Amazon Elastic Kubernetes Service API Reference API Version 2017-11-01



Amazon Elastic Kubernetes Service: API Reference

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Welcome

Amazon Elastic Kubernetes Service (Amazon EKS) is a managed service that makes it easy for you to run Kubernetes on AWS without needing to stand up or maintain your own Kubernetes control plane. Kubernetes is an open-source system for automating the deployment, scaling, and management of containerized applications.

Amazon EKS runs up-to-date versions of the open-source Kubernetes software, so you can use all the existing plugins and tooling from the Kubernetes community. Applications running on Amazon EKS are fully compatible with applications running on any standard Kubernetes environment, whether running in on-premises data centers or public clouds. This means that you can easily migrate any standard Kubernetes application to Amazon EKS without any code modification required.

This document was last published on June 3, 2020.

Actions

The following actions are supported:

- CreateCluster (p. 3)
- CreateFargateProfile (p. 10)
- CreateNodegroup (p. 16)
- DeleteCluster (p. 23)
- DeleteFargateProfile (p. 27)
- DeleteNodegroup (p. 31)
- DescribeCluster (p. 35)
- DescribeFargateProfile (p. 39)
- DescribeNodegroup (p. 42)
- DescribeUpdate (p. 46)
- ListClusters (p. 49)
- ListFargateProfiles (p. 52)
- ListNodegroups (p. 55)
- ListTagsForResource (p. 58)
- ListUpdates (p. 60)
- TagResource (p. 63)
- UntagResource (p. 65)
- UpdateClusterConfig (p. 67)
- UpdateClusterVersion (p. 73)
- UpdateNodegroupConfig (p. 77)
- UpdateNodegroupVersion (p. 81)

CreateCluster

Creates an Amazon EKS control plane.

The Amazon EKS control plane consists of control plane instances that run the Kubernetes software, such as etcd and the API server. The control plane runs in an account managed by AWS, and the Kubernetes API is exposed via the Amazon EKS API server endpoint. Each Amazon EKS cluster control plane is singletenant and unique and runs on its own set of Amazon EC2 instances.

The cluster control plane is provisioned across multiple Availability Zones and fronted by an Elastic Load Balancing Network Load Balancer. Amazon EKS also provisions elastic network interfaces in your VPC subnets to provide connectivity from the control plane instances to the worker nodes (for example, to support kubectl exec, logs, and proxy data flows).

Amazon EKS worker nodes run in your AWS account and connect to your cluster's control plane via the Kubernetes API server endpoint and a certificate file that is created for your cluster.

You can use the endpointPublicAccess and endpointPrivateAccess parameters to enable or disable public and private access to your cluster's Kubernetes API server endpoint. By default, public access is enabled, and private access is disabled. For more information, see Amazon EKS Cluster Endpoint Access Control in the Amazon EKS User Guide.

You can use the logging parameter to enable or disable exporting the Kubernetes control plane logs for your cluster to CloudWatch Logs. By default, cluster control plane logs aren't exported to CloudWatch Logs. For more information, see Amazon EKS Cluster Control Plane Logs in the Amazon EKS User Guide.

Note

CloudWatch Logs ingestion, archive storage, and data scanning rates apply to exported control plane logs. For more information, see Amazon CloudWatch Pricing.

Cluster creation typically takes between 10 and 15 minutes. After you create an Amazon EKS cluster, you must configure your Kubernetes tooling to communicate with the API server and launch worker nodes into your cluster. For more information, see Managing Cluster Authentication and Launching Amazon EKS Worker Nodes in the Amazon EKS User Guide.

Request Syntax

```
POST /clusters HTTP/1.1
Content-type: application/json
   "clientRequestToken": "string",
   "encryptionConfig": [
      {
         "provider": {
            "keyArn": "string"
         "resources": [ "string" ]
      }
   "logging": {
      "clusterLogging": [
            "enabled": boolean,
            "types": [ "string" ]
         }
      1
   "name": "string",
   "resourcesVpcConfig": {
```

```
"endpointPrivateAccess": boolean,
    "endpointPublicAccess": boolean,
    "publicAccessCidrs": [ "string" ],
    "securityGroupIds": [ "string" ],
    "subnetIds": [ "string" ]
},
    "roleArn": "string",
    "tags": {
        "string" : "string"
},
    "version": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

```
clientRequestToken (p. 3)
```

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

Type: String Required: No

encryptionConfig (p. 3)

The encryption configuration for the cluster.

Type: Array of EncryptionConfig (p. 91) objects

Array Members: Maximum number of 1 item.

Required: No logging (p. 3)

Enable or disable exporting the Kubernetes control plane logs for your cluster to CloudWatch Logs. By default, cluster control plane logs aren't exported to CloudWatch Logs. For more information, see Amazon EKS Cluster Control Plane Logs in the Amazon EKS User Guide.

Note

CloudWatch Logs ingestion, archive storage, and data scanning rates apply to exported control plane logs. For more information, see Amazon CloudWatch Pricing.

```
Type: Logging (p. 99) object
```

Required: No

name (p. 3)

The unique name to give to your cluster.

Type: String

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

Pattern: ^[0-9A-Za-z][A-Za-z0-9\-_]*

Required: Yes

resourcesVpcConfig (p. 3)

The VPC configuration used by the cluster control plane. Amazon EKS VPC resources have specific requirements to work properly with Kubernetes. For more information, see Cluster VPC Considerations and Cluster Security Group Considerations in the Amazon EKS User Guide. You must specify at least two subnets. You can specify up to five security groups, but we recommend that you use a dedicated security group for your cluster control plane.

Type: VpcConfigRequest (p. 115) object

Required: Yes roleArn (p. 3)

The Amazon Resource Name (ARN) of the IAM role that provides permissions for the Kubernetes control plane to make calls to AWS API operations on your behalf. For more information, see Amazon EKS Service IAM Role in the Amazon EKS User Guide.

Type: String Required: Yes

tags (p. 3)

The metadata to apply to the cluster to assist with categorization and organization. Each tag consists of a key and an optional value, both of which you define.

Type: String to string map

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

Value Length Constraints: Maximum length of 256.

Required: No

version (p. 3)

The desired Kubernetes version for your cluster. If you don't specify a value here, the latest version available in Amazon EKS is used.

Type: String Required: No

Response Syntax

```
"endpoint": "string",
   "identity": {
      "oidc": {
         "issuer": "string"
   "logging": {
      "clusterLogging": [
            "enabled": boolean,
            "types": [ "string" ]
      ]
   },
   "name": "string",
   "platformVersion": "string",
   "resourcesVpcConfig": {
      "clusterSecurityGroupId": "string",
      "endpointPrivateAccess": boolean,
      "endpointPublicAccess": boolean,
      "publicAccessCidrs": [ "string" ],
      "securityGroupIds": [ "string" ],
      "subnetIds": [ "string" ],
      "vpcId": "string"
   "roleArn": "string",
   "status": "string",
   "tags": {
      "string" : "string"
   "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.

cluster (p. 5)

The full description of your new cluster.

Type: Cluster (p. 88) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400

InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400 ResourceInUseException

The specified resource is in use.

HTTP Status Code: 409

Resource Limit Exceeded Exception

You have encountered a service limit on the specified resource.

HTTP Status Code: 400

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500
ServiceUnavailableException

The service is unavailable. Back off and retry the operation.

HTTP Status Code: 503

UnsupportedAvailabilityZoneException

At least one of your specified cluster subnets is in an Availability Zone that does not support Amazon EKS. The exception output specifies the supported Availability Zones for your account, from which you can choose subnets for your cluster.

HTTP Status Code: 400

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example creates an Amazon EKS cluster called prod with endpoint public and private access enabled.

Sample Request

```
POST /clusters HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.120 Python/3.7.0 Darwin/18.2.0 botocore/1.12.110
X-Amz-Date: 20190322T160158Z
Authorization: AUTHPARAMS
Content-Length: 368

{
    "name": "prod",
    "roleArn": "arn:aws:iam::012345678910:role/EksServiceRole",
```

Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 22 Mar 2019 16:01:58 GMT
Content-Type: application/json
Content-Length: 682
x-amzn-RequestId: d1b8b8d8-4cbb-11e9-b348-0398c7ea9718
x-amz-apigw-id: W84GUEIbPHcFW2Q=
X-Amzn-Trace-Id: Root=1-5c9506f5-d1e3152f7fbec44a4c3b6dde
Connection: keep-alive
  "cluster": {
    "name": "prod",
    "arn": "arn:aws:eks:us-west-2:012345678910:cluster/prod",
    "createdAt": 1573484658.211,
    "version": "1.14",
    "roleArn": "arn:aws:iam::012345678910:role/EksServiceRole",
    "resourcesVpcConfig": {
      "subnetIds": [
        "subnet-04751110b066869aa",
        "subnet-00d64f80bf7da767c",
        "subnet-0c1843cbc9803368c"
      "securityGroupIds": [],
      "vpcId": "vpc-0918e75e123a169b6",
      "endpointPublicAccess": true,
      "endpointPrivateAccess": false
    "logging": {
      "clusterLogging": [
          "types": [
            "api",
            "audit",
            "authenticator",
            "controllerManager",
            "scheduler"
          ٦,
          "enabled": false
        }
      ]
    "status": "CREATING",
    "certificateAuthority": {},
    "platformVersion": "eks.3",
    "tags": {}
  }
}
```

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateFargateProfile

Creates an AWS Fargate profile for your Amazon EKS cluster. You must have at least one Fargate profile in a cluster to be able to run pods on Fargate.

The Fargate profile allows an administrator to declare which pods run on Fargate and specify which pods run on which Fargate profile. This declaration is done through the profile's selectors. Each profile can have up to five selectors that contain a namespace and labels. A namespace is required for every selector. The label field consists of multiple optional key-value pairs. Pods that match the selectors are scheduled on Fargate. If a to-be-scheduled pod matches any of the selectors in the Fargate profile, then that pod is run on Fargate.

When you create a Fargate profile, you must specify a pod execution role to use with the pods that are scheduled with the profile. This role is added to the cluster's Kubernetes Role Based Access Control (RBAC) for authorization so that the kubelet that is running on the Fargate infrastructure can register with your Amazon EKS cluster so that it can appear in your cluster as a node. The pod execution role also provides IAM permissions to the Fargate infrastructure to allow read access to Amazon ECR image repositories. For more information, see Pod Execution Role in the Amazon EKS User Guide.

Fargate profiles are immutable. However, you can create a new updated profile to replace an existing profile and then delete the original after the updated profile has finished creating.

If any Fargate profiles in a cluster are in the DELETING status, you must wait for that Fargate profile to finish deleting before you can create any other profiles in that cluster.

For more information, see AWS Fargate Profile in the Amazon EKS User Guide.

Request Syntax

URI Request Parameters

The request requires the following URI parameters.

name (p. 10)

The name of the Amazon EKS cluster to apply the Fargate profile to.

Request Body

The request accepts the following data in JSON format.

clientRequestToken (p. 10)

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

Type: String Required: No

fargateProfileName (p. 10)

The name of the Fargate profile.

Type: String
Required: Yes

podExecutionRoleArn (p. 10)

The Amazon Resource Name (ARN) of the pod execution role to use for pods that match the selectors in the Fargate profile. The pod execution role allows Fargate infrastructure to register with your cluster as a node, and it provides read access to Amazon ECR image repositories. For more information, see Pod Execution Role in the Amazon EKS User Guide.

Type: String

Required: Yes
selectors (p. 10)

The selectors to match for pods to use this Fargate profile. Each selector must have an associated namespace. Optionally, you can also specify labels for a namespace. You may specify up to five selectors in a Fargate profile.

Type: Array of FargateProfileSelector (p. 95) objects

Required: No subnets (p. 10)

The IDs of subnets to launch your pods into. At this time, pods running on Fargate are not assigned public IP addresses, so only private subnets (with no direct route to an Internet Gateway) are accepted for this parameter.

Type: Array of strings

Required: No

tags (p. 10)

The metadata to apply to the Fargate profile to assist with categorization and organization. Each tag consists of a key and an optional value, both of which you define. Fargate profile tags do not propagate to any other resources associated with the Fargate profile, such as the pods that are scheduled with it.

Type: String to string map

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

Value Length Constraints: Maximum length of 256.

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
   "fargateProfile": {
      "clusterName": "string",
      "createdAt": number,
      "fargateProfileArn": "string",
      "fargateProfileName": "string",
      "podExecutionRoleArn": "string",
      "selectors": [
            "labels": {
               "string" : "string"
            "namespace": "string"
         }
      ],
      "status": "string",
      "subnets": [ "string" ],
      "tags": {
         "string" : "string"
   }
}
```

Response Elements

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

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

fargateProfile (p. 12)

The full description of your new Fargate profile.

Type: FargateProfile (p. 93) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400

InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400

InvalidRequestException

The request is invalid given the state of the cluster. Check the state of the cluster and the associated operations.

HTTP Status Code: 400

ResourceLimitExceededException

You have encountered a service limit on the specified resource.

HTTP Status Code: 400

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500

UnsupportedAvailabilityZoneException

At least one of your specified cluster subnets is in an Availability Zone that does not support Amazon EKS. The exception output specifies the supported Availability Zones for your account, from which you can choose subnets for your cluster.

HTTP Status Code: 400

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example creates a Fargate profile called default-with-infrastructure-label in the fargate cluster. Pods that are launched in the default namespace with the Kubernetes label "infrastructure": "fargate" will be run on Fargate.

Sample Request

```
POST /clusters/fargate/fargate-profiles HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.284 Python/3.7.5 Darwin/18.7.0 botocore/1.13.20
X-Amz-Date: 20191120T202529Z
Authorization: AUTHPARAMS
Content-Length: 355

{
    "fargateProfileName": "default-with-infrastructure-label",
    "podExecutionRoleArn": "arn:aws:iam::012345678910:role/AmazonEKSPodExecutionRole",
    "subnets": [
        "subnet-0420a37ee456daf3f",
        "subnet-09a8afb8db4f02d21"
    ],
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 20 Nov 2019 20:37:30 GMT
Content-Type: application/json
Content-Length: 610
x-amzn-RequestId: 16c4ddc8-21cf-4811-817d-cf0afbf5e83b
x-amz-apiqw-id: DeaRjFWPvHcFcXw=
X-Amzn-Trace-Id: Root=1-5dd5a409-0bba535e4d90de6e19517d8c
Connection: keep-alive
  "fargateProfile": {
    "fargateProfileName": "compute-label",
    "fargateProfileArn": "arn:aws:eks:us-west-2:012345678910:fargateprofile/fargate/
compute-label/78b74305-1f1e-54b7-f7f0-f03f2a3d3481",
    "clusterName": "fargate",
    "createdAt": 1574206849.791,
    "podExecutionRoleArn": "arn:aws:iam::012345678910:role/AmazonEKSPodExecutionRole",
    "subnets": [
      "subnet-0420a37ee456daf3f",
      "subnet-09a8afb8db4f02d21"
    "selectors": [
        "namespace": "kube-system",
        "labels": {
          "compute": "fargate"
      }
    ],
    "status": "DELETING",
    "tags": {}
}
```

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
- · AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- · AWS SDK for Python

Amazon Elastic Kubernetes Service API Reference See Also

• AWS SDK for Ruby V3

CreateNodegroup

Creates a managed worker node group for an Amazon EKS cluster. You can only create a node group for your cluster that is equal to the current Kubernetes version for the cluster. All node groups are created with the latest AMI release version for the respective minor Kubernetes version of the cluster.

An Amazon EKS managed node group is an Amazon EC2 Auto Scaling group and associated Amazon EC2 instances that are managed by AWS for an Amazon EKS cluster. Each node group uses a version of the Amazon EKS-optimized Amazon Linux 2 AMI. For more information, see Managed Node Groups in the Amazon EKS User Guide.

Request Syntax

```
POST /clusters/name/node-groups HTTP/1.1
Content-type: application/json
   "amiType": "string",
   "clientRequestToken": "string",
   "diskSize": number,
   "instanceTypes": [ "string" ],
   "labels": {
      "string" : "string"
   "nodegroupName": "string",
   "nodeRole": "string",
   "releaseVersion": "string",
   "remoteAccess": {
      "ec2SshKey": "string",
      "sourceSecurityGroups": [ "string" ]
   },
   "scalingConfig": {
      "desiredSize": number,
      "maxSize": number,
      "minSize": number
   },
   "subnets": [ "string" ],
   "tags": {
      "string" : "string"
   "version": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

name (p. 16)

The name of the cluster to create the node group in.

Request Body

The request accepts the following data in JSON format.

Amazon Elastic Kubernetes Service API Reference Request Body

amiType (p. 16)

The AMI type for your node group. GPU instance types should use the AL2_x86_64_GPU AMI type, which uses the Amazon EKS-optimized Linux AMI with GPU support. Non-GPU instances should use the AL2_x86_64 AMI type, which uses the Amazon EKS-optimized Linux AMI.

Type: String

Valid Values: AL2_x86_64 | AL2_x86_64_GPU

Required: No

clientRequestToken (p. 16)

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

Type: String

Required: No

diskSize (p. 16)

The root device disk size (in GiB) for your node group instances. The default disk size is 20 GiB.

Type: Integer

Required: No

instanceTypes (p. 16)

The instance type to use for your node group. Currently, you can specify a single instance type for a node group. The default value for this parameter is t3.medium. If you choose a GPU instance type, be sure to specify the AL2_x86_64_GPU with the amiType parameter.

Type: Array of strings

Required: No labels (p. 16)

The Kubernetes labels to be applied to the nodes in the node group when they are created.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 63.

Value Length Constraints: Minimum length of 1. Maximum length of 253.

Required: No

nodegroupName (p. 16)

The unique name to give your node group.

Type: String

Required: Yes

nodeRole (p. 16)

The Amazon Resource Name (ARN) of the IAM role to associate with your node group. The Amazon EKS worker node kubelet daemon makes calls to AWS APIs on your behalf. Worker nodes receive permissions for these API calls through an IAM instance profile and associated policies. Before you can launch worker nodes and register them into a cluster, you must create an IAM role for those worker nodes to use when they are launched. For more information, see Amazon EKS Worker Node IAM Role in the Amazon EKS User Guide .

Type: String

Amazon Elastic Kubernetes Service API Reference Response Syntax

Required: Yes

releaseVersion (p. 16)

The AMI version of the Amazon EKS-optimized AMI to use with your node group. By default, the latest available AMI version for the node group's current Kubernetes version is used. For more information, see Amazon EKS-Optimized Linux AMI Versions in the Amazon EKS User Guide.

Type: String

Required: No

remoteAccess (p. 16)

The remote access (SSH) configuration to use with your node group.

Type: RemoteAccessConfig (p. 110) object

Required: No

scalingConfig (p. 16)

The scaling configuration details for the Auto Scaling group that is created for your node group.

Type: NodegroupScalingConfig (p. 107) object

Required: No

subnets (p. 16)

The subnets to use for the Auto Scaling group that is created for your node group. These subnets must have the tag key kubernetes.io/cluster/CLUSTER_NAME with a value of shared, where CLUSTER_NAME is replaced with the name of your cluster.

Type: Array of strings

Required: Yes

tags (p. 16)

The metadata to apply to the node group to assist with categorization and organization. Each tag consists of a key and an optional value, both of which you define. Node group tags do not propagate to any other resources associated with the node group, such as the Amazon EC2 instances or subnets.

Type: String to string map

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

Value Length Constraints: Maximum length of 256.

Required: No

version (p. 16)

The Kubernetes version to use for your managed nodes. By default, the Kubernetes version of the cluster is used, and this is the only accepted specified value.

Type: String Required: No

Response Syntax

HTTP/1.1 200

```
Content-type: application/json
   "nodegroup": {
      "amiType": "string",
      "clusterName": "string",
      "createdAt": number,
     "diskSize": number,
      "health": {
         "issues": [
            {
               "code": "string",
               "message": "string",
               "resourceIds": [ "string" ]
         ]
      "instanceTypes": [ "string" ],
      "labels": {
         "string" : "string"
      "modifiedAt": number,
      "nodegroupArn": "string",
      "nodegroupName": "string",
      "nodeRole": "string",
      "releaseVersion": "string",
      "remoteAccess": {
         "ec2SshKey": "string",
         "sourceSecurityGroups": [ "string" ]
      },
      "resources": {
         "autoScalingGroups": [
            {
               "name": "string"
         ],
         "remoteAccessSecurityGroup": "string"
      },
      "scalingConfig": {
         "desiredSize": number,
         "maxSize": number,
         "minSize": number
      },
      "status": "string",
      "subnets": [ "string" ],
      "tags": {
         "string" : "string"
      },
      "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.

```
nodegroup (p. 18)
```

The full description of your new node group.

Type: Nodegroup (p. 101) object

Frrors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400 InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400
InvalidRequestException

The request is invalid given the state of the cluster. Check the state of the cluster and the associated operations.

HTTP Status Code: 400 ResourceInUseException

The specified resource is in use.

HTTP Status Code: 409

ResourceLimitExceededException

You have encountered a service limit on the specified resource.

HTTP Status Code: 400

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500
ServiceUnavailableException

The service is unavailable. Back off and retry the operation.

HTTP Status Code: 503

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

This example creates a managed node group with the Amazon EKS-optimized AMI with GPU support on p2.xlarge instances.

Sample Request

```
POST /clusters/prod/node-groups HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.275 Python/3.7.4 Darwin/18.7.0 botocore/1.13.11
X-Amz-Date: 20191111T182808Z
Authorization: AUTHPARAMS
Content-Length: 454
  "nodegroupName": "gpu",
  "scalingConfig": {
    "minSize": 1,
    "desiredSize": 2,
    "maxSize": 3
  "subnets": [
    "subnet-04751110b066869aa",
    "subnet-00d64f80bf7da767c",
    "subnet-0c1843cbc9803368c"
  "instanceTypes": [
    "p2.xlarge"
  "amiType": "AL2_x86_64_GPU",
  "remoteAccess": {
    "ec2SshKey": "id_rsa"
  "nodeRole": "arn:aws:iam::012345678910:role/managed-NodeInstanceRole-1V94UAUPQY7GS",
  "version": "1.14",
  "clientRequestToken": "3009f919-f0a2-4dfa-badc-66a6502b7dd6"
}
```

Sample Response

```
HTTP/1.1 200 OK
Date: Mon, 11 Nov 2019 18:28:10 GMT
Content-Type: application/json
Content-Length: 951
x-amzn-RequestId: d369e009-bc96-4dd5-861a-6effe5aaf0a5
x-amz-apigw-id: DAc5BGsWvHcF_bw=
X-Amzn-Trace-Id: Root=1-5dc9a839-294790909d31f4845b62b150
Connection: keep-alive
  "nodegroup": {
    "nodegroupName": "gpu",
    "nodegroupArn": "arn:aws:eks:us-west-2:012345678910:nodegroup/prod/
gpu/6cb72ddc-909f-9a70-98f2-7b5f70a58f4a",
    "clusterName": "prod",
    "version": "1.14",
    "releaseVersion": "1.14.7-20190927",
    "createdAt": 1573496890.842,
    "modifiedAt": 1573496890.842,
    "status": "CREATING",
    "scalingConfig": {
      "minSize": 1,
      "maxSize": 3,
      "desiredSize": 2
    "instanceTypes": [
      "p2.xlarge"
```

Amazon Elastic Kubernetes Service API Reference See Also

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteCluster

Deletes the Amazon EKS cluster control plane.

If you have active services in your cluster that are associated with a load balancer, you must delete those services before deleting the cluster so that the load balancers are deleted properly. Otherwise, you can have orphaned resources in your VPC that prevent you from being able to delete the VPC. For more information, see Deleting a Cluster in the Amazon EKS User Guide.

If you have managed node groups or Fargate profiles attached to the cluster, you must delete them first. For more information, see DeleteNodegroup (p. 31) and DeleteFargateProfile (p. 27).

Request Syntax

```
DELETE /clusters/name HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 23)
```

The name of the cluster to delete.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
   "cluster": {
      "arn": "string",
      "certificateAuthority": {
         "data": "string"
      "clientRequestToken": "string",
      "createdAt": number,
      "encryptionConfig": [
            "provider": {
               "keyArn": "string"
            "resources": [ "string" ]
         }
      "endpoint": "string",
      "identity": {
         "oidc": {
            "issuer": "string"
      "logging": {
```

```
"clusterLogging": [
               "enabled": boolean,
               "types": [ "string" ]
         ]
      }.
      "name": "string",
      "platformVersion": "string",
      "resourcesVpcConfig": {
        "clusterSecurityGroupId": "string",
         "endpointPrivateAccess": boolean,
         "endpointPublicAccess": boolean,
         "publicAccessCidrs": [ "string" ],
         "securityGroupIds": [ "string" ],
         "subnetIds": [ "string" ],
         "vpcId": "string"
      "roleArn": "string",
      "status": "string",
      "tags": {
         "string" : "string"
      "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.

cluster (p. 23)

The full description of the cluster to delete.

Type: Cluster (p. 88) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400

ResourceInUseException

The specified resource is in use.

HTTP Status Code: 409

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500
ServiceUnavailableException

The service is unavailable. Back off and retry the operation.

HTTP Status Code: 503

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example deletes a cluster called preview.

Sample Request

```
DELETE /clusters/devel HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.15.0 Python/3.6.5 Darwin/16.7.0 botocore/1.10.0
X-Amz-Date: 20180531T231840Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Thu, 31 May 2018 23:18:41 GMT
Content-Type: application/json
Content-Length: 1895
x-amzn-RequestId: f41d2cd9-6528-11e8-90a7-d126e019a58a
x-amz-apigw-id: HxlgjH_rPHcF7ag=
X-Amzn-Trace-Id: Root=1-5b1082d0-7e60338c3a68e21292b0d2ca
Connection: keep-alive
    "cluster": {
        "name": "dev",
        "arn": "arn:aws:eks:us-west-2:012345678910:cluster/dev",
        "createdAt": 1573244832.203,
        "version": "1.14",
        "endpoint": "https://AODCCD80A04F01705DD065655C30CC3D.yl4.us-
west-2.eks.amazonaws.com",
        "roleArn": "arn:aws:iam::012345678910:role/EksServiceRole",
        "resourcesVpcConfig": {
            "subnetIds": [
```

```
"subnet-04751110b066869aa",
                "subnet-00d64f80bf7da767c",
                "subnet-0c1843cbc9803368c"
            "securityGroupIds": [
                "sg-09a1cf3f07bf1d96f"
            "clusterSecurityGroupId": "sq-058c57bf26550dcf8",
            "vpcId": "vpc-0918e75e123a169b6",
            "endpointPublicAccess": true,
            "endpointPrivateAccess": false
        "logging": {
            "clusterLogging": [
                    "types": [
                        "api",
                        "audit",
                        "authenticator",
                        "controllerManager",
                        "scheduler"
                    ],
                    "enabled": false
                }
            ]
        "identity": {
            "oidc": {
                "issuer": "https://oidc.eks.us-west-2.amazonaws.com/
id/9FC964ABAD3AA097E4AC3A07B6B79B9C"
       },
        "status": "DELETING",
        "certificateAuthority": {
            "data": "HERE_BE_SOME_CERT_DATA==="
        "platformVersion": "eks.3",
        "tags": {}
    }
```

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteFargateProfile

Deletes an AWS Fargate profile.

When you delete a Fargate profile, any pods running on Fargate that were created with the profile are deleted. If those pods match another Fargate profile, then they are scheduled on Fargate with that profile. If they no longer match any Fargate profiles, then they are not scheduled on Fargate and they may remain in a pending state.

Only one Fargate profile in a cluster can be in the DELETING status at a time. You must wait for a Fargate profile to finish deleting before you can delete any other profiles in that cluster.

Request Syntax

```
DELETE /clusters/name/fargate-profiles/fargateProfileName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 27)
```

The name of the Amazon EKS cluster associated with the Fargate profile to delete. fargateProfileName (p. 27)

The name of the Fargate profile to delete.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
   "fargateProfile": {
      "clusterName": "string",
      "createdAt": number,
      "fargateProfileArn": "string",
      "fargateProfileName": "string",
      "podExecutionRoleArn": "string",
      "selectors": [
            "labels": {
               "string" : "string"
            "namespace": "string"
      "status": "string",
      "subnets": [ "string" ],
      "tags": {
         "string" : "string"
```

```
}
}
```

Response Elements

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

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

fargateProfile (p. 27)

The deleted Fargate profile.

Type: FargateProfile (p. 93) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400 InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400 ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example deletes a Fargate profile called compute-label in the fargate cluster.

Sample Request

```
DELETE /clusters/fargate/fargate-profiles/compute-label HTTP/1.1

Host: eks.us-west-2.amazonaws.com

Accept-Encoding: identity
User-Agent: aws-cli/1.16.284 Python/3.7.5 Darwin/18.7.0 botocore/1.13.20

X-Amz-Date: 20191120T203729Z

Authorization: AUTHPARAMS

Content-Length: 0
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 20 Nov 2019 20:37:30 GMT
Content-Type: application/json
Content-Length: 610
x-amzn-RequestId: 16c4ddc8-21cf-4811-817d-cf0afbf5e83b
x-amz-apigw-id: DeaRjFWPvHcFcXw=
X-Amzn-Trace-Id: Root=1-5dd5a409-0bba535e4d90de6e19517d8c
Connection: keep-alive
  "fargateProfile": {
    "fargateProfileName": "compute-label",
    "fargateProfileArn": "arn:aws:eks:us-west-2:012345678910:fargateprofile/fargate/
compute-label/78b74305-1f1e-54b7-f7f0-f03f2a3d3481",
    "clusterName": "fargate",
    "createdAt": 1574206849.791,
    "podExecutionRoleArn": "arn:aws:iam::012345678910:role/AmazonEKSPodExecutionRole",
    "subnets": [
      "subnet-0420a37ee456daf3f",
      "subnet-09a8afb8db4f02d21"
    ],
    "selectors": [
        "namespace": "kube-system",
        "labels": {
          "compute": "fargate"
      }
    ],
    "status": "DELETING",
    "tags": {}
}
```

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
- · AWS SDK for Java

Amazon Elastic Kubernetes Service API Reference See Also

- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteNodegroup

Deletes an Amazon EKS node group for a cluster.

Request Syntax

```
DELETE /clusters/name/node-groups/nodegroupName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 31)
```

The name of the Amazon EKS cluster that is associated with your node group. nodegroupName (p. 31)

The name of the node group to delete.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
   "nodegroup": {
      "amiType": "string",
      "clusterName": "string",
      "createdAt": number,
      "diskSize": number,
      "health": {
         "issues": [
               "code": "string",
                "message": "string",
                "resourceIds": [ "string" ]
         ]
      "instanceTypes": [ "string" ],
      "labels": {
         "string" : "string"
      "modifiedAt": number,
      "nodegroupArn": "string",
      "nodegroupName": "string",
      "nodeRole": "string",
      "releaseVersion": "string",
      "remoteAccess": {
         "ec2SshKey": "string",
         "sourceSecurityGroups": [ "string" ]
      },
```

```
"resources": {
         "autoScalingGroups": [
               "name": "string"
         ],
         "remoteAccessSecurityGroup": "string"
      "scalingConfig": {
         "desiredSize": number,
         "maxSize": number,
         "minSize": number
      "status": "string",
      "subnets": [ "string" ],
      "tags": {
         "string" : "string"
      "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.

nodegroup (p. 31)

The full description of your deleted node group.

Type: Nodegroup (p. 101) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400

InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400

ResourceInUseException

The specified resource is in use.

HTTP Status Code: 409

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500
ServiceUnavailableException

The service is unavailable. Back off and retry the operation.

HTTP Status Code: 503

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

This example deletes a managed node group called standard in the prod cluster.

Sample Request

```
DELETE /clusters/prod/node-groups/standard HTTP/1.1

Host: eks.us-west-2.amazonaws.com

Accept-Encoding: identity
User-Agent: aws-cli/1.16.275 Python/3.7.4 Darwin/18.7.0 botocore/1.13.11

X-Amz-Date: 20191111T202821Z

Authorization: AUTHPARAMS

Content-Length: 0
```

Sample Response

```
HTTP/1.1 200 OK
Date: Mon, 11 Nov 2019 20:28:22 GMT
Content-Type: application/json
Content-Length: 1121
x-amzn-RequestId: 4cdfc4e1-473f-46d6-a00f-12653201541f
x-amz-apigw-id: DAuf9GbEPHcFxNw=
X-Amzn-Trace-Id: Root=1-5dc9c466-15d365807ae3406037e29380
Connection: keep-alive
  "nodegroup" : {
    "nodegroupName" : "standard",
    "nodegroupArn" : "arn:aws:eks:us-west-2:012345678910:nodegroup/prod/
standard/06b72ddc-6fdd-e940-5fc4-4554a9fb1827",
    "clusterName" : "prod",
    "version" : "1.14",
    "releaseVersion" : "1.14.7-20190927",
    "createdAt" : 1.573496875151E9,
    "modifiedAt" : 1.573504102097E9,
```

```
"status" : "DELETING",
   "scalingConfig" : {
     "minSize" : 2,
     "maxSize" : 6,
     "desiredSize" : 4
   "instanceTypes" : [ "t3.medium" ],
   "subnet-0c1843cbc9803368c" ],
   "remoteAccess" : {
     "ec2SshKey" : "id_rsa",
     "sourceSecurityGroups" : null
   },
   "amiType" : "AL2_x86_64",
   "nodeRole": "arn:aws:iam::012345678910:role/managed-NodeInstanceRole-1V94UAUPQY7GS",
   "labels" : { },
"resources" : {
     "autoScalingGroups" : [ {
       "name": "eks-06b72ddc-6fdd-e940-5fc4-4554a9fb1827"
     "remoteAccessSecurityGroup" : "sg-0f41cbf6724bc256c"
   },
   "diskSize" : 20,
   "health" : {
     "issues" : [ ]
   "tags" : { }
}
```

See Also

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

DescribeCluster

Returns descriptive information about an Amazon EKS cluster.

The API server endpoint and certificate authority data returned by this operation are required for kubelet and kubectl to communicate with your Kubernetes API server. For more information, see Create a kubeconfig for Amazon EKS.

Note

The API server endpoint and certificate authority data aren't available until the cluster reaches the ACTIVE state.

Request Syntax

```
GET /clusters/name HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 35)
```

The name of the cluster to describe.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
   "cluster": {
      "arn": "string",
      "certificateAuthority": {
         "data": "string"
      "clientRequestToken": "string",
      "createdAt": number,
      "encryptionConfig": [
            "provider": {
               "keyArn": "string"
            "resources": [ "string" ]
      "endpoint": "string",
      "identity": {
         "oidc": {
            "issuer": "string"
      "logging": {
```

```
"clusterLogging": [
               "enabled": boolean,
               "types": [ "string" ]
         ]
      "name": "string",
      "platformVersion": "string",
      "resourcesVpcConfig": {
        "clusterSecurityGroupId": "string",
         "endpointPrivateAccess": boolean,
         "endpointPublicAccess": boolean,
         "publicAccessCidrs": [ "string" ],
         "securityGroupIds": [ "string" ],
         "subnetIds": [ "string" ],
         "vpcId": "string"
      "roleArn": "string",
      "status": "string",
      "tags": {
         "string" : "string"
      "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.

cluster (p. 35)

The full description of your specified cluster.

Type: Cluster (p. 88) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500 ServiceUnavailableException

The service is unavailable. Back off and retry the operation.

HTTP Status Code: 503

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example describes a cluster called prod.

Sample Request

```
GET /clusters/prod HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.120 Python/3.7.0 Darwin/18.2.0 botocore/1.12.110
X-Amz-Date: 20190322T161109Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 22 Mar 2019 16:11:07 GMT
Content-Type: application/json
Content-Length: 682
x-amzn-RequestId: 1978fca5-4cbd-11e9-86ea-2b6dc519decd
x-amz-apiqw-id: W85cPGkVvHcFa4q=
X-Amzn-Trace-Id: Root=1-5c95091b-6e7cd4882cd91834b66ac514
Connection: keep-alive
    "cluster": {
        "name": "prod",
        "arn": "arn:aws:eks:us-west-2:012345678910:cluster/prod",
        "createdAt": 1553270518.433,
        "version": "1.11",
        "endpoint": null,
        "roleArn": "arn:aws:iam::012345678910:role/EksServiceRole",
        "resourcesVpcConfig": {
            "subnetIds": [
                "subnet-077bc97efd5dae4f9",
                "subnet-0d6dc303cd69de702".
                "subnet-0b48c05c4cd1500cb"
            "securityGroupIds": [
                "sg-089666e5ca892599f"
```

```
"vpcId": "vpc-0405181d8db2f03ec",
           "endpointPublicAccess": true,
           "endpointPrivateAccess": true
       "clusterLogging": [
               {
                   "types": [
                       "api",
                       "audit",
                       "authenticator",
                       "controllerManager",
                       "scheduler"
                   ],
                   "enabled": false
           ]
       "oidc": {
               "issuer": null
       "status": "CREATING",
       "certificateAuthority": {
           "data": null
       "clientRequestToken": null,
       "platformVersion": "eks.2"
}
```

See Also

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

DescribeFargateProfile

Returns descriptive information about an AWS Fargate profile.

Request Syntax

```
GET /clusters/name/fargate-profiles/fargateProfileName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 39)
```

The name of the Amazon EKS cluster associated with the Fargate profile.

fargateProfileName (p. 39)

The name of the Fargate profile to describe.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
   "fargateProfile": {
      "clusterName": "string",
      "createdAt": number,
      "fargateProfileArn": "string",
      "fargateProfileName": "string",
      "podExecutionRoleArn": "string",
      "selectors": [
            "labels": {
                "string" : "string"
            "namespace": "string"
         }
      "status": "string",
      "subnets": [ "string" ],
      "tags": {
         "string" : "string"
   }
}
```

Response Elements

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

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

fargateProfile (p. 39)

The full description of your Fargate profile.

Type: FargateProfile (p. 93) object

Frrors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400 InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400
ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example describes a Fargate profile called default-with-infrastructure-label in the fargate cluster.

Sample Request

GET /clusters/fargate/fargate-profiles/default-with-infrastructure-label HTTP/1.1

Amazon Elastic Kubernetes Service API Reference See Also

```
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.284 Python/3.7.5 Darwin/18.7.0 botocore/1.13.20
X-Amz-Date: 20191120T204303Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 20 Nov 2019 20:43:04 GMT
Content-Type: application/json
Content-Length: 651
x-amzn-RequestId: e1822fa7-8aba-4342-af20-48c248337a21
x-amz-apigw-id: DebFwF0YPHcFkog=
X-Amzn-Trace-Id: Root=1-5dd5a557-3ac08aa35dc4f15044c4f4d2
Connection: keep-alive
  "farqateProfile": {
    "fargateProfileName": "default-with-infrastructure-label",
    "fargateProfileArn": "arn:aws:eks:us-west-2:012345678910:fargateprofile/fargate/
default-with-infrastructure-label/06b7453e-ef9a-82fc-f0c3-736633e31d41",
    "clusterName": "fargate",
    "createdAt": 1574281537.866,
    "podExecutionRoleArn": "arn:aws:iam::012345678910:role/AmazonEKSPodExecutionRole",
    "subnets": [
      "subnet-0420a37ee456daf3f",
      "subnet-09a8afb8db4f02d21"
    "selectors": [
        "namespace": "default",
        "labels": {
          "infrastructure": "fargate"
      }
    ],
    "status": "ACTIVE",
    "tags": {}
  }
}
```

See Also

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

DescribeNodegroup

Returns descriptive information about an Amazon EKS node group.

Request Syntax

```
GET /clusters/name/node-groups/nodegroupName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 42)
```

The name of the Amazon EKS cluster associated with the node group.

nodegroupName (p. 42)

The name of the node group to describe.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
   "nodegroup": {
     "amiType": "string",
      "clusterName": "string",
      "createdAt": number,
      "diskSize": number,
      "health": {
         "issues":
               "code": "string",
               "message": "string",
               "resourceIds": [ "string" ]
            }
         ]
      "instanceTypes": [ "string" ],
      "labels": {
         "string" : "string"
      "modifiedAt": number,
      "nodegroupArn": "string",
      "nodegroupName": "string",
      "nodeRole": "string",
      "releaseVersion": "string",
      "remoteAccess": {
         "ec2SshKey": "string",
         "sourceSecurityGroups": [ "string" ]
```

```
"resources": {
         "autoScalingGroups": [
               "name": "string"
         ],
         "remoteAccessSecurityGroup": "string"
      "scalingConfig": {
         "desiredSize": number,
         "maxSize": number,
         "minSize": number
      "status": "string",
      "subnets": [ "string" ],
      "tags": {
         "string" : "string"
      "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.

nodegroup (p. 42)

The full description of your node group.

Type: Nodegroup (p. 101) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400

InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500
ServiceUnavailableException

The service is unavailable. Back off and retry the operation.

HTTP Status Code: 503

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

This example describes a managed node group called standard in the prod cluster.

Sample Request

```
GET /clusters/prod/node-groups/standard HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.275 Python/3.7.4 Darwin/18.7.0 botocore/1.13.11
X-Amz-Date: 20191111T183235Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Mon, 11 Nov 2019 18:32:35 GMT
Content-Type: application/json
Content-Length: 1119
x-amzn-RequestId: ad4d4d65-182b-4318-bb77-3fb05c68aea4
x-amz-apigw-id: DAdikHT3vHcFz3w=
X-Amzn-Trace-Id: Root=1-5dc9a943-24db79360a4426885b107845
Connection: keep-alive
  "nodegroup": {
    "nodegroupName": "standard",
    "nodegroupArn": "arn:aws:eks:us-west-2:012345678910:nodegroup/prod/
standard/06b72ddc-6fdd-e940-5fc4-4554a9fb1827",
    "clusterName": "prod",
    "version": "1.14",
    "releaseVersion": "1.14.7-20190927".
    "createdAt": 1573496875.151,
    "modifiedAt": 1573496979.583,
    "status": "ACTIVE",
    "scalingConfig": {
```

```
"minSize": 1,
      "maxSize": 3,
      "desiredSize": 2
    "instanceTypes": [
      "t3.medium"
    "subnets": [
     "subnet-04751110b066869aa",
      "subnet-00d64f80bf7da767c",
      "subnet-0c1843cbc9803368c"
    "remoteAccess": {
     "ec2SshKey": "id_rsa",
     "sourceSecurityGroups": null
    "amiType": "AL2_x86_64",
    "nodeRole": "arn:aws:iam::012345678910:role/managed-NodeInstanceRole-1V94UAUPQY7GS",
    "labels": {},
    "resources": {
      "autoScalingGroups": [
          "name": "eks-06b72ddc-6fdd-e940-5fc4-4554a9fb1827"
       }
      ],
      "remoteAccessSecurityGroup": "sg-0f41cbf6724bc256c"
   },
    "diskSize": 20,
    "health": {
     "issues": []
    "tags": {}
}
```

See Also

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

DescribeUpdate

Returns descriptive information about an update against your Amazon EKS cluster or associated managed node group.

When the status of the update is Succeeded, the update is complete. If an update fails, the status is Failed, and an error detail explains the reason for the failure.

Request Syntax

GET /clusters/name/updates/updateId?nodegroupName=nodegroupName HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 46)
```

The name of the Amazon EKS cluster associated with the update.

```
nodegroupName (p. 46)
```

The name of the Amazon EKS node group associated with the update.

updateld (p. 46)

The ID of the update to describe.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
   "update": {
      "createdAt": number,
      "errors": [
         {
            "errorCode": "string",
            "errorMessage": "string",
            "resourceIds": [ "string" ]
         }
      ],
      "id": "string",
      "params": [
            "type": "string",
            "value": "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.

```
update (p. 46)
```

The full description of the specified update.

Type: Update (p. 111) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400 InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example describes an update with the ID 9f771284-9e30-4886-b5b1-3789b6bea4dc in the devel cluster.

Sample Request

```
GET /clusters/devel/updates/9f771284-9e30-4886-b5b1-3789b6bea4dc HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.56 Python/3.7.0 Darwin/17.7.0 botocore/1.12.46
X-Amz-Date: 20181129T172927Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Thu, 29 Nov 2018 17:29:27 GMT
Content-Type: application/json
Content-Length: 228
x-amzn-RequestId: 52408bdb-f3fc-11e8-a2ad-4dd5bee7556d
x-amz-apigw-id: RIo-oFsVvHcFXng=
X-Amzn-Trace-Id: Root=1-5c0021f7-1bdc4007e77da96f686fecde;Sampled=1
Connection: keep-alive
 "update": {
  "errors": [],
  "params": [{
   "value": "1.11",
   "type": "Version"
  }, {
   "value": "eks.1",
   "type": "PlatformVersion"
  }],
  "status": "InProgress",
  "id": "9f771284-9e30-4886-b5b1-3789b6bea4dc",
  "createdAt": 1543512515.848,
  "type": "VersionUpdate"
```

See Also

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

ListClusters

Lists the Amazon EKS clusters in your AWS account in the specified Region.

Request Syntax

```
GET /clusters?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

```
maxResults (p. 49)
```

The maximum number of cluster results returned by ListClusters in paginated output. When you use this parameter, ListClusters returns only maxResults results in a single page along with a nextToken response element. You can see the remaining results of the initial request by sending another ListClusters request with the returned nextToken value. This value can be between 1 and 100. If you don't use this parameter, ListClusters returns up to 100 results and a nextToken value if applicable.

Valid Range: Minimum value of 1. Maximum value of 100.

```
nextToken (p. 49)
```

The nextToken value returned from a previous paginated ListClusters request where maxResults was used and the results exceeded the value of that parameter. Pagination continues from the end of the previous results that returned the nextToken value.

Note

This token should be treated as an opaque identifier that is used only to retrieve the next items in a list and not for other programmatic purposes.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
{
    "clusters": [ "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.

clusters (p. 49)

A list of all of the clusters for your account in the specified Region.

Type: Array of strings

nextToken (p. 49)

The nextToken value to include in a future ListClusters request. When the results of a ListClusters request exceed maxResults, you can use this value to retrieve the next page of results. This value is null when there are no more results to return.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400
InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500
ServiceUnavailableException

The service is unavailable. Back off and retry the operation.

HTTP Status Code: 503

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example lists all of the Amazon EKS clusters in the specified Region.

Sample Request

```
GET /clusters HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.15.0 Python/3.6.5 Darwin/16.7.0 botocore/1.10.0
X-Amz-Date: 20180531T231200Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Thu, 31 May 2018 23:12:00 GMT
Content-Type: application/json
Content-Length: 46
x-amzn-RequestId: 05a756a1-6528-11e8-8b76-b9c1c7f233af
x-amz-apigw-id: HxkiCF8EPHcF4nw=
X-Amzn-Trace-Id: Root=1-5b108140-02517e16072fcc6261058b70
Connection: keep-alive

{
    "clusters": [
    "devel",
    "prod"
    ],
    "nextToken": null
}
```

See Also

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

ListFargateProfiles

Lists the AWS Fargate profiles associated with the specified cluster in your AWS account in the specified Region.

Request Syntax

GET /clusters/name/fargate-profiles?maxResults=maxResults&nextToken=nextToken HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 52)
```

The name of the Amazon EKS cluster that you would like to listFargate profiles in.

```
maxResults (p. 52)
```

The maximum number of Fargate profile results returned by ListFargateProfiles in paginated output. When you use this parameter, ListFargateProfiles returns only maxResults results in a single page along with a nextToken response element. You can see the remaining results of the initial request by sending another ListFargateProfiles request with the returned nextToken value. This value can be between 1 and 100. If you don't use this parameter, ListFargateProfiles returns up to 100 results and a nextToken value if applicable.

Valid Range: Minimum value of 1. Maximum value of 100.

```
nextToken (p. 52)
```

The nextToken value returned from a previous paginated ListFargateProfiles request where maxResults was used and the results exceeded the value of that parameter. Pagination continues from the end of the previous results that returned the nextToken value.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
{
    "fargateProfileNames": [ "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.

fargateProfileNames (p. 52)

A list of all of the Fargate profiles associated with the specified cluster.

Type: Array of strings

nextToken (p. 52)

The nextToken value to include in a future ListFargateProfiles request. When the results of a ListFargateProfiles request exceed maxResults, you can use this value to retrieve the next page of results. This value is null when there are no more results to return.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400 InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example lists the Fargate profiles in the fargate cluster.

Sample Request

```
GET /clusters/fargate/fargate-profiles HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.284 Python/3.7.5 Darwin/18.7.0 botocore/1.13.20
X-Amz-Date: 20191120T210416Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 20 Nov 2019 21:04:16 GMT
Content-Type: application/json
Content-Length: 91
x-amzn-RequestId: d0b000dd-beb7-4fad-9519-6b6f0967dbb4
x-amz-apigw-id: DeeMiFxHvHcFd3g=
X-Amzn-Trace-Id: Root=1-5dd5aa50-f9bcc720a86bdc68d606b8e8
Connection: keep-alive
{
    "fargateProfileNames": [
        "default-with-infrastructure-label",
        "monitoring"
    ],
    "nextToken": null
}
```

See Also

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

ListNodegroups

Lists the Amazon EKS managed node groups associated with the specified cluster in your AWS account in the specified Region. Self-managed node groups are not listed.

Request Syntax

GET /clusters/name/node-groups?maxResults=maxResults&nextToken=nextToken HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 55)
```

The name of the Amazon EKS cluster that you would like to list node groups in.

```
maxResults (p. 55)
```

The maximum number of node group results returned by ListNodegroups in paginated output. When you use this parameter, ListNodegroups returns only maxResults results in a single page along with a nextToken response element. You can see the remaining results of the initial request by sending another ListNodegroups request with the returned nextToken value. This value can be between 1 and 100. If you don't use this parameter, ListNodegroups returns up to 100 results and a nextToken value if applicable.

Valid Range: Minimum value of 1. Maximum value of 100.

```
nextToken (p. 55)
```

The nextToken value returned from a previous paginated ListNodegroups request where maxResults was used and the results exceeded the value of that parameter. Pagination continues from the end of the previous results that returned the nextToken value.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
{
    "nextToken": "string",
    "nodegroups": [ "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 (p. 55)

The nextToken value to include in a future ListNodegroups request. When the results of a ListNodegroups request exceed maxResults, you can use this value to retrieve the next page of results. This value is null when there are no more results to return.

Type: String nodegroups (p. 55)

A list of all of the node groups associated with the specified cluster.

Type: Array of strings

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400 InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500
ServiceUnavailableException

The service is unavailable. Back off and retry the operation.

HTTP Status Code: 503

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these

tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

This example lists all of the managed node groups that are associated with the prod cluster.

Sample Request

```
GET /clusters/prod/node-groups HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.275 Python/3.7.4 Darwin/18.7.0 botocore/1.13.11
X-Amz-Date: 20191111T183756Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Mon, 11 Nov 2019 18:37:56 GMT
Content-Type: application/json
Content-Length: 50
x-amzn-RequestId: 4dd65248-d4d2-4ca3-908b-2751a119a482
x-amz-apigw-id: DAeUrHtPPHcFU_A=
X-Amzn-Trace-Id: Root=1-5dc9aa84-11eeb7afaf21ffcfb3dc2b73
Connection: keep-alive

{
    "nodegroups": [
        "gpu",
        "standard"
    ],
        "nextToken": null
}
```

See Also

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

ListTagsForResource

List the tags for an Amazon EKS resource.

Request Syntax

```
GET /tags/resourceArn HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

```
resourceArn (p. 58)
```

The Amazon Resource Name (ARN) that identifies the resource for which to list the tags. Currently, the supported resources are Amazon EKS clusters and managed node groups.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
{
    "tags": {
        "string" : "string"
    }
}
```

Response Elements

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

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

```
tags (p. 58)
```

The tags for the resource.

Type: String to string map

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

Value Length Constraints: Maximum length of 256.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

BadRequestException

This exception is thrown if the request contains a semantic error. The precise meaning will depend on the API, and will be documented in the error message.

HTTP Status Code: 400

NotFoundException

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 404

See Also

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

ListUpdates

Lists the updates associated with an Amazon EKS cluster or managed node group in your AWS account, in the specified Region.

Request Syntax

```
GET /clusters/name/updates?
maxResults=maxResults&nextToken=nextToken&nodegroupName=nodegroupName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

```
maxResults (p. 60)
```

The maximum number of update results returned by ListUpdates in paginated output. When you use this parameter, ListUpdates returns only maxResults results in a single page along with a nextToken response element. You can see the remaining results of the initial request by sending another ListUpdates request with the returned nextToken value. This value can be between 1 and 100. If you don't use this parameter, ListUpdates returns up to 100 results and a nextToken value if applicable.

Valid Range: Minimum value of 1. Maximum value of 100.

```
name (p. 60)
```

The name of the Amazon EKS cluster to list updates for.

```
nextToken (p. 60)
```

The nextToken value returned from a previous paginated ListUpdates request where maxResults was used and the results exceeded the value of that parameter. Pagination continues from the end of the previous results that returned the nextToken value.

```
nodegroupName (p. 60)
```

The name of the Amazon EKS managed node group to list updates for.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
{
    "nextToken": "string",
    "updateIds": [ "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 (p. 60)

The nextToken value to include in a future ListUpdates request. When the results of a ListUpdates request exceed maxResults, you can use this value to retrieve the next page of results. This value is null when there are no more results to return.

Type: String updateIds (p. 60)

A list of all the updates for the specified cluster and Region.

Type: Array of strings

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400
InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example lists all updates that are associated with the devel cluster.

Sample Request

```
GET /clusters/devel/updates HTTP/1.1

Host: eks.us-west-2.amazonaws.com

Accept-Encoding: identity

User-Agent: aws-cli/1.16.56 Python/3.7.0 Darwin/17.7.0 botocore/1.12.46

X-Amz-Date: 20181129T172901Z

Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Thu, 29 Nov 2018 17:29:01 GMT
Content-Type: application/json
Content-Length: 71
x-amzn-RequestId: 4311fa83-f3fc-11e8-a242-fbf494fda54a
x-amz-apigw-id: RIo6pF2NPHcF5PQ=
X-Amzn-Trace-Id: Root=1-5c0021dd-1d9cd950483da98061f4f6e4;Sampled=1
Connection: keep-alive

{
    "updateIds": ["9f771284-9e30-4886-b5b1-3789b6bea4dc"],
    "nextToken": null
}
```

See Also

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

TagResource

Associates the specified tags to a resource with the specified resourceArn. If existing tags on a resource are not specified in the request parameters, they are not changed. When a resource is deleted, the tags associated with that resource are deleted as well. Tags that you create for Amazon EKS resources do not propagate to any other resources associated with the cluster. For example, if you tag a cluster with this operation, that tag does not automatically propagate to the subnets and worker nodes associated with the cluster.

Request Syntax

```
POST /tags/resourceArn HTTP/1.1
Content-type: application/json
{
    "tags": {
        "string" : "string"
    }
}
```

URI Request Parameters

The request requires the following URI parameters.

```
resourceArn (p. 63)
```

The Amazon Resource Name (ARN) of the resource to which to add tags. Currently, the supported resources are Amazon EKS clusters and managed node groups.

Request Body

The request accepts the following data in JSON format.

tags (p. 63)

The tags to add to the resource. A tag is an array of key-value pairs.

Type: String to string map

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

Value Length Constraints: Maximum length of 256.

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 (p. 121).

BadRequestException

This exception is thrown if the request contains a semantic error. The precise meaning will depend on the API, and will be documented in the error message.

HTTP Status Code: 400

NotFoundException

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 404

See Also

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

UntagResource

Deletes specified tags from a resource.

Request Syntax

DELETE /tags/resourceArn?tagKeys=tagKeys HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

resourceArn (p. 65)

The Amazon Resource Name (ARN) of the resource from which to delete tags. Currently, the supported resources are Amazon EKS clusters and managed node groups.

tagKeys (p. 65)

The keys of the tags to be removed.

Array Members: Minimum number of 1 item. Maximum number of 50 items.

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

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 (p. 121).

BadRequestException

This exception is thrown if the request contains a semantic error. The precise meaning will depend on the API, and will be documented in the error message.

HTTP Status Code: 400

NotFoundException

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 404

See Also

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

UpdateClusterConfig

Updates an Amazon EKS cluster configuration. Your cluster continues to function during the update. The response output includes an update ID that you can use to track the status of your cluster update with the DescribeUpdate (p. 46) API operation.

You can use this API operation to enable or disable exporting the Kubernetes control plane logs for your cluster to CloudWatch Logs. By default, cluster control plane logs aren't exported to CloudWatch Logs. For more information, see Amazon EKS Cluster Control Plane Logs in the Amazon EKS User Guide.

Note

CloudWatch Logs ingestion, archive storage, and data scanning rates apply to exported control plane logs. For more information, see Amazon CloudWatch Pricing.

You can also use this API operation to enable or disable public and private access to your cluster's Kubernetes API server endpoint. By default, public access is enabled, and private access is disabled. For more information, see Amazon EKS Cluster Endpoint Access Control in the Amazon EKS User Guide.

Important

At this time, you can not update the subnets or security group IDs for an existing cluster.

Cluster updates are asynchronous, and they should finish within a few minutes. During an update, the cluster status moves to UPDATING (this status transition is eventually consistent). When the update is complete (either Failed or Successful), the cluster status moves to Active.

Request Syntax

```
POST /clusters/name/update-config HTTP/1.1
Content-type: application/json
   "clientRequestToken": "string",
   "logging": {
      "clusterLogging": [
            "enabled": boolean,
            "types": [ "string" ]
      ]
   "resourcesVpcConfig": {
      "endpointPrivateAccess": boolean,
      "endpointPublicAccess": boolean,
      "publicAccessCidrs": [ "string" ],
      "securityGroupIds": [ "string" ],
      "subnetIds": [ "string" ]
   }
}
```

URI Request Parameters

The request requires the following URI parameters.

name (p. 67)

The name of the Amazon EKS cluster to update.

Request Body

The request accepts the following data in JSON format.

```
clientRequestToken (p. 67)
```

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

Type: String Required: No

logging (p. 67)

Enable or disable exporting the Kubernetes control plane logs for your cluster to CloudWatch Logs. By default, cluster control plane logs aren't exported to CloudWatch Logs. For more information, see Amazon EKS Cluster Control Plane Logs in the Amazon EKS User Guide.

Note

CloudWatch Logs ingestion, archive storage, and data scanning rates apply to exported control plane logs. For more information, see Amazon CloudWatch Pricing.

Type: Logging (p. 99) object

Required: No

resourcesVpcConfig (p. 67)

An object representing the VPC configuration to use for an Amazon EKS cluster.

Type: VpcConfigRequest (p. 115) object

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
   "update": {
      "createdAt": number,
      "errors": [
            "errorCode": "string",
            "errorMessage": "string";
            "resourceIds": [ "string" ]
         }
      ],
      "id": "string",
      "params": [
            "type": "string",
            "value": "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.

update (p. 68)

An object representing an asynchronous update.

Type: Update (p. 111) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400

InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400 InvalidRequestException

The request is invalid given the state of the cluster. Check the state of the cluster and the associated operations.

HTTP Status Code: 400 ResourceInUseException

The specified resource is in use.

HTTP Status Code: 409

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500

Examples

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example disables the Amazon EKS public API server endpoint for the eks-beta cluster.

Sample Request

```
POST /clusters/eks-beta/update-config HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.56 Python/3.7.0 Darwin/17.7.0 botocore/1.12.46
X-Amz-Date: 20190228T215632Z
Authorization: AUTHPARAMS

{
    "resourcesVpcConfig": {
        "endpointPublicAccess": false
    },
    "clientRequestToken": "a6de6687-1ca1-43f1-b48b-94216f825c79"
}
```

Sample Response

```
HTTP/1.1 200 OK
Date: Thu, 28 Feb 2019 21:56:33 GMT
Content-Type: application/json
Content-Length: 254
x-amzn-RequestId: b5cc3dc8-3ba3-11e9-a848-01d90c7ee6d7
x-amz-apigw-id: V1LanEMJPHcFvTg=
X-Amzn-Trace-Id: Root=1-5c785910-79fbf3674d4a5ddee4cf970f;Sampled=1
Connection: keep-alive
  "update": {
    "id": "71abb011-b524-4983-b17f-c30baa1b5530",
    "status": "InProgress",
    "type": "EndpointAccessUpdate",
    "params": [
      {
        "type": "EndpointPublicAccess",
        "value": "false"
      },
      {
        "type": "EndpointPrivateAccess",
        "value": "true"
      }
    ],
    "createdAt": 1551390993.374,
    "errors": []
}
```

Example

The following example enables exporting all cluster control plane logs to CloudWatch Logs.

Sample Request

```
POST /clusters/prod/update-config HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.120 Python/3.7.0 Darwin/18.2.0 botocore/1.12.110
X-Amz-Date: 20190322T162335Z
Authorization: AUTHPARAMS
  "logging": {
    "clusterLogging": [
        "types": [
          "api",
          "audit"
          "authenticator",
          "controllerManager",
          "scheduler"
        ٦,
        "enabled": true
      }
    ]
  "clientRequestToken": "ceec3afd-1731-4a94-9a1f-26e0e7eb46b1"
```

Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 22 Mar 2019 16:23:34 GMT
Content-Type: application/json
Content-Length: 313
x-amzn-RequestId: d6791f22-4cbe-11e9-82e1-ed8db84fbba9
x-amz-apigw-id: W87Q5HlCvHcFxDA=
X-Amzn-Trace-Id: Root=1-5c950c05-15477600e07ec800d410cc00
Connection: keep-alive
  "update": {
    "id": "883405c8-65c6-4758-8cee-2a7c1340a6d9",
    "status": "InProgress",
    "type": "LoggingUpdate",
    "params": [
        "type": "ClusterLogging",
        "value": "{\"clusterLogging\":[{\"types\":[\"api\",\"audit\",\"authenticator\",
\"controllerManager\",\"scheduler\"],\"enabled\":true}]}"
     }
    ],
    "createdAt": 1553271814.684,
    "errors": []
}
```

See Also

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

Amazon Elastic Kubernetes Service API Reference See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateClusterVersion

Updates an Amazon EKS cluster to the specified Kubernetes version. Your cluster continues to function during the update. The response output includes an update ID that you can use to track the status of your cluster update with the DescribeUpdate (p. 46) API operation.

Cluster updates are asynchronous, and they should finish within a few minutes. During an update, the cluster status moves to UPDATING (this status transition is eventually consistent). When the update is complete (either Failed or Successful), the cluster status moves to Active.

If your cluster has managed node groups attached to it, all of your node groups' Kubernetes versions must match the cluster's Kubernetes version in order to update the cluster to a new Kubernetes version.

Request Syntax

```
POST /clusters/name/updates HTTP/1.1
Content-type: application/json
{
    "clientRequestToken": "string",
    "version": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 73)
```

The name of the Amazon EKS cluster to update.

Request Body

The request accepts the following data in JSON format.

```
clientRequestToken (p. 73)
```

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

```
Type: String

Required: No

version (p. 73)
```

The desired Kubernetes version following a successful update.

```
Type: String
Required: Yes
```

Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json
{
   "update": {
      "createdAt": number,
      "errors": [
            "errorCode": "string",
            "errorMessage": "string";
            "resourceIds": [ "string" ]
         }
      "id": "string",
      "params": [
            "type": "string",
            "value": "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.

```
update (p. 73)
```

The full description of the specified update

Type: Update (p. 111) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400

InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400

InvalidRequestException

The request is invalid given the state of the cluster. Check the state of the cluster and the associated operations.

HTTP Status Code: 400

ResourceInUseException

The specified resource is in use.

HTTP Status Code: 409

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

The following example updates the devel cluster to Kubernetes version 1.11.

Sample Request

```
POST /clusters/devel/updates HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.56 Python/3.7.0 Darwin/17.7.0 botocore/1.12.46
X-Amz-Date: 20181129T172834Z
Authorization: AUTHPARAMS

{
    "version": "1.11",
    "clientRequestToken": "b07dab93-51bc-4094-8372-96f3ccf888ff"
}
```

Sample Response

```
HTTP/1.1 200 OK
Date: Thu, 29 Nov 2018 17:28:35 GMT
Content-Type: application/json
Content-Length: 228
x-amzn-RequestId: 33000f0c-f3fc-11e8-9ddb-9bc150e1f1e4
x-amz-apigw-id: RIo2bEs8vHcFXoA=
X-Amzn-Trace-Id: Root=1-5c0021c2-e5132580188eafa8600f2fb0;Sampled=1
Connection: keep-alive
```

Amazon Elastic Kubernetes Service API Reference See Also

```
{
"update": {
  "errors": [],
  "params": [{
      "value": "1.11",
      "type": "Version"
}, {
      "value": "eks.1",
      "type": "PlatformVersion"
}],
      "status": "InProgress",
      "id": "9f771284-9e30-4886-b5b1-3789b6bea4dc",
      "createdAt": 1543512515.848,
      "type": "VersionUpdate"
}
}
```

See Also

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

UpdateNodegroupConfig

Updates an Amazon EKS managed node group configuration. Your node group continues to function during the update. The response output includes an update ID that you can use to track the status of your node group update with the DescribeUpdate (p. 46) API operation. Currently you can update the Kubernetes labels for a node group or the scaling configuration.

Request Syntax

```
POST /clusters/name/node-groups/nodegroupName/update-config HTTP/1.1
Content-type: application/json

{
    "clientRequestToken": "string",
    "labels": {
        "addOrUpdateLabels": {
            "string" : "string"
        },
        "removeLabels": [ "string" ]
    },
    "scalingConfig": {
        "desiredSize": number,
        "maxSize": number,
        "minSize": number
    }
}
```

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 77)
```

The name of the Amazon EKS cluster that the managed node group resides in.

nodegroupName (p. 77)

The name of the managed node group to update.

Request Body

The request accepts the following data in JSON format.

```
clientRequestToken (p. 77)
```

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

Type: String

Required: No
labels (p. 77)

The Kubernetes labels to be applied to the nodes in the node group after the update.

Type: UpdateLabelsPayload (p. 113) object

Required: No

scalingConfig (p. 77)

The scaling configuration details for the Auto Scaling group after the update.

Type: NodegroupScalingConfig (p. 107) object

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
   "update": {
      "createdAt": number,
      "errors": [
            "errorCode": "string",
            "errorMessage": "string",
            "resourceIds": [ "string" ]
      "id": "string",
      "params": [
            "type": "string",
            "value": "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.

```
update (p. 78)
```

An object representing an asynchronous update.

Type: Update (p. 111) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400

InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400
InvalidRequestException

The request is invalid given the state of the cluster. Check the state of the cluster and the associated operations.

HTTP Status Code: 400 ResourceInUseException

The specified resource is in use.

HTTP Status Code: 409
ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500

Example

Example

This example updates the scaling configuration for a node group called standard in the prod cluster.

Sample Request

```
POST /clusters/prod/node-groups/standard/update-config HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.275 Python/3.7.4 Darwin/18.7.0 botocore/1.13.11
X-Amz-Date: 20191111T202415Z
Authorization: AUTHPARAMS
Content-Length: 127

{
    "scalingConfig": {
        "minSize": 2,
        "desiredSize": 4,
        "maxSize": 6
    },
    "clientRequestToken": "25a75794-5c57-4df8-955f-3707839347f1"
}
```

Sample Response

```
HTTP/1.1 200 OK
```

```
Date: Mon, 11 Nov 2019 20:24:16 GMT
Content-Type: application/json
Content-Length: 247
x-amzn-RequestId: efe08175-4b52-41d1-aa3f-3251f367ef37
x-amz-apigw-id: DAt5dGkFPHcFzuQ=
X-Amzn-Trace-Id: Root=1-5dc9c36f-00d117cc21d798af6091631a
Connection: keep-alive
  "update": {
    "id": "4c6c3652-9c56-3c76-86e3-8a3930af1bae",
    "status": "InProgress",
    "type": "ConfigUpdate",
    "params": [
        "type": "MinSize",
        "value": "2"
      },
        "type": "MaxSize",
        "value": "6"
        "type": "DesiredSize",
        "value": "4"
     }
    ],
    "createdAt": 1573503855.887,
    "errors": []
}
```

See Also

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

UpdateNodegroupVersion

Updates the Kubernetes version or AMI version of an Amazon EKS managed node group.

You can update to the latest available AMI version of a node group's current Kubernetes version by not specifying a Kubernetes version in the request. You can update to the latest AMI version of your cluster's current Kubernetes version by specifying your cluster's Kubernetes version in the request. For more information, see Amazon EKS-Optimized Linux AMI Versions in the Amazon EKS User Guide.

You cannot roll back a node group to an earlier Kubernetes version or AMI version.

When a node in a managed node group is terminated due to a scaling action or update, the pods in that node are drained first. Amazon EKS attempts to drain the nodes gracefully and will fail if it is unable to do so. You can force the update if Amazon EKS is unable to drain the nodes as a result of a pod disruption budget issue.

Request Syntax

```
POST /clusters/name/node-groups/nodegroupName/update-version HTTP/1.1
Content-type: application/json

{
    "clientRequestToken": "string",
    "force": boolean,
    "releaseVersion": "string",
    "version": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

```
name (p. 81)
```

The name of the Amazon EKS cluster that is associated with the managed node group to update. nodegroupName (p. 81)

The name of the managed node group to update.

Request Body

The request accepts the following data in JSON format.

```
clientRequestToken (p. 81)
```

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

```
Type: String

Required: No

force (p. 81)
```

Force the update if the existing node group's pods are unable to be drained due to a pod disruption budget issue. If an update fails because pods could not be drained, you can force the update after it fails to terminate the old node whether or not any pods are running on the node.

Type: Boolean

Required: No

releaseVersion (p. 81)

The AMI version of the Amazon EKS-optimized AMI to use for the update. By default, the latest available AMI version for the node group's Kubernetes version is used. For more information, see Amazon EKS-Optimized Linux AMI Versions in the Amazon EKS User Guide.

Type: String

Required: No

version (p. 81)

The Kubernetes version to update to. If no version is specified, then the Kubernetes version of the node group does not change. You can specify the Kubernetes version of the cluster to update the node group to the latest AMI version of the cluster's Kubernetes version.

Type: String Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
{
   "update": {
      "createdAt": number,
      "errors": [
            "errorCode": "string",
            "errorMessage": "string";
            "resourceIds": [ "string" ]
         }
      "id": "string",
      "params": [
            "type": "string",
            "value": "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.

```
update (p. 82)
```

An object representing an asynchronous update.

Type: Update (p. 111) object

Frrors

For information about the errors that are common to all actions, see Common Errors (p. 121).

ClientException

These errors are usually caused by a client action. Actions can include using an action or resource on behalf of a user that doesn't have permissions to use the action or resource or specifying an identifier that is not valid.

HTTP Status Code: 400 InvalidParameterException

The specified parameter is invalid. Review the available parameters for the API request.

HTTP Status Code: 400 InvalidRequestException

The request is invalid given the state of the cluster. Check the state of the cluster and the associated operations.

HTTP Status Code: 400 ResourceInUseException

The specified resource is in use.

HTTP Status Code: 409

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 49). You can view your available managed node groups with ListNodegroups (p. 55). Amazon EKS clusters and node groups are Region-specific.

HTTP Status Code: 404

ServerException

These errors are usually caused by a server-side issue.

HTTP Status Code: 500

Example

In the following example or examples, the Authorization header contents (AUTHPARAMS) must be replaced with an AWS Signature Version 4 signature. For more information about creating these signatures, see Signature Version 4 Signing Process in the AWS General Reference.

You need to learn how to sign HTTP requests only if you intend to manually create them. When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs to make requests to AWS, these tools automatically sign the requests for you with the access key that you specify when you configure the tools. When you use these tools, you don't need to learn how to sign requests yourself.

Example

This example updates to the latest available node group AMI version for the node group's current Kubernetes version. The example node group is called standard and is in the prod cluster.

Sample Request

```
POST /clusters/prod/node-groups/standard/update-version HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.275 Python/3.7.4 Darwin/18.7.0 botocore/1.13.11
X-Amz-Date: 20191111T184043Z
Authorization: AUTHPARAMS
Content-Length: 62

{
    "clientRequestToken": "9415e884-8819-4494-b6a6-1082cdd38fab"
}
```

Sample Response

```
HTTP/1.1 200 OK
Date: Mon, 11 Nov 2019 18:40:43 GMT
Content-Type: application/json
Content-Length: 237
x-amzn-RequestId: f512f080-330f-4e9a-adc0-327eef5dd45e
x-amz-apigw-id: DAeuxEBkvHcF1sg=
X-Amzn-Trace-Id: Root=1-5dc9ab2b-f40979aca769f4149a201678
Connection: keep-alive
  "update": {
    "id": "079be772-956e-37c4-a966-960c1a6755a5",
    "status": "InProgress",
    "type": "VersionUpdate",
    "params": [
        "type": "Version",
        "value": "1.14"
      },
        "type": "ReleaseVersion",
        "value": "1.14.7-20190927"
      }
    ],
    "createdAt": 1573497643.374,
    "errors": []
```

See Also

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

Data Types

The Amazon Elastic Kubernetes Service API contains several data types that various actions use. This section describes each data type in detail.

Note

The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- AutoScalingGroup (p. 86)
- Certificate (p. 87)
- Cluster (p. 88)
- EncryptionConfig (p. 91)
- ErrorDetail (p. 92)
- FargateProfile (p. 93)
- FargateProfileSelector (p. 95)
- Identity (p. 96)
- Issue (p. 97)
- Logging (p. 99)
- LogSetup (p. 100)
- Nodegroup (p. 101)
- NodegroupHealth (p. 105)
- NodegroupResources (p. 106)
- NodegroupScalingConfig (p. 107)
- OIDC (p. 108)
- Provider (p. 109)
- RemoteAccessConfig (p. 110)
- Update (p. 111)
- UpdateLabelsPayload (p. 113)
- UpdateParam (p. 114)
- VpcConfigRequest (p. 115)
- VpcConfigResponse (p. 117)

AutoScalingGroup

An Auto Scaling group that is associated with an Amazon EKS managed node group.

Contents

name

The name of the Auto Scaling group associated with an Amazon EKS managed node group.

Type: String

Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

Certificate

An object representing the certificate-authority-data for your cluster.

Contents

data

The Base64-encoded certificate data required to communicate with your cluster. Add this to the certificate-authority-data section of the kubeconfig file for your cluster.

Type: String

Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

Cluster

An object representing an Amazon EKS cluster.

Contents

```
arn
```

The Amazon Resource Name (ARN) of the cluster.

Type: String

Required: No

certificateAuthority

The certificate-authority-data for your cluster.

Type: Certificate (p. 87) object

Required: No

clientRequestToken

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

Type: String

Required: No

createdAt

The Unix epoch timestamp in seconds for when the cluster was created.

Type: Timestamp

Required: No

encryptionConfig

The encryption configuration for the cluster.

Type: Array of EncryptionConfig (p. 91) objects

Array Members: Maximum number of 1 item.

Required: No

endpoint

The endpoint for your Kubernetes API server.

Type: String

Required: No

identity

The identity provider information for the cluster.

Type: Identity (p. 96) object

Required: No

Amazon Elastic Kubernetes Service API Reference Contents

logging

The logging configuration for your cluster.

Type: Logging (p. 99) object

Required: No

name

The name of the cluster.

Type: String
Required: No

platformVersion

The platform version of your Amazon EKS cluster. For more information, see Platform Versions in the Amazon EKS User Guide.

Type: String Required: No

resourcesVpcConfig

The VPC configuration used by the cluster control plane. Amazon EKS VPC resources have specific requirements to work properly with Kubernetes. For more information, see Cluster VPC Considerations and Cluster Security Group Considerations in the Amazon EKS User Guide.

Type: VpcConfigResponse (p. 117) object

Required: No

roleArn

The Amazon Resource Name (ARN) of the IAM role that provides permissions for the Kubernetes control plane to make calls to AWS API operations on your behalf.

Type: String

Required: No

status

The current status of the cluster.

Type: String

Valid Values: CREATING | ACTIVE | DELETING | FAILED | UPDATING

Required: No

tags

The metadata that you apply to the cluster to assist with categorization and organization. Each tag consists of a key and an optional value, both of which you define. Cluster tags do not propagate to any other resources associated with the cluster.

Type: String to string map

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

Value Length Constraints: Maximum length of 256.

Amazon Elastic Kubernetes Service API Reference See Also

Required: No

version

The Kubernetes server version for the cluster.

Type: String

Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

EncryptionConfig

The encryption configuration for the cluster.

Contents

provider

AWS Key Management Service (AWS KMS) customer master key (CMK). Either the ARN or the alias can be used.

Type: Provider (p. 109) object

Required: No

resources

Specifies the resources to be encrypted. The only supported value is "secrets".

Type: Array of strings

Required: No

See Also

- AWS SDK for C++
- · AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

ErrorDetail

An object representing an error when an asynchronous operation fails.

Contents

errorCode

A brief description of the error.

- SubnetNotFound: We couldn't find one of the subnets associated with the cluster.
- SecurityGroupNotFound: We couldn't find one of the security groups associated with the cluster.
- EniLimitReached: You have reached the elastic network interface limit for your account.
- IpNotAvailable: A subnet associated with the cluster doesn't have any free IP addresses.
- AccessDenied: You don't have permissions to perform the specified operation.
- **OperationNotPermitted**: The service role associated with the cluster doesn't have the required access permissions for Amazon EKS.
- VpcIdNotFound: We couldn't find the VPC associated with the cluster.

```
Type: String
```

```
Valid Values: SubnetNotFound | SecurityGroupNotFound | EniLimitReached | IpNotAvailable | AccessDenied | OperationNotPermitted | VpcIdNotFound | Unknown | NodeCreationFailure | PodEvictionFailure | InsufficientFreeAddresses
```

Required: No

errorMessage

A more complete description of the error.

Type: String Required: No

resourcelds

An optional field that contains the resource IDs associated with the error.

Type: Array of strings

Required: No

See Also

- AWS SDK for C++
- · AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

FargateProfile

An object representing an AWS Fargate profile.

Contents

clusterName

The name of the Amazon EKS cluster that the Fargate profile belongs to.

Type: String

Required: No

createdAt

The Unix epoch timestamp in seconds for when the Fargate profile was created.

Type: Timestamp

Required: No

fargateProfileArn

The full Amazon Resource Name (ARN) of the Fargate profile.

Type: String

Required: No

fargateProfileName

The name of the Fargate profile.

Type: String

Required: No

podExecutionRoleArn

The Amazon Resource Name (ARN) of the pod execution role to use for pods that match the selectors in the Fargate profile. For more information, see Pod Execution Role in the Amazon EKS User Guide.

Type: String

Required: No

selectors

The selectors to match for pods to use this Fargate profile.

Type: Array of FargateProfileSelector (p. 95) objects

Required: No

status

The current status of the Fargate profile.

Type: String

Valid Values: CREATING | ACTIVE | DELETING | CREATE_FAILED | DELETE_FAILED

Amazon Elastic Kubernetes Service API Reference See Also

Required: No

subnets

The IDs of subnets to launch pods into.

Type: Array of strings

Required: No

tags

The metadata applied to the Fargate profile to assist with categorization and organization. Each tag consists of a key and an optional value, both of which you define. Fargate profile tags do not propagate to any other resources associated with the Fargate profile, such as the pods that are scheduled with it.

Type: String to string map

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

Value Length Constraints: Maximum length of 256.

Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

FargateProfileSelector

An object representing an AWS Fargate profile selector.

Contents

labels

The Kubernetes labels that the selector should match. A pod must contain all of the labels that are specified in the selector for it to be considered a match.

Type: String to string map

Required: No

namespace

The Kubernetes namespace that the selector should match.

Type: String

Required: No

See Also

- · AWS SDK for C++
- · AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

Identity

An object representing an identity provider for authentication credentials.

Contents

oidc

The OpenID Connect identity provider information for the cluster.

Type: OIDC (p. 108) object

Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

Issue

An object representing an issue with an Amazon EKS resource.

Contents

code

A brief description of the error.

- AutoScalingGroupNotFound: We couldn't find the Auto Scaling group associated with the managed node group. You may be able to recreate an Auto Scaling group with the same settings to recover.
- **Ec2SecurityGroupNotFound**: We couldn't find the cluster security group for the cluster. You must recreate your cluster.
- **Ec2SecurityGroupDeletionFailure**: We could not delete the remote access security group for your managed node group. Remove any dependencies from the security group.
- **Ec2LaunchTemplateNotFound**: We couldn't find the Amazon EC2 launch template for your managed node group. You may be able to recreate a launch template with the same settings to recover.
- Ec2LaunchTemplateVersionMismatch: The Amazon EC2 launch template version for your managed node group does not match the version that Amazon EKS created. You may be able to revert to the version that Amazon EKS created to recover.
- Ec2SubnetInvalidConfiguration: One or more Amazon EC2 subnets specified for a node group do not automatically assign public IP addresses to instances launched into it. If you want your instances to be assigned a public IP address, then you need to enable the auto-assign public IP address setting for the subnet. See Modifying the public IPv4 addressing attribute for your subnet in the Amazon VPC User Guide.
- **IamInstanceProfileNotFound**: We couldn't find the IAM instance profile for your managed node group. You may be able to recreate an instance profile with the same settings to recover.
- **IamNodeRoleNotFound**: We couldn't find the IAM role for your managed node group. You may be able to recreate an IAM role with the same settings to recover.
- AsgInstanceLaunchFailures: Your Auto Scaling group is experiencing failures while attempting to launch instances.
- NodeCreationFailure: Your launched instances are unable to register with your Amazon EKS cluster. Common causes of this failure are insufficient worker node IAM role permissions or lack of outbound internet access for the nodes.
- InstanceLimitExceeded: Your AWS account is unable to launch any more instances of the specified instance type. You may be able to request an Amazon EC2 instance limit increase to recover.
- **InsufficientFreeAddresses**: One or more of the subnets associated with your managed node group does not have enough available IP addresses for new nodes.
- AccessDenied: Amazon EKS or one or more of your managed nodes is unable to communicate with your cluster API server.
- InternalFailure: These errors are usually caused by an Amazon EKS server-side issue.

Type: String

```
Valid Values: AutoScalingGroupNotFound | AutoScalingGroupInvalidConfiguration | Ec2SecurityGroupNotFound | Ec2SecurityGroupDeletionFailure | Ec2LaunchTemplateNotFound | Ec2LaunchTemplateVersionMismatch | Ec2SubnetNotFound | IamInstanceProfileNotFound | IamNodeRoleNotFound | AsgInstanceLaunchFailures | InstanceLimitExceeded | InsufficientFreeAddresses | AccessDenied | InternalFailure
```

Amazon Elastic Kubernetes Service API Reference See Also

Required: No

message

The error message associated with the issue.

Type: String

Required: No

resourcelds

The AWS resources that are afflicted by this issue.

Type: Array of strings

Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

Logging

An object representing the logging configuration for resources in your cluster.

Contents

clusterLogging

The cluster control plane logging configuration for your cluster.

Type: Array of LogSetup (p. 100) objects

Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

LogSetup

An object representing the enabled or disabled Kubernetes control plane logs for your cluster.

Contents

enabled

If a log type is enabled, that log type exports its control plane logs to CloudWatch Logs. If a log type isn't enabled, that log type doesn't export its control plane logs. Each individual log type can be enabled or disabled independently.

Type: Boolean Required: No

types

The available cluster control plane log types.

Type: Array of strings

Valid Values: api | audit | authenticator | controllerManager | scheduler

Required: No

See Also

- AWS SDK for C++
- · AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

Nodegroup

An object representing an Amazon EKS managed node group.

Contents

amiType

The AMI type associated with your node group. GPU instance types should use the $AL2_x86_64_GPU$ AMI type, which uses the Amazon EKS-optimized Linux AMI with GPU support. Non-GPU instances should use the $AL2_x86_64$ AMI type, which uses the Amazon EKS-optimized Linux AMI.

Type: String

Valid Values: AL2_x86_64 | AL2_x86_64_GPU

Required: No

clusterName

The name of the cluster that the managed node group resides in.

Type: String

Required: No

createdAt

The Unix epoch timestamp in seconds for when the managed node group was created.

Type: Timestamp

Required: No

diskSize

The root device disk size (in GiB) for your node group instances. The default disk size is 20 GiB.

Type: Integer

Required: No

health

The health status of the node group. If there are issues with your node group's health, they are listed here.

Type: NodegroupHealth (p. 105) object

Required: No

instanceTypes

The instance types associated with your node group.

Type: Array of strings

Required: No

labels

The Kubernetes labels applied to the nodes in the node group.

Amazon Elastic Kubernetes Service API Reference Contents

Note

Only labels that are applied with the Amazon EKS API are shown here. There may be other Kubernetes labels applied to the nodes in this group.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 63.

Value Length Constraints: Minimum length of 1. Maximum length of 253.

Required: No

modifiedAt

The Unix epoch timestamp in seconds for when the managed node group was last modified.

Type: Timestamp

Required: No

nodegroupArn

The Amazon Resource Name (ARN) associated with the managed node group.

Type: String

Required: No

nodegroupName

The name associated with an Amazon EKS managed node group.

Type: String

Required: No

nodeRole

The IAM role associated with your node group. The Amazon EKS worker node kubelet daemon makes calls to AWS APIs on your behalf. Worker nodes receive permissions for these API calls through an IAM instance profile and associated policies. Before you can launch worker nodes and register them into a cluster, you must create an IAM role for those worker nodes to use when they are launched. For more information, see Amazon EKS Worker Node IAM Role in the Amazon EKS User Guide .

Type: String

Required: No

releaseVersion

The AMI version of the managed node group. For more information, see Amazon EKS-Optimized Linux AMI Versions in the Amazon EKS User Guide.

Type: String

Required: No

remoteAccess

The remote access (SSH) configuration that is associated with the node group.

Type: RemoteAccessConfig (p. 110) object

Required: No

resources

The resources associated with the node group, such as Auto Scaling groups and security groups for remote access.

Type: NodegroupResources (p. 106) object

Required: No scalingConfig

The scaling configuration details for the Auto Scaling group that is associated with your node group.

Type: NodegroupScalingConfig (p. 107) object

Required: No

status

The current status of the managed node group.

Type: String

Valid Values: CREATING | ACTIVE | UPDATING | DELETING | CREATE_FAILED | DELETE_FAILED | DEGRADED

Required: No

subnets

The subnets allowed for the Auto Scaling group that is associated with your node group. These subnets must have the following tag: kubernetes.io/cluster/CLUSTER_NAME, where CLUSTER_NAME is replaced with the name of your cluster.

Type: Array of strings

Required: No

tags

The metadata applied to the node group to assist with categorization and organization. Each tag consists of a key and an optional value, both of which you define. Node group tags do not propagate to any other resources associated with the node group, such as the Amazon EC2 instances or subnets.

Type: String to string map

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

Value Length Constraints: Maximum length of 256.

Required: No

version

The Kubernetes version of the managed node group.

Type: String Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

NodegroupHealth

An object representing the health status of the node group.

Contents

issues

Any issues that are associated with the node group.

Type: Array of Issue (p. 97) objects

Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

NodegroupResources

An object representing the resources associated with the node group, such as Auto Scaling groups and security groups for remote access.

Contents

autoScalingGroups

The Auto Scaling groups associated with the node group.

Type: Array of AutoScalingGroup (p. 86) objects

Required: No

remoteAccessSecurityGroup

The remote access security group associated with the node group. This security group controls SSH access to the worker nodes.

Type: String Required: No

See Also

- AWS SDK for C++
- · AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

NodegroupScalingConfig

An object representing the scaling configuration details for the Auto Scaling group that is associated with your node group.

Contents

desiredSize

The current number of worker nodes that the managed node group should maintain.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

maxSize

The maximum number of worker nodes that the managed node group can scale out to. Managed node groups can support up to 100 nodes by default.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

minSize

The minimum number of worker nodes that the managed node group can scale in to. This number must be greater than zero.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

See Also

- AWS SDK for C++
- · AWS SDK for Go
- · AWS SDK for Java
- AWS SDK for Ruby V3

OIDC

An object representing the OpenID Connect identity provider information for the cluster.

Contents

issuer

The issuer URL for the OpenID Connect identity provider.

Type: String

Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

Provider

Identifies the AWS Key Management Service (AWS KMS) customer master key (CMK) used to encrypt the secrets.

Contents

keyArn

Amazon Resource Name (ARN) or alias of the customer master key (CMK). The CMK must be symmetric, created in the same region as the cluster, and if the CMK was created in a different account, the user must have access to the CMK. For more information, see Allowing Users in Other Accounts to Use a CMK in the AWS Key Management Service Developer Guide.

Type: String Required: No

See Also

- AWS SDK for C++
- · AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

RemoteAccessConfig

An object representing the remote access configuration for the managed node group.

Contents

ec2SshKey

The Amazon EC2 SSH key that provides access for SSH communication with the worker nodes in the managed node group. For more information, see Amazon EC2 Key Pairs in the Amazon Elastic Compute Cloud User Guide for Linux Instances.

Type: String
Required: No

sourceSecurityGroups

The security groups that are allowed SSH access (port 22) to the worker nodes. If you specify an Amazon EC2 SSH key but do not specify a source security group when you create a managed node group, then port 22 on the worker nodes is opened to the internet (0.0.0.0/0). For more information, see Security Groups for Your VPC in the Amazon Virtual Private Cloud User Guide.

Type: Array of strings

Required: No

See Also

- · AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

Update

An object representing an asynchronous update.

Contents

```
createdAt
    The Unix epoch timestamp in seconds for when the update was created.
    Type: Timestamp
    Required: No
errors
    Any errors associated with a Failed update.
    Type: Array of ErrorDetail (p. 92) objects
    Required: No
id
    A UUID that is used to track the update.
    Type: String
    Required: No
params
    A key-value map that contains the parameters associated with the update.
    Type: Array of UpdateParam (p. 114) objects
    Required: No
status
    The current status of the update.
    Type: String
    Valid Values: InProgress | Failed | Cancelled | Successful
    Required: No
type
    The type of the update.
    Type: String
    Valid Values: VersionUpdate | EndpointAccessUpdate | LoggingUpdate |
    ConfigUpdate
    Required: No
```

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

UpdateLabelsPayload

An object representing a Kubernetes label change for a managed node group.

Contents

addOrUpdateLabels

Kubernetes labels to be added or updated.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 63.

Value Length Constraints: Minimum length of 1. Maximum length of 253.

Required: No

removeLabels

Kubernetes labels to be removed.

Type: Array of strings

Required: No

See Also

- AWS SDK for C++
- · AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

UpdateParam

An object representing the details of an update request.

Contents

type

```
The keys associated with an update request.
```

```
Type: String
```

```
Valid Values: Version | PlatformVersion | EndpointPrivateAccess |
EndpointPublicAccess | ClusterLogging | DesiredSize | LabelsToAdd |
LabelsToRemove | MaxSize | MinSize | ReleaseVersion | PublicAccessCidrs
```

Required: No

value

The value of the keys submitted as part of an update request.

Type: String
Required: No

See Also

- AWS SDK for C++
- · AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

VpcConfigRequest

An object representing the VPC configuration to use for an Amazon EKS cluster.

Contents

endpointPrivateAccess

Set this value to true to enable private access for your cluster's Kubernetes API server endpoint. If you enable private access, Kubernetes API requests from within your cluster's VPC use the private VPC endpoint. The default value for this parameter is false, which disables private access for your Kubernetes API server. If you disable private access and you have worker nodes or AWS Fargate pods in the cluster, then ensure that publicAccessCidrs includes the necessary CIDR blocks for communication with the worker nodes or Fargate pods. For more information, see Amazon EKS Cluster Endpoint Access Control in the Amazon EKS User Guide.

Type: Boolean

Required: No

endpointPublicAccess

Set this value to false to disable public access to your cluster's Kubernetes API server endpoint. If you disable public access, your cluster's Kubernetes API server can only receive requests from within the cluster VPC. The default value for this parameter is true, which enables public access for your Kubernetes API server. For more information, see Amazon EKS Cluster Endpoint Access Control in the Amazon EKS User Guide.

Type: Boolean

Required: No

publicAccessCidrs

The CIDR blocks that are allowed access to your cluster's public Kubernetes API server endpoint. Communication to the endpoint from addresses outside of the CIDR blocks that you specify is denied. The default value is 0.0.0/0. If you've disabled private endpoint access and you have worker nodes or AWS Fargate pods in the cluster, then ensure that you specify the necessary CIDR blocks. For more information, see Amazon EKS Cluster Endpoint Access Control in the Amazon EKS User Guide.

Type: Array of strings

Required: No

securityGroupIds

Specify one or more security groups for the cross-account elastic network interfaces that Amazon EKS creates to use to allow communication between your worker nodes and the Kubernetes control plane. If you don't specify a security group, the default security group for your VPC is used.

Type: Array of strings

Required: No

subnetIds

Specify subnets for your Amazon EKS worker nodes. Amazon EKS creates cross-account elastic network interfaces in these subnets to allow communication between your worker nodes and the Kubernetes control plane.

Type: Array of strings

Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

VpcConfigResponse

An object representing an Amazon EKS cluster VPC configuration response.

Contents

clusterSecurityGroupId

The cluster security group that was created by Amazon EKS for the cluster. Managed node groups use this security group for control-plane-to-data-plane communication.

Type: String Required: No

endpointPrivateAccess

This parameter indicates whether the Amazon EKS private API server endpoint is enabled. If the Amazon EKS private API server endpoint is enabled, Kubernetes API requests that originate from within your cluster's VPC use the private VPC endpoint instead of traversing the internet. If this value is disabled and you have worker nodes or AWS Fargate pods in the cluster, then ensure that publicAccessCidrs includes the necessary CIDR blocks for communication with the worker nodes or Fargate pods. For more information, see Amazon EKS Cluster Endpoint Access Control in the Amazon EKS User Guide.

Type: Boolean Required: No

endpointPublicAccess

This parameter indicates whether the Amazon EKS public API server endpoint is enabled. If the Amazon EKS public API server endpoint is disabled, your cluster's Kubernetes API server can only receive requests that originate from within the cluster VPC.

Type: Boolean

Required: No

publicAccessCidrs

The CIDR blocks that are allowed access to your cluster's public Kubernetes API server endpoint. Communication to the endpoint from addresses outside of the listed CIDR blocks is denied. The default value is 0.0.0.0/0. If you've disabled private endpoint access and you have worker nodes or AWS Fargate pods in the cluster, then ensure that the necessary CIDR blocks are listed. For more information, see Amazon EKS Cluster Endpoint Access Control in the Amazon EKS User Guide.

Type: Array of strings

Required: No securityGroupIds

The security groups associated with the cross-account elastic network interfaces that are used to allow communication between your worker nodes and the Kubernetes control plane.

Type: Array of strings

Required: No

subnetIds

The subnets associated with your cluster.

Type: Array of strings

Required: No

vpcld

The VPC associated with your cluster.

Type: String

Required: No

See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- 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 Signature Version 4 Signing Process in the Amazon Web Services General Reference.

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 Task 2: Create a String to Sign for Signature Version 4 in the Amazon Web Services General Reference.

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 Handling Dates in Signature Version 4 in the *Amazon Web Services General Reference*.

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 Security Token Service, go to AWS Services That Work with IAM in the IAM User Guide.

Condition: If you're using temporary security credentials from the AWS Security Token Service, 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 Task 1: Create a Canonical Request For Signature Version 4 in the *Amazon Web Services General Reference*.

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: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

InvalidAction

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

InvalidClientTokenId

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

An invalid or out-of-range value was supplied for the input parameter.

HTTP Status Code: 400

InvalidQueryParameter

The AWS query string is malformed or does not adhere to AWS standards.

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400

MissingAuthenticationToken

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

OptInRequired

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

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

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

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400