

➤ EKS -> PV,PVC,POD

root@DESKTOP-8OOG2HF:~# eksctl create cluster -f eks-cube-cluster.yaml

```
2024-02-28 11:21:06 [■] waiting for CloudFormation stack "eksctl-eks-cube-dev-nodgroup-eks-cube-dev-ng-02"
2024-02-28 11:21:26 [■] waiting for CloudFormation stack "eksctl-eks-cube-dev-nodgroup-eks-cube-dev-ng-01"
2024-02-28 11:22:12 [■] waiting for CloudFormation stack "eksctl-eks-cube-dev-nodgroup-eks-cube-dev-ng-02"
2024-02-28 11:22:25 [■] waiting for CloudFormation stack "eksctl-eks-cube-dev-nodgroup-eks-cube-dev-ng-01"
2024-02-28 11:23:43 [■] waiting for CloudFormation stack "eksctl-eks-cube-dev-nodgroup-eks-cube-dev-ng-01"
2024-02-28 11:24:12 [■] waiting for CloudFormation stack "eksctl-eks-cube-dev-nodgroup-eks-cube-dev-ng-02"
2024-02-28 11:24:12 [■] waiting for the control plane to become ready
2024-02-28 11:24:13 [✓] saved kubeconfig as "/root/.kube/config"
2024-02-28 11:24:13 [■] no tasks
2024-02-28 11:24:13 [✓] all EKS cluster resources for "eks-cube-dev" have been created
2024-02-28 11:24:13 [■] nodegroup "eks-cube-dev-ng-01" has 2 node(s)
2024-02-28 11:24:13 [■] node "ip-192-168-28-234.ap-south-1.compute.internal" is ready
2024-02-28 11:24:13 [■] node "ip-192-168-47-206.ap-south-1.compute.internal" is ready
2024-02-28 11:24:13 [■] waiting for at least 2 node(s) to become ready in "eks-cube-dev-ng-01"
2024-02-28 11:24:13 [■] nodegroup "eks-cube-dev-ng-01" has 2 node(s)
2024-02-28 11:24:13 [■] node "ip-192-168-28-234.ap-south-1.compute.internal" is ready
2024-02-28 11:24:13 [■] node "ip-192-168-47-206.ap-south-1.compute.internal" is ready
2024-02-28 11:24:13 [■] nodegroup "eks-cube-dev-ng-02" has 2 node(s)
2024-02-28 11:24:13 [■] node "ip-192-168-11-179.ap-south-1.compute.internal" is ready
2024-02-28 11:24:13 [■] node "ip-192-168-35-225.ap-south-1.compute.internal" is ready
2024-02-28 11:24:13 [■] waiting for at least 2 node(s) to become ready in "eks-cube-dev-ng-02"
2024-02-28 11:24:13 [■] nodegroup "eks-cube-dev-ng-02" has 2 node(s)
2024-02-28 11:24:13 [■] node "ip-192-168-11-179.ap-south-1.compute.internal" is ready
2024-02-28 11:24:13 [■] node "ip-192-168-35-225.ap-south-1.compute.internal" is ready
2024-02-28 11:24:14 [■] kubectl command should work with "/root/.kube/config", try 'kubectl get nodes'
2024-02-28 11:24:14 [✓] EKS cluster "eks-cube-dev" in "ap-south-1" region is ready
```

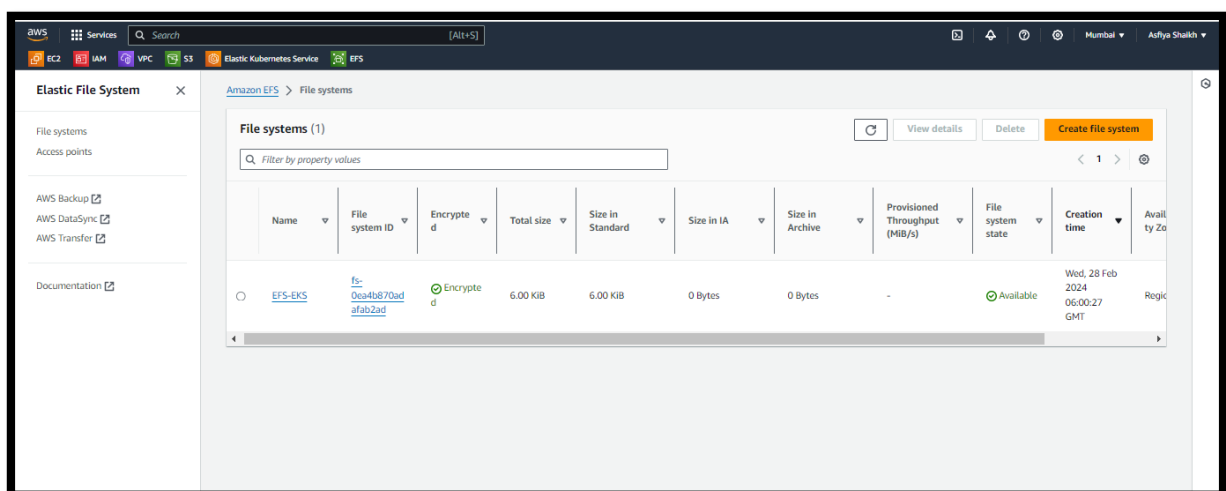
root@DESKTOP-8OOG2HF:~# aws eks --region ap-south-1 update-kubeconfig --name eks-cube-dev

Updated context arn:aws:eks:ap-south-1:313897473255:cluster/eks-cube-dev in /root/.kube/config

root@DESKTOP-8OOG2HF:~# kgn

```
root@DESKTOP-8OOG2HF:~# aws eks --region ap-south-1 update-kubeconfig --name eks-cube-dev
Updated context arn:aws:eks:ap-south-1:313897473255:cluster/eks-cube-dev in /root/.kube/config
root@DESKTOP-8OOG2HF:~# kgn
NAME
ip-192-168-11-179.ap-south-1.compute.internal    STATUS    ROLES    AGE    VERSION
ip-192-168-28-234.ap-south-1.compute.internal    Ready    <none>    3m34s    v1.27.9-eks-5e0fdde
ip-192-168-35-225.ap-south-1.compute.internal    Ready    <none>    3m33s    v1.27.9-eks-5e0fdde
ip-192-168-47-206.ap-south-1.compute.internal    Ready    <none>    3m50s    v1.27.9-eks-5e0fdde
```

- ➔ Now Go to AWS
- ➔ Click on EFS Service
- ➔ and Create File System.



Elastic File System

File systems
Access points
AWS Backup
AWS DataSync
AWS Transfer
Documentation

EFS-EKS (fs-0ea4b870adafab2ad)

General

Performance mode
General Purpose
Throughput mode
Elastic
Lifecycle management
Transition into Infrequent Access (IA) 30 days since last access
Transition into Archive (SA) 90 days since last access
Transition into Standard IA
Availability zone
Regional

Automatic backups
Enabled
Encryption
41627e66-e9d2-4802-b6d2-ba15bdc0f5 (aws:kms:fsxsystem)
File system state
Available
DNS name
fs-0ea4b870adafab2ad-efs-ap-south-1.amazonaws.com
Replication overwrites protection
Enabled

Network

Availability zone	Mount target ID	Subnet ID	Mount target state	IP address	Network interface ID	Security groups
ap-south-1a	fsmt-0981fcd1b7f5f1f11	subnet-0a0d7ace8850fa34	available	192.168.82.14	eni-0779a4195fa0a6f	sg-0a03ecdece2525db (default)
ap-south-1b	fsmt-098d49d819a73b4d	subnet-078d49d819a73b4d	available	192.168.33.248	eni-071a03479fa04f684	sg-0a03ecdece2525db (default)

Security Groups (1)

Find resources by attribute or tag

Source/Destination (Group ID) = sg-0a503ecdece2525db

Name	Security group ID	Security group name	VPC ID	Description	Owner
-	sg-0a503ecdece2525db	default	vpc-dfd30b9a01e2ad8c7	default VPC security group	31389747325

Edit inbound rules

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sg-r-07eb6bb9ed864a02e	All traffic	All	All	Custom	sg-0a503ecdece2525db
-	All traffic	All	All	Anywhere...	0.0.0.0/0

Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel Preview changes Save rules

Inbound security group rules successfully modified on security group (sg-0a503ecdece2525db) (default)

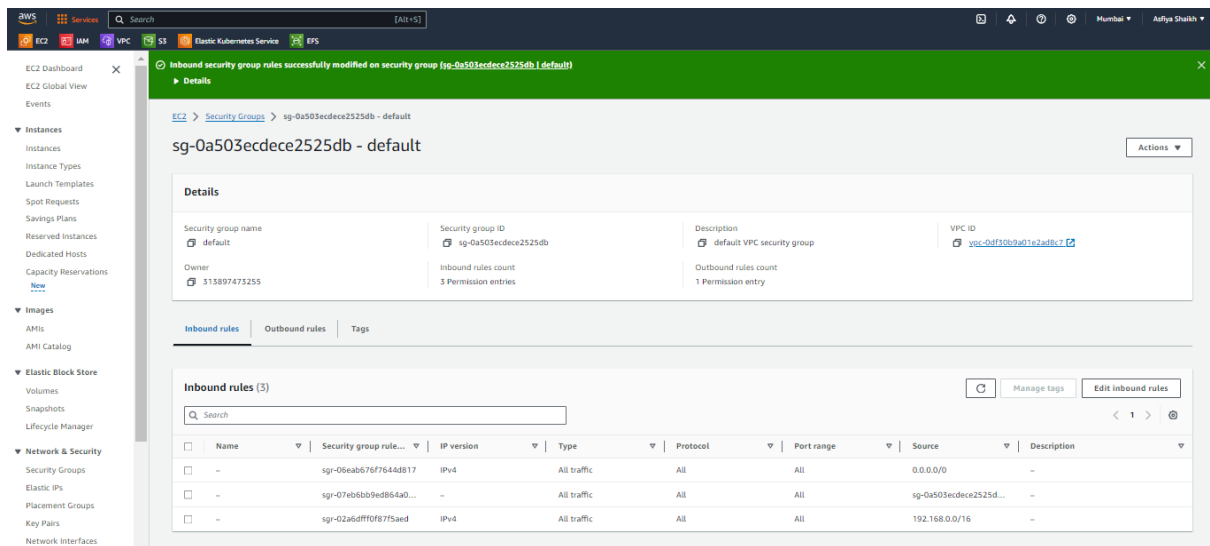
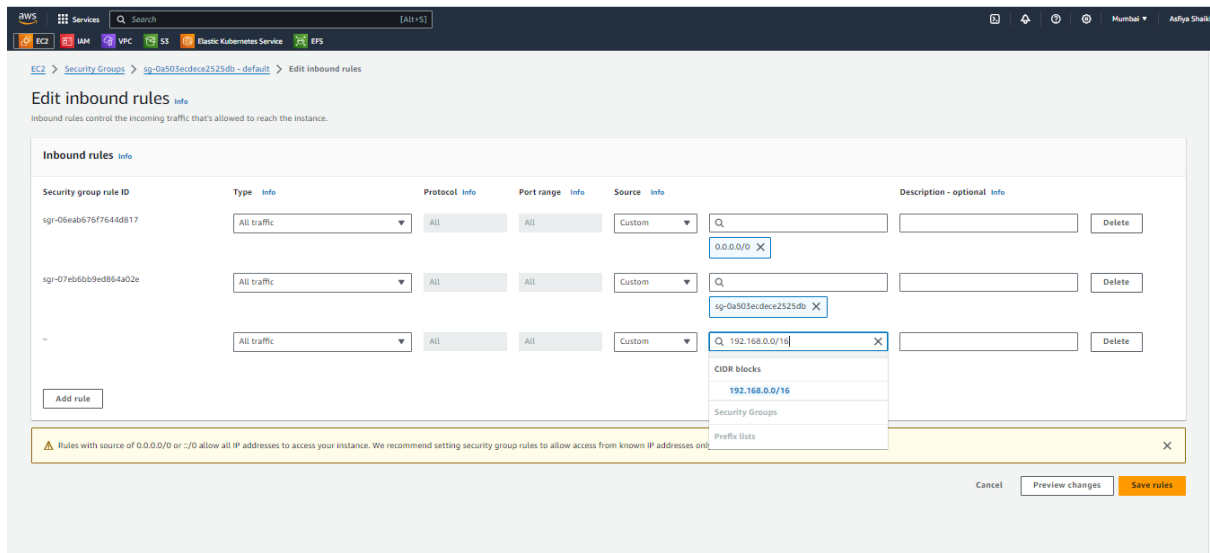
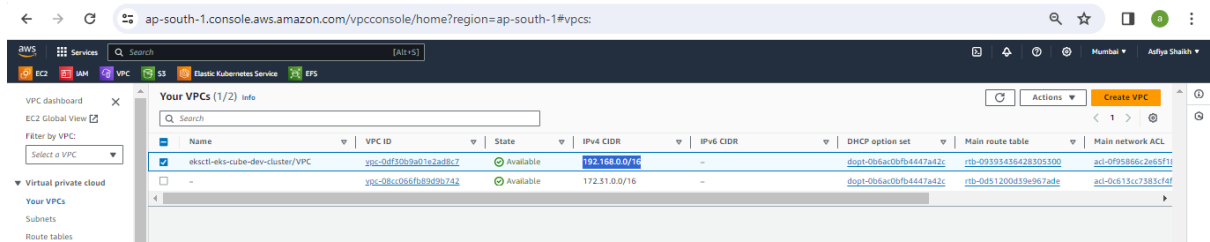
sg-0a503ecdece2525db - default

Details

Security group name default	Security group ID sg-0a503ecdece2525db	Description default VPC security group	VPC ID vpc-dfd30b9a01e2ad8c7
Owner 31389747325	Inbound rules count 2 Permission entries	Outbound rules count 1 Permission entry	

Inbound rules (2)

Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
-	sg-r-06eab678f7544d817	IPv4	All traffic	All	All	0.0.0.0/0	-
-	sg-r-07eb6bb9ed864a0...	-	All traffic	All	All	sg-0a503ecdece2525d...	-



```
root@DESKTOP-8OOG2HF:eks-pv# vim PV.yaml
```

```
root@DESKTOP-8OOG2HF:eks-pv# cat PV.yaml
```

```
#pv.yaml
---
apiVersion: v1
kind: PersistentVolume
metadata:
  name: efs-pv
spec:
  capacity:
    storage: 5Gi
  volumeMode: Filesystem
  accessModes:
    - ReadWriteOnce
  storageClassName: ""
  persistentVolumeReclaimPolicy: Retain
  csi:
    driver: efs.csi.aws.com
    volumeHandle: fs-0ea4b870adafab2ad
```

root@DESKTOP-8OOG2HF:eks-pv# vim PVC.yaml

root@DESKTOP-8OOG2HF:eks-pv# cat PVC.yaml

```
#pvc.yaml
---
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: efs-claim
spec:
  accessModes:
    - ReadWriteOnce
  storageClassName: ""
  resources:
    requests:
      storage: 5Gi
```

root@DESKTOP-8OOG2HF:eks-pv# vim Pod.yaml

root@DESKTOP-8OOG2HF:eks-pv# cat Pod.yaml

```
#pod.yaml
---
apiVersion: v1
kind: Pod
metadata:
  name: efs-app
spec:
  containers:
    - name: app
      image: centos
      command: ["/bin/sh"]
      args: ["-c", "while true; do echo $(date -u) >> /data/out.txt; sleep 2; done"]
      volumeMounts:
        - name: persistent-storage
          mountPath: /data
  volumes:
    - name: persistent-storage
      persistentVolumeClaim:
        claimName: efs-claim
```

root@DESKTOP-8OOG2HF:eks-pv# ll

total 20

drwxr-xr-x 2 root root 4096 Feb 28 12:06 ./

drwx----- 40 root root 4096 Feb 28 12:06 ../

-rw-r--r-- 1 root root 308 Feb 28 12:05 PV.yaml

-rw-r--r-- 1 root root 195 Feb 28 12:06 PVC.yaml

-rw-r--r-- 1 root root 391 Feb 28 12:06 Pod.yaml

root@DESKTOP-8OOG2HF:eks-pv# k apply -f PV.yaml

persistentvolume/efs-pv created

root@DESKTOP-8OOG2HF:eks-pv# kubectl get pv efs-pv

NAME	CAPACITY	ACCESS MODES	RECLAIM POLICY	STATUS	CLAIM
STORAGECLASS	REASON	AGE			

efs-pv	5Gi	RWO	Retain	Available	92s
--------	-----	-----	--------	-----------	-----

root@DESKTOP-8OOG2HF:eks-pv# k apply -f PVC.yaml

persistentvolumeclaim/efs-claim created

root@DESKTOP-8OOG2HF:eks-pv# kubectl get pvc efs-claim

NAME	STATUS	VOLUME	CAPACITY	ACCESS MODES	STORAGECLASS	AGE
------	--------	--------	----------	--------------	--------------	-----

efs-claim	Bound	efs-pv	5Gi	RWO		20s
-----------	-------	--------	-----	-----	--	-----

root@DESKTOP-8OOG2HF:eks-pv# k apply -f Pod.yaml

pod/efs-app created

root@DESKTOP-8OOG2HF:eks-pv# kubectl get pods

NAME	READY	STATUS	RESTARTS	AGE
------	-------	--------	----------	-----

efs-app	0/1	ContainerCreating	0	2m33s
---------	-----	-------------------	---	-------

root@DESKTOP-8OOG2HF:eks-pv# k logs efs-app

Error from server (BadRequest): container "app" in pod "efs-app" is waiting to start: ContainerCreating

=====

EFS DIVER INSTALLATION:

=====

```
root@DESKTOP-8OOG2HF:eks-pv# curl -fsSL -o get_helm.sh
https://raw.githubusercontent.com/helm/helm/main/scripts/get-helm-3
```

```
root@DESKTOP-8OOG2HF:eks-pv# chmod 700 get_helm.sh
```

```
root@DESKTOP-8OOG2HF:eks-pv# ./get_helm.sh
```

Downloading <https://get.helm.sh/helm-v3.14.2-linux-amd64.tar.gz>

Verifying checksum... Done.

Preparing to install helm into /usr/local/bin

helm installed into /usr/local/bin/helm

root@DESKTOP-8OOG2HF:eks-pv# helm version

```
version.BuildInfo{Version:"v3.14.2", GitCommit:"c309b6f0ff63856811846ce18f3bdc93d2b4d54b",
GitTreeState:"clean", GoVersion:"go1.21.7"}
```

1. Download the IAM policy document

```
root@DESKTOP-8OOG2HF:eks-pv# curl -S https://raw.githubusercontent.com/kubernetes-sigs/aws-efs-csi-driver/v1.2.0/docs/iam-policy-example.json -o iam-policy.json
```

```
% Total    % Received % Xferd Average Speed   Time    Time     Time Current
                                  Dload  Upload   Total   Spent    Left  Speed

100  732    100  732    0    0  5580    0 --:--:-- --:--:-- --:--:-- 5587
```

2. Create an IAM policy

```
root@DESKTOP-8OOG2HF:eks-pv# aws iam create-policy --policy-name EFSCSIControllerIAMPolicy --policy-document file://iam-policy.json
```

```
{
  "Policy": {
    "PolicyName": "EFSCSIControllerIAMPolicy",
    "PolicyId": "ANPAUSFN7KTTTJQ5WRSWS",
    "Arn": "arn:aws:iam::313897473255:policy/EFSCSIControllerIAMPolicy",
    "Path": "/",
    "DefaultVersionId": "v1",
    "AttachmentCount": 0,
    "PermissionsBoundaryUsageCount": 0,
    "IsAttachable": true,
    "CreateDate": "2024-02-28T06:59:55Z",
    "UpdateDate": "2024-02-28T06:59:55Z"
  }
}
```

```
root@DESKTOP-8OOG2HF:eks-pv# kubectl config get-contexts
```

CURRENT	NAME	CLUSTER	AUTHINFO	NAME
*	arn:aws:eks:ap-south-1:313897473255:cluster/eks-cube-dev	arn:aws:eks:ap-south-1:313897473255:cluster/eks-cube-dev	arn:aws:eks:ap-south-1:313897473255:cluster/eks-cube-dev	
	asfi@eks-cube-dev.ap-south-1.eksctl.io	eks-cube-dev.ap-south-1.eksctl.io	asfi@eks-cube-dev.ap-south-1.eksctl.io	

```
root@DESKTOP-8OOG2HF:eks-pv# eksctl utils associate-iam-oidc-provider --region=ap-south-1 --cluster=eks-cube-dev --approve
```

```
root@DESKTOP-8OOG2HF:eks-pv# eksctl utils associate-iam-oidc-provider --region=ap-south-1 --cluster=eks-cube-dev --approve
2024-02-28 12:41:38 [a] will create IAM Open ID Connect provider for cluster "eks-cube-dev" in "ap-south-1"
2024-02-28 12:41:39 [.] created IAM Open ID Connect provider for cluster "eks-cube-dev" in "ap-south-1"
```

3. Create a Kubernetes service account

```
root@DESKTOP-8OOG2HF:eks-pv# eksctl create iamserviceaccount --cluster=eks-cube-dev --region=ap-south-1 --namespace=kube-system --name=efs-csi-controller-sa --override-existing-serviceaccounts --attach-policy-arn=arn:aws:iam::313897473255:policy/EFSCSIControllerIAMPolicy --approve
```

```
root@DESKTOP-8OOG2HF:eks-pv# eksctl create iamserviceaccount --cluster=eks-cube-dev --region=ap-south-1 --namespace=kube-system --name=efs-csi-controller-sa --override-existing-serviceaccounts --attach-policy-arn=arn:aws:iam::313897473255:policy/EFSCSIControllerIAMPolicy --approve
2024-02-28 12:41:46 [a] 1 iamserviceaccount (kube-system/efs-csi-controller-sa) was included (based on the include/exclude rules)
2024-02-28 12:41:46 [i] metadata of serviceaccounts that exist in Kubernetes will be updated, as --override-existing-serviceaccounts was set
2024-02-28 12:41:46 [a] 1 task: {
  2 sequential sub-tasks: {
    create IAM role for serviceaccount "kube-system/efs-csi-controller-sa",
    create serviceaccount "kube-system/efs-csi-controller-sa",
  }
}
2024-02-28 12:41:46 [a] building iamserviceaccount stack "eksctl-eks-cube-dev-addon-iamserviceaccount-kube-system-efs-csi-controller-sa"
2024-02-28 12:41:47 [a] deploying stack "eksctl-eks-cube-dev-addon-iamserviceaccount-kube-system-efs-csi-controller-sa"
2024-02-28 12:41:47 [a] waiting for CloudFormation stack "eksctl-eks-cube-dev-addon-iamserviceaccount-kube-system-efs-csi-controller-sa"
2024-02-28 12:42:17 [a] waiting for CloudFormation stack "eksctl-eks-cube-dev-addon-iamserviceaccount-kube-system-efs-csi-controller-sa"
2024-02-28 12:42:17 [a] created serviceaccount "kube-system/efs-csi-controller-sa"
```

4. To verify that the new service role is created, run one of the following commands:

```
root@DESKTOP-8OOG2HF:eks-pv# eksctl get iamserviceaccount --cluster eks-cube-dev --name efs-csi-controller-sa --namespace kube-system
```

NAMESPACE	NAME	ROLE ARN
-----------	------	----------

kube-system	efs-csi-controller-sa	arn:aws:iam::313897473255:role/eksctl-eks-cube-dev-addon-iamserviceaccount-k-Role1-lxbvgh7ZVjYX
-------------	-----------------------	---

5. Now install AWS EFS Storage Controller driver.

```
root@DESKTOP-8OOG2HF:eks-pv# helm repo update
```

Hang tight while we grab the latest from your chart repositories...

...Successfully got an update from the "aws-efs-csi-driver" chart repository

Update Complete. *Happy Helming!*

```
root@DESKTOP-8OOG2HF:eks-pv# helm upgrade -i aws-efs-csi-driver aws-efs-csi-driver/aws-efs-csi-driver --namespace kube-system --set image.repository=602401143452.dkr.ecr.us-west-2.amazonaws.com/eks/aws-efs-csi-driver --set controller.serviceAccount.create=false --set controller.serviceAccount.name=efs-csi-controller-sa
```

Error: Kubernetes cluster unreachable: exec plugin: invalid apiVersion "client.authentication.k8s.io/v1alpha1"

```
root@DESKTOP-8OOG2HF:eks-pv# curl -L https://git.io/get_helm.sh | bash -s -- --version v3.8.2
```

```
root@DESKTOP-8OOG2HF:eks-pv# curl -L https://git.io/get_helm.sh | bash -s -- --version v3.8.2
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           Dload  Upload   Total   Spent    Left   Speed
  0     0    0     0    0     0      0      0  --:--:-- --:--:-- --:--:--    0
100 6875 100 6875    0     0  4884      0  0:00:01 0:00:01 --:--:-- 4884
Helm v3.8.2 is available. Changing from version .
Downloading https://get.helm.sh/helm-v3.8.2-linux-amd64.tar.gz
Preparing to install helm and tiller into /usr/local/bin
helm installed into /usr/local/bin/helm
info: tiller binary was not found in this release; skipping tiller installation
Run 'helm init' to configure helm.
```

```
root@DESKTOP-8OOG2HF:eks-pv# helm upgrade -i aws-efs-csi-driver aws-efs-csi-driver/aws-efs-csi-driver --namespace kube-system --set image.repository=602401143452.dkr.ecr.us-west-2.amazonaws.com/eks/aws-efs-csi-driver --set controller.serviceAccount.create=false --set controller.serviceAccount.name=efs-csi-controller-sa
```

```

root@DESKTOP-80OG2HF:eks-pv# curl -L https://git.io/get_helm.sh | bash -s -- --version v3.8.2
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           % Done    0         0             0          0      0     0      0
0         0     0    0         0             0          0      0     0      0
100 6875 100 6875    0         0    4884      0  0:00:01  0:00:01 --:--:-- 4884
Helm v3.8.2 is available. Changing from version .
Downloading https://get.helm.sh/helm-v3.8.2-linux-amd64.tar.gz
Preparing to install helm and tiller into /usr/local/bin
helm installed into /usr/local/bin/helm
info: tiller binary was not found in this release; skipping tiller installation
Run 'helm init' to configure helm.
root@DESKTOP-80OG2HF:eks-pv# helm upgrade -i aws-efs-csi-driver aws-efs-csi-driver/aws-efs-csi-driver --namespace kube-system --set image.repository
=602401143452.dkr.ecr.us-west-2.amazonaws.com/eks/aws-efs-csi-driver --set controller.serviceAccount.create=false --set controller.serviceAccount.na
me=efs-csi-controller-sa
Release "aws-efs-csi-driver" does not exist. Installing it now.
NAME: aws-efs-csi-driver
LAST DEPLOYED: Wed Feb 28 13:12:03 2024
NAMESPACE: kube-system
STATUS: deployed
REVISION: 1
TEST SUITE: None
NOTES:
To verify that aws-efs-csi-driver has started, run:

    kubectl get pod -n kube-system -l "app.kubernetes.io/name=aws-efs-csi-driver,app.kubernetes.io/instance=aws-efs-csi-driver"

```

6. To verify that aws-efs-csi-driver has started, run:

```

root@DESKTOP-80OG2HF:eks-pv# kubectl get pod -n kube-system -l
"app.kubernetes.io/name=aws-efs-csi-driver,app.kubernetes.io/instance=aws-efs-csi-
driver"

```

```

root@DESKTOP-80OG2HF:eks-pv# kubectl get pod -n kube-system -l "app.kubernetes.io/name=aws-efs-csi-driver,app.kubernetes.io/instance=aws-efs-csi-dri
ver"
NAME                                READY   STATUS    RESTARTS   AGE
efs-csi-controller-598bf64f56-5wb7x 3/3     Running   0           33s
efs-csi-controller-598bf64f56-z8txc 3/3     Running   0           33s
efs-csi-node-79wqg                   3/3     Running   0           33s
efs-csi-node-gzpn2                   3/3     Running   0           33s
efs-csi-node-mjxqn                   3/3     Running   0           33s
efs-csi-node-qvv2r                   3/3     Running   0           33s

```

```

root@DESKTOP-80OG2HF:eks-pv# k delete -f Pod.yaml

```

pod "efs-app" deleted

```

root@DESKTOP-80OG2HF:eks-pv# k apply -f Pod.yaml

```

pod/efs-app created

```

root@DESKTOP-80OG2HF:eks-pv# k get

```

NAME	READY	STATUS	RESTARTS	AGE
------	-------	--------	----------	-----

efs-app	1/1	Running	0	70s
---------	-----	---------	---	-----

```

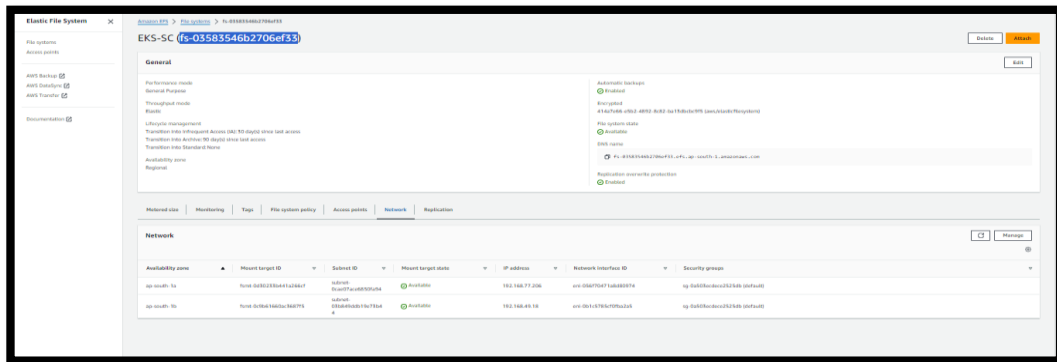
root@DESKTOP-80OG2HF:eks-pv# k get pv,pvc,po
NAME                                CAPACITY  ACCESS MODES  RECLAIM POLICY  STATUS  CLAIM                                STORAGECLASS  REASON  AGE
persistentvolume/efs-pv             5Gi       RWO           Retain          Bound   default/efs-claim                    efs-sc        68m

NAME                                STATUS  VOLUME  CAPACITY  ACCESS MODES  STORAGECLASS  AGE
persistentvolumeclaim/efs-claim     Bound   efs-pv  5Gi       RWO           efs-sc        66m

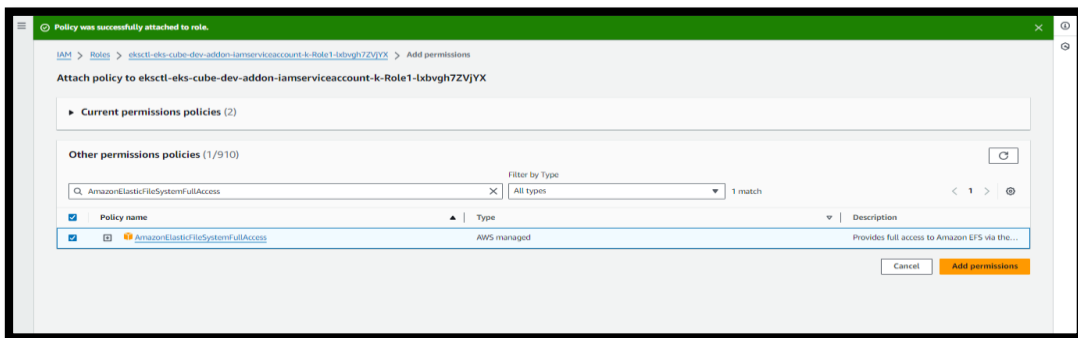
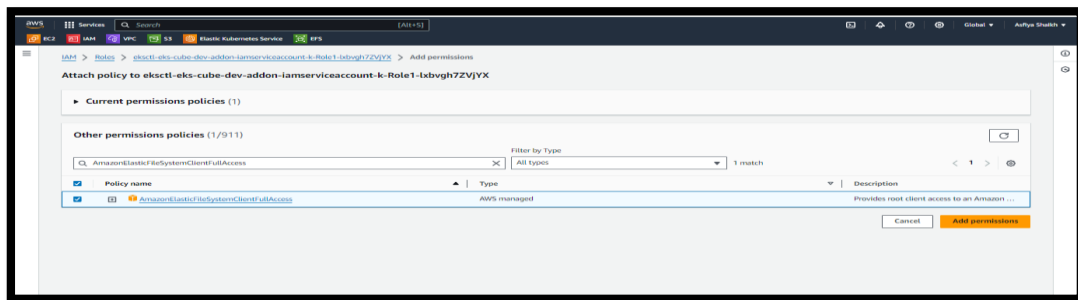
NAME    READY  STATUS   RESTARTS   AGE
pod/efs-app  1/1    Running   0           115s

```


➤ EKS -> SC,PVC,POD



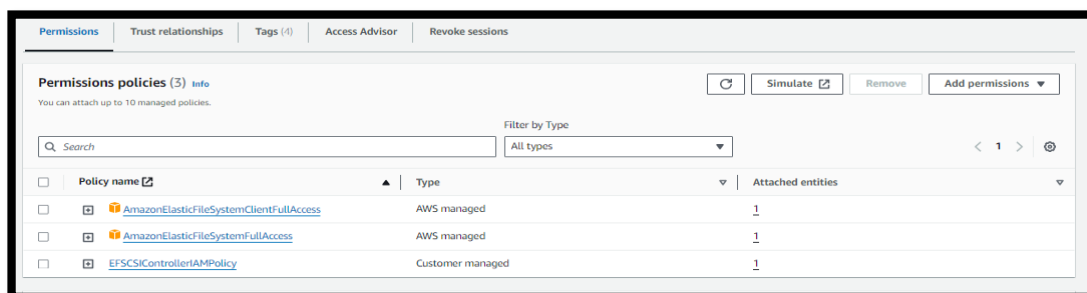
Then, we want to go into IAM service -> ROLES .



Attached Two Policies In

eksctl-eks-cube-dev-addon-iam-serviceaccount-k-role1-lxbvgh7ZVjYX

1. AmazonElasticFileSystemClientFullAccess
2. AmazonElasticFileSystemFullAccess



root@DESKTOP-8OOG2HF:eks-sc# vim sc.yaml

root@DESKTOP-8OOG2HF:eks-sc# cat sc.yaml

```
# sc.yaml
---
kind: StorageClass
apiVersion: storage.k8s.io/v1
metadata:
  name: efs-sc
provisioner: efs.csi.aws.com
parameters:
  provisioningMode: efs-ap
  filesystemId: fs-03583546b2706ef33
  directoryPerms: "700"
```

root@DESKTOP-8OOG2HF:eks-sc# vim pvc.yaml

root@DESKTOP-8OOG2HF:eks-sc# cat pvc.yaml

```
root@DESKTOP-8OOG2HF:eks-sc# cat pvc.yaml
#pvc.yaml
---
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: efs-claim-1
spec:
  accessModes:
    - ReadWriteMany
  storageClassName: efs-sc
  resources:
    requests:
      storage: 5Gi
```

root@DESKTOP-8OOG2HF:eks-sc# vim pod.yaml

root@DESKTOP-8OOG2HF:eks-sc# cat pod.yaml

```
#pod.yaml
---
apiVersion: v1
kind: Pod
metadata:
  name: efs-app-1
spec:
  containers:
    - name: app
      image: centos
      command: ["/bin/sh"]
      args: ["-c", "while true; do echo $(date -u) >> /data/out; sleep 5; done"]
      volumeMounts:
        - name: persistent-storage
          mountPath: /data
  volumes:
    - name: persistent-storage
      persistentVolumeClaim:
        claimName: efs-claim-1
```

root@DESKTOP-8OOG2HF:eks-sc# kubectl apply -f sc.yaml

storageclass.storage.k8s.io/efs-sc created

```
root@DESKTOP-8OOG2HF:eks-sc# k get sc
NAME          PROVISIONER          RECLAIMPOLICY  VOLUMEBINDINGMODE  ALLOWVOLUMEEXPANSION  AGE
efs-sc        efs.csi.aws.com      Delete         Immediate          false                 34m
gp2 (default)  kubernetes.io/aws-efs Delete         WaitForFirstConsumer false                 3h52m
```

root@DESKTOP-8OOG2HF:eks-sc# kubectl apply -f pvc.yaml

persistentvolumeclaim/efs-claim-1 created

```
root@DESKTOP-80OG2HF:eks-sc# k get pvc
NAME          STATUS    VOLUME                                     CAPACITY   ACCESS MODES   STORAGECLASS   AGE
efs-claim-1    Bound     pvc-6c272555-b6ff-4b40-80ec-d39b7a32f448  5Gi        RWX            efs-sc         33m
```

root@DESKTOP-80OG2HF:eks-sc# k apply -f pod.yaml

pod/efs-app-1 created

```
root@DESKTOP-80OG2HF:eks-sc# k get po
NAME          READY   STATUS    RESTARTS   AGE
efs-app-1     1/1     Running   0           19m
```

root@DESKTOP-80OG2HF:eks-sc# k get sc,pvc,po

```
root@DESKTOP-80OG2HF:eks-sc# k get sc,pvc,po
NAME                                     PROVISIONER          RECLAIMPOLICY   VOLUMEBINDINGMODE   ALLOWVOLUMEEXPANSION   AGE
storageclass.storage.k8s.io/efs-sc      efs.csi.aws.com      Delete          Immediate            false                  36m
storageclass.storage.k8s.io/gp2 (default)  kubernetes.io/aws-efs Delete            WaitForFirstConsumer  false                  3h53m

NAME          STATUS    VOLUME                                     CAPACITY   ACCESS MODES   STORAGECLASS   AGE
persistentvolumeclaim/efs-claim-1    Bound     pvc-6c272555-b6ff-4b40-80ec-d39b7a32f448  5Gi        RWX            efs-sc         35m

NAME          READY   STATUS    RESTARTS   AGE
pod/efs-app-1  1/1     Running   0           21m
```

root@DESKTOP-80OG2HF:eks-sc# kubectl get pv | grep efs-sc

pvc-6c272555-b6ff-4b40-80ec-d39b7a32f448 5Gi RWX Delete Bound
default/efs-claim-1 efs-sc 33m

root@DESKTOP-80OG2HF:eks-sc# kubectl get pods

NAME READY STATUS RESTARTS AGE
efs-app-1 1/1 Running 0 32m

root@DESKTOP-80OG2HF:eks-sc# kubectl exec -ti efs-app-1 -- tail -f /data/out

Wed Feb 28 09:49:43 UTC 2024

Wed Feb 28 09:49:48 UTC 2024

Wed Feb 28 09:49:53 UTC 2024

Wed Feb 28 09:49:58 UTC 2024

Wed Feb 28 09:50:03 UTC 2024

Wed Feb 28 09:50:08 UTC 2024

Wed Feb 28 09:50:13 UTC 2024

Wed Feb 28 09:50:18 UTC 2024

Wed Feb 28 09:50:23 UTC 2024

Wed Feb 28 09:50:28 UTC 2024

Amazon EFS

File systems

fs-03583546b2706ef33

EKS-SC (fs-03583546b2706ef33)

Delete

Attach

General

Edit

Performance mode

General Purpose

Throughput mode

Elastic

Lifecycle management

Transition into Infrequent Access (IA): 30 day(s) since last access

Transition into Archive: 90 day(s) since last access

Transition into Standard: None

Availability zone

Regional

Automatic backups

Enabled

Encrypted

414a7e66-e5b2-4892-8c82-ba13dbcb9f5 (aws/elasticfilesystem)

File system state

Available

DNS name

fs-03583546b2706ef33.efs.ap-south-1.amazonaws.com

Replication overwrite protection

Enabled

Metered size

Monitoring

Tags

File system policy

Access points

Network

Replication

Access points (1)

View details

Delete

Create access point

Search access points by name or ID

Name	Access point ID	Path	POSIX user	Creation info	State
-	fsap-021b09ddb144215ef	/pvc-6c272555-b6ff-4b40-80ec...	50000 : 50000	50000 : 50000 (700)	Available