Quantum®

Xcellis Gateway Nodes

> **DATASHEET**

Cost-effective, high-performance scalability for NAS environments

As working with 4K and HDR video content has become mainstream, those involved in the editing and production of these digital assets are demanding more from their storage infrastructure. Equally important and occurring simultaneously is the very real drive for organizations to reduce operational costs and transition to the most cost-efficient infrastructure. In many ways, it appears that both trends are in direct conflict with one another—yet they don't need to be.

Xcellis® gateway nodes offer the ability to redefine performance across all-IP storage architectures, and do so affordably through 1-GbE, 10-GbE, 40-GbE, and 100-GbE client access to StorNext® environments. Customers that deploy these nodes can achieve over 20 GB/s uncached throughput through state-of-the art NVMeoF architectures, while at the same time benefit from the reduced operational and capital costs that come with deploying Ethernet-based networking. Ideal for customers who have render farms for visual effects, server farms for data analysis, or 100-plus workstation environments where shared storage is a must, Xcellis gateway nodes offer industry-leading performance and cost effectiveness.

REDEFINING ALL-IP PERFORMANCE
Beyond the throughput capability that comes from StorNext's ability to aggregate storage array performance and deliver it over a 100-GbE network, Xcellis can be configured for even higher levels of performance for ultra-demanding applications. In workflows where low latency is required, Xcellis can be configured with Quantum's Distributed LAN Client (DLC). DLC provides block-level access to StorNext volumes over Ethernet connections. This clustered NAS-like solution outperforms NFS and SMB file sharing—improving resiliency and load balancing

while lowering data fragmentation and CPU utilization. DLC can be especially attractive to customers who have video rendering projects where large data sets or animation projects need to be shared by multiple clients. And for even more performance, Xcellis gateway nodes can provide access to state-of-the-art NVMe storage arrays, thereby offering optimized flash-level performance coupled with cost-effective resource sharing through StorNext.

EASILY PROTECT AND MOVE CONTENT
Xcellis gateway nodes can serve as a Distributed Data Mover (DDM), taking data migration duties from StorNext metadata controllers and clients. This preserves system performance during archive operations when data is moved between primary storage and more affordable tiers, such as tape, object, or cloud storage. DDM functionality can scale with system requirements to help preserve system performance.

HIGH AVAILABILITY
In dual redundant configurations, built-in StorNext software running on Xcellis gateway nodes can monitor the load between multiple gateways, dynamically allocating requests to balance the traffic across network interface cards. If a gateway node fails, its I/O requests will be redirected to the secondary unit, protecting IP clients from losing data access. This automated process greatly reduces the administrative overhead of having to remap and mount client machines to new targets, as typically occurs in traditional NFS/CIFS LAN connections.

NO PER-CLIENT LICENSING
Xcellis gateway nodes come with either a NAS, DLC, or DDM license. Users can connect as many clients as can be accommodated by the available bandwidth of the gateway and based on specific workflow needs—without having to purchase additional licenses.

FEATURES & BENEFITS

- Supports all-IP workflow environments
- 1-GbE, 10-GbE, 40-GbE, and 100-GbE connectivity options
- Native support for Windows, Linux, and macOS clients
- Multi-protocol NAS access
  - SMB 1, SMB 2, SMB 3
  - NFSv3 and NFSv4
- Quantum DLC (block over IP)
  - Client and NVMe for extreme performance requirements
- Scale-out distributed data movement to tape, object, and private/public cloud storage
- Automatic failover and load balancing of services between nodes
- Easily add to any Xcellis, M-Series, or other StorNext environments
- No per-client licensing

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

SYSTEM

Xcellis Gateway Node Hardware	Dual 8-core CPU 64 GB RAM Dual internal mirrored SSD drives for Operating System and 1-TB drive for logs Dual 750 W power supplies Dual cooling fans

LICENSING

At least one license is required; licenses are allowed in any combination.

StorNext LAN Gateway License	Allows connection of StorNext LAN clients directly to Xcellis. Does not require per-client licensing.
NAS Connectivity License	Allows connection of SMB and NFS clients directly to Xcellis. Does not require per-client licensing.
StorNext Distributed Data Mover Option	Moves data from primary storage to a tier such as cloud, object, disk, or tape.
Included StorNext Software	Includes a StorNext SAN client for the Xcellis Gateway Node.

CONNECTIVITY OPTIONS

Up to Three Fibre Channel or Ethernet Adapters

Fibre Channel **(includes optics and cables)**	Dual 32 Gb or Quad 16 Gb
Onboard Ethernet	Quad 1 Gb for management, metadata, and service
Ethernet	Optional NICs for StorNext LAN, NAS, cloud, and object Dual 25 Gb/10 Gb Ethernet with SFP28 sockets, optional SFP or DAC kit for 25 Gb or 10 Gb Quad 10GBASE-T (also supports 1 Gb Ethernet) Dual 100 Gb/40 Gb Ethernet with QSFP28 sockets, optional QSFP or DAC kit for 100 Gb or 40 Gb
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

PHYSICAL SPECIFICATIONS

Rack Height	1U
Height	1.68 in (4.28 cm)
Width	18.98 in (48.23 cm)
Depth	29.72 in (75.51 cm)

ENVIRONMENTAL SPECIFICATIONS

Humidity	10% to 80% relative humidity with 26 °C (78.8 °F) maximum dew point
Temperature °F (°C)	Operating: 10 to 35 °C (50 to 95 °F) with a maximum temperature gradation of 20 °C per hour Note: For altitudes above sea level, the maximum operating temperature is de-rated 0.9 °C/1,000 ft Storage Conditions: -40 to 65 °C (-40 to 149 °F) with a maximum temperature gradation of 20 °C per hour
Relative Humidity	Operating: 10% to 80% (non-condensing) with 29 °C (84.2 °F) maximum dew point Storage: 5% to 95% (non-condensing) with 33 °C (91 °F) maximum dew point. Atmosphere must be non-condensing at all times.
Altitude	Operating: -16 to 3,048 m (-50 to 10,000 ft) Non-Operating: -16 to 12,000 m (-50 to 39,370 ft)
Sine Vibration	Operating: Random 0.26 Gs, 5 to 350 Hz (all operation orientations) Non-Operating: Random 1.88 Gs, 10 to 500 Hz, for 15 minutes (all six sides tested)
Shock	Operating: 6 Gs for 11 ms, half-sine input, 6 shock pulses in both + and – directions in x, y, x axis Non-Operating: 71 Gs for 2 ms, half-sine input, 6 shock pulses in both + and – directions in x, y, z axis
Acoustic	Sound Pressure Level 72 dbA max any operation position

POWER REQUIREMENTS

Voltage:	100 to 240 VAC
Frequency:	50 to 60 Hz
Rated Current:	1.4 to 3.4 A
Rated Power:	335 W
Rated Inrush:	254 W

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800-677-6268

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