# Amazon EBS CSI driver

[**PDF**](https://docs.aws.amazon.com/pdfs/eks/latest/userguide/eks-ug.pdf#ebs-csi)[**RSS**](https://docs.aws.amazon.com/eks/latest/userguide/doc-history.rss)

The Amazon Elastic Block Store (Amazon EBS) Container Storage Interface (CSI) driver allows Amazon Elastic Kubernetes Service (Amazon EKS) clusters to manage the lifecycle of Amazon EBS volumes for persistent volumes.

Here are some things to consider about using the Amazon EBS CSI driver.

* The Amazon EBS CSI plugin requires IAM permissions to make calls to AWS APIs on your behalf. For more information, see [Creating the Amazon EBS CSI driver IAM role for service accounts](https://docs.aws.amazon.com/eks/latest/userguide/csi-iam-role.html).
* You can run the Amazon EBS CSI controller on Fargate, but you can't mount volumes to Fargate pods.
* Alpha features of the Amazon EBS CSI driver aren't supported on Amazon EKS clusters.

# EKS Storage with EBS - Elastic Block Store

## Step-01: Introduction

* Create IAM Policy for EBS
* Associate IAM Policy to Worker Node IAM Role
* Install EBS CSI Driver

## Step-02: Create IAM policyy

* Go to Services -> IAM
* Create a Policy
  + Select JSON tab and copy paste the below JSON

{

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

"Statement": [

{

"Effect": "Allow",

"Action": [

"ec2:AttachVolume",

"ec2:CreateSnapshot",

"ec2:CreateTags",

"ec2:CreateVolume",

"ec2:DeleteSnapshot",

"ec2:DeleteTags",

"ec2:DeleteVolume",

"ec2:DescribeInstances",

"ec2:DescribeSnapshots",

"ec2:DescribeTags",

"ec2:DescribeVolumes",

"ec2:DetachVolume"

],

"Resource": "\*"

}

]

}

* Review the same in **Visual Editor**
* Click on **Review Policy**
* **Name:** Amazon\_EBS\_CSI\_Driver
* **Description:** Policy for EC2 Instances to access Elastic Block Store
* Click on **Create Policy**

## Step-03: Get the IAM role Worker Nodes using and Associate this policy to that role

# Get Worker node IAM Role ARN

kubectl -n kube-system describe configmap aws-auth

# from output check rolearn

rolearn: arn:aws:iam::180789647333:role/eksctl-eksdemo1-nodegroup-eksdemo-NodeInstanceRole-IJN07ZKXAWNN

* Go to Services -> IAM -> Roles
* Search for role with name **eksctl-eksdemo1-nodegroup** and open it
* Click on **Permissions** tab
* Click on **Attach Policies**
* Search for **Amazon\_EBS\_CSI\_Driver** and click on **Attach Policy**

## Step-04: Deploy Amazon EBS CSI Driver

* Verify kubectl version, it should be 1.14 or later

kubectl version --client --short

* Deploy Amazon EBS CSI Driver

# Deploy EBS CSI Driver

**kubectl apply -k "github.com/kubernetes-sigs/aws-ebs-csi-driver/deploy/kubernetes/overlays/stable/?ref=master"**

# Verify ebs-csi pods running

kubectl get pods -n kube-system