



VAULT V-SERIES UNIFIED STORAGE SYSTEMS

Vector Data Vault V-Series unified storage systems deliver uncompromising scalability and flexibility for the mid-tier while providing market-leading simplicity and efficiency to minimize total cost of ownership.

Specifications

ARCHITECTURE

The Vector Data Vault V-Series implements a modular architecture that integrates hardware components for block, file, and object with concurrent support for native NAS, iSCSI, Fibre Channel, and FCoE protocols. The series delivers file (NAS) functionality via two-to-eight X-blade data movers and block (iSCSI, FCoE, and FC) storage via dual storage processors leveraging full 6 Gb SAS disk drive topology. The system leverages the patented MCx™ multi-core storage software operating environment that delivers unparalleled performance efficiency. You can start with block or file functionality and easily upgrade to unified when needed. The Vault V-Series is NEBS Level 3 and ETSI certified. The unified configuration includes the following rack-mounted enclosures:

- **Block Services:** Disk processor enclosure (includes disk drives) or storage processor enclosure (no drives included) plus standby power system. Capacity for Block or File use cases is added via Disk Array Enclosures (DAEs)
- **File and Unified Services:** One or more data mover enclosures and a control station to deliver file protocols.



Vault V-Series™

VAULT V-SERIES OE PROTOCOLS AND SOFTWARE FACILITIES

The Vault V-Series offers support for a wide variety of protocols and advanced features available via various software suites and packs.

PROTOCOLS AND FACILITIES SUPPORTED

- Access-based Enumeration (ABE) for Microsoft Windows Server 2003
- Address Resolution Protocol (ARP)
- Automated Volume Management (AVM): file system provisioning
- Block Protocols: iSCSI, Fibre Channel (FCP SCSI-3), and FCoE
- Common Criteria Certification: EAL 3+ Assurance Level
- DFS Distributed File System (Microsoft) as Leaf node or Root Server
- Ethernet Trunking
- File Protocols: NFSv2, v3, v4, and v4.1 with pNFS; CIFS (SMB 1, SMB 2 and SMB 3); FTP (including SFTP and FTPs)
- FileMover API: Open API for automated, transparent data movement between tiers of the storage network
- Lock Manager (NLM) v1, v3, and v4
- Failsafe Networking
- Internet Control Message Protocol (ICMP)
- Kerberos Authentication
- Lightweight Directory Access Protocol (LDAP)
- LDAP signing for Windows
- Link Aggregation (IEEE 802.3ad)
- Network Data Management Protocol (NDMP) v1-v4
- Network Information Service (NIS) Client
- Network Status Monitor (NSM) v1
- Network Time Protocol (NTP) client
- NT LAN Manager (NTLM)
- Object support via EMC Atmos™ Virtual Edition
- Portmapper v2
- Restriction of Hazardous Substances (RoHS) compliance
- Routing Information Protocol (RIP) v1-v2
- Simple Network Management Protocol V1-V3 (SNMP)
- Simple Network Time Protocol (SNTP)
- UNIX archive utilities (tar/cpio)
- Virtual Data Movers for Microsoft Windows clients
- Virtual LAN (IEEE 802.1q)

VAULT V-SERIES SOFTWARE

V5400, V5600, V5800, AND V7600

Unisphere™ Management Suite: Simple, intuitive management, monitoring and troubleshooting for Vault V-Series	Management Software includes: Unisphere element manager (Block / File / Unified) Unisphere Remote (consolidated dashboard and alerting) Unisphere Analyzer (monitoring and troubleshooting) Unisphere QoS Manager (Quality of Service) Vault V-Series Monitoring and Reporting (Watch4Net technology)
Protocols	CIFS, NFS, pNFS, MPFS, FC, FCoE, iSCSI included
Base Software (Vault V-Series OE) Core storage capabilities (connectivity, efficiency and migration) included at no extra cost	Per TB charge, drive type dependent, includes: All Protocols (See above) Thin Provisioning Block Deduplication Block Compression File Deduplication and Compression SAN Copy
FAST™ Suite: Automatically optimize for the highest system performance and the lowest storage cost simultaneously	Optimize performance and cost concurrently with: - Dynamic tiering of data across drives - Extendable cache for performance boost
Security and Compliance Suite: Keep data safe from changes, deletions, and malicious activity	Encrypt data where it is created Disk-based WORM functionality Anti-virus integration and alerting
Local Protection Suite: Practice Safe Data Protection and Repurposing	Block storage snaps and clones Continuous Data Protection for DVR-like recovery for block storage File system snaps
Remote Protection Suite: Protect data against localized failures, outages, and disasters	Unified storage replication with DVR-like recovery Integrated WAN deduplication and bandwidth reduction Granular file system level replication and recovery
Application Protection Suite: Automate application copies and prove compliance	Self-service application copy management Prove protection compliance Includes Replication Manager and AppSync™
Storage Analytics for Vault V-Series	VMware® vCenter™ Operations Manager for Vault V-Series, EMC Adapter for Vault V-Series
Total Protection Pack	Local Protection Suite + Remote Protection Suite + Application Protection Suite
Total Efficiency Pack	FAST Suite + Security & Compliance Suite+ Local Protection Suite + Remote Protection Suite + Application Protection Suite

NOTE: For more details on software licensing, please contact your sales representative.

VIRTUALIZATION FACILITIES AND TITLES

The Vault V-Series offers support for a wide variety of protocol and advanced features available via various software suites and packs including but not limited to:

- EMC Virtual Storage Integrator (VSI) for VMware vSphere™ 5: For provisioning, management, cloning, and deduplication
- Site Recovery Manager (SRM) Integration: Managing failover and failback making disaster recovery rapid and reliable
- Virtualization API Integration: VMWare: VAAI and VASA. Hyper-V: Offloaded Data Transfer (ODX) and Offload Copy for File
- AppSync: Host-based, service oriented management of array-based copies of data
- EMC Storage Integrator (ESI) - For provisioning within the Microsoft management context (Systems Center) for Hyper-V and SharePoint

ADDITIONAL OPTIONAL EMC TITLES

- EMC ProSphere®: Vault V-Series integration with EMC Storage management infrastructure
- EMC PowerPath®: path management
- EMC Cloud Tiering Appliance (CTA and CTA/VE): policy-based cloud tiering, file archiving, and migration



ELECTROMAGNETIC EMISSIONS AND IMMUNITY

FCC Class A EN55022 Class A

CE Mark VCCI Class A (for Japan)

ICES-003 Class A (for Canada) AS/NZS 3548 Class A (for Australia/New Zealand) EN55024 Immunity, ITE

BSMI Class A (for Taiwan)

QUALITY AND SAFETY STANDARDS

UL 60950; CSAC 22.2-60950, EN 60950

Manufactured under an ISO 9000-registered quality system ETSI EN 300 386

CONTACT US

To learn more about how Vector Data products, services, and solutions can help solve your business and IT challenges, contact your local representative or authorized reseller—or visit us at

www.vectordata.com.

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