

Step 1: Login to the EFS console and click on **create file system**

Amazon Elastic File System
Scalable, elastic, cloud-native NFS file system

Amazon Elastic File System (Amazon EFS) provides a simple, scalable, elastic file system for general purpose workloads for use with AWS Cloud services and on-premises resources.

Create file system

Create an EFS file system with recommended settings, including Elastic Throughput, Lifecycle Management, and Automatic Backups. These settings are designed to optimize the price-performance of your file system.

Create file system

Pricing

Standard storage	\$0.30 per GB
Standard-Infrequent Access storage	\$0.025 per GB

Create file system

Create an EFS file system with recommended settings, including Elastic Throughput, Lifecycle Management, and Automatic Backups. These settings are designed to optimize the price-performance of your file system. [Learn more](#)

Name - optional
Name your file system.

LB-IDC-PROD

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-0b90837e6ca35bca9
IDC-HA-Prod-VPC

Cancel Customize Create

Create file system

Create an EFS file system with recommended settings, including Elastic Throughput, Lifecycle Management, and Automatic Backups. These settings are designed to optimize the price-performance of your file system. [Learn more](#)

Name - *optional*
Name your file system.

LB-IDC-PROD

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-0b90837e6ca35bca9
IDC-HA-Prod-VPC

Cancel

Customize

Create

Amazon EFS > File systems

File systems (1)

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)
	LB-IDC-PROD	fs-05cc2acdedce7be63	✔ Encrypted	6.00 KiB	6.00 KiB	0 Bytes	-

File systems (1)

[View details](#)[Delete](#)[Create file system](#)

< 1 >



	Name ▾	File system ID ▾	Encrypte d ▾	Total size ▾	Size in Standard / One Zone ▾	Size in Standard-IA / One Zone-IA ▾	Provisioned Throughput (MiB/s)
<input type="radio"/>	LB-IDC-PROD	fs-05cc2acdedce7be63	✔ Encrypted	6.00 KiB	6.00 KiB	0 Bytes	-

LB-IDC-PROD (fs-05cc2acdedce7be63)

[Delete](#)[Attach](#)

General

[Edit](#)

Performance mode

General Purpose

Throughput mode

Elastic

Lifecycle management

Transition into IA: 30 day(s) since last access

Transition out of IA: None

Availability zone

Standard

Automatic backups

✔ Enabled

Encrypted

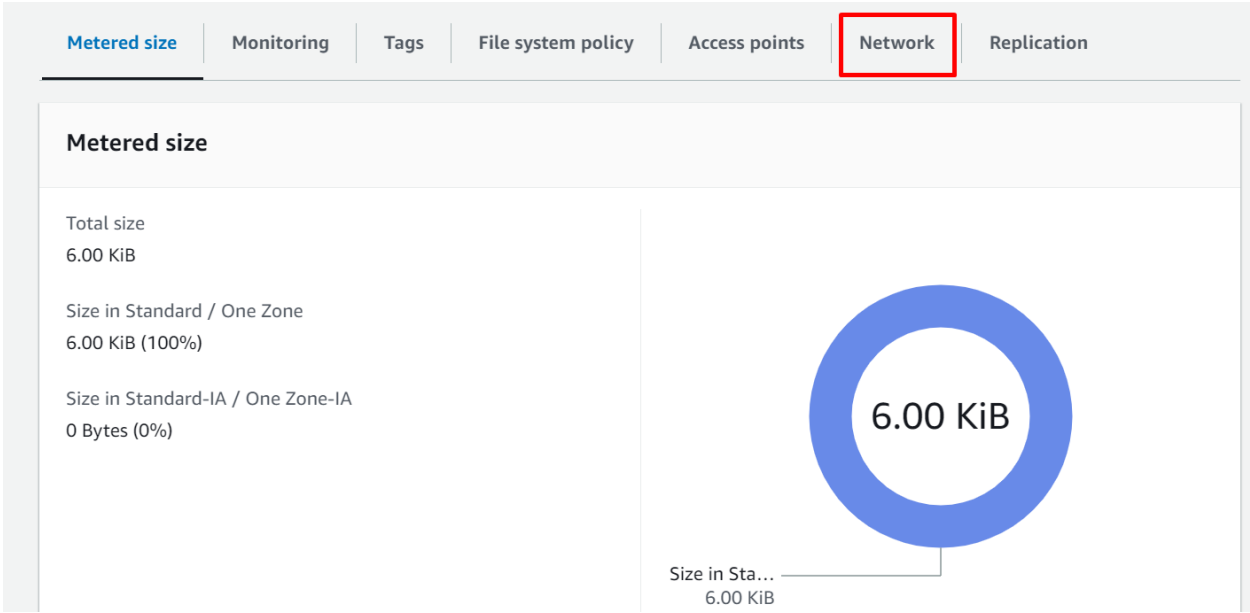
ac671851-367c-4786-b528-3bf4e92240e8
(aws/elasticfilesystem)

File system state

✔ Available

DNS name

fs-05cc2acdedce7be63.efs.us-east-2.amazonaws.com



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

Network

[Refresh](#) [Manage](#) [Settings](#)

Availability zone ▲	Mount target ID ▼	Subnet ID ▼	Mount target state ▼	IP address ▼	Network interface ID ▼	Security groups ▼
us-east-2a	fsmt-0eb46b8b439f61e71	subnet-03bd616640b473b49	✔ Available	10.50.0.135	eni-0238b6265954e57a9	sg-0d275c638d8083f3c (LB-IDC-UI), sg-0ddd3f9e8f21a3852 (LB-IDC-Prod)
us-east-2b	fsmt-04b09c1f0ccb2cea9	subnet-000b898cd9c63fa86	✔ Available	10.50.0.30	eni-04a0e262fef6d7c7	sg-0d275c638d8083f3c (LB-IDC-UI), sg-0ddd3f9e8f21a3852 (LB-IDC-Prod)

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-2a	subnet-03bd61664C	10.50.0.135	<div>Choose securit... ▼</div> <div><div>✕</div><div>sg-0ddd3f9e8f21a3852</div><div>LB-IDC-Prod</div></div> <div>Show more (+1)</div>	<div>Remove</div>
us-east-2b	subnet-000b898cd9	10.50.0.30	<div>Choose securit... ▼</div> <div><div>✕</div><div>sg-0ddd3f9e8f21a3852</div><div>LB-IDC-Prod</div></div> <div>Show more (+1)</div>	<div>Remove</div>

In the above screen we have already edited the security groups. But by default default security groups were mounted. We need to change the security groups.

We can add multiple security groups here for multiple instances that we mount for this efs.

Availability zone	Subnet ID	IP address	Security groups	
us-east-2a	subnet-03bd61664C	10.50.0.135	<div>Choose securit... ▼</div> <div><div>✕</div><div>sg-0ddd3f9e8f21a3852</div><div>LB-IDC-Prod</div></div> <div>Show more (+1)</div>	<div>Remove</div>
us-east-2b	subnet-000b898cd9	10.50.0.30	<div>Choose securit... ▼</div> <div><div>✕</div><div>sg-0ddd3f9e8f21a3852</div><div>LB-IDC-Prod</div></div> <div>Show more (+1)</div>	<div>Remove</div>

Add mount target

Cancel

Save

```
root@ip-10-50-0-154:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            7.6G   0    7.6G   0% /dev
tmpfs           1.6G 788K   1.6G   1% /run
/dev/nvme0nlp1  97G   63G   35G   65% /
tmpfs           7.6G   0    7.6G   0% /dev/shm
tmpfs           5.0M   0    5.0M   0% /run/lock
tmpfs           7.6G   0    7.6G   0% /sys/fs/cgroup
/dev/loop0      56M   56M    0 100% /snap/core18/2721
/dev/loop1      26M   26M    0 100% /snap/amazon-ssm-agent/5656
/dev/loop3      25M   25M    0 100% /snap/amazon-ssm-agent/6312
/dev/loop2     117M 117M    0 100% /snap/core/14784
/dev/loop5     117M 117M    0 100% /snap/core/14946
/dev/loop4      56M   56M    0 100% /snap/core18/2714
tmpfs           1.6G   0    1.6G   0% /run/user/0
root@ip-10-50-0-154:~#
```

```
ubuntu@ip-10-50-0-154:~$ mkdir idcprod
```

LB-IDC-PROD (fs-05cc2acdedce7be63)

Delete

Attach

General

Edit

Performance mode

General Purpose

Throughput mode

Elastic

Lifecycle management

Transition into IA: 30 day(s) since last access

Transition out of IA: None

Availability zone

Standard

Automatic backups

✓ Enabled


Encrypted

ac671851-367c-4786-b528-3bf4e92240e8
(aws/elasticfilesystem)

File system state

✓ Available

DNS name


 fs-05cc2acdedce7be63.efs.us-east-2.amazonaws.com

Mount your Amazon EFS file system on a Linux instance. [Learn more](#)


☒ Mount via DNS

☐ Mount via IP

Using the EFS mount helper:

```
 sudo mount -t efs -o tls fs-05cc2acdedce7be63:/ efs
```

Using the NFS client:

```
 sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsiz=1048576,hard,timeo=600,retrans=2,noresvport fs-05cc2acdedce7be63.efs.us-east-2.amazonaws.com:/ efs
```

See our user guide for more information. [Learn more](#)

```
root@ip-10-50-0-154:~# sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsiz=1048576,hard,timeo=600,retrans=2,noresvport fs-05cc2acdedce7be63.efs.us-east-2.amazonaws.com:/ /mnt/efs
mount: /mnt/efs: bad option; for several filesystems (e.g. nfs, cifs) you might need a /sbin/mount.<type> helper program.
root@ip-10-50-0-154:~#
```

sudo apt-get update

sudo apt-get -y install git binutils

git clone <https://github.com/aws/efs-utils>

```
root@ip-10-50-0-154:~# ls
amazon-cloudwatch-agent.rpm  amazon-cloudwatch-agent.rpm.1  amazon-cloudwatch-agent.rpm.2  efs-utils  snap
root@ip-10-50-0-154:~#
```

```
cd efs-utils
./build-deb.sh
** in case any error occur run sudo apt install binutils -y
sudo apt-get -y install ./build/amazon-efs-utils*.deb
```

```
su ubuntu
cd
mkdir idcprod
```

```
root@ip-10-50-0-154:~# su ubuntu
ubuntu@ip-10-50-0-154:/root$ cd
ubuntu@ip-10-50-0-154:~$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsiz=1048576,hard,timeo=600,retrans=2,noresvport fs-05cc2acdedce7be63.efs.us-east-2.amazonaws.com:/ /idcprod
```

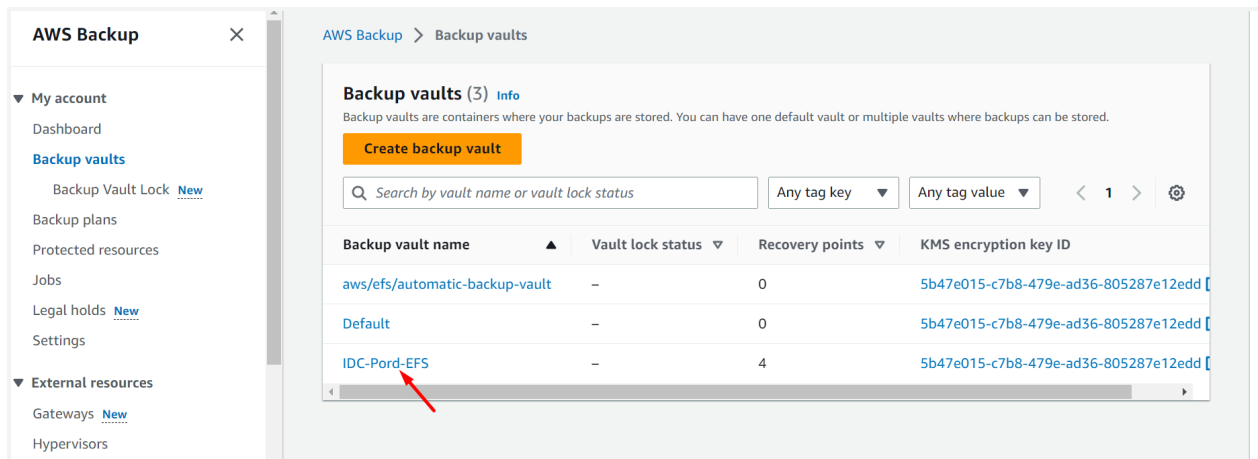
```
sudo vi /etc/fstab
fs-05cc2acdedce7be63.efs.us-east-2.amazonaws.com:/ /home/ubuntu/idcprod nfs4 defaults 0
0
```

```
LABEL=cloudimg-rootfs / ext4 defaults,discard 0 0
fs-05cc2acdedce7be63.efs.us-east-2.amazonaws.com:/ /home/ubuntu/idcprod nfs4 defaults 0 0
~
~
~
~
~
~
~
~
~
~
~
```

Restore an Amazon EFS file system using AWS Backups:

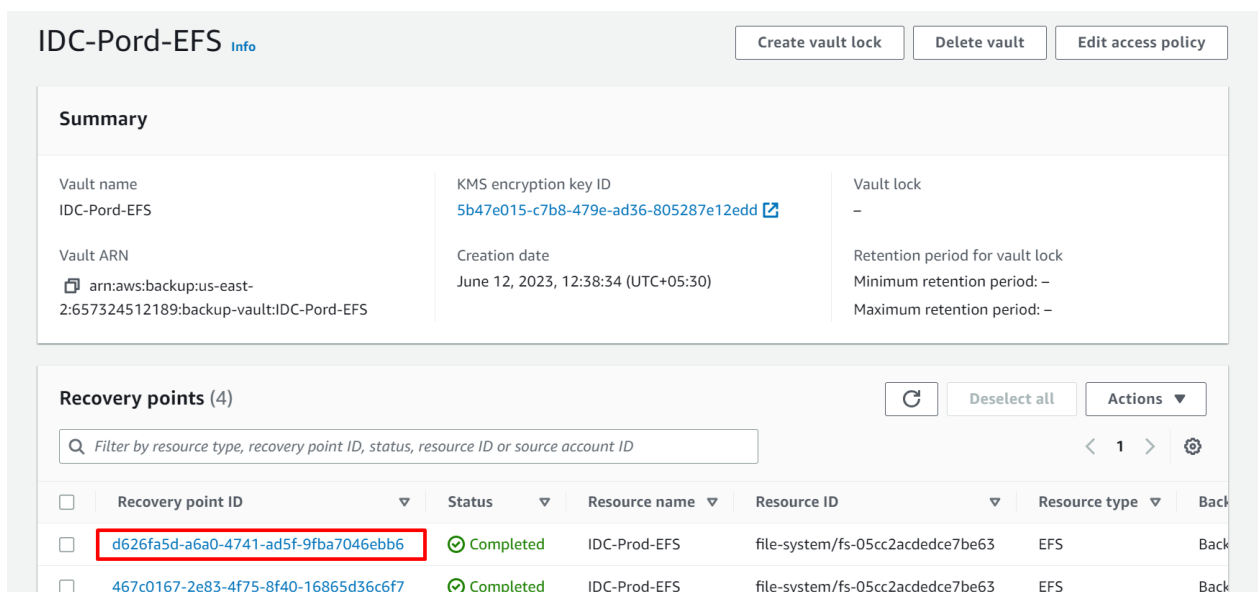
Restoring your Amazon EFS file system:

Navigate to the backup vault that was selected in the backup plan and select the latest completed backup. To restore the EFS file system, click on the recovery point ARN and select the Restore button.



The screenshot shows the AWS Backup console interface. On the left is a navigation sidebar with options like 'My account', 'Backup vaults', 'Backup plans', etc. The main area is titled 'Backup vaults (3)' and contains a table of existing vaults. A red arrow points to the 'IDC-Pord-EFS' vault, which has 4 recovery points.

Backup vault name	Vault lock status	Recovery points	KMS encryption key ID
aws/efs/automatic-backup-vault	-	0	5b47e015-c7b8-479e-ad36-805287e12edd
Default	-	0	5b47e015-c7b8-479e-ad36-805287e12edd
IDC-Pord-EFS	-	4	5b47e015-c7b8-479e-ad36-805287e12edd



The screenshot shows the details page for the 'IDC-Pord-EFS' vault. It includes a 'Summary' section with metadata and a 'Recovery points (4)' section with a table of backup recovery points. The first recovery point is highlighted with a red box.

Summary

Vault name IDC-Pord-EFS	KMS encryption key ID 5b47e015-c7b8-479e-ad36-805287e12edd	Vault lock -
Vault ARN arn:aws:backup:us-east-2:657324512189:backup-vault:IDC-Pord-EFS	Creation date June 12, 2023, 12:38:34 (UTC+05:30)	Retention period for vault lock Minimum retention period: - Maximum retention period: -

Recovery points (4)

Recovery point ID	Status	Resource name	Resource ID	Resource type	Back
d626fa5d-a6a0-4741-ad5f-9fba7046ebb6	Completed	IDC-Prod-EFS	file-system/fs-05cc2acdedce7be63	EFS	Back
467c0167-2e83-4f75-8f40-16865d36c6f7	Completed	IDC-Prod-EFS	file-system/fs-05cc2acdedce7be63	EFS	Back

d626fa5d-a6a0-4741-ad5f-9fba7046ebb6 - EFS

Copy

Delete

Restore

Details

ARN

arn:aws:backup:us-east-2:657324512189:recovery-point:d626fa5d-a6a0-4741-ad5f-9fba7046ebb6

Resource type

EFS

Status

✓ Completed

Backup type

Backup

Creation time

June 14, 2023, 05:30:00 (UTC+05:30)

Resource name

IDC-Prod-EFS

Resource ID

file-system/fs-05cc2acdedce7be63

Storage tier

Warm

Size

1.83 GB

Restore backup

Settings

Backup ID

d626fa5d-a6a0-4741-ad5f-9fba7046ebb6

Restore type [Info](#)



Full restore

Restore the filesystem in its entirety including all root level folders and files.



Item-level restore

Select and restore up to 5 items within your Elastic File System. Paste or enter a relative path to a file or folder.

Restore location



Restore to directory in source file system



Restore to a new file system

Restore location

- ☐ Restore to directory in source file system
- ☒ Restore to a new file system

File system type

Choose Regional to restore a file system using regional storage classes. Choose One Zone to restore a file system using One Zone storage classes.

- ☒ Regional - *recommended*
Stores data redundantly across multiple AZs
- ☐ One Zone
Stores data redundantly within a single AZ

Performance [Info](#)

- ☒ General purpose - *recommended*
- ☐ Max I/O

☒ Enable encryption

Choose to encrypt the given instance. Encryption key ids and aliases appear in the list after they have been created using the Key Management Service(KMS) console.

Performance [Info](#)

- ☒ General purpose - *recommended*
- ☐ Max I/O

☒ Enable encryption

Choose to encrypt the given instance. Encryption key ids and aliases appear in the list after they have been created using the Key Management Service(KMS) console.

Encryption key [Info](#)

(default) aws/elasticfilesystem ▼

Description	Account	Key ID	Status
Default key that protects my EFS filesystems when no other key is defined	This account (657324512189)	ac671851-367c-4786-b528-3bf4e92240e8	✔ Enabled

Restore role [Info](#)

Specify the IAM role that AWS Backup will assume when restoring the backup.

☒ Default role
 If the AWS Backup default role is not present, one will be created for you with the correct permissions.

☐ Choose an IAM role

Protected resource tags [Info](#)

☐ Copy tags from the protected resource to the restored resource

Cancel

Restore backup

Checking for your restored Amazon EFS file system

The restored backup job will appear under Restore jobs in the **AWS Backup** console.

AWS Backup

×

▼ My account

Dashboard

Backup vaults

Backup Vault Lock [New](#)

Backup plans

Protected resources

Jobs

Legal holds [New](#)

Settings

▼ External resources

Gateways [New](#)

Hypervisors

Virtual machines

AWS Backup > Jobs

Jobs

In jobs, you can monitor the status and other details of backup, restore, and copy activity.

Backup jobs

Restore jobs

Copy jobs

Restore jobs [Info](#)

Records of your backup restoration.

🔄

Create report

Last 24 hours ▼

🔍

Filter restore jobs by job ID, status, resource ID or resource type

< 1 > ⚙️

Restore job ID	Status	Resource ID	Resource type
9E52A5CD-7B46-B1C0-D748-D442104CF9C5	✅ Completed	file-system/fs-0aeac7964a63c36bb	EFS
FBFF1F54-218F-F658-995C-A8D382F80D47	❌ Failed	file-system/fs-04df2b4730357ba8d	EFS

Once the job status appears as completed, navigate to the Amazon EFS console and select File systems on the left navigation pane to see the restored EFS file system.

Amazon EFS > File systems

File systems (2)

View details

Delete

Create file system

Filter by property values

< 1 > ⚙

	Name	File system ID	Encrypte d	Total size	Size in Standard / One Zone	Size in Standard-IA / One Zone-IA	Provisione Throughp (MiB/s)
<input type="radio"/>	-	fs-0aeac7964a63c36bb	✔ Encrypte d	74.59 GiB	74.59 GiB	0 Bytes	-
<input type="radio"/>	LB-IDC-PROD	fs-05cc2acdedce7be63	✔ Encrypte d	76.92 GiB	36.68 GiB	40.25 GiB	-

After that we need to create a mount target for the new file system and allow the security group of the server.