

# NETAPP CLOUD VOLUMES ONTAP



Control your data wherever it resides, on premises and in the cloud, from a leading storage operating system for unified data management.

## **Your storage management can elevate or undermine your cloud strategy, so choose wisely**

With global public cloud spending projected to double by 2028 (IDC), the question isn't whether your organization will adopt a cloud strategy, but when.

The path to cloud adoption can vary based on your organization's specific needs and goals. For some, this journey begins with extending on-premises storage to the cloud for a hybrid experience. Others may fully embrace a cloud-first strategy, moving all their data to the cloud. For organizations with storage already in the cloud, they may be looking to scale their existing presence by migrating more data or by adopting multiple cloud providers.

No matter where you are on your cloud journey, you may be asking the following questions:

- Does my solution enable me to maintain control of my data across all my environments?
- How can I move data to the cloud without the risk of data loss?
- Can I retain enterprise storage features to protect and secure the data?
- Can I view all storage environments from one console?
- Do I have access to the right tools to effectively track and manage costs?

Achieving success in the cloud begins with integrated storage management that natively works with the leading cloud providers' storage. It also enables secure data migration, scales virtually anywhere, and delivers the enterprise features that you have come to expect.

# Introducing Cloud Volumes ONTAP

NetApp® Cloud Volumes ONTAP® software is a self-managed, unified storage solution that's powered by ONTAP, NetApp's flagship software. Seamlessly integrated with the top public cloud providers, Cloud Volumes ONTAP enables you to effortlessly deploy and manage storage for your mission-critical applications, databases, containers, and user files, on your cloud of choice. You get:

- Enterprise capabilities and performance that are built on the NetApp primary storage operating system, ONTAP
- Self-managed storage through AWS, Microsoft Azure, and Google Cloud
- Multiprotocol support to provision NFS, SMB/CIFS, iSCSI, and Simple Storage Service (S3) storage from a central management interface
- Enterprise-class data protection, security, governance, and data migration features—all from a centralized and integrated console

## How Cloud Volumes ONTAP works

Cloud Volumes ONTAP optimizes the use of native cloud compute and storage services from AWS, Microsoft Azure, and Google Cloud. It meets a wide range of your cloud requirements with multicloud compatibility, protocol support, and the renowned performance capabilities of ONTAP. In cloud deployments, Cloud Volumes ONTAP runs on top of cloud provider VMs with varying combinations of CPU, memory, storage, and networking capacity to meet your organization's specific demands.

With support for file, block, and object storage, Cloud Volumes ONTAP makes it easy to centrally provision and control enterprise-grade NFS, SMB/CIFS, iSCSI, and S3 storage. Deployed through the NetApp BlueXP™ control plane, Cloud Volumes ONTAP enables you to use advanced data center capabilities in the cloud, such as disaster recovery, cyber resilience, and business continuity. And they're all centrally accessible, purchasable, and controlled through the BlueXP unified control plane.



### CLOUD VOLUMES ONTAP USE CASES

- Workload migration, including for AI initiatives
- Enterprise-grade file and block data sharing
- Containerized and modernized applications
- Enterprise apps and databases
- Cloud and storage cost optimization
- Development and testing

## KEY BENEFITS

- **ONTAP in the cloud.** Confidently move or extend existing ONTAP storage to the cloud with all the same features and functionality you have come to expect from NetApp.
- **Superior flexibility and agility.** Comprehensively manage storage with multiprotocol support and leading cloud provider integration.
- **Effortless data mobility.** Migrate data from cloud-to-cloud or to on-premises storage without the typical complexity, heavy lifting, or risk of data loss.
- **Enterprise efficiencies.** Enable default efficiencies such as compression, compaction, deduplication, and thin provisioning.
- **Robust data protection.** Extend industry-leading data protection, ransomware protection, and disaster recovery through the NetApp BlueXP™ control plane.
- **Insights at your fingertips.** Access comprehensive analytics and workload guidance and enable alerts from a single interface.

## Optimize storage wherever you are on your cloud journey

### It's ONTAP, for trusted data center-class storage management in the cloud

Cloud Volumes ONTAP seamlessly combines the capabilities of ONTAP with block, file, and object storage compatibility to facilitate cloud modernization. Drawing on the leadership of ONTAP in data center-class storage, Cloud Volumes ONTAP offers the scale, performance, availability, and manageability that ONTAP is known for to meet your enterprise storage demands in the cloud. And, with native support for AWS, Microsoft Azure, and Google Cloud, Cloud Volumes ONTAP enables you to migrate your data to your cloud provider's storage resources without a big overhaul or refactoring.

You can retain many efficiencies with Cloud Volumes ONTAP, with features such as compression, compaction, deduplication, and thin provisioning—just like ONTAP delivers—optimizing your storage utilization and cost efficiency. And with data tiering, that moves infrequently accessed data to your cloud provider's object storage, Cloud Volumes ONTAP also keeps you from running out of high-performance storage.

## Self-managed high-performance storage works in the cloud and on- premises

With industry-leading storage management software that's natively integrated with the big three cloud providers, Cloud Volumes ONTAP includes support for block (NFS/SMB), file (iSCSI), NVMe/TCP, and S3 storage, for true multiprotocol management. Your organization can maintain consistent storage policies and workflows across your complete storage infrastructure, regardless of where your data resides. This integrated approach also delivers effortless data mobility between cloud environments and on-premises storage by removing the complications of incompatible, siloed technologies. With Cloud Volumes ONTAP, you can manage storage consistently without the need to redesign code or processes, promoting efficient and seamless storage operations.

Cloud Volumes ONTAP can also optimize both storage performance and costs across your infrastructure with a selection of presized configurations for you to use when deploying your working environments. These preset options enable you to fine-tune your storage setup to meet your organization's specific requirements and goals, so you get the most out of your storage investment.

## Unified control provides superior compatibility and scale for multicloud

Multicloud management doesn't have to result in a "swivel chair" approach, managing each cloud environment individually with separate tools and technologies. Cloud Volumes ONTAP can handle a wide range of workloads, use cases, and business requirements with support for file, block, NVMe/TCP, and S3 storage so your cloud strategy no longer must translate into investing in separate tools and hours of specialized training. Cloud Volumes ONTAP can manage your complete storage infrastructure.

And by delivering standardized features such as NetApp SnapMirror® replication, unlimited backups, Autonomous Ransomware Protection with AI, and Vscan, Cloud Volumes ONTAP tackles all aspects of your storage requirements all in one place, without extra third-party tools.

*"It has data protection features like snapshot technology, replication, and automated backups. Cloud Volumes ONTAP provides high-performance storage."*

*System Administrator, Energy and Utilities*

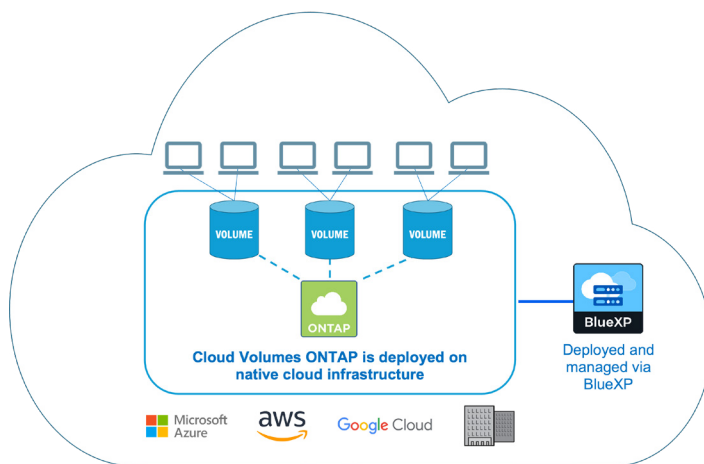


Figure 1: Cloud Volumes ONTAP is deployed on native cloud infrastructure and is centrally managed through BlueXP.

## Tap into enterprise-grade features for a robust cloud foundation

Adopting a cloud strategy does not mean having to abandon the advanced features that you have come to expect from enterprise storage solutions. Cloud Volumes ONTAP equips your organization with advanced features, powered by ONTAP, so you can maintain essential enterprise capabilities without compromise—from disaster recovery to data protection, to ransomware protection.

NetApp BlueXP, the UI for Cloud Volumes ONTAP, enables you to centrally access, view, and monitor all your Cloud Volumes ONTAP instances, including licenses and subscriptions. This unified approach simplifies storage management, providing a seamless experience while giving you confidence that your data is secure and easily accessible whenever and wherever you need it.

## Centrally manage your Cloud Volumes ONTAP investment

When you're a Cloud Volumes ONTAP customer, you can easily view all your licenses and purchases through BlueXP digital wallet. The digital wallet service gives you centralized visibility and puts you in full control of how and where you use the services that you have purchased, without having to go through arduous purchase order and procurement processes each time.

Start with Cloud Volumes ONTAP core capabilities	
<b>Core capabilities</b>	
<ul style="list-style-type: none"> <li>Multiprotocol support (iSCSI, NFS, SMB, NVMe/TCP, Simple Storage Service)</li> <li>Unified file and block support</li> <li>High availability/single node</li> </ul>	
<b>Data protection/replication</b>	
<ul style="list-style-type: none"> <li>SnapCenter®</li> <li>SnapMirror® (replication)</li> <li>Unlimited backups (Pro)</li> <li>Snapshot™ copies</li> <li>High availability (Pro)</li> </ul>	
<b>Security</b>	
<ul style="list-style-type: none"> <li>Autonomous Ransomware Protection with AI (ARP/AI)</li> <li>Access control/auditing</li> <li>Vscan</li> <li>NetApp Volume Encryption and NetApp Aggregate Encryption</li> <li>SnapLock® WORM</li> <li>FPolicy</li> </ul>	
Additional capabilities	
<b>Efficiencies</b> <ul style="list-style-type: none"> <li>Compression (garbage collection)</li> <li>Data compaction</li> <li>Data tiering (via cloud provider)</li> <li>Deduplication</li> <li>Thin provisioning</li> </ul>	<b>Governance</b> <ul style="list-style-type: none"> <li>Classification</li> </ul>
<b>Volume management</b> <ul style="list-style-type: none"> <li>FlexVol® and ONTAP FlexGroup</li> <li>FlexCache®</li> <li>FlexClone®</li> </ul>	<b>Orchestrating/provisioning</b> <ul style="list-style-type: none"> <li>NetApp Trident™</li> </ul>
	<b>Data migration</b> <ul style="list-style-type: none"> <li>Copy and sync (additional purchase)</li> </ul>
	<b>Reporting and monitoring</b> <ul style="list-style-type: none"> <li>Data Infrastructure Insights (additional purchase)</li> <li>Digital advisor</li> </ul>

Table 1: Start with access to Cloud Volumes ONTAP capabilities and expand your cloud storage features with BlueXP.

## Get started today

For most organizations, it is not whether a cloud strategy will be adopted, but when. Let NetApp and Cloud Volumes ONTAP elevate your cloud strategy wherever you are on your path to the cloud.

To get started, [learn more about NetApp Cloud Volumes ONTAP](#) and visit the [guided demonstration](#) to experience Cloud Volumes ONTAP for yourself.



Contact Us

### About NetApp

NetApp is the intelligent data infrastructure company, combining unified data storage, integrated data services, and CloudOps solutions to turn a world of disruption into opportunity for every customer. NetApp creates silo-free infrastructure, harnessing observability and AI to enable the industry's best data management. As the only enterprise-grade storage service natively embedded in the world's biggest clouds, our data storage delivers seamless flexibility. In addition, our data services create a data advantage through superior cyber resilience, governance, and application agility. Our CloudOps solutions provide continuous optimization of performance and efficiency through observability and AI. No matter the data type, workload, or environment, with NetApp you can transform your data infrastructure to realize your business possibilities. [www.netapp.com](http://www.netapp.com)

