# Amazon Elastic File System

* With Amazon EFS, storage capacity is **elastic, growing and shrinking automatically** as you add and remove files, so your applications have the storage they need, when they need it.
* Amazon EFS supports the **Network File System version 4 (NFSv4.1 and NFSv4.0) protocol**, so the applications and tools that you use today work seamlessly with Amazon EFS.
* **Multiple Amazon EC2 instances can access an Amazon EFS file system at the same time**, providing a common data source for workloads and applications running on more than one instance or server.
* With Amazon EFS, **you pay only for the storage used by your file system** and there is no minimum fee or setup cost.
* Amazon EFS oﬀers two storage classes, **Standard and Infrequent Access**.
* The service is designed to be **highly scalable, highly available, and highly durable**. Amazon EFS file systems store data and metadata **across multiple Availability Zones in an AWS Region**.
* EFS file systems **can grow to petabyte scale**, drive high levels of throughput, and allow massively parallel access from Amazon EC2 instances to your data.
* Amazon EFS supports two forms of encryption for file systems, **encryption in transit and encryption at rest.**
* You can enable encryption at rest when creating an Amazon EFS file system.
* You can enable encryption in transit when you mount the file system.
* Amazon EFS is designed to provide the throughput, IOPS, and low latency needed for a broad range of workloads.
* With Amazon EFS, you can choose from two performance modes and two throughput modes:
  + The default general purpose performance mode is ideal for latency-sensitive use cases, like web serving environments, content management systems, home directories, and general file serving. File systems in the Max I/O mode can scale to higher levels of aggregate throughput and operations per second with a trade-off of slightly higher latencies for file operations.
  + Using the default Bursting Throughput mode, throughput scales as your file system grows. Using Provisioned Throughput mode, you can specify the throughput of your file system independent of the amount of data stored.
* **Using Amazon EFS with Microsoft Windows–based Amazon EC2 instances is not supported.**