



## Solution Brief

# NetApp AltaVault Cloud-Integrated Storage

Boost recovery, cut costs, reduce risks, and back up to the cloud with AltaVault

### Key Features

#### Efficient

Uses inline deduplication and compression for up to 30:1 data-reduction ratios

#### Open

Integrates with the backup software that you already use and with all leading public and private cloud storage providers

#### Secure

Keeps data encrypted at all times, reducing risks to both security and compliance in the cloud

#### Simple

Enables you to go from zero to cloud protected in less than 30 minutes

### The Challenge

Traditional backup and recovery solutions fall short because they are:

- **Too slow.** Users expect instant recovery and minimal data loss, but legacy backup and recovery strategies can't keep pace. As a result, many organizations fail to meet backup and recovery windows.
- **Too expensive.** As storage grows, companies struggle with the rising cost of protecting that data on premises. Also, bandwidth costs and constraints become more acute with larger datasets.
- **Too risky.** Many organizations still rely on tape, which increases risk exposure because of the potential for lost media in transport, increased downtime and data loss, and limited testing ability.
- **Too complex.** With an ever-increasing number of critical applications to protect, along with complex backup architectures, multiple backup apps, and error-prone legacy technologies, backup is incredibly complex.

### AltaVault Solves Backup, Archival, and Restore Challenges

NetApp® AltaVault™ cloud-integrated storage enables customers to securely back up data to any cloud at up to 90% lower cost compared with on-premises solutions. AltaVault gives customers the power to tap into cloud economics while preserving investments in existing backup infrastructure and meeting backup and recovery SLAs.

### The Solutions

#### Backup and recovery

AltaVault virtual appliances for Kernel-Based Virtual Machine (KVM), Microsoft Hyper-V, and VMware vSphere are an optimal solution for medium-sized businesses that want to get started with cloud backup. They're also excellent for enterprises that want to protect branch offices and remote offices with the same level of protection that they obtain in the data center. AltaVault virtual appliances provide the flexibility of deploying onto heterogeneous hardware while still providing all the features and functionality of hardware-based appliances.

AltaVault physical appliances are among the industry's most scalable cloud-integrated storage appliances, with capacities ranging from 32TB to 384TB of usable local cache. Enterprises often deploy AltaVault physical appliances in their data centers to protect large volumes of data. These datasets typically require extremely high levels of performance and scalability. AltaVault physical appliances are built on a scalable and an efficient hardware platform that is optimized to reduce data footprints and to rapidly stream data to the cloud.

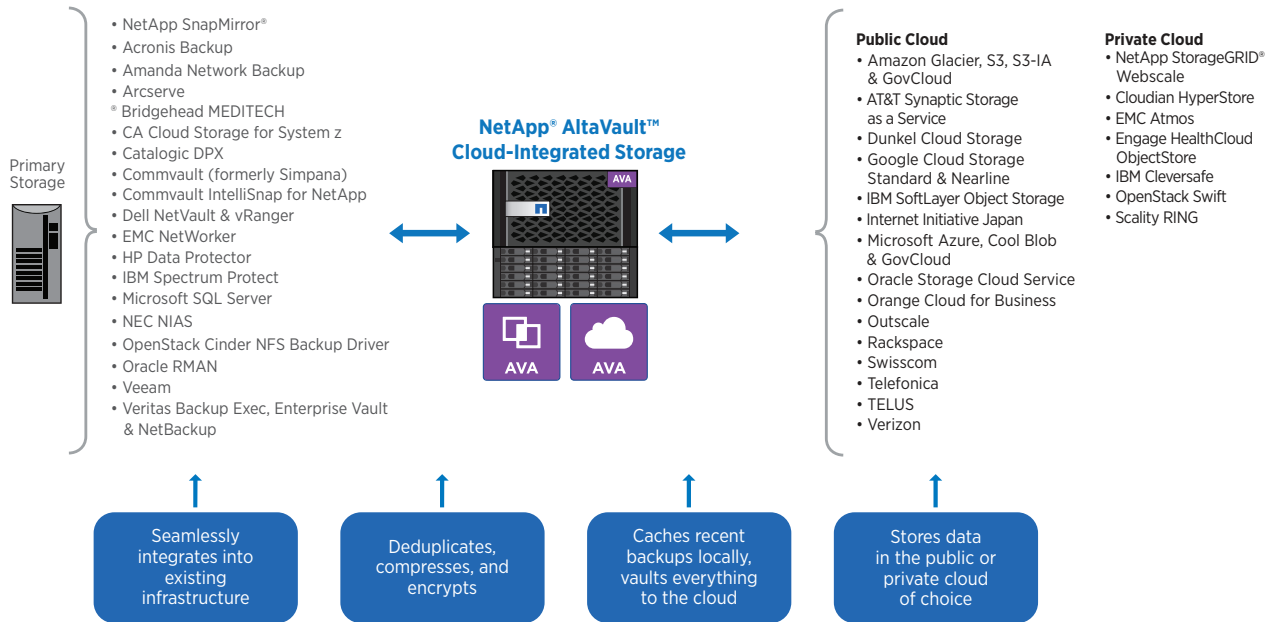


Figure 1) AltaVault integrates with leading backup software solutions and cloud storage providers.

### Cold storage and archives

AltaVault can be configured in cold storage mode. In cold storage mode, which is optimized for infrequently accessed data, or in archives, the AltaVault appliance uses the local cache for metadata only, increasing the scalability of the solution by more than 5 times. This results in minimal management and operational costs for cold data, while also allowing for fast and simple access to data when needed.

### Disaster recovery

Perhaps your organization has no secondary disaster recovery location or you are looking for extra protection with a low-cost tertiary site. With cloud-based NetApp AltaVault appliances on Amazon Web Services (AWS) or on Microsoft Azure, you can quickly recover data after a disaster. When you use on-premises AltaVault physical or virtual appliances, data is seamlessly and securely backed up to the cloud. If the primary site is unavailable, you can quickly spin up a cloud-based AltaVault appliance and recover data in the cloud. And with usage-based pay-as-you-go pricing, you pay only for what you use.

### Key Features

#### Unparalleled efficiency

- **Industry-leading data reduction.** AltaVault uses inline deduplication and compression, resulting in up to 30:1 data reduction ratios. This means that you store less data in the cloud and you can get it there more quickly.
- **Network and cloud optimization.** Built-in WAN optimization and deduplication reduce the amount of data that is transported to cloud and increase transfer speed by up to 4 times. AltaVault intelligently throttles data, which saves you money (and time). Quality of service confirms that data moves to and from cloud storage at the speed that your business requires.

- **Faster data restoration.** AltaVault improves recoverability because 95% of restores occur from local cache. With intelligent prefetching, AltaVault restores data from the cloud within minutes. With AltaVault, you can restore data up to 32 times more quickly than with tape.

#### Enterprise scale on an open platform

- **Flexible deployment and scale.** Choose the offering that is right for you: physical, virtual, or cloud based in the AWS or the Azure clouds. AltaVault appliances start as small as 2TB and scale up to 57PB of protected data in the cloud, making it one of the most scalable cloud-integrated storage products on the market.
- **Compatibility with existing backup software.** Do you love your backup software? So do we. AltaVault is compatible with all leading backup and archival software solutions, including NetApp SnapMirror®, Commvault, EMC, IBM, Veeam, and Veritas. Don't waste time and effort on ripping and replacing your backup software and retraining IT staff.
- **Cloud choice and agility.** Pick a cloud, any cloud, and AltaVault likely supports it. AltaVault supports all leading cloud storage providers and platforms on the market today, including AWS, Azure, Google, IBM, and NetApp StorageGRID® Webscale. Cloud providers rise and fall, and you never want your data stuck with a cloud provider. AltaVault cloud agility allows you to free your data.

“King County is now using the cloud for storage and compute. A primary example: In the past year, we have started using NetApp AltaVault to back up to the cloud. This type of technology, combined with the utility of cloud storage, will reduce costs by allowing us to eliminate tape backups and associated operational complexity, while giving a more robust backup solution.”

Reid Swick, System Architect  
King County.

### Ironclad security and compliance

- **Is encrypted and compliant.** Data is encrypted and secure at all times—in flight and at rest—using AES 256-bit encryption, with FIPS 140-2 level 1-validated encryption and industry-standard Transport Layer Security encryption.<sup>1</sup> You can manage encryption keys locally with the Key Management Interoperability Protocol without having to leave your data center.
- **Controls your data.** Confirm that only qualified employees can access data in AltaVault, with role-based access controls and integration with the Terminal Access Controller Access Control System and Remote Authentication Dial-In User Service. Use the management access control list to secure the appliance by exposing only the necessary protocols, ports, and networks.
- **Shrinks recovery time and data loss.** Reduce recovery time objectives by retrieving data more quickly in a disaster by accessing locally cached backups on the AltaVault appliance. Reduce recovery point objectives by immediately getting data off site so that recovery points are as recent as your latest backup, rather than the last time that tapes were shipped off site.
- **Prepares for disasters.** Recover on-premises workloads in the cloud during disaster recovery tests or declarations with the AltaVault cloud-based appliances on AWS and Azure.

### Easy to deploy and manage

- **Simplify deployment.** Get up and running with AltaVault in less than 30 minutes. In three simple steps, you can start sending data to the cloud.
- **Manage smarter.** Reduce tape management overhead and manual tasks that are error-prone and time-consuming, allowing you to allocate valuable employee resources to other projects. Remote monitoring and management capabilities from a GUI-driven management dashboard give administrators complete control from across the data center or across the world.
- **Get to a cloud-connected ready state with services.** Quickly meet the technical and business requirements for your new AltaVault solution with installation and implementation services from NetApp and our certified services partners. Using best practices our services team configures your new solution into your existing environment and brings your device to a cloud-connected ready state. Get the outcomes you expect while lowering your deployment risks and costs with our proven implementation methodology.

### AltaVault Lowers Adoption Barriers for Cloud Storage

Many organizations are excited by the prospect of leveraging cloud economics but soon find themselves daunted by barriers that are associated with the public cloud. The AltaVault cloud-integrated storage appliance was designed to help customers vault over these barriers by:

- **Maintaining security and compliance in a multitenant environment.**  
“We can’t take chances with client data or our own data. NetApp AltaVault was the only viable way for us to adopt a cloud strategy to protect data while satisfying security requirements,” says Scott E. Berterman, infrastructure architect, Riggs, Counselman, Michaels & Downes.
- **Easily managing large volumes of data, even with limited bandwidth.**  
AltaVault deduplication reduced the amount of data that was stored by Metricon, an Australian home-building company, in the cloud from 39TB to just 7TB and copied the data to Azure in one week.
- **Enabling simple deployment for a faster cloud on-ramp.**  
“It was a straightforward install. Nothing complicated. Once we connected to Amazon Glacier, we pointed Backup Exec to the AltaVault appliance, and it just worked,” says Andrew Girin, IT technical team lead, Spot Trading.
- **Giving employees rapid access to data.**  
“Backups are now more than 80% faster than with tape. And recovery times for whole datasets to single files have gone from days and hours to minutes and seconds, whether retrieved from the AltaVault cache or cloud,” says Tom Garrett, network specialist for IS Operations at Seminole County Public Schools.

### Learn More About AltaVault

To learn more about AltaVault, go to [www.netapp.com/AltaVault](http://www.netapp.com/AltaVault).

To learn more about NetApp Professional and Support Services, go to [www.netapp.com/services](http://www.netapp.com/services).

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### About NetApp

Leading organizations worldwide count on NetApp for software, systems and services to manage and store their data. Customers value our teamwork, expertise and passion for helping them succeed now and into the future.

[www.netapp.com](http://www.netapp.com)

1. AltaVault offers end-to-end security for data at rest and in flight that is validated with the NetApp Cryptographic Security Module.

