



Quantum Scalar i6000

Release Notes

Product	Scalar® i6000, Firmware Version i12.3
Firmware Version	720Q.GS18700
Operating Systems (Standalone LMC Client)	Microsoft Windows Ubuntu x86/ia64 Red Hat Linux x86/ia64
Supported Web Browsers (Java GUI)	Firefox Internet Explorer versions 7 and higher
Supported Web Browsers (WebGUI)	Firefox Chrome
Required Java Runtime Environment (JRE)	JRE version 6 and higher
Date	December 2015

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Purpose of This Release

The Scalar i6K i12.3 release details bug fixes described in the [Resolved Issues](#) section.

Visit <http://www.quantum.com> for additional information about the Scalar i6000 and prior releases.

New Features and Enhancements

This release contains the following new features or enhancements:

- Support for IBM LTO-7 tape drives

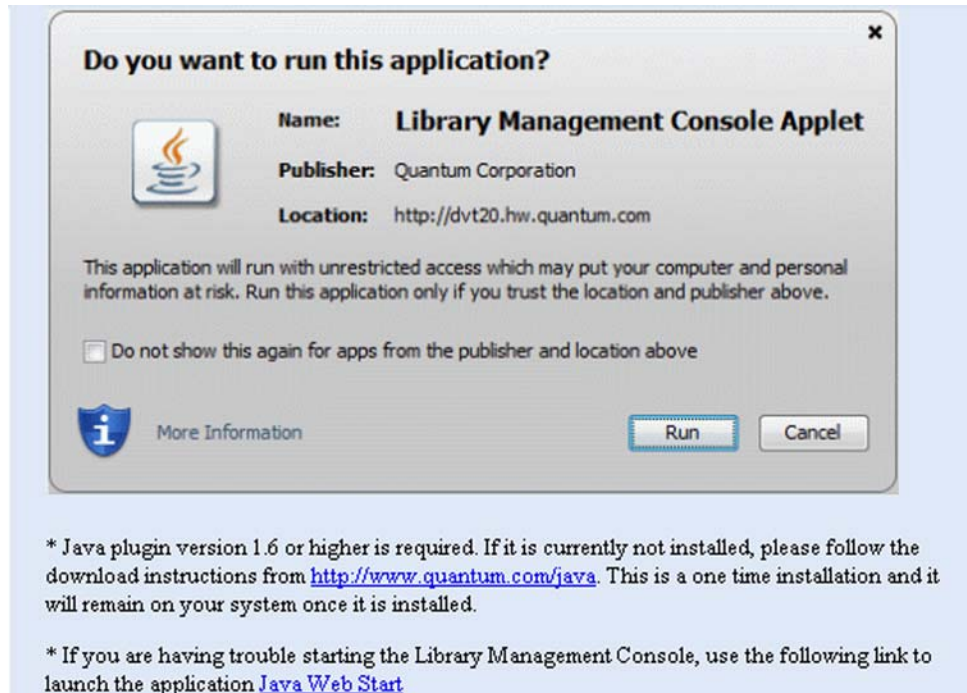
General Information

- The standalone LMC client is not provided by default. Contact Quantum Service for details.
- JRE is not required with the standalone LMC client.
- If media is encrypted on an IBM drive using Library Managed Encryption (LME), the library will initially report the media as being unencrypted when it is actually encrypted. The encryption status of the media will be properly reported once the media is re-mounted in the drive.
- To help maintain system integrity and for marketing purposes, Quantum regularly collects system information through automatic emails. These emails contain configuration and status information only, and do not contain any customer data stored on the system. To disable this function:
 - 1 Log on to your library.
 - 2 Go to **Setup > System Setting > Physical Library**.
 - 3 In the **Send Usage Statistics** area, select the **Disable** radio button.
 - 4 Click **OK**.
- The Web client places a cookie on the user's computer to provide the last user's credentials upon login. The cookie only collects the user's credentials to facilitate login, and does not collect any other user data.
- IPv6 and DHCPv6 may cause issues in libraries running i12.x versions. Update to i12.3 to address these issues.

Special Instructions - Web Browsers

If your browser no longer supports Java, like Google Chrome, you can use **Java Web Start** to run the remote GUI.

- 1 In your browser, type the IP address or Library name in the address field and press **Return**. The following screen displays.



- 2 At the bottom of the screen, click the **Java Web Start** link. Your browser will download and launch an application that will allow you to use the remote GUI like normal.

Security Scanners

Quantum runs the following Security scanners against the library:

- BeyondTrust Retina Network Security Scanner version 5.18.3.2656.
 - No critical issues were reported

Compatibility and Support

Encryption Key Management Drive Support

Encryption Option	HP LTO-4	IBM LTO-4	HP LTO-5	IBM LTO-5	HP LTO-6	IBM LTO-6	IBM LTO-7
Application Managed Encryption	Supported	Supported	Supported	Supported	Supported	Supported	Supported
Q-EKM	Not Supported	Requires EKM License	Not Supported	Requires EKM License	Not Supported	Requires EKM License	Not Supported
SKM	Requires EKM License	Not Supported	Requires EKM License	Requires EKM License	Requires EKM License	Requires EKM License	Requires EKM License
KMIP Key Manager ¹	Requires EKM License	Not Supported	Requires EKM License	Requires EKM License	Requires EKM License	Requires EKM License	Requires EKM License
¹ - Only SafeNet and Thales encryption key servers are supported KMIP configurations							

Firmware Compatibility Matrix

The following table shows information on drive and auxiliary firmware compatibility with this release of Scalar i6000. This information is current as of this product release. For the most up-to-date information on the latest qualified firmware, please visit: <http://www.quantum.com>.

Release: i12.3
Library Firmware: 720Q.GS18700
Library Management Console (LMC) Remote Client: 720G.GH14200

Drive Types	Firmware Version ²
IBM LTO-1 (SCSI)	5AU1
IBM LTO-1 (FC)	5AU1
IBM LTO-2 (SCSI)	A4N0
IBM LTO-2 (FC)	A4N0
IBM LTO-3 (FC) 2 Gb	93GM
IBM LTO-3 (FC) 4 Gb	93GM
IBM LTO-4 (FC) 4 Gb	C7QH
IBM LTO-5 (FC) 8 Gb	F990
IBM LTO-6 (FC) 8 Gb	F9A0
IBM LTO-7 (FC) 8 Gb	FA10
HP LTO-3 (FC) 2 Gb	L67Z
HP LTO-3 (FC) 4 Gb	M69Z
HP LTO-4 (FC) 4 Gb	H64Z
HP LTO-5 (FC) 8 Gb	I6PZ
HP LTO-6 (FC) 8 Gb	J5EZ

1. For information about installing the LMC remote client, contact Quantum Support.
 2. Check with Quantum Support for the latest firmware.
 3. Logical serial number addressing (drive spoofing) is not supported.

Backup Software Compatibility

To view a list of backup software packages that have been tested for interoperability with the Scalar i6000, refer to the Quantum Software Compatibility Guide at <http://www.quantum.com/swcompguide.aspx>.

Resolved Issues

This release of Scalar i6000 firmware resolved the following issues:

Change Request Number	Service Request Number	Description	Resolution
54091		During a backup, if the drive loses both FC connections, failover will occur but the media will not be moved to home slot.	Fixed.
51702		During IVT, data pertaining to the drive-side magazines in the right parking module is not included in the report.	Fixed.
54630	3948014	If the email addresses in the Contact tab of the Notifications dialog and the Email Notifications dialog are the same, an email will 'bounce' (ie, undeliverable) and fail to be delivered.	Fixed.
54852		During a change to the internal IP of the library the GUI can hang if you wait too long to respond to dialog prompts.	Fixed.
55492		When upgrading from i11.3 to i12.2.1, the partition is not mapped or listed in the Access Group Configuration.	Fixed.
57789	3597420	The framecount command was causing an incorrect reporting of number of frames in the library.	Fixed.
57196	3551534	Single robot libraries with an HDEM as last frame reported issues with the last column of magazines.	Fixed.
56514	3534344	Full EDLM scans were reporting incorrect results of read verifies.	Fixed.
56100	3534826	An external application passing a value of 0 will cause internal library communications between the RCU and MCB to fail.	Fixed.
55929	3474118	RAS ticket indicates a failover took place when the HP Linux device driver is performing load balancing.	Fixed. Library will no longer report errors resulting in a failover of a drive when load balancing is performed.
55563	3531024	When available SKM keys were close to running out, server was unable to generate new keys.	Fixed.

Change Request Number	Service Request Number	Description	Resolution
55213	3507054	No RAS ticket was generated when the library was experiencing initialization failures between the MCB and RCU.	Fixed.
42976	1514380	The default library IP address was causing conflicts with customer internal network IP addresses.	Fixed. New default IP address 192.19.x.x.

Known Issues

This release of i6000 i12.3 firmware has the following known issues.

Change Request Number	Service Request Number	Description	Workaround
42325		If a SafeNet key server(s) in a cluster is not reachable during normal key requests, encryption keys issued by other key servers in the cluster will not automatically replicate to the unreachable server(s) afterwards.	Users need to sync the key server cluster manually.
43012		When the library has an issue importing encryption keys, an error message erroneously informs users that there was a communication issue with the key server.	Verify that communication to the key server is operational (perform Path Diagnostics). If communication with the key server is not impacted, the issue is that the keys cannot be imported due to being wrapped with a certificate (public key) that does not match the server's private key.
43149		In some instances, during a drive firmware update and associated drive reboot, a diagnostic ticket reporting the drive has been removed may be generated.	The drive should come back online after the firmware update is complete and the diagnostic ticket will auto close. If not, follow the directions on the diagnostic ticket to troubleshoot.

Change Request Number	Service Request Number	Description	Workaround
50514, 50591	1647282, 1647440	MICA should only inform of multi-initiator conflicts, not just multi-initiator operation without reservations.	If multi-initiator operation without reservations is being reported, you can filter the diagnostic tickets. From the GUI, configure the library to enable diagnostic ticket filtering (Setup > Notifications > Tickets Filter).
53329		EEB attached IBM LTO-5 and LTO-6 drives upgraded to latest drive firmware may come up in the library in passive mode.	Reboot each drive individually. If that doesn't fix the issue, reboot the library.
51994		When a drive sled is added to a partition it may not appear in RES data.	Make sure that the robot(s) is enabled and initialized before physically adding the drive to the library.
54202		If you disconnect the cable from a control path drive that is connect to a host HBA, the library will lose connectivity to the robot.	<ol style="list-style-type: none"> 1 Update path to robot. 2 run library audit checklabel = barcode. 3 Media will now return to its home slot. 4 Users are now able to run simultaneous backups to both drives without repairing FC connection on Host HBA.
54220		If the control path drive fails over during an import, any media in the picker will not be discovered.	<ol style="list-style-type: none"> 1 Run checkin libvolume search=yes to pickup missing media 2 Then rerun the checkin libvolume search=bulk to import remaining media in I/E.
54580		A Series 3 control module may show the presence of two CMBs even though there is only one.	There is no negative effect to library functionality. The second CMB listed is actually the MCB.
55202		When upgrading from i11.x to i12.x, all ticket suppression filters will not be restored. Restoring a configuration back to i11.3 will also not restore the filters.	Before the upgrade, note which filters you have set and then reset them after the upgrade is complete.
55216		In libraries larger than 8 frames, a geo-addressing issue may cause diagnostic tickets related to CMBs and HDCs to be generated in error.	Reboot the library.

Change Request Number	Service Request Number	Description	Workaround
52434	3382082, 3399088	If a open door is detected, the library may report the wrong door as open.	<ul style="list-style-type: none"> • Check to ensure that all doors are closed properly. • Check the lance (small metal piece in door lock) to see if it is damaged. Repair if possible and close door.
54884	3522766	During a library snapshot, the HDC may go offline.	Reboot the library.
52884		<p>The remote Apache web server is affected by the Apache web server chunk handling vulnerability.</p> <p>If safe checks are enabled, this may be a false positive since it is based on the version of Apache. Although unpatched Apache versions 1.2.2 and above, 1.3 through 1.3.24, and 2.0 through 2.0.36 are affected, the remote server may be running a patched version of Apache.</p>	An i6000 library does not use Apache. This is a false positive.
58027	3597528	Inventory performed on a library with two 24 slot I/E stations incorrectly generates an error during inventory if one I/E station door is open.	<ol style="list-style-type: none"> 1 Close both I/E station doors. 2 Let library scan the I/E station. 3 Reopen the desired I/E station door.

Documentation

The following documents are currently available for the Scalar i6000.

Document Number	Document Title
6-66879-xx	Scalar i6000 User's Guide
6-66882-xx	Scalar i6000 Planning Guide
6-01847-xx	Quantum Encryption Key Manager User's Guide
6-01884-xx	Quantum Encryption Key Manager Release Notes
6-66532-xx	Scalar Key Manager Quick Start Guide
6-66531-xx	Scalar Key Manager User's Guide
6-66572-xx	Scalar Key Manager Safety Information by IBM

Document Number	Document Title
6-66535-xx	Scalar Key Manager Open Source License Agreement

Contacting Quantum

More information about this product is available on the Service and Support website at www.quantum.com/support. The Service and Support Website 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:

Quantum Technical Assistance Center in the USA:	+1 800-284-5101
For additional contact information:	www.quantum.com/support
To open a Service Request:	www.quantum.com/osr

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