# **Quantum** User Essentials

# StorNext® G300 Gateway Appliance

Review this document with your installer after installation and initial configuration. It will help you become familiar with your StorNext G300 Gateway Appliance.

# Ask Your Installer

After your storage system is installed, ask the installer to show you:

- The StorNext Licensing Guide.
- How to add and remove StorNext file systems in the *StorNext G300 Gateway Appliance Hardware Guide*.
- A walkthrough of the Gateway Metrics.
- The proper shutdown process.
- The status LEDs and LCD panel.
- How to locate your system serial number.
- How to access product documentation.
- How to contact Quantum Support.

# **Product Overview**

The G300 is a combined hardware and software solution architected to extend connectivity of StorNext environments to LAN clients through a performance-optimized and easy to use gateway appliance. The Quantum StorNext G300 Gateway Appliance is not intended or supported for use as any other StorNext feature (e.g., a Distributed Data Mover (DDM)).

# Documentation

For StorNext G300 documentation, go to <u>www.quantum.com/sngatewaydocs</u>. To download a copy of this document or the *StorNext G300 Gateway Appliance Hardware Guide*, locate your appliance's system serial number and click the applicable document. Refer to the "Locating Your System Serial Number" section for more information.

Visit www.quantum.com for available Quantum StorNext training.

# Licensing

The gateway license comes from the factory pre-installed and enabled for use with either a new StorNext Metadata Appliance or customer-configured metadata controllers (MDCs). For more information, refer to the *StorNext and StorNext FX Licensing Guide* at www.quantum.com.

Your StorNext G300 Gateway Appliance has a "per Gateway" DLC license model. This license allows you to add clients without having to purchase additional individual licenses. If you choose to install your StorNext G300 Gateway Appliance in the same StorNext configuration as a customer-configured DLC gateway, you will be limited to the existing client DLC license count.

# **Basic Operations**

# Adding new File Systems

- 1. Create a new file system(s) on the MDC.
- 2. Open a secure shell (ssh) connection to the server using the IP assigned to the gateway on either the DLC or the Metadata network.
- 3. Log on using the stornext user login and password.
- 4. Type the **sudo rootsh** command to grant root privileges. Enter the password for the stornext user account again when prompted.
- 5. Launch the service menu script by typing **sh** /opt/platform/scripts/service.sh.
- Select More Tools > Advanced Configuration > Update Filesystem list. An updated list of file systems displays.
- 7. Select the number corresponding to the new file system and press **Return**. Repeat until all selections are made. Each selection can be toggled on or off. Asterisks indicate the file systems to be mounted by the gateway.
- 8. Enter **s** to save the selections or **q** to exit.
- 9. Select the **Activate StorNext Settings** option. This restarts the StorNext services and updates the file system mounts.

#### **Removing File Systems**

- From the service menu, select More Tools > Advanced Configuration. A list of file systems displays. An asterisk indicates file systems mounted on the gateway.
- 2. Deselect (remove the asterisks) the file system.
- 3. Enter **s** to save the selections or **q** to exit.
- Select the Activate StorNext Settings option. This restarts the StorNext services and updates the file system mounts.

#### **Gateway Metrics**

Gateway Metrics help you monitor performance, throughput and load balancing on your gateways, clients and file systems by seeing at a glance which gateways, clients or file systems are currently under or over-utilized. Access the Gateway Metric report from **Reports > Gateway Metrics** tab on the StorNext MDC GUI. The default view is in Summary mode and displays the last hour of aggregate throughput of all gateways. For more information, such as viewing the report in Detail mode or changing displayed columns, refer to the *StorNext User's Guide*.

# **Shutting Down the Gateway System**

Use the appropriate power on and power off sequence for your StorNext G300 Gateway Appliance configuration.

#### **Power Off Sequence**

Two or more Gateways (uninterrupted client access to file systems)

- 1. Open a secure shell (ssh) connection to the server using the IP assigned to the gateway on either the DLC or the Metadata network
- 2. Log in as **stornext**
- 3. sudo rootsh to switch to root level access
- 4. Type the shutdown command or init 0 -g [grace period]

#### Single Gateway

- 1. Halt all I/O access to LAN clients.
- 2. Open a secure shell (ssh) connection to the server using the IP assigned to the gateway on either the DLC or the Metadata network
- 3. **unmount** the file systems on the clients first (to avoid stale mount point messages)
- 4. Log in as stornext
- 5. **sudo rootsh** to switch to root level access
- 6. Type the **shutdown** command or **init 0** –g [grace period]

**Power On Sequence:** Press the power button on the front of the StorNext G300 Gateway Appliance.



# Hardware

Identify the power switch, LCD panel, service tag, drives, and LEDs. For details, refer to the *StorNext G300 Gateway Appliance Hardware Guide*, "Hardware Overview" section.

# **Front View**



# Troubleshooting

# Status LEDs

Refer to the "Troubleshooting Your System" section of the *StorNext G300 Gateway Appliance Hardware Guide* for more information on status LEDs.

# LCD Panel

The system's LCD panel provides system information, status and error messages to signify when the system is operating correctly or when the system needs attention. During normal operations, it will display the model and system serial number. Record any status codes and error messages displayed in the LCD panel. This information can help Quantum Technical Support troubleshoot problems.



# **Getting Help**

Before you request support, do the following things. These may help you resolve the issue without having to contact Quantum Support:

- Check all LED status lights on the hardware components and the LCD panel.
- Check the Gateway Metrics reports for any anomalies or trends.
- Capture DSET and Collect logs.

# **Capturing DSET and Collect Logs for Technical Support**

Save the bundles to USB storage media or transfer the files using **sftp** or **scp**.

- 1. Open a secure shell (ssh) connection to the server using the IP assigned to the gateway on either the DLC or the Metadata network.
- 2. Log on using the stornext user login and password.
- 3. Type the **sudo rootsh** command to grant root privileges. Enter the password for the stornext user account again when prompted.
- 4. Launch the service menu script by typing **sh** /opt/platform/scripts/service.sh. The service menu displays with three options.
- 5. Select the **More Tools** option.
- Select Collect to collect system information into a single ZIP file. The collect option displays the location and filename that is generated when it completes.
- 7. Select **Dell Collect** to generate a DSET report. The collect option displays the location and filename that is generated when it completes. This can take up to 15–20 minutes.
- 8. Select **Save Collect File** for the ability to select and save either Collect or Dell Collect bundles to a removable USB storage device.

### Locating the System Serial Number

When contacting customer support about your StorNext G300 Gateway Appliance, you must provide your appliance's serial number. System serial numbers are alpha-numeric (example: CX1111CPA22333, CX1313CKE22333). Here's how to find them:

### On the back of the appliance

The system serial number is located in a plastic sleeve on the rear of the appliance.

# From the StorNext MDC GUI

Obtain the number from the **Help > About > Gateway** tab.

### From the LCD Panel

The front panel LCD scrolls the appliance system serial number.

### From the Service Menu

Use the service menu to obtain the system serial number and node serial number. The steps are:

- 1. Access the service menu (see steps 1-4 above).
- 2. Select **Serial Numbers** from the top level.
- 3. Select the **Display System Serial Number** option, which is identical to the system serial number label attached to the server, or select the **Display Node Serial Number** option, which is identical to the service tag number.

### **Contacting Quantum Support**

You can contact Quantum Support in two ways:

- Access the Online Service Center by opening an Online Service Request at https://onlineservice.guantum.com/OA\_HTML/xxibu/jtflogin.jsp
- To contact Quantum Support, go to <u>http://www.quantum.com/ServiceandSupport/Contacts/ProductSelect/Index.aspx</u>

This link provides all support contact options, including local toll free numbers based on location.