

Elastic File System (EFS)



Scalable, elastic, cloud-native **NFS file system.**

Attach a single file system to multiple EC2 Instances
Don't worry about running out or managing disk space



Introduction to Elastic File System (EFS)

EFS is a file storage service for EC2 instances

Storage capacity grows (upto petabytes) and shrinks automatically based on data stored (elastic)

Multiple EC2 instances in same VPC **can mount a single EFS Volume** (volume must be in same VPC)

EC2 instances install the **NFSv4.1 client** and can then mount the EFS volume

EFS is using Network File System version 4 (**NFSv4**) protocol

EFS creates multiple **mount targets** in all your VPC subnets.

You based per space used starting at \$0.30 GB / month

| Mount targets | | | | | | | |
|------------------------|-------------------|---------------------------|---------------|-----------------|-----------------------|-----------------------|--------------------|
| VPC | Availability Zone | Subnet | IP address | Mount target ID | Network interface ID | Security groups | Mount target state |
| vpc-75fcd90f (default) | us-east-1b | subnet-add727b1 (default) | 172.31.36.225 | fsmt-1a56eefa | eni-089be3fede4855115 | sg-c4b0668c - default | Available |
| | us-east-1a | subnet-4d1f9b07 (default) | 172.31.24.213 | fsmt-1c56eefc | eni-07f1538413c5581a7 | | Creating |
| | us-east-1c | subnet-9706c1f0 (default) | 172.31.10.213 | fsmt-1e56eefe | eni-0a685b10dbc4144aa | | Creating |
| | us-east-1e | subnet-cd8e99f2 (default) | 172.31.63.220 | fsmt-1f56eeff | eni-0120337a18e205006 | | Creating |
| | us-east-1d | subnet-ff7684d1 (default) | 172.31.85.52 | fsmt-e157ef01 | eni-043ea2b3a223e4944 | sg-c4b0668c - default | Available |
| | us-east-1f | subnet-fa0e81f5 (default) | 172.31.76.141 | fsmt-e257ef02 | eni-04b4c60064f530831 | sg-c4b0668c - default | Available |



EFS *CheatSheet*

- **Elastic File System** (EFS) supports the Network File System version 4 (NFSv4) protocol.
- You pay GB of storage per month
- Volumes can scale to petabyte size storage
- Volumes will shrink and grow to meet current data stored (elastic)
- Can support thousands of concurrent connections over NFS.
- Your data is stored across multiple AZs within a region.
- Can mount multiple EC2 instance to a single EFS (as long as they are all in the same VPC)
- Creates Mount Points in all your VPC subnets so you can mount from anywhere within your VPC
- Provides Read After Write Consistency.