



Quantum Scalar i6000 Release Notes

Product	Scalar® i6000, Firmware Version i12.1
Firmware Version	690Q.GS21201
Operating Systems (Remote LMC Client)	Microsoft™ Windows® Solaris™ Red Hat® Linux
Supported Web Browsers	Firefox Internet Explorer versions 7, 8 and 9
Required Java Runtime Environment (JRE)	JRE version 6 and 7
Date	February 2015

Contents

Purpose of This Release	2
New Features and Enhancements	2
General Information	2
Security Scanners	3
Compatibility and Support	3
Resolved Issues	5
Known Issues	5
Documentation	7
Contacting Quantum	8

Purpose of This Release

The Scalar i6K i12.1 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:

- Addressed security vulnerabilities related to SSL (Heartbleed)
- IBM LTO-6 drives for data and control path failover support
- Tape auto-import and auto-export functionality
- New Web interface available (Firefox browser only). Please contact service for access and more details
- Web Services document available
- Increased performance by not honoring IES (initiate element status) calls regardless of auto inventory state

Note: Control Path and Data Path Failover compatibility with third party software vendors can be found by going to <http://www.quantum.com/swcompguide.aspx>. Select **Appliance and Integrated Compatibility** from the **Compatibility Guide** list and then check **Application Managed Failover** from the **Function** box.

General Information

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.

Security Scanners

Quantum runs the following Security scanners against the library:

- Tenable Nessus (live feed). The following critical issue is being reported against the server:
 - 11084 - Web Server HTTP Header Memory Exhaustion DoS against port 5988 (SMI-S)

The result of this scan however is:

Nessus was unable to crash the web server, so this might be a false positive.

- 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
RKM	Requires EKM License	Not Supported	Requires EKM License	Not Supported	Requires EKM License	Not Supported
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: i12.1
Library Firmware: 690Q.GS21201
Library Management Console (LMC) Remote Client: 690G.GH19500

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	J3RZ

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
42665		In advanced control path failover (ACPF) partitions with mixed HP LTO-6 and LTO-5 drives cannot use HP LTO5 in as a control path failover drive.	Fixed.
52189		Cannot create an Active Vault partition if you use up all available standard drives (Non EDLM) in a library.	Fixed.
52150		Upgrading firmware for IBM LTO-5 and LTO-6 FC drives leaves them in passive mode.	Fixed.
50293	1641606	A single tape drive only allows 64 host connections.	Fixed. A single tape drive now allows up to 256 host connections.
52142	3395344	The EKM Audit Report doesn't list the affected partition(s).	Fixed. The EKM Audit Report now identifies the affected partition(s).
52290		Update open source software openssl-1.01j to resolve security vulnerabilities.	Fixed.
52953	3477840	Libraries without any HP drives installed are unable to configure SKM server(s).	Fixed. Libraries can now configure SKM server(s) without HP drives installed.

Known Issues

This release of i6000 i12.1 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.

Change Request Number	Service Request Number	Description	Workaround
52884		Apache web servers running versions 1.2.2 and above, 1.3 through 1.3.24 and 2.0 through 2.0.36 may be affected by the chunk handling vulnerability.	Upgrade to Apache web server version 1.3.26 or 2.0.39 or newer.
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.
53265		After installing latest library firmware version, a diagnostic ticket may be generated during initialization indicating a communication error with the IEX.	This may be a false error. 1 Clear the diagnostic ticket. 2 Monitor library to see if another diagnostic ticket is generated.
50514, 50591	1647282, 1647440	MICD should actually only inform of multi-initiator conflicts, not just multi-initiator operation without reservations.	From the GUI, configure the library to enable diagnostic ticket filtering (Setup > Notifications > Tickets Filter).
53646	3456694	During an inventory, the scanner may have trouble reading the barcode label on a magazine at the top of a column.	1 Remove the top most magazine and then run a Teach Configuration . 2 Replace magazine.
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.
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: 1

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