



VEXATA VX-100M MEMORY CLASS STORAGE SYSTEM

Ultra Low Latency for Real-Time Applications

To effectively support IOT, AI and deep learning ecosystems in real-time, modern data systems must process higher volumes of complex events in real time, while simultaneously running predictive analytics on very large data sets. Typically, this level of performance is reserved for in-memory systems to achieve the stated business objectives.

The Vexata VX-100M storage system delivers memory class performance using a solid-state storage platform that delivers very high IOPS with ultra-low latency under sustained bandwidth loads. This enables IT architects to design data processing systems that deliver amazing I/O response time to allow massive throughput to support real-time transactions and analytics applications.

Powered by the ground-breaking VX-OS distributed storage operating system and packaged as a dense, efficient and modular storage platform, the Vexata VX-100M Optane Storage System delivers the performance of 3D XPoint™ with enterprise resiliency, data services and pay as you grow scalability.

The VX-100M supports industry standard interoperability via sixteen ports of 32Gbps Fibre Channel connectivity for simplified deployments.

The VX-100M can be configured with from 3 to 16 hot-swappable Enterprise Storage Modules (ESMs). Each ESM contains 4 Intel Optane™ solid state drives, allowing a maximum of 64 SSDs per 6RU chassis. The VX-100M provides RAID 5 or RAID 6 data protection across ESMs, with unparalleled RAID rebuild times on failure. Administrators can scale-out capacity and throughput by adding ESMs, realizing massive random and sequential R/W throughput with ultra-low latency for both OLTP and analytic workloads.

Enterprise data services include thin provisioning, space-efficient snapshots and clones for copy data management operations. Security is ensured with 256 bit AES encryption that operates without any performance degradation.

ENTERPRISE USE CASES



ENTERPRISE SOLUTIONS

- High Frequency Trading
- In-Memory Extension
- Real-Time Fraud Analytics
- High-Speed Analytics
- Deep Learning Neural Networks

ENTERPRISE FEATURES



RESILIENT

- Active-Active Controller HA
- RAID 5/RAID 6 Protection
- No Single Point of Failure
- Non-Disruptive Upgrades



SIMPLE AND SCALABLE

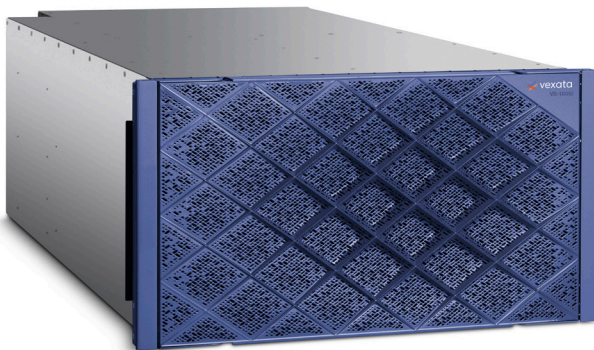
- Scale-Out Architecture
- FC Block Interfaces
- GUI, CLI, Restful API
- Call Home



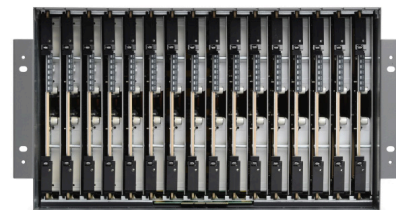
DATA SERVICES

- Thin Provisioning
- Pattern Removal
- Space Efficient Snaps/Clones
- Data at Rest Encryption

VX-100M MEMORY CLASS STORAGE SYSTEM



FRONT VIEW



REAR VIEW





VEXATA VX-100M MEMORY CLASS STORAGE SYSTEM

Extreme Performance with High Availability

The Vexata VX-100M provides ultra-high performance in a fault tolerant platform. The high-availability features offer no single point of failure and the ability to scale to up to 32TB of 3D XPoint™ storage capacity. By implementing redundant active-active I/O controllers (IOCs), the VX-100M ensures that application access to data is available 99.9999% of the time. By providing storage services and storage volume management equally distributed across both IOCs during normal operations, IOC fail-over occurs within milliseconds of failure detection, ensuring that the overall performance impact is minimal.

The VX-100M supports non-disruptive upgrades (NDU) of the VX-OS software distributed across the IOC and all of the ESM data nodes, ensuring that the VX-100M can be upgraded without any disruption to normal operation. The VX-OS on the IOCs can be updated with no impact to data availability. All hardware modules are hot pluggable and field replaceable, minimizing any possibility of downtime. Over time, applications will require higher capacities and performance, the VX-100M allows for seamless scaling of both performance and capacity simply by adding ESM data nodes to the chassis.

The non-disruptive system scaling allows administrators to grow both storage capacity and performance of the VX-100M without buying more frames or consuming more rackspace.

The Vexata VX-100M is a very scalable 6U storage system that delivers ultra-low latency, high availability and scalability for real-time database, analytics and deep learning eco-systems.

Vexata VX-100M Scalable Storage System - Technical Specifications

	VX100-M STORAGE SYSTEM
CAPACITY (USABLE)	16TB (375GB SSDs) // 32TB (750GB SSDs) using RAID 5
PERFORMANCE	7M IOPS (8KB 70R/30W) @40µS Throughput: 80GB/s (50GB/s R; 30GB/s W) Minimum latency: 25µS Read/25µS Write
PHYSICAL	6RU; 2450W (max); 100Kg
CONNECTIVITY	16 × 32GB/s Fibre Channel
OS SUPPORT	Linux, Solaris, Windows, ESX
MANAGEMENT	GUI, CLI and REST API
RESILIENCE	Active-Active Controller HA, RAID 5 or RAID 6, Hot Swappable ESM blades Hitless, Non-Disruptive Rolling Upgrades for ESM & IOC modules
DATA SERVICE	Thin Provisioning, Space Efficient Snaps and Clones, Data Path Accelerated Encryption

ABOUT VEXATA:

Vexata is the leader in active data management solutions. Vexata's unique breakthrough enterprise offerings enable transformative performance and scale from database and analytics applications. With unparalleled ability to consume the latest in media like NVMe Flash and now with Intel Optane™ SSDs, Vexata systems deploy simply and seamlessly into existing storage environments. Learn more at www.vexata.com