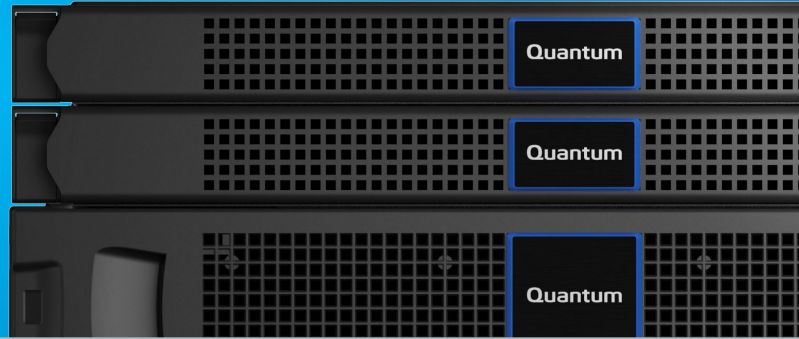# Quantum®

Xcellis
Scale-out & Workflow Storage

> **DATASHEET**

High-Performance, Massively Scalable Primary Storage

Most organizations that work with large amounts of unstructured data are familiar with the causes of their pain—large files, even larger data sets, more collaborators, shorter deadlines, nearly constant upgrades—but far less obvious is a way to address the situation. The ideal solution would be a storage system flexible enough to be right-sized for any large data workflow. One that is scalable enough to keep up with growing demands without performance degradation. A system collaborative enough to provide access, regardless of geographic location or performance requirements. And finally, efficient enough to do all this and stay on budget. Quantum Xcellis™ scale-out workflow storage is just that.

CONVERGED ARCHITECTURE
Xcellis optimizes workflow and shared access by combining functions that were formerly provided by separate components into a compact, space- and energy-saving solution. Xcellis manages high-speed disk for the most demanding workflows, multi-protocol SAN and LAN client access, single-pane-of-glass management and monitoring, and policy-driven data movement to low-cost storage such as cloud, object, and tape. Xcellis maximizes operational and workflow efficiency, and reduces the cost of data storage.

CONTINUOUS SCALABILITY
Other scalable storage systems require additional system acceleration units or compute-heavy expansion nodes in order to scale. These units increase the cost and network complexity of scaling. Xcellis scales simply by adding storage arrays so every dollar invested pays off

in more capacity and greater bandwidth. Plus, the initial investment in Xcellis is protected, eliminating forklift upgrades in order to scale.

UNIFIED ACCESS
Demanding workflows have spawned an increased need for collaboration and expanded teams. By combining both SAN performance and the ease of NAS connectivity, Xcellis extends collaboration to the broadest range of users. This provides the right level of performance to the right people, improves collaboration, and simplifies deployments and workflows.

EFFICIENCY AND ENABLEMENT
Xcellis reduces or eliminates the need to maintain multiple storage systems, the network traffic to move data between them, and the time and headcount to manage them. By using converged storage and access, organizations can scale their storage system more efficiently by leveraging every dollar spent to benefit all connected users.

DYNAMIC APPLICATION ENVIRONMENT
Xcellis has the unique capability of supporting applications running on the Workflow Director as virtual machines (VMs) using a feature called the Dynamic Application Environment. Now with over ten supported applications, users can deploy, launch, and operate media management, WAN acceleration, transcoding, and other third-party applications without the need for additional server hardware or networking infrastructure.

Xcellis optimizes workflows, accelerates time to insight, and empowers organizations to do more with their data.

FEATURES & BENEFITS

Efficient, converged architecture
Combines compute, client access, and storage to create an efficient and powerful core of a workflow storage solution. Supports third-party workflow applications as virtual machines for flexible and cost-effective deployment.

Flexible continuous scalability
Add storage arrays to scale from the smallest configurations to the largest with no forklift upgrades or extra accelerators.

Multi-protocol access built in
Optimizes workflow efficiency and data access by enabling all clients access to the same data regardless of protocol, on a SAN or on a LAN.

Massive scalability
Support for billions of files across up to 64 virtual file systems. Virtually unlimited capacity. Scale to hundreds of petabytes. Extend scalability even further using cloud, object storage, or tape.

Flexible connectivity options
16Gb FC, 8Gb FC, 1Gb Ethernet, 10Gb Ethernet, 40Gb Ethernet, and FDR InfiniBand.

Powered by StorNext®
Xcellis is designed to get the most out of StorNext, advanced data management for high-performance, multi-tier, shared storage.

StorNext Connect management tool
Built-in deployment, management, monitoring, and reporting for multiple systems from a single interface.

> **LEARN MORE:**
> **www.quantum.com/xcellis**

POWERED BY **StorNext**®

SYSTEM

Workflow Director Nodes	Dual rack servers Redundant power supplies Dual six-core high-performance Intel E5 v3 CPUs
Workflow Director Storage	Quantum QXS™-4 Dual redundant high-performance controllers Quad 16Gb Fibre Channel per controller (eight ports total) Available in 2U12, 2U24, and 4U56 options
Storage Support	Supports Quantum QXS storage for combined metadata and data options; Quantum or 3rd-party storage for user data*

3rd-party user data storage requires dedicated Quantum QXS metadata storage.

LICENSING

Included StorNext Software	StorNext High Availability License Option, ten SAN clients available to the user for any OS type, one embedded SAN client for each Xcellis Workflow Director Node, and a Distributed Data Mover license (for the secondary node)
Optional NAS Connectivity License	Allows connection of SMB and NFS clients directly to Xcellis; does not require per-client licensing
Optional StorNext LAN Gateway License	Allows connection of StorNext LAN clients directly to Xcellis; does not require per-client licensing

CONNECTIVITY OPTIONS

Fibre Channel	Quad 16Gb Optical, Dual 16Gb Optical, or Quad 8Gb Optical
Onboard Ethernet	Quad 1Gb for service, management, and metadata networks
Optional Ethernet	Up to two additional NICs for StorNext LAN, NAS, public cloud, and Lattus™ or other object storage connections Choose from quad 1GbE, dual 10GbE, or dual 40GbE 10GbE and 40GbE in Optical or Twinax
Optional InfiniBand	Up to two additional NICs for dual QSFP FDR Infiniband connectivity
Client Protocol Support	StorNext SAN, StorNext LAN, SMB 1 (CIFS), SMB 2, SMB 3, NFS v3, NFS v4 Active Directory, OpenLDAP, RESTful API
Client Support	Linux, Mac OS X, Windows, AIX (see compatibility document for details)

MULTI-TIER OPTIONS

Extended Online	Quantum Lattus-M low-latency, massively scalable object storage Support for third-party object storage using StorNext Storage Manager (see compatibility document for details)
Tape Archive	StorNext AEL500, StorNext AEL6000 tape archive Scalar i3/i6 tape libraries 3rd-party tape archive systems also supported
Cloud Storage	The FlexTier™ feature of StorNext Storage Manager provides support for customer-owned public cloud accounts in Amazon AWS including S3, S3 Infrequent Access, Glacier, GovCloud, and C2S; Microsoft Azure Locally Redundant Storage (LRS), Zone Redundant Storage (ZRS), Geographically Redundant Storage (GRS), Read-Access Geographically Redundant Storage (RA-GRS); or Google S3 Cloud services (see compatibility document for details)

XCELLIS STORAGE NODES

	QXS-412	QXS-424	QXS-456
Usage	Combined user data and metadata	Dedicated metadata	Combined user data and metadata
Capacity Options (Raw)	48TB, 72TB per chassis	2.4TB, 4.8TB, 9.6TB, 10.8TB, 19.2TB, 21.6TB	224TB, 336TB
RAID Array to Expansion Ratio	Up to seven expansions per RAID Array	RAID Array only	Up to three expansions per RAID Array
Drive Type	3.5" 7200 RPM NL-SAS	2.5" SSD or 10k RPM SAS HDD	3.5" 7200 RPM NL-SAS

ENVIRONMENTAL

	Xcellis Workflow Director Node (per node, two nodes per Workflow Director)	QXS-412	QXS-424	QXS-456
Rack Height	1U	2U	2U	4U
Height	1.68" (4.28 cm)	3.43" (8.71 cm)	3.5" (8.9 cm)	7" (17.8 cm)
Width	18.98" (48.32 cm)	18.99" (48.24 cm)	17.6" (44.7 cm)	17.6" (44.7 cm)
Depth	27.57" (70.05 cm)	20.46" (51.9 cm)	20.57" (52.25 cm)	36" (91.44 cm)
Max Weight	37.3 lb (16.9 kg)	78.2 lb (35.5 kg)	57.32 lb (26 kg)	210 lb (95.3 kg)
Watts	295	465	436	1200
BTU	1007	1587	1488	4095

ABOUT QUANTUM

Quantum is a leading expert in scale-out tiered storage, archive, and data protection, providing solutions for capturing, sharing, and preserving digital assets over the entire data lifecycle. From small businesses to major enterprises, more than 100,000 customers have trusted Quantum to address their most demanding data workflow challenges. Quantum's end-to-end, tiered storage foundation enables customers to maximize the value of their data by making it accessible whenever and wherever needed, retaining it indefinitely and reducing total cost and complexity. See how at **www.quantum.com/customerstories**.

Quantum.

www.quantum.com
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