

SOLUTION BRIEF

NetApp Cloud Volumes Service for AWS



Streamline Workloads, Database Apps, and DevOps on AWS with Multiprotocol Support

When weighing your cloud storage options for shared files, consider if the protocols required are available with the cloud service. If your protocol is not offered, it might be necessary to refactor or rebuild your workload. Because the cloud infrastructure differs from your own, if you need to refactor, some of the functionality that you have on-premises could be lost. A rebuild involves not only rewriting the code, but also might involve creating lock-in with that provider.

With NetApp® Cloud Volumes Service for AWS, companies can tap into immediate innovation by shifting their file services, high-performance workloads, databases, and DevOps to Amazon Web Services (AWS). This fully managed service provides high-performance shared storage over NFSv3 and/or SMB 2.1, 3.0, and 3.1.1 protocols to support Linux and Windows Amazon Elastic Compute Cloud (Amazon EC2) instances. NetApp Cloud Volumes Service for AWS provides shared files services with advanced data management capabilities, including multiprotocol support so you can move workloads to the cloud without refactoring or rebuilding them. AWS is an ideal platform to run business applications, while converting capital expenditures (capex) into operational expenditures (opex) and freeing up valuable staff and resources to drive differentiated technology strategies and accelerate time to market.

Solution at a Glance

NetApp Cloud Volumes Service for AWS is a fully managed, cloud service that enables you to move your workloads and applications to the cloud and manage them with ease. NetApp Cloud Volumes Service removes obstacles so you can move more of your file-based applications to the cloud with support for NFS v3 and SMB. Multiprotocol support means that you don't have to rearchitect your applications. Also, you get persistent shared storage for your applications without added complexity.

Key benefits

- Achieve high performance for your applications in the cloud
- Create test and dev environments quickly with rapid copying
- Easily run cloud services such as analytics, AI, and machine learning
- Protect data with automated, efficient NetApp Snapshot™
- Provision volumes quickly from 0TB to 100TB in seconds
- Multiprotocol support (NFS, SMB, dual)
- Change service levels non-disruptively
- Get high availability for your cloud applications

Choose from three service levels (Standard, Premium, and Extreme) that you can change on demand. Easily find the right performance to fit your workload and adjust performance as the nature of your application changes. Performance for each cloud volume scales with the amount of allocated capacity, so performance is not limited as your dataset grows.

Advanced Data Management Functionality

Snapshot copies—Highly storage efficient, point-in-time copies of your volumes that meet enterprise data protection and data management needs.

Rapid copies—Create copies of datasets in seconds

Data encryption—All data at rest is encrypted by default so your data is always protected with at rest encryption.

Service Levels for Cloud Volumes

	Standard	Premium	Extreme
IOPS	4,000 IOPS per TB (4K I/O)	16,000 IOPS per TB (4K I/O)	32,000 IOPS per TB (4K IO)
Max Read Throughput	16MB per TB	64MB per TB	128MB per TB
Max Write Throughput	16MB per TB	64MB per TB	128MB per TB
Max Capacity Per Volume	100TB	100TB	100TB
Pricing	\$0.10 per GB / month	\$0.20 per GB / month	\$0.30 per GB / month

Guaranteed SLAs

Cloud Volumes Service for AWS is the only cloud file service to provide guaranteed SLAs based on:

- Performance
- Availability
- Durability

Sample Use Cases for Cloud Volumes Service for AWS

Consider using Cloud Volumes Service for file services (Windows, NFS, and so on) and databases such as Oracle and RAC. You can also use it for high performance compute applications such as analytics and big data, enterprise apps, and DevOps.

File Services

Cloud Volumes Service for AWS is a highly available and enormously scalable platform for creating cloud-based NFS and SMB file systems. The extensive Cloud Volumes Service features help organizations easily migrate existing applications to AWS and give them the best platform to develop and maintain a file storage solution in the cloud.

Databases

Companies increasingly rely on databases to manage and serve their business data. These databases are often at the heart of OLTP, which can include banking, retail sales, and online purchases. Slow database response times can result in customers going elsewhere for their needs. If the success of your business depends on database performance, consider the SLAs that NetApp Cloud Volumes Service provides. With Cloud Volumes Service, you can be confident that your data is durable, encrypted, highly available, and high performing.

High Performance Compute—Analytics, Big Data

NetApp Cloud Volumes Service for AWS can be used to create data lakes in the cloud, synchronize data with on-premises systems or other data sources in the cloud. It can also provide direct access to the data from cloud analytics services such as Amazon EMR.

Incremental synchronization of data from repositories across an organization reduces the time and effort required to make data available for cloud-based analytical processing. The results of the analysis can also be synchronized out of NetApp Cloud Volumes Service for AWS back to other systems, whether on-premises or on AWS. Targeting Cloud Volumes file systems directly from Amazon EMR means that copy operations are not necessary, allowing a single repository to serve data for both regular use and analytics.

DevOps

A major benefit of using Cloud Volumes Service is the ability to create instant copies of existing data without adversely affecting the source storage volume being copied. This feature makes it easy to set up development, test, and continuous integration/continuous delivery environments and provide access to an up-to-date copy of production data. As a result, developers are able to accelerate development cycles with persistent storage.

Cloud Volumes Service for AWS provides a RESTful API and works with AWS Cloud Formation, which gives DevOps engineers and cloud architects the power to deploy infrastructure by using code and enables them to define templates for an entire stack of AWS services.

Conclusion

NetApp Cloud Volumes Service for AWS enables organizations to remove the complexity associated with implementing cloud-based file systems, allowing them to get applications up and running quickly and easily. Learn more about Cloud Volumes Service for AWS or request a demonstration at cloud.netapp.com. Purchase Cloud Volumes Service for AWS at [AWS Marketplace](#).

About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. www.netapp.com

