Amazon EKS

API Reference

API Version 2017-11-01

Amazon EKS: API Reference

Table of Contents

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 October 6, 2021.

Actions

The following actions are supported:

AssociateEncryptionConfig

Associate encryption configuration to an existing cluster.

You can use this API to enable encryption on existing clusters which do not have encryption already enabled. This allows you to implement a defense-in-depth security strategy without migrating applications to new Amazon EKS clusters.

Request Syntax

```
POST /clusters/name/encryption-config/associate HTTP/1.1
Content-type: application/json

{
   "clientRequestToken": "string",
   "encryptionConfig": [
      {
         "provider": {
            "keyArn": "string"
         },
         "resources": [ "string" ]
      }
   ]
}
```

URI Request Parameters

The request uses the following URI parameters.

name (p. 3)

The name of the cluster that you are associating with encryption configuration.

Required: Yes

Request Body

The request accepts the following data in JSON format.

clientRequestToken (p. 3)

The client request token you are using with the encryption configuration.

Type: String

Required: No

encryptionConfig (p. 3)

The configuration you are using for encryption.

Type: Array of EncryptionConfig (p. 165) objects

Array Members: Maximum number of 1 item.

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. 4)

An object representing an asynchronous update.

Type: Update (p. 199) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AssociateIdentityProviderConfig

Associate an identity provider configuration to a cluster.

If you want to authenticate identities using an identity provider, you can create an identity provider configuration and associate it to your cluster. After configuring authentication to your cluster you can create Kubernetes `roles` and `clusterroles` to assign permissions to the roles, and then bind the roles to the identities using Kubernetes `rolebindings` and `clusterrolebindings`. For more information see Using RBAC Authorization in the Kubernetes documentation.

Request Syntax

```
POST /clusters/name/identity-provider-configs/associate HTTP/1.1
Content-type: application/json

{
   "clientRequestToken": "string",
   "oidc": {
      "clientId": "string",
      "groupsClaim": "string",
      "groupsPrefix": "string",
      "identityProviderConfigName": "string",
      "issuerUrl": "string",
      "requiredClaims": {
         "string" : "string"
      },
      "usernameClaim": "string",
      "usernamePrefix": "string"
   },
   "tags": {
      "string" : "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

name (p. 6)

The name of the cluster to associate the configuration to.

Required: Yes

Request Body

The request accepts the following data in JSON format.

clientRequestToken (p. 6)

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

Type: String

Required: No

oidc (p. 6)

An object that represents an OpenID Connect (OIDC) identity provider configuration.

Type: OidcIdentityProviderConfigRequest (p. 193) object

Required: Yes

tags (p. 6)

The metadata to apply to the configuration 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

Map Entries: Maximum number of 50 items.

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

{
   "tags": {
      "string" : "string"
   },
   "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.

tags (p. 7)

The tags for the resource.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

Value Length Constraints: Maximum length of 256.

update (p. 7)

An object representing an asynchronous update.

Type: Update (p. 199) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateAddon

Creates an Amazon EKS add-on.

Amazon EKS add-ons help to automate the provisioning and lifecycle management of common operational software for Amazon EKS clusters. Amazon EKS add-ons can only be used with Amazon EKS clusters running version 1.18 with platform version `eks.3` or later because add-ons rely on the Server-side Apply Kubernetes feature, which is only available in Kubernetes 1.18 and later.

Request Syntax

```
POST /clusters/name/addons HTTP/1.1
Content-type: application/json

{
   "addonName": "string",
   "addonVersion": "string",
   "clientRequestToken": "string",
   "resolveConflicts": "string",
   "serviceAccountRoleArn": "string",
   "tags": {
      "string" : "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

name (p. 10)

The name of the cluster to create the add-on for.

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

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

addonName (p. 10)

The name of the add-on. The name must match one of the names returned by `DescribeAddonVersions`.

Type: String

Required: Yes

addonVersion (p. 10)

The version of the add-on. The version must match one of the versions returned by `DescribeAddonVersions`.

Type: String

Required: No

clientRequestToken (p. 10)

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

Type: String

Required: No

resolveConflicts (p. 10)

How to resolve parameter value conflicts when migrating an existing add-on to an Amazon EKS add-on.

Type: String

Valid Values: `OVERWRITE | NONE`

Required: No

serviceAccountRoleArn (p. 10)

The Amazon Resource Name (ARN) of an existing IAM role to bind to the add-on's service account. The role must be assigned the IAM permissions required by the add-on. If you don't specify an existing IAM role, then the add-on uses the permissions assigned to the node IAM role. For more information, see Amazon EKS node IAM role in the *Amazon EKS User Guide*.

> **Note**
> To specify an existing IAM role, you must have an IAM OpenID Connect (OIDC) provider created for your cluster. For more information, see Enabling IAM roles for service accounts on your cluster in the *Amazon EKS User Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

tags (p. 10)

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

Map Entries: Maximum number of 50 items.

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
```

```
{
   "addon": {
      "addonArn": "string",
      "addonName": "string",
      "addonVersion": "string",
      "clusterName": "string",
      "createdAt": number,
      "health": {
         "issues": [
            {
               "code": "string",
               "message": "string",
               "resourceIds": [ "string" ]
            }
         ]
      },
      "modifiedAt": number,
      "serviceAccountRoleArn": "string",
      "status": "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.

addon (p. 11)

An Amazon EKS add-on.

Type: Addon (p. 151) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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 add-on named `vpc-cni`. The add-on uses an existing IAM role named `AmazonEKSCNIRole`. If the add-on existed prior to creating the Amazon EKS add-on, its settings are overwritten with the Amazon EKS add-on's settings.

Sample Request

```
POST /clusters/1-18/addons HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.298 Python/3.6.0 Windows/10 botocore/1.13.34
X-Amz-Date: 20201125T143943Z
Authorization: AUTHPARAMS
Content-Length: 195

{
 "addonName": "vpc-cni",
 "serviceAccountRoleArn": "arn:aws:iam::012345678910:role/AmazonEKSCNIRole",
 "resolveConflicts": "overwrite",
 "clientRequestToken": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 25 Nov 2020 14:39:44 GMT
Content-Type: application/json
```

```
Content-Length: 474
x-amzn-RequestId: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: WkXriGcavHcFyqw=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
  "addon" : {
    "addonName" : "vpc-cni",
    "clusterName" : "1-18",
    "status" : "CREATING",
    "addonVersion" : "v1.7.5-eksbuild.1",
    "health" : {
      "issues" : [ ]
    },
    "addonArn" : "arn:aws:eks:us-west-2:012345678910:addon/1-18/vpc-cni/xxxxxxxx-xxxx-xxxx-
xxxx-xxxxxxxxxxxx",
    "createdAt" : 1.606315184255E9,
    "modifiedAt" : 1.606315184274E9,
    "serviceAccountRoleArn" : "arn:aws:iam::012345678910:role/AmazonEKSCNIRole",
    "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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

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 single-tenant 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 nodes (for example, to support `kubectl exec`, `logs`, and `proxy` data flows).

Amazon EKS 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.

Cluster creation typically takes several minutes. After you create an Amazon EKS cluster, you must configure your Kubernetes tooling to communicate with the API server and launch nodes into your cluster. For more information, see Managing Cluster Authentication and Launching Amazon EKS 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" ]
      }
   ],
   "kubernetesNetworkConfig": {
      "serviceIpv4Cidr": "string"
   },
   "logging": {
      "clusterLogging": [
         {
            "enabled": boolean,
            "types": [ "string" ]
         }
      ]
   },
   "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. 15)

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

Type: String

Required: No

encryptionConfig (p. 15)

The encryption configuration for the cluster.

Type: Array of EncryptionConfig (p. 165) objects

Array Members: Maximum number of 1 item.

Required: No

kubernetesNetworkConfig (p. 15)

The Kubernetes network configuration for the cluster.

Type: KubernetesNetworkConfigRequest (p. 175) object

Required: No

logging (p. 15)

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 CloudWatch Pricing.

Type: Logging (p. 178) object

Required: No

name (p. 15)

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. 15)

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. 204) object

Required: Yes

roleArn (p. 15)

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. 15)

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

Map Entries: Maximum number of 50 items.

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

Value Length Constraints: Maximum length of 256.

Required: No

version (p. 15)

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

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

{
   "cluster": {
      "arn": "string",
      "certificateAuthority": {
         "data": "string"
      },
      "clientRequestToken": "string",
      "connectorConfig": {
```

```
         "activationCode": "string",
         "activationExpiry": number,
         "activationId": "string",
         "provider": "string",
         "roleArn": "string"
      },
      "createdAt": number,
      "encryptionConfig": [
         {
            "provider": {
               "keyArn": "string"
            },
            "resources": [ "string" ]
         }
      ],
      "endpoint": "string",
      "identity": {
         "oidc": {
            "issuer": "string"
         }
      },
      "kubernetesNetworkConfig": {
         "serviceIpv4Cidr": "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. 17)

The full description of your new cluster.

Type: Cluster (p. 159) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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

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

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

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 *Amazon EKS 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",
    "resourcesVpcConfig": {
        "subnetIds": [
            "subnet-xxxxxxxxxxxxxxxxx",
            "subnet-yyyyyyyyyyyyyyyyy",
            "subnet-zzzzzzzzzzzzzzzzz"
        ],
        "securityGroupIds": [
            "sg-xxxxxxxxxxxxxxxxx"
        ],
        "endpointPublicAccess": true,
        "endpointPrivateAccess": true
    },
    "clientRequestToken": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: W84GUEIbPHcFW2Q=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
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-xxxxxxxxxxxxxxxxx",
        "subnet-yyyyyyyyyyyyyyyyy,
        "subnet-zzzzzzzzzzzzzzzzz"
      ],
      "securityGroupIds": [],
      "vpcId": "vpc-xxxxxxxxxxxxxxxxx",
      "endpointPublicAccess": true,
      "endpointPrivateAccess": false
    },
```

```
    "logging": {
      "clusterLogging": [
        {
          "types": [
            "api",
            "audit",
            "authenticator",
            "controllerManager",
            "scheduler"
          ],
          "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 V2
- 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

```
POST /clusters/name/fargate-profiles HTTP/1.1
Content-type: application/json

{
   "clientRequestToken": "string",
   "fargateProfileName": "string",
   "podExecutionRoleArn": "string",
   "selectors": [
      {
         "labels": {
            "string" : "string"
         },
         "namespace": "string"
      }
   ],
   "subnets": [ "string" ],
   "tags": {
      "string" : "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

name (p. 22)

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

clientRequestToken (p. 22)

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

Type: String

Required: No

fargateProfileName (p. 22)

The name of the Fargate profile.

Type: String

Required: Yes

podExecutionRoleArn (p. 22)

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. 22)

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. 169) objects

Required: No

subnets (p. 22)

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. 22)

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

Map Entries: Maximum number of 50 items.

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. 24)

The full description of your new Fargate profile.

Type: FargateProfile (p. 167) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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

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 *Amazon EKS 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-xxxxxxxxxxxxxxxxx",
    "subnet-yyyyyyyyyyyyyyyyy"
  ],
  "selectors": [
    {
      "namespace": "default",
      "labels": {
        "infrastructure": "fargate"
      }
    }
  ],
  "clientRequestToken": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DeaRjFWPvHcFcXw=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
  "fargateProfile": {
    "fargateProfileName": "compute-label",
    "fargateProfileArn": "arn:aws:eks:us-west-2:012345678910:fargateprofile/fargate/
compute-label/xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
    "clusterName": "fargate",
    "createdAt": 1574206849.791,
    "podExecutionRoleArn": "arn:aws:iam::012345678910:role/AmazonEKSPodExecutionRole",
    "subnets": [
      "subnet-xxxxxxxxxxxxxxxxx",
      "subnet-yyyyyyyyyyyyyyyyy"
    ],
    "selectors": [
      {
        "namespace": "kube-system",
        "labels": {
          "compute": "fargate"
        }
      }
    ],
    "status": "CREATING",
    "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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateNodegroup

Creates a managed 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, unless you deploy a custom AMI using a launch template. For more information about using launch templates, see Launch template support.

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",
   "capacityType": "string",
   "clientRequestToken": "string",
   "diskSize": number,
   "instanceTypes": [ "string" ],
   "labels": {
      "string" : "string"
   },
   "launchTemplate": {
      "id": "string",
      "name": "string",
      "version": "string"
   },
   "nodegroupName": "string",
   "nodeRole": "string",
   "releaseVersion": "string",
   "remoteAccess": {
      "ec2SshKey": "string",
      "sourceSecurityGroups": [ "string" ]
   },
   "scalingConfig": {
      "desiredSize": number,
      "maxSize": number,
      "minSize": number
   },
   "subnets": [ "string" ],
   "tags": {
      "string" : "string"
   },
   "taints": [
      {
         "effect": "string",
         "key": "string",
         "value": "string"
      }
   ],
   "updateConfig": {
      "maxUnavailable": number,
      "maxUnavailablePercentage": number
   },
   "version": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

name (p. 28)

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

amiType (p. 28)

The AMI type for your node group. GPU instance types should use the `AL2_x86_64_GPU` AMI type. Non-GPU instances should use the `AL2_x86_64` AMI type. Arm instances should use the `AL2_ARM_64` AMI type. All types use the Amazon EKS optimized Amazon Linux 2 AMI. If you specify `launchTemplate`, and your launch template uses a custom AMI, then don't specify `amiType`, or the node group deployment will fail. For more information about using launch templates with Amazon EKS, see Launch template support in the Amazon EKS User Guide.

Type: String

Valid Values: `AL2_x86_64 | AL2_x86_64_GPU | AL2_ARM_64 | CUSTOM`

Required: No

capacityType (p. 28)

The capacity type for your node group.

Type: String

Valid Values: `ON_DEMAND | SPOT`

Required: No

clientRequestToken (p. 28)

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

Type: String

Required: No

diskSize (p. 28)

The root device disk size (in GiB) for your node group instances. The default disk size is 20 GiB. If you specify `launchTemplate`, then don't specify `diskSize`, or the node group deployment will fail. For more information about using launch templates with Amazon EKS, see Launch template support in the Amazon EKS User Guide.

Type: Integer

Required: No

instanceTypes (p. 28)

Specify the instance types for a node group. If you specify a GPU instance type, be sure to specify `AL2_x86_64_GPU` with the `amiType` parameter. If you specify `launchTemplate`, then you can

specify zero or one instance type in your launch template *or* you can specify 0-20 instance types for `instanceTypes`. If however, you specify an instance type in your launch template *and* specify any `instanceTypes`, the node group deployment will fail. If you don't specify an instance type in a launch template or for `instanceTypes`, then `t3.medium` is used, by default. If you specify `Spot` for `capacityType`, then we recommend specifying multiple values for `instanceTypes`. For more information, see Managed node group capacity types and Launch template support in the *Amazon EKS User Guide*.

Type: Array of strings

Required: No

labels (p. 28)

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 63.

Required: No

launchTemplate (p. 28)

An object representing a node group's launch template specification. If specified, then do not specify `instanceTypes`, `diskSize`, or `remoteAccess` and make sure that the launch template meets the requirements in `launchTemplateSpecification`.

Type: LaunchTemplateSpecification (p. 177) object

Required: No

nodegroupName (p. 28)

The unique name to give your node group.

Type: String

Required: Yes

nodeRole (p. 28)

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. Nodes receive permissions for these API calls through an IAM instance profile and associated policies. Before you can launch nodes and register them into a cluster, you must create an IAM role for those nodes to use when they are launched. For more information, see Amazon EKS node IAM role in the Amazon EKS User Guide . If you specify `launchTemplate`, then don't specify `IamInstanceProfile` in your launch template, or the node group deployment will fail. For more information about using launch templates with Amazon EKS, see Launch template support in the Amazon EKS User Guide.

Type: String

Required: Yes

releaseVersion (p. 28)

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 Amazon Linux 2 AMI versions in the *Amazon EKS User Guide*. If you specify `launchTemplate`, and your launch template uses a custom AMI, then don't specify `releaseVersion`, or the node group deployment will fail. For more information about using launch templates with Amazon EKS, see Launch template support in the Amazon EKS User Guide.

Type: String

Required: No

remoteAccess (p. 28)

The remote access (SSH) configuration to use with your node group. If you specify `launchTemplate`, then don't specify `remoteAccess`, or the node group deployment will fail. For more information about using launch templates with Amazon EKS, see Launch template support in the Amazon EKS User Guide.

Type: RemoteAccessConfig (p. 197) object

Required: No

scalingConfig (p. 28)

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

Type: NodegroupScalingConfig (p. 186) object

Required: No

subnets (p. 28)

The subnets to use for the Auto Scaling group that is created for your node group. If you specify `launchTemplate`, then don't specify `SubnetId` in your launch template, or the node group deployment will fail. For more information about using launch templates with Amazon EKS, see Launch template support in the Amazon EKS User Guide.

Type: Array of strings

Required: Yes

tags (p. 28)

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

Map Entries: Maximum number of 50 items.

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

Value Length Constraints: Maximum length of 256.

Required: No

taints (p. 28)

The Kubernetes taints to be applied to the nodes in the node group.

Type: Array of Taint (p. 198) objects

Required: No

updateConfig (p. 28)

The node group update configuration.

Type: NodegroupUpdateConfig (p. 188) object

Required: No

version (p. 28)

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. If you specify `launchTemplate`, and your launch template uses a custom AMI, then don't specify `version`, or the node group deployment will fail. For more information about using launch templates with Amazon EKS, see Launch template support in the Amazon EKS User Guide.

Type: String

Required: No

Response Syntax

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

{
   "nodegroup": {
      "amiType": "string",
      "capacityType": "string",
      "clusterName": "string",
      "createdAt": number,
      "diskSize": number,
      "health": {
         "issues": [
            {
               "code": "string",
               "message": "string",
               "resourceIds": [ "string" ]
            }
         ]
      },
      "instanceTypes": [ "string" ],
      "labels": {
         "string" : "string"
      },
      "launchTemplate": {
         "id": "string",
         "name": "string",
         "version": "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"
      },
      "taints": [
         {
            "effect": "string",
            "key": "string",
            "value": "string"
         }
      ],
      "updateConfig": {
         "maxUnavailable": number,
         "maxUnavailablePercentage": number
      },
      "version": "string"
   }
}
```

Response Elements

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

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

nodegroup (p. 32)

The full description of your new node group.

Type: Nodegroup (p. 180) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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

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 *Amazon EKS 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 1

This example creates a managed node group without a launch template that uses an 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/1.16.298 Python/3.6.0 Windows/10 botocore/1.13.34
X-Amz-Date: 20200812T151423Z
Authorization: AUTHPARAMS
Content-Length: 454

{
 "nodegroupName": "my-nodegroup-gpu",
 "scalingConfig": {
  "minSize": 2,
  "maxSize": 2,
  "desiredSize": 2
```

```
 },
 "subnets": ["subnet-nnnnnnnnnnnnnnnn", "subnet-xxxxxxxxxxxxxxxx", "subnet-
yyyyyyyyyyyyyyyy", "subnet-zzzzzzzzzzzzzzzz"],
 "instanceTypes": ["p2.xlarge"],
 "amiType": "AL2_x86_64_GPU",
        "remoteAccess": {
          "ec2SshKey": "id_rsa"
         },
 "nodeRole": "arn:aws:iam::012345678910:role/NodeInstanceRole",
 "clientRequestToken": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 12 Aug 2020 15:14:24 GMT
Content-Type: application/json
Content-Length: 951
x-amzn-RequestId: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DAc5BGsWvHcF_bw=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
 "nodegroup": {
  "nodegroupName": "my-nodegroup-gpu2",
  "nodegroupArn": "arn:aws:eks:us-west-2:012345678910:nodegroup/lt-testing/my-nodegroup-
gpu2/xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx",
  "clusterName": "lt-testing",
  "version": "1.17",
  "releaseVersion": "1.17.9-20200804",
  "createdAt": 1.597245264844E9,
  "modifiedAt": 1.597245264844E9,
  "status": "CREATING",
  "scalingConfig": {
   "minSize": 2,
   "maxSize": 2,
   "desiredSize": 2
  },
  "instanceTypes": ["p2.xlarge"],
  "subnets": ["subnet-nnnnnnnnnnnnnnnn", "subnet-xxxxxxxxxxxxxxxx", "subnet-
yyyyyyyyyyyyyyyy", "subnet-zzzzzzzzzzzzzzzz"],
  "remoteAccess": {
                  "ec2SshKey": "id_rsa",
                  "sourceSecurityGroups": null
                },
  "amiType": "AL2_x86_64_GPU",
  "nodeRole": "arn:aws:iam::012345678910:role/NodeInstanceRole",
  "labels": null,
  "resources": null,
  "diskSize": 20,
  "health": {
   "issues": []
  },
  "launchTemplate": null,
  "tags": {}
 }
}
```

Example 2

This example creates a managed node group with an Amazon EKS optimized AMI using version `2` of a launch template named `my-launch-template`.

Sample Request

```
POST /clusters/lt-testing/node-groups HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.298 Python/3.6.0 Windows/10 botocore/1.13.34
X-Amz-Date: 20200812T135927Z
Authorization: AUTHPARAMS
Content-Length: 433

{
 "nodegroupName": "my-nodegroup",
 "scalingConfig": {
  "minSize": 2,
  "maxSize": 2,
  "desiredSize": 2
 },
 "subnets": ["subnet-nnnnnnnnnnnnnnnn", "subnet-xxxxxxxxxxxxxxxx", "subnet-
yyyyyyyyyyyyyyyy", "subnet-zzzzzzzzzzzzzzzz"],
 "amiType": "AL2_x86_64",
 "nodeRole": "arn:aws:iam::012345678910:role/NodeInstanceRole",
 "launchTemplate": {
  "name": "my-launch-template",
  "version": "2"
 },
 "clientRequestToken": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 12 Aug 2020 13:59:32 GMT
Content-Type: application/json
Content-Length: 1028
x-amzn-RequestId: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DAc5BGsWvHcF_bw=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
 "nodegroup": {
  "nodegroupName": "my-nodegroup",
  "nodegroupArn": "arn:aws:eks:us-west-2:012345678910:nodegroup/my-cluster/my-nodegroup/
xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx",
  "clusterName": "my-cluster",
  "version": "1.17",
  "releaseVersion": "1.17.9-20200804",
  "createdAt": 1.597240771904E9,
  "modifiedAt": 1.597240771904E9,
  "status": "CREATING",
  "scalingConfig": {
   "minSize": 2,
   "maxSize": 2,
   "desiredSize": 2
  },
  "instanceTypes": null,
  "subnets": ["subnet-nnnnnnnnnnnnnnnn", "subnet-xxxxxxxxxxxxxxxx", "subnet-
yyyyyyyyyyyyyyyy", "subnet-zzzzzzzzzzzzzzzz"],
  "remoteAccess": null,
  "amiType": "AL2_x86_64",
  "nodeRole": "arn:aws:iam::012345678910:role/NodeInstanceRole",
  "labels": null,
  "resources": null,
```

```
  "diskSize": null,
  "health": {
   "issues": []
  },
  "launchTemplate": {
   "name": "my-template",
   "version": "2",
   "id": "lt-xxxxxxxxxxxxxxxxx"
  },
  "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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteAddon

Delete an Amazon EKS add-on.

When you remove the add-on, it will also be deleted from the cluster. You can always manually start an add-on on the cluster using the Kubernetes API.

Request Syntax

```
DELETE /clusters/name/addons/addonName?preserve=preserve HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

addonName (p. 38)

The name of the add-on. The name must match one of the names returned by `ListAddons`.

Required: Yes

name (p. 38)

The name of the cluster to delete the add-on from.

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

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

Required: Yes

preserve (p. 38)

Specifying this option preserves the add-on software on your cluster but Amazon EKS stops managing any settings for the add-on. If an IAM account is associated with the add-on, it is not removed.

Request Body

The request does not have a request body.

Response Syntax

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

{
   "addon": {
      "addonArn": "string",
      "addonName": "string",
      "addonVersion": "string",
      "clusterName": "string",
      "createdAt": number,
      "health": {
         "issues": [
```

```
            {
               "code": "string",
               "message": "string",
               "resourceIds": [ "string" ]
            }
         ]
      },
      "modifiedAt": number,
      "serviceAccountRoleArn": "string",
      "status": "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.

addon (p. 38)

An Amazon EKS add-on.

Type: Addon (p. 151) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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 an add-on named `vpc-cni`.

Sample Request

```
DELETE /clusters/1-18/addons/vpc-cni HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.298 Python/3.6.0 Windows/10 botocore/1.13.34
X-Amz-Date: 20201125T145907Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 25 Nov 2020 14:59:08 GMT
Content-Type: application/json
Content-Length: 474
x-amzn-RequestId: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: WkahaEGlvHcF1zA=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
  "addon" : {
    "addonName" : "vpc-cni",
    "clusterName" : "1-18",
    "status" : "DELETING",
    "addonVersion" : "v1.7.5-eksbuild.1",
    "health" : {
      "issues" : [ ]
    },
    "addonArn" : "arn:aws:eks:us-west-2:012345678910:addon/1-18/vpc-cni/xxxxxxxx-xxxx-xxxx-
xxxx-xxxxxxxxxxx",
    "createdAt" : 1.606315184255E9,
    "modifiedAt" : 1.606316348223E9,
    "serviceAccountRoleArn" : "arn:aws:iam::012345678910:role/AmazonEKSCNIRole",
    "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 V2
- 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. 51) and DeleteFargateProfile (p. 47).

Request Syntax

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

URI Request Parameters

The request uses the following URI parameters.

name (p. 42)

The name of the cluster to delete.

Required: Yes

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",
      "connectorConfig": {
         "activationCode": "string",
         "activationExpiry": number,
         "activationId": "string",
         "provider": "string",
         "roleArn": "string"
      },
      "createdAt": number,
      "encryptionConfig": [
         {
            "provider": {
               "keyArn": "string"
            },
```

```
            "resources": [ "string" ]
         }
      ],
      "endpoint": "string",
      "identity": {
         "oidc": {
            "issuer": "string"
         }
      },
      "kubernetesNetworkConfig": {
         "serviceIpv4Cidr": "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. 42)

The full description of the cluster to delete.

Type: Cluster (p. 159) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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

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 *Amazon EKS 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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
```

```
x-amz-apigw-id: HxlgjH_rPHcF7ag=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
    "cluster": {
        "name": "dev",
        "arn": "arn:aws:eks:us-west-2:012345678910:cluster/dev",
        "createdAt": 1573244832.203,
        "version": "1.14",
        "endpoint": "https://A0DCCD80A04F01705DD065655C30CC3D.yl4.us-
west-2.eks.amazonaws.com",
        "roleArn": "arn:aws:iam::012345678910:role/EksServiceRole",
        "resourcesVpcConfig": {
            "subnetIds": [
                "subnet-xxxxxxxxxxxxxxxx",
                "subnet-yyyyyyyyyyyyyyyyy",
                "subnet-zzzzzzzzzzzzzzzzz"
            ],
            "securityGroupIds": [
                "sg-xxxxxxxxxxxxxxxxx"
            ],
            "clusterSecurityGroupId": "sg-yyyyyyyyyyyyyyyyy",
            "vpcId": "vpc-xxxxxxxxxxxxxxxxx",
            "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/
XXXXXXXXXXXXX097E4AC3A07B6B79B9C"
            }
        },
        "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 V2
- 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 uses the following URI parameters.

name (p. 47)

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

Required: Yes

fargateProfileName (p. 47)

The name of the Fargate profile to delete.

Required: Yes

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. 47)

The deleted Fargate profile.

Type: FargateProfile (p. 167) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DeaRjFWPvHcFcXw=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
  "fargateProfile": {
    "fargateProfileName": "compute-label",
    "fargateProfileArn": "arn:aws:eks:us-west-2:012345678910:fargateprofile/fargate/
compute-label/xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx",
    "clusterName": "fargate",
    "createdAt": 1574206849.791,
    "podExecutionRoleArn": "arn:aws:iam::012345678910:role/AmazonEKSPodExecutionRole",
    "subnets": [
      "subnet-xxxxxxxxxxxxxxxxx",
      "subnet-yyyyyyyyyyyyyyyyy"
    ],
    "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 V2
- 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 uses the following URI parameters.

name (p. 51)

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

Required: Yes

nodegroupName (p. 51)

The name of the node group to delete.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "nodegroup": {
      "amiType": "string",
      "capacityType": "string",
      "clusterName": "string",
      "createdAt": number,
      "diskSize": number,
      "health": {
         "issues": [
            {
               "code": "string",
               "message": "string",
               "resourceIds": [ "string" ]
            }
         ]
      },
      "instanceTypes": [ "string" ],
      "labels": {
         "string" : "string"
      },
      "launchTemplate": {
         "id": "string",
```

```
         "name": "string",
         "version": "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"
      },
      "taints": [
         {
            "effect": "string",
            "key": "string",
            "value": "string"
         }
      ],
      "updateConfig": {
         "maxUnavailable": number,
         "maxUnavailablePercentage": number
      },
      "version": "string"
   }
}
```

Response Elements

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

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

nodegroup (p. 51)

The full description of your deleted node group.

Type: Nodegroup (p. 180) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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

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 *Amazon EKS 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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DAuf9GbEPHcFxNw=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
  "nodegroup" : {
    "nodegroupName" : "standard",
    "nodegroupArn" : "arn:aws:eks:us-west-2:012345678910:nodegroup/prod/standard/xxxxxxxx-
xxxx-xxxx-xxxxxxxxxxxxxxxx",
    "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" ],
    "subnets" : [ "subnet-xxxxxxxxxxxxxxxxx", "subnet-yyyyyyyyyyyyyyyyy", "subnet-
zzzzzzzzzzzzzzzzz" ],
    "remoteAccess" : {
      "ec2SshKey" : "id_rsa",
      "sourceSecurityGroups" : null
    },
    "amiType" : "AL2_x86_64",
    "nodeRole" : "arn:aws:iam::012345678910:role/managed-NodeInstanceRole-1V94UAUPQY7GS",
    "labels" : { },
    "resources" : {
      "autoScalingGroups" : [ {
        "name" : "eks-xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
      } ],
      "remoteAccessSecurityGroup" : "sg-xxxxxxxxxxxxxxxxx"
    },
    "diskSize" : 20,
    "health" : {
      "issues" : [ ]
    },
    "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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeregisterCluster

Deregisters a connected cluster to remove it from the Amazon EKS control plane.

Request Syntax

```
DELETE /cluster-registrations/name HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

name (p. 56)

The name of the connected cluster to deregister.

Required: Yes

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",
      "connectorConfig": {
         "activationCode": "string",
         "activationExpiry": number,
         "activationId": "string",
         "provider": "string",
         "roleArn": "string"
      },
      "createdAt": number,
      "encryptionConfig": [
         {
            "provider": {
               "keyArn": "string"
            },
            "resources": [ "string" ]
         }
      ],
      "endpoint": "string",
      "identity": {
         "oidc": {
            "issuer": "string"
         }
      },
```

```
      "kubernetesNetworkConfig": {
         "serviceIpv4Cidr": "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. 56)

An object representing an Amazon EKS cluster.

Type: Cluster (p. 159) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeAddon

Describes an Amazon EKS add-on.

Request Syntax

```
GET /clusters/name/addons/addonName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

addonName (p. 59)

The name of the add-on. The name must match one of the names returned by `ListAddons`.

Required: Yes

name (p. 59)

The name of the cluster.

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

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

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "addon": {
      "addonArn": "string",
      "addonName": "string",
      "addonVersion": "string",
      "clusterName": "string",
      "createdAt": number,
      "health": {
         "issues": [
            {
               "code": "string",
               "message": "string",
               "resourceIds": [ "string" ]
            }
         ]
      },
      "modifiedAt": number,
      "serviceAccountRoleArn": "string",
      "status": "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.

addon (p. 59)

An Amazon EKS add-on.

Type: Addon (p. 151) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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 add-on named `vpc-cni`.

Sample Request

```
GET /clusters/1-18/addons/vpc-cni HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.298 Python/3.6.0 Windows/10 botocore/1.13.34
X-Amz-Date: 20201125T144831Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 25 Nov 2020 14:48:32 GMT
Content-Type: application/json
Content-Length: 472
x-amzn-RequestId: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: WkY-BEEPPHcFwEg=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
  "addon" : {
    "addonName" : "vpc-cni",
    "clusterName" : "1-18",
    "status" : "ACTIVE",
    "addonVersion" : "v1.7.5-eksbuild.1",
    "health" : {
      "issues" : [ ]
    },
    "addonArn" : "arn:aws:eks:us-west-2:012345678910:addon/my-cluster/vpc-cni/xxxxxxxx-
xxxx-xxxx-xxxx-xxxxxxxxxxx",
    "createdAt" : 1.606315184255E9,
    "modifiedAt" : 1.606315202754E9,
    "serviceAccountRoleArn" : "arn:aws:iam::012345678910:role/AmazonEKSCNIRole",
    "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 V2
- AWS SDK for JavaScript

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

DescribeAddonVersions

Describes the Kubernetes versions that the add-on can be used with.

Request Syntax

```
GET /addons/supported-versions?
addonName=addonName&kubernetesVersion=kubernetesVersion&maxResults=maxResults&nextToken=nextToken
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

addonName (p. 63)

The name of the add-on. The name must match one of the names returned by `ListAddons`.

kubernetesVersion (p. 63)

The Kubernetes versions that the add-on can be used with.

maxResults (p. 63)

The maximum number of results to return.

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

nextToken (p. 63)

The `nextToken` value returned from a previous paginated `DescribeAddonVersionsRequest` 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

{
   "addons": [
      {
         "addonName": "string",
         "addonVersions": [
            {
               "addonVersion": "string",
               "architecture": [ "string" ],
               "compatibilities": [
```

```
                {
                   "clusterVersion": "string",
                   "defaultVersion": boolean,
                   "platformVersions": [ "string" ]
                }
             ]
          }
       ],
       "type": "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.

addons (p. 63)

The list of available versions with Kubernetes version compatibility.

Type: Array of AddonInfo (p. 154) objects

nextToken (p. 63)

The `nextToken` value returned from a previous paginated `DescribeAddonVersionsResponse` 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.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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 the add-on versions available for an add-on named `vpc-cni`.

Sample Request

```
GET /addons/supported-versions?addonName=vpc-cni HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.298 Python/3.6.0 Windows/10 botocore/1.13.34
X-Amz-Date: 20201125T143627Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 25 Nov 2020 14:36:27 GMT
Content-Type: application/json
Content-Length: 418
x-amzn-RequestId: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: WkXM1FDXvHcFaHg=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
 "addons": [{
  "addonName": "vpc-cni",
  "type": "networking",
  "addonVersions": [{
   "addonVersion": "v1.7.5-eksbuild.1",
   "architecture": ["amd64", "arm64"],
   "compatibilities": [{
    "clusterVersion": "1.18",
    "platformVersions": ["*"],
    "defaultVersion": true
   }]
  }, {
   "addonVersion": "v1.6.3-eksbuild.1",
   "architecture": ["amd64", "arm64"],
   "compatibilities": [{
    "clusterVersion": "1.18",
    "platformVersions": ["*"],
    "defaultVersion": false
   }]
  }]
 }],
 "nextToken": null
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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 uses the following URI parameters.

name (p. 67)

The name of the cluster to describe.

Required: Yes

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",
      "connectorConfig": {
         "activationCode": "string",
         "activationExpiry": number,
         "activationId": "string",
         "provider": "string",
         "roleArn": "string"
      },
      "createdAt": number,
      "encryptionConfig": [
         {
            "provider": {
               "keyArn": "string"
            },
```

```
            "resources": [ "string" ]
         }
      ],
      "endpoint": "string",
      "identity": {
         "oidc": {
            "issuer": "string"
         }
      },
      "kubernetesNetworkConfig": {
         "serviceIpv4Cidr": "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. 67)

The full description of your specified cluster.

Type: Cluster (p. 159) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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

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 *Amazon EKS 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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: W85cPGkVvHcFa4g=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
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-xxxxxxxxxxxxxxxx",
                "subnet-yyyyyyyyyyyyyyyy",
                "subnet-zzzzzzzzzzzzzzzz"
            ],
            "securityGroupIds": [
                "sg-xxxxxxxxxxxxxxxx"
            ],
            "vpcId": "vpc-xxxxxxxxxxxxxxxx",
            "endpointPublicAccess": true,
            "endpointPrivateAccess": true
        },
        "logging": {
            "clusterLogging": [
                {
                    "types": [
                        "api",
                        "audit",
                        "authenticator",
                        "controllerManager",
                        "scheduler"
                    ],
                    "enabled": false
                }
            ]
        },
        "identity": {
            "oidc": {
                "issuer": null
            }
        },
        "status": "CREATING",
        "certificateAuthority": {
            "data": null
        },
        "clientRequestToken": null,
        "platformVersion": "eks.2"
    }
}
```

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 V2
- 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 uses the following URI parameters.

name (p. 72)

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

Required: Yes

fargateProfileName (p. 72)

The name of the Fargate profile to describe.

Required: Yes

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. 72)

The full description of your Fargate profile.

Type: FargateProfile (p. 167) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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
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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DebFwF0YPHcFkog=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
  "fargateProfile": {
    "fargateProfileName": "default-with-infrastructure-label",
    "fargateProfileArn": "arn:aws:eks:us-west-2:012345678910:fargateprofile/fargate/
default-with-infrastructure-label/xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
    "clusterName": "fargate",
    "createdAt": 1574281537.866,
    "podExecutionRoleArn": "arn:aws:iam::012345678910:role/AmazonEKSPodExecutionRole",
    "subnets": [
      "subnet-xxxxxxxxxxxxxxxxx",
      "subnet-yyyyyyyyyyyyyyyyy"
    ],
    "selectors": [
      {
        "namespace": "default",
        "labels": {
          "infrastructure": "fargate"
        }
      }
    ],
    "status": "ACTIVE",
    "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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeIdentityProviderConfig

Returns descriptive information about an identity provider configuration.

Request Syntax

```
POST /clusters/name/identity-provider-configs/describe HTTP/1.1
Content-type: application/json

{
   "identityProviderConfig": {
      "name": "string",
      "type": "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

name (p. 76)

The cluster name that the identity provider configuration is associated to.

Required: Yes

Request Body

The request accepts the following data in JSON format.

identityProviderConfig (p. 76)

An object that represents an identity provider configuration.

Type: IdentityProviderConfig (p. 171) object

Required: Yes

Response Syntax

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

{
   "identityProviderConfig": {
      "oidc": {
         "clientId": "string",
         "clusterName": "string",
         "groupsClaim": "string",
         "groupsPrefix": "string",
         "identityProviderConfigArn": "string",
         "identityProviderConfigName": "string",
         "issuerUrl": "string",
         "requiredClaims": {
```

```
            "string" : "string"
         },
         "status": "string",
         "tags": {
            "string" : "string"
         },
         "usernameClaim": "string",
         "usernamePrefix": "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.

identityProviderConfig (p. 76)

The object that represents an OpenID Connect (OIDC) identity provider configuration.

Type: IdentityProviderConfigResponse (p. 172) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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

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 V2
- 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 uses the following URI parameters.

name (p. 79)

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

Required: Yes

nodegroupName (p. 79)

The name of the node group to describe.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "nodegroup": {
      "amiType": "string",
      "capacityType": "string",
      "clusterName": "string",
      "createdAt": number,
      "diskSize": number,
      "health": {
         "issues": [
            {
               "code": "string",
               "message": "string",
               "resourceIds": [ "string" ]
            }
         ]
      },
      "instanceTypes": [ "string" ],
      "labels": {
         "string" : "string"
      },
      "launchTemplate": {
         "id": "string",
```

```
         "name": "string",
         "version": "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"
      },
      "taints": [
         {
            "effect": "string",
            "key": "string",
            "value": "string"
         }
      ],
      "updateConfig": {
         "maxUnavailable": number,
         "maxUnavailablePercentage": number
      },
      "version": "string"
   }
}
```

Response Elements

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

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

nodegroup (p. 79)

The full description of your node group.

Type: Nodegroup (p. 180) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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

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 *Amazon EKS 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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DAdikHT3vHcFz3w=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
  "nodegroup": {
    "nodegroupName": "standard",
    "nodegroupArn": "arn:aws:eks:us-west-2:012345678910:nodegroup/prod/standard/xxxxxxxx-
xxxx-xxxx-xxxx-xxxxxxxxxxx",
    "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-xxxxxxxxxxxxxxxx",
      "subnet-yyyyyyyyyyyyyyyy",
      "subnet-zzzzzzzzzzzzzzzz"
    ],
    "remoteAccess": {
      "ec2SshKey": "id_rsa",
      "sourceSecurityGroups": null
    },
    "amiType": "AL2_x86_64",
    "nodeRole": "arn:aws:iam::012345678910:role/managed-NodeInstanceRole-1V94UAUPQY7GS",
    "labels": {},
    "resources": {
      "autoScalingGroups": [
        {
          "name": "eks-xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx"
        }
      ],
      "remoteAccessSecurityGroup": "sg-xxxxxxxxxxxxxxxx"
    },
    "diskSize": 20,
    "health": {
      "issues": []
    },
    "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 V2
- 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?addonName=addonName&nodegroupName=nodegroupName
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

addonName (p. 84)

The name of the add-on. The name must match one of the names returned by `ListAddons`.

name (p. 84)

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

Required: Yes

nodegroupName (p. 84)

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

updateId (p. 84)

The ID of the update to describe.

Required: Yes

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. 84)

The full description of the specified update.

Type: Update (p. 199) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: RIo-oFsVvHcFXng=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
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

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 V2
- AWS SDK for JavaScript

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

DisassociateIdentityProviderConfig

Disassociates an identity provider configuration from a cluster. If you disassociate an identity provider from your cluster, users included in the provider can no longer access the cluster. However, you can still access the cluster with AWS IAM users.

Request Syntax

```
POST /clusters/name/identity-provider-configs/disassociate HTTP/1.1
Content-type: application/json

{
   "clientRequestToken": "string",
   "identityProviderConfig": {
      "name": "string",
      "type": "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

name (p. 88)

The name of the cluster to disassociate an identity provider from.

Required: Yes

Request Body

The request accepts the following data in JSON format.

clientRequestToken (p. 88)

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

Type: String

Required: No

identityProviderConfig (p. 88)

An object that represents an identity provider configuration.

Type: IdentityProviderConfig (p. 171) object

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. 88)

An object representing an asynchronous update.

Type: Update (p. 199) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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 disassociates an OIDC identity provider named `my-config` from a cluster.

Sample Request

```
POST /clusters/oidc2/identity-provider-configs/disassociate HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.298 Python/3.6.0 Windows/10 botocore/1.13.34
X-Amz-Date: 20201215T211826Z
Authorization: AUTHPARAMS
Content-Length: 127

{
 "identityProviderConfig": {
  "type": "oidc",
  "name": "my-config"
 },
 "clientRequestToken": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

Sample Response

```
HTTP/1.1 200 OK
Date: Tue, 15 Dec 2020 21:18:27 GMT
Content-Type: application/json
Content-Length: 297
x-amzn-RequestId: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: XnM1dE8TvHcFn8Q=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive
```

```
{
  "update" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
    "status" : "InProgress",
    "type" : "DisassociateIdentityProviderConfig",
    "params" : [ {
      "type" : "IdentityProviderConfig",
      "value" : "[]"
    } ],
    "createdAt" : 1.60806710785E9,
    "errors" : [ ]
  }
}
```

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListAddons

Lists the available add-ons.

Request Syntax

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

URI Request Parameters

The request uses the following URI parameters.

name (p. 92)

The name of the cluster.

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

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

Required: Yes

maxResults (p. 92)

The maximum number of add-on results returned by `ListAddonsRequest` in paginated output. When you use this parameter, `ListAddonsRequest` 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 `ListAddonsRequest` request with the returned `nextToken` value. This value can be between 1 and 100. If you don't use this parameter, `ListAddonsRequest` returns up to 100 results and a `nextToken` value, if applicable.

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

nextToken (p. 92)

The `nextToken` value returned from a previous paginated `ListAddonsRequest` 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

{
   "addons": [ "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.

addons (p. 92)

A list of available add-ons.

Type: Array of strings

nextToken (p. 92)

The `nextToken` value returned from a previous paginated `ListAddonsResponse` 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.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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

ResourceNotFoundException

The specified resource could not be found. You can view your available clusters with ListClusters (p. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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 add-ons available for a cluster.

Sample Request

```
GET /clusters/1-18/addons HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.298 Python/3.6.0 Windows/10 botocore/1.13.34
X-Amz-Date: 20201125T144629Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 25 Nov 2020 14:46:30 GMT
Content-Type: application/json
Content-Length: 39
x-amzn-RequestId: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: WkYq8HCuvHcFU3Q=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
 "addons": ["vpc-cni"],
 "nextToken": null
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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?include=include&maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

include (p. 96)

Indicates whether connected clusters are included in the returned list. Default value is 'ALL'.

maxResults (p. 96)

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. 96)

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. 96)

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

Type: Array of strings

nextToken (p. 96)

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. 210).

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

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 *Amazon EKS 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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: HxkiCF8EPHcF4nw=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

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

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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 uses the following URI parameters.

name (p. 99)

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

Required: Yes

maxResults (p. 99)

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. 99)

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. 99)

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

Type: Array of strings

nextToken (p. 99)

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. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DeeMiFxHvHcFd3g=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
  "fargateProfileNames": [
    "default-with-infrastructure-label",
    "monitoring"
  ],
  "nextToken": null
}
```

See Also

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

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

ListIdentityProviderConfigs

A list of identity provider configurations.

Request Syntax

```
GET /clusters/name/identity-provider-configs?maxResults=maxResults&nextToken=nextToken
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

name (p. 102)

The cluster name that you want to list identity provider configurations for.

Required: Yes

maxResults (p. 102)

The maximum number of identity provider configurations returned by `ListIdentityProviderConfigs` in paginated output. When you use this parameter, `ListIdentityProviderConfigs` 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 `ListIdentityProviderConfigs` request with the returned `nextToken` value. This value can be between 1 and 100. If you don't use this parameter, `ListIdentityProviderConfigs` returns up to 100 results and a `nextToken` value, if applicable.

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

nextToken (p. 102)

The `nextToken` value returned from a previous paginated `IdentityProviderConfigsRequest` 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

{
   "identityProviderConfigs": [
      {
         "name": "string",
         "type": "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.

identityProviderConfigs (p. 102)

The identity provider configurations for the cluster.

Type: Array of IdentityProviderConfig (p. 171) objects

nextToken (p. 102)

The `nextToken` value returned from a previous paginated `ListIdentityProviderConfigsResponse` 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.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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

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 *Amazon EKS 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 identity provider configs for a cluster.

Sample Request

```
GET /clusters/oidc2/identity-provider-configs HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.298 Python/3.6.0 Windows/10 botocore/1.13.34
X-Amz-Date: 20201215T203618Z
Authorization: AUTHPARAMS
```

Sample Response

```
HTTP/1.1 200 OK
Date: Tue, 15 Dec 2020 20:36:18 GMT
Content-Type: application/json
Content-Length: 81
x-amzn-RequestId: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: XnGqaHs7vHcFb1g=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
 "identityProviderConfigs": [{
  "type": "oidc",
  "name": "my-config"
 }],
 "nextToken": null
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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 uses the following URI parameters.

name (p. 106)

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

Required: Yes

maxResults (p. 106)

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. 106)

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. 106)

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. 106)

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. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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

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 *Amazon EKS 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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DAeUrHtPPHcFU_A=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

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

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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 uses the following URI parameters.

resourceArn (p. 109)

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.

Required: Yes

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. 109)

The tags for the resource.

Type: String to string map

Map Entries: Maximum number of 50 items.

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. 210).

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

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 V2
- 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?
addonName=addonName&maxResults=maxResults&nextToken=nextToken&nodegroupName=nodegroupName
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

addonName (p. 111)

The names of the installed add-ons that have available updates.

maxResults (p. 111)

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. 111)

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

Required: Yes

nextToken (p. 111)

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. 111)

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. 111)

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. 111)

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. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: RIo6pF2NPHcF5PQ=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

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

See Also

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

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

RegisterCluster

Connects a Kubernetes cluster to the Amazon EKS control plane.

Any Kubernetes cluster can be connected to the Amazon EKS control plane to view current information about the cluster and its nodes.

Cluster connection requires two steps. First, send a `RegisterClusterRequest` (p. 196) to add it to the Amazon EKS control plane.

Second, a Manifest containing the `activationID` and `activationCode` must be applied to the Kubernetes cluster through it's native provider to provide visibility.

After the Manifest is updated and applied, then the connected cluster is visible to the Amazon EKS control plane. If the Manifest is not applied within three days, then the connected cluster will no longer be visible and must be deregistered. See DeregisterCluster (p. 56).

Request Syntax

```
POST /cluster-registrations HTTP/1.1
Content-type: application/json

{
   "clientRequestToken": "string",
   "connectorConfig": {
      "provider": "string",
      "roleArn": "string"
   },
   "name": "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. 114)

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

Type: String

Required: No

connectorConfig (p. 114)

The configuration settings required to connect the Kubernetes cluster to the Amazon EKS control plane.

Type: ConnectorConfigRequest (p. 163) object

Required: Yes

name (p. 114)

Define a unique name for this cluster for your Region.

Type: String

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

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

Required: Yes

Response Syntax

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

{
   "cluster": {
      "arn": "string",
      "certificateAuthority": {
         "data": "string"
      },
      "clientRequestToken": "string",
      "connectorConfig": {
         "activationCode": "string",
         "activationExpiry": number,
         "activationId": "string",
         "provider": "string",
         "roleArn": "string"
      },
      "createdAt": number,
      "encryptionConfig": [
         {
            "provider": {
               "keyArn": "string"
            },
            "resources": [ "string" ]
         }
      ],
      "endpoint": "string",
      "identity": {
         "oidc": {
            "issuer": "string"
         }
      },
      "kubernetesNetworkConfig": {
         "serviceIpv4Cidr": "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. 115)

An object representing an Amazon EKS cluster.

Type: Cluster (p. 159) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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

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

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 *Amazon EKS 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 connects a Kubernetes cluster named `my-api-created-external-cluster`.

Sample Request

```
POST http://eks.us-west-2.amazonaws.com/cluster-registrations{
    "name": "my-api-created-external-cluster",
    "connectorConfig": {
        "roleArn": "arn:aws:iam::ACCOUNT_ID:role/eks-connector-agent",
        "provider" : "OTHER"
    }
}
```

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",
    "resourcesVpcConfig": {
        "subnetIds": [
            "subnet-xxxxxxxxxxxxxxxxx",
            "subnet-yyyyyyyyyyyyyyyyy",
            "subnet-zzzzzzzzzzzzzzzzz"
        ],
        "securityGroupIds": [
            "sg-xxxxxxxxxxxxxxxxx"
        ],
        "endpointPublicAccess": true,
        "endpointPrivateAccess": true
    },
    "clientRequestToken": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

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 V2
- 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 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 uses the following URI parameters.

resourceArn (p. 119)

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.

Required: Yes

Request Body

The request accepts the following data in JSON format.

tags (p. 119)

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

Type: String to string map

Map Entries: Maximum number of 50 items.

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. 210).

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

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 V2
- 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 uses the following URI parameters.

resourceArn (p. 121)

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.

Required: Yes

tagKeys (p. 121)

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.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateAddon

Updates an Amazon EKS add-on.

Request Syntax

```
POST /clusters/name/addons/addonName/update HTTP/1.1
Content-type: application/json

{
   "addonVersion": "string",
   "clientRequestToken": "string",
   "resolveConflicts": "string",
   "serviceAccountRoleArn": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

addonName (p. 123)

The name of the add-on. The name must match one of the names returned by `ListAddons` .

Required: Yes

name (p. 123)

The name of the cluster.

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

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

addonVersion (p. 123)

The version of the add-on. The version must match one of the versions returned by `DescribeAddonVersions` .

Type: String

Required: No

clientRequestToken (p. 123)

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

Type: String

Required: No

resolveConflicts (p. 123)

How to resolve parameter value conflicts when applying the new version of the add-on to the cluster.

Type: String

Valid Values: `OVERWRITE | NONE`

Required: No

serviceAccountRoleArn (p. 123)

The Amazon Resource Name (ARN) of an existing IAM role to bind to the add-on's service account. The role must be assigned the IAM permissions required by the add-on. If you don't specify an existing IAM role, then the add-on uses the permissions assigned to the node IAM role. For more information, see Amazon EKS node IAM role in the *Amazon EKS User Guide*.

Note
To specify an existing IAM role, you must have an IAM OpenID Connect (OIDC) provider created for your cluster. For more information, see Enabling IAM roles for service accounts on your cluster in the *Amazon EKS User Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

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. 124)

An object representing an asynchronous update.

Type: Update (p. 199) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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 an add-on named `vpc-cni` to use an IAM role named `AmazonEKSCNIRole` and to overwrite the add-on's existing configuration with the Amazon EKS add-on's configuration.

Sample Request

```
POST /clusters/1-18/addons/vpc-cni/update HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.298 Python/3.6.0 Windows/10 botocore/1.13.34
X-Amz-Date: 20201125T145528Z
Authorization: AUTHPARAMS

{
 "serviceAccountRoleArn": "arn:aws:iam::012345678910:role/AmazonEKSCNIRole",
 "resolveConflicts": "overwrite",
 "clientRequestToken": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 25 Nov 2020 14:55:29 GMT
Content-Type: application/json
Content-Length: 288
x-amzn-RequestId: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: WkZ_KGiBvHcFhtw=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
 "update": {
  "id": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx",
  "status": "InProgress",
  "type": "AddonUpdate",
  "params": [{
   "type": "ServiceAccountRoleArn",
   "value": "arn:aws:iam::012345678910:role/AmazonEKSCNIRole"
  }, {
   "type": "ResolveConflicts",
   "value": "overwrite"
  }],
  "createdAt": 1606316129.051,
  "errors": []
 }
}
```

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 V2

- 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. 84) 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 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
You can't 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 uses the following URI parameters.

name (p. 128)

The name of the Amazon EKS cluster to update.

Required: Yes

Request Body

The request accepts the following data in JSON format.

clientRequestToken (p. 128)

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

Type: String

Required: No

logging (p. 128)

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 CloudWatch Pricing.

Type: Logging (p. 178) object

Required: No

resourcesVpcConfig (p. 128)

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

Type: VpcConfigRequest (p. 204) 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. 129)

An object representing an asynchronous update.

Type: Update (p. 199) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: V1LanEMJPHcFvTg=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
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"
        ],
        "enabled": true
      }
    ]
  },
  "clientRequestToken": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: W87Q5HlCvHcFxDA=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
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

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 V2
- 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. 84) 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 uses the following URI parameters.

name (p. 134)

The name of the Amazon EKS cluster to update.

Required: Yes

Request Body

The request accepts the following data in JSON format.

clientRequestToken (p. 134)

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

Type: String

Required: No

version (p. 134)

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. 134)

The full description of the specified update

Type: Update (p. 199) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: RIo2bEs8vHcFXoA=
X-Amzn-Trace-Id: Root=1-xxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
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

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 V2
- 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. 84) 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
   },
   "taints": {
      "addOrUpdateTaints": [
         {
            "effect": "string",
            "key": "string",
            "value": "string"
         }
      ],
      "removeTaints": [
         {
            "effect": "string",
            "key": "string",
            "value": "string"
         }
      ]
   },
   "updateConfig": {
      "maxUnavailable": number,
      "maxUnavailablePercentage": number
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

name (p. 138)

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

Required: Yes

nodegroupName (p. 138)

The name of the managed node group to update.

Required: Yes

Request Body

The request accepts the following data in JSON format.

clientRequestToken (p. 138)

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

Type: String

Required: No

labels (p. 138)

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

Type: UpdateLabelsPayload (p. 201) object

Required: No

scalingConfig (p. 138)

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

Type: NodegroupScalingConfig (p. 186) object

Required: No

taints (p. 138)

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

Type: UpdateTaintsPayload (p. 203) object

Required: No

updateConfig (p. 138)

The node group update configuration.

Type: NodegroupUpdateConfig (p. 188) 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. 139)

An object representing an asynchronous update.

Type: Update (p. 199) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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

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": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DAt5dGkFPHcFzuQ=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
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

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 V2
- 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 a node group using a launch template only if the node group was originally deployed with a launch template. If you need to update a custom AMI in a node group that was deployed with a launch template, then update your custom AMI, specify the new ID in a new version of the launch template, and then update the node group to the new version of the launch template.

If you update without a launch template, then 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 Amazon Linux 2 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,
   "launchTemplate": {
      "id": "string",
      "name": "string",
      "version": "string"
   },
   "releaseVersion": "string",
   "version": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

name (p. 143)

The name of the Amazon EKS cluster that is associated with the managed node group to update.

Required: Yes

nodegroupName (p. 143)

The name of the managed node group to update.

Required: Yes

Request Body

The request accepts the following data in JSON format.

clientRequestToken (p. 143)

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

Type: String

Required: No

force (p. 143)

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

launchTemplate (p. 143)

An object representing a node group's launch template specification. You can only update a node group using a launch template if the node group was originally deployed with a launch template.

Type: LaunchTemplateSpecification (p. 177) object

Required: No

releaseVersion (p. 143)

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 Amazon Linux 2 AMI versions in the *Amazon EKS User Guide*. If you specify `launchTemplate`, and your launch template uses a custom AMI, then don't specify `releaseVersion`, or the node group update will fail. For more information about using launch templates with Amazon EKS, see Launch template support in the Amazon EKS User Guide.

Type: String

Required: No

version (p. 143)

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. If you specify `launchTemplate`, and your launch template uses a custom AMI, then don't specify `version`, or the node group update will fail. For more information about using launch templates with Amazon EKS, see Launch template support in the Amazon EKS User Guide.

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. 144)

An object representing an asynchronous update.

Type: Update (p. 199) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 210).

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. 96). You can view your available managed node groups with ListNodegroups (p. 106). 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 *Amazon EKS 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 1

This example updates a node group that was deployed without a launch template to the latest available node group AMI version for the node group's current Kubernetes version. The example node group is named `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": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

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: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DAeuxEBkvHcF1sg=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxx
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": []
  }
}
```

Example 2

This example updates a node group that was deployed with a launch template to version `3` of a launch template named `my-launch-template`.

Sample Request

```
POST /clusters/my-cluster/node-groups/my-nodegroup/update-version HTTP/1.1
Host: eks.us-west-2.amazonaws.com
Accept-Encoding: identity
User-Agent: aws-cli/1.16.298 Python/3.6.0 Windows/10 botocore/1.13.34
X-Amz-Date: 20200812T144111Z
Authorization: AUTHPARAMS
Content-Length: 121

{
 "launchTemplate": {
  "name": "my-template",
  "version": "3"
 },
 "clientRequestToken": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
}
```

Sample Response

```
HTTP/1.1 200 OK
Date: Wed, 12 Aug 2020 14:41:12 GMT
Content-Type: application/json
Content-Length: 248
x-amzn-RequestId: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx
x-amz-apigw-id: DAeuxEBkvHcF1sg=
X-Amzn-Trace-Id: Root=1-xxxxxxxxx-xxxxxxxxxxxxxxxxxxxxxxxx
Connection: keep-alive

{
 "update": {
  "id": "8f63ed58-f571-3bf9-87bc-a35f5e3d7687",
  "status": "InProgress",
  "type": "VersionUpdate",
  "params": [{
   "type": "LaunchTemplateName",
   "value": "my-launch-template"
  }, {
   "type": "LaunchTemplateVersion",
   "value": "3"
```

```
  }],
  "createdAt": 1597243272.809,
  "errors": []
 }
}
```

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 V2
- 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:

Addon

An Amazon EKS add-on.

Contents

addonArn

The Amazon Resource Name (ARN) of the add-on.

Type: String

Required: No

addonName

The name of the add-on.

Type: String

Required: No

addonVersion

The version of the add-on.

Type: String

Required: No

clusterName

The name of the cluster.

Type: String

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

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

Required: No

createdAt

The date and time that the add-on was created.

Type: Timestamp

Required: No

health

An object that represents the health of the add-on.

Type: AddonHealth (p. 153) object

Required: No

modifiedAt

The date and time that the add-on was last modified.

Type: Timestamp

Required: No

serviceAccountRoleArn

The Amazon Resource Name (ARN) of the IAM role that is bound to the Kubernetes service account used by the add-on.

Type: String

Required: No

status

The status of the add-on.

Type: String

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

Required: No

tags

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

Type: String to string map

Map Entries: Maximum number of 50 items.

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

Value Length Constraints: Maximum length of 256.

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AddonHealth

The health of the add-on.

Contents

issues

An object that represents the add-on's health issues.

Type: Array of AddonIssue (p. 155) objects

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AddonInfo

Information about an add-on.

Contents

addonName

The name of the add-on.

Type: String

Required: No

addonVersions

An object that represents information about available add-on versions and compatible Kubernetes versions.

Type: Array of AddonVersionInfo (p. 156) objects

Required: No

type

The type of the add-on.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AddonIssue

An issue related to an add-on.

Contents

code

A code that describes the type of issue.

Type: String

Valid Values: `AccessDenied | InternalFailure | ClusterUnreachable | InsufficientNumberOfReplicas | ConfigurationConflict | AdmissionRequestDenied | UnsupportedAddonModification | K8sResourceNotFound`

Required: No

message

A message that provides details about the issue and what might cause it.

Type: String

Required: No

resourceIds

The resource IDs of the issue.

Type: Array of strings

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AddonVersionInfo

Information about an add-on version.

Contents

addonVersion

The version of the add-on.

Type: String

Required: No

architecture

The architectures that the version supports.

Type: Array of strings

Required: No

compatibilities

An object that represents the compatibilities of a version.

Type: Array of Compatibility (p. 162) objects

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

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

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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. 158) object

Required: No

clientRequestToken

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

Type: String

Required: No

connectorConfig

The configuration used to connect to a cluster for registration.

Type: ConnectorConfigResponse (p. 164) object

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. 165) 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. 170) object

Required: No

kubernetesNetworkConfig

The Kubernetes network configuration for the cluster.

Type: KubernetesNetworkConfigResponse (p. 176) object

Required: No

logging

The logging configuration for your cluster.

Type: Logging (p. 178) 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. 206) 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 | PENDING`

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

Map Entries: Maximum number of 50 items.

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

Value Length Constraints: Maximum length of 256.

Required: No

version

The Kubernetes server version for the cluster.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Compatibility

Compatibility information.

Contents

clusterVersion

The supported Kubernetes version of the cluster.

Type: String

Required: No

defaultVersion

The supported default version.

Type: Boolean

Required: No

platformVersions

The supported compute platform.

Type: Array of strings

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ConnectorConfigRequest

The configuration sent to a cluster for configuration.

Contents

provider

The cloud provider for the target cluster to connect.

Type: String

Valid Values: `EKS_ANYWHERE` | `ANTHOS` | `GKE` | `AKS` | `OPENSHIFT` | `TANZU` | `RANCHER` | `EC2` | `OTHER`

Required: Yes

roleArn

The Amazon Resource Name (ARN) of the role that is authorized to request the connector configuration.

Type: String

Required: Yes

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ConnectorConfigResponse

The full description of your connected cluster.

Contents

activationCode

A unique code associated with the cluster for registration purposes.

Type: String

Required: No

activationExpiry

The expiration time of the connected cluster. The cluster's YAML file must be applied through the native provider.

Type: Timestamp

Required: No

activationId

A unique ID associated with the cluster for registration purposes.

Type: String

Required: No

provider

The cluster's cloud service provider.

Type: String

Required: No

roleArn

The Amazon Resource Name (ARN) of the role to communicate with services from the connected Kubernetes cluster.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EncryptionConfig

The encryption configuration for the cluster.

Contents

provider

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

Type: Provider (p. 195) object

Required: No

resources

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

Type: Array of strings

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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 | ClusterUnreachable | InsufficientNumberOfReplicas | ConfigurationConflict | AdmissionRequestDenied | UnsupportedAddonModification | K8sResourceNotFound`

Required: No

errorMessage

A more complete description of the error.

Type: String

Required: No

resourceIds

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

Type: Array of strings

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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. 169) objects

Required: No

status

The current status of the Fargate profile.

Type: String

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

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

Map Entries: Maximum number of 50 items.

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

Value Length Constraints: Maximum length of 256.

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Identity

An object representing an identity provider.

Contents

oidc

An object representing the OpenID Connect identity provider information.

Type: OIDC (p. 189) object

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

IdentityProviderConfig

An object representing an identity provider configuration.

Contents

name

The name of the identity provider configuration.

Type: String

Required: Yes

type

The type of the identity provider configuration.

Type: String

Required: Yes

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

IdentityProviderConfigResponse

The full description of your identity configuration.

Contents

oidc

An object that represents an OpenID Connect (OIDC) identity provider configuration.

Type: OidcIdentityProviderConfig (p. 190) object

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Issue

An object representing an issue with an Amazon EKS resource.

Contents

code

A brief description of the error.

- **AccessDenied**: Amazon EKS or one or more of your managed nodes is failing to authenticate or authorize with your Kubernetes cluster API server.
- **AsgInstanceLaunchFailures**: Your Auto Scaling group is experiencing failures while attempting to launch instances.
- **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.
- **ClusterUnreachable**: Amazon EKS or one or more of your managed nodes is unable to to communicate with your Kubernetes cluster API server. This can happen if there are network disruptions or if API servers are timing out processing requests.
- **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.
- **Ec2SecurityGroupDeletionFailure**: We could not delete the remote access security group for your managed node group. Remove any dependencies from the security group.
- **Ec2SecurityGroupNotFound**: We couldn't find the cluster security group for the cluster. You must recreate your cluster.
- **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.
- **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.
- **InternalFailure**: These errors are usually caused by an Amazon EKS server-side issue.
- **NodeCreationFailure**: Your launched instances are unable to register with your Amazon EKS cluster. Common causes of this failure are insufficient node IAM role permissions or lack of outbound internet access for the nodes.

Type: String

Valid Values: `AutoScalingGroupNotFound | AutoScalingGroupInvalidConfiguration | Ec2SecurityGroupNotFound | Ec2SecurityGroupDeletionFailure | Ec2LaunchTemplateNotFound | Ec2LaunchTemplateVersionMismatch`

```
| Ec2SubnetNotFound | Ec2SubnetInvalidConfiguration |
IamInstanceProfileNotFound | IamLimitExceeded | IamNodeRoleNotFound |
NodeCreationFailure | AsgInstanceLaunchFailures | InstanceLimitExceeded
| InsufficientFreeAddresses | AccessDenied | InternalFailure |
ClusterUnreachable
```

Required: No

message

The error message associated with the issue.

Type: String

Required: No

resourceIds

The AWS resources that are afflicted by this issue.

Type: Array of strings

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

KubernetesNetworkConfigRequest

The Kubernetes network configuration for the cluster.

Contents

serviceIpv4Cidr

The CIDR block to assign Kubernetes service IP addresses from. If you don't specify a block, Kubernetes assigns addresses from either the 10.100.0.0/16 or 172.20.0.0/16 CIDR blocks. We recommend that you specify a block that does not overlap with resources in other networks that are peered or connected to your VPC. The block must meet the following requirements:

- Within one of the following private IP address blocks: 10.0.0.0/8, 172.16.0.0/12, or 192.168.0.0/16.
- Doesn't overlap with any CIDR block assigned to the VPC that you selected for VPC.
- Between /24 and /12.

Important
You can only specify a custom CIDR block when you create a cluster and can't change this value once the cluster is created.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

KubernetesNetworkConfigResponse

The Kubernetes network configuration for the cluster.

Contents

serviceIpv4Cidr

The CIDR block that Kubernetes service IP addresses are assigned from. If you didn't specify a CIDR block when you created the cluster, then Kubernetes assigns addresses from either the 10.100.0.0/16 or 172.20.0.0/16 CIDR blocks. If this was specified, then it was specified when the cluster was created and it cannot be changed.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

LaunchTemplateSpecification

An object representing a node group launch template specification. The launch template cannot include `SubnetId`, `IamInstanceProfile`, `RequestSpotInstances`, `HibernationOptions`, or `TerminateInstances`, or the node group deployment or update will fail. For more information about launch templates, see `CreateLaunchTemplate` in the Amazon EC2 API Reference. For more information about using launch templates with Amazon EKS, see Launch template support in the Amazon EKS User Guide.

Specify either `name` or `id`, but not both.

Contents

id

The ID of the launch template.

Type: String

Required: No

name

The name of the launch template.

Type: String

Required: No

version

The version of the launch template to use. If no version is specified, then the template's default version is used.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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. 179) objects

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Nodegroup

An object representing an Amazon EKS managed node group.

Contents

amiType

If the node group was deployed using a launch template with a custom AMI, then this is `CUSTOM`. For node groups that weren't deployed using a launch template, this is the AMI type that was specified in the node group configuration.

Type: String

Valid Values: `AL2_x86_64 | AL2_x86_64_GPU | AL2_ARM_64 | CUSTOM`

Required: No

capacityType

The capacity type of your managed node group.

Type: String

Valid Values: `ON_DEMAND | SPOT`

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

If the node group wasn't deployed with a launch template, then this is the disk size in the node group configuration. If the node group was deployed with a launch template, then this is `null`.

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. 184) object

Required: No

instanceTypes

If the node group wasn't deployed with a launch template, then this is the instance type that is associated with the node group. If the node group was deployed with a launch template, then this is `null`.

Type: Array of strings

Required: No

labels

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

> **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 63.

Required: No

launchTemplate

If a launch template was used to create the node group, then this is the launch template that was used.

Type: LaunchTemplateSpecification (p. 177) object

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 node `kubelet` daemon makes calls to AWS APIs on your behalf. Nodes receive permissions for these API calls through an IAM instance profile and associated policies.

Type: String

Required: No

releaseVersion

If the node group was deployed using a launch template with a custom AMI, then this is the AMI ID that was specified in the launch template. For node groups that weren't deployed using a launch template, this is the version of the Amazon EKS optimized AMI that the node group was deployed with.

Type: String

Required: No

remoteAccess

If the node group wasn't deployed with a launch template, then this is the remote access configuration that is associated with the node group. If the node group was deployed with a launch template, then this is `null`.

Type: RemoteAccessConfig (p. 197) 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. 185) object

Required: No

scalingConfig

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

Type: NodegroupScalingConfig (p. 186) 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 that were specified for the Auto Scaling group that is associated with your node group.

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

Map Entries: Maximum number of 50 items.

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

Value Length Constraints: Maximum length of 256.

Required: No

taints

The Kubernetes taints to be applied to the nodes in the node group when they are created. Effect is one of `No_Schedule`, `Prefer_No_Schedule`, or `No_Execute`. Kubernetes taints can be used together with tolerations to control how workloads are scheduled to your nodes.

Type: Array of Taint (p. 198) objects

Required: No

updateConfig

The node group update configuration.

Type: NodegroupUpdateConfig (p. 188) object

Required: No

version

The Kubernetes version of the managed node group.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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. 173) objects

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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. 157) objects

Required: No

remoteAccessSecurityGroup

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

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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. When creating a node group, you must specify all or none of the properties. When updating a node group, you can specify any or none of the properties.

Contents

desiredSize

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

Important
If you use Cluster Autoscaler, you shouldn't change the desiredSize value directly, as this can cause the Cluster Autoscaler to suddenly scale up or scale down.

Whenever this parameter changes, the number of worker nodes in the node group is updated to the specified size. If this parameter is given a value that is smaller than the current number of running worker nodes, the necessary number of worker nodes are terminated to match the given value. When using CloudFormation, no action occurs if you remove this parameter from your CFN template.

This parameter can be different from minSize in some cases, such as when starting with extra hosts for testing. This parameter can also be different when you want to start with an estimated number of needed hosts, but let Cluster Autoscaler reduce the number if there are too many. When Cluster Autoscaler is used, the desiredSize parameter is altered by Cluster Autoscaler (but can be out-of-date for short periods of time). Cluster Autoscaler doesn't scale a managed node group lower than minSize or higher than maxSize.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

maxSize

The maximum number of nodes that the managed node group can scale out to. For information about the maximum number that you can specify, see Amazon EKS service quotas in the *Amazon EKS User Guide*.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

minSize

The minimum number of nodes that the managed node group can scale in to.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

NodegroupUpdateConfig

The node group update configuration.

Contents

maxUnavailable

The maximum number of nodes unavailable at once during a version update. Nodes will be updated in parallel. This value or `maxUnavailablePercentage` is required to have a value.The maximum number is 100.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

maxUnavailablePercentage

The maximum percentage of nodes unavailable during a version update. This percentage of nodes will be updated in parallel, up to 100 nodes at once. This value or `maxUnavailable` is required to have a value.

Type: Integer

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

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

OIDC

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

Contents

issuer

The issuer URL for the OIDC identity provider.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

OidcIdentityProviderConfig

An object that represents the configuration for an OpenID Connect (OIDC) identity provider.

Contents

clientId

This is also known as *audience*. The ID of the client application that makes authentication requests to the OIDC identity provider.

Type: String

Required: No

clusterName

The cluster that the configuration is associated to.

Type: String

Required: No

groupsClaim

The JSON web token (JWT) claim that the provider uses to return your groups.

Type: String

Required: No

groupsPrefix

The prefix that is prepended to group claims to prevent clashes with existing names (such as `system:` groups). For example, the value `oidc:` creates group names like `oidc:engineering` and `oidc:infra`. The prefix can't contain `system:`

Type: String

Required: No

identityProviderConfigArn

The ARN of the configuration.

Type: String

Required: No

identityProviderConfigName

The name of the configuration.

Type: String

Required: No

issuerUrl

The URL of the OIDC identity provider that allows the API server to discover public signing keys for verifying tokens.

Type: String

Required: No

requiredClaims

The key-value pairs that describe required claims in the identity token. If set, each claim is verified to be present in the token with a matching value.

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

status

The status of the OIDC identity provider.

Type: String

Valid Values: `CREATING | DELETING | ACTIVE`

Required: No

tags

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

Type: String to string map

Map Entries: Maximum number of 50 items.

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

Value Length Constraints: Maximum length of 256.

Required: No

usernameClaim

The JSON Web token (JWT) claim that is used as the username.

Type: String

Required: No

usernamePrefix

The prefix that is prepended to username claims to prevent clashes with existing names. The prefix can't contain `system:`

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go

- AWS SDK for Java V2
- AWS SDK for Ruby V3

OidcIdentityProviderConfigRequest

An object representing an OpenID Connect (OIDC) configuration. Before associating an OIDC identity provider to your cluster, review the considerations in Authenticating users for your cluster from an OpenID Connect identity provider in the *Amazon EKS User Guide*.

Contents

clientId

This is also known as *audience*. The ID for the client application that makes authentication requests to the OpenID identity provider.

Type: String

Required: Yes

groupsClaim

The JWT claim that the provider uses to return your groups.

Type: String

Required: No

groupsPrefix

The prefix that is prepended to group claims to prevent clashes with existing names (such as `system:` groups). For example, the value `oidc:` will create group names like `oidc:engineering` and `oidc:infra`.

Type: String

Required: No

identityProviderConfigName

The name of the OIDC provider configuration.

Type: String

Required: Yes

issuerUrl

The URL of the OpenID identity provider that allows the API server to discover public signing keys for verifying tokens. The URL must begin with `https://` and should correspond to the `iss` claim in the provider's OIDC ID tokens. Per the OIDC standard, path components are allowed but query parameters are not. Typically the URL consists of only a hostname, like `https://server.example.org` or `https://example.com`. This URL should point to the level below `.well-known/openid-configuration` and must be publicly accessible over the internet.

Type: String

Required: Yes

requiredClaims

The key value pairs that describe required claims in the identity token. If set, each claim is verified to be present in the token with a matching value. For the maximum number of claims that you can require, see Amazon EKS service quotas in the *Amazon EKS User Guide*.

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

usernameClaim

The JSON Web Token (JWT) claim to use as the username. The default is `sub`, which is expected to be a unique identifier of the end user. You can choose other claims, such as `email` or `name`, depending on the OpenID identity provider. Claims other than `email` are prefixed with the issuer URL to prevent naming clashes with other plug-ins.

Type: String

Required: No

usernamePrefix

The prefix that is prepended to username claims to prevent clashes with existing names. If you do not provide this field, and `username` is a value other than `email`, the prefix defaults to `issuerurl#`. You can use the value – to disable all prefixing.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Provider

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

Contents

keyArn

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

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RegisterClusterRequest

Contents

clientRequestToken

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

Type: String

Required: No

connectorConfig

The configuration settings required to connect the Kubernetes cluster to the Amazon EKS control plane.

Type: ConnectorConfigRequest (p. 163) object

Required: Yes

name

Define a unique name for this cluster for your Region.

Type: String

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

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

Required: Yes

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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 nodes in the managed node group. For more information, see Amazon EC2 key pairs and Linux instances 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 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 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

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Taint

A property that allows a node to repel a set of pods.

Contents

effect

The effect of the taint.

Type: String

Valid Values: `NO_SCHEDULE` | `NO_EXECUTE` | `PREFER_NO_SCHEDULE`

Required: No

key

The key of the taint.

Type: String

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

Required: No

value

The value of the taint.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 63.

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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. 166) 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. 202) 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 | AssociateIdentityProviderConfig | DisassociateIdentityProviderConfig | AssociateEncryptionConfig | AddonUpdate`

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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 63.

Required: No

removeLabels

Kubernetes labels to be removed.

Type: Array of strings

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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 | TaintsToAdd | TaintsToRemove | MaxSize | MinSize | ReleaseVersion | PublicAccessCidrs | LaunchTemplateName | LaunchTemplateVersion | IdentityProviderConfig | EncryptionConfig | AddonVersion | ServiceAccountRoleArn | ResolveConflicts | MaxUnavailable | MaxUnavailablePercentage`

Required: No

value

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

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

UpdateTaintsPayload

An object representing the details of an update to a taints payload.

Contents

addOrUpdateTaints

Kubernetes taints to be added or updated.

Type: Array of Taint (p. 198) objects

Required: No

removeTaints

Kubernetes taints to be removed.

Type: Array of Taint (p. 198) objects

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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 nodes or AWS Fargate pods in the cluster, then ensure that `publicAccessCidrs` includes the necessary CIDR blocks for communication with the 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 `0.0.0.0/0`. If you've disabled private endpoint access and you have 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 that allow communication between your nodes and the Kubernetes control plane. If you don't specify any security groups, then familiarize yourself with the difference between Amazon EKS defaults for clusters deployed with Kubernetes:

- 1.14 Amazon EKS platform version `eks.2` and earlier
- 1.14 Amazon EKS platform version `eks.3` and later

For more information, see Amazon EKS security group considerations in the Amazon EKS User Guide .

Type: Array of strings

Required: No

subnetIds

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

Type: Array of strings

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- 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 nodes or AWS Fargate pods in the cluster, then ensure that `publicAccessCidrs` includes the necessary CIDR blocks for communication with the 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 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 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

vpcId

The VPC associated with your cluster.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see 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

NotAuthorized

You do not have permission to perform this action.

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