

Steps to Create a Shared Volume in instances using EFS

Name : T Manoj

1. Create two EC2 instances in the same VPC.

Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags [Info](#)

Name
 [Add additional tags](#)

▼ Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

[Recents](#) [Quick Start](#)

▼ Summary

Number of instances [Info](#)

Software Image (AMI)
Amazon Linux 2023 AMI 2023.6.2...[read more](#)
ami-053a45ff0a704a47

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)

[Cancel](#) [Launch instance](#) [Preview code](#)

▼ Configure storage [Info](#) [Advanced](#)

1x GiB Root volume 3000 IOPS (Not encrypted)

[Free tier eligible customers can get up to 30 GB of EBS General Purpose \(SSD\) or Magnetic storage](#)

[Add new volume](#)

[Click refresh to view backup information](#)
The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies.

0 x File systems [Edit](#)

► Advanced details [Info](#)

▼ Summary

Number of instances [Info](#)

When launching more than 1 instance, consider EC2 Auto Scaling

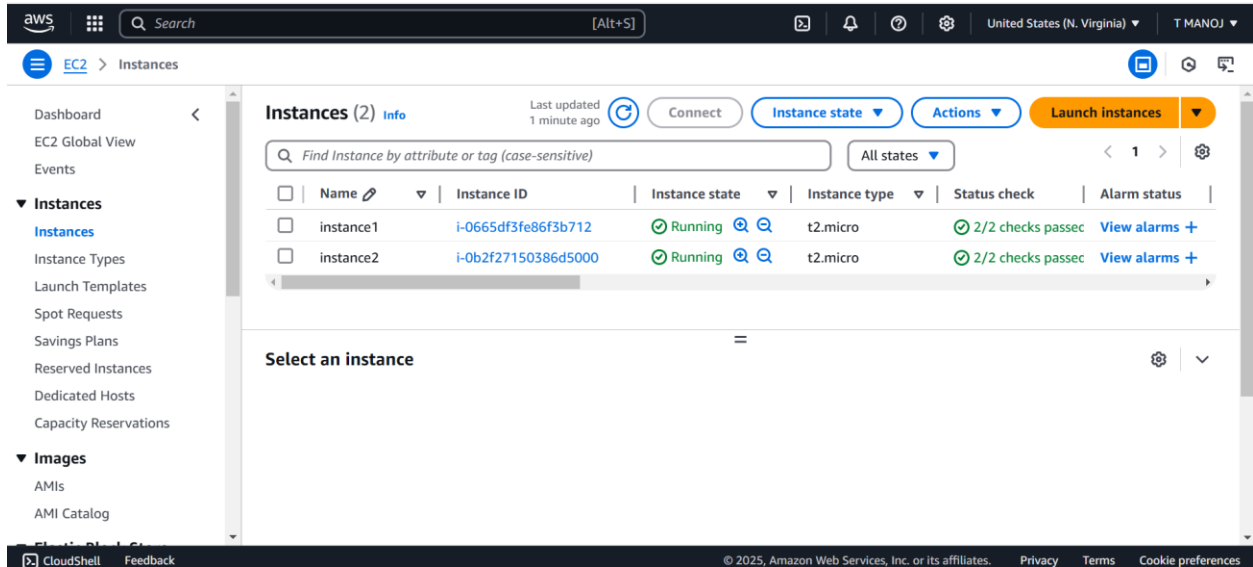
Software Image (AMI)
Amazon Linux 2023 AMI 2023.6.2...[read more](#)
ami-053a45ff0a704a47

Virtual server type (instance type)
t2.micro

Firewall (security group)
EFS

[Cancel](#) [Launch instance](#) [Preview code](#)

2. Create a security group allowing NFS access on port 2049



Create an Amazon EFS file system and attach it to the VPC.

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T MANOJ

Elastic File System

File systems

Access points

AWS Backup

AWS DataSync

AWS Transfer

Documentation

Amazon Elastic File System

Scalable, elastic, cloud-native NFS file system

Amazon Elastic File System (Amazon EFS) provides a simple, scalable, elastic file system for general purpose workloads for use with AWS Cloud services and on-premises resources.

Create file system

Create an EFS file system with recommended settings.

Create file system

Pricing

With EFS, there are no minimum fees. You pay only for the storage that you use, the data that you read and write, and any additional throughput that you provision.

What is Amazon Elastic File System?

aws Amazon Elastic File System - Scalable

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Documentation

File system (fs-050bb26e7af1e2908) is creating.

Amazon EFS

File systems

File systems (1)

View details

Delete

Create file system

Filter by property values

< 1 >

	Name	File system ID	Encrypte d	Total size	Size in Standard	Size in IA	Size Arch
	EFS	fs-050bb26e7af1e2908	Encrypte d	0 Bytes	0 Bytes	0 Bytes	0 By

CloudShell

Feedback

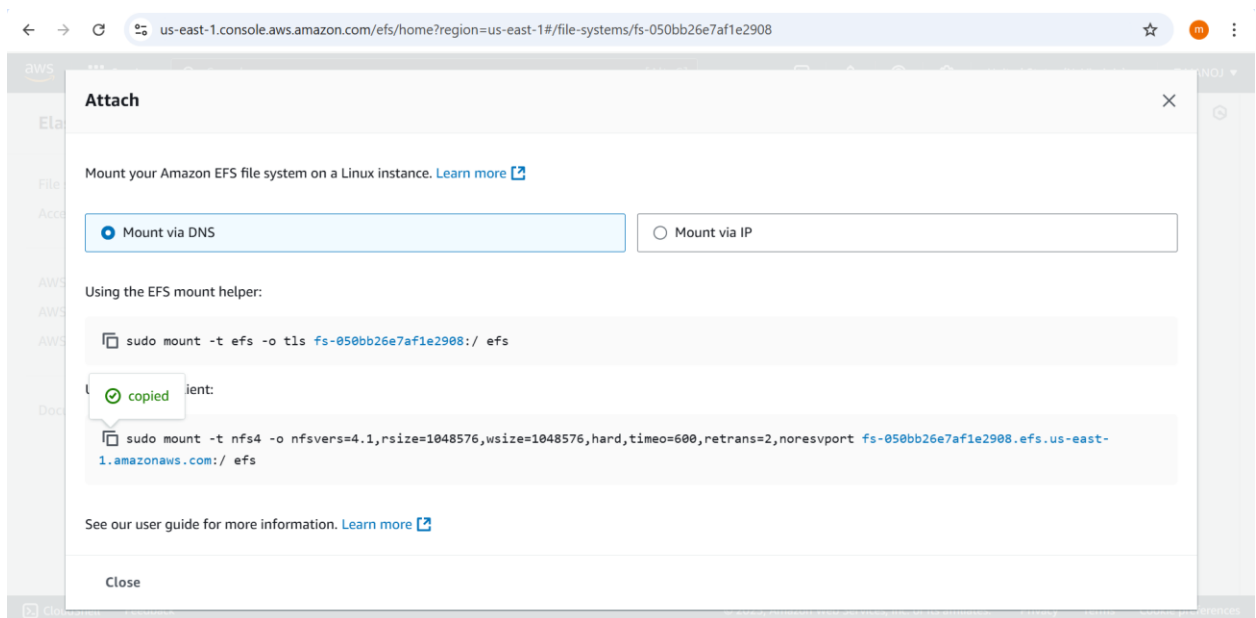
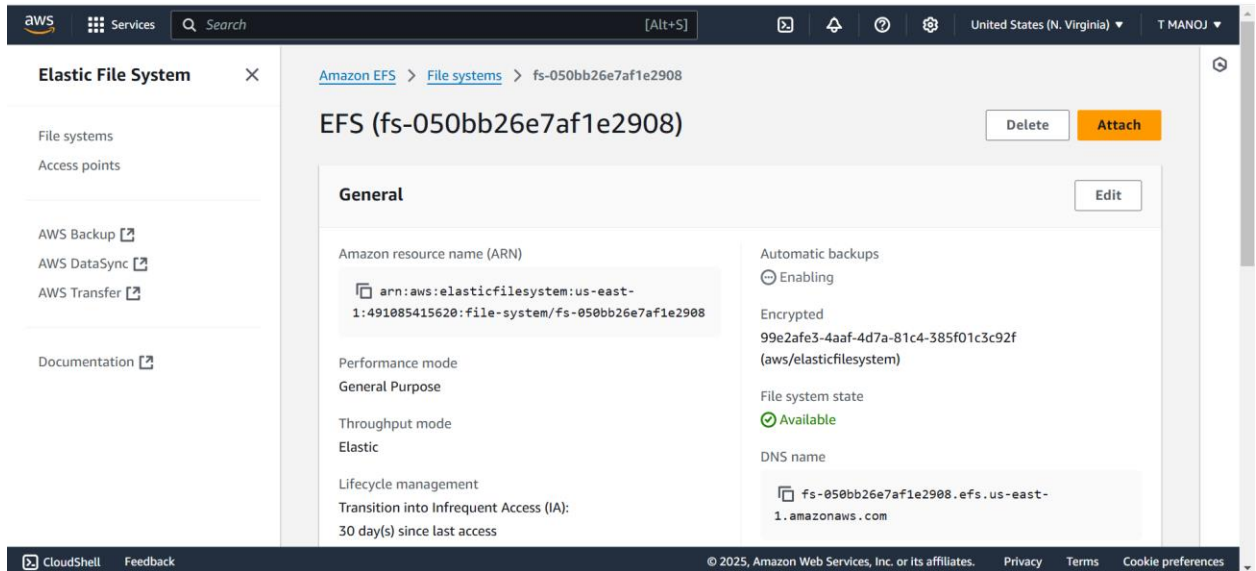
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3. Copy the mount command from the EFS Attach section.



4. Create a directory on both instances for mounting EFS.

```
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```

```
[root@ip-172-31-86-96 ~]# mkdir hello
[root@ip-172-31-86-96 ~]# sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsiz=1048576,hard,timeo=600,retrans=2,noresvport fs-05d3ec171c1f8303e.efs.us-east-1.amazonaws.com:/ hello
[root@ip-172-31-86-96 ~]# df -h
```

Filesystem	Size	Used	Avail	Use%	Mounted on
devtmpfs	4.0M	0	4.0M	0%	/dev
tmpfs	475M	0	475M	0%	/dev/shm
tmpfs	190M	496K	190M	1%	/run
/dev/xvda1	8.0G	1.6G	6.4G	20%	/
tmpfs	475M	0	475M	0%	/tmp
/dev/xvda128	10M	1.3M	8.7M	13%	/boot/efi
tmpfs	95M	0	95M	0%	/run/user/1000
127.0.0.1:/	8.0E	0	8.0E	0%	/home/ec2-user/new
fs-05d3ec171c1f8303e.efs.us-east-1.amazonaws.com:/	8.0E	0	8.0E	0%	/root/hello

```
[root@ip-172-31-86-96 ~]#
```

```
aws [Alt+S]
```

```
[root@ip-172-31-83-187 ~]# mkdir hello
[root@ip-172-31-83-187 ~]# sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsiz=1048576,hard,t
lf8303e.efs.us-east-1.amazonaws.com:/ hello
[root@ip-172-31-83-187 ~]# df -h
```

Filesystem	Size	Used	Avail	Use%	Mounted on
devtmpfs	4.0M	0	4.0M	0%	/dev
tmpfs	475M	0	475M	0%	/dev/shm
tmpfs	190M	496K	190M	1%	/run
/dev/xvda1	8.0G	1.6G	6.4G	21%	/
tmpfs	475M	0	475M	0%	/tmp
/dev/xvda128	10M	1.3M	8.7M	13%	/boot/efi
tmpfs	95M	0	95M	0%	/run/user/1000
127.0.0.1:/	8.0E	0	8.0E	0%	/home/ec2-user/new
fs-05d3ec171c1f8303e.efs.us-east-1.amazonaws.com:/	8.0E	0	8.0E	0%	/root/hello

```
[root@ip-172-31-83-187 ~]#
```

5. Mount the EFS file system on both instances using the copied command.

```
[root@ip-172-31-86-96 ~]# mkdir hello
[root@ip-172-31-86-96 ~]# sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsiz=1048576,hard,timeo=600,retrans=2,noresvport fs-05d3ec171c1f8303e.efs.us-east-1.amazonaws.com:/ hello
[root@ip-172-31-86-96 ~]# df -h
Filesystem                                Size  Used Avail Use% Mounted on
devtmpfs                                  4.0M   0  4.0M   0% /dev
tmpfs                                     475M   0  475M   0% /dev/shm
tmpfs                                     190M 496K 190M   1% /run
/dev/xvda1                                8.0G 1.6G  6.4G  20% /
tmpfs                                     475M   0  475M   0% /tmp
/dev/xvda128                              10M 1.3M  8.7M  13% /boot/efi
tmpfs                                     95M   0   95M   0% /run/user/1000
127.0.0.1:/                               8.0E   0   8.0E   0% /home/ec2-user/new
fs-05d3ec171c1f8303e.efs.us-east-1.amazonaws.com:/ 8.0E   0   8.0E   0% /root/hello
[root@ip-172-31-86-96 ~]# cd hello/
[root@ip-172-31-86-96 hello]# ls
cprime
[root@ip-172-31-86-96 hello]# cat cprime
hi welcome
[root@ip-172-31-86-96 hello]#
```

6. Create a test file in the mounted directory on one instance and Verify file accessibility from the second instance.

```
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[root@ip-172-31-83-187 ~]# mkdir hello
[root@ip-172-31-83-187 ~]# sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsiz=1048576,hard,timeo=600,retrans=2,noresvport fs-05d3ec171c1f8303e.efs.us-east-1.amazonaws.com:/ hello
[root@ip-172-31-83-187 ~]# df -h
Filesystem                                Size  Used Avail Use% Mounted on
devtmpfs                                  4.0M   0  4.0M   0% /dev
tmpfs                                     475M   0  475M   0% /dev/shm
tmpfs                                     190M 496K 190M   1% /run
/dev/xvda1                                8.0G 1.6G  6.4G  21% /
tmpfs                                     475M   0  475M   0% /tmp
/dev/xvda128                              10M 1.3M  8.7M  13% /boot/efi
tmpfs                                     95M   0   95M   0% /run/user/1000
127.0.0.1:/                               8.0E   0   8.0E   0% /home/ec2-user/new
fs-05d3ec171c1f8303e.efs.us-east-1.amazonaws.com:/ 8.0E   0   8.0E   0% /root/hello
[root@ip-172-31-83-187 ~]# cd hello/
[root@ip-172-31-83-187 hello]# cat > cprime
hi welcome
^C
[root@ip-172-31-83-187 hello]# ls
cprime
[root@ip-172-31-83-187 hello]#
```