

https://us-east-1.console.aws.amazon.com/eks/home?region=us-east-1

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Amazon Elastic Kubernetes Service

Deploy AWS Marketplace software through EKS add-ons
Use EKS to discover, install, and upgrade third-party operational software from AWS Marketplace. [Learn more](#)

Containers

Elastic Kubernetes Service (Amazon EKS)

Fully managed Kubernetes control plane

Amazon EKS is a managed service that makes it easy for you to use Kubernetes on AWS without needing to install and operate your own Kubernetes control plane.

Add cluster

Add cluster

Pricing

EKS control plane	EKS pricing
Worker nodes	EC2 pricing
Fargate pods	Fargate pricing

How it works

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https://us-east-1.console.aws.amazon.com/eks/home?region=us-east-1#/cluster-create

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EKS > Clusters > Create EKS cluster

Step 1
Configure cluster

Step 2
Specify networking

Step 3
Configure logging

Step 4
Select add-ons

Step 5
Configure selected add-ons settings

Step 6
Review and create

Configure cluster

Cluster configuration [Info](#)

Name
Enter a unique name for this cluster. This property cannot be changed after the cluster is created.

KubernetesCluster

The cluster name should begin with letter or digit and can have any of the following characters: the set of Unicode letters, digits, hyphens and underscores. Maximum length of 100.

Kubernetes version [Info](#)
Select the Kubernetes version for this cluster.

1.27

Cluster service role [Info](#)
Select the IAM role to allow the Kubernetes control plane to manage AWS resources on your behalf. This property cannot be changed after the cluster is created. To create a new role, follow the instructions in the [Amazon EKS User Guide](#).

Select role

Secrets encryption [Info](#)
Once turned on, secrets encryption cannot be modified or removed.

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trusted entity

permissions

review, and create

Select trusted entity [Info](#)

Trusted entity type

☒ **AWS service**
Allow AWS services like EC2, Lambda, or others to perform actions in this account.

☐ **AWS account**
Allow entities in other AWS accounts belonging to you or a 3rd party to perform actions in this account.

☐ **Web identity**
Allows users federated by the specified external web identity provider to assume this role to perform actions in this account.

☐ **SAML 2.0 federation**
Allow users federated with SAML 2.0 from a corporate directory to perform actions in this account.

☐ **Custom trust policy**
Create a custom trust policy to enable others to perform actions in this account.

Use case

Allow an AWS service like EC2, Lambda, or others to perform actions in this account.

Common use cases

☐ **EC2**
Allows EC2 instances to call AWS services on your behalf.

☐ **Lambda**
Allows Lambda functions to call AWS services on your behalf.

Use cases for other AWS services:

EKS

☐ **EKS**
Allows EKS to manage clusters on your behalf.

☒ **EKS - Cluster**
Allows access to other AWS service resources that are required to operate clusters managed by EKS.

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Create role

entity

permissions

review, and create

Name, review, and create

Role details

Role name

Enter a meaningful name to identify this role.

EKSROLEName

Maximum 64 characters. Use alphanumeric and '+', '@', '-' characters.

Description

Add a short explanation for this role.

Allows access to other AWS service resources that are required to operate clusters managed by EKS.

Maximum 1000 characters. Use alphanumeric and '+', '@', '-' characters.

Step 1: Select trusted entities

Edit

1 {

2 "Version": "2012-10-17",

3 "Statement": [

4 {

5 "Effect": "Allow",

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None1 hour

Permissions

Trust relationships

Tags

Access Advisor

Revoke sessions

Permissions policies (2) Info

You can attach up to 10 managed policies.

Filter policies by property or policy name and press enter.

< 1 >

Policy name

Type

Description

AmazonEKSClusterPolicy

AWS managed

This policy provides Kubernetes the per..

AmazonEKSServicePolicy

AWS managed

This policy allows Amazon Elastic Cont...

```
root@ip-172-31-17-73:~# wget https://amazon-eks.s3-us-west-2.amazonaws.com/1.10.3/2018-07-26/bin/linux/amd64/kubect1
--2019-07-28 02:03:07-- https://amazon-eks.s3-us-west-2.amazonaws.com/1.10.3/2018-07-26/bin/linux/amd64/kubect1
Resolving amazon-eks.s3-us-west-2.amazonaws.com (amazon-eks.s3-us-west-2.amazonaws.com)... 52.218.253.65
Connecting to amazon-eks.s3-us-west-2.amazonaws.com (amazon-eks.s3-us-west-2.amazonaws.com)|52.218.253.65|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 54146532 (52M) [binary/octet-stream]
Saving to: âkubect1â

kubect1                                100%[=====>] 51.64M  7.89MB/s

2019-07-28 02:03:14 (7.41 MB/s) - âkubect1â saved [54146532/54146532]

root@ip-172-31-17-73:~# ./kubect1
-bash: ./kubect1: Permission denied
root@ip-172-31-17-73:~# chmod +x kubect1
root@ip-172-31-17-73:~# ./kubect1
kubect1 controls the Kubernetes cluster manager.

Find more information at: https://kubernetes.io/docs/reference/kubect1/overview/
```

```
root@ip-172-31-17-73:~# mkdir bin
root@ip-172-31-17-73:~# cp ./kubect1 $HOME/bin/kubect1 && export PATH=$HOME/bin:$PATH
root@ip-172-31-17-73:~# kubect1 version
Client Version: version.Info{Major:"1", Minor:"10", GitVersion:"v1.10.3", GitCommit:"2bba0
-26T20:40:11Z", GoVersion:"go1.9.3", Compiler:"gc", Platform:"linux/amd64"}
```

```
root@ip-172-31-17-73:~# wget https://amazon-eks.s3-us-west-2.amazonaws.com/1.10.3/2018-07-26/bin/linux/amd64/aws-iam-authenticator
--2019-07-28 02:11:02-- https://amazon-eks.s3-us-west-2.amazonaws.com/1.10.3/2018-07-26/bin/linux/amd64/aws-iam-authenticator
Resolving amazon-eks.s3-us-west-2.amazonaws.com (amazon-eks.s3-us-west-2.amazonaws.com)... 52.218.193.153
Connecting to amazon-eks.s3-us-west-2.amazonaws.com (amazon-eks.s3-us-west-2.amazonaws.com)|52.218.193.153|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 26349462 (25M) [binary/octet-stream]
Saving to: âaws-iam-authenticatorâ

aws-iam-authenticator                100%[=====>]

2019-07-28 02:11:05 (9.03 MB/s) - âaws-iam-authenticatorâ saved [26349462/26349462]

root@ip-172-31-17-73:~# chmod +x ./aws-iam-authenticator
root@ip-172-31-17-73:~# cp ./aws-iam-authenticator $HOME/bin/aws-iam-authenticator && export PATH=$HOME/bin:$PATH
root@ip-172-31-17-73:~# aws-iam-authenticator help
A tool to authenticate to Kubernetes using AWS IAM credentials
```

Create access key

Access key ID	Created	Last used	Status	
AKIAVORWYFFGC3WVPNWC	2019-07-24 08:28 UTC+0530	2019-07-26 13:51 UTC+0530 with sts in us-east-1	Active	Make inactive ✕
AKIAVORWYFFGE3YTFZFZ	2019-07-28 07:49 UTC+0530	N/A	Active	Make inactive ✕

```
root@ip-172-31-17-73:~# aws eks --region us-east-1 update-kubeconfig --name KubernetesCluster
Updated context arn:aws:eks:us-east-1:374850726220:cluster/KubernetesCluster in /root/.kube/config
root@ip-172-31-17-73:~# kubect1 get svc
NAME          TYPE          CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE
kubernetes    ClusterIP     10.100.0.1    <none>         443/TCP    32m
root@ip-172-31-17-73:~#
```

