

## Module 4: Amazon EC2

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### Demo Document 6

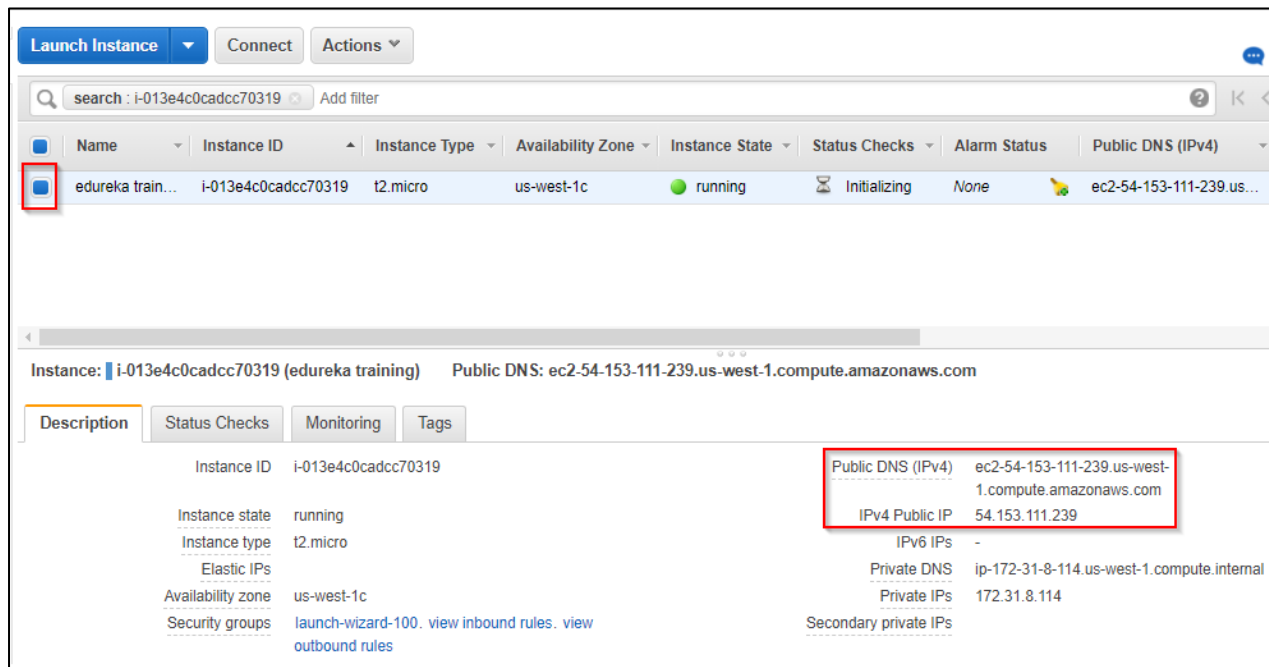
edureka!

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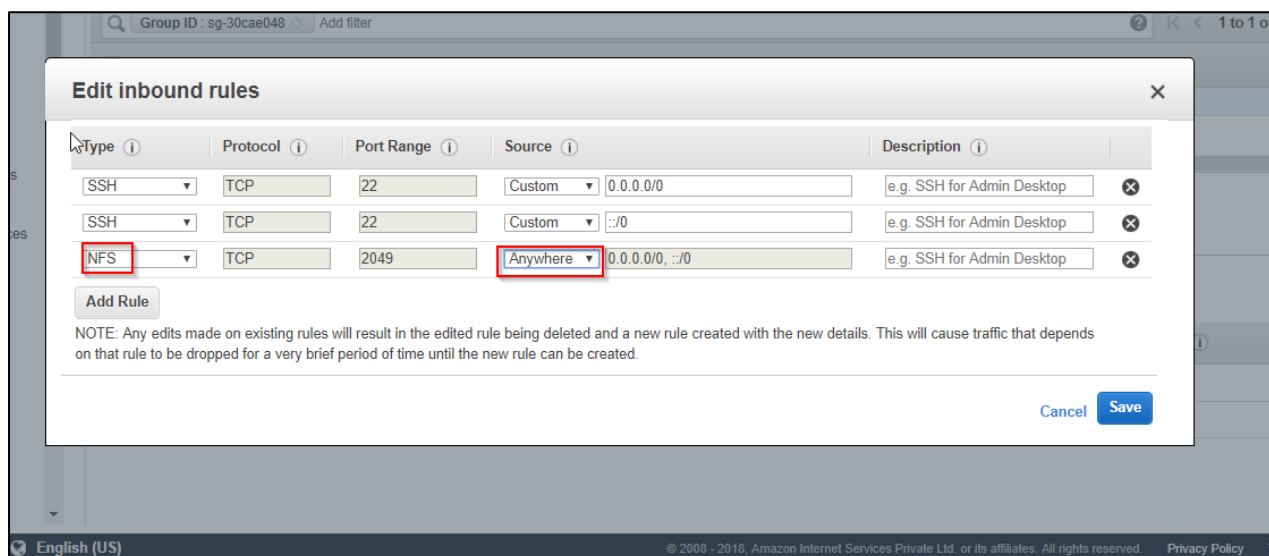
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## To Attach EFS Volume To An EC2 Instance

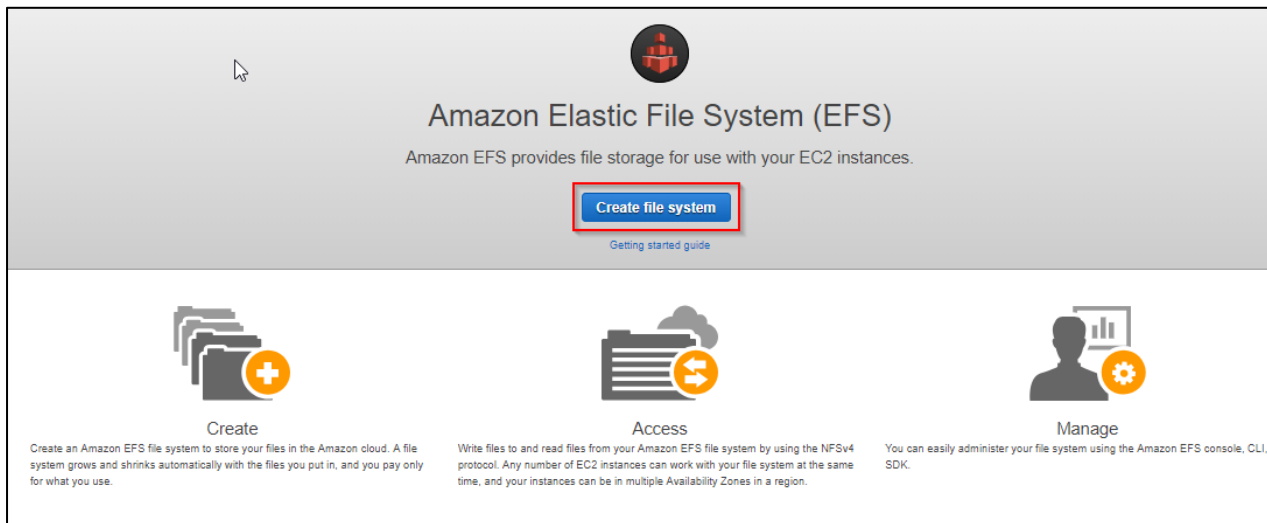
**Step 1:** Launch an EC2 Instance in AWS console. Open an SSH client. ( connect using PuTTY) and locate your private key file. The wizard automatically detects the key you used to launch the instance



**Step 2:** Go to security group and add NFS since, Each EC2 instance that mounts the file system must have a security group that allows access to the mount target on the NFS port



**Step 3:** Go back to console and select EFS, later click on “Create File System”



**Step 4:** Click on “Next Step”

**Configure file system access**

An Amazon EFS file system is accessed by EC2 instances running inside one of your VPCs. Instances connect to a file system by using a network interface called a mount target. Each mount target has an IP address, which we assign automatically or you can specify.

VPC:

**Create mount targets**

Instances connect to a file system by using mount targets you create. We recommend creating a mount target in each of your VPC's Availability Zones so that EC2 instances across your VPC can access the file system.

	Availability Zone	Subnet	IP address	Security groups
<input checked="" type="checkbox"/>	us-west-1a	<input type="text" value="subnet-300ba058 (default)"/>	Automatic	<input type="text" value="sg-ff07e290 - default"/>
<input checked="" type="checkbox"/>	us-west-1c	<input type="text" value="subnet-310ba059 (default)"/>	Automatic	<input type="text" value="sg-ff07e290 - default"/>

[Cancel](#) [Next Step](#)

**Step 5:** Add name to EFS, don't change any settings and click on "Next Step"

**Add tags**

You can add tags to describe your file system. A tag consists of a case-sensitive key-value pair. (For example, you can define a tag with key-value pair with key = Corporate Department and value = Sales and Marketing.) At a minimum, we recommend a tag with key = Name.

Key	Value
Name	my first EFS file system
Add New Key	

**Choose performance mode**

We recommend **General Purpose** performance mode for most file systems. **Max I/O** performance mode is optimized for applications where tens, hundreds, or thousands of EC2 instances accessing the file system — it scales to higher levels of aggregate throughput and operations per second with a tradeoff of slightly higher latencies for file operations.

☒ General Purpose  
☐ Max I/O

**Choose throughput mode**

**Step 6:** Review the settings and click on "Create File System"

**Review and create**

Review the configuration below before proceeding to create your file system.

**File system access**

VPC	Availability Zone	Subnet	IP address	Security groups
vpc-3f0ba057 (default)	us-west-1a	subnet-300ba058 (default)	Automatic	sg-ff07e290 - default
	us-west-1c	subnet-310ba059 (default)	Automatic	sg-ff07e290 - default

**Optional settings**

Tags: Name: my first EFS file system  
 Performance mode: General Purpose  
 Throughput mode: Bursting  
 Encrypted: No

Step 7: Note the “File system ID” and “DNS Name”

Create file systemActions

	Name	File system ID	Metered size	Number of mount targets	Creation date
⌵	my first EFS file system	fs-c2fb11db	6.0 KiB	2	08/09/2018, 12:23:07 UTC

Other detailsManage throughput mode

Owner ID245376966395

Life cycle stateAvailable

Performance modeGeneral Purpose

Throughput modeBursting

EncryptedNo

TagsManage tags

Name: my first EFS file system

File system accessManage file system access

DNS namefs-c2fb11db.efs.us-west-1.amazonaws.com

[Amazon EC2 mount instructions](#)  
[AWS Direct Connect mount instructions](#)

Mount targets

VPC	Availability Zone	Subnet	IP address	Mount target ID	Network interface ID	Security groups	Life cycle state
vpc-3f0ba057 (default)	us-west-1c	subnet-310ba059 (default)	172.31.3.213	fsmt-6aaa4573	eni-7050bf77	sg-30cae048 - launch-wizard-100	Available
	us-west-1a	subnet-300ba058 (default)	172.31.29.21	fsmt-6caa4575	eni-2c3a270d	sg-30cae048 - launch-wizard-100	Available

Step 8: Go to the configured “Putty” and login using- “ec2-user”

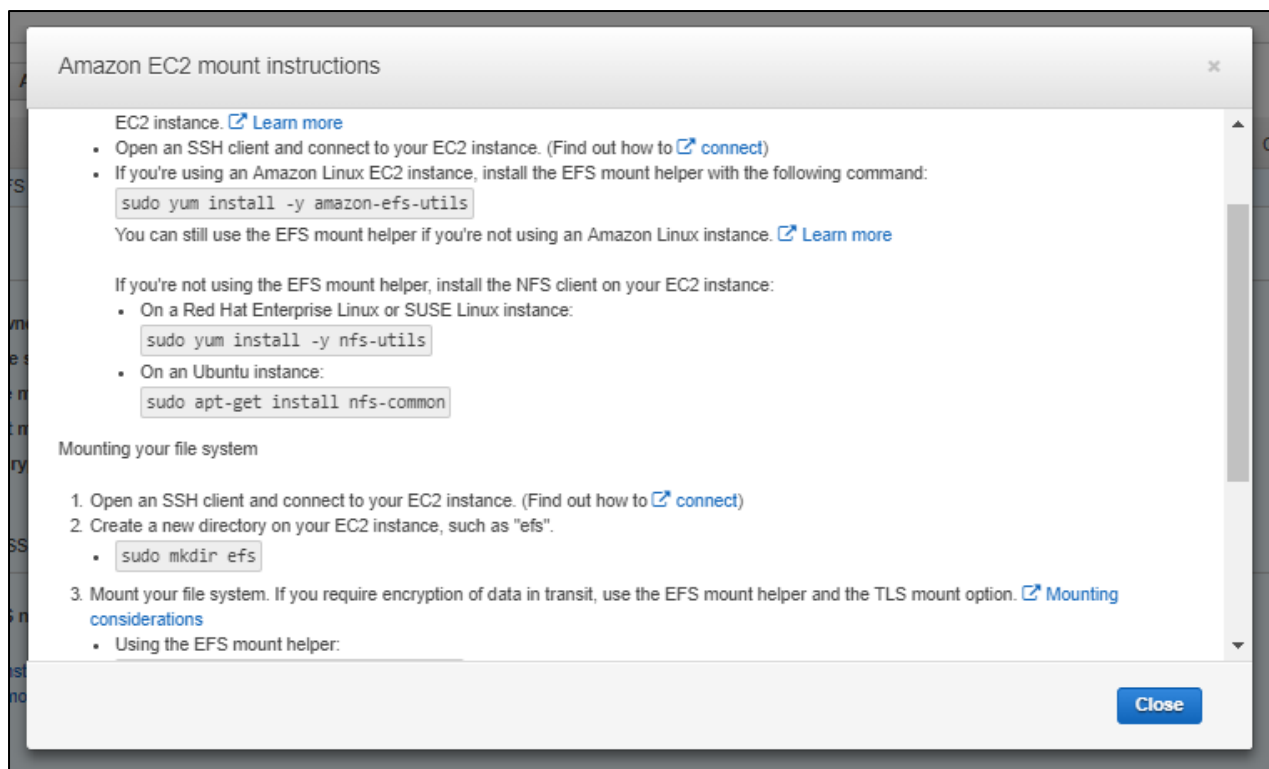
ec2-user@ip-172-31-8-114:~

login as: ec2-user

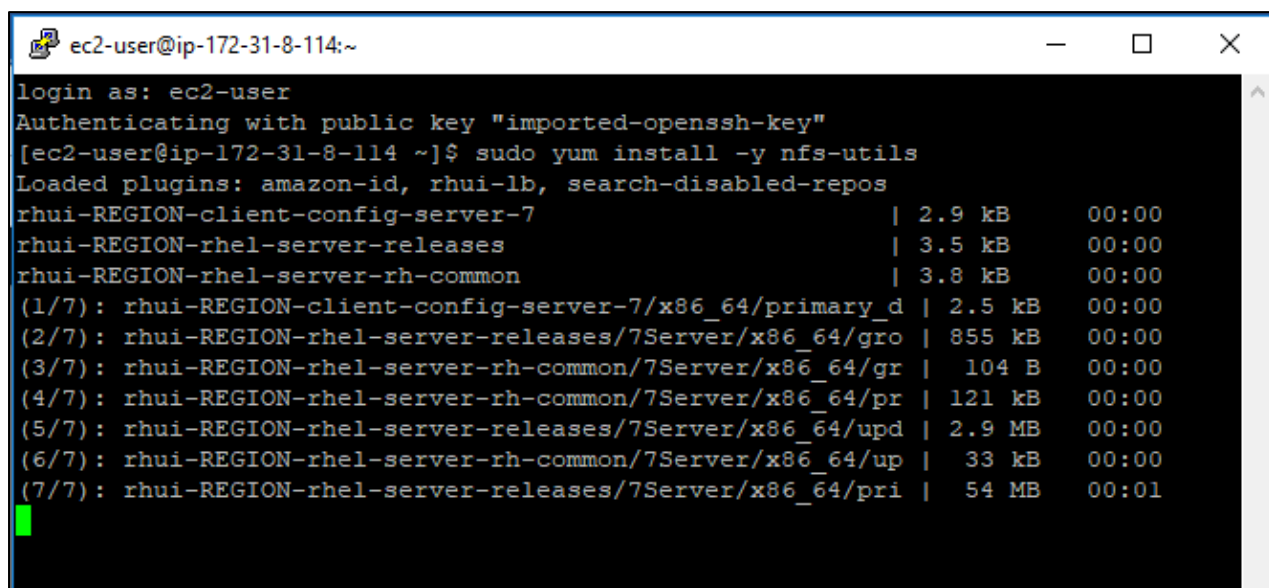
Authenticating with public key "imported-openssh-key"

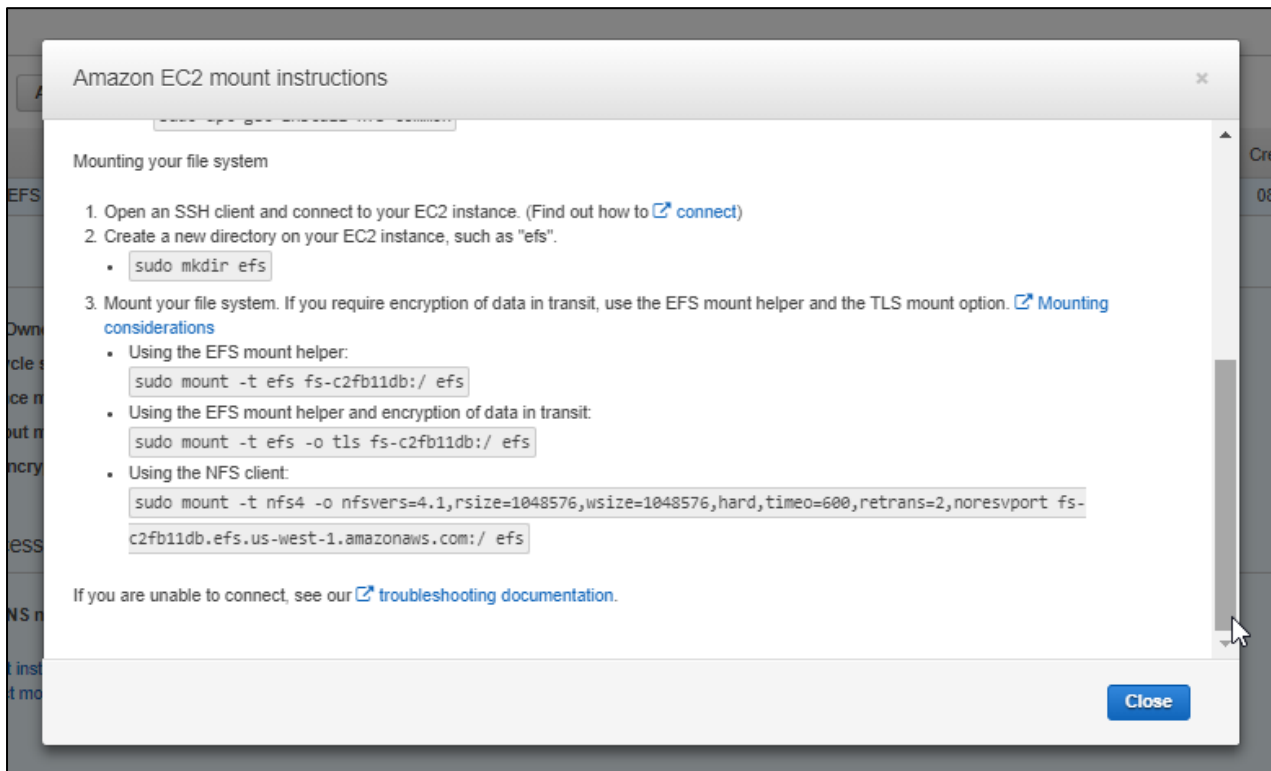
[ec2-user@ip-172-31-8-114 ~]\$

**Step 9:** Go to EFS and click on “Amazon EC2 Mount Instructions” and copy the commands

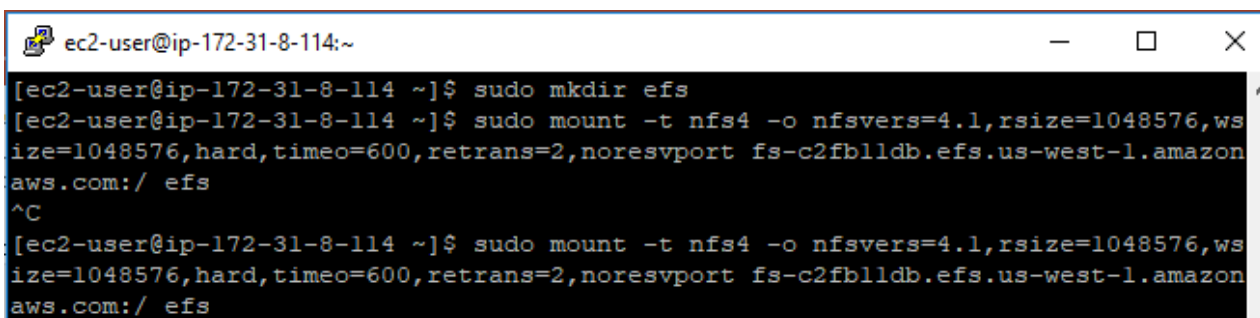


- ```
sudo yum install -y nfs-utils
```





- `sudo mkdir efs`
- `sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsiz=1048576,hard,timeo=600,retrans=2,noresvport fs-c2fb11db.efs.us-west-1.amazonaws.com:/ efs`



- To check the output whether EFS is mounted to your instance or no enter this command-

```
df -h
```

```

ec2-user@ip-172-31-8-114:~
[ec2-user@ip-172-31-8-114 ~]$ sudo mkdir efs
[ec2-user@ip-172-31-8-114 ~]$ sudo mount -t nfs4 -o nfsvers=4.1,rsz=1048576,ws
size=1048576,hard,timeo=600,retrans=2,noresvport fs-c2fbllldb.efs.us-west-1.amazon
aws.com:/ efs
^C
[ec2-user@ip-172-31-8-114 ~]$ sudo mount -t nfs4 -o nfsvers=4.1,rsz=1048576,ws
size=1048576,hard,timeo=600,retrans=2,noresvport fs-c2fbllldb.efs.us-west-1.amazon
aws.com:/ efs
^C
[ec2-user@ip-172-31-8-114 ~]$ sudo mount -t nfs4 -o nfsvers=4.1,rsz=1048576,ws
size=1048576,hard,timeo=600,retrans=2,noresvport fs-c2fbllldb.efs.us-west-1.amazon
aws.com:/ efs
[ec2-user@ip-172-31-8-114 ~]$ df -h

```

| Filesystem                                 | Size | Used | Avail | Use% | Mounted on      |
|--------------------------------------------|------|------|-------|------|-----------------|
| /dev/xvda2                                 | 10G  | 1.3G | 8.8G  | 13%  | /               |
| devtmpfs                                   | 474M | 0    | 474M  | 0%   | /dev            |
| tmpfs                                      | 496M | 0    | 496M  | 0%   | /dev/shm        |
| tmpfs                                      | 496M | 13M  | 483M  | 3%   | /run            |
| tmpfs                                      | 496M | 0    | 496M  | 0%   | /sys/fs/cgroup  |
| tmpfs                                      | 100M | 0    | 100M  | 0%   | /run/user/1000  |
| fs-c2fbllldb.efs.us-west-1.amazonaws.com:/ | 8.0E | 0    | 8.0E  | 0%   | /home/ec2-user/ |

```

efs
[ec2-user@ip-172-31-8-114 ~]$

```

## Conclusion-

You have successfully mounted the EFS volume to an EC2 instance