



Product	Scalar i6
Firmware Version	277G.GS038
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About This Release

The Scalar i6 277G.GS038 release is a feature and maintenance release that details bug fixes described in the Resolved Issues section. Refer to Known Issues for additional information.

What's New in this Release?

This release supports the Scalar i6 library. Enhancements in this library include:

- Ransom Block (Airgap) support.
- LTO-7 drive firmware (N9M0)
- LTO-8 drive firmware (N9M0)

What is Ransom Block?

Quantum Scalar Ransom Block creates a physical barrier between data stored on tapes and the Scalar tape library. Tapes are stored in a partially ejected magazine. This ensures that the media in the magazine cannot be accessed by the library robot. Because the magazine is partially ejected, the library robot can still scan media barcodes and perform inventory operations.

To learn more about Ransom Block and related Scalar security features, go to https://www.quantum.com/en/products/tape-storage/security-framework/

Important Information - LTO-9 Media

- With the higher track densities of the LTO-9 media format, it is necessary to perform tape calibration on LTO-9 media when it is loaded into a drive for the first time. This tape calibration can take up to two hours on the first load. During this calibration period, host applications may timeout.
- Do Not use an uncalibrated LTO-9 tape as a scratch tape in a Quantum library Installation
 Verification Test (IVT). If you do, the test will immediately fail and the drive will continue to calibrate
 the tape until it is complete. You will then need to manually remove the (now calibrated) tape and rerun IVT.

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General Information

- After a library firmware upgrade, Quantum recommends that you clear your web browser cache before logging back into the WebGUI.
- If an iBlade is present, Scalar i6 systems with an Internet connection will automatically update and level the iBlade BaseOS FW during a library FW update.

If the Scalar i6 system does not have an Internet connection, you can still update your iBlade BaseOS FW as described on our Documentation Center:

- Go to www.quantum.com/documentation and select your product.
- Go to Operate > User Guide > About Devices > Devices BaseOS. To will see detailed steps on updating iBlade BaseOS FW
- Veeam Tape Server iBlades If Microsoft Hyper-V or any other hypervisor is installed on the Veeam Tape Server iBlade, the Virtual Machine (VM) Operating System (OS) will not be able to see the blade FC/SAS controller. This will cause the Scalar drives to no longer be visible to the VM OS.
- Bridging and teaming interfaces on the Veeam Tape Server iBlade is not supported and can cause network card issues.
- Some snapshots, logs or RAS tickets are as large as 12 MBs. If you have automated notifications
 configured for RAS tickets and logs you may not receive them if your email does not allow
 attachments of this size.
- To help maintain system integrity and for marketing purposes, Quantum regularly collects system
 information through automatic emails (ScalarTelemetrics). These emails contain configuration
 and status information only, and do not contain any customer data stored on the system. See
 WebGUI Default Settings for information on how to disable telemetrics.
- 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.
- Any application or browser connecting over https must support TLS v1.2.
- To help maintain system integrity and for marketing purposes, Quantum regularly collects system
 information through automatic emails and cloud based telemetric auto support. These emails and
 auto support telemetric data contain configuration and status information only, and do not contain
 any customer data stored on the system.

Email Support

To disable this function:

- 1. Log on to your library.
- 2. Select **Notifications** from the **Navigation** menu.

- 3. Select the check box next to scalartelemetrics@guantum.com in the **North Panel**.
- 4. From the **Operation** panel, select **Reports**.
- 5. Click the trash can icon next to **Scalar Telemetrics** report.
- 6. Click **Apply**, then **Close**.

Auto Support

To disable this function:

- 1. Log on to your library.
- 2. Select **Notifications** from the **Navigation** menu.
- 3. Select the check box next to *Auto Support* in the **North Panel**.
- 4. To disable RAS tickets, select RAS Tickets From the Operation panel.
- 5. De-select the Enable Auto Support Communication check box.
- 6. Click Apply, then Close.
- 7. From the **Operation** panel, select **Reports**.
- 8. Click the trash can icon next to **Scalar Telemetrics** report.
- 9. Click Apply, then Close.

WebGUI Default Settings

Scalar i6 software is installed with certain default settings. This section outlines those default settings. Review this section to determine if any of the default settings need to bechanged to make your library run more effectively.

WebGUI Path	Option	Default Setting
User Access > Settings	Local User Interface (LUI) Access	Open Access
	Admin/User Access: Session Timeout	15 minutes
	Services Access: Enable Remote Access	Disabled
	Enable Local Service Port Login: Access Window	Indefinite
Notifications > RAS Tickets	Enable RAS Tickets	Enabled
	Severity	All options Enabled

WebGUI Path	Option	Default Setting
Notifications > Reports	Scalar Telemetrics	Once you have an email server configured, telemetrics is enabled for monthly automatic emails. To disable, click the Trash icon.
Library > IE Area	I/E Slots	0 (zero)
Library > Settings	Operational Parameters: Automatic Inventory	Enabled
	Operational Parameters: LibraryAssisted Drive Unload	Disabled
	Operational Parameters: Logical Drive Serial Number Addressing	Enabled
	Operational Parameters: Logical System Addressing	Disabled
	IE Assignment Mode: Local UI Assignment	Enabled
System > Network	Connectivity / SSH	Disabled
System > Notifications	Email Reports / Auto Support	Enabled
System > Settings	Library-Initiated Website Access	Enabled

Security Scanners

Quantum tests with the following Security scanners against the library:

• Nessus Professional v. 8.10.1

Compatibility and Support

Encryption Key Management Drive Support

The following table provides the encryption key management drive support.

Encryption Option	IBM LTO-6 (FH)	IBM LTO-7 (FH)	IBM LTO-8 (FH)	IBM LTO-9 (FH)
Application Managed Encryption	Supported	Supported	Supported	Supported
SKM	Requires SKM License	Requires SKM License	Requires SKM License	Requires SKM License
KMIP Key Manager ¹	Requires EKM License	Requires EKM License	Requires EKM License	Requires EKM License
¹ Only SafeNet, IBM SKLM and Thales encryption key servers are supported KMIP configurations It is recommended that Safenet servers be updated to v8.6.0.				

Web Browser Support

The Scalar i6 WebGUI supports the following web browsers. Quantum recommends upgrading to the latest version of the browser.

Web Browser	Versions Supported
Internet Explorer	Not supported.
Google Chrome	Version 51 and above.
Mozilla Firefox	Version 55 and above.
Apple Safari	Recommend latest version.
Microsoft Edge	Recommend using Edge version 79 or greater, using the Chromium engine. This resolves issues of slowness found in the older versions of Edge.

Firmware Compatibility

For the most up-to-date information on the latest qualified library and drive firmware, please visit: https://www.quantum.com/serviceandsupport/softwareanddocumentationdownloads/si6/index.asp
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Drive Firmware

FC Full High (FH) Drive Types	Latest Firmware Version
IBM LTO-6 (FC) (FH) 8 Gb ¹	KAJ8
IBM LTO-6 (FC) (FH) 8 Gb (FIPS)	KAJ8
IBM LTO-7 (FC) (FH) 8 Gb ¹	N9M0
IBM LTO-7 (FC) (FH) 8 Gb (FIPS)	N9M0
IBM LTO-8 (FC) (FH) 8 Gb ¹	N9M0
IBM LTO-8 (FC) (FH) 8 Gb (FIPS)	N9M0
IBM LTO-9 (FC) (FH) 8 Gb ¹	N9B0
¹ Bundled with library firmware.	

SAS Full High (FH) Drive Types	Latest Firmware Version
IBM LTO-9 (SAS) (FH) 12 Gb ¹	N9B0
¹ Bundled with library firmware.	

iBlade BaseOS Versions for Library Code

The following table provides the iBlade BaseOS versions for the 277G.GS038 library code.

iBlade OS	Customer BaseOS Download From Web	iBlade SLFTS Application
Linux	1.3.0-6	2.10.0-40
Windows	1.3.0-4	N/A

Tape Drive Driver Versions

The following table provides the tape drive driver versions.

Drive Manufacturer	os	Approved Version	Comments
IBM	Linux	3.0.31	Includes APFO & LTO8
IBM	Windows	6.2.6.6	Includes APFO & LTO8
IBM	AIX	13.0.22.0	Includes APFO & LTO8

The latest tape driver versions are located at:

 $\frac{\text{https://www.quantum.com/serviceandsupport/softwareanddocumentationdownloads/si6/index.asp}}{x}$

Resolved Issues

This release of Scalar 277G.GS038 firmware resolved the following issues (bug fixes).

Change Request Number	Service Request Number	Description	Resolution
SQ-1143		Ransom Block (Airgap) feature available.	Enhancement.
SQ-1778			
SQ-2172	-	Updated LTO-8 and LTO-8 drive firmware (N9M0)	Enhancement.
SQ-2180	633258	Expansion Module (EM) information added to SCB RAS ticket (ET052).	Enhancement.
SQ-2235	620984	Plug-in missing X-Frame-Options and Content- Security-Policy headers in HTTP response header.	Fixed.
SQ-2268		Missing magazine RAS ticket (ET065) generated for sequestered magazine after library reboot.	Fixed.
WUI-1262		The WebGUI restricts modifying the number of slots in a partition if there are any airgap eligible magazines in the partitions.	Fixed.

Known Issues

This release of Scalar 277G.GS038 firmware has the following known issues:

Change Request Number	Description	Workaround
SQ-1193	Manual drive cleaning fails when I/E station is open and closed while cleaning is in process.	Close error and repeat manual drive cleaning.
SQ-1847	Library posts Power Supply Configuration/Installation RAS ticket (ET004) after a library firmware upgrade. The power supplies are powered on and no fault is indicated.	Disregard and close the RAS ticket.
SQ-1970	LTO-9 media initialization time.	When LTO-9 media is loaded into a drive for the first time, it may take up to two hours for the media to be initialized and calibrated. You should expect delays in media access and unload timing.
WUI-1211	The Insert button is active for an inserted magazine under Library > Devices > Actions in the WebGUI.	Disregard active Insert button. The magazine is already inserted.

Documentation

The following documents are currently available for the Scalar i6.

Document Number	Document Title
6-68529	Scalar i6 Documentation Center
6-68529	SNMP Reference Guide (in Documentation Center)
6-68529	SCSI Reference Guide (in Documentation Center)
6-68529	Web Services API Guide (in Documentation Center)
6-68529	muCommander - Quantum Edition User's Guide (in Documentation Center)
6-67320	Scalar i3 & i6 Open Source Software Licenses

Contacting Quantum

For further assistance, contact the Quantum Customer Support Center:

Region	Support Contact
North America	1-800-284-5101 (toll free)
	+1-720-249-5700
EMEA	+800-7826-8888 (toll free)
	+49 6131 324 185
Asia Pacific	+800-7826-8887 (toll free)
	+603-7953-3010
For worldwide support:	
https://www.quantum.com/service	andsupport/get-help/index.aspx#contact-support