


# Xcellis Gateway Nodes

A photograph of a server rack with a Quantum logo on the front panel.

## > 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](http://www.quantum.com/xcellis)

# TECHNICAL SPECIFICATIONS

## SYSTEM

<b>Xcellis Workflow Extender Hardware</b>	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.**

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

## CONNECTIVITY OPTIONS

### Up to Three Fibre Channel or Ethernet Adapters

<b>Fibre Channel (includes optics and cables)</b>	Dual 32 Gb or Quad 16 Gb
<b>Onboard Ethernet</b>	Quad 1 Gb for management, metadata, and service
<b>Ethernet</b>	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
<b>Client Protocol Support</b>	StorNext SAN, StorNext LAN, SMB 1 (CIFS), SMB 2, SMB 3, NFS v3, NFS v4, Active Directory, OpenLDAP, RESTful API
<b>Client Support</b>	Linux, Mac OS X, Windows

## PHYSICAL SPECIFICATIONS

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

## ENVIRONMENTAL SPECIFICATIONS

<b>Humidity</b>	10% to 80% relative humidity with 26 °C (78.8 °F) maximum dew point
<b>Temperature °F (°C)</b>	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
<b>Relative Humidity</b>	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.
<b>Altitude</b>	Operating: -16 to 3,048 m (-50 to 10,000 ft) Non-Operating: -16 to 12,000 m (-50 to 39,370 ft)
<b>Sine Vibration</b>	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)
<b>Shock</b>	Operating: 6 Gs for 11 ms, half-sine input, 6 shock pulses in both + and - directions in x, y, z axis Non-Operating: 71 Gs for 2 ms, half-sine input, 6 shock pulses in both + and - directions in x, y, z axis
<b>Acoustic</b>	Sound Pressure Level 72 dbA max any operation position

## POWER REQUIREMENTS

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

## ABOUT QUANTUM

Quantum technology and services help customers capture, create, and share digital content—and preserve and protect it for decades at the lowest cost. Quantum's platforms provide the fastest performance for high-resolution video, images, and industrial IoT, with solutions built for every stage of the data lifecycle, from high-performance ingest to real-time collaboration and analysis and low-cost archiving. Every day the world's leading entertainment companies, sports franchises, research scientists, government agencies, enterprises, and cloud providers are making the world happier, safer, and smarter on Quantum. See how at [www.quantum.com](http://www.quantum.com).

©2019 Quantum Corporation. All rights reserved.

**Quantum**

[www.quantum.com](http://www.quantum.com)  
800-677-6268

DS00516A-v03 Feb 2019