

Vault 2600 Series

Hybrid Storage Array

Product Overview

The Vault 2600 Series running ONTAP® software simplifies the task of managing growth and complexity by delivering high performance and providing support for a broader range of workloads, along with seamless scaling of performance and capacity. And with proven integration with AFF all-flash arrays and the cloud, you can build a foundation for a data fabric that leverages flash acceleration and public cloud storage resources to cost-effectively handle dynamic storage needs. For growing organizations that are concerned about budgets today and meeting challenging IT needs in the future, Vault 2600 Series is the perfect choice.

The Vault 2600 Series can be optionally configured for rugged environments, including NEBS Level 3 and ETSI certification and MIL-STD-810 F/G compliance. Vector Data continues to provide network operators with a consistent storage product across their entire infrastructure, including AC and DC power and all-flash options for telecom, military, and other rugged installations.

Perfect for NFV (network function virtualization), the Vault 2600 Series offers full support for OpenStack, VMware 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 2600 Series is the perfect foundation for SDN and the network of the future.

Vault 2600 Series systems are ready to deliver secure connectivity to equipment deployed in harsh environments encountered in applications such as:

- DoD, Military, Defense
- Other Government Agencies (requiring rugged systems)
- Transportation (Railroad, Maritime, Bus, Truck)
- Aerospace
- Aviation
- Oil & Gas
- Engineering
- Telecom
- Service Providers
- Drilling and Mining Operations
- Emergency Services
- Energy
- & More



KEY BENEFITS

Delivers Best Value for Your IT Investment

- Achieves aggressive price-performance with up to 3x more performance
- Serves SAN and NAS workloads with advanced unified architecture
- Meets more business needs with best-in-class data management
- Increases return on investment with enhanced storage efficiencies

Simplifies Storage Operations

- Allows you to upgrade software and add or retire storage with zero downtime
- Handles complicated management tasks with the click of a button

Grows with Your Changing Needs

- Lets you start small and grow big, invest in what you need, and add without disruption
- Builds a foundation for a data fabric across flash, disk, and cloud

Perfect for NFV (network function virtualization)

- Full support for OpenStack, VMware and other leading virtualization platforms

High altitude and extreme temperature environment certification available

- Optional NEBS Level 3 and ETSI certification
- Optional MIL-STD-810G and EN50155 certification
- AC and DC power options available

Vault 2600 Series Technical Specifications

Specifications per HA Pair

	Vault 2650	Vault 2620
Maximum Raw Capacity	1243TB	1440TB
Maximum Drives	144	144
Controller Form Factor	2U/24 drives	2U/12 drives
ECC Memory	64GB	64GB
Onboard NetApp Flash Cache based on NVMe technology	1TB	1TB
Maximum NetApp Flash Pool™	24TB	24TB
NVME/NVRAM	8GB	8GB
Onboard I/O: UTA2 (8Gb FC/16Gb FC/FCoE/10GbE/1GbE2)	8	8
Onboard I/O: 10GbE	4	4
Onboard I/O: 12Gb SAS	4	4
OS version	ONTAP 9.1 and later	
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, Oracle Solaris, IBM AIX, HP-UX, Apple Mac OS, VMware ESX	

Specifications for Scale-Out Configurations (Hybrid and Disk-Only Configurations)

	Vault 2650	Vault 2620
NAS/SAN Scaling	1–8 nodes (4 HA pairs)	1–8 nodes (4 HA pairs)
Maximum Drives	576	576
Maximum Raw Capacity	5.0PB	5.7PB
Maximum onboard NVMe Flash Cache™	4TB	4TB
Maximum Flash Pool	96TB	96TB
Maximum Memory	256GB	256GB
Cluster Interconnect	10GbE, supported using either 10GbE or UTA2 ports for maximum flexibility	

Vault 2600 Series Software

Software included in ONTAP 9 Base Bundle	<p>The Base Bundle includes the following NetApp technologies:</p> <ul style="list-style-type: none"> • Storage protocols: all supported data protocol licenses (FC, FCoE, iSCSI, NFS, pNFS, CIFS/SMB) • Efficiency: NetApp FlexVol®, deduplication, compression, compaction, and thin provisioning • Availability: multipath I/O • Data protection: RAID-TEC, RAID DP, and Snapshot • Performance: storage QoS • Scalable NAS container: FlexGroup • Management: OnCommand System Manager and OnCommand Unified Manager
Software included ONTAP 9 Premium Bundle (optional)	<p>To add capabilities onto the Base Bundle, the optional Premium Bundle includes the following NetApp technologies:</p> <ul style="list-style-type: none"> • FlexClone®: instant virtual copies of databases or virtual machines • SnapMirror®: simple, efficient, flexible disaster recovery • SnapVault®: disk-based backup software for complete backups and online archives to primary or secondary storage in minutes instead of hours or days • SnapRestore®: restore entire Snapshot copies in seconds • SnapCenter®: unified, scalable platform and plug-in suite for application-consistent data protection and clone management • SnapManager® suite: application- and virtual machine-aware backup, recovery, and cloning
Extended value software (optional)	<p>Separate optional software, beyond the Base Bundle and Premium Bundle, is also available:</p> <ul style="list-style-type: none"> • OnCommand suite of management software: provides the visibility and control to help maximize system utilization, meet storage SLAs, minimize risks, and boost performance • SnapLock®: compliance software for write once, read many (WORM)-protected data • Volume Encryption: granular, volume-level data-at-rest encryption

System Environmental Specifications

Thermal Rating (at 110V)	1,219 BTU (typical) 1,697 BTU (worst case)
Weight	55.56 lbs
Height	3.35" (8.5 cm), fits into 2U space
Width	19" IEC rack-compliant (17.6", 44.7 cm)
Depth (without cable management brackets)	19" (48 cm)
Operating Temperature, Altitude, and Relative Humidity	0° C to 40° C (32° F to 104° F); at ≤ 3,000 m (at ≤ 10,000' feet) elevation; 20% to 80% relative humidity, noncondensing*
Nonoperating Temperature and Relative Humidity	-40° C to 70° C (-40° F to 158° F); at ≤ 12,192 m (at ≤ 40,000') typical of unconditioned airplane cargo bay, 8% to 80% relative humidity, noncondensing, in original container*

Safety Agency Approval

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

Military Specifications

MIL-STD-810 F/G compliant

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

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

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

Physical Design and Mounting

Rackmount	19-inch rack mount supporting racks compliant: - ANSI/EIA-310-D - ETS 300 119 - GR-63-CORE Seismic Zone 4
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