Datasheet

NetApp AltaVault Cloud-Integrated Storage Physical Appliances

AVA400 and AVA800 appliances

Key Features

Efficient
Cut data volumes by up to 90% and reduce data transport times by 4x.

Open
Use with the backup software you already use and with all leading public and private cloud storage providers.

Secure
Keep your company data safe and compliant in the cloud and reduce risk and restore times.

The Challenge
Backup and restore processes are slow, expensive, and risky
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. Additionally, 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 losing 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.

The Solution
Back up and archive data to the public or private cloud
NetApp® AltaVault® (formerly SteelStore) cloud-integrated storage enables customers to securely back up data to any cloud at up to 90% less cost compared to that of 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.

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

Professional and support services
Professional services, from NetApp and partners, can implement AltaVault in hetero-geneous or NetApp environments to deliver an optimized solution that meets your specific needs. Support services help you achieve continuous operations, operational excellence, and improved cost efficiency.

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How AltaVault Appliances Work

Primary Storage

- Amanda Network Backup
- Arcserve
- CA Cloud Storage for System z
- Commvault
- Dell NetVault
- Dell vRanger
- EMC NetWorker
- HP Data Protector
- IBM Spectrum Protect
- Veeam
- Veritas Backup Exec
- Veritas Enterprise Vault
- Veritas NetBackup
- Microsoft SQL Server
- OpenStack Cinder NFS Backup Driver
- Oracle RMAN

NetApp AltaVault

Cloud-integrated storage appliance

Public or Private Cloud

Public Cloud
- Amazon Glacier, S3, & S3-SIA
- AT&T Synaptic Storage as a Service
- Dunkel Cloud Storage
- Google Cloud Storage Standard & Nearline
- IBM SoftLayer Object Storage
- Internet Initiative Japan
- Microsoft Azure
- Oracle Storage Cloud Service
- Orange Cloud for Business
- Outscale
- Rackspace
- Swisscom
- Telefonica
- TELUS
- Verizon

Private Cloud
- NetApp StorageGRID® Webscale
- Cleversafe
- Cloudian HyperStore
- EMC Atmos
- OpenStack Swift
- Scality RING

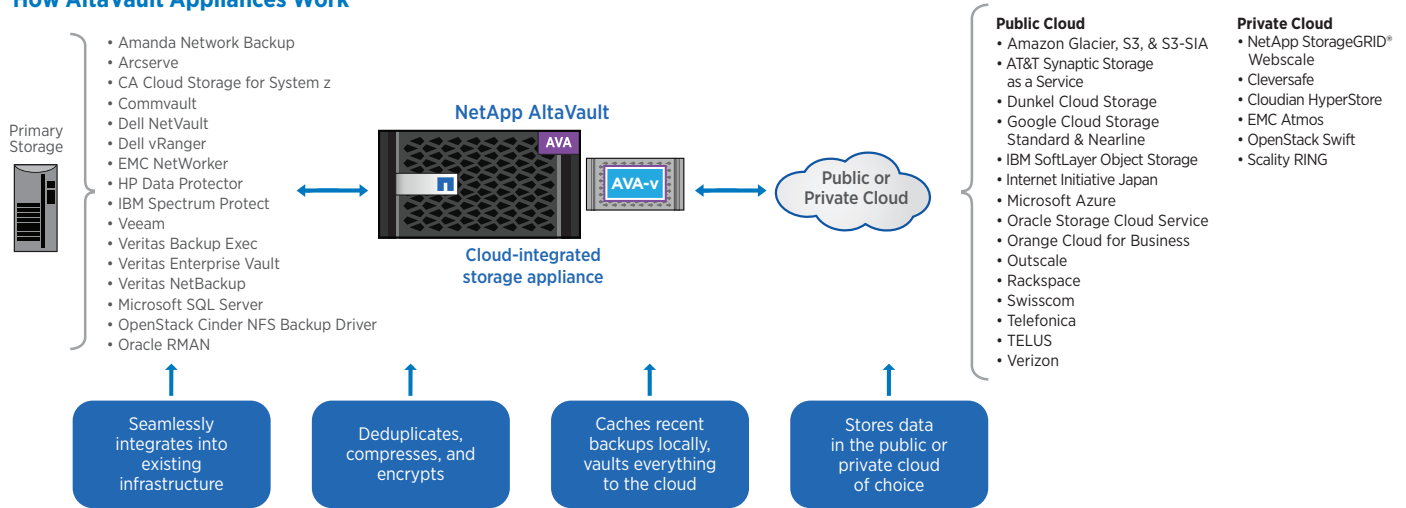| Seamlessly integrates into existing infrastructure | Deduplicates, compresses, and encrypts | Caches recent backups locally, vaults everything to the cloud | Stores data in the public or private cloud of choice |

Figure 1) NetApp AltaVault provides seamless integrations with existing applications and cloud service providers.

AVA400 and AVA800 Model Specifications

CATEGORY	ATTRIBUTES[1]	PHYSICAL APPLIANCES		
		Backup Mode		Cold Storage Mode
		AVA400	AVA800	AVA400
Performance	Backup throughput (maximum)	6TB/hr	9.2TB/hr	350GB/hr
Cloud	Cloud storage providers supported[1]	Multiple; visit the solution connection[4] for more details		
	Cloud capacity supported[2]	160TB–960TB	240TB–1.92PB	10PB
	Logical cloud capacity[3]	480TB–28PB	720TB–57PB	10PB
Local disk storage	Usable local capacity	32TB–192TB	48TB–384TB	32TB
	Raw local capacity	48TB–288TB	72TB–576TB	48TB
	Number of disk drives	12–72	12–96	12
	Disk drives capacity and type	4TB at 7.2K RPM, NL-SAS	6TB at 7.2K RPM, NL-SAS	4TB at 7.2K RPM, NL-SAS
	Disk Shelves Supported	AVA10S (4U; 24 drives, 3.5" LFF)	AVA20S (4U; 24 drives, 3.5" LFF)	AVA10S (4U; 24 drives, 3.5" LFF)
	RAID protection	RAID 6		
Network	Onboard I/O: 10GbE	4		
	Onboard I/O: GbE	4		
	Storage networking supported	CIFS/SMB, NFS		
Software	Software version	AltaVault OS 4.0 or higher		
Third-party application	Backup/archive software supported	Multiple; visit the solution connection[4] for more details		

1. For details about technical specifications, contact your nearest NetApp or channel sales associate.
2. 5x of appliance usable local capacity; for example, a maximum of 160TB of cloud capacity can be supported by 32TB of usable local capacity.
3. Backup mode: calculated using 30x deduplication.
4. http://solutionconnection.netapp.com/altavault

System Environmental Specifications

AVA400 AND AVA800 CONTROLLER	
Thermal rating (at 200V)	2,880 BTU (typical, per enclosure) 3,252 BTU (worst case, per enclosure)
Weight (heaviest)	115.08 lb
Height	6U
Width	19″ IEC rack-compliant (17.6″, 44.7cm)
Depth	24.3″ (28.9″ with cable management)
Operating temperature, altitude, and relative humidity	10°C–40°C (50°F–104°F); at <= 3,000m (at <= 10,000′) elevation; 20%–80% relative humidity, noncondensing (28°C wet bulb temperature)
Nonoperating temperature, altitude, and relative humidity	–40°C–70°C (–40°F–158°F); 5%–95% relative humidity, –1,000–40,000 ft, noncondensing, in original container
Operating acoustic noise	Declared sound power (LwAd) per ISO 9296: 7.5 Bel @ normal operating conditions (at 23°C and at sea level)
Compliance	RoHS-compliant (PDF)
Safety/emissions/immunity	Safety: EN 60950, CE, CSA 60950, UL 60950, CB IEC60950-1 (all national deviations), EN60825-1, IRAM, CU, BIS, BSMI, SONCAP, NRCS LOA (South Africa); emissions/immunity: FCC Part 15 Class A, ICES-03, CE, KCC, VCCI, AS/NZS CISPR 22, EN55022, EN55024, EN61000-3-2, EN61000-3-3, SABS COC (South Africa), BSMI

SPECIFICATION	AVA10S DISK SHELF	AVA20S DISK SHELF
High-Capacity Disk Drives	4TB at 7.2K RPM	6TB at 7.2K RPM
Controller Support	AVA400	AVA800
Rack units	4U	
Drives per enclosure	24	
Drives per rack unit	6	
Drive form factor	3.5″ large form factor	
Drive carrier	Single drive	
Power supply/cooling fans	Redundant, hot-pluggable, integrated power supply/fan assemblies; dual supplies required for high-capacity disk drives	
AC input power voltage (autoranging, VRMS)	100–120V or 200–240V	
AC input power frequency	50–60 Hz	
Weight (fully loaded)	110 lbs (49.9kg)	
Dimensions	Height: 7″ (17.8cm) Width: 19″ (48.3cm) Depth: 24″ (61cm)	
Clearance dimensions	Front—cooling: 6″ (15.3cm) Front—maintenance: 12″ (30.5cm) Rear—cooling and maintenance: 25″ (55.9cm)	
Operating acoustic noise	7.0 bels LwAd (4 PCMs)	
Temperature	Operating: 50°F–104°F (10°C–40°C) Nonoperating: –40°F–158°F (–40°C–70°C)	
Relative humidity	Operating: 20%–80% noncondensing Nonoperating: 10%–95% noncondensing	
Altitude	Operating: 0–10,000 ft (0–3,045 m) Nonoperating: –1,000–40,000 ft (–305–12,192 m)	

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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