Quantum Scalar i6000
Release Notes

Product	Scalar® i6000, Firmware Version i12.2.1
Firmware Version	710Q.GS02200
Operating Systems (Standalone LMC Client)	Microsoft Windows Ubuntu x86/ia64 Red Hat Linux x86/ia64
Supported Web Browsers (Java)	Firefox Internet Explorer versions 7 and higher
Supported Web Browsers (WebGUI)	Chrome Firefox
Required Java Runtime Environment (JRE)	JRE version 6 and higher
Date	June 2015

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Purpose of This Release

The Scalar i6K i12.2.1 release details new feature, enhancements, and 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 and enhancements from the previous release:

- Series 3 modules that allow for increased drive capacity (24 drives in DREM3 and 18 drives in CM3)
- Encryption available per library or per partition
- Web Services support and document available
- Added ticket resolutions for cartridge memory EOD status issue
- Added options for periodic cleaning
- New Web interface available (Firefox and Chrome only). Use the IP address or DNS name of your library to access the WebGUI. For example:
  - xx.xx.xxx.xxx/LMC
  - DNS Name/LMC

When accessing the WebGUI, you will encounter a warning about security certificates. Click the **Advanced** link and then click the **Proceed** link.

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.

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
Application Managed Encryption	Supported	Supported	Supported	Supported	Supported	Supported
Q-EKM	Not Supported	Requires EKM License	Not Supported	Requires EKM License	Not Supported	Requires EKM License
SKM	Requires EKM License	Not Supported	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
[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: i12.2.1
Library Firmware: 710Q.GS02200
Library Management Console (LMC) Remote Client: 710G.GH01500

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	E6Q6
IBM LTO-6 (FC) 8 Gb	E6R6
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	I6GZ
HP LTO-6 (FC) 8 Gb	J55Z

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
52907	3429890	During IVT, the Get/Put report failed to give status on a magazine in the library.	Fixed.
53646	3456694, 3505992	During an inventory, the scanner may have trouble reading the barcode label on a magazine at the top of a column.	Fixed.
54155	3476062	The Configuration Report failed to include the library's active vault license.	Fixed.
54276	3473662	Errors with EKM are not being properly reported.	Fixed.
54368	3474248, 3486340	When the library reports Multi-Initiator Conflicts, the RAS ticket does not include the Host ID so the problem can be located.	Fixed.
54553	3493998	When a drive experienced a failure, the library mistakenly issued the wrong RAS ticket.	Fixed.
55142, 55143	3517972	In libraries with HDEMs, a request by the tower for a calibration does not occur.	Fixed.
55144	3520102	Drive logs were saved with unrecognized files extensions.	Fixed. Use the following extensions: • HP drives - .ltd • IBM drives - .a or .b
55175	3486308	Aisle lights fail to stay on when user is monitoring robot activity.	Fixed.
55530	3531024	The SKM server fails to generate a key when the template has run out of keys.	Fixed.
53265		After installing latest library firmware version, a diagnostic ticket may be generated during initialization indicating a communication error with the IEX.	Fixed.

Known Issues

This release of i6000 i12.2.1 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.
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.

Change Request Number	Service Request Number	Description	Workaround
54091		During a backup, if the drive loses both FC connections, failover will occur but the media will not be moved to home slot.	To get the media to return to home slot from Net back Up (NBU): **1** Select **Devices > Robot**. **2** Right click. **3** Select **Change**. **4** Browse to select robot device. **5** Click **OK**. **6** Click **OK**. **7** Click **OK**. Media is then put in it's home slot.
51702		During IVT, data pertaining to the drive-side magazines in the right parking module is not included in the report.	Make sure that the calibration targets are located in the correct column and row. If calibration targets cannot be in their proper position because of drive location, you can move the drives to different positions in the drive sled.
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.	**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.	**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.
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.	Check: **Setup > Notifications > System Setup** (**Email Address** field)**,** and **Setup > Email Configuration** (**Sender Address** field)
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.	Respond to the dialog prompts in a timely manner. If you do wait too long, reboot the library.

Change Request Number	Service Request Number	Description	Workaround
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.
55492		When upgrading from i11.3 to i12.2.1, the partition is not mapped or listed in the Access Group Configuration.	1 Go to Setup > SNW Wizard. 2 Click Next. 3 Select Host Access radio button. 4 Click Next. 5 Select Host Access Configuration. 6 Click Next. 7 Select Group. 8 Expand Tree.
52434	3382082, 3399088	If a open door is detected, the library may report the wrong door as open.	• 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		The following Nessus scan result may be generated: Nessus was unable to crash the web server, so this might be a false positive.	An i6000 library does not use Apache. This is a false positive.

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
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