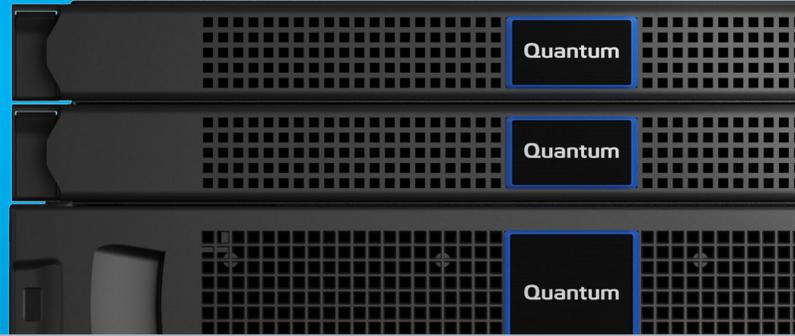# Quantum®

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 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 precisely that.

CONVERGED ARCHITECTURE
Xcellis optimizes workflow and shared access by combining functions that were formerly provided by separate components into a compact and energy-saving solution. Xcellis manages high-speed disk for everything from small teams to the most demanding workflows, multi-protocol scale-out NAS and SAN client access, single-pane-of-glass management and monitoring, and policy-driven data movement to low-cost storage such as cloud, object storage, 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 provides unparalleled flexibility by enabling nodes and storage arrays to be scaled up or out independently, 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 the ease of scale-out NAS connectivity and SAN performance, 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 maximizing their investment 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. With numerous supported applications, users can deploy, launch, and operate artificial intelligence data enhancement, media management, WAN acceleration, 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 client nodes and storage arrays independently 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 scale-out NAS or SAN.

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.

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

Shared Storage Arrays
Quantum QXS™-3 and QXS-4
Dual redundant high-performance controllers
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

NAS Connectivity License
Enables connection of SMB and NFS clients directly to Xcellis; does not require per-client licensing

Optional StorNext LAN Gateway License
Enables connection of StorNext LAN clients directly to Xcellis; does not require per-client 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)

CONNECTIVITY OPTIONS

Onboard Ethernet
Quad 1 Gb 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 1 GbE, dual 10 GbE, or dual 40 GbE
10 GbE in Optical, Twinax, or 10GBase-T

Optional InfiniBand
Up to two additional NICs for dual QSFP FDR Infiniband connectivity

Fibre Channel
Quad 16 Gb Optical, Dual 16 Gb Optical, or Quad 8 Gb Optical

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
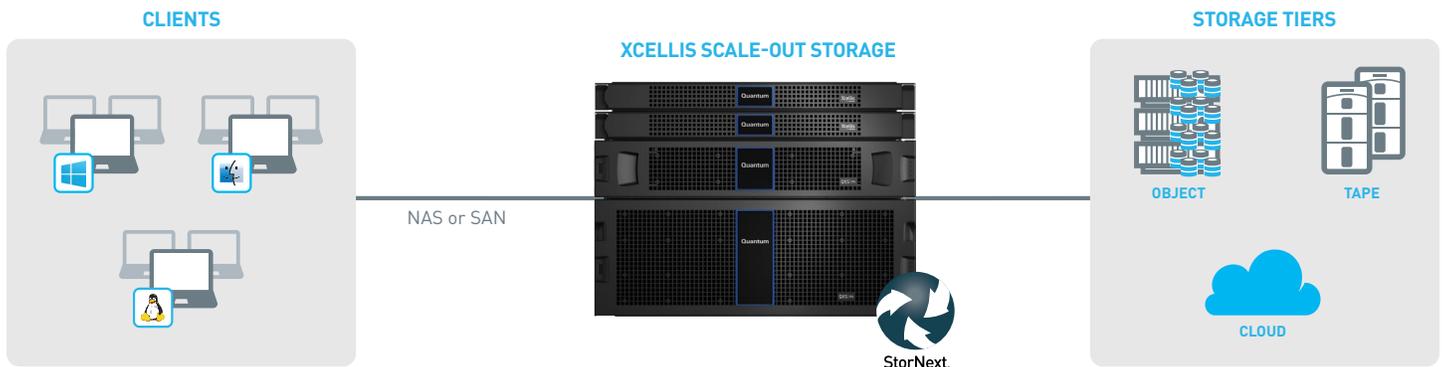(see compatibility document for details)

MULTI-TIER OPTIONS

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)

Object Storage
Quantum Lattus 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

XCELLIS STORAGE ARRAYS

	QXS-312	QXS-412	QXS-324/424	QXS-456
Usage	Combined user data and metadata	Combined user data and metadata	Dedicated metadata	Combined user data and metadata
Capacity Options (Raw)	48 TB, 72 TB, and 96 TB per chassis	48 TB, 72 TB, 96 TB per chassis	2.4 TB, 4.8 TB, 9.6 TB, 10.8 TB, 19.2 TB, 21.6 TB	224 TB, 336 TB, 448 TB
RAID Array to Expansion Ratio	Up to three expansions per RAID Array	Up to three expansions per RAID Array	RAID Array only	Up to three expansions per RAID Array
Drive Type	3.5-in LFF HDD or SSD Drives	3.5-in LFF HDD or SSD Drives	2.5-in SFF HDD or SSD Drives	3.5-in LFF HDD or SSD Drives

Fig. 1: Xcellis scale-out storage integrates seamlessly into your workflow with the performance and data management capabilities needed for high-value and data-intensive workloads.

CLIENTS

XCELLIS SCALE-OUT STORAGE

STORAGE TIERS

NAS or SAN

StorNext

OBJECT   TAPE

CLOUD

Quantum®

www.quantum.com
800-677-6268

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