

## Vault 8200

### Hybrid Flash System

#### Product Overview

Vault 8200 hybrid storage systems are engineered specifically to address the demands of a data-driven business, using an integrated combination of high-performance hardware and adaptive, scalable storage software. Vault 8200 systems supports existing workloads as well as adapt and scale quickly to address new applications and evolving IT models. Powered by NetApp® ONTAP® data management software, the Vault 8200 unifies your SAN and NAS storage infrastructure. When Vault 8200 systems are clustered with Vector Data A-Series all-flash arrays and integrated with the cloud, you have the control to easily move your data to where it's needed for your business and place it in the storage environment that delivers the best combination of flash performance, storage capacity, and cost efficiency. With proven agility and data management capabilities, the Vault 8200 has the flexibility to keep up with changing business needs while delivering on core IT requirements.

Perfect for NFV (network function virtualization), the Vault 8200 offers full support for OpenStack, VMware, Linux KVM, and other leading virtualization platforms, letting you combine the performance and security of Netapp ONTAP® with the flexibility and unified management of cloud deployments. Vault 8200 is the perfect foundation for SDN and the network of the future.

#### Unlock the power of flash

Flash-accelerated Vault 8200 hybrid storage systems deliver up to 50% more performance than our previous generation FAS storage, boosting throughput, lowering latency, and meeting stringent service levels. The base configuration of each HA pair includes 2TB of onboard Flash Cache™ based on NVMe technology, which can be expanded up to 4TB of integrated Flash Cache and up to 48TB of total flash per HA pair when leveraging Flash Pool™ intelligent data caching. Hot data is automatically promoted to flash in real time, so you get the full benefit of flash performance.



#### Scale and adapt to meet changing needs

Optimize and accelerate your storage environment as performance and capacity requirements change. Scale up by adding capacity, adding more flash acceleration, and upgrading controllers. Scale out by growing from 2 nodes up to a 24-node cluster with 57PB of capacity, including combinations of different Vault models. Vault 8200 systems also support massive NAS containers, which are easy to manage. With the NetApp FlexGroup feature of ONTAP 9, a single namespace can grow to 20PB and 400 billion files while maintaining consistent high performance and resiliency. With nondisruptive addition and replacement of storage systems and components, scaling occurs without maintenance windows or the challenge of coordinating downtime across teams. Perform your updates during regular work hours.

#### Key Features and Benefits

- Simplify Your Storage Environment - Run SAN and NAS workloads with unified scale-out storage.
- Accelerate Enterprise Applications - Reduce latency and speed operations with up to 50% higher performance than previous generation.
- Maximize Uptime - Eliminate planned downtime to add, upgrade, or retire storage with no disruptions.
- Consolidate Infrastructure - Scale up to 57PB, cluster with A-Series all-flash systems, and integrate existing third-party storage arrays.
- Provision storage system and serve data within 10 minutes
- Optimize for the Hybrid Cloud - Easily implement a service-oriented IT architecture that spans on-premises and cloud resources.
- AC and DC power options
- Optional NEBS Level 3 and ETSI certification

## Vault 8200 Technical Specifications

Vault 8200	
<b>NAS scale-out: 1–24 nodes (12 HA pairs)</b>	
Maximum drives	(HDD/SSD) 5,760/2,880
Maximum raw capacity	57PB
Maximum onboard Flash Cache™ based on NVMe technology	48TB
Maximum Flash Pool	576TB
Maximum memory	3072GB
<b>SAN scale-out: 1–12 nodes (6 HA pairs)</b>	
Maximum drives (HDD/SSD)	2,880/1,440
Maximum raw capacity	28PB
Maximum onboard Flash Cache based on NVMe technology	24TB
Maximum Flash Pool	288TB
Maximum memory	1536GB
Cluster interconnect	2 10GbE
<b>Per HA Pair Specifications (Active-Active Dual Controller)</b>	
Vault 8200	
Maximum drives (HDD/SSD)	480/480
Maximum raw capacity	4800TB
Maximum onboard Flash Cache based on NVMe technology	4TB
Maximum Flash Pool	48TB
Controller form factor	3U
ECC memory	256GB
NVRAM	16GB
PCIe expansion slots	4
Onboard I/O: UTA 2 (8Gb/16Gb FC, GbE/10GbE, or FCVI ports [MetroCluster only])	8
Onboard I/O: 10GbE	4
Onboard I/O: 10GbE Base-T	4
Onboard I/O: 12Gb SAS	8

OS version: ONTAP 9.1 RC1 and later	
Shelves and media	Ask your Vector Data account rep for the most current information
Storage protocols supported	FC, FCoE, iSCSI, NFS, pNFS, CIFS/SMB
Host/client operating systems supported	Windows 2000, Windows Server 2003, Windows Server 2008, Windows Server 2012, Windows Server 2016, Windows XP, Linux, Sun Solaris, AIX, HP-UX, Mac OS, VMware, ESX

System Environmental Specifications	
Thermal Rating (at 200V)	1,850 BTU (typical) 2,130 BTU (worst case)
Power supply / cooling fans	Dual, hot pluggable, integrated power supply/fan assemblies
AC input power voltage	100V to 240V
DC input power voltage	-40VDC to -72VDC
Depth	23.9" (28.9" with cable management)
Rack mount information	19-inch rack mount supporting racks compliant: - ANSI/EIA-310-D - ETS 300 119 - GR-63-CORE Seismic Zone 4
Operating temperature, altitude, and relative humidity	5°C to 45°C (41°F to 113°F); at <= 3,000m (at <= 10,000') elevation; 8% to 90% relative humidity, noncondensing (28°C wet bulb temperature)
Nonoperating temperature and relative humidity	-40°C to 70°C (-40°F to 158°F); 10% to 95% relative humidity, noncondensing, in original container
Operating acoustic noise	- Declared sound power (LwAd) per ISO 9296: 7.8 Bel - Sound pressure (LpAm) (bystander positions): 62.6 dB

## Safety Agency Approval

CAN/CSA C22.2 NO. 60950-1	
UL 60950-1	
IEC 60950-1	
EN 60950-1	Safety of Information Technology Equipment

## Telco NEBS/ETSI Certifications

Telcordia GR-63-CORE NEBS Requirements: Physical Protection	
Telcordia GR-1089-CORE EMC and Electrical Safety	
Telcordia SR-3580 Level 3	
ETSI ETS 300-019 Physical Protection and ETSI ETS 300-753 Acoustic Noise	

## Military Specifications

Optional MIL-STD-810 F/G compliance	
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## Electrical Safety/Bonding and Grounding

Electrical Safety	ATT-TP-76200 GR-1089-CORE Section 7
Bonding and Grounding	ATT-TP-76200 GR-1089-CORE Section 9

## System Physical Environmental

Airborne Contaminants	ATT-TP-76200 GR-63-CORE Section 4
Earthquake, Shock and Vibration	Zone - 4, ATT-TP-76200 GR-63-CORE Section 4
Fire Resistance	ATT-TP-76200 GR-63-CORE Section 4

## Electromagnetic Emission and Immunity

FCC Part 15 and Class A	
VCCI	Japan
KCC	Korea
Electromagnetic Interference	ATT-TP-76200 GR1089-CORE Section 3
ESD - Electrostatic Discharge	IEC 61000-4-2
EFT - Electrical Fast Transient	ATT-TP-76200 GR-1089-CORE Section 2.2
Lightning and Power Fault	ATT-TP-76200 GR-1089-CORE Section 4
DC Power - Telecommunication	ATT-TP-76200 GR-1089-CORE Section 10

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For more information, please contact your Vector Data account manager.