VECTOR DATA™

# Vault I-Series

## Scale-Out NAS Storage

The Vector Data Vault I-Series is the ideal platform to store, manage and protect unstructured data. Based on EMC Isilon's industry #1 scale-out NAS platform, Vault I-Series is simple to manage and offers unmatched efficiency and flexibility. Get a massive advantage with the I-Series: support a wide range of workloads, and scale performance and capacity easily.

Vault I-Series is powerful yet simple to install, manage, and scale. You can combine our platform offerings to provide an efficient and flexible storage infrastructure that supports a wide range of unstructured data applications and workloads—all from a single file-system architecture.

Perfect for NFV (network function virtualization), the Vault I-Series offers full support for OpenStack, VMware and other leading virtualization platforms, providing the perfect foundation for SDN and the network of the future.

Vault I-Series systems are offered with AC or DC power options, and with optional NEBS, ETSI, and MIL-STD-810F/G compliance for telco, millitary, and other rugged deployments, providing network operators with a consistent storage product across their entire infrastructure.

**Vault I-Series Systems**

**Vault INL410**
Balance cost-effective data storage with your need for quick access. With its economical nearline solution, Vault INL410 bridges the gap between costly, high-performance, primary storage and inexpensive, management-intensive, off-line storage solutions.

**Vault IX410**
Manage big data effectively with scale-out network attached storage (NAS) for high-concurrent and sequential-throughput applications. The Vault IX410 is a flexible scale-out platform that strikes the right balance between large capacity and high-performance storage. The highly versatile Vault IX410 is an ideal solution for high-throughput and high-concurrent applications. With solid-state drive (SSD) technology for file-system metadata and file-based storage workflows, the Vault IX410 significantly accelerates namespace-intensive operations.

**Vault IS210**
The IS210 provides ultra-fast primary storage for mission-critical, input/output operations per second (IOPS)-intensive file-based applications. Speed-up access to massive amounts of critical data, while dramatically reducing cost and complexity.

## Product Highlights

Vault INL410

- Simple Installation and Management - Be online in less than 10 minutes. Eliminate the need for multiple volumes with an easily managed single storage pool.
- Cost Savings - Reduce operating costs with a scale-out storage platform with a storage utilization rate of over 80% and a single file system that scales to over 30 PB.
- Data Protection, Recovery, and Archiving - Improve your existing backup and data protection while supporting multisite replication.

Vault IX410

- Simplify Management - Consolidate unstructured data into a shared storage infrastructure based on a single file system, single volume architecture. Scale to over 20 petabytes in a single cluster.
- Optimize Performance - Scale performance easily and leverage over 700 terabytes (TB) of globally-coherent flash cache in a single cluster.
- Increase Efficiency - Storage utilization rates of over 80 percent. Further reduce capacity requirements with deduplication software.
- Gain Flexibility - Ideal for big data storage and Hadoop analytics, large-scale home directories and file shares, digital media, and electronic design automation. Self-encrypting drive (SED) options for data at rest encryption.

Vault IS210

- Simple and Efficient - Install, configure, and deploy in less than 10 minutes, without specialized services or certifications. Scale capacity and performance in 60 seconds. Reduce capital outlay and increase storage efficiency with over 80 percent utilization rates.
- Resilient and Secure - Enjoy up to N+4 data protection, set at the cluster, directory, or file level. To address security and compliance needs, a self-encrypting drive (SED) option for data at rest encryption is available.

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## TECHNICAL SPECIFICATIONS

### VAULT INL410 NODE

| | 1 TB HDD | 2 TB HDD | 3 TB HDD | 4 TB HDD | 6 TB HDD |
|---|---|---|---|---|---|
| **CAPACITY** | 36 TB | 72 TB | 108 TB | 140 TB to 144 TB | 210 TB |
| **HARD DRIVES (3.5" 7200 RPM)** | 35 or 36 | 35 or 36 | 35 or 36 | 35 or 36 | 35 |
| **SELF-ENCRYPTING DRIVE (SED) OPTION (7200 RPM)** | No | No | Yes | Yes | No |
| **SOLID-STATE DRIVE (SSD) (800 GB)** | 0 or 1 (optional) | 0 or 1 (optional) | 0 or 1 (optional) | 0 or 1 (optional) | 1 (required) |
| **SELF-ENCRYPTING DRIVE (SED SSD) OPTION (800 GB)** | No | No | No | Yes | No |
| **ISILON ONEFS OPERATING SYSTEM VERSION REQUIRED** | 7.2.1 or higher | | | | |
| **SYSTEM ECC MEMORY** | 24 GB or 48 GB | | | | |
| **FRONT-END NETWORKING** | 2 x 1 Gigabit Ethernet and 2 x 10GbE (SFP+ or twin-ax copper) | | | | |
| **NETWORK INTERFACES** | Network interfaces support IEEE 802.3 standards for 10Gbps, 1Gbps, and 100Mbps network connectivity | | | | |
| **DRIVE CONTROLLER** | SATA-3, 6 Gb/s | | | | |
| **CPU TYPE** | Single Intel® Xeon® Processor E5-2407 @ 2.4 GHz, 4 Core | | | | |
| **INFRASTRUCTURE NETWORKING** | 2 InfiniBand connections supporting DDR and QDR links | | | | |
| **NON-VOLATILE RAM (NVRAM)** | 2 GB | | | | |
| **TYPICAL POWER CONSUMPTION** | 800 Watts | | | | |
| **TYPICAL THERMAL RATING** | 2,500 BTU/hr | | | | |

### VAULT INL410 ENVIRONMENTAL SPECIFICATIONS

| | |
|---|---|
| **POWER SUPPLY** | Dual redundant, hot-swappable AC or DC 1050W power supplies |
| **OPERATING ENVIRONMENT** | -5°C to 55°C, 5% to 90% relative humidity (non-condensing), Altitude up to 3960m (13,000ft) |
| **DIMENSIONS AND WEIGHT** | Height: 6.96" (17.7 cm), width: 18.9" (48 cm), depth: 31.25" (79.4 cm), weight: 114 lbs (51.7 kg) |
| **MINIMUM SERVICE CLEARANCES** | Front: 35" (88.9 cm), rear: 14" (35.6 cm) |

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## TECHNICAL SPECIFICATIONS

### VAULT IX410 NODE

| | 1 TB HDD | 2 TB HDD | 3 TB HDD | 4 TB HDD |
|---|---|---|---|---|
| **CAPACITY** | 30–36 TB | 60–72 TB | 90–108 TB | 120–144 TB |
| **HARD DRIVES (3.5" 7200 RPM)** | 30–36 | 30–36 | 30–36 | 30–36 |
| **SELF-ENCRYPTING DRIVE (SED) OPTION (7200 RPM)** | No | No | Yes | Yes |
| **SOLID-STATE DRIVE (SSD) (800 GB)** | Up to 6 | Up to 6 | Up to 6 | Up to 6 |
| **SELF-ENCRYPTING DRIVE (SED SSD) OPTION (800 GB)** | No | No | Yes (0, 2, 4, or 6) | Yes (0, 2, 4, or 6) |
| **ISILON ONEFS OPERATING SYSTEM VERSION REQUIRED** | 7.1.1 or higher | | | |
| **SYSTEM ECC MEMORY** | 32 GB, 64 GB, 128 GB, or 256 GB | | | |
| **FRONT-END NETWORKING** | 2 x 1 Gigabit Ethernet and 2 x 10GbE (SFP+ or twin-ax copper) | | | |
| **NETWORK INTERFACES** | Network interfaces support IEEE 802.3 standards for 10Gbps, 1Gbps, and 100Mbps network connectivity | | | |
| **DRIVE CONTROLLER** | SATA-3, 6 Gb/s | | | |
| **CPU TYPE** | Dual, 8-core Intel® Xeon® processor | | | |
| **INFRASTRUCTURE NETWORKING** | 2 InfiniBand connections supporting DDR and QDR links | | | |
| **NON-VOLATILE RAM (NVRAM)** | 2 GB | | | |
| **TYPICAL POWER CONSUMPTION** | 700 Watts | | | |
| **TYPICAL THERMAL RATING** | 2,400 BTU/hr | | | |

### VAULT IX410 ENVIRONMENTAL SPECIFICATIONS

| | |
|---|---|
| **POWER SUPPLY** | Dual redundant, hot-swappable AC or DC 1100W power supplies |
| **OPERATING ENVIRONMENT** | -5°C to 55°C, 5% to 90% relative humidity (non-condensing), Altitude up to 3960m (13,000ft) |
| **DIMENSIONS AND WEIGHT** | Height: 6.96" (17.7 cm), width: 18.90" (48 cm), depth: 28.5" (72.4 cm), weight: 120 lbs (54.5 kg) |
| **MINIMUM SERVICE CLEARANCES** | Front: 35" (88.9 cm), rear: 14" (35.6 cm) |

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## TECHNICAL SPECIFICATIONS

### VAULT IS210 NODE

| | 300 GB HDD | 600 GB HDD | 900 GB HDD | 1.2 TB HDD |
|---|---|---|---|---|
| **CAPACITY (HDD / SSD)** | 5.4 - 7.2 TB / 0 - 1.6 TB | 10.8 - 14.4 TB / 0 - 3.2 TB | 16.2 - 21.6 TB / 0 - 6.4 TB | 21.6 - 28.8 TB / 0 - 9.6 TB |
| **HARD DRIVES (3.5" 7200 RPM)** | 18 - 24 | 18 - 24 | 18 - 24 | 18 - 24 |
| **SELF-ENCRYPTING DRIVE (SED) OPTION (7200 RPM)** | No | No | Yes | No |
| **SOLID-STATE DRIVE (SSD) (800 GB)** | Up to 6 | Up to 6 | Up to 6 | Up to 6 |
| **SELF-ENCRYPTING DRIVE (SED SSD) OPTION (800 GB)** | No | No | Yes | No |
| **ISILON ONEFS OPERATING SYSTEM VERSION REQUIRED** | 7.1.1 or higher | | | |
| **SYSTEM ECC MEMORY** | 32 GB, 64 GB, 128 GB, or 256 GB | | | |
| **FRONT-END NETWORKING** | 2 copper 1000 Base-T (GE) and 2 x 10GE (SFP+ or twin-ax copper) | | | |
| **DRIVE CONTROLLER** | SAS-2, 6 Gb/s | | | |
| **CPU TYPE** | Dual, 6-core Intel Xeon® processor | | | |
| **INFRASTRUCTURE NETWORKING** | 2 InfiniBand connections supporting DDR and QDR links | | | |
| **NON-VOLATILE RAM (NVRAM)** | 2 GB | | | |
| **TYPICAL POWER CONSUMPTION** | 425 Watts | | | |
| **TYPICAL THERMAL RATING** | 1,500 BTU/hr | | | |

### VAULT IS210 ENVIRONMENTAL SPECIFICATIONS

| | |
|---|---|
| **POWER SUPPLY** | Dual redundant, hot-swappable AC or DC 875W power supplies |
| **OPERATING ENVIRONMENT** | -5°C to 55°C, 5% to 90% relative humidity (non-condensing), Altitude up to 3960m (13,000ft) |
| **DIMENSIONS AND WEIGHT** | Height: 3.48" (8.8 cm), width: 18.87" (47.9 cm), depth: 30.5" (77.47 cm), weight: 55lbs (25.0 kg) |
| **MINIMUM SERVICE CLEARANCES** | Front: 35" (88.9 cm), rear: 14" (35.6 cm) |

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