknown error, exception, or failure (the failure is internal to the service).

HTTP Status Code: 500

ValidationException

An exception for missing or invalid input fields.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Data Types

The following data types are supported by Amazon OpenSearch Service:

- [AccessPoliciesStatus](#)
- [AdditionalLimit](#)
- [AdvancedOptionsStatus](#)
- [AdvancedSecurityOptions](#)
- [AdvancedSecurityOptionsInput](#)
- [AdvancedSecurityOptionsStatus](#)
- [AuthorizedPrincipal](#)
- [AutoTune](#)
- [AutoTuneDetails](#)
- [AutoTuneMaintenanceSchedule](#)
- [AutoTuneOptions](#)
- [AutoTuneOptionsInput](#)
- [AutoTuneOptionsOutput](#)
- [AutoTuneOptionsStatus](#)
- [AutoTuneStatus](#)
- [AvailabilityZoneInfo](#)
- [AWSDomainInformation](#)
- [CancelledChangeProperty](#)
- [ChangeProgressDetails](#)
- [ChangeProgressStage](#)
- [ChangeProgressStatusDetails](#)
- [ClusterConfig](#)
- [ClusterConfigStatus](#)
- [CognitoOptions](#)
- [CognitoOptionsStatus](#)
- [ColdStorageOptions](#)
- [CompatibleVersionsMap](#)

- [ConnectionProperties](#)
- [CrossClusterSearchConnectionProperties](#)
- [DataSourceDetails](#)
- [DataSourceType](#)
- [DescribePackagesFilter](#)
- [DomainConfig](#)
- [DomainEndpointOptions](#)
- [DomainEndpointOptionsStatus](#)
- [DomainInfo](#)
- [DomainInformationContainer](#)
- [DomainMaintenanceDetails](#)
- [DomainNodesStatus](#)
- [DomainPackageDetails](#)
- [DomainStatus](#)
- [DryRunProgressStatus](#)
- [DryRunResults](#)
- [Duration](#)
- [EBSOptions](#)
- [EBSOptionsStatus](#)
- [EncryptionAtRestOptions](#)
- [EncryptionAtRestOptionsStatus](#)
- [EnvironmentInfo](#)
- [ErrorDetails](#)
- [Filter](#)
- [InboundConnection](#)
- [InboundConnectionStatus](#)
- [InstanceCountLimits](#)
- [InstanceLimits](#)
- [InstanceTypeDetails](#)
- [IPAddressTypeStatus](#)

- [JWTOptionsInput](#)
- [JWTOptionsOutput](#)
- [Limits](#)
- [LogPublishingOption](#)
- [LogPublishingOptionsStatus](#)
- [MasterUserOptions](#)
- [ModifyingProperties](#)
- [NodeToNodeEncryptionOptions](#)
- [NodeToNodeEncryptionOptionsStatus](#)
- [OffPeakWindow](#)
- [OffPeakWindowOptions](#)
- [OffPeakWindowOptionsStatus](#)
- [OptionStatus](#)
- [OutboundConnection](#)
- [OutboundConnectionStatus](#)
- [PackageDetails](#)
- [PackageSource](#)
- [PackageVersionHistory](#)
- [PluginProperties](#)
- [RecurringCharge](#)
- [ReservedInstance](#)
- [ReservedInstanceOffering](#)
- [S3GlueDataCatalog](#)
- [SAMLIdp](#)
- [SAMLOptionsInput](#)
- [SAMLOptionsOutput](#)
- [ScheduledAction](#)
- [ScheduledAutoTuneDetails](#)
- [ServiceSoftwareOptions](#)
- [SnapshotOptions](#)

- [SnapshotOptionsStatus](#)
- [SoftwareUpdateOptions](#)
- [SoftwareUpdateOptionsStatus](#)
- [StorageType](#)
- [StorageTypeLimit](#)
- [Tag](#)
- [UpgradeHistory](#)
- [UpgradeStepItem](#)
- [ValidationFailure](#)
- [VersionStatus](#)
- [VPCDerivedInfo](#)
- [VPCDerivedInfoStatus](#)
- [VpcEndpoint](#)
- [VpcEndpointError](#)
- [VpcEndpointSummary](#)
- [VPCOptions](#)
- [WindowStartTime](#)
- [ZoneAwarenessConfig](#)

The following data types are supported by Amazon OpenSearch Ingestion:

- [BufferOptions](#)
- [ChangeProgressStage](#)
- [ChangeProgressStatus](#)
- [CloudWatchLogDestination](#)
- [EncryptionAtRestOptions](#)
- [LogPublishingOptions](#)
- [Pipeline](#)
- [PipelineBlueprint](#)
- [PipelineBlueprintSummary](#)
- [PipelineDestination](#)

- [PipelineStatusReason](#)
- [PipelineSummary](#)
- [ServiceVpcEndpoint](#)
- [Tag](#)
- [ValidationMessage](#)
- [VpcAttachmentOptions](#)
- [VpcEndpoint](#)
- [VpcOptions](#)

Amazon OpenSearch Service

The following data types are supported by Amazon OpenSearch Service:

- [AccessPoliciesStatus](#)
- [AdditionalLimit](#)
- [AdvancedOptionsStatus](#)
- [AdvancedSecurityOptions](#)
- [AdvancedSecurityOptionsInput](#)
- [AdvancedSecurityOptionsStatus](#)
- [AuthorizedPrincipal](#)
- [AutoTune](#)
- [AutoTuneDetails](#)
- [AutoTuneMaintenanceSchedule](#)
- [AutoTuneOptions](#)
- [AutoTuneOptionsInput](#)
- [AutoTuneOptionsOutput](#)
- [AutoTuneOptionsStatus](#)
- [AutoTuneStatus](#)
- [AvailabilityZoneInfo](#)
- [AWSDomainInformation](#)
- [CancelledChangeProperty](#)

- [ChangeProgressDetails](#)
- [ChangeProgressStage](#)
- [ChangeProgressStatusDetails](#)
- [ClusterConfig](#)
- [ClusterConfigStatus](#)
- [CognitoOptions](#)
- [CognitoOptionsStatus](#)
- [ColdStorageOptions](#)
- [CompatibleVersionsMap](#)
- [ConnectionProperties](#)
- [CrossClusterSearchConnectionProperties](#)
- [DataSourceDetails](#)
- [DataSourceType](#)
- [DescribePackagesFilter](#)
- [DomainConfig](#)
- [DomainEndpointOptions](#)
- [DomainEndpointOptionsStatus](#)
- [DomainInfo](#)
- [DomainInformationContainer](#)
- [DomainMaintenanceDetails](#)
- [DomainNodesStatus](#)
- [DomainPackageDetails](#)
- [DomainStatus](#)
- [DryRunProgressStatus](#)
- [DryRunResults](#)
- [Duration](#)
- [EBSOptions](#)
- [EBSOptionsStatus](#)
- [EncryptionAtRestOptions](#)
- [EncryptionAtRestOptionsStatus](#)

- [EnvironmentInfo](#)
- [ErrorDetails](#)
- [Filter](#)
- [InboundConnection](#)
- [InboundConnectionStatus](#)
- [InstanceCountLimits](#)
- [InstanceLimits](#)
- [InstanceTypeDetails](#)
- [IPAddressTypeStatus](#)
- [JWTOptionsInput](#)
- [JWTOptionsOutput](#)
- [Limits](#)
- [LogPublishingOption](#)
- [LogPublishingOptionsStatus](#)
- [MasterUserOptions](#)
- [ModifyingProperties](#)
- [NodeToNodeEncryptionOptions](#)
- [NodeToNodeEncryptionOptionsStatus](#)
- [OffPeakWindow](#)
- [OffPeakWindowOptions](#)
- [OffPeakWindowOptionsStatus](#)
- [OptionStatus](#)
- [OutboundConnection](#)
- [OutboundConnectionStatus](#)
- [PackageDetails](#)
- [PackageSource](#)
- [PackageVersionHistory](#)
- [PluginProperties](#)
- [RecurringCharge](#)
- [ReservedInstance](#)

- [ReservedInstanceOffering](#)
- [S3GlueDataCatalog](#)
- [SAMLIdp](#)
- [SAMLOptionsInput](#)
- [SAMLOptionsOutput](#)
- [ScheduledAction](#)
- [ScheduledAutoTuneDetails](#)
- [ServiceSoftwareOptions](#)
- [SnapshotOptions](#)
- [SnapshotOptionsStatus](#)
- [SoftwareUpdateOptions](#)
- [SoftwareUpdateOptionsStatus](#)
- [StorageType](#)
- [StorageTypeLimit](#)
- [Tag](#)
- [UpgradeHistory](#)
- [UpgradeStepItem](#)
- [ValidationFailure](#)
- [VersionStatus](#)
- [VPCDerivedInfo](#)
- [VPCDerivedInfoStatus](#)
- [VpcEndpoint](#)
- [VpcEndpointError](#)
- [VpcEndpointSummary](#)
- [VPCOptions](#)
- [WindowStartTime](#)
- [ZoneAwarenessConfig](#)

AccessPoliciesStatus

Service: Amazon OpenSearch Service

The configured access rules for the domain's search endpoint, and the current status of those rules.

Contents

Options

The access policy configured for the domain. Access policies can be resource-based, IP-based, or IAM-based. For more information, see [Configuring access policies](#).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 102400.

Pattern: .*

Required: Yes

Status

The status of the access policy for the domain.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AdditionalLimit

Service: Amazon OpenSearch Service

List of limits that are specific to a given instance type.

Contents

LimitName

- `MaximumNumberOfDataNodesSupported` - This attribute only applies to master nodes and specifies the maximum number of data nodes of a given instance type a master node can support.
- `MaximumNumberOfDataNodesWithoutMasterNode` - This attribute only applies to data nodes and specifies the maximum number of data nodes of a given instance type can exist without a master node governing them.

Type: String

Required: No

LimitValues

The values of the additional instance type limits.

Type: Array of strings

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AdvancedOptionsStatus

Service: Amazon OpenSearch Service

Status of the advanced options for the specified domain. The following options are available:

- `"rest.action.multi.allow_explicit_index"`: `"true"` | `"false"` - Note the use of a string rather than a boolean. Specifies whether explicit references to indexes are allowed inside the body of HTTP requests. If you want to configure access policies for domain sub-resources, such as specific indexes and domain APIs, you must disable this property. Default is true.
- `"indices fielddata.cache.size"`: `"80"` - Note the use of a string rather than a boolean. Specifies the percentage of heap space allocated to field data. Default is unbounded.
- `"indices.query.bool.max_clause_count"`: `"1024"` - Note the use of a string rather than a boolean. Specifies the maximum number of clauses allowed in a Lucene boolean query. Default is 1,024. Queries with more than the permitted number of clauses result in a `TooManyClauses` error.
- `"override_main_response_version"`: `"true"` | `"false"` - Note the use of a string rather than a boolean. Specifies whether the domain reports its version as 7.10 to allow Elasticsearch OSS clients and plugins to continue working with it. Default is false when creating a domain and true when upgrading a domain.

For more information, see [Advanced cluster parameters](#).

Contents

Options

The status of advanced options for the specified domain.

Type: String to string map

Required: Yes

Status

The status of advanced options for the specified domain.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AdvancedSecurityOptions

Service: Amazon OpenSearch Service

Container for fine-grained access control settings.

Contents

AnonymousAuthDisableDate

Date and time when the migration period will be disabled. Only necessary when [enabling fine-grained access control on an existing domain](#).

Type: Timestamp

Required: No

AnonymousAuthEnabled

True if a 30-day migration period is enabled, during which administrators can create role mappings. Only necessary when [enabling fine-grained access control on an existing domain](#).

Type: Boolean

Required: No

Enabled

True if fine-grained access control is enabled.

Type: Boolean

Required: No

InternalUserDatabaseEnabled

True if the internal user database is enabled.

Type: Boolean

Required: No

JWTOptions

Container for information about the JWT configuration of the Amazon OpenSearch Service.

Type: [JWTOptionsOutput](#) object

Required: No

SAMLOptions

Container for information about the SAML configuration for OpenSearch Dashboards.

Type: [SAMLOptionsOutput](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AdvancedSecurityOptionsInput

Service: Amazon OpenSearch Service

Options for enabling and configuring fine-grained access control. For more information, see [Fine-grained access control in Amazon OpenSearch Service](#).

Contents

AnonymousAuthEnabled

True to enable a 30-day migration period during which administrators can create role mappings. Only necessary when [enabling fine-grained access control on an existing domain](#).

Type: Boolean

Required: No

Enabled

True to enable fine-grained access control.

Type: Boolean

Required: No

InternalUserDatabaseEnabled

True to enable the internal user database.

Type: Boolean

Required: No

JWTOptions

Container for information about the JWT configuration of the Amazon OpenSearch Service.

Type: [JWTOptionsInput](#) object

Required: No

MasterUserOptions

Container for information about the master user.

Type: [MasterUserOptions](#) object

Required: No

SAMLOptions

Container for information about the SAML configuration for OpenSearch Dashboards.

Type: [SAMLOptionsInput](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AdvancedSecurityOptionsStatus

Service: Amazon OpenSearch Service

The status of fine-grained access control settings for a domain.

Contents

Options

Container for fine-grained access control settings.

Type: [AdvancedSecurityOptions](#) object

Required: Yes

Status

Status of the fine-grained access control settings for a domain.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AuthorizedPrincipal

Service: Amazon OpenSearch Service

Information about an AWS account or service that has access to an Amazon OpenSearch Service domain through the use of an interface VPC endpoint.

Contents

Principal

The [IAM principal](#) that is allowed access to the domain.

Type: String

Required: No

PrincipalType

The type of principal.

Type: String

Valid Values: AWS_ACCOUNT | AWS_SERVICE

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AutoTune

Service: Amazon OpenSearch Service

Information about an Auto-Tune action. For more information, see [Auto-Tune for Amazon OpenSearch Service](#).

Contents

AutoTuneDetails

Details about an Auto-Tune action.

Type: [AutoTuneDetails](#) object

Required: No

AutoTuneType

The type of Auto-Tune action.

Type: String

Valid Values: SCHEDULED_ACTION

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AutoTuneDetails

Service: Amazon OpenSearch Service

Specifies details about a scheduled Auto-Tune action. For more information, see [Auto-Tune for Amazon OpenSearch Service](#).

Contents

ScheduledAutoTuneDetails

Container for details about a scheduled Auto-Tune action.

Type: [ScheduledAutoTuneDetails](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AutoTuneMaintenanceSchedule

Service: Amazon OpenSearch Service

Note

This object is deprecated. Use the domain's [off-peak window](#) to schedule Auto-Tune optimizations. For migration instructions, see [Migrating from Auto-Tune maintenance windows](#).

The Auto-Tune maintenance schedule. For more information, see [Auto-Tune for Amazon OpenSearch Service](#).

Contents

CronExpressionForRecurrence

A cron expression for a recurring maintenance schedule during which Auto-Tune can deploy changes.

Type: String

Required: No

Duration

The duration of the maintenance schedule. For example, "Duration": {"Value": 2, "Unit": "HOURS"}.

Type: [Duration](#) object

Required: No

StartAt

The Epoch timestamp at which the Auto-Tune maintenance schedule starts.

Type: Timestamp

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AutoTuneOptions

Service: Amazon OpenSearch Service

Auto-Tune settings when updating a domain. For more information, see [Auto-Tune for Amazon OpenSearch Service](#).

Contents

DesiredState

Whether Auto-Tune is enabled or disabled.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

MaintenanceSchedules

DEPRECATED. Use [off-peak window](#) instead.

A list of maintenance schedules during which Auto-Tune can deploy changes.

Type: Array of [AutoTuneMaintenanceSchedule](#) objects

Array Members: Maximum number of 100 items.

Required: No

RollbackOnDisable

When disabling Auto-Tune, specify NO_ROLLBACK to retain all prior Auto-Tune settings or DEFAULT_ROLLBACK to revert to the OpenSearch Service defaults. If you specify DEFAULT_ROLLBACK, you must include a MaintenanceSchedule in the request. Otherwise, OpenSearch Service is unable to perform the rollback.

Type: String

Valid Values: NO_ROLLBACK | DEFAULT_ROLLBACK

Required: No

UseOffPeakWindow

Whether to use the domain's [off-peak window](#) to deploy configuration changes on the domain rather than a maintenance schedule.

Type: Boolean

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AutoTuneOptionsInput

Service: Amazon OpenSearch Service

Options for configuring Auto-Tune. For more information, see [Auto-Tune for Amazon OpenSearch Service](#)

Contents

DesiredState

Whether Auto-Tune is enabled or disabled.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

MaintenanceSchedules

A list of maintenance schedules during which Auto-Tune can deploy changes. Maintenance windows are deprecated and have been replaced with [off-peak windows](#).

Type: Array of [AutoTuneMaintenanceSchedule](#) objects

Array Members: Maximum number of 100 items.

Required: No

UseOffPeakWindow

Whether to schedule Auto-Tune optimizations that require blue/green deployments during the domain's configured daily off-peak window.

Type: Boolean

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AutoTuneOptionsOutput

Service: Amazon OpenSearch Service

The Auto-Tune settings for a domain, displayed when enabling or disabling Auto-Tune.

Contents

ErrorMessage

Any errors that occurred while enabling or disabling Auto-Tune.

Type: String

Required: No

State

The current state of Auto-Tune on the domain.

Type: String

Valid Values: ENABLED | DISABLED | ENABLE_IN_PROGRESS | DISABLE_IN_PROGRESS | DISABLED_AND_ROLLBACK_SCHEDULED | DISABLED_AND_ROLLBACK_IN_PROGRESS | DISABLED_AND_ROLLBACK_COMPLETE | DISABLED_AND_ROLLBACK_ERROR | ERROR

Required: No

UseOffPeakWindow

Whether the domain's off-peak window will be used to deploy Auto-Tune changes rather than a maintenance schedule.

Type: Boolean

Required: No

See Also

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

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AutoTuneOptionsStatus

Service: Amazon OpenSearch Service

The Auto-Tune status for the domain.

Contents

Options

Auto-Tune settings for updating a domain.

Type: [AutoTuneOptions](#) object

Required: No

Status

The current status of Auto-Tune for a domain.

Type: [AutoTuneStatus](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AutoTuneStatus

Service: Amazon OpenSearch Service

The current status of Auto-Tune for the domain. For more information, see [Auto-Tune for Amazon OpenSearch Service](#).

Contents

CreationDate

Date and time when Auto-Tune was enabled for the domain.

Type: Timestamp

Required: Yes

State

The current state of Auto-Tune on the domain.

Type: String

Valid Values: ENABLED | DISABLED | ENABLE_IN_PROGRESS | DISABLE_IN_PROGRESS | DISABLED_AND_ROLLBACK_SCHEDULED | DISABLED_AND_ROLLBACK_IN_PROGRESS | DISABLED_AND_ROLLBACK_COMPLETE | DISABLED_AND_ROLLBACK_ERROR | ERROR

Required: Yes

UpdateDate

Date and time when the Auto-Tune options were last updated for the domain.

Type: Timestamp

Required: Yes

ErrorMessage

Any errors that occurred while enabling or disabling Auto-Tune.

Type: String

Required: No

PendingDeletion

Indicates whether the domain is being deleted.

Type: Boolean

Required: No

UpdateVersion

The latest version of the Auto-Tune options.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AvailabilityZoneInfo

Service: Amazon OpenSearch Service

Information about an Availability Zone on a domain.

Contents

AvailabilityZoneName

The name of the Availability Zone.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 15.

Required: No

AvailableDataNodeCount

The number of data nodes active in the Availability Zone.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

Required: No

ConfiguredDataNodeCount

The total number of data nodes configured in the Availability Zone.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

Required: No

TotalShards

The total number of primary and replica shards in the Availability Zone.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

Required: No

TotalUnAssignedShards

The total number of primary and replica shards that aren't allocated to any of the nodes in the Availability Zone.

Type: String

Pattern: `^((\d+)|(NotAvailable))$`

Required: No

ZoneStatus

The current state of the Availability Zone. Current options are `Active` and `StandBy`.

- `Active` - Data nodes in the Availability Zone are in use.
- `StandBy` - Data nodes in the Availability Zone are in a standby state.
- `NotAvailable` - Unable to retrieve information.

Type: String

Valid Values: `Active` | `StandBy` | `NotAvailable`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AWSDomainInformation

Service: Amazon OpenSearch Service

Information about an Amazon OpenSearch Service domain.

Contents

DomainName

Name of the domain.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

OwnerId

The AWS account ID of the domain owner.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `[0-9]+`

Required: No

Region

The AWS Region in which the domain is located.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 30.

Pattern: `[a-z][a-z0-9\ -]+`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CancelledChangeProperty

Service: Amazon OpenSearch Service

A property change that was cancelled for an Amazon OpenSearch Service domain.

Contents

ActiveValue

The current value of the property, after the change was cancelled.

Type: String

Required: No

CancelledValue

The pending value of the property that was cancelled. This would have been the eventual value of the property if the change had not been cancelled.

Type: String

Required: No

PropertyName

The name of the property whose change was cancelled.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ChangeProgressDetails

Service: Amazon OpenSearch Service

Container for information about a configuration change happening on a domain.

Contents

ChangeId

The ID of the configuration change.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `\p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}`

Required: No

ConfigChangeStatus

The current status of the configuration change.

Type: String

Valid Values: Pending | Initializing | Validating | ValidationFailed | ApplyingChanges | Completed | PendingUserInput | Cancelled

Required: No

InitiatedBy

The IAM principal who initiated the configuration change.

Type: String

Valid Values: CUSTOMER | SERVICE

Required: No

LastUpdatedTime

The last time that the configuration change was updated.

Type: Timestamp

Required: No

Message

A message corresponding to the status of the configuration change.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

StartTime

The time that the configuration change was initiated, in Universal Coordinated Time (UTC).

Type: Timestamp

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ChangeProgressStage

Service: Amazon OpenSearch Service

Progress details for each stage of a domain update.

Contents

Description

The description of the stage.

Type: String

Required: No

LastUpdated

The most recent updated timestamp of the stage.

Type: Timestamp

Required: No

Name

The name of the stage.

Type: String

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

Required: No

Status

The status of the stage.

Type: String

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

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ChangeProgressStatusDetails

Service: Amazon OpenSearch Service

The progress details of a specific domain configuration change.

Contents

ChangeId

The unique change identifier associated with a specific domain configuration change.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `\p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}`

Required: No

ChangeProgressStages

The specific stages that the domain is going through to perform the configuration change.

Type: Array of [ChangeProgressStage](#) objects

Required: No

CompletedProperties

The list of properties in the domain configuration change that have completed.

Type: Array of strings

Required: No

ConfigChangeStatus

The current status of the configuration change.

Type: String

Valid Values: Pending | Initializing | Validating | ValidationFailed | ApplyingChanges | Completed | PendingUserInput | Cancelled

Required: No

InitiatedBy

The IAM principal who initiated the configuration change.

Type: String

Valid Values: CUSTOMER | SERVICE

Required: No

LastUpdatedTime

The last time that the status of the configuration change was updated.

Type: Timestamp

Required: No

PendingProperties

The list of properties in the domain configuration change that are still pending.

Type: Array of strings

Required: No

StartTime

The time at which the configuration change is made on the domain.

Type: Timestamp

Required: No

Status

The overall status of the domain configuration change.

Type: String

Valid Values: PENDING | PROCESSING | COMPLETED | FAILED

Required: No

TotalNumberOfStages

The total number of stages required for the configuration change.

Type: Integer

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ClusterConfig

Service: Amazon OpenSearch Service

Container for the cluster configuration of an OpenSearch Service domain. For more information, see [Creating and managing Amazon OpenSearch Service domains](#).

Contents

ColdStorageOptions

Container for cold storage configuration options.

Type: [ColdStorageOptions](#) object

Required: No

DedicatedMasterCount

Number of dedicated master nodes in the cluster. This number must be greater than 2 and not 4, otherwise you receive a validation exception.

Type: Integer

Required: No

DedicatedMasterEnabled

Indicates whether dedicated master nodes are enabled for the cluster. `True` if the cluster will use a dedicated master node. `False` if the cluster will not.

Type: Boolean

Required: No

DedicatedMasterType

OpenSearch Service instance type of the dedicated master nodes in the cluster.

Type: String

Valid Values: `m3.medium.search` | `m3.large.search` | `m3.xlarge.search` | `m3.2xlarge.search` | `m4.large.search` | `m4.xlarge.search` | `m4.2xlarge.search` | `m4.4xlarge.search` | `m4.10xlarge.search`

| m5.large.search | m5.xlarge.search | m5.2xlarge.search |
 m5.4xlarge.search | m5.12xlarge.search | m5.24xlarge.search
 | r5.large.search | r5.xlarge.search | r5.2xlarge.search |
 r5.4xlarge.search | r5.12xlarge.search | r5.24xlarge.search
 | c5.large.search | c5.xlarge.search | c5.2xlarge.search |
 c5.4xlarge.search | c5.9xlarge.search | c5.18xlarge.search |
 t3.nano.search | t3.micro.search | t3.small.search | t3.medium.search
 | t3.large.search | t3.xlarge.search | t3.2xlarge.search |
 or1.medium.search | or1.large.search | or1.xlarge.search |
 or1.2xlarge.search | or1.4xlarge.search | or1.8xlarge.search |
 or1.12xlarge.search | or1.16xlarge.search | ultrawarm1.medium.search |
 ultrawarm1.large.search | ultrawarm1.xlarge.search | t2.micro.search |
 t2.small.search | t2.medium.search | r3.large.search | r3.xlarge.search
 | r3.2xlarge.search | r3.4xlarge.search | r3.8xlarge.search
 | i2.xlarge.search | i2.2xlarge.search | d2.xlarge.search
 | d2.2xlarge.search | d2.4xlarge.search | d2.8xlarge.search
 | c4.large.search | c4.xlarge.search | c4.2xlarge.search |
 c4.4xlarge.search | c4.8xlarge.search | r4.large.search |
 r4.xlarge.search | r4.2xlarge.search | r4.4xlarge.search |
 r4.8xlarge.search | r4.16xlarge.search | i3.large.search |
 i3.xlarge.search | i3.2xlarge.search | i3.4xlarge.search |
 i3.8xlarge.search | i3.16xlarge.search | r6g.large.search |
 r6g.xlarge.search | r6g.2xlarge.search | r6g.4xlarge.search |
 r6g.8xlarge.search | r6g.12xlarge.search | m6g.large.search |
 m6g.xlarge.search | m6g.2xlarge.search | m6g.4xlarge.search |
 m6g.8xlarge.search | m6g.12xlarge.search | c6g.large.search |
 c6g.xlarge.search | c6g.2xlarge.search | c6g.4xlarge.search |
 c6g.8xlarge.search | c6g.12xlarge.search | r6gd.large.search |
 r6gd.xlarge.search | r6gd.2xlarge.search | r6gd.4xlarge.search |
 r6gd.8xlarge.search | r6gd.12xlarge.search | r6gd.16xlarge.search |
 t4g.small.search | t4g.medium.search

Required: No

InstanceCount

Number of data nodes in the cluster. This number must be greater than 1, otherwise you receive a validation exception.

Type: Integer

Required: No

InstanceType

Instance type of data nodes in the cluster.

Type: String

Valid Values: m3.medium.search | m3.large.search | m3.xlarge.search | m3.2xlarge.search | m4.large.search | m4.xlarge.search | m4.2xlarge.search | m4.4xlarge.search | m4.10xlarge.search | m5.large.search | m5.xlarge.search | m5.2xlarge.search | m5.4xlarge.search | m5.12xlarge.search | m5.24xlarge.search | r5.large.search | r5.xlarge.search | r5.2xlarge.search | r5.4xlarge.search | r5.12xlarge.search | r5.24xlarge.search | c5.large.search | c5.xlarge.search | c5.2xlarge.search | c5.4xlarge.search | c5.9xlarge.search | c5.18xlarge.search | t3.nano.search | t3.micro.search | t3.small.search | t3.medium.search | t3.large.search | t3.xlarge.search | t3.2xlarge.search | or1.medium.search | or1.large.search | or1.xlarge.search | or1.2xlarge.search | or1.4xlarge.search | or1.8xlarge.search | or1.12xlarge.search | or1.16xlarge.search | ultrawarm1.medium.search | ultrawarm1.large.search | ultrawarm1.xlarge.search | t2.micro.search | t2.small.search | t2.medium.search | r3.large.search | r3.xlarge.search | r3.2xlarge.search | r3.4xlarge.search | r3.8xlarge.search | i2.xlarge.search | i2.2xlarge.search | d2.xlarge.search | d2.2xlarge.search | d2.4xlarge.search | d2.8xlarge.search | c4.large.search | c4.xlarge.search | c4.2xlarge.search | c4.4xlarge.search | c4.8xlarge.search | r4.large.search | r4.xlarge.search | r4.2xlarge.search | r4.4xlarge.search | r4.8xlarge.search | r4.16xlarge.search | i3.large.search | i3.xlarge.search | i3.2xlarge.search | i3.4xlarge.search | i3.8xlarge.search | i3.16xlarge.search | r6g.large.search | r6g.xlarge.search | r6g.2xlarge.search | r6g.4xlarge.search | r6g.8xlarge.search | r6g.12xlarge.search | m6g.large.search | m6g.xlarge.search | m6g.2xlarge.search | m6g.4xlarge.search | m6g.8xlarge.search | m6g.12xlarge.search | c6g.large.search |

c6g.xlarge.search | c6g.2xlarge.search | c6g.4xlarge.search |
c6g.8xlarge.search | c6g.12xlarge.search | r6gd.large.search |
r6gd.xlarge.search | r6gd.2xlarge.search | r6gd.4xlarge.search |
r6gd.8xlarge.search | r6gd.12xlarge.search | r6gd.16xlarge.search |
t4g.small.search | t4g.medium.search

Required: No

MultiAZWithStandbyEnabled

A boolean that indicates whether a multi-AZ domain is turned on with a standby AZ. For more information, see [Configuring a multi-AZ domain in Amazon OpenSearch Service](#).

Type: Boolean

Required: No

WarmCount

The number of warm nodes in the cluster.

Type: Integer

Required: No

WarmEnabled

Whether to enable warm storage for the cluster.

Type: Boolean

Required: No

WarmType

The instance type for the cluster's warm nodes.

Type: String

Valid Values: ultrawarm1.medium.search | ultrawarm1.large.search |
ultrawarm1.xlarge.search

Required: No

ZoneAwarenessConfig

Container for zone awareness configuration options. Only required if `ZoneAwarenessEnabled` is `true`.

Type: [ZoneAwarenessConfig](#) object

Required: No

ZoneAwarenessEnabled

Indicates whether multiple Availability Zones are enabled. For more information, see [Configuring a multi-AZ domain in Amazon OpenSearch Service](#).

Type: Boolean

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ClusterConfigStatus

Service: Amazon OpenSearch Service

The cluster configuration status for a domain.

Contents

Options

Cluster configuration options for the specified domain.

Type: [ClusterConfig](#) object

Required: Yes

Status

The status of cluster configuration options for the specified domain.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CognitoOptions

Service: Amazon OpenSearch Service

Container for the parameters required to enable Cognito authentication for an OpenSearch Service domain. For more information, see [Configuring Amazon Cognito authentication for OpenSearch Dashboards](#).

Contents

Enabled

Whether to enable or disable Amazon Cognito authentication for OpenSearch Dashboards.

Type: Boolean

Required: No

IdentityPoolId

The Amazon Cognito identity pool ID that you want OpenSearch Service to use for OpenSearch Dashboards authentication.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+ : [0-9a-f-]+`

Required: No

RoleArn

The `AmazonOpenSearchServiceCognitoAccess` role that allows OpenSearch Service to configure your user pool and identity pool.

Type: String

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

Pattern: `arn:(aws|aws\ -cn|aws\ -us\ -gov|aws\ -iso|aws\ -iso\ -b):iam:: [0-9]+ :role\ /\. *`

Required: No

UserPoolId

The Amazon Cognito user pool ID that you want OpenSearch Service to use for OpenSearch Dashboards authentication.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+_[0-9a-zA-Z]+`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CognitoOptionsStatus

Service: Amazon OpenSearch Service

The status of the Cognito options for the specified domain.

Contents

Options

Cognito options for the specified domain.

Type: [CognitoOptions](#) object

Required: Yes

Status

The status of the Cognito options for the specified domain.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ColdStorageOptions

Service: Amazon OpenSearch Service

Container for the parameters required to enable cold storage for an OpenSearch Service domain. For more information, see [Cold storage for Amazon OpenSearch Service](#).

Contents

Enabled

Whether to enable or disable cold storage on the domain. You must enable UltraWarm storage to enable cold storage.

Type: Boolean

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CompatibleVersionsMap

Service: Amazon OpenSearch Service

A map of OpenSearch or Elasticsearch versions and the versions you can upgrade them to.

Contents

SourceVersion

The current version that the OpenSearch Service domain is running.

Type: String

Length Constraints: Minimum length of 14. Maximum length of 18.

Pattern: `^Elasticsearch_[0-9]{1}\.[0-9]{1,2}$|^OpenSearch_[0-9]{1,2}\.[0-9]{1,2}$`

Required: No

TargetVersions

The possible versions that you can upgrade the domain to.

Type: Array of strings

Length Constraints: Minimum length of 14. Maximum length of 18.

Pattern: `^Elasticsearch_[0-9]{1}\.[0-9]{1,2}$|^OpenSearch_[0-9]{1,2}\.[0-9]{1,2}$`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ConnectionProperties

Service: Amazon OpenSearch Service

The connection properties of an outbound connection.

Contents

CrossClusterSearch

The connection properties for cross cluster search.

Type: [CrossClusterSearchConnectionProperties](#) object

Required: No

Endpoint

The endpoint of the remote domain. Applicable for VPC_ENDPOINT connection mode.

Type: String

Pattern: `^[A-Za-z0-9\-\.\.]+$`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CrossClusterSearchConnectionProperties

Service: Amazon OpenSearch Service

Cross-cluster search specific connection properties.

Contents

SkipUnavailable

The status of the `SkipUnavailable` setting for the outbound connection. This feature allows you to specify some clusters as optional and ensure that your cross-cluster queries return partial results despite failures on one or more remote clusters.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DataSourceDetails

Service: Amazon OpenSearch Service

Details about a direct-query data source.

Contents

DataSourceType

The type of data source.

Type: [DataSourceType](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: No

Description

A description of the data source.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `^[a-zA-Z0-9_]*[\\a-zA-Z0-9_@#%*+=:?./!\s-]*$`

Required: No

Name

The name of the data source.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 80.

Pattern: `[a-z][a-z0-9_]+`

Required: No

Status

The status of the data source.

Type: String

Valid Values: ACTIVE | DISABLED

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DataSourceType

Service: Amazon OpenSearch Service

The type of data source.

Contents

Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

S3GlueDataCatalog

An Amazon S3 data source.

Type: [S3GlueDataCatalog](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DescribePackagesFilter

Service: Amazon OpenSearch Service

A filter to apply to the DescribePackage response.

Contents

Name

Any field from PackageDetails.

Type: String

Valid Values: PackageID | PackageName | PackageStatus | PackageType | EngineVersion

Required: No

Value

A non-empty list of values for the specified filter field.

Type: Array of strings

Array Members: Minimum number of 1 item.

Pattern: `^[0-9a-zA-Z*\._\\\/\?-\]+$`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DomainConfig

Service: Amazon OpenSearch Service

Container for the configuration of an OpenSearch Service domain.

Contents

AccessPolicies

Specifies the access policies for the domain.

Type: [AccessPoliciesStatus](#) object

Required: No

AdvancedOptions

Key-value pairs to specify advanced configuration options. For more information, see [Advanced options](#).

Type: [AdvancedOptionsStatus](#) object

Required: No

AdvancedSecurityOptions

Container for fine-grained access control settings for the domain.

Type: [AdvancedSecurityOptionsStatus](#) object

Required: No

AutoTuneOptions

Container for Auto-Tune settings for the domain.

Type: [AutoTuneOptionsStatus](#) object

Required: No

ChangeProgressDetails

Container for information about the progress of an existing configuration change.

Type: [ChangeProgressDetails](#) object

Required: No

ClusterConfig

Container for the cluster configuration of a the domain.

Type: [ClusterConfigStatus](#) object

Required: No

CognitoOptions

Container for Amazon Cognito options for the domain.

Type: [CognitoOptionsStatus](#) object

Required: No

DomainEndpointOptions

Additional options for the domain endpoint, such as whether to require HTTPS for all traffic.

Type: [DomainEndpointOptionsStatus](#) object

Required: No

EBSOptions

Container for EBS options configured for the domain.

Type: [EBSOptionsStatus](#) object

Required: No

EncryptionAtRestOptions

Key-value pairs to enable encryption at rest.

Type: [EncryptionAtRestOptionsStatus](#) object

Required: No

EngineVersion

The OpenSearch or Elasticsearch version that the domain is running.

Type: [VersionStatus](#) object

Required: No

IPAddressType

Choose either dual stack or IPv4 as your IP address type. Dual stack allows you to share domain resources across IPv4 and IPv6 address types, and is the recommended option. If you set your IP address type to dual stack, you can't change your address type later.

Type: [IPAddressTypeStatus](#) object

Required: No

LogPublishingOptions

Key-value pairs to configure log publishing.

Type: [LogPublishingOptionsStatus](#) object

Required: No

ModifyingProperties

Information about the domain properties that are currently being modified.

Type: Array of [ModifyingProperties](#) objects

Required: No

NodeToNodeEncryptionOptions

Whether node-to-node encryption is enabled or disabled.

Type: [NodeToNodeEncryptionOptionsStatus](#) object

Required: No

OffPeakWindowOptions

Container for off-peak window options for the domain.

Type: [OffPeakWindowOptionsStatus](#) object

Required: No

SnapshotOptions

DEPRECATED. Container for parameters required to configure automated snapshots of domain indexes.

Type: [SnapshotOptionsStatus](#) object

Required: No

SoftwareUpdateOptions

Software update options for the domain.

Type: [SoftwareUpdateOptionsStatus](#) object

Required: No

VPCOptions

The current VPC options for the domain and the status of any updates to their configuration.

Type: [VPCDerivedInfoStatus](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DomainEndpointOptions

Service: Amazon OpenSearch Service

Options to configure a custom endpoint for an OpenSearch Service domain.

Contents

CustomEndpoint

The fully qualified URL for the custom endpoint.

Type: String

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

Pattern: `^(((?!-)[A-Za-z0-9-]{0,62}[A-Za-z0-9])\.)+((?!-)[A-Za-z0-9-]{1,62}[A-Za-z0-9])$`

Required: No

CustomEndpointCertificateArn

The ARN for your security certificate, managed in AWS Certificate Manager (ACM).

Type: String

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

Pattern: `.*`

Required: No

CustomEndpointEnabled

Whether to enable a custom endpoint for the domain.

Type: Boolean

Required: No

EnforceHTTPS

True to require that all traffic to the domain arrive over HTTPS.

Type: Boolean

Required: No

TLSSecurityPolicy

Specify the TLS security policy to apply to the HTTPS endpoint of the domain. The policy can be one of the following values:

- **Policy-Min-TLS-1-0-2019-07:** TLS security policy that supports TLS version 1.0 to TLS version 1.2
- **Policy-Min-TLS-1-2-2019-07:** TLS security policy that supports only TLS version 1.2
- **Policy-Min-TLS-1-2-PFS-2023-10:** TLS security policy that supports TLS version 1.2 to TLS version 1.3 with perfect forward secrecy cipher suites

Type: String

Valid Values: Policy-Min-TLS-1-0-2019-07 | Policy-Min-TLS-1-2-2019-07 | Policy-Min-TLS-1-2-PFS-2023-10

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DomainEndpointOptionsStatus

Service: Amazon OpenSearch Service

The configured endpoint options for a domain and their current status.

Contents

Options

Options to configure the endpoint for a domain.

Type: [DomainEndpointOptions](#) object

Required: Yes

Status

The status of the endpoint options for a domain.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DomainInfo

Service: Amazon OpenSearch Service

Information about an OpenSearch Service domain.

Contents

DomainName

Name of the domain.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: No

EngineType

The type of search engine that the domain is running. `OpenSearch` for an OpenSearch engine, or `Elasticsearch` for a legacy Elasticsearch OSS engine.

Type: String

Valid Values: `OpenSearch` | `Elasticsearch`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DomainInformationContainer

Service: Amazon OpenSearch Service

Container for information about an OpenSearch Service domain.

Contents

AWSDomainInformation

Information about an Amazon OpenSearch Service domain.

Type: [AWSDomainInformation](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DomainMaintenanceDetails

Service: Amazon OpenSearch Service

Container for the domain maintenance details.

Contents

Action

The name of the action.

Type: String

Valid Values: REBOOT_NODE | RESTART_SEARCH_PROCESS | RESTART_DASHBOARD

Required: No

CreatedAt

The time at which the action was created.

Type: Timestamp

Required: No

DomainName

The name of the domain.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-\-]+`

Required: No

MaintenanceId

The ID of the requested action.

Type: String

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

Pattern: `^[\\s\\S]*$`

Required: No

NodeId

The ID of the data node.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 40.

Required: No

Status

The status of the action.

Type: String

Valid Values: PENDING | IN_PROGRESS | COMPLETED | FAILED | TIMED_OUT

Required: No

StatusMessage

The status message for the action.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1000.

Pattern: `^([\s\S]*)$`

Required: No

UpdatedAt

The time at which the action was updated.

Type: Timestamp

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DomainNodesStatus

Service: Amazon OpenSearch Service

Container for information about nodes on the domain.

Contents

AvailabilityZone

The Availability Zone of the node.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 15.

Required: No

InstanceType

The instance type information of the node.

Type: String

Valid Values: m3.medium.search | m3.large.search | m3.xlarge.search | m3.2xlarge.search | m4.large.search | m4.xlarge.search | m4.2xlarge.search | m4.4xlarge.search | m4.10xlarge.search | m5.large.search | m5.xlarge.search | m5.2xlarge.search | m5.4xlarge.search | m5.12xlarge.search | m5.24xlarge.search | r5.large.search | r5.xlarge.search | r5.2xlarge.search | r5.4xlarge.search | r5.12xlarge.search | r5.24xlarge.search | c5.large.search | c5.xlarge.search | c5.2xlarge.search | c5.4xlarge.search | c5.9xlarge.search | c5.18xlarge.search | t3.nano.search | t3.micro.search | t3.small.search | t3.medium.search | t3.large.search | t3.xlarge.search | t3.2xlarge.search | or1.medium.search | or1.large.search | or1.xlarge.search | or1.2xlarge.search | or1.4xlarge.search | or1.8xlarge.search | or1.12xlarge.search | or1.16xlarge.search | ultrawarm1.medium.search | ultrawarm1.large.search | ultrawarm1.xlarge.search | t2.micro.search | t2.small.search | t2.medium.search | r3.large.search | r3.xlarge.search | r3.2xlarge.search | r3.4xlarge.search | r3.8xlarge.search

| i2.xlarge.search | i2.2xlarge.search | d2.xlarge.search
| d2.2xlarge.search | d2.4xlarge.search | d2.8xlarge.search
| c4.large.search | c4.xlarge.search | c4.2xlarge.search |
c4.4xlarge.search | c4.8xlarge.search | r4.large.search |
r4.xlarge.search | r4.2xlarge.search | r4.4xlarge.search |
r4.8xlarge.search | r4.16xlarge.search | i3.large.search |
i3.xlarge.search | i3.2xlarge.search | i3.4xlarge.search |
i3.8xlarge.search | i3.16xlarge.search | r6g.large.search |
r6g.xlarge.search | r6g.2xlarge.search | r6g.4xlarge.search |
r6g.8xlarge.search | r6g.12xlarge.search | m6g.large.search |
m6g.xlarge.search | m6g.2xlarge.search | m6g.4xlarge.search |
m6g.8xlarge.search | m6g.12xlarge.search | c6g.large.search |
c6g.xlarge.search | c6g.2xlarge.search | c6g.4xlarge.search |
c6g.8xlarge.search | c6g.12xlarge.search | r6gd.large.search |
r6gd.xlarge.search | r6gd.2xlarge.search | r6gd.4xlarge.search |
r6gd.8xlarge.search | r6gd.12xlarge.search | r6gd.16xlarge.search |
t4g.small.search | t4g.medium.search

Required: No

NodeId

The ID of the node.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 40.

Required: No

NodeStatus

Indicates if the node is active or in standby.

Type: String

Valid Values: Active | StandBy | NotAvailable

Required: No

NodeType

Indicates whether the nodes is a data, master, or ultrawarm node.

Type: String

Valid Values: Data | Ultrawarm | Master

Required: No

StorageSize

The storage size of the node, in GiB.

Type: String

Required: No

StorageType

Indicates if the node has EBS or instance storage.

Type: String

Required: No

StorageVolumeType

If the nodes has EBS storage, indicates if the volume type is GP2 or GP3. Only applicable for data nodes.

Type: String

Valid Values: standard | gp2 | io1 | gp3

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DomainPackageDetails

Service: Amazon OpenSearch Service

Information about a package that is associated with a domain. For more information, see [Custom packages for Amazon OpenSearch Service](#).

Contents

DomainName

Name of the domain that the package is associated with.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: No

DomainPackageStatus

State of the association.

Type: String

Valid Values: ASSOCIATING | ASSOCIATION_FAILED | ACTIVE | DISSOCIATING | DISSOCIATION_FAILED

Required: No

ErrorDetails

Additional information if the package is in an error state. Null otherwise.

Type: [ErrorDetails](#) object

Required: No

LastUpdated

Timestamp of the most recent update to the package association status.

Type: Timestamp

Required: No

PackageID

Internal ID of the package.

Type: String

Pattern: `^([FG][0-9]+)$`

Required: No

PackageName

User-specified name of the package.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 256.

Pattern: `[a-z][a-z0-9\ -]+`

Required: No

PackageType

The type of package.

Type: String

Valid Values: TXT-DICTIONARY | ZIP-PLUGIN

Required: No

PackageVersion

The current version of the package.

Type: String

Required: No

ReferencePath

The relative path of the package on the OpenSearch Service cluster nodes. This is `synonym_path` when the package is for synonym files.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DomainStatus

Service: Amazon OpenSearch Service

The current status of an OpenSearch Service domain.

Contents

ARN

The Amazon Resource Name (ARN) of the domain. For more information, see [IAM identifiers](#) in the *AWS Identity and Access Management User Guide*.

Type: String

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

Pattern: . *

Required: Yes

ClusterConfig

Container for the cluster configuration of the domain.

Type: [ClusterConfig](#) object

Required: Yes

DomainId

Unique identifier for the domain.

Type: String

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

Required: Yes

DomainName

Name of the domain. Domain names are unique across all domains owned by the same account within an AWS Region.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\ -]+`

Required: Yes

AccessPolicies

Identity and Access Management (IAM) policy document specifying the access policies for the domain.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 102400.

Pattern: `.*`

Required: No

AdvancedOptions

Key-value pairs that specify advanced configuration options.

Type: String to string map

Required: No

AdvancedSecurityOptions

Settings for fine-grained access control.

Type: [AdvancedSecurityOptions](#) object

Required: No

AutoTuneOptions

Auto-Tune settings for the domain.

Type: [AutoTuneOptionsOutput](#) object

Required: No

ChangeProgressDetails

Information about a configuration change happening on the domain.

Type: [ChangeProgressDetails](#) object

Required: No

CognitoOptions

Key-value pairs to configure Amazon Cognito authentication for OpenSearch Dashboards.

Type: [CognitoOptions](#) object

Required: No

Created

Creation status of an OpenSearch Service domain. True if domain creation is complete. False if domain creation is still in progress.

Type: Boolean

Required: No

Deleted

Deletion status of an OpenSearch Service domain. True if domain deletion is complete. False if domain deletion is still in progress. Once deletion is complete, the status of the domain is no longer returned.

Type: Boolean

Required: No

DomainEndpointOptions

Additional options for the domain endpoint, such as whether to require HTTPS for all traffic.

Type: [DomainEndpointOptions](#) object

Required: No

DomainEndpointV2HostedZoneId

The dual stack hosted zone ID for the domain.

Type: String

Required: No

DomainProcessingStatus

The status of any changes that are currently in progress for the domain.

Type: String

Valid Values: `Creating` | `Active` | `Modifying` | `UpgradingEngineVersion` | `UpdatingServiceSoftware` | `Isolated` | `Deleting`

Required: No

EBSOptions

Container for EBS-based storage settings for the domain.

Type: [EBSOptions](#) object

Required: No

EncryptionAtRestOptions

Encryption at rest settings for the domain.

Type: [EncryptionAtRestOptions](#) object

Required: No

Endpoint

Domain-specific endpoint used to submit index, search, and data upload requests to the domain.

Type: String

Required: No

Endpoints

The key-value pair that exists if the OpenSearch Service domain uses VPC endpoints. For example:

- **IPv4 IP addresses** - `'vpc', 'vpc-endpoint-h2dsd34efgyghrtguk5gt6j2foh4.us-east-1.es.amazonaws.com'`
- **Dual stack IP addresses** - `'vpcv2': 'vpc-endpoint-h2dsd34efgyghrtguk5gt6j2foh4.aos.us-east-1.on.aws'`

Type: String to string map

Required: No

EndpointV2

If `IPAddressType` is set to `dualstack`, a version 2 domain endpoint is provisioned. This endpoint functions like a normal endpoint, except that it works with both IPv4 and IPv6 IP addresses. Normal endpoints work only with IPv4 IP addresses.

Type: String

Required: No

EngineVersion

Version of OpenSearch or Elasticsearch that the domain is running, in the format `Elasticsearch_X.Y` or `OpenSearch_X.Y`.

Type: String

Length Constraints: Minimum length of 14. Maximum length of 18.

Pattern: `^Elasticsearch_[0-9]{1}\.[0-9]{1,2}$|^OpenSearch_[0-9]{1,2}\.[0-9]{1,2}$`

Required: No

IPAddressType

The type of IP addresses supported by the endpoint for the domain.

Type: String

Valid Values: `ipv4` | `dualstack`

Required: No

LogPublishingOptions

Log publishing options for the domain.

Type: String to [LogPublishingOption](#) object map

Valid Keys: `INDEX_SLOW_LOGS` | `SEARCH_SLOW_LOGS` | `ES_APPLICATION_LOGS` | `AUDIT_LOGS`

Required: No

ModifyingProperties

Information about the domain properties that are currently being modified.

Type: Array of [ModifyingProperties](#) objects

Required: No

NodeToNodeEncryptionOptions

Whether node-to-node encryption is enabled or disabled.

Type: [NodeToNodeEncryptionOptions](#) object

Required: No

OffPeakWindowOptions

Options that specify a custom 10-hour window during which OpenSearch Service can perform configuration changes on the domain.

Type: [OffPeakWindowOptions](#) object

Required: No

Processing

The status of the domain configuration. True if OpenSearch Service is processing configuration changes. False if the configuration is active.

Type: Boolean

Required: No

ServiceSoftwareOptions

The current status of the domain's service software.

Type: [ServiceSoftwareOptions](#) object

Required: No

SnapshotOptions

DEPRECATED. Container for parameters required to configure automated snapshots of domain indexes.

Type: [SnapshotOptions](#) object

Required: No

SoftwareUpdateOptions

Service software update options for the domain.

Type: [SoftwareUpdateOptions](#) object

Required: No

UpgradeProcessing

The status of a domain version upgrade to a new version of OpenSearch or Elasticsearch. True if OpenSearch Service is in the process of a version upgrade. False if the configuration is active.

Type: Boolean

Required: No

VPCOptions

The VPC configuration for the domain.

Type: [VPCDerivedInfo](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DryRunProgressStatus

Service: Amazon OpenSearch Service

Information about the progress of a pre-upgrade dry run analysis.

Contents

CreationDate

The timestamp when the dry run was initiated.

Type: String

Required: Yes

DryRunId

The unique identifier of the dry run.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `\p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}`

Required: Yes

DryRunStatus

The current status of the dry run.

Type: String

Required: Yes

UpdateDate

The timestamp when the dry run was last updated.

Type: String

Required: Yes

ValidationFailures

Any validation failures that occurred as a result of the dry run.

Type: Array of [ValidationFailure](#) objects

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DryRunResults

Service: Amazon OpenSearch Service

Results of a dry run performed in an update domain request.

Contents

DeploymentType

Specifies the way in which OpenSearch Service will apply an update. Possible values are:

- **Blue/Green** - The update requires a blue/green deployment.
- **DynamicUpdate** - No blue/green deployment required
- **Undetermined** - The domain is in the middle of an update and can't predict the deployment type. Try again after the update is complete.
- **None** - The request doesn't include any configuration changes.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 128.

Required: No

Message

A message corresponding to the deployment type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Duration

Service: Amazon OpenSearch Service

The duration of a maintenance schedule. For more information, see [Auto-Tune for Amazon OpenSearch Service](#).

Contents

Unit

The unit of measurement for the duration of a maintenance schedule.

Type: String

Valid Values: HOURS

Required: No

Value

Integer to specify the value of a maintenance schedule duration.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 24.

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

EBSOptions

Service: Amazon OpenSearch Service

Container for the parameters required to enable EBS-based storage for an OpenSearch Service domain.

Contents

EBSEnabled

Indicates whether EBS volumes are attached to data nodes in an OpenSearch Service domain.

Type: Boolean

Required: No

Iops

Specifies the baseline input/output (I/O) performance of EBS volumes attached to data nodes. Applicable only for the gp3 and provisioned IOPS EBS volume types.

Type: Integer

Required: No

Throughput

Specifies the throughput (in MiB/s) of the EBS volumes attached to data nodes. Applicable only for the gp3 volume type.

Type: Integer

Required: No

VolumeSize

Specifies the size (in GiB) of EBS volumes attached to data nodes.

Type: Integer

Required: No

VolumeType

Specifies the type of EBS volumes attached to data nodes.

Type: String

Valid Values: standard | gp2 | io1 | gp3

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

EBSOptionsStatus

Service: Amazon OpenSearch Service

The status of the EBS options for the specified OpenSearch Service domain.

Contents

Options

The configured EBS options for the specified domain.

Type: [EBSOptions](#) object

Required: Yes

Status

The status of the EBS options for the specified domain.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

EncryptionAtRestOptions

Service: Amazon OpenSearch Service

Specifies whether the domain should encrypt data at rest, and if so, the Key Management Service (KMS) key to use. Can only be used when creating a new domain or enabling encryption at rest for the first time on an existing domain. You can't modify this parameter after it's already been specified.

Contents

Enabled

True to enable encryption at rest.

Type: Boolean

Required: No

KmsKeyId

The KMS key ID. Takes the form 1a2a3a4-1a2a-3a4a-5a6a-1a2a3a4a5a6a.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 500.

Pattern: .*

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

EncryptionAtRestOptionsStatus

Service: Amazon OpenSearch Service

Status of the encryption at rest options for the specified OpenSearch Service domain.

Contents

Options

Encryption at rest options for the specified domain.

Type: [EncryptionAtRestOptions](#) object

Required: Yes

Status

The status of the encryption at rest options for the specified domain.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

EnvironmentInfo

Service: Amazon OpenSearch Service

Information about the active domain environment.

Contents

AvailabilityZoneInformation

A list of AvailabilityZoneInfo for the domain.

Type: Array of [AvailabilityZoneInfo](#) objects

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ErrorDetails

Service: Amazon OpenSearch Service

Additional information if the package is in an error state. Null otherwise.

Contents

ErrorMessage

A message describing the error.

Type: String

Required: No

ErrorType

The type of error that occurred.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Filter

Service: Amazon OpenSearch Service

A filter used to limit results when describing inbound or outbound cross-cluster connections. You can specify multiple values per filter. A cross-cluster connection must match at least one of the specified values for it to be returned from an operation.

Contents

Name

The name of the filter.

Type: String

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

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

Required: No

Values

One or more values for the filter.

Type: Array of strings

Array Members: Minimum number of 1 item.

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

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

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

InboundConnection

Service: Amazon OpenSearch Service

Describes an inbound cross-cluster connection for Amazon OpenSearch Service. For more information, see [Cross-cluster search for Amazon OpenSearch Service](#).

Contents

ConnectionId

The unique identifier of the connection.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 256.

Pattern: `[a-z][a-z0-9\ -]+`

Required: No

ConnectionMode

The connection mode.

Type: String

Valid Values: DIRECT | VPC_ENDPOINT

Required: No

ConnectionStatus

The current status of the connection.

Type: [InboundConnectionStatus](#) object

Required: No

LocalDomainInfo

Information about the source (local) domain.

Type: [DomainInformationContainer](#) object

Required: No

RemoteDomainInfo

Information about the destination (remote) domain.

Type: [DomainInformationContainer](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

InboundConnectionStatus

Service: Amazon OpenSearch Service

The status of an inbound cross-cluster connection for OpenSearch Service.

Contents

Message

Information about the connection.

Type: String

Required: No

StatusCode

The status code for the connection. Can be one of the following:

- **PENDING_ACCEPTANCE** - Inbound connection is not yet accepted by the remote domain owner.
- **APPROVED**: Inbound connection is pending acceptance by the remote domain owner.
- **PROVISIONING**: Inbound connection is being provisioned.
- **ACTIVE**: Inbound connection is active and ready to use.
- **REJECTING**: Inbound connection rejection is in process.
- **REJECTED**: Inbound connection is rejected.
- **DELETING**: Inbound connection deletion is in progress.
- **DELETED**: Inbound connection is deleted and can no longer be used.

Type: String

Valid Values: PENDING_ACCEPTANCE | APPROVED | PROVISIONING | ACTIVE | REJECTING | REJECTED | DELETING | DELETED

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

InstanceCountLimits

Service: Amazon OpenSearch Service

Limits on the number of instances that can be created in OpenSearch Service for a given instance type.

Contents

MaximumInstanceCount

The minimum allowed number of instances.

Type: Integer

Required: No

MinimumInstanceCount

The maximum allowed number of instances.

Type: Integer

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

InstanceLimits

Service: Amazon OpenSearch Service

Instance-related attributes that are available for a given instance type.

Contents

InstanceCountLimits

Limits on the number of instances that can be created for a given instance type.

Type: [InstanceCountLimits](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

InstanceTypeDetails

Service: Amazon OpenSearch Service

Lists all instance types and available features for a given OpenSearch or Elasticsearch version.

Contents

AdvancedSecurityEnabled

Whether fine-grained access control is supported for the instance type.

Type: Boolean

Required: No

AppLogsEnabled

Whether logging is supported for the instance type.

Type: Boolean

Required: No

AvailabilityZones

The supported Availability Zones for the instance type.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 15.

Required: No

CognitoEnabled

Whether Amazon Cognito access is supported for the instance type.

Type: Boolean

Required: No

EncryptionEnabled

Whether encryption at rest and node-to-node encryption are supported for the instance type.

Type: Boolean

Required: No

InstanceRole

Whether the instance acts as a data node, a dedicated master node, or an UltraWarm node.

Type: Array of strings

Required: No

InstanceType

The instance type.

Type: String

Valid Values: m3.medium.search | m3.large.search | m3.xlarge.search | m3.2xlarge.search | m4.large.search | m4.xlarge.search | m4.2xlarge.search | m4.4xlarge.search | m4.10xlarge.search | m5.large.search | m5.xlarge.search | m5.2xlarge.search | m5.4xlarge.search | m5.12xlarge.search | m5.24xlarge.search | r5.large.search | r5.xlarge.search | r5.2xlarge.search | r5.4xlarge.search | r5.12xlarge.search | r5.24xlarge.search | c5.large.search | c5.xlarge.search | c5.2xlarge.search | c5.4xlarge.search | c5.9xlarge.search | c5.18xlarge.search | t3.nano.search | t3.micro.search | t3.small.search | t3.medium.search | t3.large.search | t3.xlarge.search | t3.2xlarge.search | or1.medium.search | or1.large.search | or1.xlarge.search | or1.2xlarge.search | or1.4xlarge.search | or1.8xlarge.search | or1.12xlarge.search | or1.16xlarge.search | ultrawarm1.medium.search | ultrawarm1.large.search | ultrawarm1.xlarge.search | t2.micro.search | t2.small.search | t2.medium.search | r3.large.search | r3.xlarge.search | r3.2xlarge.search | r3.4xlarge.search | r3.8xlarge.search | i2.xlarge.search | i2.2xlarge.search | d2.xlarge.search | d2.2xlarge.search | d2.4xlarge.search | d2.8xlarge.search | c4.large.search | c4.xlarge.search | c4.2xlarge.search | c4.4xlarge.search | c4.8xlarge.search | r4.large.search | r4.xlarge.search | r4.2xlarge.search | r4.4xlarge.search | r4.8xlarge.search | r4.16xlarge.search | i3.large.search | i3.xlarge.search | i3.2xlarge.search | i3.4xlarge.search |

i3.8xlarge.search | i3.16xlarge.search | r6g.large.search |
r6g.xlarge.search | r6g.2xlarge.search | r6g.4xlarge.search |
r6g.8xlarge.search | r6g.12xlarge.search | m6g.large.search |
m6g.xlarge.search | m6g.2xlarge.search | m6g.4xlarge.search |
m6g.8xlarge.search | m6g.12xlarge.search | c6g.large.search |
c6g.xlarge.search | c6g.2xlarge.search | c6g.4xlarge.search |
c6g.8xlarge.search | c6g.12xlarge.search | r6gd.large.search |
r6gd.xlarge.search | r6gd.2xlarge.search | r6gd.4xlarge.search |
r6gd.8xlarge.search | r6gd.12xlarge.search | r6gd.16xlarge.search |
t4g.small.search | t4g.medium.search

Required: No

WarmEnabled

Whether UltraWarm is supported for the instance type.

Type: Boolean

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPAddressTypeStatus

Service: Amazon OpenSearch Service

The IP address type status for the domain.

Contents

Options

The IP address options for the domain.

Type: String

Valid Values: `ipv4` | `dualstack`

Required: Yes

Status

Provides the current status of an entity.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

JWTOptionsInput

Service: Amazon OpenSearch Service

The JWT authentication and authorization configuration for an Amazon OpenSearch Service domain.

Contents

Enabled

True to enable JWT authentication and authorization for a domain.

Type: Boolean

Required: No

PublicKey

Element of the JWT assertion used by the cluster to verify JWT signatures.

Type: String

Required: No

RolesKey

Element of the JWT assertion to use for roles.

Type: String

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

Required: No

SubjectKey

Element of the JWT assertion to use for the user name.

Type: String

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

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

JWTOptionsOutput

Service: Amazon OpenSearch Service

Describes the JWT options configured for the domain.

Contents

Enabled

True if JWT use is enabled.

Type: Boolean

Required: No

PublicKey

The key used to verify the signature of incoming JWT requests.

Type: String

Required: No

RolesKey

The key used for matching the JWT roles attribute.

Type: String

Required: No

SubjectKey

The key used for matching the JWT subject attribute.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Limits

Service: Amazon OpenSearch Service

Limits for a given instance type and for each of its roles.

Contents

AdditionalLimits

List of additional limits that are specific to a given instance type for each of its instance roles.

Type: Array of [AdditionalLimit](#) objects

Required: No

InstanceLimits

The limits for a given instance type.

Type: [InstanceLimits](#) object

Required: No

StorageTypes

Storage-related attributes that are available for a given instance type.

Type: Array of [StorageType](#) objects

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

LogPublishingOption

Service: Amazon OpenSearch Service

Specifies whether the Amazon OpenSearch Service domain publishes the OpenSearch application and slow logs to Amazon CloudWatch. For more information, see [Monitoring OpenSearch logs with Amazon CloudWatch Logs](#).

Note

After you enable log publishing, you still have to enable the collection of slow logs using the OpenSearch REST API.

Contents

CloudWatchLogsLogGroupArn

The Amazon Resource Name (ARN) of the CloudWatch Logs group to publish logs to.

Type: String

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

Pattern: .*

Required: No

Enabled

Whether the log should be published.

Type: Boolean

Required: No

See Also

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

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

LogPublishingOptionsStatus

Service: Amazon OpenSearch Service

The configured log publishing options for the domain and their current status.

Contents

Options

The log publishing options configured for the domain.

Type: String to [LogPublishingOption](#) object map

Valid Keys: INDEX_SLOW_LOGS | SEARCH_SLOW_LOGS | ES_APPLICATION_LOGS | AUDIT_LOGS

Required: No

Status

The status of the log publishing options for the domain.

Type: [OptionStatus](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

MasterUserOptions

Service: Amazon OpenSearch Service

Credentials for the master user for a domain.

Contents

MasterUserARN

Amazon Resource Name (ARN) for the master user. Only specify if `InternalUserDatabaseEnabled` is false.

Type: String

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

Pattern: `.*`

Required: No

MasterUserName

User name for the master user. Only specify if `InternalUserDatabaseEnabled` is true.

Type: String

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

Pattern: `.*`

Required: No

MasterUserPassword

Password for the master user. Only specify if `InternalUserDatabaseEnabled` is true.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 128.

Pattern: `.*`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ModifyingProperties

Service: Amazon OpenSearch Service

Information about the domain properties that are currently being modified.

Contents

ActiveValue

The current value of the domain property that is being modified.

Type: String

Required: No

Name

The name of the property that is currently being modified.

Type: String

Required: No

PendingValue

The value that the property that is currently being modified will eventually have.

Type: String

Required: No

ValueType

The type of value that is currently being modified. Properties can have two types:

- PLAIN_TEXT: Contain direct values such as "1", "True", or "c5.large.search".
- STRINGIFIED_JSON: Contain content in JSON format, such as {"Enabled":"True"}.

Type: String

Valid Values: PLAIN_TEXT | STRINGIFIED_JSON

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

NodeToNodeEncryptionOptions

Service: Amazon OpenSearch Service

Enables or disables node-to-node encryption. For more information, see [Node-to-node encryption for Amazon OpenSearch Service](#).

Contents

Enabled

True to enable node-to-node encryption.

Type: Boolean

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

NodeToNodeEncryptionOptionsStatus

Service: Amazon OpenSearch Service

Status of the node-to-node encryption options for the specified domain.

Contents

Options

The node-to-node encryption options for the specified domain.

Type: [NodeToNodeEncryptionOptions](#) object

Required: Yes

Status

The status of the node-to-node encryption options for the specified domain.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

OffPeakWindow

Service: Amazon OpenSearch Service

A custom 10-hour, low-traffic window during which OpenSearch Service can perform mandatory configuration changes on the domain. These actions can include scheduled service software updates and blue/green Auto-Tune enhancements. OpenSearch Service will schedule these actions during the window that you specify.

If you don't specify a window start time, it defaults to 10:00 P.M. local time.

For more information, see [Defining off-peak maintenance windows for Amazon OpenSearch Service](#).

Contents

WindowStartTime

A custom start time for the off-peak window, in Coordinated Universal Time (UTC). The window length will always be 10 hours, so you can't specify an end time. For example, if you specify 11:00 P.M. UTC as a start time, the end time will automatically be set to 9:00 A.M.

Type: [WindowStartTime](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

OffPeakWindowOptions

Service: Amazon OpenSearch Service

Options for a domain's [off-peak window](#), during which OpenSearch Service can perform mandatory configuration changes on the domain.

Contents

Enabled

Whether to enable an off-peak window.

This option is only available when modifying a domain created prior to February 16, 2023, not when creating a new domain. All domains created after this date have the off-peak window enabled by default. You can't disable the off-peak window after it's enabled for a domain.

Type: Boolean

Required: No

OffPeakWindow

Off-peak window settings for the domain.

Type: [OffPeakWindow](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

OffPeakWindowOptionsStatus

Service: Amazon OpenSearch Service

The status of [off-peak window](#) options for a domain.

Contents

Options

The domain's off-peak window configuration.

Type: [OffPeakWindowOptions](#) object

Required: No

Status

The current status of off-peak window options.

Type: [OptionStatus](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

OptionStatus

Service: Amazon OpenSearch Service

Provides the current status of an entity.

Contents

CreationDate

The timestamp when the entity was created.

Type: Timestamp

Required: Yes

State

The state of the entity.

Type: String

Valid Values: RequiresIndexDocuments | Processing | Active

Required: Yes

UpdateDate

The timestamp of the last time the entity was updated.

Type: Timestamp

Required: Yes

PendingDeletion

Indicates whether the entity is being deleted.

Type: Boolean

Required: No

UpdateVersion

The latest version of the entity.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

OutboundConnection

Service: Amazon OpenSearch Service

Specifies details about an outbound cross-cluster connection.

Contents

ConnectionAlias

Name of the connection.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 100.

Pattern: `[a-zA-Z][a-zA-Z0-9\-_\]+`

Required: No

ConnectionId

Unique identifier of the connection.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 256.

Pattern: `[a-z][a-z0-9\ -]+`

Required: No

ConnectionMode

The connection mode.

Type: String

Valid Values: DIRECT | VPC_ENDPOINT

Required: No

ConnectionProperties

Properties for the outbound connection.

Type: [ConnectionProperties](#) object

Required: No

ConnectionStatus

Status of the connection.

Type: [OutboundConnectionStatus](#) object

Required: No

LocalDomainInfo

Information about the source (local) domain.

Type: [DomainInformationContainer](#) object

Required: No

RemoteDomainInfo

Information about the destination (remote) domain.

Type: [DomainInformationContainer](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

OutboundConnectionStatus

Service: Amazon OpenSearch Service

The status of an outbound cross-cluster connection.

Contents

Message

Verbose information for the outbound connection.

Type: String

Required: No

StatusCode

The status code for the outbound connection. Can be one of the following:

- **VALIDATING** - The outbound connection request is being validated.
- **VALIDATION_FAILED** - Validation failed for the connection request.
- **PENDING_ACCEPTANCE**: Outbound connection request is validated and is not yet accepted by the remote domain owner.
- **APPROVED** - Outbound connection has been approved by the remote domain owner for getting provisioned.
- **PROVISIONING** - Outbound connection request is in process.
- **ACTIVE** - Outbound connection is active and ready to use.
- **REJECTING** - Outbound connection rejection by remote domain owner is in progress.
- **REJECTED** - Outbound connection request is rejected by remote domain owner.
- **DELETING** - Outbound connection deletion is in progress.
- **DELETED** - Outbound connection is deleted and can no longer be used.

Type: String

Valid Values: VALIDATING | VALIDATION_FAILED | PENDING_ACCEPTANCE | APPROVED | PROVISIONING | ACTIVE | REJECTING | REJECTED | DELETING | DELETED

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PackageDetails

Service: Amazon OpenSearch Service

Basic information about a package.

Contents

AvailablePackageVersion

The package version.

Type: String

Required: No

AvailablePluginProperties

If the package is a ZIP-PLUGIN package, additional information about plugin properties.

Type: [PluginProperties](#) object

Required: No

CreatedAt

The timestamp when the package was created.

Type: Timestamp

Required: No

EngineVersion

Version of OpenSearch or Elasticsearch, in the format Elasticsearch_X.Y or OpenSearch_X.Y. Defaults to the latest version of OpenSearch.

Type: String

Pattern: `^Elasticsearch_[0-9]{1}\.[0-9]{1,2}$|^OpenSearch_[0-9]{1,2}\.[0-9]{1,2}$`

Required: No

ErrorDetails

Additional information if the package is in an error state. Null otherwise.

Type: [ErrorDetails](#) object

Required: No

LastUpdatedAt

Date and time when the package was last updated.

Type: Timestamp

Required: No

PackageDescription

User-specified description of the package.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

PackageID

The unique identifier of the package.

Type: String

Pattern: `^([FG][0-9]+)$`

Required: No

PackageName

The user-specified name of the package.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 256.

Pattern: `[a-z][a-z0-9\ -]+`

Required: No

PackageStatus

The current status of the package. The available options are AVAILABLE, COPYING, COPY_FAILED, VALIDATING, VALIDATION_FAILED, DELETING, and DELETE_FAILED.

Type: String

Valid Values: COPYING | COPY_FAILED | VALIDATING | VALIDATION_FAILED | AVAILABLE | DELETING | DELETED | DELETE_FAILED

Required: No

PackageType

The type of package.

Type: String

Valid Values: TXT-DICTIONARY | ZIP-PLUGIN

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PackageSource

Service: Amazon OpenSearch Service

The Amazon S3 location to import the package from.

Contents

S3BucketName

The name of the Amazon S3 bucket containing the package.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Required: No

S3Key

Key (file name) of the package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PackageVersionHistory

Service: Amazon OpenSearch Service

Details about a package version.

Contents

CommitMessage

A message associated with the package version when it was uploaded.

Type: String

Length Constraints: Maximum length of 160.

Required: No

CreatedAt

The date and time when the package was created.

Type: Timestamp

Required: No

PackageVersion

The package version.

Type: String

Required: No

PluginProperties

Additional information about plugin properties if the package is a ZIP-PLUGIN package.

Type: [PluginProperties](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PluginProperties

Service: Amazon OpenSearch Service

Basic information about the plugin.

Contents

ClassName

The name of the class to load.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

Description

The description of the plugin.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

Name

The name of the plugin.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

UncompressedSizeInBytes

The uncompressed size of the plugin.

Type: Long

Required: No

Version

The version of the plugin.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RecurringCharge

Service: Amazon OpenSearch Service

Contains the specific price and frequency of a recurring charges for an OpenSearch Reserved Instance, or for a Reserved Instance offering.

Contents

RecurringChargeAmount

The monetary amount of the recurring charge.

Type: Double

Required: No

RecurringChargeFrequency

The frequency of the recurring charge.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ReservedInstance

Service: Amazon OpenSearch Service

Details of an OpenSearch Reserved Instance.

Contents

BillingSubscriptionId

The unique identifier of the billing subscription.

Type: Long

Required: No

CurrencyCode

The currency code for the offering.

Type: String

Required: No

Duration

The duration, in seconds, for which the OpenSearch instance is reserved.

Type: Integer

Required: No

FixedPrice

The upfront fixed charge you will paid to purchase the specific Reserved Instance offering.

Type: Double

Required: No

InstanceCount

The number of OpenSearch instances that have been reserved.

Type: Integer

Required: No

InstanceType

The OpenSearch instance type offered by the Reserved Instance offering.

Type: String

Valid Values: m3.medium.search | m3.large.search | m3.xlarge.search | m3.2xlarge.search | m4.large.search | m4.xlarge.search | m4.2xlarge.search | m4.4xlarge.search | m4.10xlarge.search | m5.large.search | m5.xlarge.search | m5.2xlarge.search | m5.4xlarge.search | m5.12xlarge.search | m5.24xlarge.search | r5.large.search | r5.xlarge.search | r5.2xlarge.search | r5.4xlarge.search | r5.12xlarge.search | r5.24xlarge.search | c5.large.search | c5.xlarge.search | c5.2xlarge.search | c5.4xlarge.search | c5.9xlarge.search | c5.18xlarge.search | t3.nano.search | t3.micro.search | t3.small.search | t3.medium.search | t3.large.search | t3.xlarge.search | t3.2xlarge.search | or1.medium.search | or1.large.search | or1.xlarge.search | or1.2xlarge.search | or1.4xlarge.search | or1.8xlarge.search | or1.12xlarge.search | or1.16xlarge.search | ultrawarm1.medium.search | ultrawarm1.large.search | ultrawarm1.xlarge.search | t2.micro.search | t2.small.search | t2.medium.search | r3.large.search | r3.xlarge.search | r3.2xlarge.search | r3.4xlarge.search | r3.8xlarge.search | i2.xlarge.search | i2.2xlarge.search | d2.xlarge.search | d2.2xlarge.search | d2.4xlarge.search | d2.8xlarge.search | c4.large.search | c4.xlarge.search | c4.2xlarge.search | c4.4xlarge.search | c4.8xlarge.search | r4.large.search | r4.xlarge.search | r4.2xlarge.search | r4.4xlarge.search | r4.8xlarge.search | r4.16xlarge.search | i3.large.search | i3.xlarge.search | i3.2xlarge.search | i3.4xlarge.search | i3.8xlarge.search | i3.16xlarge.search | r6g.large.search | r6g.xlarge.search | r6g.2xlarge.search | r6g.4xlarge.search | r6g.8xlarge.search | r6g.12xlarge.search | m6g.large.search | m6g.xlarge.search | m6g.2xlarge.search | m6g.4xlarge.search | m6g.8xlarge.search | m6g.12xlarge.search | c6g.large.search | c6g.xlarge.search | c6g.2xlarge.search | c6g.4xlarge.search |

c6g.8xlarge.search | c6g.12xlarge.search | r6gd.large.search |
r6gd.xlarge.search | r6gd.2xlarge.search | r6gd.4xlarge.search |
r6gd.8xlarge.search | r6gd.12xlarge.search | r6gd.16xlarge.search |
t4g.small.search | t4g.medium.search

Required: No

PaymentOption

The payment option as defined in the Reserved Instance offering.

Type: String

Valid Values: ALL_UPFRONT | PARTIAL_UPFRONT | NO_UPFRONT

Required: No

RecurringCharges

The recurring charge to your account, regardless of whether you create any domains using the Reserved Instance offering.

Type: Array of [RecurringCharge](#) objects

Required: No

ReservationName

The customer-specified identifier to track this reservation.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 64.

Pattern: .*

Required: No

ReservedInstanceid

The unique identifier for the reservation.

Type: String

Length Constraints: Fixed length of 36.

Pattern: \p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}

Required: No

ReservedInstanceOfferingId

The unique identifier of the Reserved Instance offering.

Type: String

Required: No

StartTime

The date and time when the reservation was purchased.

Type: Timestamp

Required: No

State

The state of the Reserved Instance.

Type: String

Required: No

UsagePrice

The hourly rate at which you're charged for the domain using this Reserved Instance.

Type: Double

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

ReservedInstanceOffering

Service: Amazon OpenSearch Service

Details of an OpenSearch Reserved Instance offering.

Contents

CurrencyCode

The currency code for the Reserved Instance offering.

Type: String

Required: No

Duration

The duration, in seconds, for which the offering will reserve the OpenSearch instance.

Type: Integer

Required: No

FixedPrice

The upfront fixed charge you will pay to purchase the specific Reserved Instance offering.

Type: Double

Required: No

InstanceType

The OpenSearch instance type offered by the Reserved Instance offering.

Type: String

Valid Values: `m3.medium.search` | `m3.large.search` | `m3.xlarge.search` | `m3.2xlarge.search` | `m4.large.search` | `m4.xlarge.search` | `m4.2xlarge.search` | `m4.4xlarge.search` | `m4.10xlarge.search` | `m5.large.search` | `m5.xlarge.search` | `m5.2xlarge.search` | `m5.4xlarge.search` | `m5.12xlarge.search` | `m5.24xlarge.search` | `r5.large.search` | `r5.xlarge.search` | `r5.2xlarge.search` | `r5.4xlarge.search` | `r5.12xlarge.search` | `r5.24xlarge.search`

| c5.large.search | c5.xlarge.search | c5.2xlarge.search |
c5.4xlarge.search | c5.9xlarge.search | c5.18xlarge.search |
t3.nano.search | t3.micro.search | t3.small.search | t3.medium.search
| t3.large.search | t3.xlarge.search | t3.2xlarge.search |
or1.medium.search | or1.large.search | or1.xlarge.search |
or1.2xlarge.search | or1.4xlarge.search | or1.8xlarge.search |
or1.12xlarge.search | or1.16xlarge.search | ultrawarm1.medium.search |
ultrawarm1.large.search | ultrawarm1.xlarge.search | t2.micro.search |
t2.small.search | t2.medium.search | r3.large.search | r3.xlarge.search
| r3.2xlarge.search | r3.4xlarge.search | r3.8xlarge.search
| i2.xlarge.search | i2.2xlarge.search | d2.xlarge.search
| d2.2xlarge.search | d2.4xlarge.search | d2.8xlarge.search
| c4.large.search | c4.xlarge.search | c4.2xlarge.search |
c4.4xlarge.search | c4.8xlarge.search | r4.large.search |
r4.xlarge.search | r4.2xlarge.search | r4.4xlarge.search |
r4.8xlarge.search | r4.16xlarge.search | i3.large.search |
i3.xlarge.search | i3.2xlarge.search | i3.4xlarge.search |
i3.8xlarge.search | i3.16xlarge.search | r6g.large.search |
r6g.xlarge.search | r6g.2xlarge.search | r6g.4xlarge.search |
r6g.8xlarge.search | r6g.12xlarge.search | m6g.large.search |
m6g.xlarge.search | m6g.2xlarge.search | m6g.4xlarge.search |
m6g.8xlarge.search | m6g.12xlarge.search | c6g.large.search |
c6g.xlarge.search | c6g.2xlarge.search | c6g.4xlarge.search |
c6g.8xlarge.search | c6g.12xlarge.search | r6gd.large.search |
r6gd.xlarge.search | r6gd.2xlarge.search | r6gd.4xlarge.search |
r6gd.8xlarge.search | r6gd.12xlarge.search | r6gd.16xlarge.search |
t4g.small.search | t4g.medium.search

Required: No

PaymentOption

Payment option for the Reserved Instance offering

Type: String

Valid Values: ALL_UPFRONT | PARTIAL_UPFRONT | NO_UPFRONT

Required: No

RecurringCharges

The recurring charge to your account, regardless of whether you creates any domains using the offering.

Type: Array of [RecurringCharge](#) objects

Required: No

ReservedInstanceOfferingId

The unique identifier of the Reserved Instance offering.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `\p{XDigit}{8}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{4}-\p{XDigit}{12}`

Required: No

UsagePrice

The hourly rate at which you're charged for the domain using this Reserved Instance.

Type: Double

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

S3GlueDataCatalog

Service: Amazon OpenSearch Service

Information about the Amazon S3 Glue Data Catalog.

Contents

RoleArn

>The Amazon Resource Name (ARN) for the S3 Glue Data Catalog.

Type: String

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

Pattern: `arn:(aws|aws\ -cn|aws\ -us\ -gov|aws\ -iso|aws\ -iso\ -b):iam::
[0-9]+:role\ /. *`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SAMLIdp

Service: Amazon OpenSearch Service

The SAML identity provider information.

Contents

EntityId

The unique entity ID of the application in the SAML identity provider.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 512.

Required: Yes

MetadataContent

The metadata of the SAML application, in XML format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1048576.

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SAMLOptionsInput

Service: Amazon OpenSearch Service

The SAML authentication configuration for an Amazon OpenSearch Service domain.

Contents

Enabled

True to enable SAML authentication for a domain.

Type: Boolean

Required: No

Idp

The SAML Identity Provider's information.

Type: [SAMLIdp](#) object

Required: No

MasterBackendRole

The backend role that the SAML master user is mapped to.

Type: String

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

Required: No

MasterUserName

The SAML master user name, which is stored in the domain's internal user database.

Type: String

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

Pattern: .*

Required: No

RolesKey

Element of the SAML assertion to use for backend roles. Default is `roles`.

Type: String

Required: No

SessionTimeoutMinutes

The duration, in minutes, after which a user session becomes inactive. Acceptable values are between 1 and 1440, and the default value is 60.

Type: Integer

Required: No

SubjectKey

Element of the SAML assertion to use for the user name. Default is `NameID`.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SAMLOptionsOutput

Service: Amazon OpenSearch Service

Describes the SAML application configured for the domain.

Contents

Enabled

True if SAML is enabled.

Type: Boolean

Required: No

Idp

Describes the SAML identity provider's information.

Type: [SAMLIdp](#) object

Required: No

RolesKey

The key used for matching the SAML roles attribute.

Type: String

Required: No

SessionTimeoutMinutes

The duration, in minutes, after which a user session becomes inactive.

Type: Integer

Required: No

SubjectKey

The key used for matching the SAML subject attribute.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ScheduledAction

Service: Amazon OpenSearch Service

Information about a scheduled configuration change for an OpenSearch Service domain. This actions can be a [service software update](#) or a [blue/green Auto-Tune enhancement](#).

Contents

Id

The unique identifier of the scheduled action.

Type: String

Required: Yes

ScheduledTime

The time when the change is scheduled to happen.

Type: Long

Required: Yes

Severity

The severity of the action.

Type: String

Valid Values: HIGH | MEDIUM | LOW

Required: Yes

Type

The type of action that will be taken on the domain.

Type: String

Valid Values: SERVICE_SOFTWARE_UPDATE | JVM_HEAP_SIZE_TUNING | JVM_YOUNG_GEN_TUNING

Required: Yes

Cancelable

Whether or not the scheduled action is cancellable.

Type: Boolean

Required: No

Description

A description of the action to be taken.

Type: String

Required: No

Mandatory

Whether the action is required or optional.

Type: Boolean

Required: No

ScheduledBy

Whether the action was scheduled manually (CUSTOMER, or by OpenSearch Service automatically (SYSTEM).

Type: String

Valid Values: CUSTOMER | SYSTEM

Required: No

Status

The current status of the scheduled action.

Type: String

Valid Values: PENDING_UPDATE | IN_PROGRESS | FAILED | COMPLETED | NOT_ELIGIBLE | ELIGIBLE

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ScheduledAutoTuneDetails

Service: Amazon OpenSearch Service

Specifies details about a scheduled Auto-Tune action. For more information, see [Auto-Tune for Amazon OpenSearch Service](#).

Contents

Action

A description of the Auto-Tune action.

Type: String

Required: No

ActionType

The type of Auto-Tune action.

Type: String

Valid Values: JVM_HEAP_SIZE_TUNING | JVM_YOUNG_GEN_TUNING

Required: No

Date

The date and time when the Auto-Tune action is scheduled for the domain.

Type: Timestamp

Required: No

Severity

The severity of the Auto-Tune action. Valid values are LOW, MEDIUM, and HIGH.

Type: String

Valid Values: LOW | MEDIUM | HIGH

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ServiceSoftwareOptions

Service: Amazon OpenSearch Service

The current status of the service software for an Amazon OpenSearch Service domain. For more information, see [Service software updates in Amazon OpenSearch Service](#).

Contents

AutomatedUpdateDate

The timestamp, in Epoch time, until which you can manually request a service software update. After this date, we automatically update your service software.

Type: Timestamp

Required: No

Cancellable

True if you're able to cancel your service software version update. False if you can't cancel your service software update.

Type: Boolean

Required: No

CurrentVersion

The current service software version present on the domain.

Type: String

Required: No

Description

A description of the service software update status.

Type: String

Required: No

NewVersion

The new service software version, if one is available.

Type: String

Required: No

OptionalDeployment

True if a service software is never automatically updated. False if a service software is automatically updated after the automated update date.

Type: Boolean

Required: No

UpdateAvailable

True if you're able to update your service software version. False if you can't update your service software version.

Type: Boolean

Required: No

UpdateStatus

The status of your service software update.

Type: String

Valid Values: PENDING_UPDATE | IN_PROGRESS | COMPLETED | NOT_ELIGIBLE | ELIGIBLE

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SnapshotOptions

Service: Amazon OpenSearch Service

The time, in UTC format, when OpenSearch Service takes a daily automated snapshot of the specified domain. Default is 0 hours.

Contents

AutomatedSnapshotStartHour

The time, in UTC format, when OpenSearch Service takes a daily automated snapshot of the specified domain. Default is 0 hours.

Type: Integer

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SnapshotOptionsStatus

Service: Amazon OpenSearch Service

Container for information about a daily automated snapshot for an OpenSearch Service domain.

Contents

Options

The daily snapshot options specified for the domain.

Type: [SnapshotOptions](#) object

Required: Yes

Status

The status of a daily automated snapshot.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SoftwareUpdateOptions

Service: Amazon OpenSearch Service

Options for configuring service software updates for a domain.

Contents

AutoSoftwareUpdateEnabled

Whether automatic service software updates are enabled for the domain.

Type: Boolean

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SoftwareUpdateOptionsStatus

Service: Amazon OpenSearch Service

The status of the service software options for a domain.

Contents

Options

The service software update options for a domain.

Type: [SoftwareUpdateOptions](#) object

Required: No

Status

The status of service software update options, including creation date and last updated date.

Type: [OptionStatus](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

StorageType

Service: Amazon OpenSearch Service

A list of storage types for an Amazon OpenSearch Service domain that are available for a given instance type.

Contents

StorageSubTypeName

The storage sub-type, such as gp3 or io1.

Type: String

Required: No

StorageTypeLimits

Limits that are applicable for the given storage type.

Type: Array of [StorageTypeLimit](#) objects

Required: No

StorageTypeName

The name of the storage type.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

StorageTypeLimit

Service: Amazon OpenSearch Service

Limits that are applicable for the given Amazon OpenSearch Service storage type.

Contents

LimitName

Name of storage limits that are applicable for the given storage type. If `StorageType` is `ebs`, the following options are available:

- **MinimumVolumeSize** - Minimum volume size that is available for the given storage type. Can be empty if not applicable.
- **MaximumVolumeSize** - Maximum volume size that is available for the given storage type. Can be empty if not applicable.
- **MaximumIops** - Maximum amount of IOPS that is available for the given the storage type. Can be empty if not applicable.
- **MinimumIops** - Minimum amount of IOPS that is available for the given the storage type. Can be empty if not applicable.
- **MaximumThroughput** - Maximum amount of throughput that is available for the given the storage type. Can be empty if not applicable.
- **MinimumThroughput** - Minimum amount of throughput that is available for the given the storage type. Can be empty if not applicable.

Type: String

Required: No

LimitValues

The limit values.

Type: Array of strings

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Tag

Service: Amazon OpenSearch Service

A tag (key-value pair) for an Amazon OpenSearch Service resource.

Contents

Key

The tag key. Tag keys must be unique for the domain to which they are attached.

Type: String

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

Pattern: . *

Required: Yes

Value

The value assigned to the corresponding tag key. Tag values can be null and don't have to be unique in a tag set. For example, you can have a key value pair in a tag set of `project : Trinity` and `cost-center : Trinity`

Type: String

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

Pattern: . *

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

UpgradeHistory

Service: Amazon OpenSearch Service

History of the last 10 upgrades and upgrade eligibility checks for an Amazon OpenSearch Service domain.

Contents

StartTimestamp

UTC timestamp at which the upgrade API call was made, in the format yyyy-MM-ddTHH:mm:ssZ.

Type: Timestamp

Required: No

StepsList

A list of each step performed as part of a specific upgrade or upgrade eligibility check.

Type: Array of [UpgradeStepItem](#) objects

Required: No

UpgradeName

A string that describes the upgrade.

Type: String

Required: No

UpgradeStatus

The current status of the upgrade. The status can take one of the following values:

- In Progress
- Succeeded
- Succeeded with Issues
- Failed

Type: String

Valid Values: IN_PROGRESS | SUCCEEDED | SUCCEEDED_WITH_ISSUES | FAILED

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

UpgradeStepItem

Service: Amazon OpenSearch Service

Represents a single step of an upgrade or upgrade eligibility check workflow.

Contents

Issues

A list of strings containing detailed information about the errors encountered in a particular step.

Type: Array of strings

Required: No

ProgressPercent

The floating point value representing the progress percentage of a particular step.

Type: Double

Required: No

UpgradeStep

One of three steps that an upgrade or upgrade eligibility check goes through:

- PreUpgradeCheck
- Snapshot
- Upgrade

Type: String

Valid Values: PRE_UPGRADE_CHECK | SNAPSHOT | UPGRADE

Required: No

UpgradeStepStatus

The current status of the upgrade. The status can take one of the following values:

- In Progress
- Succeeded

- Succeeded with Issues
- Failed

Type: String

Valid Values: IN_PROGRESS | SUCCEEDED | SUCCEEDED_WITH_ISSUES | FAILED

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ValidationFailure

Service: Amazon OpenSearch Service

A validation failure that occurred as the result of a pre-update validation check (verbose dry run) on a domain.

Contents

Code

The error code of the failure.

Type: String

Required: No

Message

A message corresponding to the failure.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VersionStatus

Service: Amazon OpenSearch Service

The status of the the OpenSearch or Elasticsearch version options for the specified Amazon OpenSearch Service domain.

Contents

Options

The OpenSearch or Elasticsearch version for the specified domain.

Type: String

Length Constraints: Minimum length of 14. Maximum length of 18.

Pattern: ^Elasticsearch_[0-9]{1}\.[0-9]{1,2}\$|^OpenSearch_[0-9]{1,2}\.[0-9]{1,2}\$

Required: Yes

Status

The status of the version options for the specified domain.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VPCDerivedInfo

Service: Amazon OpenSearch Service

Information about the subnets and security groups for an Amazon OpenSearch Service domain provisioned within a virtual private cloud (VPC). For more information, see [Launching your Amazon OpenSearch Service domains using a VPC](#). This information only exists if the domain was created with `VPCOptions`.

Contents

AvailabilityZones

The list of Availability Zones associated with the VPC subnets.

Type: Array of strings

Required: No

SecurityGroupIds

The list of security group IDs associated with the VPC endpoints for the domain.

Type: Array of strings

Required: No

SubnetIds

A list of subnet IDs associated with the VPC endpoints for the domain.

Type: Array of strings

Required: No

VPCId

The ID for your VPC. Amazon VPC generates this value when you create a VPC.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VPCDerivedInfoStatus

Service: Amazon OpenSearch Service

Status of the VPC options for a specified domain.

Contents

Options

The VPC options for the specified domain.

Type: [VPCDerivedInfo](#) object

Required: Yes

Status

The status of the VPC options for the specified domain.

Type: [OptionStatus](#) object

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VpcEndpoint

Service: Amazon OpenSearch Service

The connection endpoint for connecting to an Amazon OpenSearch Service domain through a proxy.

Contents

DomainArn

The Amazon Resource Name (ARN) of the domain associated with the endpoint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `arn:aws[a-z\-*]:[a-z]+:[a-z0-9\-\-]+:[0-9]+:domain\[a-z0-9\-\-]+`

Required: No

Endpoint

The connection endpoint ID for connecting to the domain.

Type: String

Pattern: `^[A-Za-z0-9\-\.\-]+$`

Required: No

Status

The current status of the endpoint.

Type: String

Valid Values: `CREATING | CREATE_FAILED | ACTIVE | UPDATING | UPDATE_FAILED | DELETING | DELETE_FAILED`

Required: No

VpcEndpointId

The unique identifier of the endpoint.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 256.

Pattern: `^aos-[a-zA-Z0-9]*$`

Required: No

VpcEndpointOwner

The creator of the endpoint.

Type: String

Pattern: `^[0-9]+$`

Required: No

VpcOptions

Options to specify the subnets and security groups for an Amazon OpenSearch Service VPC endpoint.

Type: [VPCDerivedInfo](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VpcEndpointError

Service: Amazon OpenSearch Service

Error information when attempting to describe an Amazon OpenSearch Service-managed VPC endpoint.

Contents

ErrorCode

The code associated with the error.

Type: String

Valid Values: ENDPOINT_NOT_FOUND | SERVER_ERROR

Required: No

ErrorMessage

A message describing the error.

Type: String

Required: No

VpcEndpointId

The unique identifier of the endpoint.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 256.

Pattern: ^aos-[a-zA-Z0-9]*\$

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VpcEndpointSummary

Service: Amazon OpenSearch Service

Summary information for an Amazon OpenSearch Service-managed VPC endpoint.

Contents

DomainArn

The Amazon Resource Name (ARN) of the domain associated with the endpoint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `arn:aws[a-z\-*]:[a-z]+:[a-z0-9\-*]:[0-9]+:domain\[a-z0-9\-*\]+`

Required: No

Status

The current status of the endpoint.

Type: String

Valid Values: `CREATING | CREATE_FAILED | ACTIVE | UPDATING | UPDATE_FAILED | DELETING | DELETE_FAILED`

Required: No

VpcEndpointId

The unique identifier of the endpoint.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 256.

Pattern: `^aos-[a-zA-Z0-9]*$`

Required: No

VpcEndpointOwner

The creator of the endpoint.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VPCOptions

Service: Amazon OpenSearch Service

Options to specify the subnets and security groups for an Amazon OpenSearch Service VPC endpoint. For more information, see [Launching your Amazon OpenSearch Service domains using a VPC](#).

Contents

SecurityGroupIds

The list of security group IDs associated with the VPC endpoints for the domain. If you do not provide a security group ID, OpenSearch Service uses the default security group for the VPC.

Type: Array of strings

Required: No

SubnetIds

A list of subnet IDs associated with the VPC endpoints for the domain. If your domain uses multiple Availability Zones, you need to provide two subnet IDs, one per zone. Otherwise, provide only one.

Type: Array of strings

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WindowStartTime

Service: Amazon OpenSearch Service

The desired start time for an [off-peak maintenance window](#).

Contents

Hours

The start hour of the window in Coordinated Universal Time (UTC), using 24-hour time. For example, 17 refers to 5:00 P.M. UTC.

Type: Long

Valid Range: Minimum value of 0. Maximum value of 23.

Required: Yes

Minutes

The start minute of the window, in UTC.

Type: Long

Valid Range: Minimum value of 0. Maximum value of 59.

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ZoneAwarenessConfig

Service: Amazon OpenSearch Service

The zone awareness configuration for an Amazon OpenSearch Service domain.

Contents

AvailabilityZoneCount

If you enabled multiple Availability Zones, this value is the number of zones that you want the domain to use. Valid values are 2 and 3. If your domain is provisioned within a VPC, this value be equal to number of subnets.

Type: Integer

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Amazon OpenSearch Ingestion

The following data types are supported by Amazon OpenSearch Ingestion:

- [BufferOptions](#)
- [ChangeProgressStage](#)
- [ChangeProgressStatus](#)
- [CloudWatchLogDestination](#)
- [EncryptionAtRestOptions](#)
- [LogPublishingOptions](#)
- [Pipeline](#)

- [PipelineBlueprint](#)
- [PipelineBlueprintSummary](#)
- [PipelineDestination](#)
- [PipelineStatusReason](#)
- [PipelineSummary](#)
- [ServiceVpcEndpoint](#)
- [Tag](#)
- [ValidationMessage](#)
- [VpcAttachmentOptions](#)
- [VpcEndpoint](#)
- [VpcOptions](#)

BufferOptions

Service: Amazon OpenSearch Ingestion

Options that specify the configuration of a persistent buffer. To configure how OpenSearch Ingestion encrypts this data, set the `EncryptionAtRestOptions`. For more information, see [Persistent buffering](#).

Contents

PersistentBufferEnabled

Whether persistent buffering should be enabled.

Type: Boolean

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ChangeProgressStage

Service: Amazon OpenSearch Ingestion

Progress details for a specific stage of a pipeline configuration change.

Contents

Description

A description of the stage.

Type: String

Required: No

LastUpdatedAt

The most recent updated timestamp of the stage.

Type: Timestamp

Required: No

Name

The name of the stage.

Type: String

Required: No

Status

The current status of the stage that the change is in.

Type: String

Valid Values: PENDING | IN_PROGRESS | COMPLETED | FAILED

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ChangeProgressStatus

Service: Amazon OpenSearch Ingestion

The progress details of a pipeline configuration change.

Contents

ChangeProgressStages

Information about the stages that the pipeline is going through to perform the configuration change.

Type: Array of [ChangeProgressStage](#) objects

Required: No

StartTime

The time at which the configuration change is made on the pipeline.

Type: Timestamp

Required: No

Status

The overall status of the pipeline configuration change.

Type: String

Valid Values: PENDING | IN_PROGRESS | COMPLETED | FAILED

Required: No

TotalNumberOfStages

The total number of stages required for the pipeline configuration change.

Type: Integer

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CloudWatchLogDestination

Service: Amazon OpenSearch Ingestion

The destination for OpenSearch Ingestion logs sent to Amazon CloudWatch.

Contents

LogGroup

The name of the CloudWatch Logs group to send pipeline logs to. You can specify an existing log group or create a new one. For example, `/aws/vendedlogs/OpenSearchService/pipelines`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `^/aws/vendedlogs/[\.\-_/#A-Za-z0-9]+`

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

EncryptionAtRestOptions

Service: Amazon OpenSearch Ingestion

Options to control how OpenSearch encrypts buffer data.

Contents

KmsKeyArn

The ARN of the KMS key used to encrypt buffer data. By default, data is encrypted using an AWS owned key.

Type: String

Length Constraints: Minimum length of 7. Maximum length of 2048.

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

LogPublishingOptions

Service: Amazon OpenSearch Ingestion

Container for the values required to configure logging for the pipeline. If you don't specify these values, OpenSearch Ingestion will not publish logs from your application to CloudWatch Logs.

Contents

CloudWatchLogDestination

The destination for OpenSearch Ingestion logs sent to Amazon CloudWatch Logs. This parameter is required if `IsLoggingEnabled` is set to `true`.

Type: [CloudWatchLogDestination](#) object

Required: No

IsLoggingEnabled

Whether logs should be published.

Type: Boolean

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Pipeline

Service: Amazon OpenSearch Ingestion

Information about an existing OpenSearch Ingestion pipeline.

Contents

BufferOptions

Options that specify the configuration of a persistent buffer. To configure how OpenSearch Ingestion encrypts this data, set the `EncryptionAtRestOptions`. For more information, see [Persistent buffering](#).

Type: [BufferOptions](#) object

Required: No

CreatedAt

The date and time when the pipeline was created.

Type: Timestamp

Required: No

Destinations

Destinations to which the pipeline writes data.

Type: Array of [PipelineDestination](#) objects

Required: No

EncryptionAtRestOptions

Options to control how OpenSearch encrypts buffer data.

Type: [EncryptionAtRestOptions](#) object

Required: No

IngestEndpointUrls

The ingestion endpoints for the pipeline, which you can send data to.

Type: Array of strings

Required: No

LastUpdatedAt

The date and time when the pipeline was last updated.

Type: Timestamp

Required: No

LogPublishingOptions

Key-value pairs that represent log publishing settings.

Type: [LogPublishingOptions](#) object

Required: No

MaxUnits

The maximum pipeline capacity, in Ingestion Compute Units (ICUs).

Type: Integer

Required: No

MinUnits

The minimum pipeline capacity, in Ingestion Compute Units (ICUs).

Type: Integer

Required: No

PipelineArn

The Amazon Resource Name (ARN) of the pipeline.

Type: String

Required: No

PipelineConfigurationBody

The Data Prepper pipeline configuration in YAML format.

Type: String

Required: No

PipelineName

The name of the pipeline.

Type: String

Required: No

ServiceVpcEndpoints

A list of VPC endpoints that OpenSearch Ingestion has created to other AWS services.

Type: Array of [ServiceVpcEndpoint](#) objects

Required: No

Status

The current status of the pipeline.

Type: String

Valid Values: CREATING | ACTIVE | UPDATING | DELETING | CREATE_FAILED | UPDATE_FAILED | STARTING | START_FAILED | STOPPING | STOPPED

Required: No

StatusReason

The reason for the current status of the pipeline.

Type: [PipelineStatusReason](#) object

Required: No

Tags

A list of tags associated with the given pipeline.

Type: Array of [Tag](#) objects

Required: No

VpcEndpoints

The VPC interface endpoints that have access to the pipeline.

Type: Array of [VpcEndpoint](#) objects

Required: No

VpcEndpointService

The VPC endpoint service name for the pipeline.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PipelineBlueprint

Service: Amazon OpenSearch Ingestion

Container for information about an OpenSearch Ingestion blueprint.

Contents

BlueprintName

The name of the blueprint.

Type: String

Required: No

DisplayDescription

A description of the blueprint.

Type: String

Required: No

DisplayName

The display name of the blueprint.

Type: String

Required: No

PipelineConfigurationBody

The YAML configuration of the blueprint.

Type: String

Required: No

Service

The name of the service that the blueprint is associated with.

Type: String

Required: No

UseCase

The use case that the blueprint relates to.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PipelineBlueprintSummary

Service: Amazon OpenSearch Ingestion

A summary of an OpenSearch Ingestion blueprint.

Contents

BlueprintName

The name of the blueprint.

Type: String

Required: No

DisplayDescription

A description of the blueprint.

Type: String

Required: No

DisplayName

The display name of the blueprint.

Type: String

Required: No

Service

The name of the service that the blueprint is associated with.

Type: String

Required: No

UseCase

The use case that the blueprint relates to.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PipelineDestination

Service: Amazon OpenSearch Ingestion

An object representing the destination of a pipeline.

Contents

Endpoint

The endpoint receiving data from the pipeline.

Type: String

Required: No

ServiceName

The name of the service receiving data from the pipeline.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PipelineStatusReason

Service: Amazon OpenSearch Ingestion

Information about a pipeline's current status.

Contents

Description

A description of why a pipeline has a certain status.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PipelineSummary

Service: Amazon OpenSearch Ingestion

Summary information for an OpenSearch Ingestion pipeline.

Contents

CreatedAt

The date and time when the pipeline was created.

Type: Timestamp

Required: No

Destinations

A list of destinations to which the pipeline writes data.

Type: Array of [PipelineDestination](#) objects

Required: No

LastUpdatedAt

The date and time when the pipeline was last updated.

Type: Timestamp

Required: No

MaxUnits

The maximum pipeline capacity, in Ingestion Compute Units (ICUs).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

MinUnits

The minimum pipeline capacity, in Ingestion Compute Units (ICUs).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

PipelineArn

The Amazon Resource Name (ARN) of the pipeline.

Type: String

Length Constraints: Minimum length of 46. Maximum length of 76.

Pattern: `^arn:(aws|aws\-cn|aws\-us\-gov|aws\-iso|aws\-iso\-b):osis:.+pipeline\/.+`

Required: No

PipelineName

The name of the pipeline.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 28.

Pattern: `[a-z][a-z0-9\-]+`

Required: No

Status

The current status of the pipeline.

Type: String

Valid Values: `CREATING | ACTIVE | UPDATING | DELETING | CREATE_FAILED | UPDATE_FAILED | STARTING | START_FAILED | STOPPING | STOPPED`

Required: No

StatusReason

Information about a pipeline's current status.

Type: [PipelineStatusReason](#) object

Required: No

Tags

A list of tags associated with the given pipeline.

Type: Array of [Tag](#) objects

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ServiceVpcEndpoint

Service: Amazon OpenSearch Ingestion

A container for information about VPC endpoints that were created to other services

Contents

ServiceName

The name of the service for which a VPC endpoint was created.

Type: String

Valid Values: OPENSEARCH_SERVERLESS

Required: No

VpcEndpointId

The unique identifier of the VPC endpoint that was created.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Tag

Service: Amazon OpenSearch Ingestion

A tag (key-value pair) for an OpenSearch Ingestion pipeline.

Contents

Key

The tag key. Tag keys must be unique for the pipeline to which they are attached.

Type: String

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

Pattern: . *

Required: Yes

Value

The value assigned to the corresponding tag key. Tag values can be null and don't have to be unique in a tag set. For example, you can have a key value pair in a tag set of `project : Trinity` and `cost-center : Trinity`

Type: String

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

Pattern: . *

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ValidationMessage

Service: Amazon OpenSearch Ingestion

A validation message associated with a `ValidatePipeline` request in OpenSearch Ingestion.

Contents

Message

The validation message.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VpcAttachmentOptions

Service: Amazon OpenSearch Ingestion

Options for attaching a VPC to pipeline.

Contents

AttachToVpc

Whether a VPC is attached to the pipeline.

Type: Boolean

Required: Yes

CidrBlock

The CIDR block to be reserved for OpenSearch Ingestion to create elastic network interfaces (ENIs).

Type: String

Pattern: `^((25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.){3}(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)/(3[0-2]|[12]?[0-9])$`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VpcEndpoint

Service: Amazon OpenSearch Ingestion

An OpenSearch Ingestion-managed VPC endpoint that will access one or more pipelines.

Contents

VpcEndpointId

The unique identifier of the endpoint.

Type: String

Required: No

VpcId

The ID for your VPC. AWS PrivateLink generates this value when you create a VPC.

Type: String

Required: No

VpcOptions

Information about the VPC, including associated subnets and security groups.

Type: [VpcOptions](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VpcOptions

Service: Amazon OpenSearch Ingestion

Options that specify the subnets and security groups for an OpenSearch Ingestion VPC endpoint.

Contents

SubnetIds

A list of subnet IDs associated with the VPC endpoint.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 12 items.

Length Constraints: Minimum length of 15. Maximum length of 24.

Pattern: subnet-\w{8}(\w{9})?

Required: Yes

SecurityGroupIds

A list of security groups associated with the VPC endpoint.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 12 items.

Length Constraints: Minimum length of 11. Maximum length of 20.

Pattern: sg-\w{8}(\w{9})?

Required: No

VpcAttachmentOptions

Options for attaching a VPC to a pipeline.

Type: [VpcAttachmentOptions](#) object

Required: No

VpcEndpointManagement

Defines whether you or Amazon OpenSearch Ingestion service create and manage the VPC endpoint configured for the pipeline.

Type: String

Valid Values: CUSTOMER | SERVICE

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signing AWS API requests](#) in the *IAM User Guide*.

Action

The action to be performed.

Type: string

Required: Yes

Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key/YYYYMMDD/region/service/aws4_request*.

For more information, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Elements of an AWS API request signature](#) in the *IAM User Guide*.

Type: string

Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see [AWS services that work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

X-Amz-Signature

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

ExpiredTokenException

The security token included in the request is expired

HTTP Status Code: 403

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 403

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

MalformedHttpRequestException

Problems with the request at the HTTP level, e.g. we can't decompress the body according to the decompression algorithm specified by the content-encoding.

HTTP Status Code: 400

NotAuthorized

You do not have permission to perform this action.

HTTP Status Code: 401

OptInRequired

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

RequestAbortedException

Convenient exception that can be used when a request is aborted before a reply is sent back (e.g. client closed connection).

HTTP Status Code: 400

RequestEntityTooLargeException

Problems with the request at the HTTP level. The request entity is too large.

HTTP Status Code: 413

RequestExpired

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

RequestTimeoutException

Problems with the request at the HTTP level. Reading the Request timed out.

HTTP Status Code: 408

ServiceUnavailable

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

UnrecognizedClientException

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

UnknownOperationException

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 404

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400