Amazon Elastic File System (EFS)

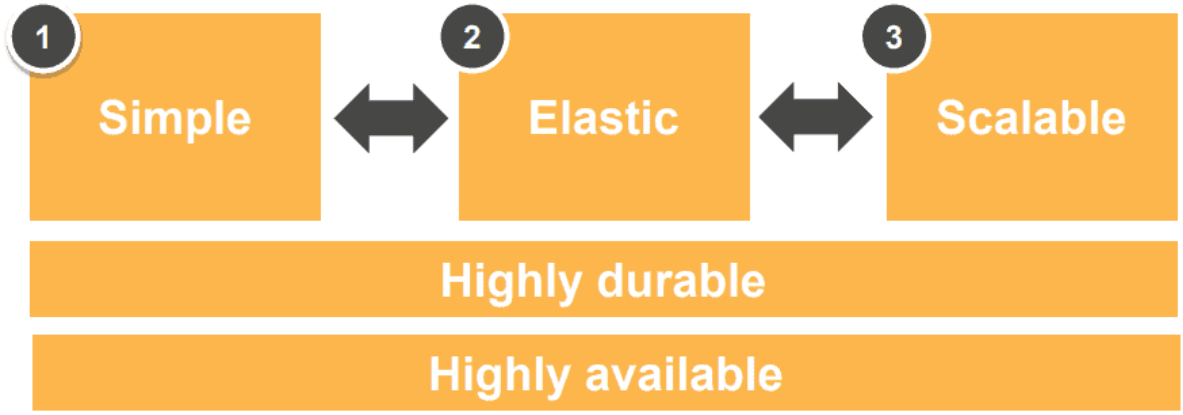
It provides an easy, scalable, fully managed elastic NFS filing system to be used with AWS Cloud services and on-premises resources.

What Is Amazon EFS?

- A fully managed file system for Amazon EC2 instances
- Exposes a file system interface that works with standard operating system APIs
- Provides file system access semantics (consistency, locking)
- Sharable across thousands of instances
- Designed to grow elastically to petabyte-scale
- Built for performance across a wide variety of workloads
- Highly available and durable

Amazon EFS is beneficial even for access from one EC2 instance

- Multi-AZ availability/durability
- Elastically grows – create it and forget about it
- Can later access it from multiple Amazon EC2 instances if needed



- **Amazon EFS is simple:** Fully managed, no need for hardware, network, file layer. Easy to Create a scalable file system in seconds with Seamless integration with existing tools and apps.
- **Amazon EFS is elastic:** File systems grow and shrink automatically as you add and take away files. No got to provision storage capacity or performance. You pay just for the space for storing your employ, with no minimum fee.
- **Amazon EFS is scalable**: File systems can grow to petabyte-scale. Throughput and IOPS scale automatically as file systems grow it provides Consistent low latencies with no matter file system size and support for thousands of concurrent NFS connections.
- **Highly durable and highly available:** Designed to sustain AZ offline conditions Superior to traditional NAS availability models and appropriate for production/tier applications.

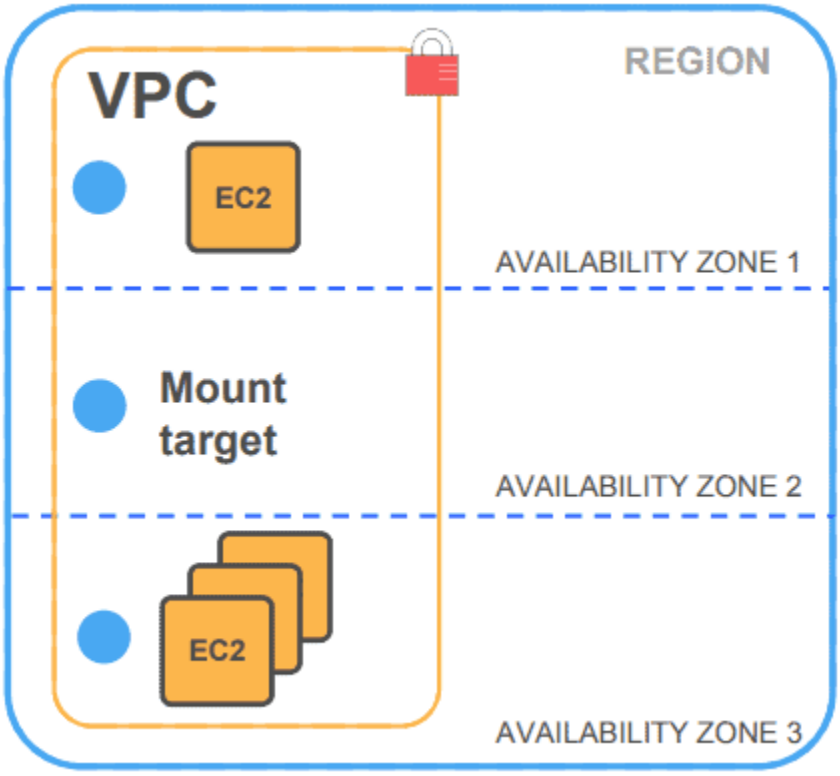
Transfer File Data To AWS EFS Using AWS DataSync

Now that you simply have created a functioning Amazon EFS file system, you'll use AWS DataSync to transfer
files from an existing classification system to Amazon EFS. AWS DataSync may be a data transfer service that simplifies, automates, and accelerates moving and replicating data between on-

premises storage systems and AWS storage services over the web or AWS Direct Connect. AWS DataSync can transfer your file data, and also classify system metadata like ownership, timestamps, and access permissions.

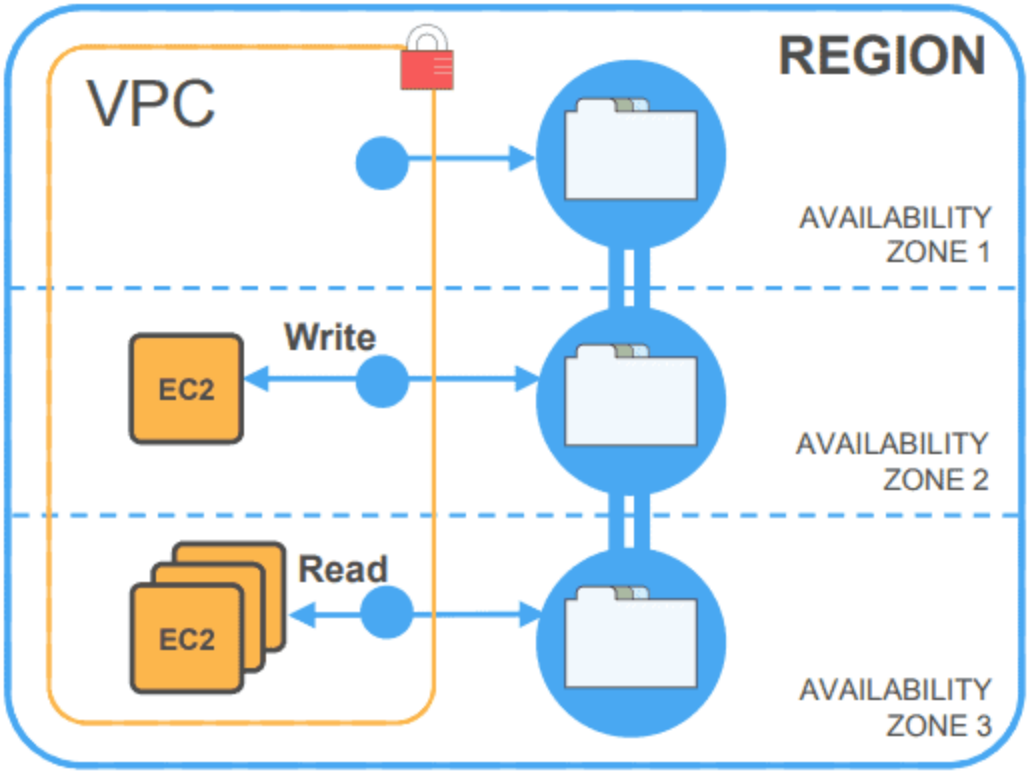
What Is A Mount Target?

To access your file system from instances in a VPC, you create mount targets in the VPC. A mount target is an NFS v4 endpoint in your VPC also a mount target has an IP address and a DNS name you use in your mount command

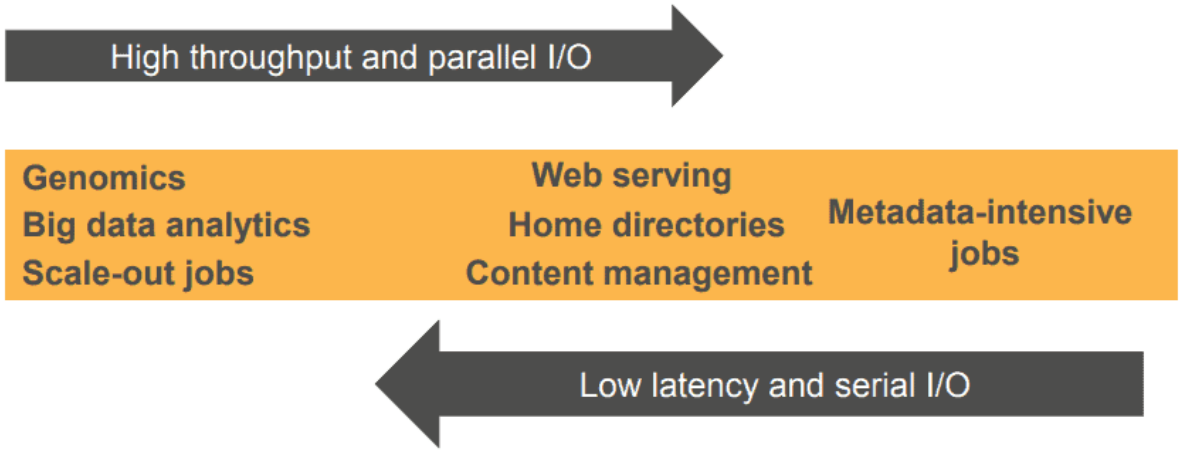


Data can be accessed from any AZ in the region while maintaining full consistency

Your EC2 instances can connect to your EFS file system from any AZ in a region. All reads will be fully consistent in all AZs—that is, a read in one AZ is guaranteed to have the latest data, even if the data is being written in another AZ



Amazon EFS is designed for a wide spectrum of use cases



Two performance modes designed to support a broad spectrum of use cases:

General-purpose mode: Optimized for latency-sensitive applications and general-purpose file-based workloads – this mode is the best option for the majority of use cases

Max I/O mode: Optimized for large-scale and data-heavy applications where tens, hundreds or thousands of EC2 instances are accessing the file system — it scales to higher levels of aggregate throughput and ops per second with a tradeoff of slightly higher latencies for file operations

Simple and predictable pricing

With EFS, you pay only for the storage space you use. No minimum commitments or up-front fees, No need to provision storage in advance and No other fees, charges, or billing dimensions

EFS price: $0.30/GB-month