Carla Cuéllar Franco 1 d'abr. del 2025

Systems in the Cloud

ÍNDICE

Introducción

Descripción:

Maecenas orci vestibulum donec mus per phasellus malesuada, fusce aliquet id

rutrum integer nunc feugiat, turpis vulputate cum suscipit mauris leo. Accumsan luctus ante duis lacus fringilla gravida, hac rutrum nisl varius sociis, natoque leo curabitur cursus tortor. Nostra laoreet imperdiet aenean enim nec curabitur dis mauris congue rutrum nisl natoque, varius potenti habitasse massa diam aliquam feugiat vestibulum blandit consequat.

Titol 3

Lorem ipsum dolor sit amet consectetur adipiscing elit nam commodo, orci tincidunt ultrices risus viverra mauris vitae neque nullam, tortor arcu integer rutrum fames porta class euismod. Blandit lectus mi mollis purus cras suscipit aptent feugiat eu molestie, sodales pretium cursus fusce himenaeos ac tellus nisl non, quam quis posuere vehicula facilisis neque nulla dictumst quisque. Scelerisque torquent laoreet inceptos erat velit fusce aliquam, risus sodales cras quam posuere non varius imperdiet, tellus mattis mi dui est rutrum.

Títol 4

Maecenas orci vestibulum donec mus per phasellus malesuada, fusce aliquet id rutrum integer nunc feugiat, turpis vulputate cum suscipit mauris leo. Accumsan luctus ante duis lacus fringilla gravida, hac rutrum nisl varius sociis, natoque leo curabitur cursus tortor. Nostra laoreet imperdiet aenean enim nec curabitur dis mauris congue rutrum nisl natoque, varius potenti habitasse massa diam aliquam feugiat vestibulum blandit consequat.

Objetivo:

Audiencia:

Contexto del Cliente

Solución Propuesta: VPC Peering

Descripción técnica:

Lorem ipsum dolor sit amet consectetur adipiscing elit nam commodo, orci tincidunt ultrices risus viverra mauris vitae neque nullam, tortor arcu integer rutrum fames porta class euismod. Blandit lectus mi mollis purus cras suscipit aptent feugiat eu molestie, sodales pretium cursus fusce himenaeos ac tellus nisl non, quam quis posuere vehicula facilisis neque nulla dictumst quisque. Scelerisque torquent laoreet inceptos erat velit fusce aliquam, risus sodales cras quam posuere non varius imperdiet, tellus mattis mi dui est rutrum.

Títol 2

Maecenas orci vestibulum donec mus per phasellus malesuada, fusce aliquet id rutrum integer nunc feugiat, turpis vulputate cum suscipit mauris leo. Accumsan luctus ante duis lacus fringilla gravida, hac rutrum nisl varius sociis, natoque leo curabitur cursus tortor. Nostra laoreet imperdiet aenean enim nec curabitur dis mauris congue rutrum nisl natoque, varius potenti habitasse massa diam aliquam feugiat vestibulum blandit consequat.

Titol 3

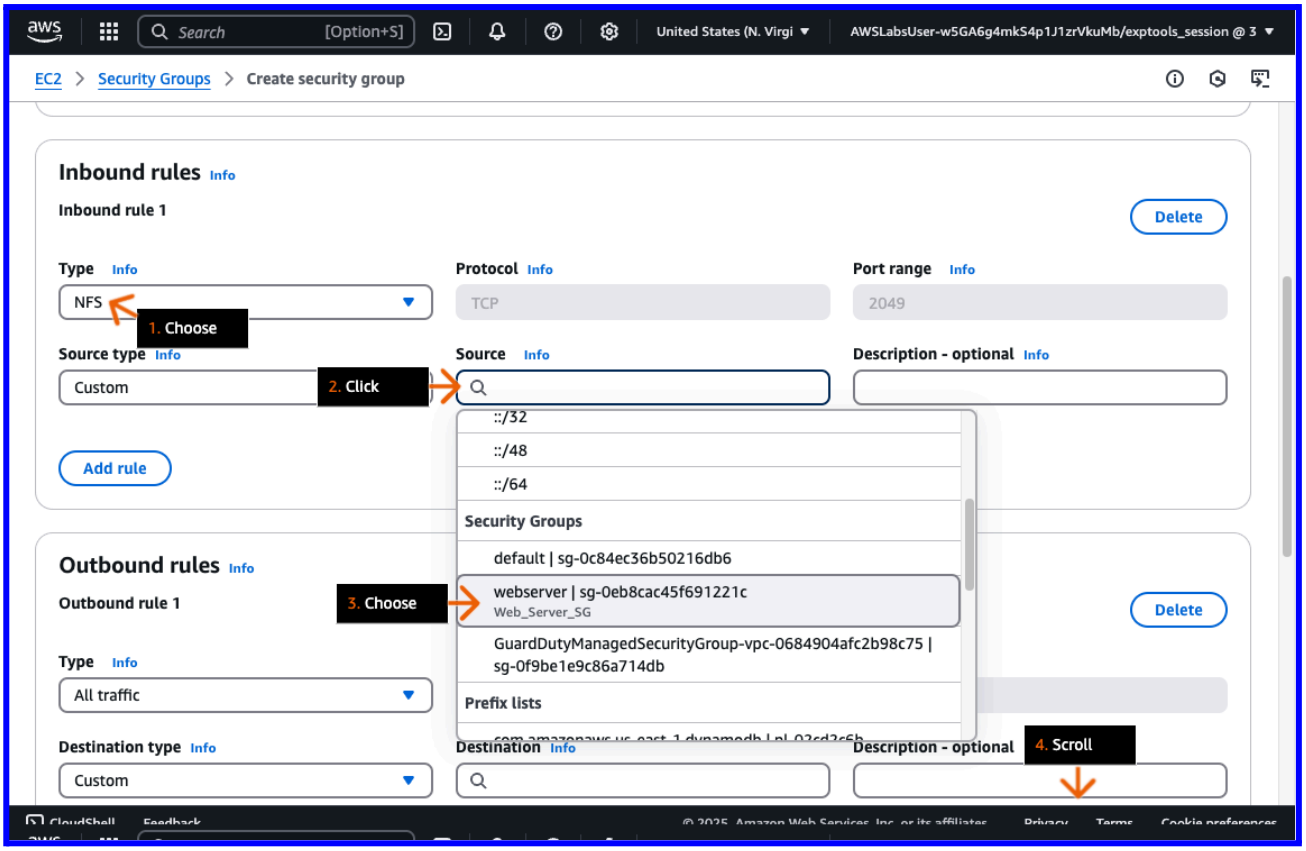
Lorem ipsum dolor sit amet consectetur adipiscing elit nam commodo, orci tincidunt ultrices risus viverra mauris vitae neque nullam, tortor arcu integer rutrum fames porta class euismod. Blandit lectus mi mollis purus cras suscipit aptent feugiat eu molestie, sodales pretium cursus fusce himenaeos ac tellus nisl non, quam quis posuere vehicula facilisis neque nulla dictumst quisque. Scelerisque torquent laoreet inceptos erat velit fusce aliquam, risus sodales cras quam posuere non varius imperdiet, tellus mattis mi dui est rutrum.

Títol 4

Maecenas orci vestibulum donec mus per phasellus malesuada, fusce aliquet id rutrum integer nunc feugiat, turpis vulputate cum suscipit mauris leo. Accumsan luctus ante duis lacus fringilla gravida, hac rutrum nisl varius sociis, natoque leo curabitur cursus tortor. Nostra laoreet imperdiet aenean enim nec curabitur dis mauris congue rutrum nisl natoque, varius potenti habitasse massa diam aliquam feugiat vestibulum blandit consequat.

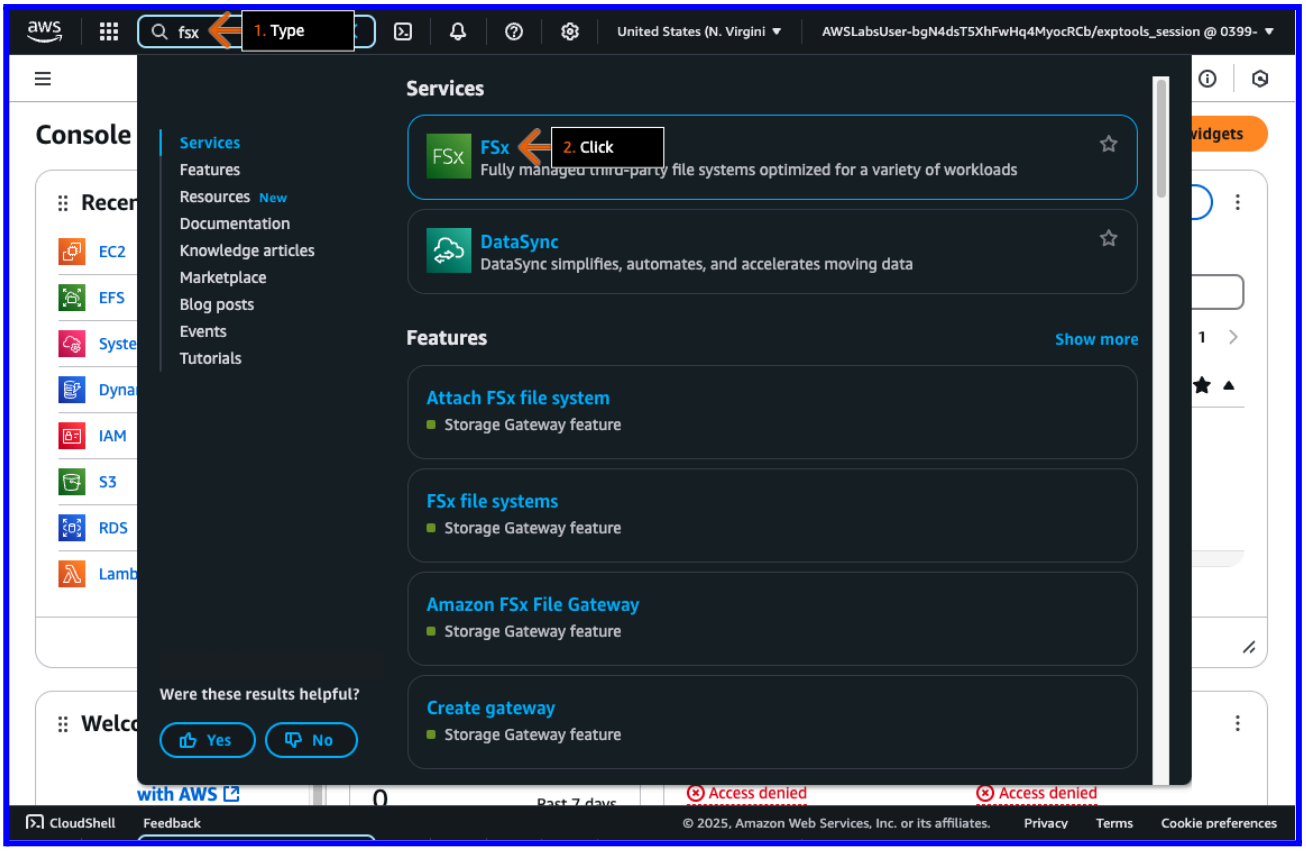
Procedimiento

SG

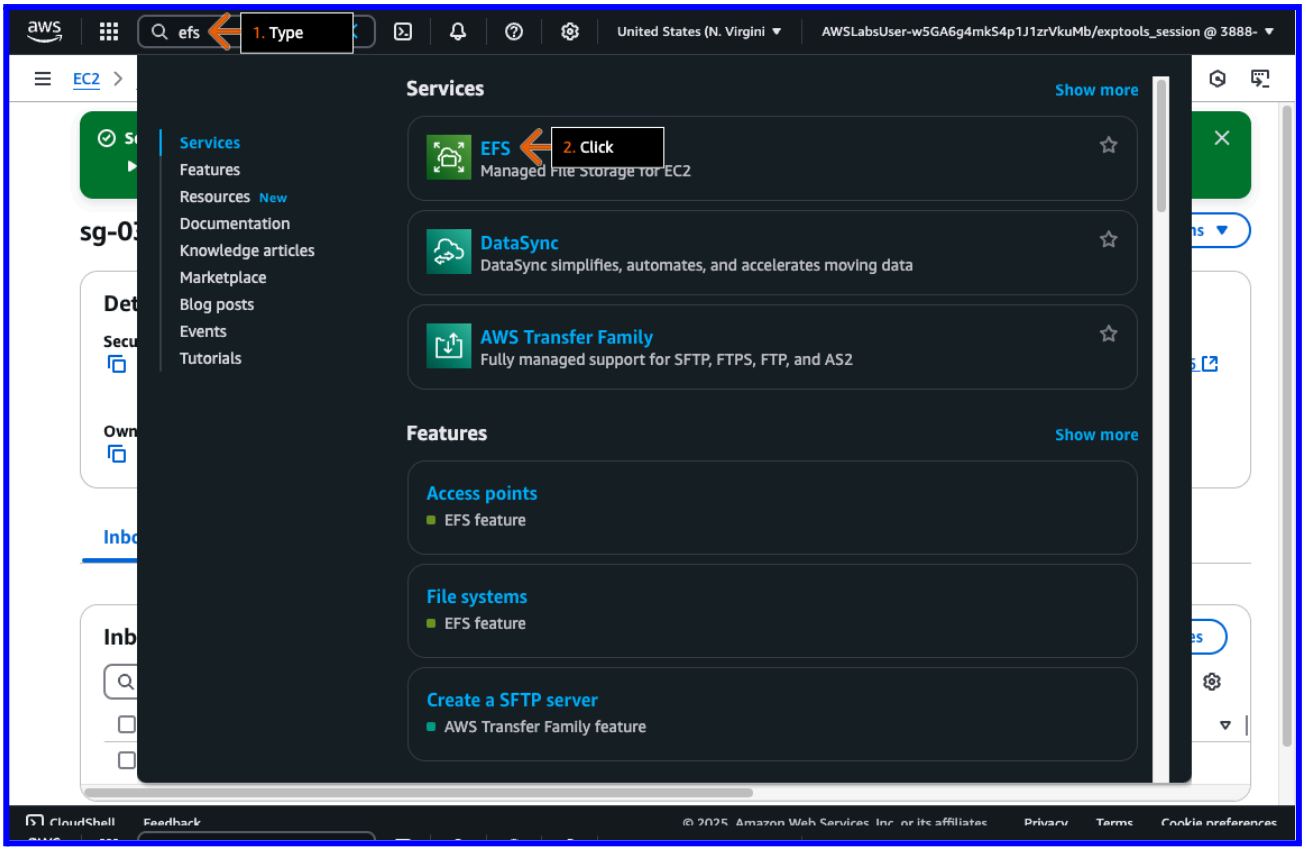


Paso 1

Que es EFX?


fsx
1. Type
United States (N. Virgini
AWSLabsUser-bgN4dsT5XhFwHq4MyocRCb/exptools_session @ 0399-
Console
Services
Features
Resources New
Documentation
Knowledge articles
Marketplace
Blog posts
Events
Tutorials
Services
FSx
2. Click
Fully managed third-party file systems optimized for a variety of workloads
DataSync
DataSync simplifies, automates, and accelerates moving data
Features
Show more
Attach FSx file system
Storage Gateway feature
FSx file systems
Storage Gateway feature
Amazon FSx File Gateway
Storage Gateway feature
Create gateway
Storage Gateway feature
Were these results helpful?
Yes
No
EC2
EFS
IAM
S3
RDS
Access denied
Access denied
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

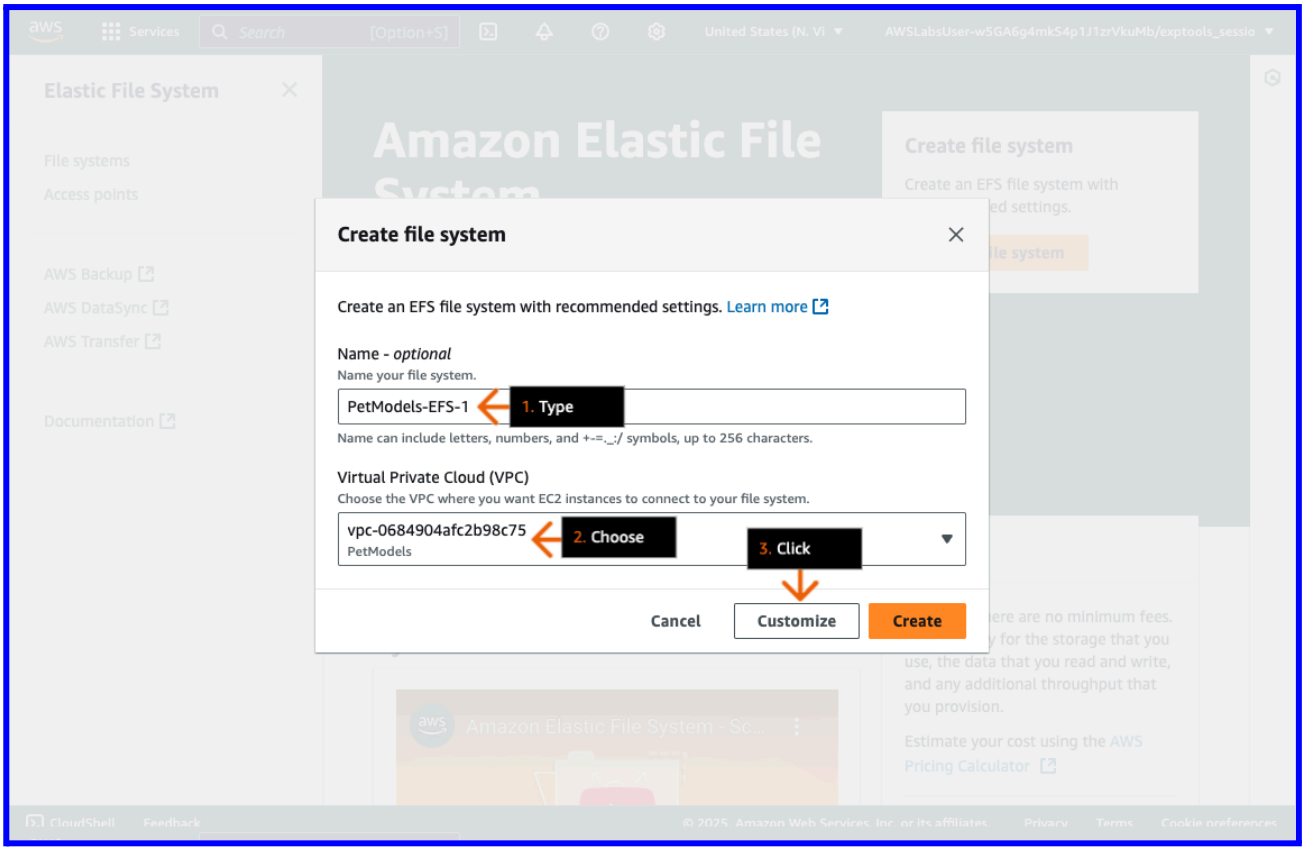
Que es EFS?

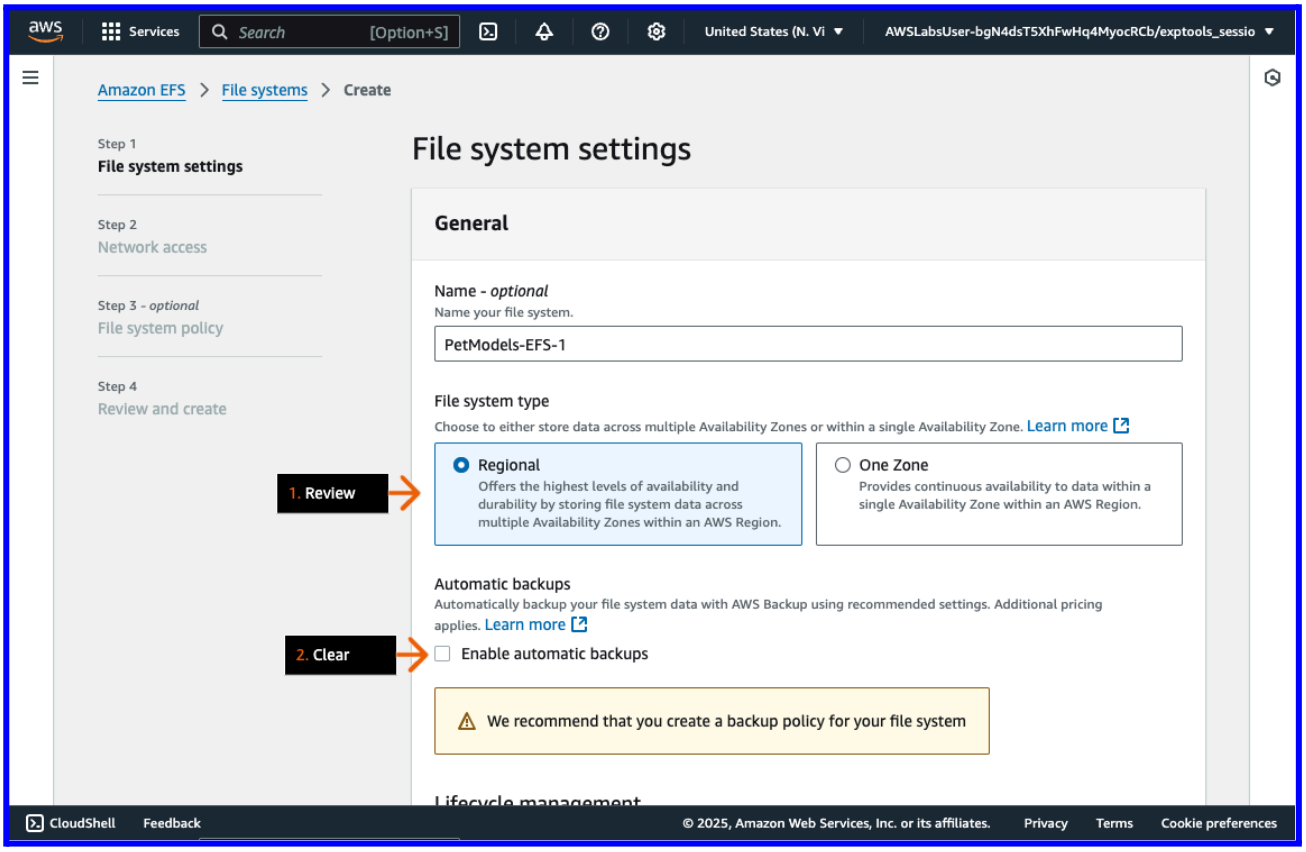


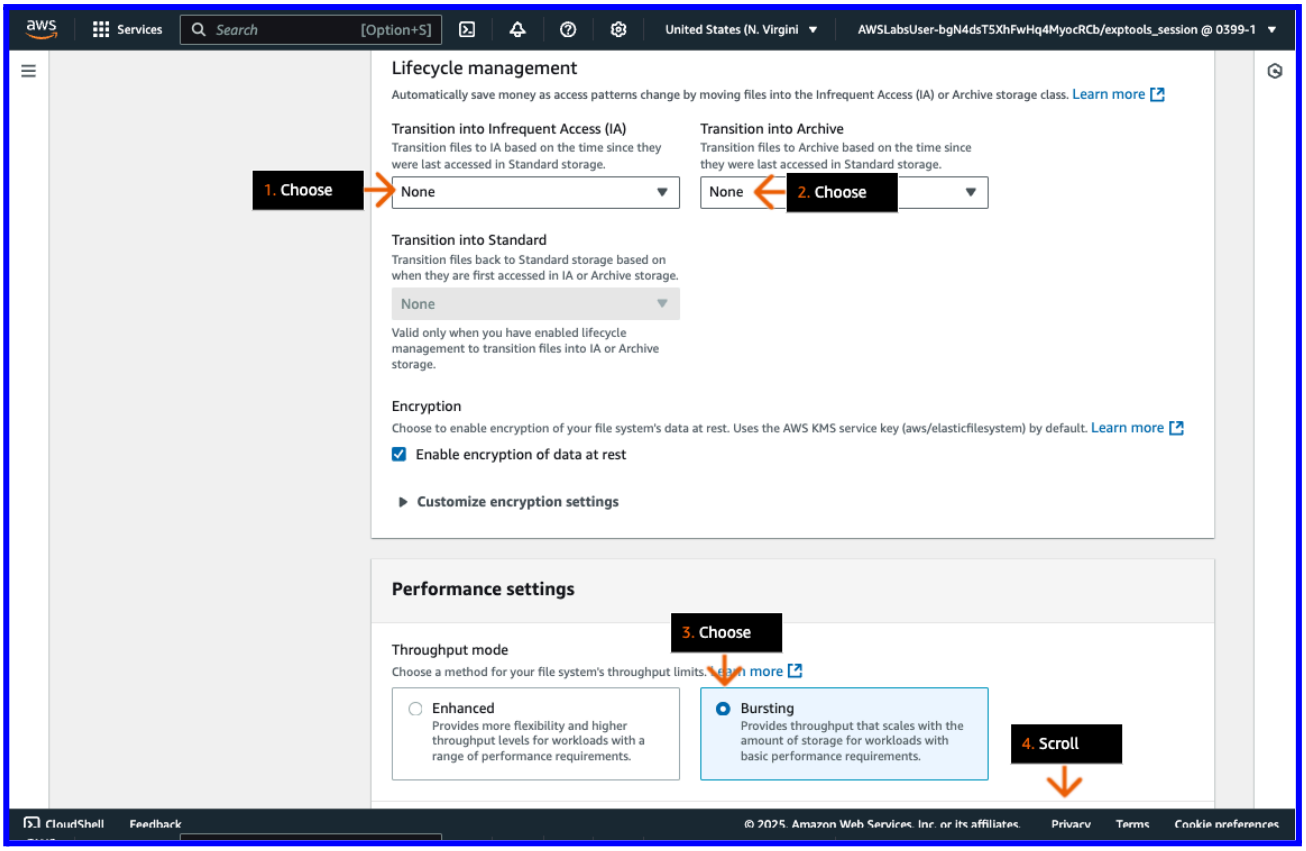
Diferencia entre FSX y EFS?

Paso 2

Creación de una EFS?


Create file system
Create an EFS file system with recommended settings. Learn more
Name - optional
Name your file system.
PetModels-EFS-1
1. Type
Name can include letters, numbers, and +-=._:/ symbols, up to 256 characters.
Virtual Private Cloud (VPC)
Choose the VPC where you want EC2 instances to connect to your file system.
vpc-0684904afc2b98c75
PetModels
2. Choose
3. Click
Cancel
Customize
Create


Amazon EFS > File systems > Create
Step 1
File system settings
Step 2
Network access
Step 3 - optional
File system policy
Step 4
Review and create
File system settings
General
Name - optional
Name your file system.
PetModels-EFS-1
File system type
Choose to either store data across multiple Availability Zones or within a single Availability Zone. Learn more
1. Review
Regional
Offers the highest levels of availability and durability by storing file system data across multiple Availability Zones within an AWS Region.
One Zone
Provides continuous availability to data within a single Availability Zone within an AWS Region.
Automatic backups
Automatically backup your file system data with AWS Backup using recommended settings. Additional pricing applies. Learn more
2. Clear
Enable automatic backups
We recommend that you create a backup policy for your file system
Lifecycle management
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences



1. Under Lifecycle management, for Transition into Infrequent Access (IA), choose None.

- Infrequent Access storage class is designed for storing long-lived, infrequently accessed files in a cost-effective manner.

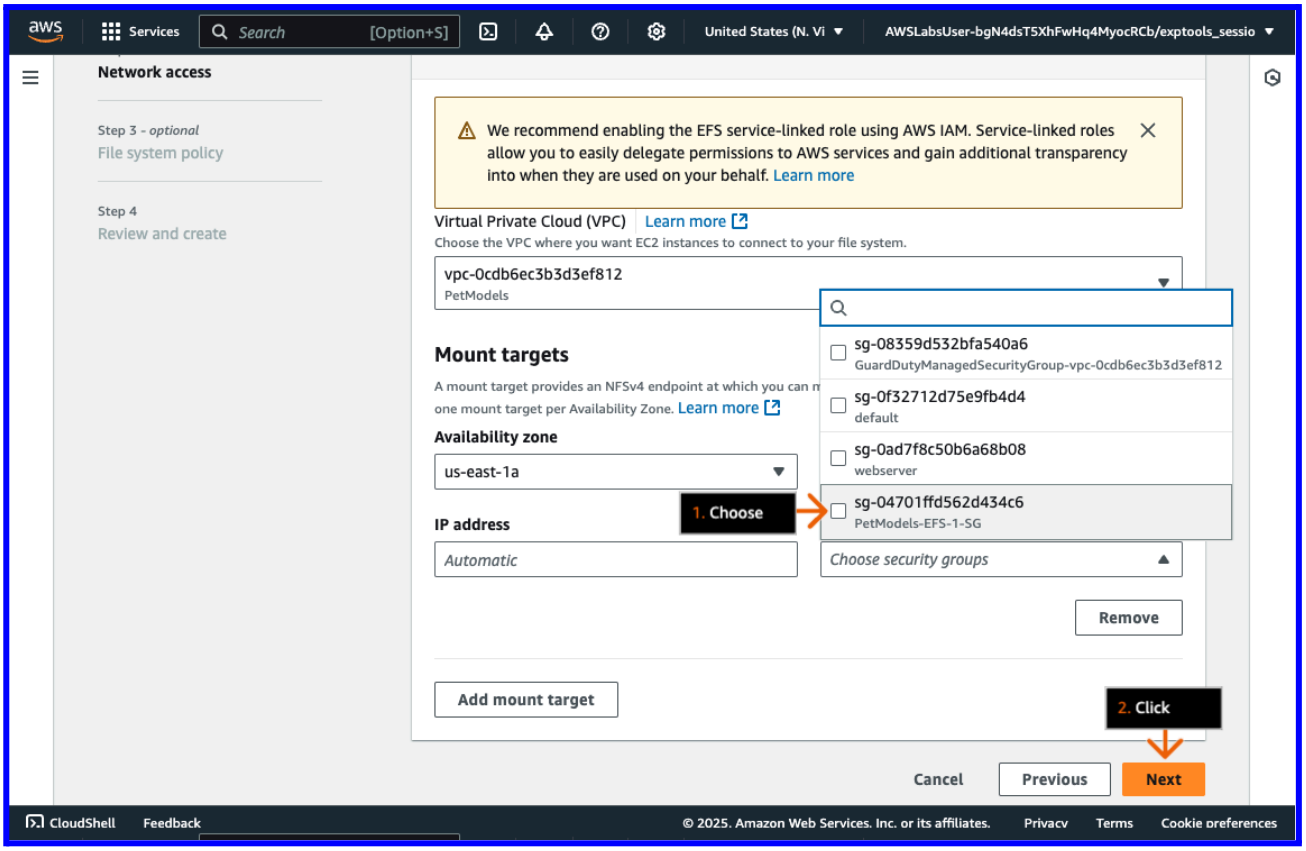
2. For Transition into Archive, choose None.

- The Archive storage class is designed for data that is accessed very infrequently — only a few times per year or less.

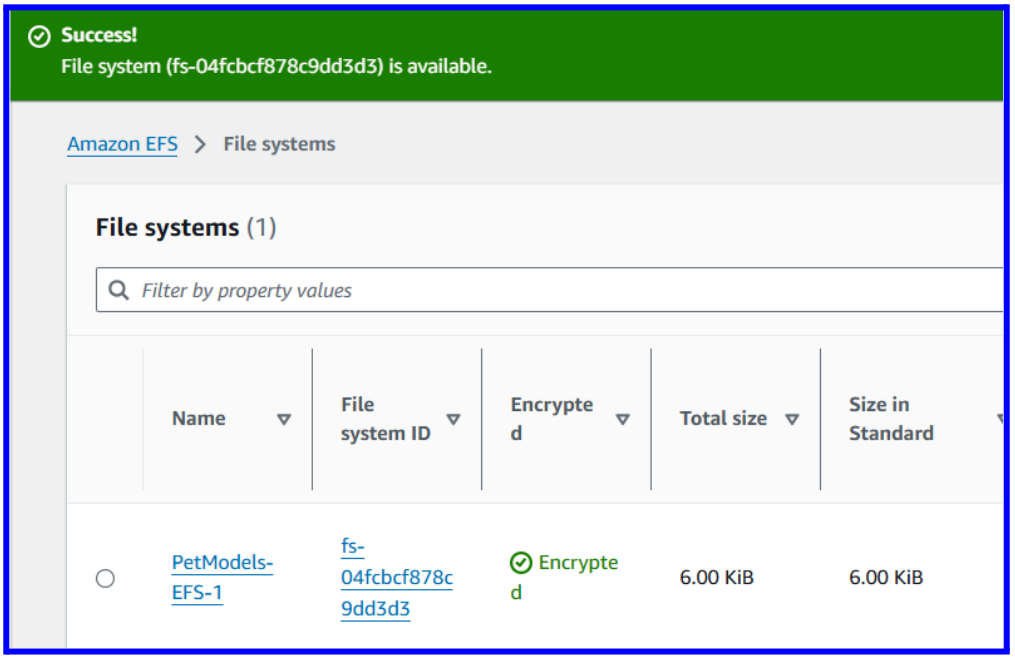
3. For Throughput mode, choose Bursting.

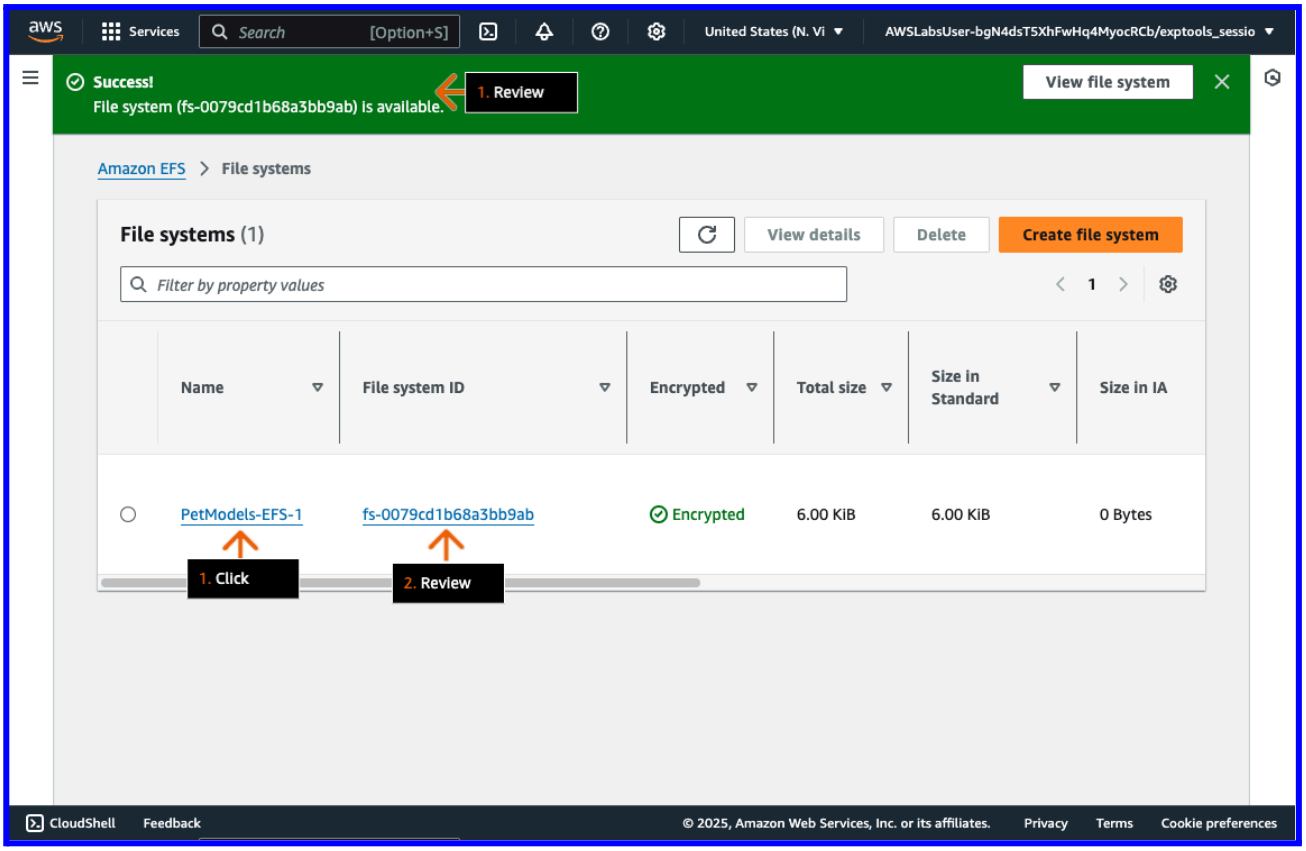
4. Scroll down to the bottom of the page, and then click Next (not shown).

5. Go to the next step.

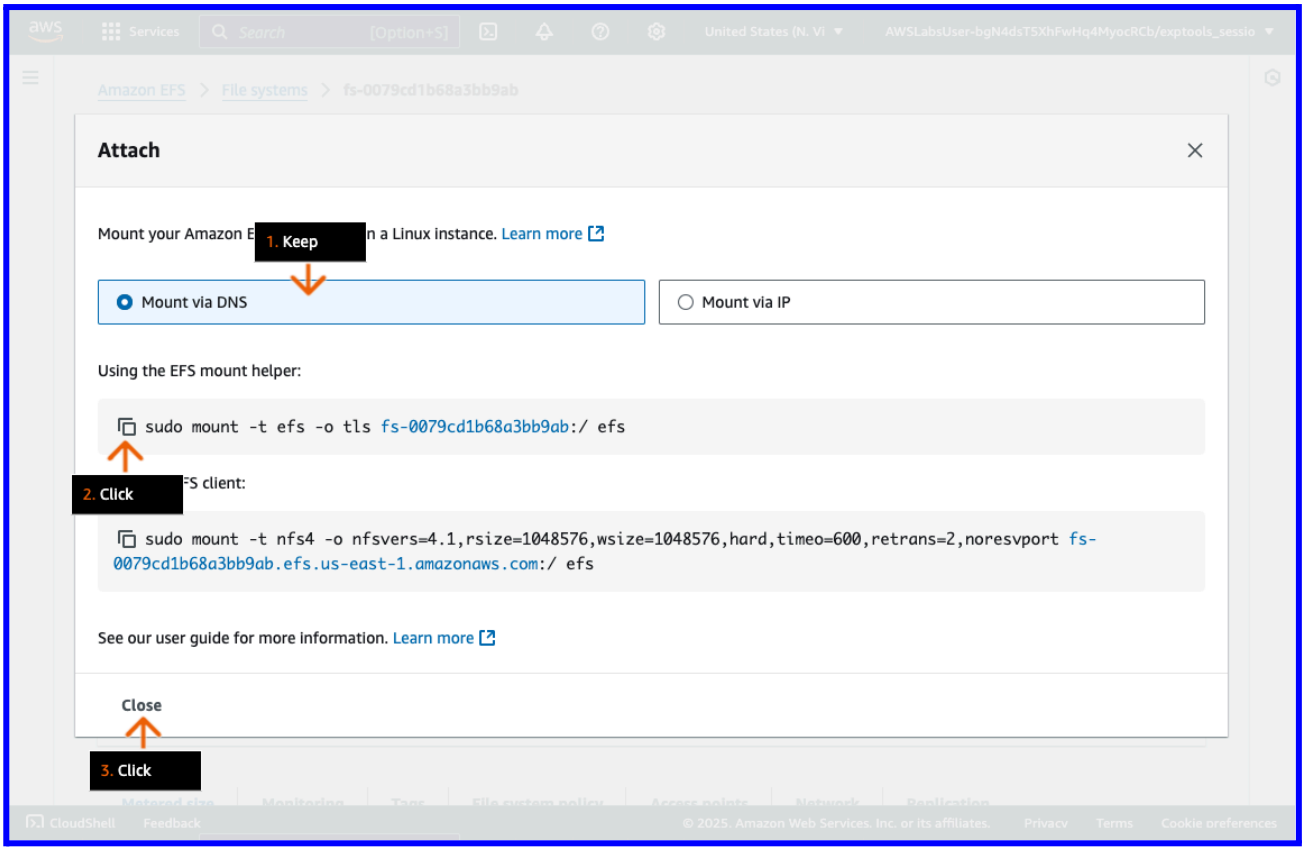

Services
Search
[Option+S]
United States (N. Vi
AWSLabsUser-bgN4dsT5XhFwHq4MyocRCb/exptools_sessio
Network access
Step 3 - optional
File system policy
Step 4
Review and create
We recommend enabling the EFS service-linked role using AWS IAM. Service-linked roles allow you to easily delegate permissions to AWS services and gain additional transparency into when they are used on your behalf. Learn more
Virtual Private Cloud (VPC) Learn more
Choose the VPC where you want EC2 instances to connect to your file system.
vpc-0cdb6ec3b3d3ef812
PetModels
Mount targets
A mount target provides an NFSv4 endpoint at which you can
one mount target per Availability Zone. Learn more
Availability zone
us-east-1a
IP address
Automatic
1. Choose
sg-08359d532bfa540a6
GuardDutyManagedSecurityGroup-vpc-0cdb6ec3b3d3ef812
sg-0f32712d75e9fb4d4
default
sg-0ad7f8c50b6a68b08
webserver
sg-04701ffd562d434c6
PetModels-EFS-1-SG
Choose security groups
Remove
Add mount target
2. Click
Cancel
Previous
Next
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

next → CREATE

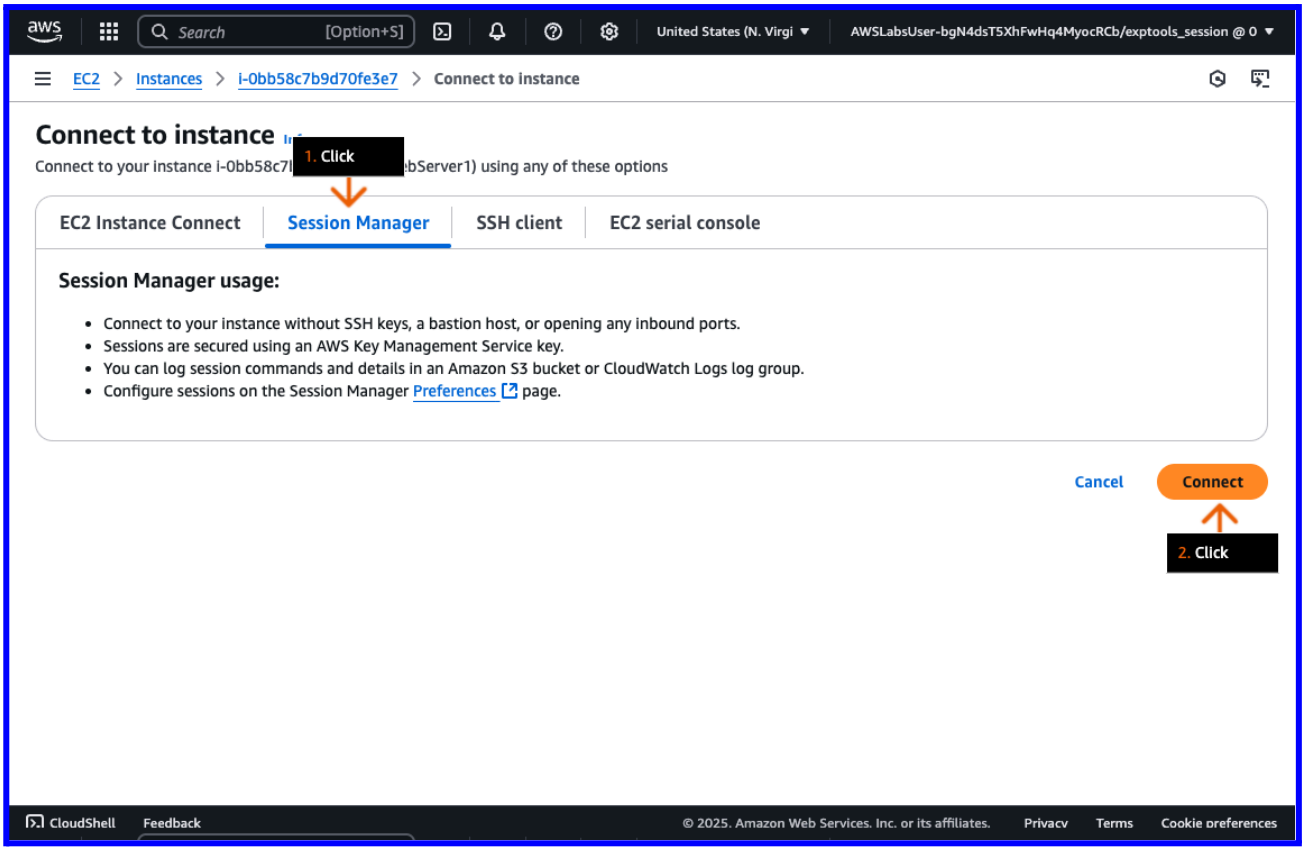

Success!
File system (fs-04fcbcf878c9dd3d3) is available.
Amazon EFS > File systems
File systems (1)
Filter by property values
Name
File system ID
Encrypted
Total size
Size in Standard
PetModels-EFS-1
fs-04fcbcf878c9dd3d3
Encrypted
6.00 KiB
6.00 KiB



Copiamos el ENDPOINT de la EFS como identificador.


Amazon EFS > File systems > fs-0079cd1b68a3bb9ab
Attach
Mount your Amazon E
1. Keep
n a Linux instance. Learn more
Mount via DNS
Mount via IP
Using the EFS mount helper:
sudo mount -t efs -o tls fs-0079cd1b68a3bb9ab:/ efs
2. Click
S client:
sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-0079cd1b68a3bb9ab.efs.us-east-1.amazonaws.com:/ efs
See our user guide for more information. Learn more
Close
3. Click

Paso 3

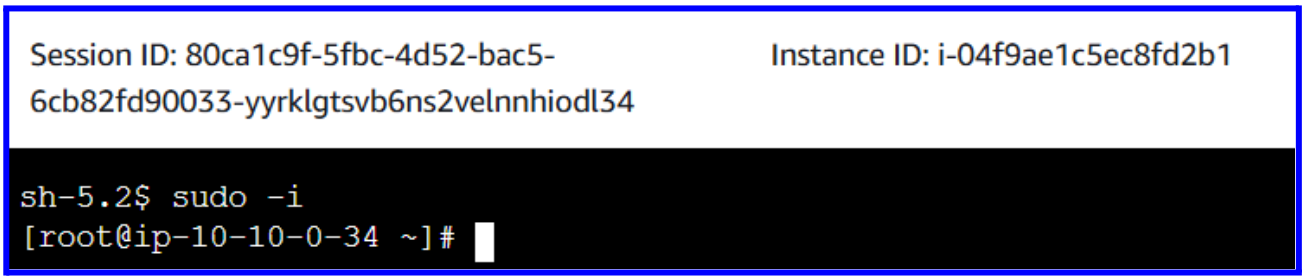


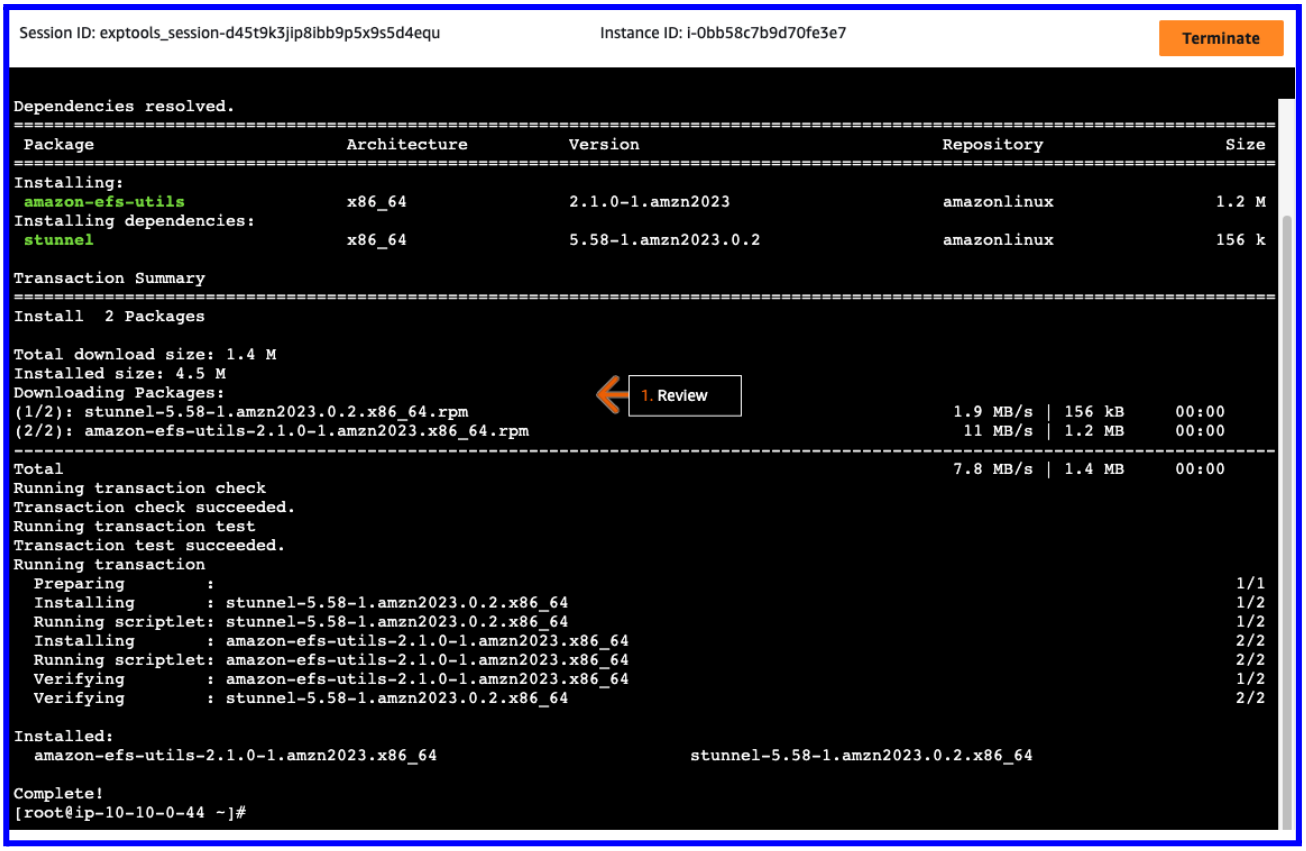
1. Click the Session Manager tab.

2. Click Connect.

- The Session Manager terminal opens in a new browser tab (or window). Keep the current browser tab open.

3. Go to the next step.





1. In the terminal, at the command prompt, run (type the command and press Enter):

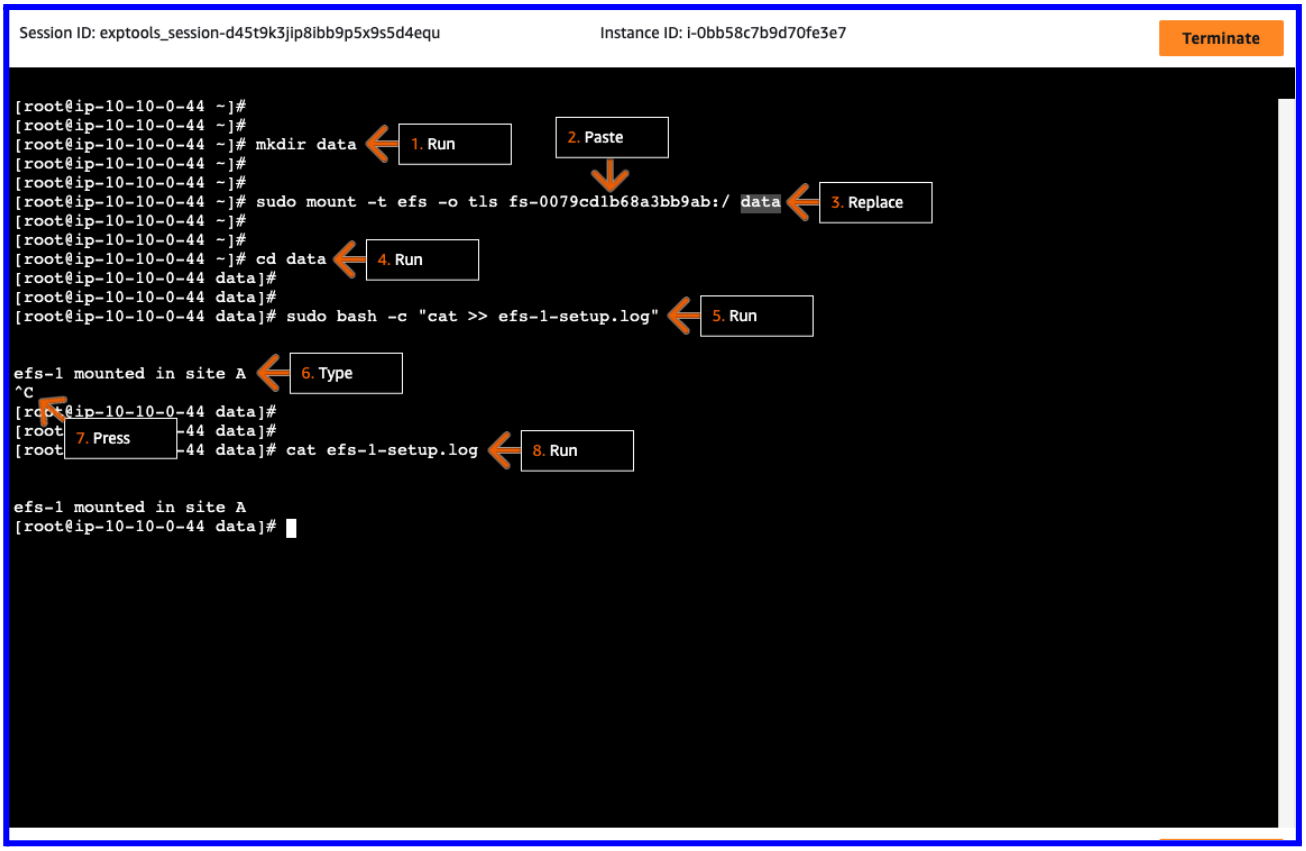
sudo -i

2. In the terminal, run:

sudo yum install -y amazon-efs-utils

- You can also copy-paste this text. If you receive an undefined value when you paste this, try again.

3. Go to the next step.



- In this step, you use Linux commands to create a data directory. You then mount the newly created EFS file system to that directory. You create a log file and append information to it. The log file and its contents are visible from other instances that have the same file system mounted.

1. In the terminal, run:

mkdir data

- If you receive a Permission Denied alert, run the following command, and then repeat the previous command:

cd ~/

2. In the terminal, paste the sudo mount command that you copied from the Amazon EFS console in an earlier step.

3. At the end of the pasted command, replace the "efs" folder name with "data" (without quotes) and press Enter.

- The command should look similar to what is displayed in the screenshot example.

4. In the terminal, run:

cd data

5. To create a log file, run:

sudo bash -c "cat >> efs-1-setup.log"

- No output is displayed. Instead, the cursor moves to a new line and waits for your next input.

6. In the terminal, type:

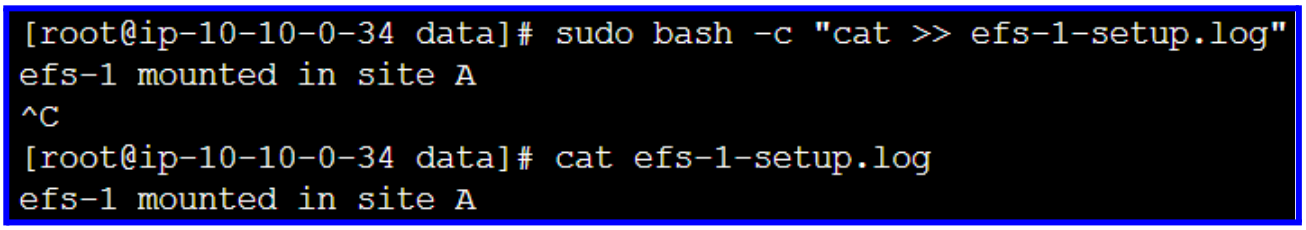
efs-1 mounted in site A

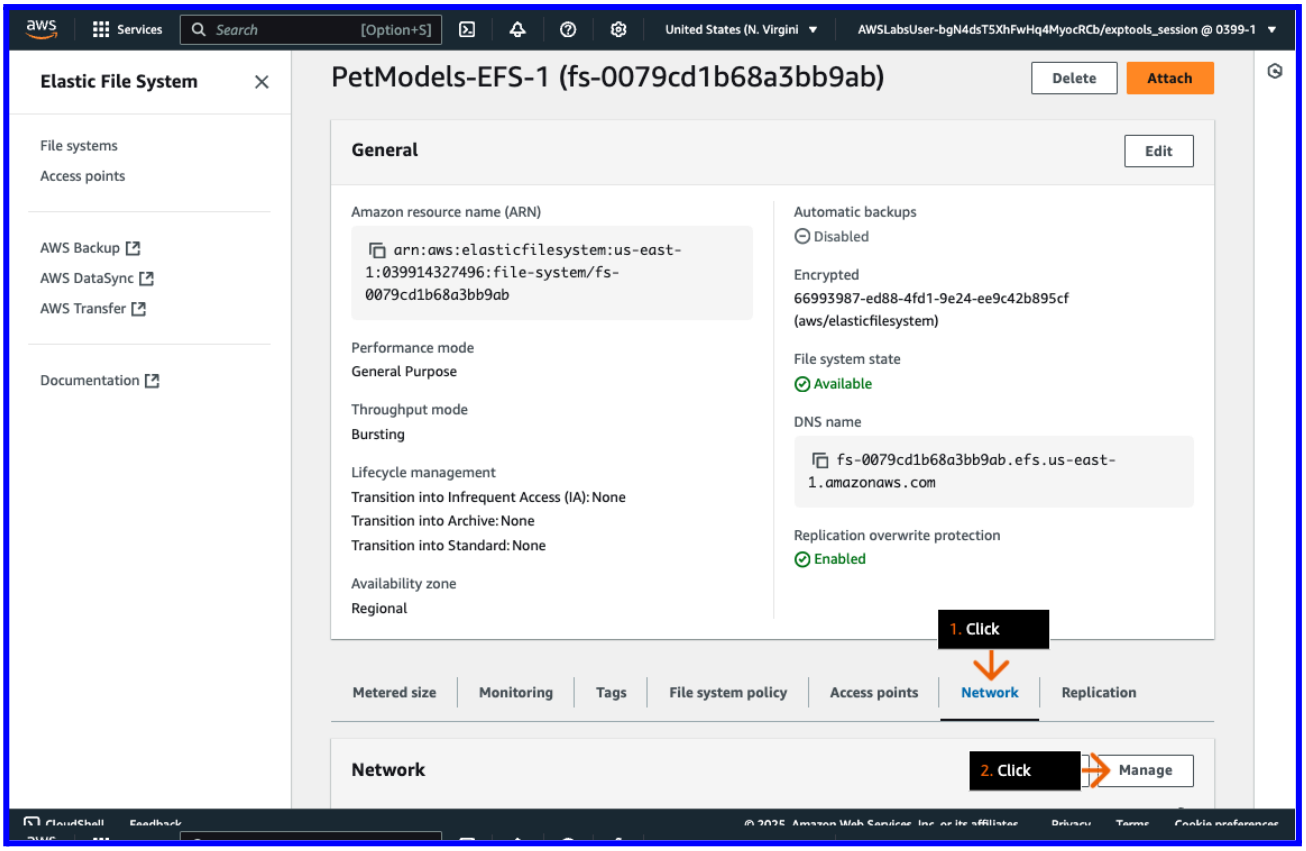
7. To end the cat session, on your keyboard, press Ctrl+C.

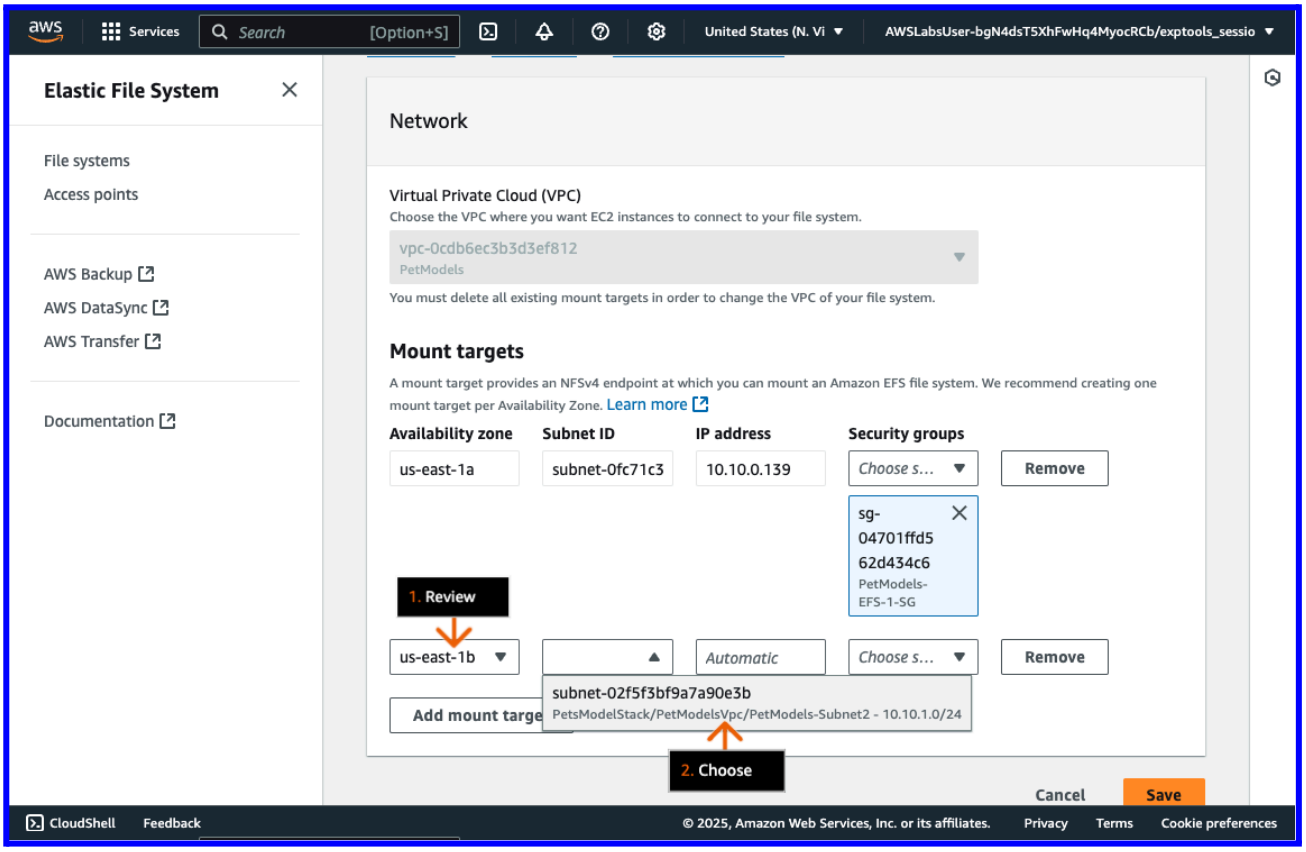
8. To view the log file contents, run:

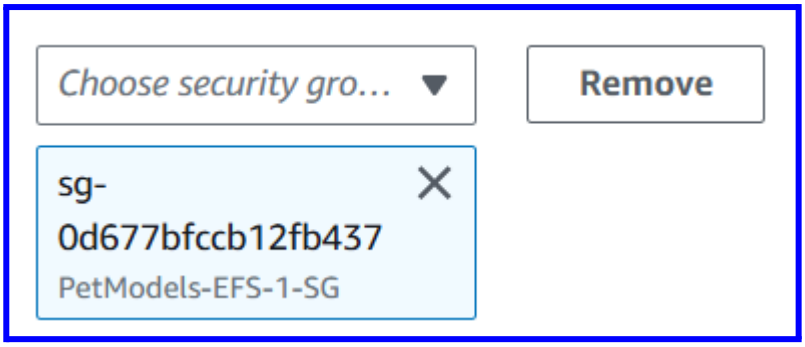
cat efs-1-setup.log

9. Go to the next step.




Elastic File System
File systems
Access points
AWS Backup
AWS DataSync
AWS Transfer
Documentation
PetModels-EFS-1 (fs-0079cd1b68a3bb9ab)
Delete
Attach
General
Edit
Amazon resource name (ARN)
arn:aws:elasticfilesystem:us-east-1:039914327496:file-system/fs-0079cd1b68a3bb9ab
Automatic backups
Disabled
Encrypted
66993987-ed88-4fd1-9e24-ee9c42b895cf (aws/elasticfilesystem)
Performance mode
General Purpose
File system state
Available
Throughput mode
Bursting
DNS name
fs-0079cd1b68a3bb9ab.efs.us-east-1.amazonaws.com
Lifecycle management
Transition into Infrequent Access (IA): None
Transition into Archive: None
Transition into Standard: None
Replication overwrite protection
Enabled
Availability zone
Regional
1. Click
Metered size
Monitoring
Tags
File system policy
Access points
Network
Replication
Network
2. Click
Manage


Elastic File System
File systems
Access points
AWS Backup
AWS DataSync
AWS Transfer
Documentation
Network
Virtual Private Cloud (VPC)
Choose the VPC where you want EC2 instances to connect to your file system.
vpc-0cdb6ec3b3d3ef812
PetModels
You must delete all existing mount targets in order to change the VPC of your file system.
Mount targets
A mount target provides an NFSv4 endpoint at which you can mount an Amazon EFS file system. We recommend creating one mount target per Availability Zone. Learn more
Availability zone
Subnet ID
IP address
Security groups
us-east-1a
subnet-0fc71c3
10.0.0.139
Choose s...
Remove
sg-04701ffd562d434c6
PetModels-EFS-1-SG
1. Review
us-east-1b
Automatic
Choose s...
Remove
subnet-02f5f3bf9a7a90e3b
PetsModelStack/PetModelsVpc/PetModels-Subnet2 - 10.10.1.0/24
Add mount targe
2. Choose
Cancel
Save
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences



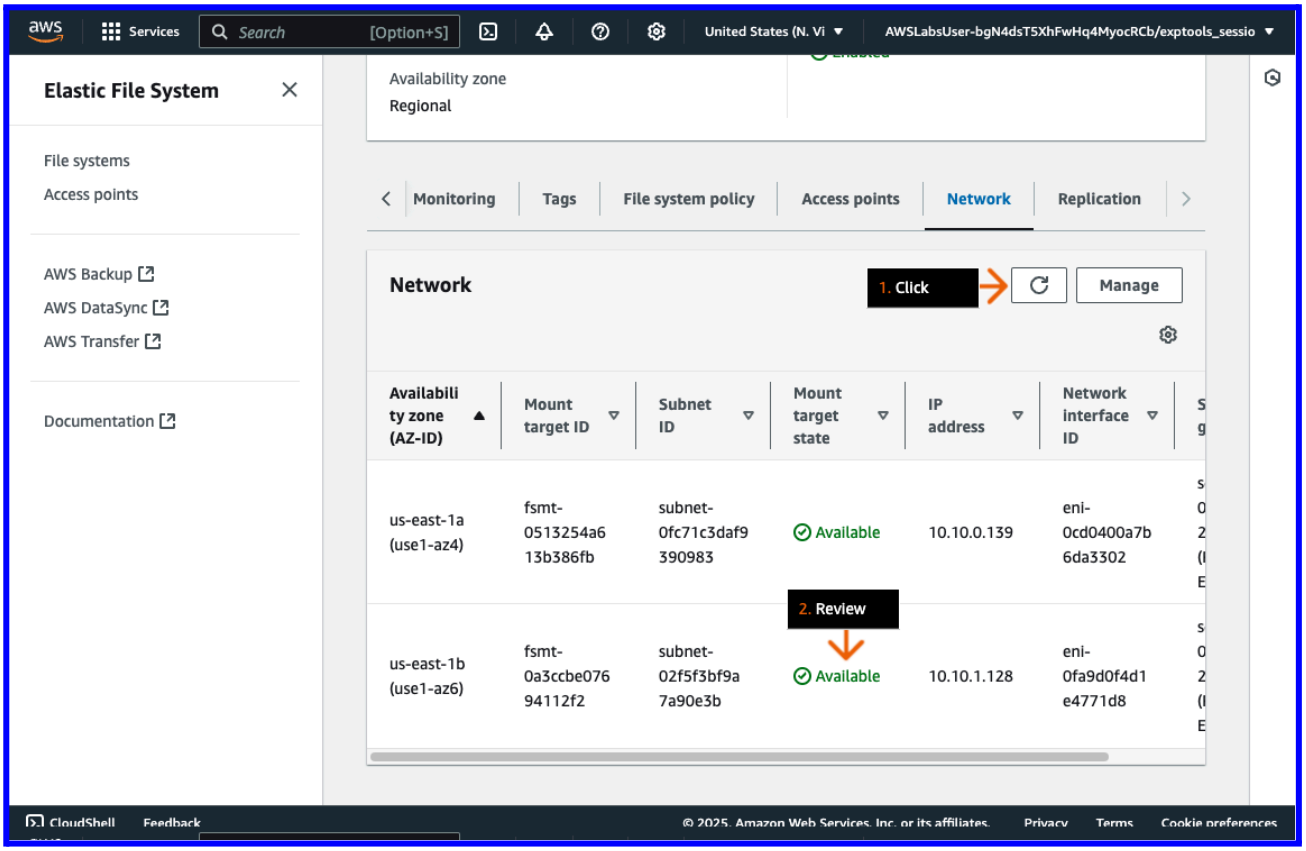
1. For Security groups, choose PetModels-EFS-1-SG.

2. Click Save.

- If the "User is not authorized to perform that action on the specified resource" error alert appears, you can safely ignore it.

3. Go to the next step.

Verificar

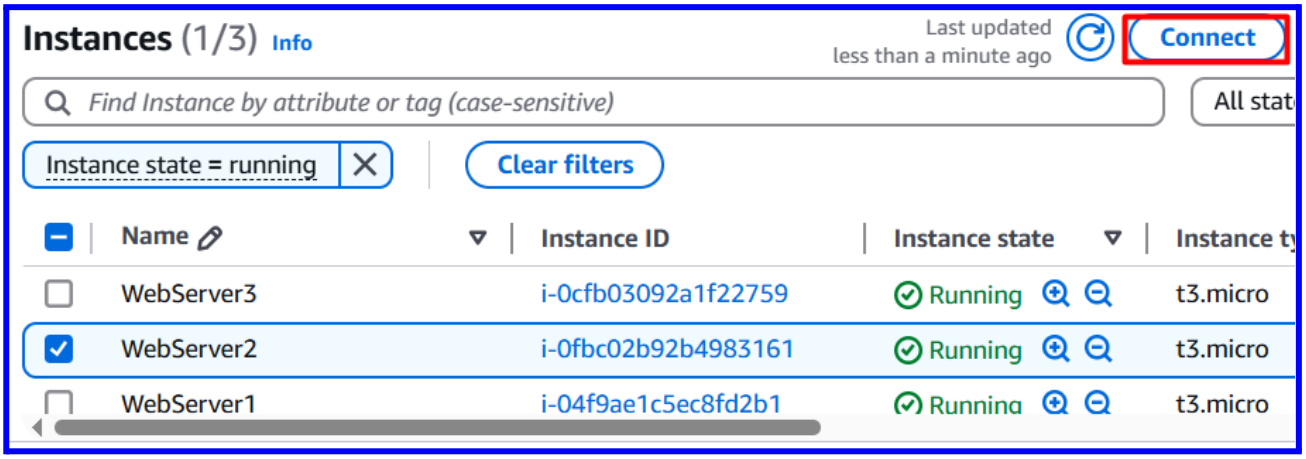


1. After a few minutes, on the Network tab, click the refresh icon.

2. For the new mount target, under Mount target state, review to confirm that the state is Available.

- Wait for the state to change before proceeding.

3. Go to the next step.



Session Manager

Realizamos los mismos pasos de lo que hicimos en el WebServer1 montamos el efs en las instancias.

```
[root@ip-10-10-1-181 ~]# sudo bash -c "cat >> efs-1-setup.log"
efs-1 mounted in site B
^C
[root@ip-10-10-1-181 ~]# cat efs-1-setup.log
efs-1 mounted in site A

efs-1 mounted in site B
```

DIY Goals

Mount an EFS endpoint to a third EC2 instance.

Test that the files are accessible from the EC2 instance.

Ahora nos conectamos a la WebServer3 con session manager y ejecutamos los siguientes comandos para montar la EFS:

sudo -i

sudo yum install -y amazon-efs-utils

```
sh-5.2$ sudo -i
[root@ip-10-10-2-83 ~]# sudo yum install -y amazon-efs-utils
Last metadata expiration check: 0:59:08 ago on Mon Apr  7 07:15:41 2025.
Dependencies resolved.
================================================================================
 Package                          Architecture                  Version
================================================================================
Installing:
 amazon-efs-utils                 x86_64                        2.2.1-1.amzn202
Installing dependencies:
 stunnel                          x86_64                        5.58-1.amzn2023

Transaction Summary
================================================================================
Install  2 Packages

Total download size: 1.3 M
Installed size: 4.2 M
Downloading Packages:
(1/2): stunnel-5.58-1.amzn2023.0.2.x86_64.rpm
(2/2): amazon-efs-utils-2.2.1-1.amzn2023.x86_64.rpm
--------------------------------------------------------------------------------
Total
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing        :
  Installing       : stunnel-5.58-1.amzn2023.0.2.x86_64
  Running scriptlet: stunnel-5.58-1.amzn2023.0.2.x86_64
  Installing       : amazon-efs-utils-2.2.1-1.amzn2023.x86_64
  Running scriptlet: amazon-efs-utils-2.2.1-1.amzn2023.x86_64
  Verifying        : amazon-efs-utils-2.2.1-1.amzn2023.x86_64
  Verifying        : stunnel-5.58-1.amzn2023.0.2.x86_64

Installed:
  amazon-efs-utils-2.2.1-1.amzn2023.x86_64                              stu

Complete!
```

```
[root@ip-10-10-2-83 ~]# sudo mount -t efs -o tls fs-04fcbcf878c9dd3d3:/ data
Failed to resolve "fs-04fcbcf878c9dd3d3.efs.us-east-1.amazonaws.com" - check that your file sy
 this file system ID.
See https://docs.aws.amazon.com/console/efs/mount-dns-name for more detail.
Attempting to lookup mount target ip address using botocore. Failed to import necessary depend
[root@ip-10-10-2-83 ~]#
```

Parece que estás intentando montar un sistema de archivos EFS en una instancia EC2, pero estás encontrando un error relacionado con la resolución del ID del sistema de archivos y la falta de la dependencia botocore.

Verifica que el ID del sistema de archivos es correcto

Asegúrate de que fs-04fcbcf878c9dd3d3 es el ID correcto de tu sistema de archivos EFS en la región us-east-1. Puedes comprobarlo en la consola de AWS en la sección de Amazon EFS.

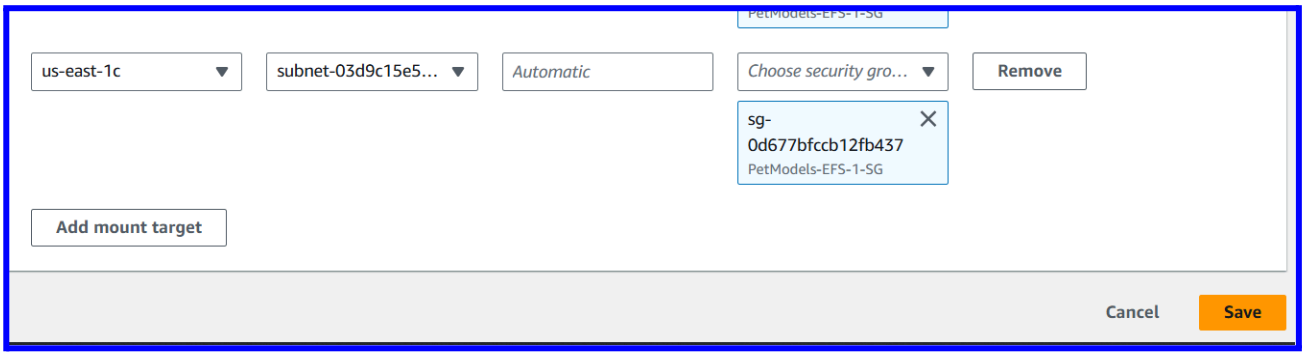
Comprueba si hay un punto de montaje disponible en tu VPC

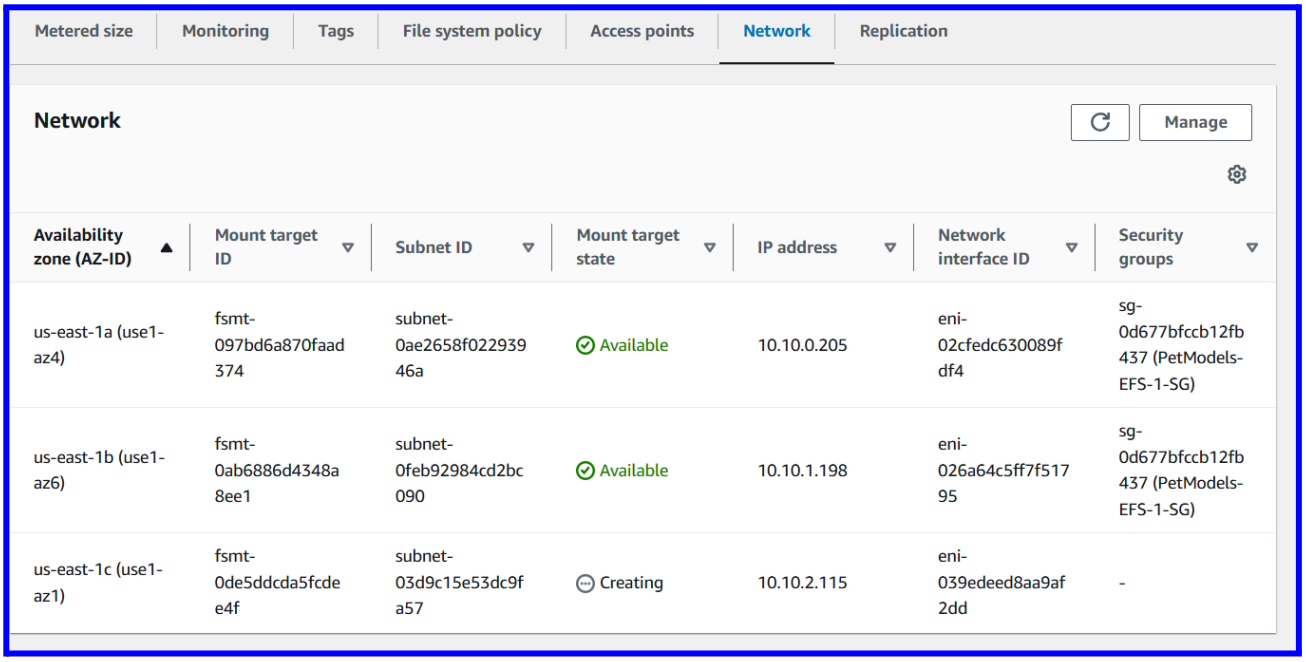
Ve a la consola de AWS.

Navega a EFS > Tu sistema de archivos.

En la pestaña Network, asegúrate de que existe al menos un Mount Target en la misma VPC y subred que tu instancia EC2.

MOUNT TARGET





Availability zone (AZ-ID)	Mount target ID	Subnet ID	Mount target state	IP address	Network interface ID	Security groups
us-east-1a (use1-az4)	fsmt-097bd6a870faad374	subnet-0ae2658f02293946a	Available	10.10.0.205	eni-02cfedc630089fdf4	sg-0d677bfccb12fb437 (PetModels-EFS-1-SG)
us-east-1b (use1-az6)	fsmt-0ab6886d4348a8ee1	subnet-0feb92984cd2bc090	Available	10.10.1.198	eni-026a64c5ff7f51795	sg-0d677bfccb12fb437 (PetModels-EFS-1-SG)
us-east-1c (use1-az1)	fsmt-0de5ddcda5fcdee4f	subnet-03d9c15e53dc9fa57	Creating	10.10.2.115	eni-039edeed8aa9af2dd	-

Availability zone (AZ-ID)	Mount target ID	Subnet ID	Mount target state	IP address	Network interface ID	Security groups
us-east-1a (use1-az4)	fsmt-097bd6a870faad374	subnet-0ae2658f02293946a	Available	10.10.0.205	eni-02cfedc630089fdf4	sg-0d677bfccb12fb437 (PetModels-EFS-1-SG)
us-east-1b (use1-az6)	fsmt-0ab6886d4348a8ee1	subnet-0feb92984cd2bc090	Available	10.10.1.198	eni-026a64c5ff7f51795	sg-0d677bfccb12fb437 (PetModels-EFS-1-SG)
us-east-1c (use1-az1)	fsmt-0de5ddcda5fcdee4f	subnet-03d9c15e53dc9fa57	Available	10.10.2.115	eni-039edeed8aa9af2dd	sg-0d677bfccb12fb437 (PetModels-EFS-1-SG)

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Evaluación de la Actividad

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Títol 2

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Titol 3

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Títol 4

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Referencias

https://explore.skillbuilder.aws/learn/courses/20091/aws-simulearn-file-systems-in-the-cloud/lessons/144860/start-aws-simulearn