



# VEXATA VX-100M SCALABLE MEMORY CLASS ARRAY

## Extreme NVMe Performance featuring Intel Optane™ 3D-XPoint Media

To cost-effectively support IoT, machine learning and deep learning initiatives, enterprise data centers must be able to process machine and sensor data events in real time. This drives the requirement to perform predictive, prescriptive and autonomous analytics across massive data sets. Traditionally, this level of system performance could only be achieved using advanced in-memory data systems, but the cost of this volatile random access memory based data infrastructure has been prohibitive to deliver at scale.

The Vexata VX-100M Memory Class Array approaches the performance of RAM based in-memory systems using Intel® Optane™ solid-state media in a high-availability storage platform, consistently delivering very high IOPS with ultra-low latency under sustained throughput loads. This enables IT architects to design data processing systems that deliver unmatched I/O response times to support massive system throughput for data ingest while simultaneously accelerating data processing, which results in faster, more accurate analytic outcomes.

Powered by the revolutionary VX-OS distributed storage operating system and packaged as a dense, efficient and modular storage platform, the Vexata VX-100M Memory Class Array delivers unmatched performance in an enterprise grade storage system. VX-OS, at the core of the Active Data Architecture running within the VX-100M, resulting in the only storage system that combines storage-class memory with enterprise resiliency, data services and modular scalability.

The VX-100M supports industry standard interoperability via sixteen ports of 32Gbps Fibre Channel (SCSI/NVMe-oF) or 40GbE (NVMe-oF) connectivity for flexible, high performance deployments.

The VX-100M can be configured with from 3 to 16 hot-swappable Enterprise Storage Modules (ESMs). Each ESM contains four Intel® Optane™ 3D-XPoint™ solid state drives, allowing a maximum of 64 SSDs per 6RU chassis. The VX-100M provides RAID 5/6 data protection across ESMs, with unparalleled RAID rebuild times on failure. Administrators can scale-out capacity without compromising throughput performance by adding ESMs, realizing massive random and sequential read/write 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 and pattern removal. 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
- Machine Learning/DeepLearning/AI
- Time-Series Databases

**ENTERPRISE FEATURES**



RESILIENT

- Active-Active Controller HA
- RAID 5/RAID 6 Protection
- Continuous Operations with 99.9999% Uptime
- Non-Disruptive Upgrades

**SIMPLE AND SCALABLE**



SIMPLE AND SCALABLE

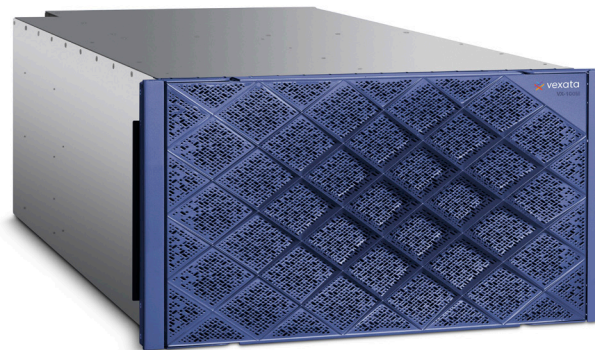
- NVMe over Fabric (GbE/FC)
- FC or Ethernet Block Interfaces
- Web UI, CLI, RESTful API
- Call Home with Proactive Support

**DATA SERVICES**



DATA SERVICES

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



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## Vexata VX-100M Scalable Memory Class Array - Technical Specifications

| VX-100M                      |   |   |
|------------------------------|---|---|
| TECHNOLOGY                   | NVMe-oF   | Fibre Channel (SCSI)                                |
| CONNECTIVITY                 | 16 × 40Gb/s Ethernet -or-<br>16 × 32Gb/s Fibre Channel  | 16 × 32Gb/s Fibre Channel                           |
| IOPS*                        | 8+ Million IOPS   | 7 Million IOPS                                      |
| THROUGHPUT*                  | 90GB/s (55GB/s R; 35GB/s W)   | 80GB/s (50GB/s R; 30GB/s W)                         |
| LATENCY*                     | 100% Write: 15us<br>100% Read: 15us   | 100% Write: 25us<br>100% Read: 25us                 |
| OS SUPPORT                   | Linux   | Linux, Solaris, AIX, HP-UX, Windows, VMware vSphere |
| USABLE CAPACITY (375GB 3DXP) | 16TB (RAID 6) /19TB (RAID 5)  |   |
| USABLE CAPACITY (750GB 3DXP) | 32TB (RAID 6) / 38TB (RAID 5)   |   |
| RACK SPACE (RU)              | 6   |   |
| MAX POWER CONSUMPTION        | 2900W (2+2)   |   |
| WEIGHT (kg/lbs)              | 100/220.5   |   |
| MANAGEMENT                   | Web UI, CLI and RESTful API   |   |
| RESILIENCE                   | Active-Active High Availability Design, RAID 5 or RAID 6, Hot Swappable ESM blades, Non-Disruptive Upgrades for ESM and IOC modules, Non-Disruptive Capacity and Performance Upgrades |   |
| DATA SERVICES                | Thin Provisioning, Space Efficient Snaps and Clones, Pattern Removal, Always-on Encryption with no performance impact   |   |

\* Measured under load using multiple test cases (such as VDBench, FIO, Oracle SLOB2)

### ABOUT VEXATA:

Founded on the premise that every business is challenged to deliver cognitive, data-intensive applications, Vexata delivers 10x performance AND efficiency improvements at a fraction of the cost of existing all-flash storage solutions. Learn more at [www.vexata.com](http://www.vexata.com)

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