

AWS Project: -9

Project Date: – 05.05.2021

Prepared by: – Sarveswara Sarma Nemani

Q:- Create **EFS Mount point** with INFRA-VPC & Own Security Group and Mount at one server and check this mount in another server (Observation : same data will be there at another server if mount correctly)

Sol:

The screenshot shows the AWS VPC console for a VPC named 'MYVPC'. The VPC ID is vpc-06cc35aa0ec0ab54e, and it is in the 'available' state. The IPv4 CIDR is 172.0.0.0/16. The DHCP options set is dopt-5f0d587. The main route table is rtb-0b122535a14f0b4d4. The main network ACL is acl-0e6c34acba6d6ac59. The VPC details are as follows:

Property	Value
VPC ID	vpc-06cc35aa0ec0ab54e
State	available
IPv4 CIDR	172.0.0.0/16
IPv6 CIDR	-
IPv6 Pool	-
Network ACL	acl-0e6c34acba6d6ac59
DHCP options set	dopt-5f0d587
Route table	rtb-0b122535a14f0b4d4
Tenancy	default
Default VPC	No
Classic link	Disabled
IPv6 CIDR (Network Border Group)	-
DNS resolution	Enabled
DNS hostnames	Enabled
ClassicLink DNS Support	Disabled
Owner	833093811962

The screenshot shows the AWS EC2 console for an instance named 'GREEN'. The instance ID is i-066bdf108e98f62d, and it is in the 'running' state. The instance type is t2.micro, and the availability zone is us-east-1a. The public DNS is ec2-174-129-89-182.compute-1.amazonaws.com. The instance details are as follows:

Property	Value
Instance ID	i-066bdf108e98f62d
Instance state	running
Instance type	t2.micro
Availability zone	us-east-1a
Public DNS (IPv4)	ec2-174-129-89-182.compute-1.amazonaws.com
IPv4 Public IP	174.129.89.182
IPv6 Public IP	-
Key Name	kp-nvirlgia
Monitoring	disabled
Launch time	May 5, 2021 at 10:14:41 AM UTC+5:30 (less than one hour)
Termination protection	False
Lifecycle	normal
Monitoring	basic
Alarm status	None

console.aws.amazon.com/ec2/v2/home?region=us-east-1#Instances:sort=instancetype

Instances | EC2 Manager Console

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs	Key Name	Monitoring	Launch
GREEN	i-56b0d9105e586d34	t2.micro	us-east-1a	running	2/2 checks	None	ec2-174-129-89-182.co	174.129.89.182	-	kp-mvirlgia	disabled	May 5
BLUE	i-0c77700415aee8aa2	t2.micro	us-east-1a	running	2/2 checks	None	ec2-52-206-226-126.co	52.206.226.126	-	kp-mvirlgia	disabled	May 5

Instance: i-0c77700415aee8aa2 (BLUE) Public DNS: ec2-52-206-226-126.compute-1.amazonaws.com

Description

Instance ID: i-0c77700415aee8aa2
Instance state: running
Instance type: t2.micro
Finding: Opt-in to AWS Compute Optimizer for recommendations. [Learn more](#)
Private DNS: ip-172.0.0.104.ec2.internal
Private IPs: 172.0.0.104
Secondary private IPs: **VPC ID: vpc-05cc31a5a6c0ab54a (MYVPC)**
Platform: Amazon Linux
Platform details: Linux/UNIX
Usage operation: RunInstances
Source/dest. check: True
T2/T3 Unlimited: Disabled
EBS-optimized: False
Root device type: ebs
Root device: /dev/xvda
Block devices: /dev/xvda
Elastic Graphics ID: -

Public DNS (IPv4): ec2-52-206-226-126.compute-1.amazonaws.com
IPv4 Public IP: 52.206.226.126
IPv6 IPs: -
Elastic IPs: -
Availability zone: us-east-1a
Security groups: **EC2-SG view inbound rules view outbound rules**
Scheduled events: No scheduled events
AMI ID: amzn2-ami-hvm-2.0.20210427.0-x86_64-gp2 (ami-0d5e0f06840b45e9)
Subnet ID: subnet-04829f9dedaf9dccc (MYSUBNET)
Network interfaces: eth0
IAM role: -
Key pair name: kp-mvirlgia
Owner: 833093811962
Launch time: May 5, 2021 at 10:11:27 AM UTC+5:30 (less than one hour)
Termination protection: False
Lifecycle: normal
Monitoring: basic
Alarm status: None

console.aws.amazon.com/efs/home?region=us-east-1#/file-systems/fs-9c5a8228?tabId=mounts

Amazon EFS > File systems > fs-9c5a8228

EFS-VPC (fs-9c5a8228)

General

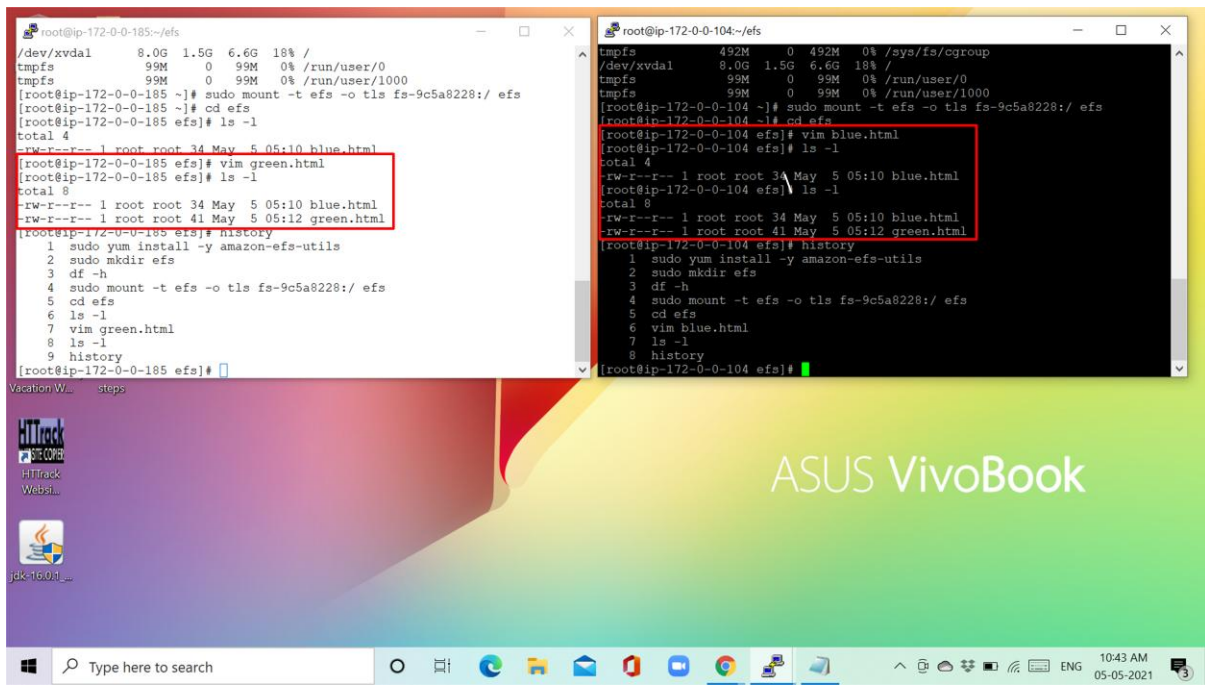
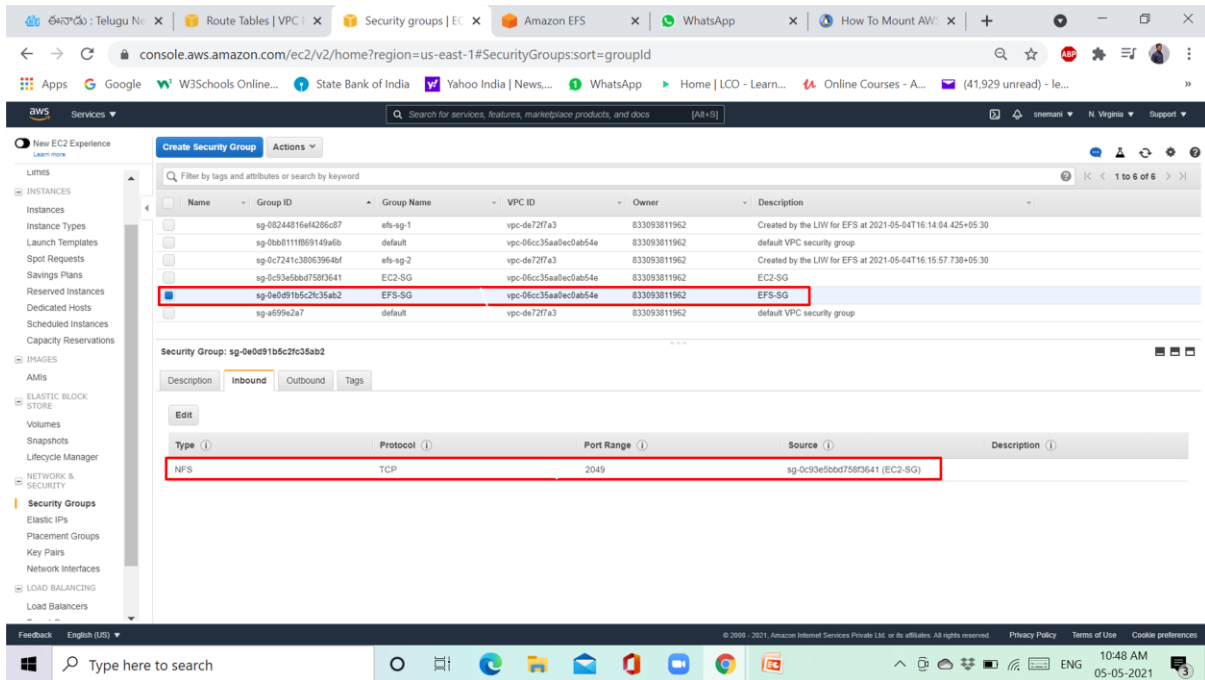
Performance mode: General Purpose
Throughput mode: Bursting
Lifecycle policy: 30 days since last access
Availability zone: Regional

Automatic backups: **Enabled**
Encrypted: **Encrypted** (db2ab76d-3d6e-47e3-aae0-377bcc64abce (aws/elasticfilesystem))
File system state: **Available**

Metered size | Monitoring | Tags | File system policy | Access points | **Network**

Network

Availability zone	Mount target ID	Subnet ID	Mount target state	IP address	Network interface ID	Security groups
us-east-1a	fsmt-b9a10e0c	subnet-0f4829f9dedaf9dccc	Available	172.0.0.226	eni-0e4b81aa6b3a76a88	sg-0e0d91b5c2fc35ab2 (EFS-SG)



BlueTerminal Logs: -

login as: ec2-user

Authenticating with public key "imported-openssh-key"

```

_ | _ | )
_ | ( / Amazon Linux 2 AMI
_ | _ | _ |

```

<https://aws.amazon.com/amazon-linux-2/>

[ec2-user@ip-172-0-0-104 ~]\$ sudo -i

[root@ip-172-0-0-104 ~]# sudo yum install -y amazon-efs-utils

Loaded plugins: extras_suggestions, langpacks, priorities, update-motd

amzn2-core | 3.7 kB 00:00

Resolving Dependencies

--> Running transaction check

---> Package amazon-efs-utils.noarch 0:1.30.1-1.amzn2 will be installed

--> Processing Dependency: stunnel >= 4.56 for package: amazon-efs-utils-1.31.amzn2.noarch

--> Running transaction check

---> Package stunnel.x86_64 0:4.56-6.amzn2.0.3 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

```
=====
=====
Package            Arch      Version              Repository           S
=====
=====
Installing:
amazon-efs-utils   noarch    1.30.1-1.amzn2       amzn2-core           3
Installing for dependencies:
stunnel            x86_64    4.56-6.amzn2.0.3     amzn2-core           14
```

Transaction Summary

```
=====
=====
Install 1 Package (+1 Dependent package)
```

Total download size: 188 k

Installed size: 447 k

Downloading packages:

(1/2): amazon-efs-utils-1.30.1-1.amzn2.noarch.rpm | 39 kB 00:00

(2/2): stunnel-4.56-6.amzn2.0.3.x86_64.rpm | 149 kB 00:00

Total 1.3 MB/s | 188 kB 00:00

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : stunnel-4.56-6.amzn2.0.3.x86_64

Installing : amazon-efs-utils-1.30.1-1.amzn2.noarch

Verifying : stunnel-4.56-6.amzn2.0.3.x86_64

Verifying : amazon-efs-utils-1.30.1-1.amzn2.noarch

Installed:

amazon-efs-utils.noarch 0:1.30.1-1.amzn2

Dependency Installed:

stunnel.x86_64 0:4.56-6.amzn2.0.3

Complete!

[root@ip-172-0-0-104 ~]# sudo mkdir efs

[root@ip-172-0-0-104 ~]# df -h

Filesystem	Size	Used	Avail	Use%	Mounted on
devtmpfs	482M	0	482M	0%	/dev
tmpfs	492M	0	492M	0%	/dev/shm

```

tmpfs      492M 456K 492M  1% /run
tmpfs      492M  0 492M  0% /sys/fs/cgroup
/dev/xvda1  8.0G 1.5G 6.6G 18% /
tmpfs      99M  0 99M  0% /run/user/0
tmpfs      99M  0 99M  0% /run/user/1000
[root@ip-172-0-0-104 ~]# sudo mount -t efs -o tls fs-9c5a8228:/ efs
[root@ip-172-0-0-104 ~]# cd efs
[root@ip-172-0-0-104 efs]# vim blue.html
[root@ip-172-0-0-104 efs]# ls -l
total 4
-rw-r--r-- 1 root root 34 May  5 05:10 blue.html
[root@ip-172-0-0-104 efs]# ls -l
total 8
-rw-r--r-- 1 root root 34 May  5 05:10 blue.html
-rw-r--r-- 1 root root 41 May  5 05:12 green.html
[root@ip-172-0-0-104 efs]# history
 1 sudo yum install -y amazon-efs-utils
 2 sudo mkdir efs
 3 df -h
 4 sudo mount -t efs -o tls fs-9c5a8228:/ efs
 5 cd efs
 6 vim blue.html
 7 ls -l
 8 history
[root@ip-172-0-0-104 efs]#

```

Green Terminal Logs: -

login as: ec2-user
 Authenticating with public key "imported-openssh-key"

```

 _| _| )
 _| ( /  Amazon Linux 2 AMI
 _|\_|_|

```

<https://aws.amazon.com/amazon-linux-2/>

```

[ec2-user@ip-172-0-0-185 ~]$ sudo -i
[root@ip-172-0-0-185 ~]# sudo yum install -y amazon-efs-utils
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core                               | 3.7 kB    00:0
Resolving Dependencies
--> Running transaction check
---> Package amazon-efs-utils.noarch 0:1.30.1-1.amzn2 will be installed
--> Processing Dependency: stunnel >= 4.56 for package: amazon-efs-utils-11.amzn2.noarch
--> Running transaction check
---> Package stunnel.x86_64 0:4.56-6.amzn2.0.3 will be installed
--> Finished Dependency Resolution

```

Dependencies Resolved

```

=====
=====
Package      Arch      Version      Repository

```

```

=====
=====
Installing:
amazon-efs-utils    noarch    1.30.1-1.amzn2    amzn2-core
Installing for dependencies:
stunnel             x86_64    4.56-6.amzn2.0.3    amzn2-core

Transaction Summary
=====
=====
Install 1 Package (+1 Dependent package)

Total download size: 188 k
Installed size: 447 k
Downloading packages:
(1/2): amazon-efs-utils-1.30.1-1.amzn2.noarch.rpm    | 39 kB  00:0
(2/2): stunnel-4.56-6.amzn2.0.3.x86_64.rpm          | 149 kB  00:0
-----
Total                                     1.0 MB/s | 188 kB  00:0
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : stunnel-4.56-6.amzn2.0.3.x86_64
  Installing : amazon-efs-utils-1.30.1-1.amzn2.noarch
  Verifying  : stunnel-4.56-6.amzn2.0.3.x86_64
  Verifying  : amazon-efs-utils-1.30.1-1.amzn2.noarch

Installed:
amazon-efs-utils.noarch 0:1.30.1-1.amzn2

Dependency Installed:
stunnel.x86_64 0:4.56-6.amzn2.0.3

Complete!
[root@ip-172-0-0-185 ~]# sudo mkdir efs
[root@ip-172-0-0-185 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        482M   0 482M   0% /dev
tmpfs           492M   0 492M   0% /dev/shm
tmpfs           492M 456K 492M   1% /run
tmpfs           492M   0 492M   0% /sys/fs/cgroup
/dev/xvda1      8.0G 1.5G 6.6G  18% /
tmpfs           99M   0 99M   0% /run/user/0
tmpfs           99M   0 99M   0% /run/user/1000
[root@ip-172-0-0-185 ~]# sudo mount -t efs -o tls fs-9c5a8228:/ efs
[root@ip-172-0-0-185 ~]# cd efs
[root@ip-172-0-0-185 efs]# ls -l
total 4
-rw-r--r-- 1 root root 34 May  5 05:10 blue.html
[root@ip-172-0-0-185 efs]# vim green.html
[root@ip-172-0-0-185 efs]# ls -l
total 8
-rw-r--r-- 1 root root 34 May  5 05:10 blue.html

```

-rw-r--r-- 1 root root 41 May 5 05:12 green.html

[root@ip-172-0-0-185 efs]# history

- 1 sudo yum install -y amazon-efs-utils
- 2 sudo mkdir efs
- 3 df -h
- 4 sudo mount -t efs -o tls fs-9c5a8228:/ efs
- 5 cd efs
- 6 ls -l
- 7 vim green.html
- 8 ls -l
- 9 history

[root@ip-172-0-0-185 efs]#