



Release Notes

Product	Scalar i500® i3.1 (500G.GS004)
Web Browsers (Remote Web Client)	Microsoft® Internet Explorer 6.0 and later versions and Mozilla Firefox™ 1.0.6 and later versions
Date	August 2008

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Purpose

Scalar i500® i3.1 (500G.GS004) was released to fix a known issue with Advanced Reporting. The release notes are basically the same as for i3 (500G.GS002) with the additional fix to CR 19873.

These release notes describe new features and enhancements, as well as currently known issues and issues that were resolved for this release of the product. These notes also provide drive and auxiliary firmware compatibility information. Visit <http://www.quantum.com> for additional information about Scalar i500 and previous releases.

New Features and Enhancements

Scalar i500® i3.1 (500G.GS004) firmware includes the following new features and enhancements:

- **IPv6 Phase 2 Support** – The library now supports Internet Protocol Version 6 (IPv6) Phase 2. With this release, the library has successfully satisfied strong requirements stated by the IPv6 Logo Committee (v6LC), and it has received Department of Defense certification.
- **Encryption Key Management** – The library has improved encryption key management capabilities, including:
 - Diagnostics to ensure path between library and key server is maintained.
 - SSL secure ethernet communication between library and key manager.
- **Advanced Reporting** – The Advanced Reporting license provides Drive Resource Utilization and Media Integrity Analysis reporting capabilities. The reports can help you allocate your tape drive resources and determine where problems reside.
- **Operator Panel Signals Intervention Required** – The operator panel lights up following an import of tapes into the I/E station so that the operator sees the prompt to assign tapes to a partition.

Firmware Notes

The following are important items that you may notice that are not covered in the [Known Issues](#) section of this document.

- **Downgrading Library Firmware** – If a library is running firmware version 400G or higher, the following restrictions on downgrading apply:
 - **If your library is Quantum branded**, you can downgrade to firmware version 400G or higher. (There is no lower version of Quantum-branded firmware.)
 - **If your library is ADIC branded and has Fibre-Channel I/O blades installed**, you can downgrade to firmware version 400G or higher. You cannot downgrade to a lower version than 400G.
- **SAS Host Bus Adapter and Host Bus Adapter Drivers** – SAS host bus adapter and drivers (combined) must support SAS standard 1.1 or higher.
- **Library Service Utility** – You must run the Library Service Utility prior to upgrading firmware if you are currently running firmware version 320G.GS004 or 400G.GS006.
- **Firmware Update Tape Functionality** – This feature was removed in version SP4 in order to simplify the firmware update process and prevent errors. This includes creating and erasing firmware update tapes, and updating drive firmware via a firmware update tape.

- **SMI-S Disabled by Default** – With firmware version 500G.GS004, SMI-S no longer starts automatically, but is turned off by default. If you want to connect via SMI-S, you must enable SMI-S via the operator panel. If you are updating to 500G.GS004 remotely, you should schedule the update during a time when you have access to the operator panel if you want to start or continue using SMI-S.
- **SMI-S Standard 1.2** - With firmware 500G.GS004, the SMI-S standard moved to 1.2.
- **Logical Serial Number Addressing Enabled by Default** – As of firmware release 500G, logical serial number addressing is turned ON by default (in previous versions, it was turned OFF by default). If you have a previous version and upgrade to 500G or above, you will be unaffected *unless* you perform a reset to factory defaults after you upgrade. If you reset to factory defaults after upgrading, your host applications may fail to recognize the drives, as the serial numbers for the drives will change to logical serial numbers. To enable/disable logical serial number addressing, select **Tools > System Settings** on the operator panel. If you change the setting, you must shut down and power cycle the library for the changes to take effect.
- **Generating Kerberos Service Keytab File on a Windows 2008 server**—The *Scalar i500 User's Guide Addendum* contains incomplete instructions for generating Kerberos Service Keytab File on a Windows 2008 server. You need to do the following two things:
 - Install Microsoft hotfix 951191 on your Windows 2008 server (go to <http://support.microsoft.com/kb/951191>). Note: the hotfix will not install on Windows 2008 versions issued prior to retail (RTM).
 - Refer to the library's online help topic "Generating the Kerberos Service Keytab File" for correct instructions on generating the file.
- **Encrypting Tapes** – Do not change the encryption method on a tape once write operations have begun on that tape. The library applies encryption (or non-encryption) to a tape in its entirety. Whichever encryption method is used at the beginning of tape (BOT) will continue throughout the entire tape, regardless of whether you change the encryption method before that tape is filled. If you erase the tape, you can start over and apply or not apply encryption at BOT. For EKM best practices and guidelines, see the *Encryption Key Management Installation and User's Guide*.
- **Cleaning Cartridges** – When cleaning an LTO-4 tape drive, use a universal cleaning cartridge that does not have "L1" on the barcode label. If the barcode label contains "L1", the cleaning operation will be rejected.
- **Inventory Operations** – Do not perform user interface operations (for example, working with RAS tickets, creating/modifying/deleting partitions) while the library is performing an inventory.
- **Closing the Internet Browser** – Log out of the library before closing the Internet browser window when you are using the web client. If you do not log out, the session will remain open.

- **Internet Browser “Back” Button**— The Internet browser “back” buttons do not work on the library firmware. Instead, use the **Back** and **Cancel** buttons provided in the user interface.
- **Internet Explorer 7 Security Message**— Internet Explorer version 7 displays an informational message stating that the certificate issued by the library is not from a trusted source. This is normal behavior and does not affect library function. The library issues certificates based on local network data and is not a typical Web site that would be issued a certificate by a trusted source for public access via SSL. Accept the warning and continue.

Compatibility Matrix

The following table provides information about library and tape drive firmware compatibility with Scalar i500® i3.1 (500G.GS004). This information is current as of the publication date of these release notes.

Note: You must run the Library Service Utility prior to upgrading firmware if you are currently running firmware version 320G.GS004 or 400G.GS006.

Component	Firmware Version
Library Firmware	500G.GS004
Drive Types	
IBM LTO-2 (Fibre)	67U1
IBM LTO-2 (SCSI)	67U1
IBM LTO-3 (Fibre)	81W0
IBM LTO-3 (SCSI)	81W0
IBM LTO-4 (Fibre)	82FB*
IBM LTO-4 (SCSI)	82FB*
IBM LTO-4 (SAS)	82FB*
HP LTO-4 (Fibre)	H44Z
HP LTO-4 (SAS)	A44Z

* Due to security features, you cannot downgrade the IBM LTO-4 82FB brick code to previous code levels without following specific instructions. If you must downgrade, contact Technical Support for assistance.

Resolved Issues

This release of Scalar i500® i3.1 (500G.GS004) firmware resolved the following issues.

Change Request Number	Service Request Number	Description
16265 (70712)		<p>Issue: The Setup > Encryption > System Configuration screen requests you to enter either the IP address or the host name of the primary and secondary EKM servers. However, only the IP address is accepted.</p> <p>Resolution: The library now accepts DNS host names.</p>
16298		<p>Issue: Cannot use Mozilla Firefox to perform a library firmware upgrade after replacing the LCB compact flash.</p> <p>Resolution: Fixed.</p>
16385 (68185)		<p>Issue: Following a library firmware upgrade, the number of I/E slots previously assigned to an existing partition is incorrect.</p> <p>Resolution: Fixed.</p>
16394 (68012)		<p>Issue: Tape drive encryption settings are not cleared when a drive is removed from one partition and put into another.</p> <p>Resolution: Tape drive encryption settings return to default (application managed) when a drive is removed from a partition.</p>
16396 (68196)		<p>Issue: Following a library firmware upgrade, tapes placed in I/E slots show 83 06 status to Read Element Status, Auto Assign Mode.</p> <p>Resolution: Occurred as a result of 16385. Fixed.</p>
16419 (70330)		<p>Issue: Received RAS Ticket T026 - Key Server Failover when no failover occurred, in the following scenarios:</p> <ul style="list-style-type: none"> • The primary Q-EKM server was up and running. Added a secondary Q-EKM server to the EKM Configuration page (Setup > Encryption > Configuration). As soon as the secondary server was added, received the RAS ticket. • No secondary Q-EKM server was configured. Shut down the primary Q-EKM server. Received the RAS ticket. <p>Resolution: The incorrect ticket is no longer generated.</p>
16452 (70851)		<p>Issue: When primary Q-EKM server is unavailable and failover to the secondary Q-EKM server occurs, the correct RAS ticket T026 is generated, but the details contain the IP address of the secondary server instead of the primary server.</p> <p>Resolution: The primary IP address now appears in the ticket details.</p>

Change Request Number	Service Request Number	Description
16628 (60991)		<p>Issue: The system applies incorrectly entered LDAP settings (Setup > User Management > LDAP).</p> <p>Resolution: If you enter bad information and click Apply, you get a message that your LDAP settings failed to validate.</p>
16634 (67914)		<p>Issue: Firmware upgrades remove the SMI-S repository which causes loss of indication subscriptions.</p> <p>Resolution: SMI-S repositories are retained upon firmware upgrade.</p>
16826 (56535)		<p>Issue: If power to an expansion module is lost, drives located within that expansion module may not initialize when power is restored to the expansion module. The workaround was to power cycle the entire library.</p> <p>Resolution: This issue has been corrected.</p>
19046	SR 812178	<p>Issue: Password worked on the remote web client but did not work on the operator panel.</p> <p>Resolution: This has been fixed. If you have an older version of code and this occurs, call Quantum Technical Support for a password reset.</p>
19873	SR 217168	<p>Issue: In the Advanced Reporting Drive Resource Utilization Report, the report generated for data written/read does not contain the exact amount of data backup or restore taken.</p> <p>Resolution: This has been fixed in the i3.1 release.</p>

Known Issues

This release of Scalar i500® i3.1 (500G.GS004) firmware has the following known issues.

Change Request Number	Service Request Number	Description	Workaround
16492 (70735)		The Library Configuration Report (Reports > Library Configuration) identifies HP LTO-4 Fibre Channel and SAS drives as HP LTO-4 SCSI drives.	The Reports > Library Configuration screen lists the native device identifier as reported by the tape drive. HP tape drives always report SCSI as the native device identifier, even if they are Fibre Channel or SAS. This is not expected to change. All other pages list the drive interface from the barcode label, so they are listed correctly.
16528 (70789)		When upgrading a library that contains HP drives with tapes loaded in them, you may receive RAS ticket T022 (sled lost communication with drive). The LED of the drive sled containing the loaded HP drive is illuminated, and the library reports the drive is present, but the loaded HP drive is not available.	Prior to upgrading library firmware, make sure all your HP tape drives are unloaded.
18838	SR 800352, SR 804000	The screen saver may not come up on the library after a reboot following setting the date and time on the operator panel.	Power cycle the library.
18854	SR 800352	The library is unable to send e-mail to the SMTP server if the library's internal network matches SMTP server's network.	Manually change the internal network from the operator panel (Tools > Internal Network).
19702		Possible robot handling problems in 32U configurations with the control module on top.	This problem only occurs in 32U configurations with the control module on top. This is a rare library configuration; if your library has this configuration, contact Technical Support.
19763		When setting up the i500 to use Kerberos remote authentication an error is generated if you try to use the IPv6 address for the KDC (AD Server) field.	Instead of using the IPv6 address, use the fully qualified domain name (FQDN).

Change Request Number	Service Request Number	Description	Workaround
19774		7404 Fibre Channel blade Host Mapping/Management settings were not restored via the restore configuration feature (Tools > Save/Restore Configuration > Restore System Configuration).	Reconfigure host mapping and host management. See the User's Guide for details.
19804		FC I/O blade will not boot when downgrading firmware from version 500G.GS002 (i3) to 400G.GS010 (i2).	Do not downgrade firmware from version 500G.GS002 to 400G.GS010 if your library contains FC I/O blades.
19901		HP LTO-4 Fibre Channel tape drive lost communication during drive firmware upgrade from H37Z to H44Z through the FC I/O blade. The upgrade succeeded, but RAS ticket indicates that it failed.	The ticket incorrectly reports failure. Wait at least 3 minutes after the upgrade completes to allow the drive to activate the new firmware image and report the proper version to the main controller. Then check the firmware version of the tape drive via the library user interface to ensure that the firmware upgrade was successful. Close the ticket.

Firmware Versions

The table below lists firmware code for the last several releases.

Release	Scalar i500 Library Firmware	Board Support Package (BSP)	UDS Firmware	Fibre-Channel I/O Blade Firmware
i3.1	500G.GS004	6.53	591Q.GU004 app with 430A.GU001 boot	V05080201
i3	500G.GS002	6.52	590Q.GU001 app with 430A.GU001 boot	V05080201

Release	Scalar i500 Library Firmware	Board Support Package (BSP)	UDS Firmware	Fibre-Channel I/O Blade Firmware
SP4.2	420G.GS005	6.42	570Q.GU002 app with 430A.GU001 boot	V05071101
	420G.GS006	6.42	570Q.GU002 app with 430A.GU001 boot	V05071102
SP4	410G.GS007	6.39	550A.GU003 app with 430A.GU001 boot	V05070901
i2	400G.GS010	6.32	530A.GU004 app with 430A.GU001 boot	V05070504

Documentation

Documentation pertaining to this product is located at:

<http://www.quantum.com/ServiceandSupport/SoftwareandDocumentationDownloads/SI500/Index.aspx#Documentation>

To order a copy of the source code covered by the Open Source Licenses, contact the Quantum Technical Assistance Center. Refer to [Contacting Quantum](#) below.

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:

Global Call Handling 1-800-284-5101

For additional contact information: www.quantum.com/support

To open a Service Request: www.quantum.com/osr

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