



VEXATA VX-100 SCALABLE DATA SYSTEMS

Highest Performing
Enterprise Storage Systems

Data Infrastructure for the Modern Enterprise

As enterprises transform to cloud and mobile business models, database platforms are being pushed to support many more users and process higher volumes of complex events in real time, while simultaneously running predictive analytics on very large data sets.

The Vexata VX-100 series of scalable storage systems, based on the patent-pending Active Data Architecture, are a family of enterprise-class solid state storage systems that exceed the I/O response time and throughput demands of the database and analytics applications at the core of digital business.

Powered by the ground-breaking VX-OS distributed storage operating system and packaged as a dense, efficient and modular storage platform, the Vexata VX-100 storage systems combine breakthrough performance with enterprise resiliency, data services and pay as you grow scalability.

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

The Vexata VX-100 scalable storage systems can be configured with from 4 to 16 hot-swappable intelligent storage blades, called Enterprise Storage Modules (ESMs). Each ESM contains 4 off-the-shelf Optane™ or NVMe flash solid state drives from leading suppliers, allowing a maximum of 64 SSDs per 6RU chassis.

Administrators can non-disruptively scale-out capacity and throughput simply by adding ESMs. Capacity is RAID 5 or RAID 6 protected and delivers massive throughput with ultra-low latency targeted toward transaction processing and analytics 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 Transaction Databases
- Business Intelligence
- Big Data Analytics
- Real-Time Analytics
- Time-Series Databases

ENTERPRISE FEATURES



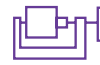
RESILIENT

- 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



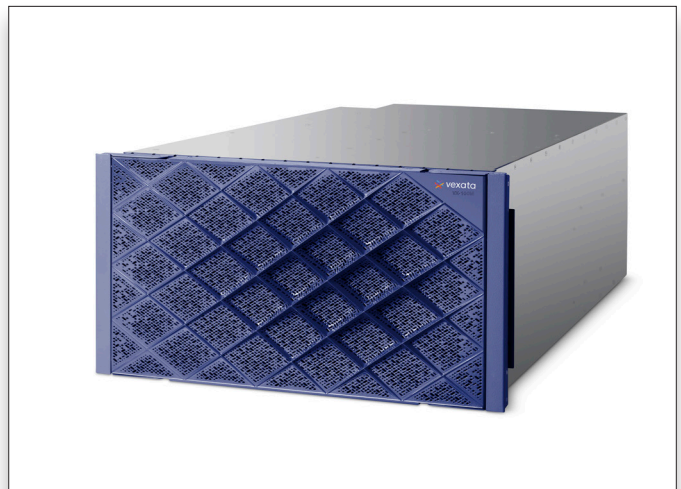
DATA
SERVICES

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

VX-100F FLASH STORAGE SYSTEM



VX-100M OPTANE STORAGE SYSTEM





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Enterprise Class Resiliency and Scaling

The Vexata VX-100 provides enterprise class resiliency at high performance. Even under impaired conditions, the VX-100 ensures that performance does not degrade as is the case with existing all flash array architectures. By implementing redundant active-active IO controllers (IOCs), the VX-100 ensures that application access to data is available 99.9999% of the time. Both IOCs provide storage volume services and application data volumes are equally distributed across both IOCs during normal operations. In the case when an IOC is impaired, the second IOC takes over operation within milliseconds of failure detection, ensuring that even during impaired operation, the overall performance impact is minimal.

The VX-100 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-100 can be upgraded without any disruption to normal operation. The VxOS on the IOCs can be updated one IOC at a time with no impact to data availability. All hardware can be replaced in the field non-disruptively as outlined in one of the previous sections. Over time, applications will require higher capacities and performance, the VX-100 allows for seamless scaling of both performance and capacity simply by adding ESM data nodes to the chassis. This provides a

non-disruptive way for customers to scale both capacity and performance of the VX-100 without needing to buy additional frames.

Compared to incumbent all flash arrays that require new system purchases in order to scale (additional rack space, switches, power, cooling, as well more complexity in cabling), the in-box scaling within the Vexata Array is a simple and economical way for applications to implement high performance OLTP and analytics applications at scale.

Vexata VX-100F Scalable Storage Systems - Technical Specifications

	VX-100F FLASH STORAGE SYSTEM	VX-100M OPTANE STORAGE SYSTEM
CAPACITY (USABLE)	90TB (2TB SSDs) // 155TB (3.2TB SSDs)	16TB (375GB SSDs) // 32TB (750GB SSDs)
PERFORMANCE	7M IOPS (8KB 70R/30W) @220 μS BW: 70GB/s (50GB/s R; 20GB/s W)	7M IOPS (8KB 70R/30W) @40 μS BW: 80GB/s (50GB/s R; 30GB/s W)
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 Optane™ SSDs, Vexata systems deploy simply and seamlessly into existing storage environments. Learn more at www.vexata.com