

efs and ec2 assignment

STEP 1 : created 3 different instance with with AMI amzon linux,ubuntu and Red Hat

The screenshot shows the AWS EC2 Instances page. The left sidebar is collapsed. The main area displays a table titled "Instances (3) Info" with the following data:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
Red_Hat	i-0548757b91cda283b	Running	t2.micro	-	View alarms +	us-east-1b	ec2-54-1-
Amazon_linux	i-018daa754cce90a67	Running	t2.micro	Initializing	View alarms +	us-east-1b	ec2-184-
ubuntu	i-077284fc7ad46c47f	Running	t2.micro	2/2 checks passed	View alarms +	us-east-1b	ec2-13-2-

Below the table, a modal window titled "Select an instance" is open, listing the same three instances.

STEP 2: Connected Ubuntu instances

```
System load: 0.08      Processes:          104
Usage of /: 25.4% of 6.71GB  Users logged in:    0
Memory usage: 21%
Swap usage:  0%
Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-82-87:~$
```

i-077284fc7ad46c47f (ubuntu)
PublicIPs: 13.221.184.163 PrivateIPs: 172.31.82.87

STEP 3: Connected Amazon Linux instance

STEP 4: Connected created Red Hat instance with key pair in command prompt

```
C:\Users\Asus>cd download
The system cannot find the path specified.

C:\Users\Asus>cd download
The system cannot find the path specified.

C:\Users\Asus>cd downloads

C:\Users\Asus\Downloads>ssh -i ssh -i "mahi_key.pem" ec2-user@ec2-54-146-152-20.compute-1.amazonaws.com
Warning: Identity file ssh not accessible: No such file or directory.
The authenticity of host 'ec2-54-146-152-20.compute-1.amazonaws.com (64:ff9b::3692:9814)' can't be established
ED25519 key fingerprint is SHA256:ZokU3U9xvGUcz3HFxPJic9vviInMTQtT5z4BL/a80k.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-54-146-152-20.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
Register this system with Red Hat Insights: rhc connect

Example:
# rhc connect --activation-key <key> --organization <org>

The rhc client and Red Hat Insights will enable analytics and additional
management capabilities on your system.
View your connected systems at https://console.redhat.com/insights

You can learn more about how to register your system
using rhc at https://red.ht/registration
[ec2-user@ip-172-31-83-99 ~]$ |
```

STEP 5: For each instance created allow all traffic from inbound rules as to connect EFS using EC2 NFS port must be enabled as all traffic allows every port and source from anywhere

EC2 > Security Groups > sg-0cc793a833b098cd - default > Edit inbound rules

Edit inbound rules [Info](#)

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

Inbound rules [Info](#)

Security group rule ID	Type Info	Protocol Info	Port range	Source Info	Description - optional Info
sgr-0e9b24f64b6de2c73	All traffic	All	All	Anywhere	0.0.0.0/0 X

[Add rule](#)

⚠ 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](#)

STEP 6 : Create an EFS just by clicking on creat file system in EFS

Elastic File System [X](#)

Amazon EFS > File systems

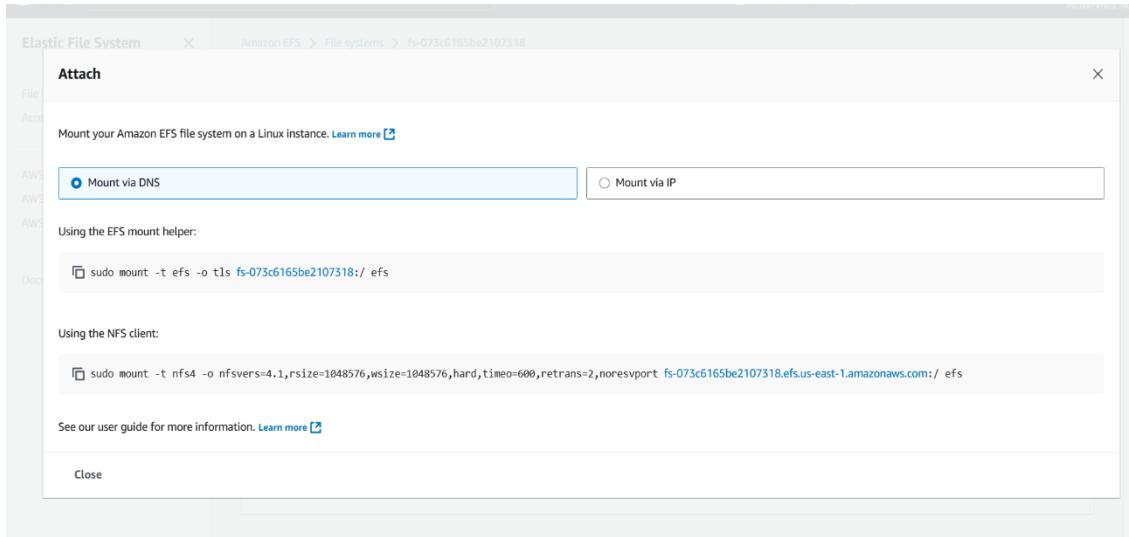
File systems (1)

Name	File system ID	Encrypted	Total size	Size in Standard	Size in IA	Size in Archive	Provisioned Throughput (MiB/s)
efs_assign	fs-073c6165be	Encrypted	6.00 KiB	6.00 KiB	0 Bytes	0 Bytes	-

[Create file system](#)

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STEP 7: Click on attach option in EFS to copy mount code that is required to mount the file in two different instance



STEP 8: After updating and installing required packages (i.e nfs-common & utils in different machine) create file EFS and just paste the mount code in it and next create file

Eg : As shown below 1.txt and 2.txt

```
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-82-87:~$ mkdir efs
ubuntu@ip-172-31-82-87:~$ ls
efs
ubuntu@ip-172-31-82-87:~$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-073c6165be2107318.efs.us-east-1.amazonaws.com:/ efs
mount.nfs4: mount point efs does not exist
ubuntu@ip-172-31-82-87:~$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-073c6165be2107318.efs.us-east-1.amazonaws.com:/ efs
ubuntu@ip-172-31-82-87:~$ ls
efs
ubuntu@ip-172-31-82-87:~$ df -h
Filesystem      Size   Used  Avail Use% Mounted on
/dev/root       6.8G  2.0G  4.8G  30% /
tmpfs          479M    0  479M  0% /dev/shm
tmpfs          192M  892M  191M  1% /run
tmpfs           5.0M    0  5.0M  0% /run/lock
/dev/xvda16     881M   86M  734M  11% /boot
/dev/xvda15     105M   6.2M  99M   6% /boot/efi
tmpfs           96M   12K  96M   1% /run/user/1000
fs-073c6165be2107318.efs.us-east-1.amazonaws.com:/  8.0E    0  8.0E  0% /home/ubuntu/efs
ubuntu@ip-172-31-82-87:~$ ls
1.txt
ubuntu@ip-172-31-82-87:~$ cd efs
ubuntu@ip-172-31-82-87:~/efs$ ls
ubuntu@ip-172-31-82-87:~/efs$ sudo touch 1.txt
ubuntu@ip-172-31-82-87:~/efs$ ls
1.txt

i-077284fc7ad46c47f (ubuntu)
PublicIPs: 13.221.184.163 PrivateIPs: 172.31.82.87
```

i-077284fc7ad46c47f (ubuntu)

PublicIPs: 13.221.184.163 PrivateIPs: 172.31.82.87

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```
ubuntu@ip-172-31-82-87:~$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-073c6165be2107318.efs.us-east-1.amazonaws.com:/efs
mount.nfs4: mount point efs- does not exist
ubuntu@ip-172-31-82-87:~$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-073c6165be2107318.efs.us-east-1.amazonaws.com:/efs
ubuntu@ip-172-31-82-87:~$ ls
efs
ubuntu@ip-172-31-82-87:~$ df -h
Filesystem      Size   Used  Avail Use% Mounted on
/dev/root       6.8G  2.0G  30M  30% /
tmpfs           479M    0  479M  0% /dev/shm
tmpfs           192M  892M  191M  1% /run
tmpfs           5.0M    0  5.0M  0% /run/lock
/dev/xvda16     881M  86M  734M  1% /boot
/dev/xvda15     105M  6.2M  99M  6% /boot/efi
tmpfs           96M  12K  96M  1% /run/user/1000
fs-073c6165be2107318.efs.us-east-1.amazonaws.com:/  8.0E    0  8.0E  0% /home/ubuntu/1000
ubuntu@ip-172-31-82-87:~$ ls
efs
ubuntu@ip-172-31-82-87:~$ cd efs
ubuntu@ip-172-31-82-87:~/efs$ ls
ubuntu@ip-172-31-82-87:~/efs$ sudo touch 1.txt
ubuntu@ip-172-31-82-87:~/efs$ ls
1.txt
ubuntu@ip-172-31-82-87:~/efs$ sudo touch 2.txt
ubuntu@ip-172-31-82-87:~/efs$ ls
1.txt 2.txt
ubuntu@ip-172-31-82-87:~/efs$
```

i-077284fc7ad46c47f (ubuntu)

Public IPs: 13.221.184.163 Private IPs: 172.31.82.87

STEP 9 : Similarly after updating and installing package create file and paste the mount code just list the file in EFS it will show the files created from Ubuntu machine

```
aws [Alt+S] United States (N. Virginia) Account ID: 9826-5837-7055 Mohammed Muzakir

Amazon Linux 2023 Kernel Livepatch repository
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-83-244 ~]$ sudo yum install nfs-utils
Last metadata expiration check: 0:00:21 ago on Tue Aug 12 13:40:03 2025.
Package nfs-utils-1:2.5.4-2.rc3.amzn2023.0.3.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-83-244 ~]$ ls
[ec2-user@ip-172-31-83-244 ~]$ mkdir efs
[ec2-user@ip-172-31-83-244 ~]$ ls
efs
[ec2-user@ip-172-31-83-244 ~]$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-073c6165be2107318.efs.us-east-1.amazonaws.com:/efs~
mount.nfs4: mount point efs- does not exist
[ec2-user@ip-172-31-83-244 ~]$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-073c6165be2107318.efs.us-east-1.amazonaws.com:/efs~
mount.nfs4: mount point efs- does not exist
[ec2-user@ip-172-31-83-244 ~]$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-073c6165be2107318.efs.us-east-1.amazonaws.com:/efs~
[ec2-user@ip-172-31-83-244 ~]$ cd efs
[ec2-user@ip-172-31-83-244 efs]$ ls
1.txt
[ec2-user@ip-172-31-83-244 efs]$ ls
1.txt
2.txt
[ec2-user@ip-172-31-83-244 efs]$ ls
```

i-018daa754cce90a67 (Amazon_linux)

Public IPs: 184.73.74.142 Private IPs: 172.31.83.244

STEP 10: Similarly for Red Hat machine as well as shown below

```

Example:
# rhc connect --activation-key <key> --organization <org>

The rhc client and Red Hat Insights will enable analytics and additional
management capabilities on your system.
View your connected systems at https://console.redhat.com/insights

You can learn more about how to register your system
using rhc at https://red.ht/registration
Last login: Tue Aug 12 13:17:21 2025 from 152.57.7.116
[ec2-user@ip-172-31-83-99 ~]$ sudo yum install nfs-utils
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use "rhc" or "subscription-manager" to register.

Red Hat Enterprise Linux 10 for x86_64 - AppStream from RHUI (RPMS)           17 MB/s | 3.0 MB   00:00
Red Hat Enterprise Linux 10 for x86_64 - BaseOS from RHUI (RPMS)                 53 MB/s | 17 MB   00:00
Red Hat Enterprise Linux 10 Client Configuration                           23 kB/s | 1.9 kB   00:00
Dependencies resolved.

=====
Package          Architecture Version      Repository    Size
=====
Installing:
  nfs-utils       x86_64      1:2.8.2-3.el10     rhel-10-baseos-rhui-rpms 487 k
Installing dependencies:
  gssproxy        x86_64      0.9.2-10.el10    rhel-10-baseos-rhui-rpms 118 k
  libev           x86_64      0.33-14.el10    rhel-10-baseos-rhui-rpms 56 k
  libnfsidmap     x86_64      1:2.8.2-3.el10    rhel-10-baseos-rhui-rpms 67 k
  libtirpc         x86_64      1.3.5-1.el10    rhel-10-baseos-rhui-rpms 98 k
  libverto-libev   x86_64      0.3.2-10.el10    rhel-10-baseos-rhui-rpms 15 k
  quota           x86_64      1:4.09-9.el10    rhel-10-baseos-rhui-rpms 201 k
  quota-nls        noarch     1:4.09-9.el10    rhel-10-baseos-rhui-rpms 79 k
  rpcbind          x86_64      1.2.7-3.el10    rhel-10-baseos-rhui-rpms 63 k
  sssd-nfs-idmap   x86_64      2.18.2-3.el10_0.2 rhel-10-baseos-rhui-rpms 37 k

Transaction Summary
=====
Install 10 Packages

Total download size: 1.2 M

```

```

[ec2-user@ip-172-31-83-99:~] + 
Running scriptlet: rpcbind-1.2.7-3.el10.x86_64                                3/10
Created symlink '/etc/systemd/system/multi-user.target.wants/rpcbind.service' → '/usr/lib/systemd/system/rpcbind.service'.
Created symlink '/etc/systemd/system/sockets.target.wants/rpcbind.socket' → '/usr/lib/systemd/system/rpcbind.socket'.

Installing : quota-nls-1:4.09-9.el10.noarch                                     4/10
Installing : quota-1:4.09-9.el10.x86_64                                       5/10
Installing : libev-0.33-14.el10.x86_64                                       6/10
Installing : libverto-libev-0.3.2-10.el10.x86_64                            7/10
Running scriptlet: gssproxy-0.9.2-10.el10.x86_64                               8/10
Installing : gssproxy-0.9.2-10.el10.x86_64                                       8/10
Running scriptlet: gssproxy-0.9.2-10.el10.x86_64                               8/10
Running scriptlet: nfs-utils-1:2.8.2-3.el10.x86_64                             9/10
Installing : nfs-utils-1:2.8.2-3.el10.x86_64                                       9/10
Running scriptlet: nfs-utils-1:2.8.2-3.el10.x86_64                            9/10
Created symlink '/etc/systemd/system/multi-user.target.wants/nfs-client.target' → '/usr/lib/systemd/system/nfs-client.target'.
Created symlink '/etc/systemd/system/remote-fs.target.wants/nfs-client.target' → '/usr/lib/systemd/system/nfs-client.target'.

Warning: The unit file, source configuration file or drop-ins of gssproxy.service changed on disk. Run 'systemctl daemon-reload' to reload units.
Warning: The unit file, source configuration file or drop-ins of gssproxy.service changed on disk. Run 'systemctl daemon-reload' to reload units.

Installing : sssd-nfs-idmap-2.18.2-3.el10_0.2.x86_64                         10/10
Running scriptlet: sssd-nfs-idmap-2.18.2-3.el10_0.2.x86_64                      10/10
Installed products updated.

Installed:
  gssproxy-0.9.2-10.el10.x86_64          libev-0.33-14.el10.x86_64          libnfsidmap-1:2.8.2-3.el10.x86_64
  libtirpc-1.3.5-1.el10.x86_64          libverto-libev-0.3.2-10.el10.x86_64  nfs-utils-1:2.8.2-3.el10.x86_64
  quota-1:4.09-9.el10.x86_64            quota-nls-1:4.09-9.el10.noarch      rpcbind-1.2.7-3.el10.x86_64

Complete!
[ec2-user@ip-172-31-83-99 ~]$ mkdir efs
[ec2-user@ip-172-31-83-99 ~]$ ls
efs
[ec2-user@ip-172-31-83-99 ~]$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-073c6165be2107318.efs.us-east-1.amazonaws.com:/efs
[ec2-user@ip-172-31-83-99 ~]$ cd efs
[ec2-user@ip-172-31-83-99 efs]$ ls
1.txt 2.txt
[ec2-user@ip-172-31-83-99 efs]$ |

```

