

Vault E2800 Series

All-flash and hybrid arrays

Product Overview

Vector Data Vault E2800 storage systems offers all-flash and hybrid configuration options, so you can streamline your IT infrastructure and drive down costs. Pay-as-you-grow flexibility makes the E2800 an excellent solution for companies of all sizes facing rapid, unpredictable growth.

Unlike other storage systems that add file or virtualization layers in the I/O data path, E2800 systems are purpose-built to optimize performance for mixed workloads. An innovative controller that is built on Intel processor technology, along with a 12Gb SAS infrastructure, improves IOPS and throughput to help you extract value from your data and take action faster.

Many Vault E2800 systems can be optionally configured for rugged environments, including NEBS Level 3, ETSI, and MIL-STD-810 F/G certification or 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 E2800 offers full support for OpenStack, VMware and other leading virtualization platforms, letting you combine the performance and security of Netapp Data ONTAP® with the flexibility and unified management of cloud deployments. Vault E2800 is the perfect foundation for SDN and the network of the future.

The E2800 offers enterprise-level reliability, availability, and serviceability features:

- With NetApp SANtricity Snapshot™ capabilities, nearinstantaneous, point-in-time copies or volume images can be created for backup and file restoration. The system supports up to 512 point-in-time copies of data volumes. This feature minimizes network traffic while providing multiple Snapshot copies to improve recovery point objectives.
- SANtricity volume copy creates clones of volumes, which can be used for data analytics or other purposes.



- Data assurance, based on the ANSI T10-PI standard, offers enterprise-grade data integrity and protects against silent data corruption.
- SANtricity Cloud Connector enables flexible and cost-effective backup and recovery to the cloud from an E2800 Series system.
- The auto support system proactively notifies users about potential issues before they occur.

Optimized for Affordable Performance

The E2800 storage system optimizes price and performance to support any workload. The E2800 features an innovative entry-level controller that improves IOPS and throughput. Higher performance with solid-state drives (SSDs) enables the E2800 to maximize storage density, requiring fewer disks for better performance. High-performance file systems and data-intensive bandwidth applications benefit from the ability of the E2800 to sustain higher read and write throughput. Database-driven transactional applications benefit from the higher IOPS and low latency of the E2800.

KEY FEATURES

Dynamic Disk Pools

Dynamic Disk Pools (DDP) technology simplifies the management of traditional RAID groups by distributing data parity information and spare capacity across a pool of drives.

SSD Cache for Improved Performance

The SSD cache feature provides intelligent analytics-based caching capability for read-intensive workloads. Hot data is cached by using higher-performance, lower-latency SSDs in the drive shelves.

Optional Rugged Certifications

- NEBS Level 3 and ETSI certified or compliant
- MIL-STD 810G certified or compliant
- AC and DC power options

Vault E2800 Technical Specifications

	E2824 SYSTEM SHELF DE224C DISK SHELF	E2812 SYSTEM SHELF DE212C DISK SHELF
Form factor	2U, 24 drives (2.5")	2U, 12 drives (3.5" or 2.5" SSD)
Maximum Raw Capacity	76.8TB system shelf 1.4PB with disk shelves (with 3.2TB, 10TB drives)	1120TB system shelf 1.4PB with disk shelves (with 10TB drives)
Maximum Drives	180 120 SSD limit	180 120 SSD limit
Drives Supported	900GB, 1.2/1.8TB SAS 1.8TB SAS 10K FIPS 800GB, 1.6/3.2TB SSD 1.6TB SSD FIPS	4/8/10TB NL-SAS 6/10TB NL-SAS FIPS 800GB SSD 1.6TB SSD FIPS
System Memory	16GB/64GB	
Included Host I/O Ports	4 ports 16Gb FC or 4 ports 10Gb iSCSI (optical) or 4 ports 10Gb iSCSI (copper)	
Optional Host I/O Ports	8 ports 16Gb FC 8 ports 10Gb iSCSI (optical) 4 ports 10Gb iSCSI (copper) 8 ports 12Gb SAS	
Operating System and System Management	SANtricity OS 8.30 SANtricity System Manager 11.30	
High Availability Features	Dual active controller with automated I/O path failover Auto-load balancing and path connectivity monitoring Dynamic Disk Pools technology and traditional RAID levels 0, 1, 5, 6, and 10 Redundant, hot-swappable storage controllers, drives, power supplies, and fans Automatic rebuild after a drive failure Mirrored data cache with battery-backed destage to flash Proactive drive health monitoring Greater than 99.999% availability (with appropriate configuration and service plans)	
Host operating Systems	Microsoft Windows Server, Red Hat Enterprise Linux, Novell SUSE Linux Enterprise Server, Apple macOS, Oracle Solaris, HPE HP-UX, CentOS Linux, Oracle Enterprise Linux, IBM AIX, VMware ESX	
Included Software Features	SANtricity Snapshot SANtricity volume copy SANtricity Cloud Connector SANtricity synchronous and asynchronous mirroring SANtricity SSD cache SANtricity thin provisioning with UNMAP Dynamic Disk Pools technology SANtricity drive encryption	
System Capabilities	Data assurance (T10-PI) Dynamic volume expansion Dynamic capacity expansion and contraction Dynamic RAID-level migration Dynamic segment-size migration System event monitor NetApp AutoSupport system Online SANtricity OS upgrades and drive firmware upgrades VMware vSphere Storage APIs—Array Integration Microsoft Offloaded Data Transfer	

Vault E2800 Technical Specifications

Application Plug-ins	NetApp SANtricity Management Pack for Microsoft System Center Operations Manager NetApp SANtricity Plug-In for VMware vCenter NetApp SANtricity VASA Provider NetApp SANtricity Storage Replication Adapter for VMware vCenter Site Recovery Manager NetApp SANtricity Performance App for Splunk Enterprise NetApp SANtricity Plug-In for Nagios
Open Management	NetApp SANtricity OpenStack Cinder NetApp SANtricity Web Services Proxy (REST and SYMBOL Web)
System Maximums	Hosts: 256 Volumes: 512 Snapshot copies: 512 Mirrors: 32

Vault E2800 System Environmental Specifications

Dimensions and Weight	E2824 SYSTEM SHELF DE224C DISK SHELF	E2812 SYSTEM SHELF DE212C DISK SHELF
Height	3.34" (8.48cm)	3.41" (8.66cm)
Width	19" (48.26cm)	19" (48.26cm)
Depth	19" (48.26cm)	21.1" (53.59cm)
Weight	60.5lb (27.44kg)	63.9lb (28.98kg)

Power	E2824 SYSTEM SHELF		E2812 SYSTEM SHELF	
	Typical	Maximum	Typical	Maximum
kVA	0.503	0.674	0.451	0.568
Watts	501.4	673.6	451.3	565.4
BTU	1,715	2,303.7	1,543.4	1,933.7
	DE224C DISK SHELF		DE212C DISK SHELF	
	Typical	Maximum	Typical	Maximum
kVA	0.302	0.45	0.25	0.344
Watts	298.8	451.9	248.7	343.7
BTU	1,022.15	1,545.5	850.55	1,175.5
Operation voltage range				
DC power:	-40VDC to -72VDC		-40VDC to -72VDC	
AC power:	100 VAC to 240 VAC		100 VAC to 240 VAC	

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

Optional Certification or Compliance	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
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Military Specifications

Optional Certification or Compliance	MIL-STD-810 F/G
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Electromagnetic Emission and Immunity

FCC Part 15 and Class A

VCCI	Japan
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KCC	Korea
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Electromagnetic Interference	ATT-TP-76200 GR1089-CORE Section 3
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ESD - Electrostatic Discharge	IEC 61000-4-2
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EFT - Electrical Fast Transient	ATT-TP-76200 GR-1089-CORE Section 2.2
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Lightning and Power Fault	ATT-TP-76200 GR-1089-CORE Section 4
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DC Power - Telecommunication	ATT-TP-76200 GR-1089-CORE Section 10
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Electrical Safety/Bonding and Grounding

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

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