Release Notes

Product	Scalar® i40 and Scalar i80
Release Version	i7.2
Firmware Version	180G.GS009
Operating Systems (Remote Web Client)	**Microsoft® Windows®**: Internet Explorer® 7, 8 and 9; Mozilla® Firefox® 3.5.x and 3.6.x and later versions **Solaris™**: Firefox 1.0.6 or later **Linux®**: Firefox 1.0.6 or later
Date	March 2016

Contents

Purpose of this Release

These release notes describe the product's new features and enhancements, and currently known issues for the current release. Visit http://www.quantum.com for a complete description and information about the Scalar i40 and Scalar i80 tape libraries.

New Features and Enhancements

This release introduces support for LTO-7 tape drives.

Encryption Key Management Tape Drive and Media Support

The library supports the following encryption systems:

Note: Although Scalar i40/i80 supports SKM, it does not support Q-EKM to SKM key migration. In scenarios where you might use the Q-EKM to SKM key migration feature for your Scalar i500 or Scalar i600, you will not be able to use the migrated keys on your Scalar i40/i80

Encryption System	Supported Tape Drives	Supported Media
Scalar Key Manager (SKM)	HP LTO-4 FC HP LTO-4 SAS HP LTO-5 FC HP LTO-5 SAS HP LTO-6 FC IBM LTO-5 FC IBM LTO-5 SAS IBM LTO-6 FC IBM LTO-6 SAS IBM LTO-7 FC IBM LTO-7 SAS	LTO-4 and higher tape cartridges

* The Key Management Interoperability Protocol (KMIP®) is a specification developed by OASIS®. Its function is to standardize communication between enterprise key management systems and encryption systems. The Scalar i40/i80 library provides a KMIP version 1.2 compliant encryption solution.

Encryption System	Supported Tape Drives	Supported Media
KMIP-compliant key managers*	HP LTO-4 FC HP LTO-4 SAS HP LTO-5 FC HP LTO-5 SAS HP LTO-6 FC IBM LTO-5 FC IBM LTO-5 SAS IBM LTO-6 FC IBM LTO-6 SAS IBM LTO-7 FC IBM LTO-7 SAS	LTO-4 and higher tape cartridges

*   The Key Management Interoperability Protocol (KMIP®) is a specification developed by OASIS®. Its function is to standardize communication between enterprise key management systems and encryption systems. The Scalar i40/i80 library provides a KMIP version 1.2 compliant encryption solution.

Compatibility Matrix

The following table provides information about drive firmware compatibility with the Scalar i40 and Scalar i80 firmware version 180G.GS009. This information is current as of the publication date of these release notes. For the most up to date information on Quantum Global Services, please visit: www.quantum.com/support.

Firmware Compatibility

Component	Firmware Version
Library Firmware	180G.GS009
Robot Control System (RCS)	
XY controller board	300Q.GR016
Picker controller board	300Q.GG011
Drive Types	
HP LTO-4 Full-height SAS	A65Z
HP LTO-4 Full-height Fibre Channel	H64Z
HP LTO-4 Half-height SAS	U62Z
HP LTO-4 Half-height Fibre Channel	V62Z

Component	Firmware Version
HP LTO-5 Half-height SAS	Z6IZ
HP LTO-5 Half-height Fibre Channel	Y6KZ
HP LTO-6 Half-height SAS	35HZ
HP LTO-6 Half-height Fibre Channel	25GZ
IBM LTO-5 Half-height SAS	F991
IBM LTO-5 Half-height Fibre Channel	F991
IBM LTO-6 Half-height SAS	F9A1
IBM LTO-6 Half-height Fibre Channel	F9A1
IBM LTO-7 Half-height SAS	FA17
IBM LTO-7 Half-height Fibre Channel	FA17

Software Compatibility

- To view a list of which backup software packages have been tested for interoperability with the Scalar i40 and Scalar i80, see the Quantum Software Compatibility Guide at http://www.quantum.com/swcompguide.aspx.

- KMIP Key Manager Encryption is supported on SafeNet® KeySecure™ K150 and K460 servers.

- KMIP Key Manager Encryption is supported on all Thales keyAuthority® servers.

Security Scans

Scanning Software	Result
Nessus Vulnerability Scanner 5.2.7 scanned i7.0.1 and newer code	No high or medium warnings were found

General Usage Notes

This section lists guidelines for general system usage.

Description	Guideline
Scalar i40/i80 Online Help, accessed from the Remote Web Client, is not supported by Firefox 41 or higher. All other Remote Web Client functions are supported by Firefox 41 and higher.	Use the supported operating systems listed in Operating Systems (Remote Web Client) on page 1, with the exception of Firefox 41 or higher.

Description	Guideline
If downgrading firmware, downgrade support includes the present release minus two major versions.	For example, if your library is at version i4.x, firmware downgrades are supported to version i2.x and version i3.x.
Clear Web browser cache after upgrading firmware or applying new license keys.	After upgrading library firmware or applying new license keys, do the following to ensure that the new menus are displayed: 1) Delete all Web browser history. 2) Refresh the Web browser. 3) Log back into the library.
NTP does not work on a Red Hat Linux server using IPv6.	This is an issue with Red Hat Linux, not library firmware. If you are using Red Hat Linux, you cannot use NTP with IPv6.
Using two NTP servers can cause incorrect time calculations.	The current software supports using one, two, or three NTP servers. The recommendation is to use one or three NTP servers (but not two).
On the Scalar i80, when a second power supply is inserted while the library is powered on, diagnostic ticket **DT002 – PS Failure** is immediately produced for that power supply before the user has a chance to plug the power supply in to an AC outlet. This can cause a false diagnostic ticket for an inserted power supply before applying power.	Close diagnostic ticket DT002 and monitor for recurrence. If the ticket recurs, contact Quantum Support.
The library automatically turns partitions offline when performing certain operations, and turns them back online again when the operation successfully completes. However, if the operation fails, the partitions will remain offline.	Evaluate the issue to determine if and when the partitions need to be brought online again. When you are ready to bring the partitions back online, you must do so manually (from the Web client, select **Operations > Partitions > Change Mode**).
Avoid manually generating SKM encryption keys on more than five libraries simultaneously as the key generation process is resource-intensive on the server.	Generating keys manually on more than five libraries at once could result in a failure to complete the key generation operation, or interfere with key retrieval operations. If a failure does occur during key generation, wait 10 minutes, then try to start it again. The key generation process will resume from where the error was encountered.
Library initialization can take approximately 9 to 23 minutes for an i40, or 14 to 40 minutes for an i80. Do not interrupt the library during initialization.	Do not interrupt the library during initialization.
The Remote Web client is not supported by Internet Explorer 10.	Only use the supported browsers listed in Operating Systems (Remote Web Client) on page 1.

Description	Guideline
In order to perform current or selective encryption key export operations in Scalar Key Management (SKM) server environments, tape cartridge barcode label information is used to associate and locate encryption keys for respective media. If the barcode label on encrypted media is changed, the SKM servers may not be able to locate the respective encryption key unless the SKM server database is updated with the new barcode label information.	If the barcode on any encrypted media is changed and data has not been rewritten with a new encryption key associated with the new barcode label, contact Service to correct barcode label associations in the SKM server data bases before performing a current or selective encryption key export operation.
Certain operations may take longer than expected and may cause the browser to hang.	• If an operation seems to be taking a very long time, close the browser window and open a new browser window. • Adjust the HTTP response timeout setting in your browser, if available.
Release i6 is a baseline release, meaning that all libraries must be upgraded to 160G before they can be upgraded to any later firmware.	Upgrade to 160G before upgrading to any later library firmware version.
IBM drives must not be added to the library until firmware version i7.2 (180G) is installed.	You must install library firmware version 170G or higher before installing an IBM drive. After installing the drive, you must update the tape drive firmware using the _Scalar i40 and i80 Drive Firmware Upgrade Instructions_. See http:// www.quantum.com/serviceandsupport/ softwareanddocumentationdownloads/ si40/ index.aspx • Click the **Firmware** tab to access the tape drive firmware file. • Click the **Documentation** tab to access the _Scalar i40 and i80 Drive Firmware Upgrade Instructions_. If the IBM drive is installed before the 170G library firmware is installed, remove the IBM drive, reboot the library, and install the 170G library firmware before re-installing the IBM drive. Be sure to follow the instructions provided.
When updating library firmware, all user-installed drive firmware images are removed.	After the library firmware is updated, you must update all tape drive firmware using the _Scalar i40 and i80 Drive Firmware Upgrade Instructions_. See http://www.quantum.com/ serviceandsupport/ softwareanddocumentationdownloads/ si40/ index.aspx • Click the **Firmware** tab to access the tape drive firmware file. • Click the **Documentation** tab to access the _Scalar i40 and i80 Drive Firmware Upgrade Instructions_.

Known Issues

This release of the Scalar i40 and Scalar i80 firmware contains the following known issues:

Change Request Number	Service Request number	Description	Workaround
23978		When manual cartridge assignment is enabled (the default setting), a tape cartridge that is placed into an I/E station slot when the library is turned off is left "stranded" when the library is turned on. The tape is shown as being present in the I/E station slot, but you cannot import or move it, and the **Assign I/E** screen does not appear on the operator panel to help you assign the cartridge. The library configuration report indicates that the slot is "Unavailable."	Unlock and open the I/E station. Remove the tape cartridge from its slot and place it in a different I/E station slot. Close the I/E station. The cartridge is now available for assignment, and the **Assign I/E** screen appears on the operator panel.
28530		With Internet Explorer 6 and 7, occasionally Web client menus do not display after logging in. This is very intermittent and seems to happen only after clearing the browser cache and/or rebooting the library.	Refresh the browser.
32761	SR1240150	After clearing the cache and refreshing browser, a user still cannot log in using Internet Explorer to access the Web client.	Log in to the Web client using Firefox.
32815		IVT Drive Test fails when the host sends commands to a drive under IVT test.	Do not initiate host commands to drives while performing an IVT drive test.
32897		Issue with Brocade FC switch - data is written to library slowly at 5MB~10MB/sec.	Configure connection as point-to-point.
33083		Media Security alerts are not posted when removing a tape drive or magazine containing media.	No workaround. Media Security does not post alerts on removed components.
51095	SR3363144	Changing the IP address of the secondary SKM server may generate Diagnostic Tickets that the IP address is no longer being used.	• Ignore the Diagnostic Tickets. • Reboot the library.

Change Request Number	Service Request number	Description	Workaround
51973, 52599		When using a Firefox browser, some operations may time out.	In the Firefox browser settings, set the Timeout period to 20 minutes (1200 seconds) or longer: **1** In the Location bar, type **about:config** and press Enter. The about:config "This might void your warranty!" warning page may appear. **2** Click **I'll be careful, I promise!**, to continue to the about:config page. **3** Modify "network.http.response. timeout" parameter (the default value is 115) to 1200 **4** Restart Firefox.
52207		Long Erasing media via Arcserve may cause a drive SCSI bus reset when used with the Emulex LPE16002-m6 16gb HBA card.	Do not use an Emulex LPE16002 16gb HBA card with IBM LTO-5 or higher drives.
52319		Control Path Failover (CPF) configurations are supported by HP drives only.	Configure only HP drives for CPF. IBM drives will support CPF configurations in a later release.
52339		Moving media using Symantec HCT may cause failure errors.	Use the library Move Media operation (**Operations > Move > Media**) to move media.
52611		When using a SUSE 11 host, changing the control path drive causes SUSE to generate a control path error.	After changing the control path on the library, reboot the SUSE host.

Change Request Number	Service Request number	Description	Workaround
52686		In AIX, changing the drive topology between Point to Point and Loop can cause the device path to Tivoli to be lost.	**1** In AIX rediscover the library. (**Smit or smitty, Devices > Install / Configure Devices Added After IPL**) **2** In AIX, discover the library as a Tivoli device. (**Smit or smitty, Devices > Tivoli Storage Manager Devices > Fibre Channel SAN Attached Devices > Discover Devices Supported by TSM**) **3** In Tivoli, update the path of the library to the new device file. (update path {tsm server name} {library name} srctype=server desttype=library autodetect=yes device=/dev/lbX – [where lbX being the new device file created in Step 2]).
58832		Although Scalar i40/i80 supports SKM keys, it does not support Q-EKM to SKM key migration. In scenarios where you might use the Q-EKM to SKM key migration feature for your Scalar i500 or i6k, you will not be able to use the migrated keys on your Scalar i40/i80.	Use SKM keys with your Scalar i40 or Scalar i80.
58907		Scalar i40/i80 does not support barcode labels that contain checksum characters.	
58981		Nessus security scans can disconnect your library from the network.	Reboot your library to reconnect your library to the network.
59383		Tape Alert 49 is reported for partitioned tapes when a write at BOT in partition 0 occurs, even when the controlling host (such as Scalar LTFS) requests the tape to be formatted for multiple partitions.	Tape Alert 49 implies that the native tape capacity is diminished; however, if the controlling application is aware that the tape is formatted for multiple partitions, this alert is not applicable. Ignore and close this ticket if the use of partitioned tapes is supported.

Documentation

The following documents are currently available for the Scalar i40 and Scalar i80.

Document Number	Document Title
6-66545	Scalar i40 and Scalar i80 User's Guide
6-66546	Scalar i40 and Scalar i80 Quick Start Guide
6-00618	System, Safety, and Regulatory Information
6-66773	Scalar i40 and Scalar i80 Basic SNMP Reference Guide
6-00423	Quantum Intelligent Libraries SCSI Reference Guide
6-01317	Quantum Intelligent Libraries SMI-S Reference Guide

Contacting Quantum

More information about this product is available on the Service and Support Web site at www.quantum.com/support. The Service and Support Web site contains a collection of information, including answers to frequently asked questions (FAQs). You can also access software, firmware, and drivers through this site.

For further assistance, or if training is desired, contact Quantum:

Telephone Support — Find contact information for your location	http://www.quantum.com/ServiceandSupport/Contacts/ProductSelect/Index.aspx
Service and Support Web site:	www.quantum.com/support
To open an Online Service Request:	www.quantum.com/osr

For the most updated information on Quantum Global Services, please visit: www.quantum.com/support