

PUBLIC PREVIEW: NETAPP CLOUD VOLUMES ONTAP FOR MICROSOFT ONELAKE



THE PROBLEM

Enterprise data, AI, and governance teams in Azure-first organizations struggle to operationalize AI at scale because Microsoft OneLake works with data through object-based endpoints, while most business-critical datasets still live on NAS file shares. As a result, these NAS datasets stay locked behind file protocols, often forcing expensive and time-consuming replication to object storage to make them usable for analytics and AI. This creates a fragmented data estate where governance becomes harder to maintain, policy enforcement weakens across duplicated data (including access control, data retention/deletion, classification and privacy policies, and audit policies), and observability becomes siloed. As a result, AI initiatives stall, operational complexity increases, and costs increase due to redundant data and pipeline maintenance.

THE SOLUTION

Currently in public preview, NetApp® Cloud Volumes ONTAP® enables Microsoft OneLake to access NAS data through the S3 protocol, eliminating costly data replication and accelerating AI-driven insights. Enterprises can now analyze and train on operational file data from Cloud Volumes ONTAP through OneLake and Azure's AI/ML and analytics services with unified governance, consistent security, and lower storage and pipeline costs. This hybrid, multicloud approach unlocks the full value of enterprise data and accelerates AI-driven insights across Azure.

Top 6 reasons to use Cloud Volumes ONTAP and Microsoft OneLake



1

Direct S3 Access to NAS Data.
Eliminate the need to replicate data to object storage by enabling direct S3 access to existing NAS datasets. This accelerates AI, analytics, and machine learning workflows without creating duplicate copies.



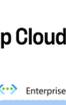
2

Seamless Integration with OneLake and Azure AI Services.
Connect NAS data directly to OneLake and Microsoft Fabric for unified analytics and governance. This integration simplifies data pipelines and unlocks advanced AI/ML capabilities without rearchitecting storage.



3

Hybrid and Multi-Cloud Data Management.
Manage data consistently across on-premises and cloud environments with ONTAP's proven capabilities. This flexibility with Cloud Volumes ONTAP supports hybrid architectures and multi-cloud strategies while maintaining governance and security.



4

Performance Optimization with FlexCache.
Accelerate workloads by caching frequently accessed data closer to compute resources. FlexCache reduces latency for AI training, analytics, and testing, delivering high performance for distributed environments.



5

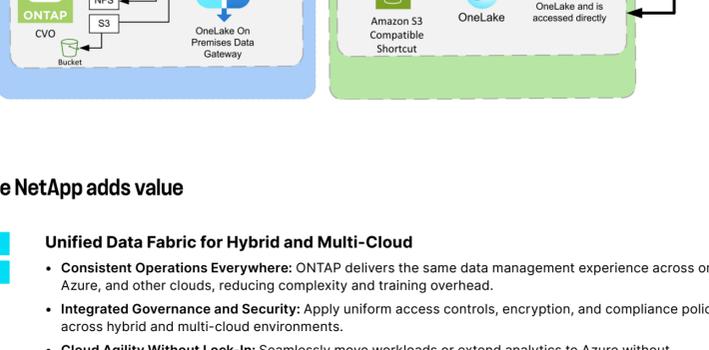
Enterprise-Grade Data Protection and Governance.
Built-in ONTAP features like Snapshot copies, SnapMirror replication, and encryption deliver robust protection, fast disaster recovery, and compliance-ready governance across hybrid deployments.



6

Storage Efficiency and Cost Optimization.
Reduce TCO with ONTAP's advanced efficiencies—deduplication, compression, thin provisioning—and tier cold data to object storage. This minimizes storage footprint while enabling cost-effective backup and disaster recovery.

NetApp Cloud Volumes ONTAP and Microsoft OneLake Architecture



Where NetApp adds value



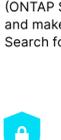
Unified Data Fabric for Hybrid and Multi-Cloud

- Consistent Operations Everywhere:** ONTAP delivers the same data management experience across on-prem, Azure, and other clouds, reducing complexity and training overhead.
- Integrated Governance and Security:** Apply uniform access controls, encryption, and compliance policies across hybrid and multi-cloud environments.
- Cloud Agility Without Lock-In:** Seamlessly move workloads or extend analytics to Azure without rearchitecting storage or breaking governance models.
- Multi Protocol Access Without Data Movement:** Serve NFS, SMB, and S3 from the same storage system, enabling applications and analytics tools to access the same dataset without replication, reformatting, or restructuring.



Enterprise Data Management: Protection, Efficiency, and Hybrid Mobility

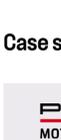
- Built-in Data Protection:** Snapshots, SnapMirror replication, and encryption deliver resilience and compliance for critical workloads.
- Cost Optimization Through Storage Efficiencies:** Deduplication, compression, thin provisioning, and automatic tiering to object storage reduce TCO.
- Simplified Disaster Recovery:** Fast failover/failback and reduced RTO/RPO with ONTAP Snapshot technology for business continuity.



Performance Where You Need It: FlexCache + QoS for AI & Analytics

- Accelerated Access with FlexCache:** Cache hot datasets closer to Azure compute for low-latency AI training and analytics.
- High Performance with QoS:** Guarantee throughput and isolate workloads to meet SLAs for AI/ML and BI pipelines.
- Scalable Architecture:** Easily adjust performance and capacity without disrupting data paths or workflows.

Use cases



Enterprise document retrieval over governed content

Use OneLake S3-compatible shortcuts to reference Cloud Volumes ONTAP (ONTAP S3) data in place (no copies) and make it searchable with Azure AI Search for Copilot/RAG.



AI-powered enterprise search on existing CVO data

Enable Azure AI Search to index and retrieve insights from files already in Cloud Volumes ONTAP—no migration or restructuring required.



Zero-copy data federation across clouds and business units

- Unify data from Cloud Volumes ONTAP and other S3/S3-compatible (or ADLS) sources in a single Lakehouse.
- Files view via OneLake shortcuts—analyze and search without replication.



Secure, read-only knowledge hubs for field and ops teams

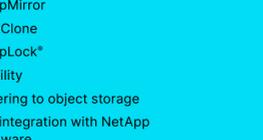
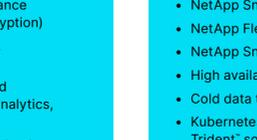
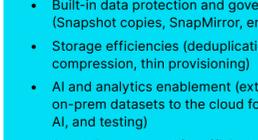
Distribute curated, operational content through read-only S3/S3-compatible shortcuts and workspace permissions; then add AI Search for fast retrieval; indexes are kept current via schedules.



Fast AI pilots that seamlessly scale to production

Accelerate value creation with rapid proofs of concept on existing data and scale into production without re-architecture or data movement.

Case studies



“Our aha moment was realizing that cloud optimization savings also lead to sustainability savings. And it flipped the switch on the incentivization. Initially, we saw waste as purely financial, but we now understand it also impacts sustainability. For an energy company, that’s a very powerful statement.”

Byron Baynham, Senior Manager, Cloud and Infrastructure Platform, AGL Energy

“You must be an expert in your own data. Know what data to transfer and what to leave alone.”

Rod Segrales, Director of Cloud Technologies, WTW

Cloud Volumes ONTAP and Microsoft OneLake

- Direct S3 access to existing NAS data
- Seamless integration with OneLake
- Hybrid and multi-cloud data management
- Accelerates performance with FlexCache by caching hot data close to compute
- Built-in data protection and governance (Snapshot copies, SnapMirror, encryption)
- Storage efficiencies (deduplication, compression, thin provisioning)
- AI and analytics enablement (extend on-prem datasets) to the cloud for analytics, AI, and testing)
- SnapMirror support for efficient replication between on-prem and cloud
- Simplified disaster recovery with fast failover and failback
- Cost-effective backup target in the cloud
- Reduced RTO/RPO with ONTAP Snapshot technology
- Tiering to object storage for cold data, lowering TCO

Supported ONTAP features in Cloud Volumes ONTAP

- NetApp Autonomous Ransomware Protection with AI
- NetApp Snapshot copies
- Deduplication, compression, compaction
- Encryption at rest and in flight
- NetApp SnapMirror
- NetApp FlexClone
- NetApp SnapLock®
- High availability
- Cold data tiering to object storage
- Kubernetes integration with NetApp Trident™ software
- Multiprotocol access: NFS, CIFS/SMB, iSCSI, NVMe/TCP, S3

Choose the edition of Cloud Volumes ONTAP that works best for your needs



Licensing options

| FREEMIUM | ESSENTIALS | PROFESSIONAL |
|---|---|---|
| <i>Use case for proof of concept*</i> | <i>Essentials primary</i> <i>Essentials secondary</i> | <i>ONTAP Storage + backup and recovery (HA/single node)</i> |
| Want to take it for a test drive first? Get full access to 500GB of NetApp® Cloud Volumes ONTAP with no time limit. | Want to get started now? Deploy the full strength of ONTAP in the cloud of your choice. | Ready to take the next step? Unleash the power of ONTAP storage in the cloud with unlimited backups. |
| Cost: \$0 | Cost: Starting at \$0.036 per GB/mo <i>(featuring secondary, single-node pricing)</i> | Cost: Starting at \$0.108 per GB/mo |
| <ul style="list-style-type: none"> Full featured ONTAP in any cloud* Community support Limited 500GB, up to 10 deployments | <ul style="list-style-type: none"> Full featured ONTAP in any cloud* Available in single node and HA 24/7 enterprise support For high-I/O-intensive tier 1 primary and tier 2 secondary workloads | <ul style="list-style-type: none"> Full featured ONTAP in any cloud* Optional cross-zone high availability 24/7 enterprise support For high-I/O-intensive workloads Includes unlimited backups with NetApp Backup and Recovery |

* Supports 1-3-year contract and PAYGO; pricing shows 3-year contract

** Cloud Volumes ONTAP pricing

Additional learning

[Learn more about Cloud Volumes ONTAP for Azure >](#)

[Get a free trial of Cloud Volumes ONTAP for Azure >](#)

[Cloud Volumes ONTAP for Azure cost calculator >](#)

[Cloud Volumes ONTAP documentation >](#)

Contact Us

About NetApp

For more than three decades, NetApp has helped the world's leading organizations navigate change—from the rise of enterprise storage to the intelligent era defined by data and AI. Today, NetApp is the intelligent Data Infrastructure company, helping customers turn data into a catalyst for innovation, resilience, and growth. At the heart of that infrastructure is the NetApp data platform—the unified, enterprise-grade, intelligent foundation that connects, protects, and activates data across every cloud, workload, and environment. Built on the proven power of NetApp ONTAP, our leading data management software and OS, and enhanced by automation through the AI Data Engine and AFX, it delivers observability, resilience, and intelligence at scale. Disaggregated by design, the NetApp data platform separates storage, services, and control so enterprises can modernize faster, scale efficiently, and innovate without lock-in. As the only enterprise storage platform natively embedded in the world's largest clouds, it gives organizations the freedom to run any workload anywhere with consistent performance, governance, and protection. With NetApp, data is always ready—ready to defend against threats, ready to power AI, and ready to drive the next breakthrough. That's why the world's most forward-thinking enterprises trust NetApp to turn intelligence into advantage.

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