



## Solution Brief

# NetApp Data Fabric Solution for Cloud Backup

End-to-end data protection solution for NAS File Services

### Key Features

- Efficient, end-to-end file-level cloud backup and recovery solution streamlines data protection.
- Integrated SnapMirror® software with NetApp® AltaVault™ cloud-integrated storage provides efficient, secure data replication.
- Easy-to-use SnapCenter® management software manages data protection workflow from flash to disk to cloud.
- Integrated file catalog allows simplified file search and recovery across the hybrid cloud.
- Automated protection relationship management and precanned backup policies reduce administration overhead.

### The Challenge

#### Orchestrating traditional tape backup is costly and time consuming

Legacy approaches to backup, such as tape libraries, can be costly and time consuming to operate, resulting in unnecessary operational delays for IT organizations with requirements to keep data online 24 hours a day, 7 days a week. More and more, IT professionals are adding cloud-integrated solutions to help protect their data as an alternative to on-premises tape backup and off-premises tape storage. According to research by ESG,<sup>1</sup> backup and recovery are among the top five IT spending priorities for 2016 and the number-one use case for cloud deployments. The cloud is an ideal location for backup archive of tier 2 and tier 3 data, such as file shares and home directories.

### Solution

#### Protecting your data with hybrid cloud solutions

NetApp offers a comprehensive cloud-integrated data protection solution for NAS file services built on NetApp ONTAP® combined with AltaVault cloud-integrated storage. This solution delivers end-to-end array-based backup and recovery for data created on premises with efficient backup to the cloud. With flexible configurations, including NetApp All Flash FAS (AFF) and FAS as primary or secondary storage, you can deploy cloud backup within your current environment or a new deployment.

#### Integrated Data Protection

NetApp Snapshot® technology creates fast, space-efficient virtual copies and recovery points of local data on any storage system powered by ONTAP with support for up to hundreds of Snapshot copies per volume. The NetApp SnapMirror policy for backup delivers efficient, high-speed replication of Snapshot data, with “incremental forever” data protection. The high-speed block-level data transport retains space-efficient data movement between endpoints to reduce I/O traffic and improve replication performance by as much as 60%. Only the changed blocks are replicated, so I/O traffic is further reduced.

#### High-performance cloud-integrated backup

NetApp AltaVault offers cost-effective, efficient, and secure backup to almost any cloud, public or private. Inline deduplication and compression reduce I/O traffic to the cloud, with up to 30:1 data reduction, saving ingest costs and in-cloud storage capacity. Inline encryption protects your data prior to leaving your data center, so you can rest easy knowing your data is safe in the cloud. With SnapMirror integration, AltaVault (physical or virtual appliance) enables long-term retention in the cloud, supporting up to 3,653 Snapshot copies, an equivalent of 10 years of daily backups. Recovery of

1. ESG Research Publication, Data Protection Cloud Strategies in 2016, 2016

data is accessed from on-premises cache 95% of the time prior to attempting to retrieve data from the cloud, contributing to reduced retrieval costs associated with common events, such as accidental data deletion. Easy retrieval of data from the cloud eliminates the requirement for tape-based backup and archive systems.

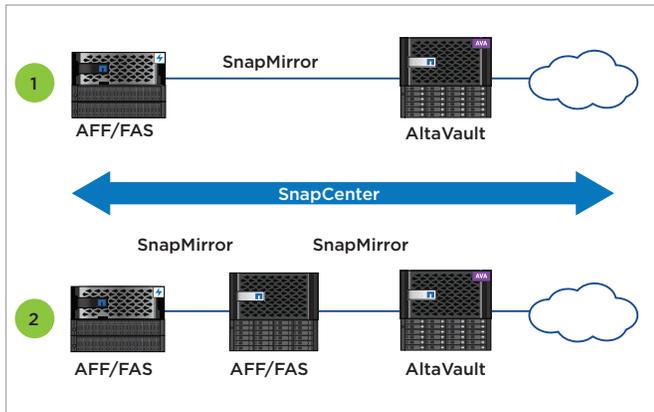


Figure 1) Solution is available with two topologies with or without secondary storage.

### Simplified end-to-end management

Data protection management is available through NetApp SnapCenter, which offers an intuitive graphical interface, incorporating predefined protection relationships and backup policies for file-level restore. Manage data copies across protection tiers, from flash to disk to cloud. NetApp SnapCenter offers end-to-end data protection for primary, secondary, and tertiary data copies with easy file recovery using a built-in file catalog.

### Simplify Data Protection

#### Flexible configuration tailored to your IT environment

NetApp unified storage built on ONTAP 9 offers the flexibility to support block and file workloads. For NAS file services backup, you can choose from AFF or FAS hybrid storage solutions for primary storage and optional secondary storage backup. Integration with AltaVault extends your data protection efficiently and securely to almost any cloud, private or public. Choosing a solution is as easy as 1-2-3.

Step 1: Select primary storage	Step 2: Select secondary storage (optional)	Step 3: Add AltaVault and choose your cloud
<ul style="list-style-type: none"> <li>AFF array</li> <li>FAS hybrid storage</li> </ul>	<ul style="list-style-type: none"> <li>AFF array</li> <li>FAS hybrid storage</li> </ul>	<ul style="list-style-type: none"> <li>Public Cloud</li> <li>Private cloud/object storage</li> </ul>

Table 1) Solutions can be configured from a broad range of NetApp storage systems. Consult the Interoperability Matrix for up-to-date product support and specific supported configurations.

### Partner for Success

When you partner with our Professional Services and Customer Success Operations teams, you gain access to our extensive storage expertise, innovative technologies, and best practices. You can accelerate the return on your infrastructure investments and get a superior level of business benefit from them. We respond quickly to your problems, no matter where in the world they occur. And because we have one of the most flexible support programs in the industry, you get just the support that you need for your unique IT and business requirements.

### Modern and Efficient Data Protection for the Data Fabric

Protecting data is a necessary requirement for long-term business viability. NetApp offers a modern and easy-to-deploy solution to address the data protection challenges of NAS file services. With a best-in-class solution, NetApp can help you transform your storage and data protection to the cloud. Now is the time to consider how NetApp can help you deploy Data Fabric solutions to solve your immediate IT challenges.

### 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.

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