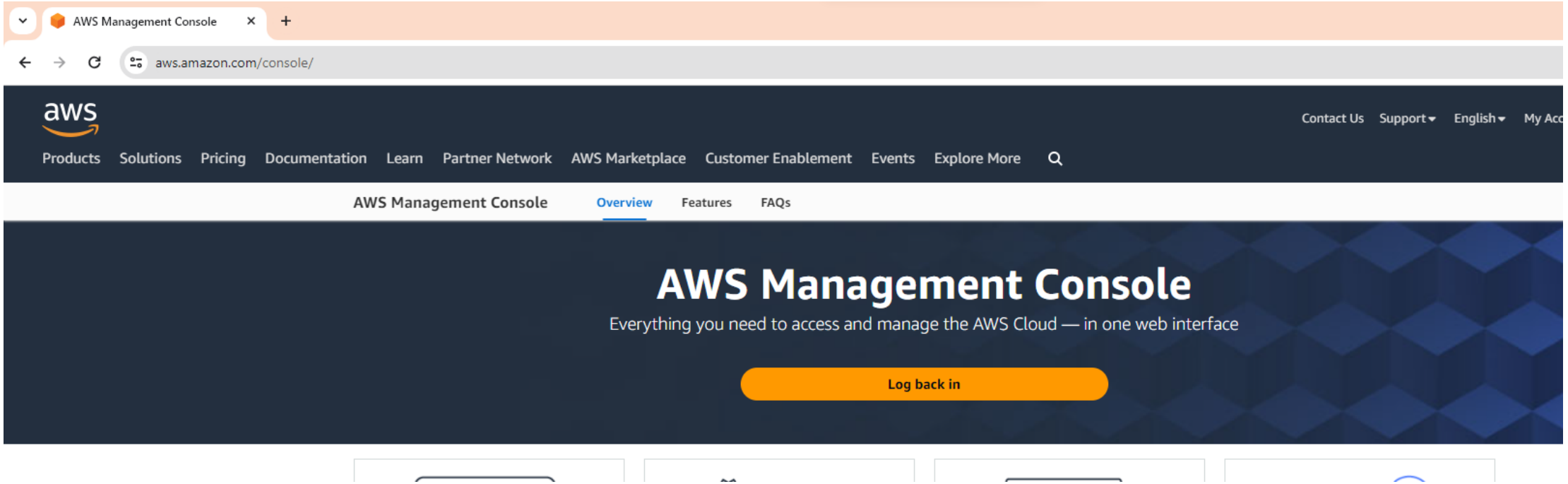
# EFS

# EFS – Elastic File System

- It is a managed NFS – Network File System
- Can be mounted to many EC2 instances
- Can be added to different availability zone AZ’s
- Will support only to Linux not windows
- Can enable KMS for encryption
- Storage class – File Storage
- Provides a simple serverless and elastic file system that lets to share file data without provisioning or managing storage

# Login - AWS


AWS Management Console
aws.amazon.com/console/
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English
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Solutions
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Overview
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FAQs
AWS Management Console
Everything you need to access and manage the AWS Cloud — in one web interface
Log back in

## Sign in

**Root user**
Account owner that performs tasks requiring unrestricted access. Learn more

**IAM user**
User within an account that performs daily tasks. Learn more

**Root user email address**

username@example.com

Next

By continuing, you agree to the AWS Customer Agreement or other agreement for AWS services, and the Privacy Notice. This site uses essential cookies. See our Cookie Notice for more information.

New to AWS?

Create a new AWS account



## Root user sign in

**Email:** tkpradeep.it@gmail.com

**Password** Forgot password?

Sign in

Sign in to a different account

Create a new AWS account



## Multi-factor authentication

Your account is secured using multi-factor authentication (MFA). To finish signing in, turn on or view your MFA device and type the authentication code below.

**Email address:** tkpradeep.it@gmail.com

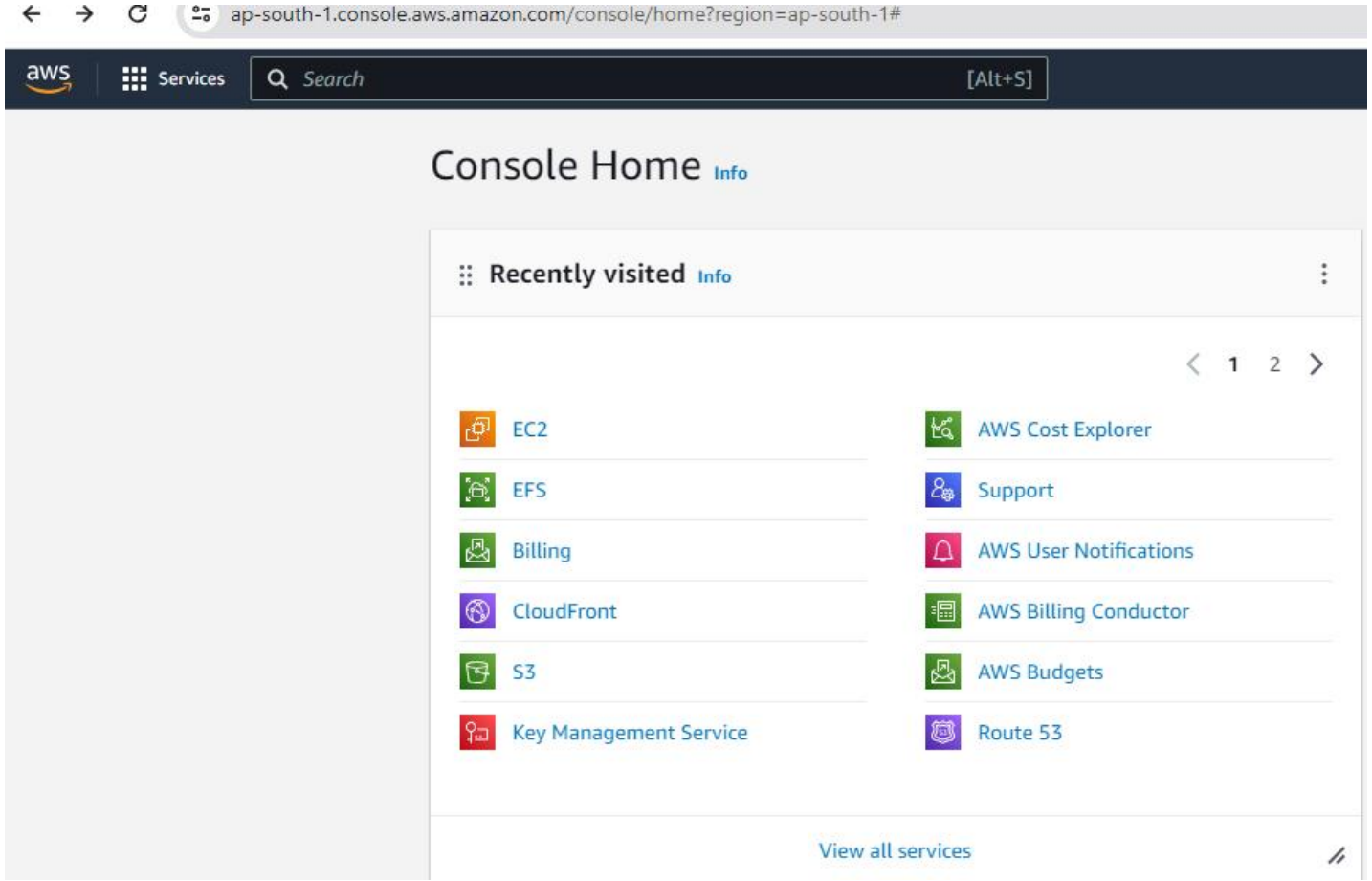
**MFA code**

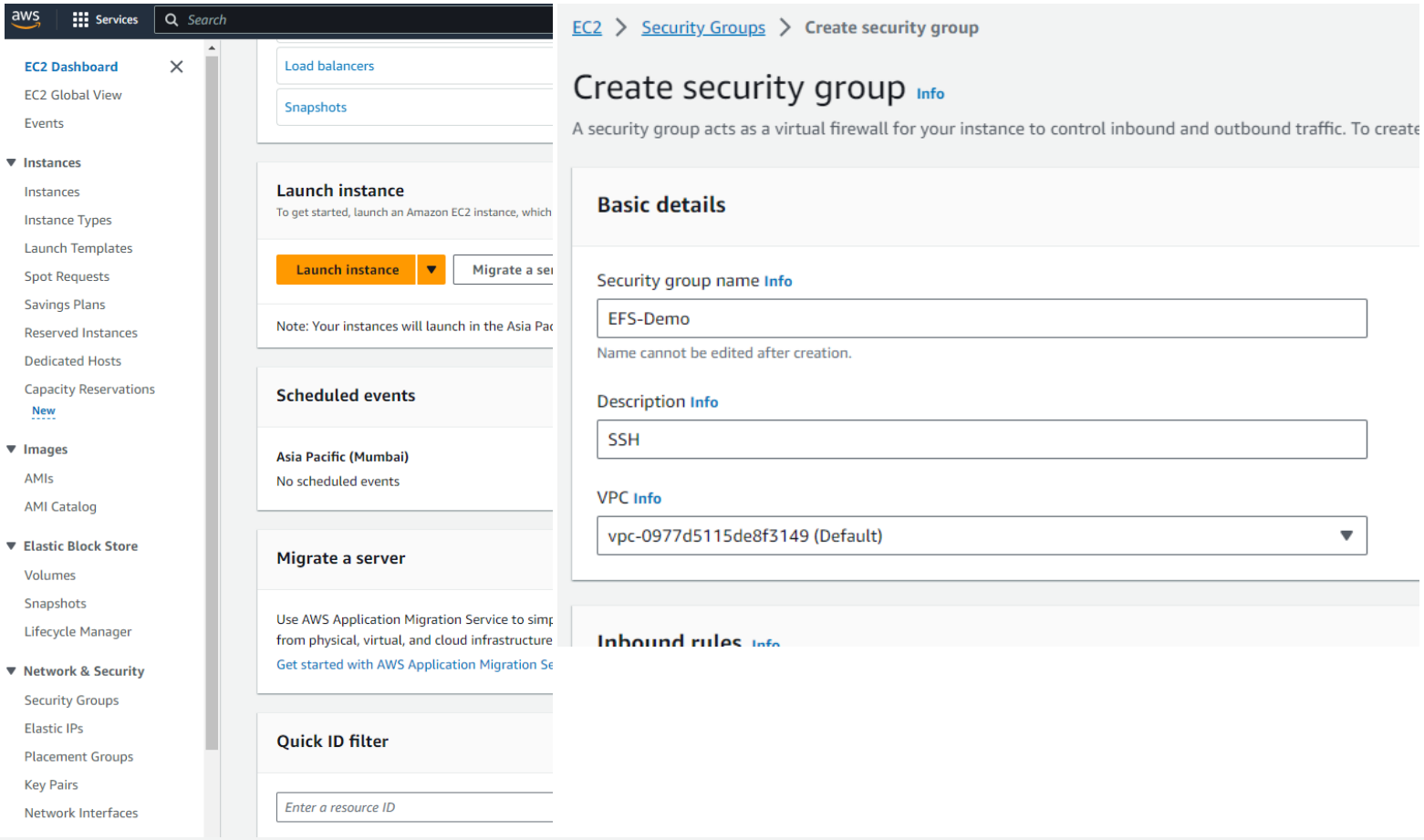
Submit

Troubleshoot MFA

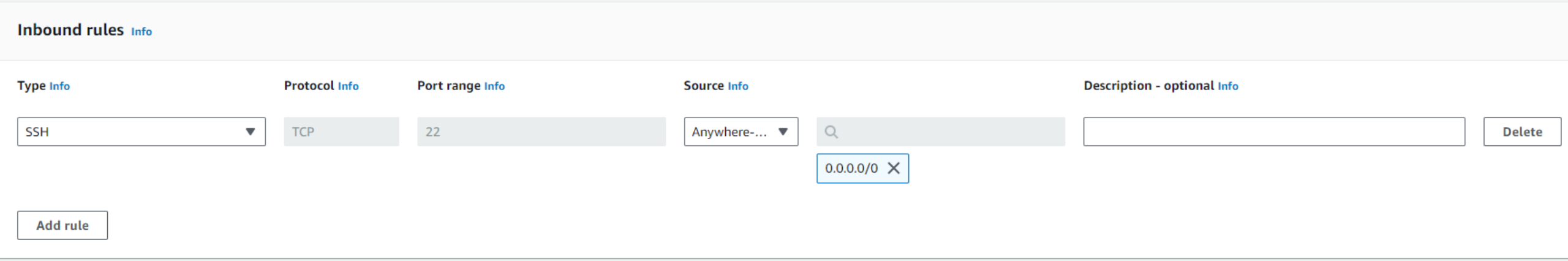
Cancel

# Go to search – EC2 – Create a Security Policy

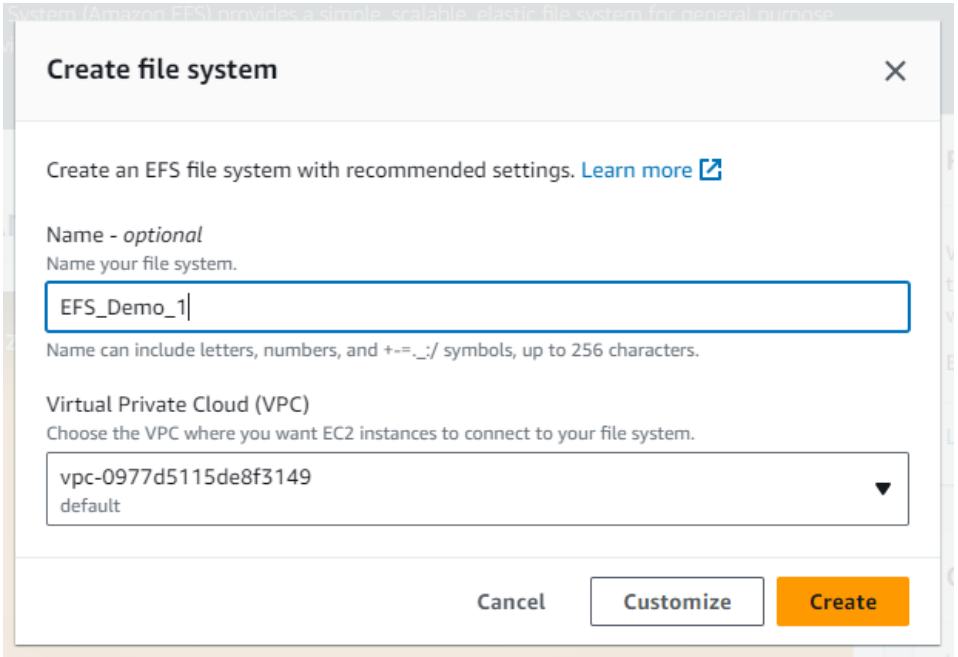




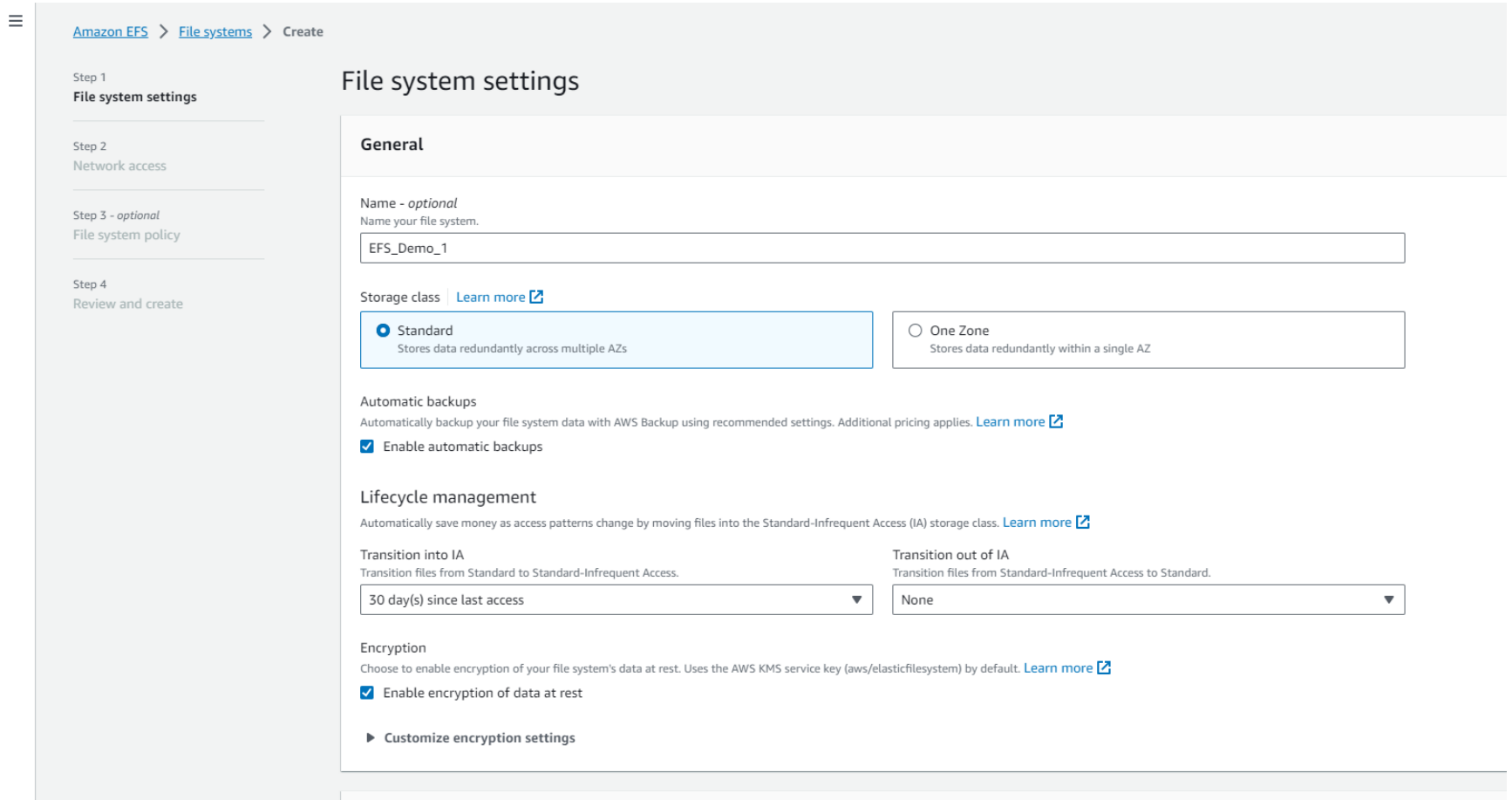

Create a policy by adding inbound rule ssh.



# Go to EFS – Create a EFS – add the security policy created

# Select – Customize – Defaults



Choose to enable encryption of your file system's data at rest. Uses the AWS KMS service key (aws/elasticfilesystem) by default. Learn more

Enable encryption of data at rest

Customize encryption settings

## Performance settings

Throughput mode

Choose a method for your file system's throughput limits. Learn more

- Enhanced
  Provides more flexibility and higher throughput levels for workloads with a range of performance requirements.
- Bursting
  Provides throughput that scales with the amount of storage for workloads with basic performance requirements.

- Elastic (Recommended)
  Use this mode for workloads with unpredictable I/O. With Elastic mode, your throughput scales automatically and you only pay for what you use.
- Provisioned
  Use this mode if you can estimate your workload's throughput requirements. With Provisioned mode, you configure your file system's throughput and pay for throughput provisioned.

Additional settings

Performance mode

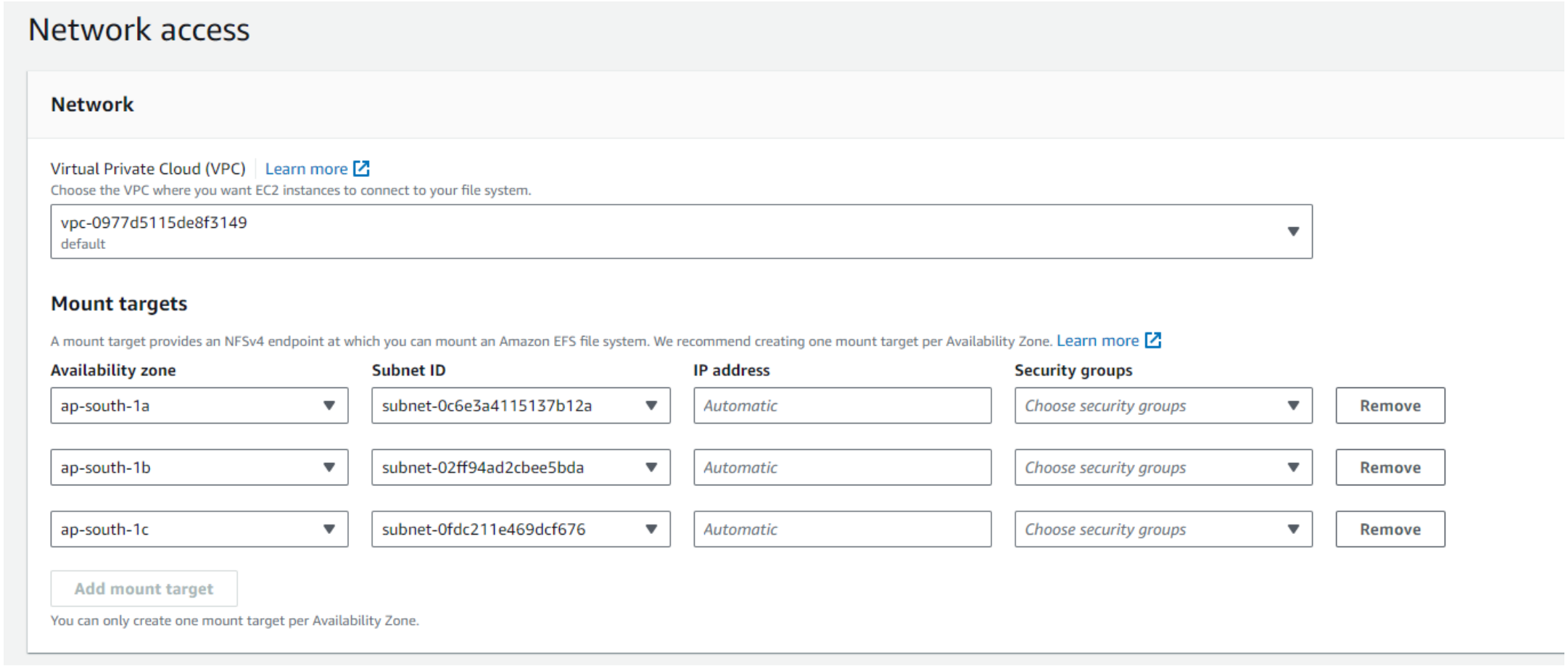
Set your file system's performance mode based on IOPS required. File systems using Elastic throughput mode only support General Purpose performance mode. Learn more

- General Purpose (Recommended)
  Ideal for a variety of diverse workloads, including high performance and latency-sensitive applications
- Max I/O
  Designed for highly parallelized workloads that can tolerate higher latencies

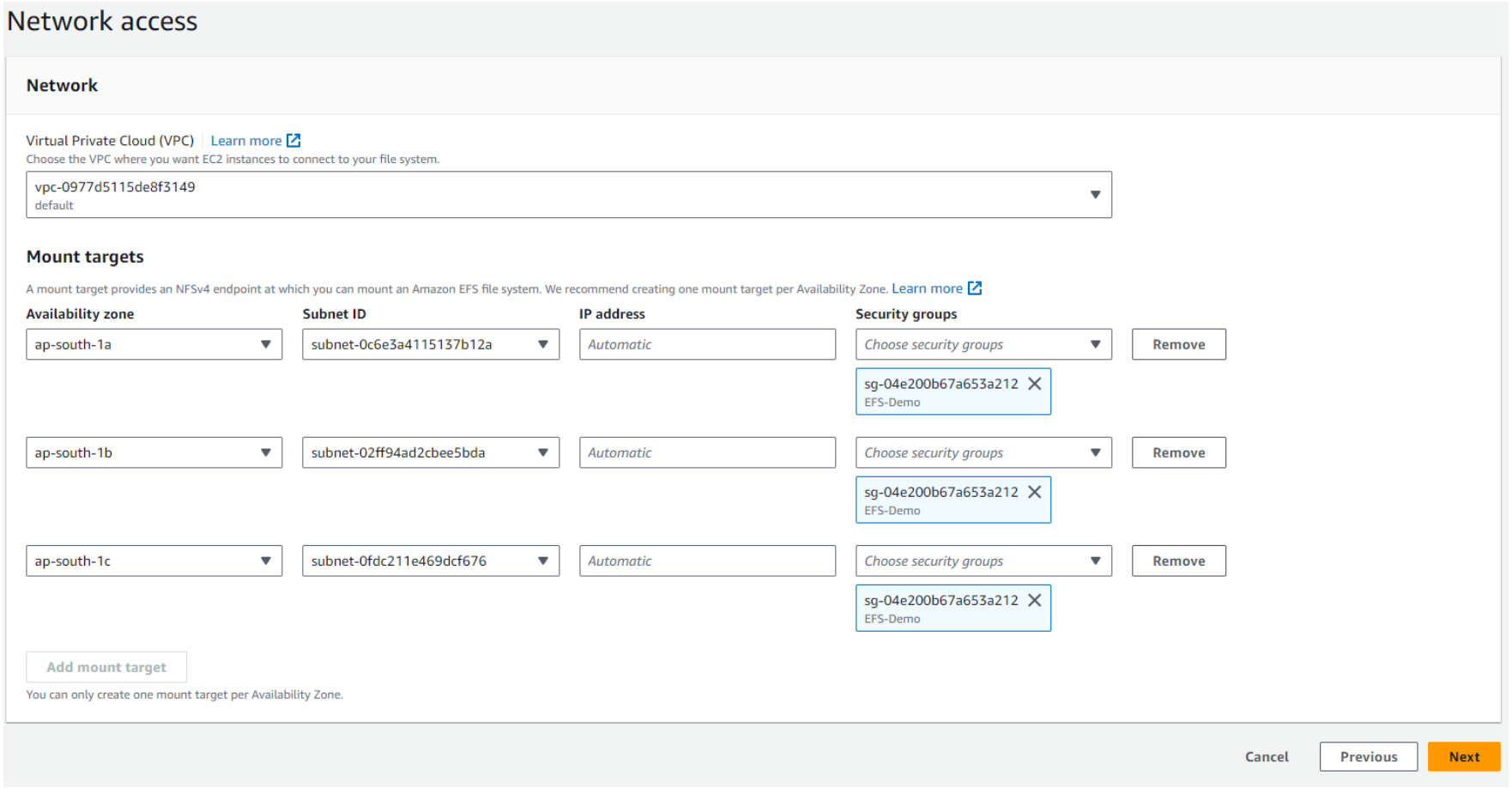
Tags optional

Cancel Next

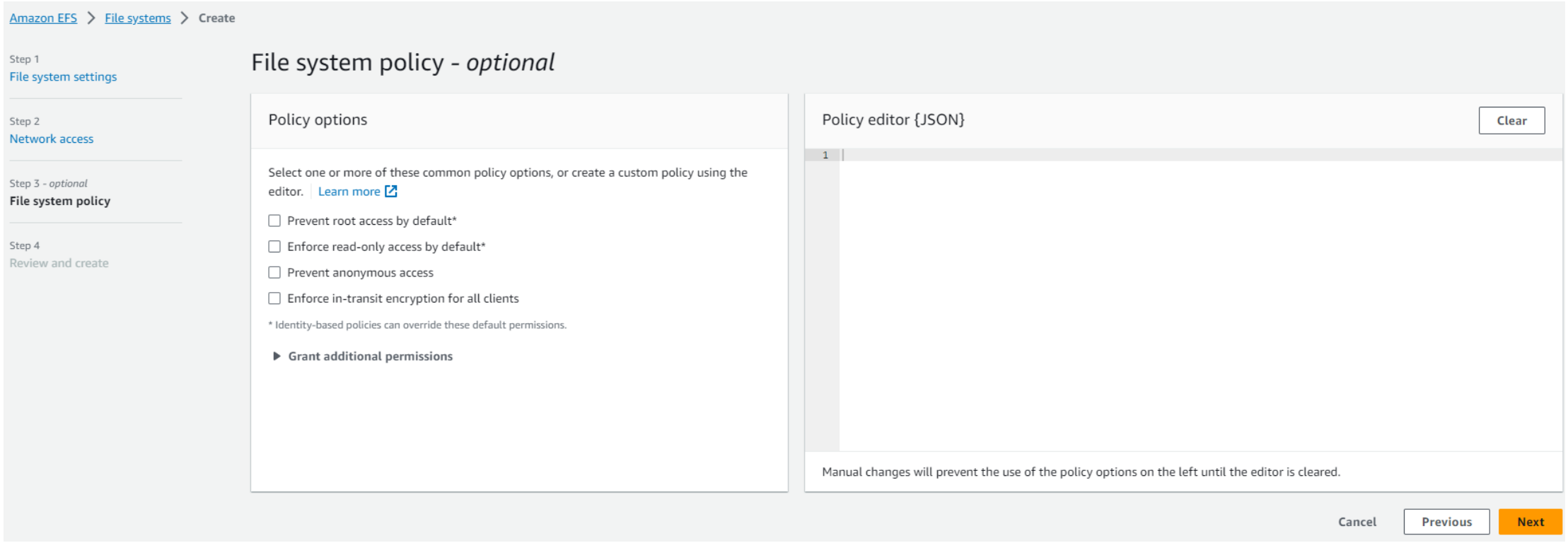
# Delete the security policy - existing



# Attach the security policy created : EFS-Demo



# Defaults – file system policy



Step 1
File system settings

Step 2
Network access

Step 3 - *optional*
File system policy

Step 4
**Review and create**

# Review and create

## Step 1: File system settings

Edit

### File system

| Field | Value | Is editable? |
|---|---|---|
| Name | EFS_Demo_1 | Yes |
| Performance mode | General Purpose | No |
| Throughput mode | Elastic | Yes |
| Encrypted | Yes | No |
| KMS Key ID | - | No |
| Lifecycle management | Transition into IA: 30 day(s) since last access<br>Transition out of IA: None | Yes |

## Step 3: File system policy

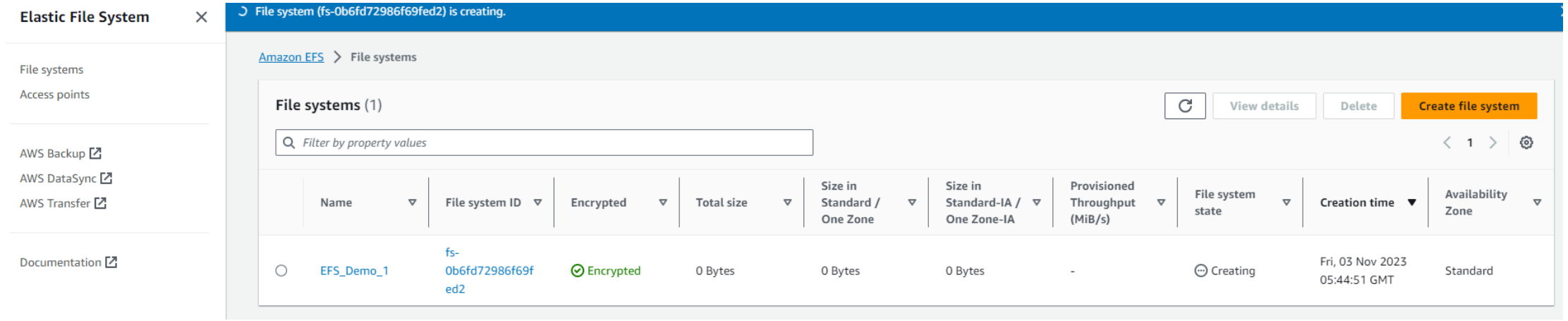
Edit

▼ File system policy

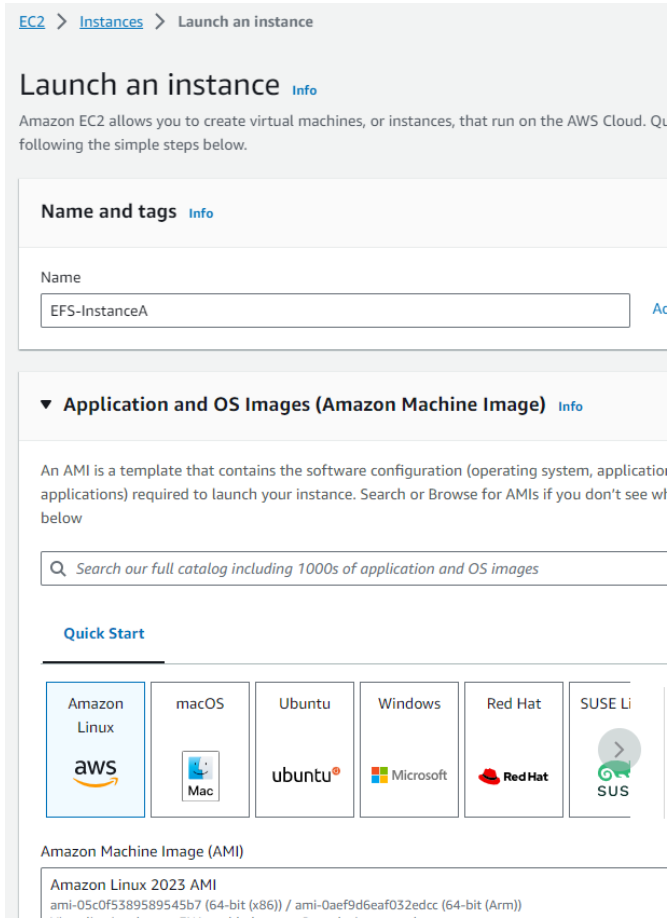
```
1
```

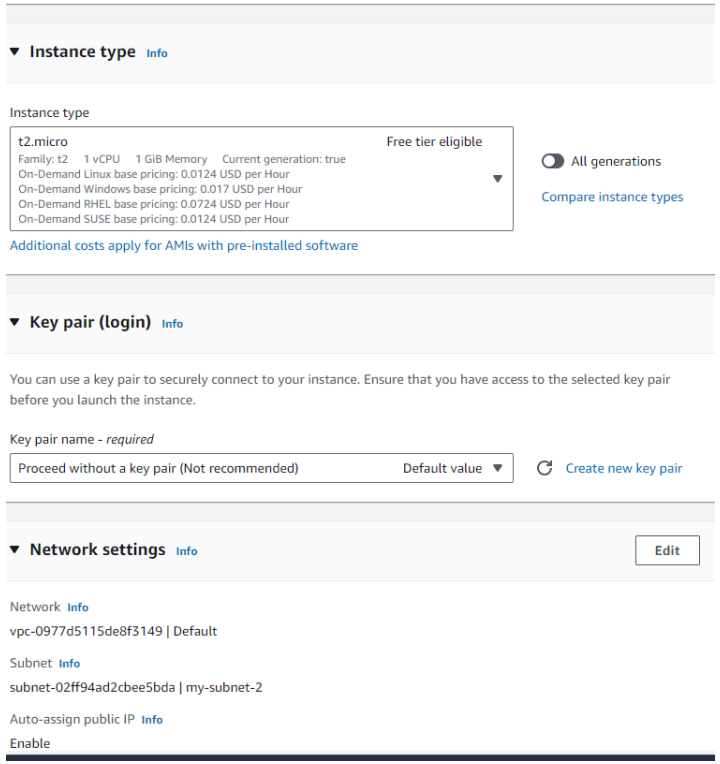
Cancel Previous Create

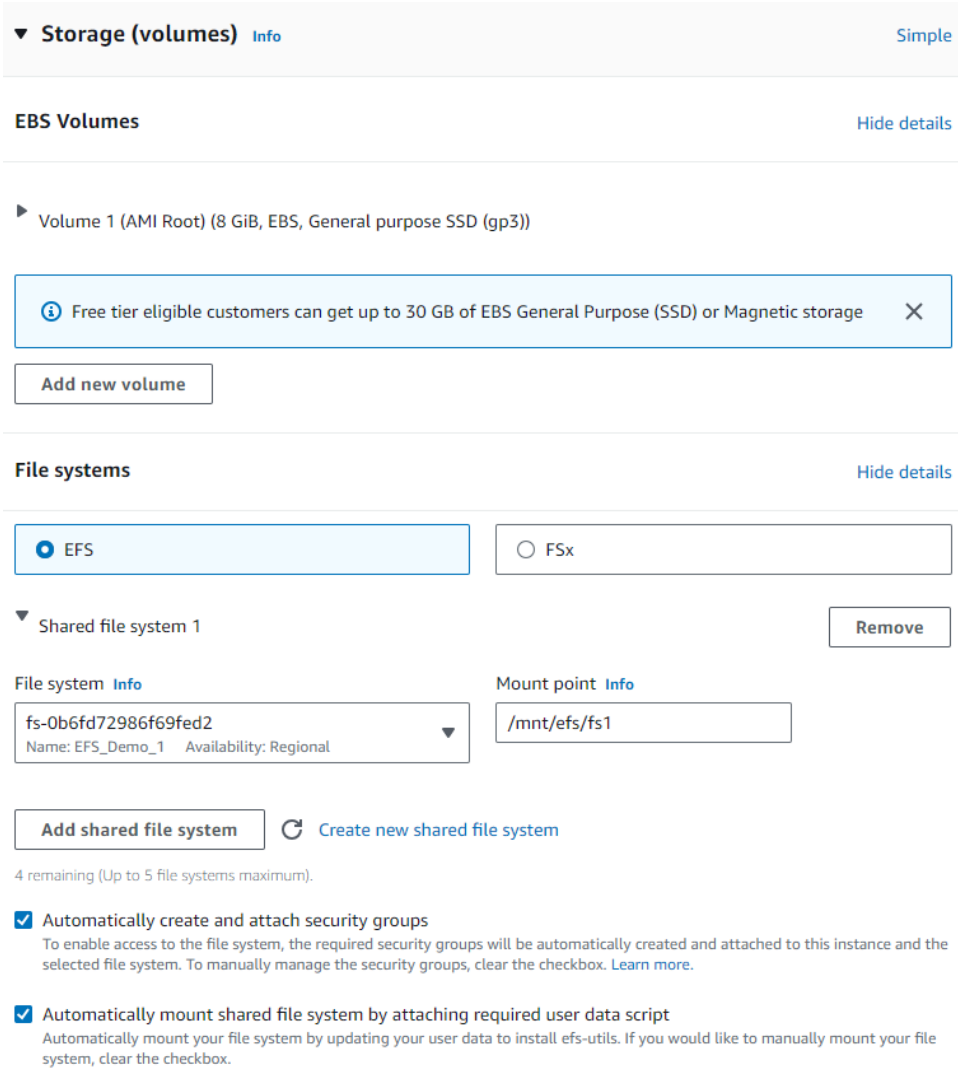
# EFS - created


Elastic File System
File system (fs-0b6fd72986f69fed2) is creating.
File systems
Access points
AWS Backup
AWS DataSync
AWS Transfer
Documentation
Amazon EFS
File systems
File systems (1)
View details
Delete
Create file system
Filter by property values
1
Name
File system ID
Encrypted
Total size
Size in Standard / One Zone
Size in Standard-IA / One Zone-IA
Provisioned Throughput (MiB/s)
File system state
Creation time
Availability Zone
EFS_Demo_1
fs-0b6fd72986f69fed2
Encrypted
0 Bytes
0 Bytes
0 Bytes
-
Creating
Fri, 03 Nov 2023 05:44:51 GMT
Standard

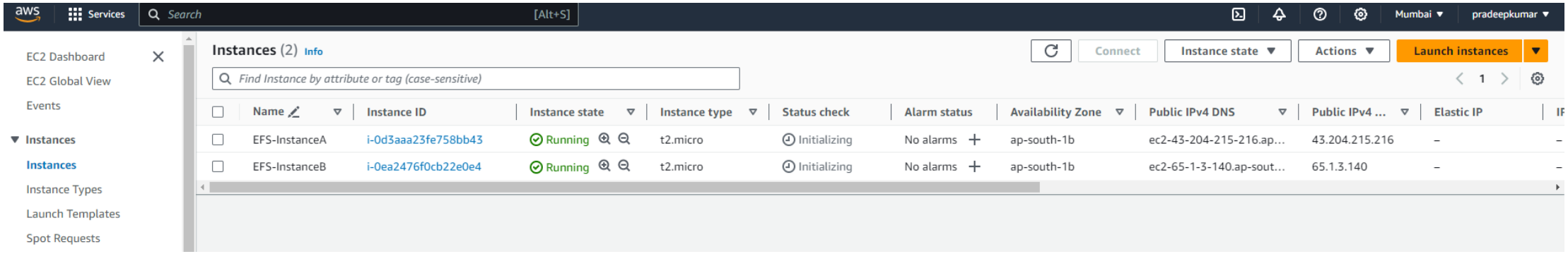
# Create 2 EC2 Instance – Amazon Linux – Add the EFS File in Storage – Select the same security policy of EC2 Instance A



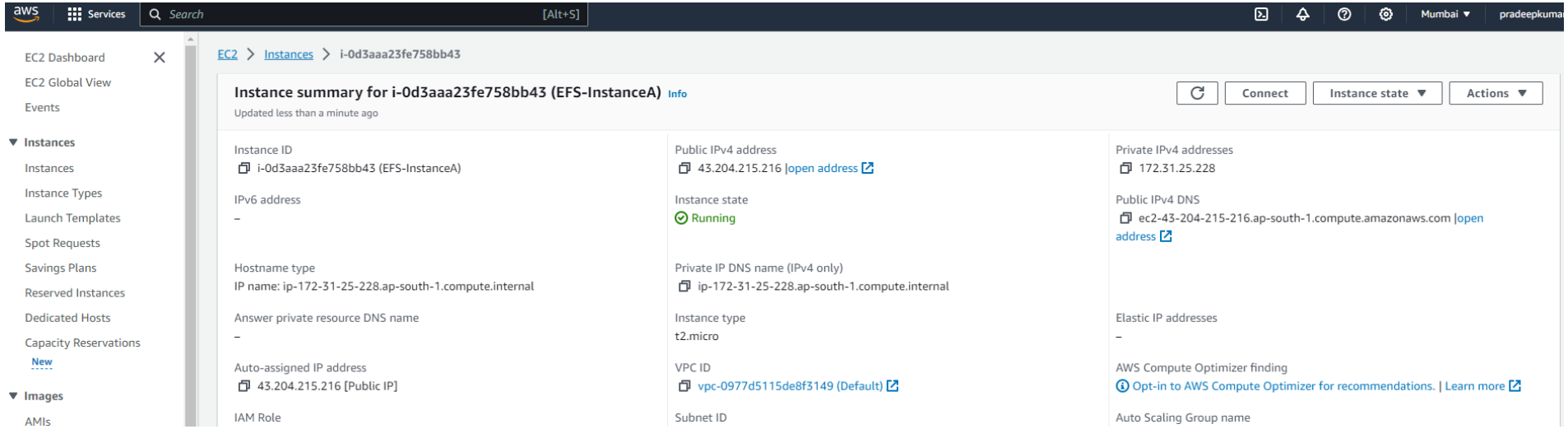



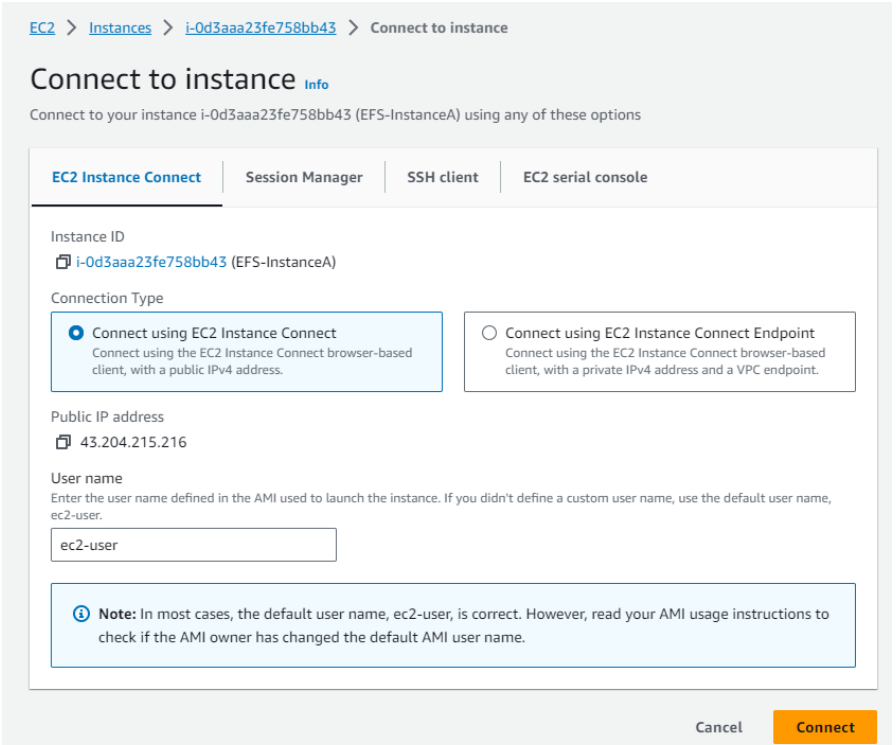
# Successfully – Created 2 different instances

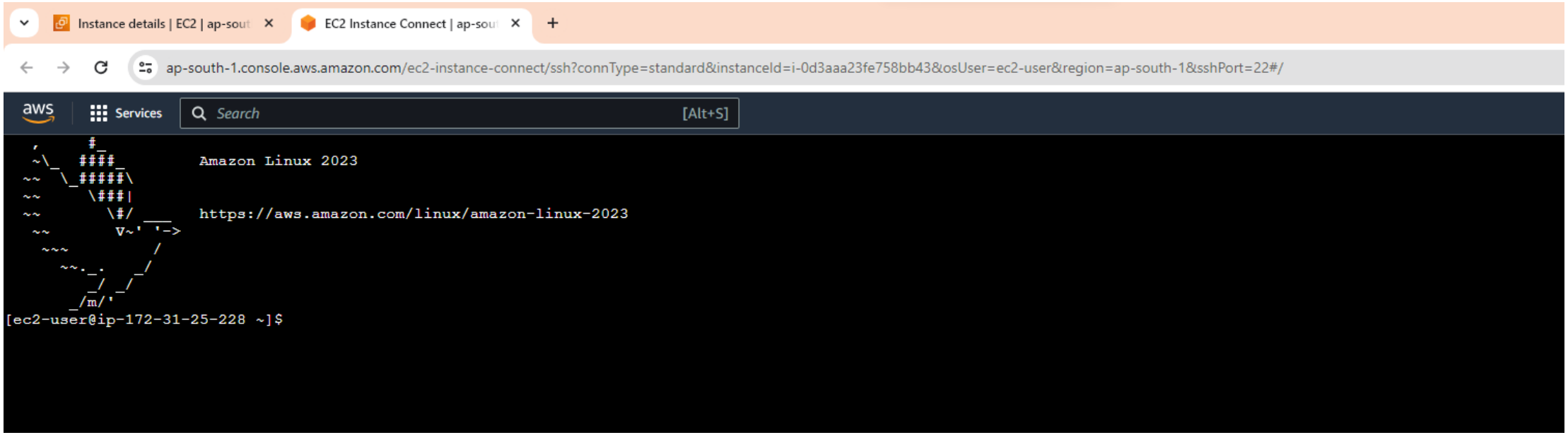


# How to confirm to check with EC2 Instances connected with EFS file?



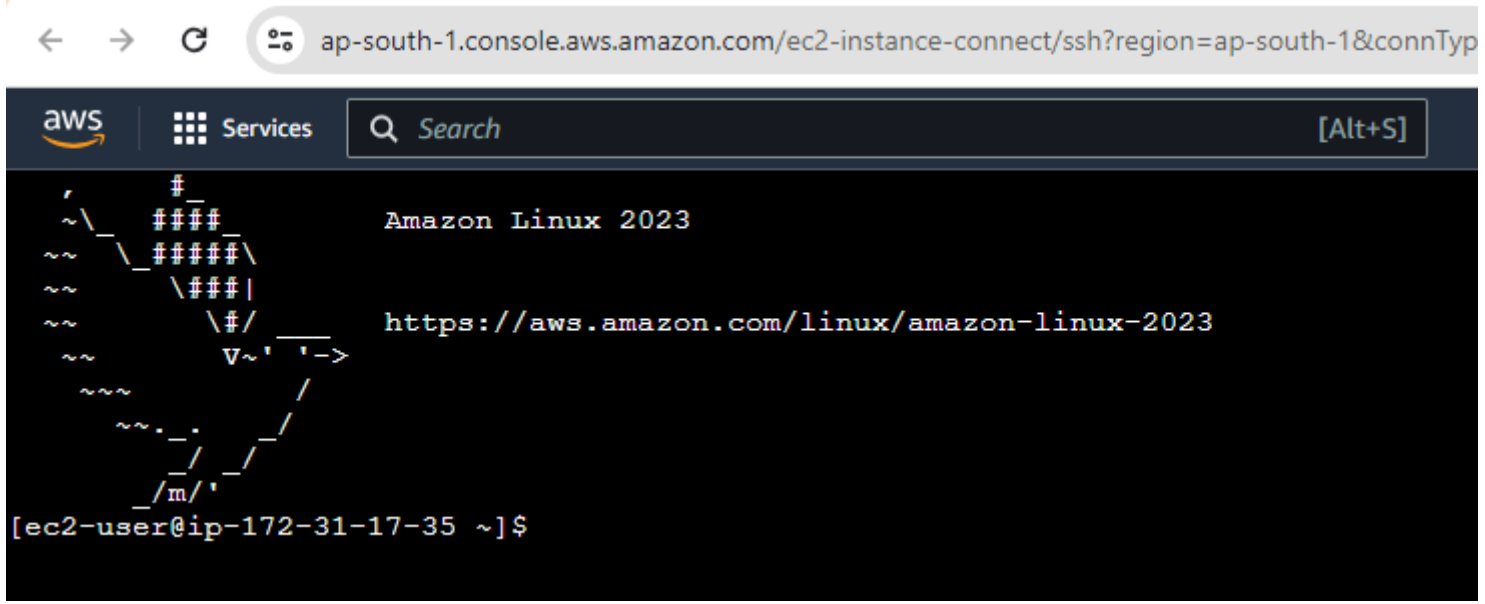

Select an EC2 Instance – Connect – EC2 Instance Connect – Click on connect



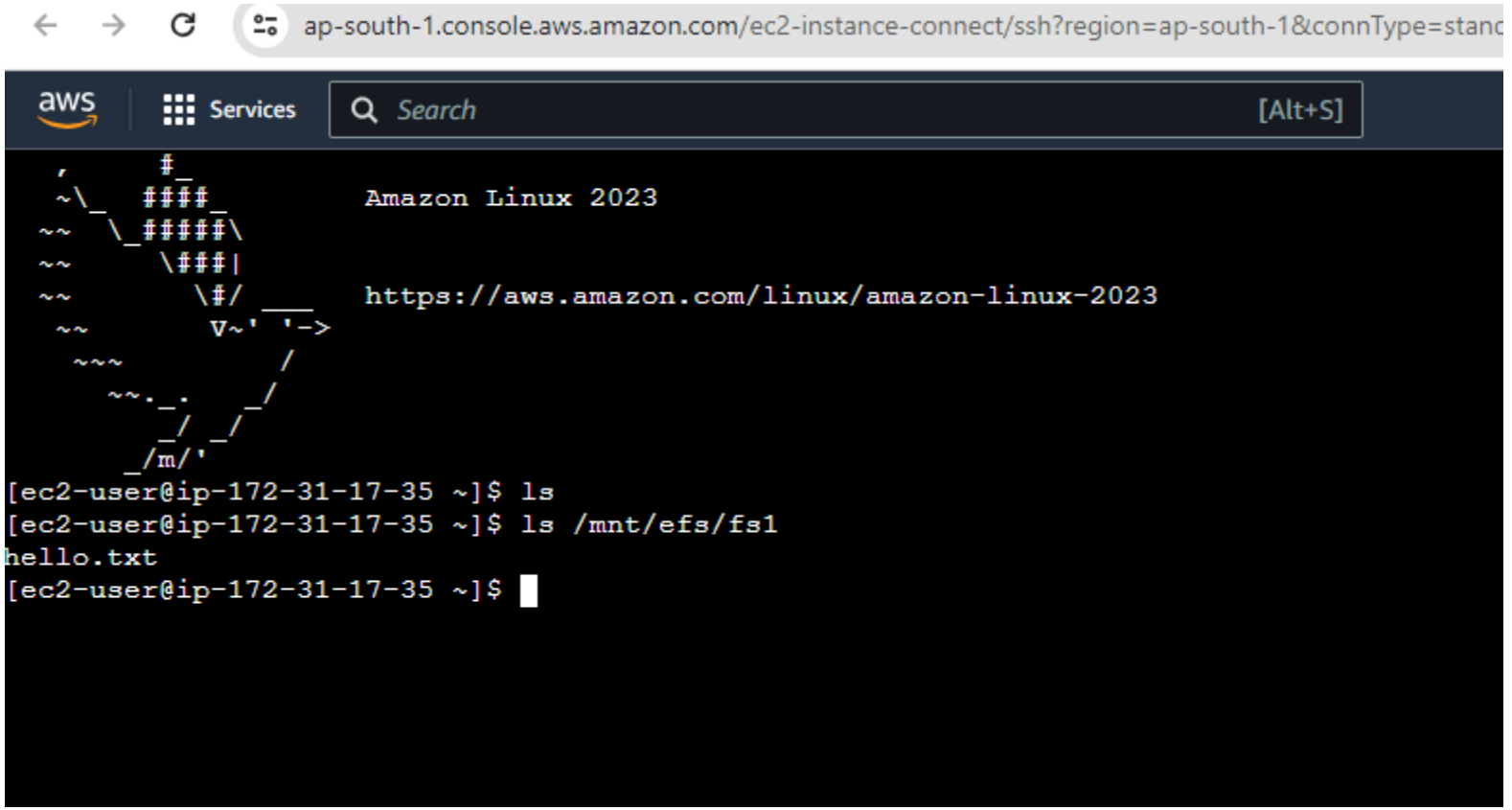

Instance details | EC2 | ap-sout
EC2 Instance Connect | ap-sou
ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-0d3aaa23fe758bb43&osUser=ec2-user&region=ap-south-1&sshPort=22#/
aws
Services
Search
[Alt+S]
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
[ec2-user@ip-172-31-25-228 ~]$

# Create a file using unix commands, and cat the output

# Open the second EC2 Instance – to check the EFS shared among the instances



Now can observe the file created in ec2 instanceA will appear in another ec2 instanceB



Can try to connect using putty, AWS cli …etc

- Thank you…