



Review this document with your installer after installation and initial configuration. It will help you become familiar with your QXS Hybrid Storage hardware.

### Documentation and Training

For information on installing, configuring, operating, and maintaining your QXS Hybrid Storage system, open a web browser and go to [www.quantum.com/qseriesdocs](http://www.quantum.com/qseriesdocs). You will find product documentation, training, and other product resources.

### System Serial Number

If you contact Quantum Support, you will need your system serial number.

System serial numbers are in the following format: QTMCHOU-1234ABCDE5. All QXS serial numbers include the characters **QTMCHOU**. They can be found on the chassis and in the Disk Management Utility.

In the Disk Management Utility V3, select **System** on the left side of the screen. Then choose either the **Front** or **Rear** tab. The serial number of interest will be that of the RAID chassis, which is the top chassis on the **System** page. To display the **Enclosure Information** popup, hover the cursor over one of the "ears" (far left or right). The serial number you need is the **Midplane Serial** number.

#### Enclosure Information

ID:	0
Status:	Up
Vendor:	DotHill
Model:	AssuredSAN
Disk Count:	24
WWN:	500C0FF01BD9703C
Midplane Serial:	QTMCHOU-14251BD970
Revision:	B

OK

Serial No.	QTMCHOU-1234ABCDE5
Part No:	3-06633-01
FRU No.	9-03047-01
REV:	A

### Licensing

All QXS systems ship with the Q-Tools license. Other add-on licensing is available separately.

To apply licenses, go to the **Home** page in the Disk Management Utility then, from the **Action** menu, select **Install License**. The system serial number is required to install licenses. See the *Disk Management Utility User Guide V3* for more information.

### Hardware

At a minimum, the QXS Hybrid Storage system consists of a RAID chassis. Storage may be increased with the addition of various numbers of expansion chassis.

There are four types of QXS chassis: 2U12, 2U24, 2U48, and 4U56. The first two characters of the designation specify how many units of rack space the chassis occupies. The last two characters indicate the number of drive slots within the chassis.

Expansion chassis have expansion I/O modules rather than RAID controllers. All of the 2U expansion chassis have two mini-SAS ports. The QXS-656 expansion chassis (not shown) has four HD mini-SAS ports.

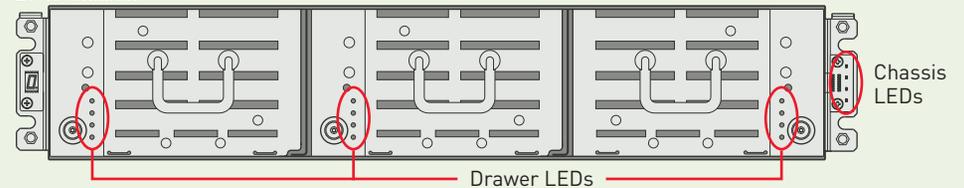
#### 2U12 Chassis



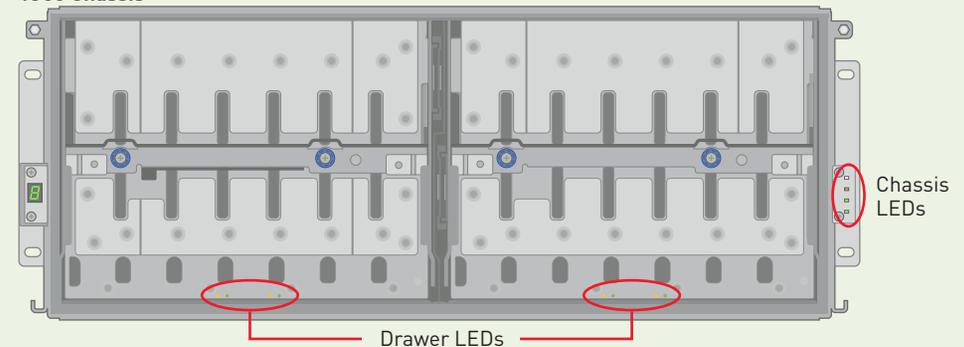
#### 2U24 Chassis



#### 2U48 Chassis



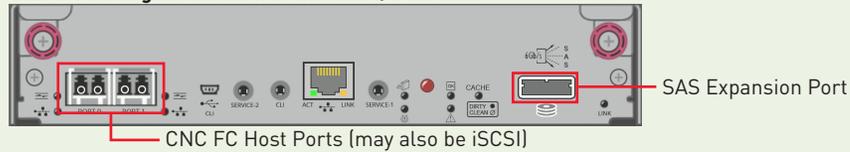
#### 4U56 Chassis



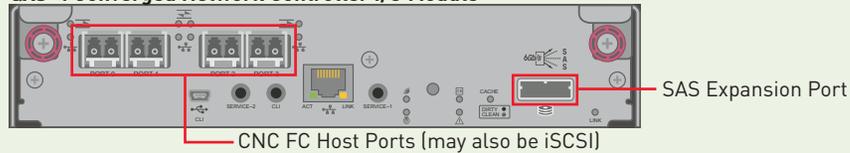
## Hardware (continued)

Each of the four types of chassis is available as a RAID chassis, or an expansion chassis. RAID chassis have paired QXS-3, QXS-4, or QXS-6 RAID controller I/O modules. Controllers may be converged network controllers (CNCs), offering FC or iSCSI host ports. SAS controllers are also available.

### QXS-3 Converged Network Controller I/O Module



### QXS-4 Converged Network Controller I/O Module



### QXS-6 SAS Controller I/O Module



### QXS-3/4 Expansion I/O Module



## Firmware Upgrades

Controller firmware should always be updated when:

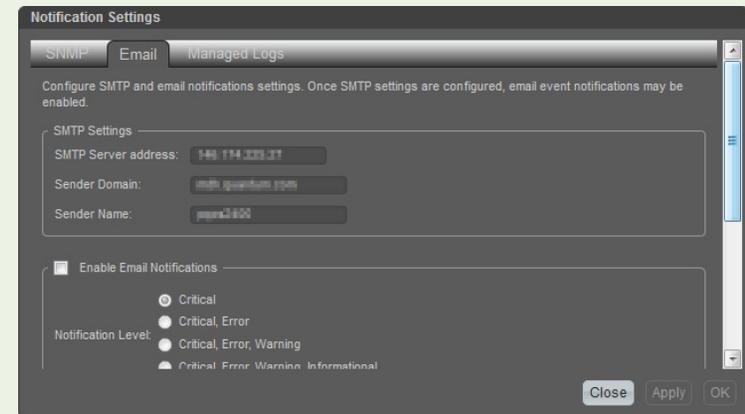
- Installing a new system
- Adding drive expansion(s)
- Replacing a controller module or I/O module

From the **System** page of the Disk Management Utility V3, go to **Action > Update Firmware**. Note the **Partner Firmware Update** window at the bottom of the **Update Firmware** popup. It will tell you whether PFU is enabled or not. If you wish to change this status, you must use the CLI. See the *QX and QXS Storage CLI Reference Guide* for more information. See the *QXS Disk Management Utility User Guide V3* for more information about Updating firmware and PFU.

## Status and Notifications/Alert Options

Notifications are set up via the menu of the **System Health Panel** on the **Footer** of the Disk Management Utility. In the **Notification Settings** popup, you can set up the following:

- SNMP
- Email alert notifications
- Email Managed Logs



## Basic Operations

- QXS components must be turned on and off in the order described in the *QXS-Series Setup Guide* (refer to the "Turning On and Shutting Down the System" section).
- The CLI is accessed via HTTP, HTTPS, Telnet, an SSH application, or a terminal emulator on a management host that is remotely connected through a LAN to a controller module's network port. Access is also possible via a management host directly connected to the RAID chassis's serial CLI port. The login is **manage**, and the password is **!manage**.
- The Disk Management Utility V3 is available from a web browser. Enter the IP address for one of the controllers in the web browser's address field. The manage (administrator) user login is **manage**. The password is **!manage**. The password can be changed, though the login cannot. On the **Home** page, go to **Action > Manage Users**.
- See the *QXS Storage Disk Storage Management Utility Users Guide V3* for guidance in configuring and provisioning the storage system.
- Best practices for optimal performance are found in the *QX and QXS Setup Guide*.

## Troubleshooting and Help

Here are some tips you may find helpful for troubleshooting:

1. Review the "Troubleshooting" chapter in the *QX and QXS Setup Guide*.
2. Search for solutions in the Knowledge Base at <http://qsupport.quantum.com/kb/>
3. Download log files. Technical Support will need these for troubleshooting. Select the **Menu** arrow on the lower left corner of the Disk Management Utility, then select **Save Logs**. Log files may also be retrieved via FTP. See the *QXS Disk Management Utility User Guide V3* for more information.
4. Access eSupport by opening an Online Service Request at [https://onlineservice.quantum.com/OA\\_HTML/xxibu/jtlogin.jsp](https://onlineservice.quantum.com/OA_HTML/xxibu/jtlogin.jsp)
5. Contact Quantum Support. In the U.S., call 800-284-5101 toll free. In Europe, call toll free +800-7826-8888 or direct +49 6131 324 185. For additional contact information, go to [www.quantum.com/ServiceandSupport/Contacts/Index.aspx](http://www.quantum.com/ServiceandSupport/Contacts/Index.aspx)