Release Notes

Release	DXi 3.4.0.2 Software
Supported Product	DXi4700, DXi6900, DXi6900-S
Date	October 2017

Contents

Purpose of This Release

DXi 3.4.0.2 Software supports the DXi4700, DXi6900, and DXi6900-S disk backup systems and contains important enhancements (see).

What's New in DXi 3.4.0.2 Software

DXi 3.4.0.2 Software contains the following enhancements:

- Veeam integration.
- Dynamic Application Environment (DAE) support.
- Oracle Recovery Manager (RMAN) Oracle 12 support (Linux).
- Path to Tape (PTT) LTO-7 drive support.
- Virtual Tape Drive (VTD) count increase.
- Virtual Tape Library (VTL) slot increase.
- Replication encryption with Transport Layer Security (TLS).
- Samba 4.5.3
- Service ticket enhancements allows quick dispatch of drive FRU without customer logs.

Product Compatibility List

The following table provides information about hardware compatibility with DXi 3.4.0.2 Software.

Component	Description
DXi4700 - NAS	1 Node 1 or 2 RAID controller cards 0 to 3 Expansion modules (JBODs) 3 x 1 GbE ports (Optional) 2 x 10 GbE Ethernet ports or 2 x 10 GBase-T Ethernet ports. 5 TB–135 TB usable capacity
DXi4700 - VTL	1 Node 1 or 2 RAID controller cards 0 to 3 Expansion modules (JBODs) 3 x 1 GbE ports (Optional) 2 x 10 GbE Ethernet ports or 2 x 10 GBase-T Ethernet ports. 2 x 8Gb Fibre Channel ports (for VTL) 5 TB–135 TB usable capacity
DXi4700 - Multi-Protocol	1 Node 1 or 2 RAID controller cards 0 to 3 Expansion modules (JBODs) 3 x 1 GbE ports (Optional) 2 x 10 GbE Ethernet ports or 2 x 10 GBase-T Ethernet ports. 2 x 8Gb Fibre Channel ports (for VTL) 2 x 8Gb Fibre Channel ports (for PTT connections, also configurable for VTL) 5 TB–135 TB usable capacity

Component	Description
DXi6900-S	- 1 Node - 1 or 2 Array modules (RBODs) - 0 to 6 Expansion modules (EBODs) - 3 x 1 GbE Ethernet ports - Additional network adapter providing combinations of up to 6 x 10 GbE Ethernet ports, 6 x 10 GBase-T Ethernet ports, or 6 x 16 Gb Fibre Channel ports (for VTL or PTT) - 34 TB-544 TB usable capacity
DXi6900	- 1 Node - 1 or 2 Array modules (RBODs) - 0 to 13 Expansion modules (EBODs) - 3 x 1 GbE Ethernet ports - 2 x 10 GbE Ethernet ports (DXi6900 G1) - (Optional G1 configuration) Additional network adapter providing 2 x 10 GbE Ethernet ports, 4 x 1 GbE Ethernet ports, 6 x 8 Gb Fibre Channel ports, 4 x 16Gb Fibre Channel ports, or 2 x 10 GBase-T Ethernet ports. - (Optional G2 configuration) Additional network adapter providing combinations of up to 6 x 10 GbE Ethernet ports, 6 x 10 GBase-T Ethernet ports, or 6 x 16 Gb Fibre Channel ports (for VTL or PTT) - 2 x 10 Gb Ethernet ports - 6 x 16 Gb Fibre Channel ports (for VTL or PTT) - 17 TB-510 TB usable capacity

Supported Web Browsers

- Mozilla Firefox 36 or later.

- Google Chrome 40 or later.

- Microsoft Internet Explorer 11 and higher.

Additional Information

- For correct operation of the remote management console, disable any pop-up blockers and enable JavaScript in your Web browser.

- DXi Advanced Reporting requires installation of Adobe Flash Player plug-in 10.x or higher.

- DXi Advanced Reporting does not support the 64-bit version of the Flash Player plug-in on Linux. Instead, use the 32-bit Flash Player plug-in and a 32-bit browser.

- If you experience Web browser issues, update to the latest version of your web browser.

OST Plug-In Support

The Quantum OST plug-ins are based on Veritas OpenStorage API specification Version 9.4.2 and 11.1.

Required Components

- Veritas NetBackup 7.6.x or later or Backup Exec 2014 or later.
- If using the Veritas NetBackup 52xx Appliance platform, version 2.6.0.2 or later.
- Quantum OST Plug-in (downloaded separately through the remote management console or from the Quantum Service and Support Web site).
- Quantum OST storage server (included with the DXi software).

Supported Platforms and Software Versions

OST Plug-in support is available for the DXi4700, DXi6900, and DXi6900-S operating systems:

- Windows 32-bit
- Windows 64-bit
- RedHat Linux
- SUSE
- Solaris
- HP-UX
- AIX

OST Plug-in support is also available for the Veritas NetBackup 52xx/53xx Appliances.

The latest versions of all OST Plug-ins are available for download at:
http://www.quantum.com/serviceandsupport/softwareanddocumentationdownloads/ostclientplugin/index.aspx

For more information on OST Plug-in installation, see the *OST Plug-in Installation Instructions.*

RMAN Plug-In Support

The Quantum RMAN plug-ins are based on Oracle Recovery Manager (RMAN) API specification Version 2.1.

Required Components

- Oracle 11 or 12.
- Quantum RMAN Plug-in (downloaded separately through the remote management console or from the Quantum Service and Support Web site).

Supported Platforms and Software Versions

Oracle RMAN Plug-ins are available for the following operating systems:

Windows Support

- Windows 2012 64-bit (Oracle 11)
- Windows 2016 64-bit (Oracle 11)

Linux Support

The Quantum RMAN 1.1.0 plug-in contains support for the following Linux operating systems:

- RedHat Enterprise Linux 6 x86 64-bit
- RedHat Enterprise Linux 7 x86 64-bit
- SUSE Enterprise Linux 12 x86 64-bit
- Oracle Linux 6 x86 64-bit
- Oracle Linux 7 x86 64-bit

The latest versions of all RMAN Plug-ins are available for download at: http://www.quantum.com/serviceandsupport/softwareanddocumentationdownloads/ostclientplugin/index.aspx

For more information on RMAN Plug-in installation, see the *RMAN Plug-in Installation Instructions.*

Replication Compatibility

The following DXi software releases can replicate data to the DXi appliance. DXi software releases not shown in the list are not recommended.

		DXi 2.1.3	DXi 2.2.x	DXi 2.3.x	DXi 3.0.x	DXi 3.1.x	DXi 3.2.x	DXi 3.4.x
Replication Target	DXi 2.1.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	DXi 2.2.x	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	DXi 2.3.x	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	DXi 3.0.x	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	DXi 3.1.x	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	DXi 3.2.x	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: The default number of allowed DXi replication sources is 10. If you need to change these default settings, contact Quantum Customer Support.

Resolved Issues

The following issues were resolved in DXi 3.4.0.2 Software.

Bug Number	SR Number	Description
47869	374326	Internet Explorer 11 GUI issue resolved.

In addition to the resolved issue above, DXi 3.4.0.2 Software includes all the issues that were resolved in DXi 3.4.0.1 Software

Bug Number	SR Number	Description
30942	1620242 3441576	Blockpool Binary Large Object (BLOB) issue resolved.
47422	356823	Blockpool issue resolved.
47581	0360293	Internet Explorer hostname security settings fixed.
47596	356823	Safe replace used for cartridge metadata creates multiple Binary Large Objects (BLOBs).
47604	360205	Virtual Medium Changer (VMC) memory leak resolved.
47727	368750 366254	Share or Open Storage (OST) ingest fails when DXi is configured with Virtual LAN (VLAN).
47769	369868 368171	Yum upgrade polling updates.

In addition to the resolved issue above, DXi 3.4.0.2 Software includes all the issues that were resolved in DXi 3.4.0 Software.

Bug Number	SR Number	Description
31966	1480594 3656424	Blockpool performance enhancements.

Bug Number	SR Number	Description
32863	1490290	Virtual tape library (VTL) GUI enhancements.
	1638562	
	3674438	
35589	1584202	Simple Network Management Protocol (SNMP) traps for downed ports reset from Information to Warning.
	3604114	
37497	1578708	Enable/disable Secure Socket Layer (CLI) command added to the Command Line Interface (CLI).
	3300762	
40049	298187	Updates to the admin alert email monitor.
	298188	
	298208	
	298209	
	298224	
	298289	
	310327	
	310336	
	310357	
	310359	
	310398	
	310401	
	310438	
	310537	
	310542	
	310569	
	3373106	
41080	3522012	Clickjacking security enhancements.
	3629620	
41289	0338680	Missing and duplicate devices in path to tape (PTT) scan resolved.
	3643532	
41802	3648112	Blockpool segmentation issue fixed.

Bug Number	SR Number	Description
41811	1597098	Redirect DXi logging GUI enhancement.
	3491190	
42811	3534182	Virtual tape drive (VTD) write errors fixed.
	311986	
42856	3523852	License count issue fixed.
	3609844	
	3623954	
	3716388	
42978	3542674	Blockpool defragmentation issue.
43160	3550198	StorNext File System (SNFS) bulk create file issue.
43443	3577968	
	3580890	
	3609460	
	3658950	
	3656424	
	3652850	
	3661954	
	3663676	
	3678394	
	3674206	
	300810	
	302991	
	310205	
	310780	
	322984	
43471	3562796	Admin log now sorted in chronological order.
43927	3581658	(DXi4700) Blockpool metadata optimization.
44191	3598452	Binary Large Object (BLOB) budgeting for incoming replication.

Bug Number	SR Number	Description
44435	3658498	Segmentation fault during reboot resolved.
44622 44632	3610794	Virtual tape drive (VTD) check condition error path changed from 3/0/0 to 3/0C/0.
44666	3635214	Blockpool time expiration issue fixed.
44695	3657322 3657280 3653868 3659454	OpenStorage (OST) Automatic Image Replication (AIR) replication size mismatch fixed.
44703	3634744	Bandwidth Monitor NG (bwn-ng) added to operating system.
44706	3637548	Battery backup module (BBU) date reset fixed.
44713	3641542	DXi scripts now retry StorNext mount failures.
44726	3692958 0293565 322398	(DXi6900) Virtual tape library (VTL) load count increased to 256 for DXi6900 G1/G2 systems with 256 GB memory configuration.
44835	3640132 3650204	(DXi6900) NetApp-branded information not in RAID arrays log.
44877	3626270 295292	Cartridge based replication data issue fixed.
44973	3646274 299782 313129	Blockpool start delay resolved.
45011	3653516 3701282	Virtual tape library (VTL) default library type fixed.
45048	3653478 3664082 3664104	(DXi6900) Firmware upgrade issue fixed.
45119	3651930	Process monitor (procmon) does not monitor multiple filesystems.

Bug Number	SR Number	Description
45133	3659254	Online help does not denote decimal versus binary notational convention.
45181	3677964	Maximum inactivity timeout for remote management console increased to 600 minutes.
	3677966	
	3677968	
	3677956	
	3677958	
	3677962	
	3677970	
45188	3737886	Blockpool core dump fixed.
45260	3677508	System status issue cause Vision to display error.
	3643928	
45271	3673766	Blockpool memory leak fixed.
45309	3678478	Healthcheck and space reclamation unable to run.
45496	304273	OpenSSL security update.
45509	3730036	Disk capacity discrepancy fixed.
45515	3700756	(DXi6900) Virtual Tape Drives (VTDs) cause DXi system to go into diagnostic mode.
45536	3702920	Simple Network Management Protocol (SNMP) sends incorrect StorNext file system (SNFS) statistics.
45696	3714906	DXi system in diagnostic mode after software upgrade.
45714	3685788	Software upgrade DNS issue.
45722	3714906	Firmware upgrade issue fixed.
	3722014	
	3724956	
	3727596	
	297858	
	300122	
	300110	
	0320423	

Bug Number	SR Number	Description
45743	3716690	Network interface configuration (NIC) issue fixed.
45889	3729718	Kernal dump issue during software upgrade fixed.
45908	3730048	Mininet iptable security fixes missing after version upgrade.
45915	3714312	Timeout increased when chargeback report is generated in Advanced Reporting.
46012	3730036	Disk capacity discrepancy in Advanced Reporting fixed.
46114	293999	(DXi6900) OpenStorage (OST) configuration lost after firmware upgrade.
46188	293599	Virtual tape library (VTL) setting changes missing from administrative log.
46255	741714 326200 328548	Unaccounted diskspace consumed after media unpack.
46341	296598 309447 311986 303244 320515 324919 342173	StorNext file system (SNFS) I/O error resolved.
46389	338656	Service Menu serial number date check issue fixed.
46399	312494	`syscli --list adminlog --xml` command causes high memory usage.
46413	312494	Multiple concurrent administrative log downloads.
46432	310897	Collect log updates.
46602	311503 304272 3042734	Secure socket layer (SSL) cipher security updates.

Bug Number	SR Number	Description
46604	311503	Secure shell (SSH) security updates.
	304274	
46681	288221	Enhancements made to hard idisk drive (HDD) failure service tickets.
	322040	
	168386	
	99794	
	167409	
	324094	
	222987	
	316439	
	302320	
	299295	
	326036	
	180911	
	77831	
	244654	
	207983	
	215183	
	193270	
	240470	
	122409	
	143715	
	161344	
	236632	
	155745	
46765	330161	syscli replicate command no longer supports the `--barcode` and `--path` parameters.
46989	333476	Binary Large Object (BLOB) timeout issue resolved.
47027	337066	Firmware upgrade issue resolved.

Known Issues

DXi 3.4.0.2 Software has the following known issues:

- Replication Known Issues
- Network Known Issues
- CLI Known Issues
- GUI Known Issues
- VTL Known Issues
- NAS Known Issues
- RMAN Known Issues
- Veeam Known Issues
- Installation and Upgrade Known Issues
- Miscellaneous Known Issues
- DXi Advanced Reporting Known Issues

Note: The Scheduler command line interface (CLI) commands are deprecated in DXi 3.4.0.2 Software. These commands continue to function in DXi 3.4.0.2 Software but will be removed in a future software release. To schedule events, use the **Configuration > Scheduler** page in the remote management console instead.

Replication Known Issues

Bug Number	SR Number	Description	Workaround
31605		On the **Home** page and the **Status > Disk Usage** page, the value for **Data Size After Reduction** is larger than the value for **Data Size Before Reduction**.	This issue can occur when replication is enabled for a share or partition, but replication is rarely or never run. In this case, continuously replicated data accumulates on the target system, but this data is not included in the value for **Data Size Before Reduction** until a replication job is performed and a snapshot is saved. To correct the issue, manually initiate replication of the share or partition on the **Replication > Send** page, and allow the replication to complete. To avoid this issue in the future, schedule replication for the share or partition on the **Configuration > Scheduler** page. Alternately, you can enable Directory/File or Cartridge Based replication for the share or partition.
36811		Some chargeback reporting statistics are not maintained for failback operations.	The Input Bytes for the failback operation can be viewed on the source for the failback operation. On the **Replication > Send** page, hold the cursor over the job status and note the value displayed for **Original Data Size**. **Note:** After the failback operation is complete, chargeback reporting on the target for the failback operation will accurately report the User Data Size of the data replicated.

Bug Number	SR Number	Description	Workaround
37000		If replication is disabled and the re-enabled for a share or partition on the **Replication > Send** page, previously configured Directory/File or Cartridge Based Replication settings are lost.	This is expected behavior. When replication is disabled, all replication settings for the share or partition are cleared. To re-configure the share or partition for Directory/File or Cartridge Based replication, select it and click **Configure**. ⓘ **Note:** You can disable or enable replication for all shares or partitions on the **Replication > Actions** page. This method preserves replication settings for all shares or partitions.

Network Known Issues

Bug Number	SR Number	Description	Workaround
34125		On the **Configuration > System > Network** page, editing the **IP Address**, **Netmask**, and **Gateway** for a network interface results in the following error: **Destination Gateway: <ip_address> is not reachable by any of the current configured IP addresses.**	Delete the existing network interface and add a new interface with the desired **IP Address**, **Netmask**, and **Gateway**.

CLI Known Issues

Bug Number	SR Number	Description	Workaround
35104		When using the **--edit emailrecipient** CLI command, the same e-mail address can be assigned to multiple recipients.	Use the **Configuration > Notifications > Email > Recipients** page in the remote management console to edit e-mail recipients.

GUI Known Issues

Bug Number	SR Number	Description	Workaround
30999		When creating or editing an event on the **Configuration > Scheduler** page, all times are relative to the workstation from which the GUI is accessed, rather than the DXi.	If the DXi is in a different time zone than the workstation used to access the GUI, make sure to account for the time zone differences when scheduling events.
35426		On the **Configuration > OST > Storage Servers** page, if there are multiple pages of storage servers, the **Delete** button is unavailable (gray) if all storage servers on a page are selected even if all the storage servers meet the deletion criteria (no backup images or active connections).	This occurs if a storage server on another page does not meet the deletion criteria. De-select at least one storage server on the displayed page, and the **Delete** button will be available.
32609		On the **Configuration > Scheduler > Calendar** page, after you add or edit an event and specify recurrence **until** a date, if you hover the cursor over the event, the **UNTIL** date does not display in human readable format.	Open the event by double-clicking it to view the **UNTIL** date.
32659		If you reboot or shut down the DXi using the **Utilities > Reboot & Shutdown** page and leave the web browser window open, after the DXi comes up again, refreshing the open web page causes the reboot or shut down command to be sent to the DXi again.	After you reboot or shut down the DXi using the **Utilities > Reboot & Shutdown** page, make sure to close the browser window. In general, you should not refresh the web browser (unless instructed to do so) or copy and paste URLs between tabs.

Bug Number	SR Number	Description	Workaround
36888		On the **Configuration > OST > Accent** page, after uploading certificate and key files and clicking **Apply**, a dialog box appears, but the message is truncated.	The complete dialog message is: TLS credential files were successfully installed. The system is rebooting to complete the installation. Please wait before logging in again.
36926		When adding a scheduled event on the **Scheduler** page, the message Saving, please wait displays, the but the save action does not complete, and the schedule is not set.	Refresh the browser window, and add the scheduled event again.
39135		If a very long security notice is specified on the **Configuration > System > Security > Security Notice** page, the end of the message may be truncated in the **Security Notice** dialog box that displays after logging on.	Specify a shorter message on the **Configuration > System > Security > Security Notic**e page.
39824		On the **Status > Hardware > Details > Storage Arrays** page, an **Attention** link displays next to **Controllers** and **Volumes**, but clicking the link displays an empty list of non-normal controllers or volumes.	Even though the **Attention** link displays, drives that are rebuilding are considered normal by the system. Click the **Controllers** or **Volumes** link to see a list of all drives.
41378		In a Google Chrome browser, DXi Remote Management help files may not appear when **Help** is selected.	In Chrome, select **Settings > Show Advanced Setting > Privacy > Content Settings > Pop-ups > Manage Exception**s. Add the DXi IP address to the exceptions box, select **Allow**, and click **Done**.
42779		The **PTT** page allows any number concurrent PTT backup jobs to be configured. When more concurrent backup jobs are started than the PTT license allows (3), the additional jobs fail.	Do not configure more than 3 concurrent PTT backup jobs.

Bug Number	SR Number	Description	Workaround
47518		The **Advanced Reporting** GUI does not contain the latest version of the online help.	The latest Advanced Reporting documentation is available at www.quantum.com/advancedreportingdocs/
47869		The following message displays when attempting to access the GUI using Internet Explorer 11: `Content from the website listed below is being blocked by the Internet Explorer Enhanced Security Configuration.`	In Internet Explorer 11, add the website to the Trusted Sites list. Navigate to **Tools > Internet Options > Security > Trusted sites**. Click on the **Sites** button and add the website to the list.

VTL Known Issues

Bug Number	SR Number	Description	Workaround
41109		Intermittent backup failures occur with the IBM LTO-5 tape drive emulation selected.	Force disable append only mode in NetBackup: **Unix** Use the following touch file to disable append mode: `/usr/openv/netbackup/db/config/DISABLE_APPEND_MODE` **Windows** Use the following touch file to disable append mode: `%install_path%\Veritas\Netbackup\db\config\DISABLE_APPEND_MODE`

NAS Known Issues

Bug Number	SR Number	Description	Workaround
27908	1387940 1408612 1465392 1493203	Files copied to exported NFS and CIFS shares do not retain their original creation time.	To determine the creation time, examine the original file rather than the copy on the share.
37651		If a workgroup user is deleted using the **syscli --del user** command while a CIFS share is mounted, a user with the same username cannot be later added.	Use a different username when adding a workgroup user. To avoid this issue, make sure to unmount any CIFS shares before deleting the associated workgroup users.

RMAN Known Issues

Bug Number	SR Number	Description	Workaround
45854		Incorrect pop-up failure message appears when attempting to configure an RMAN share replication to a target that does not support RMAN shares. Depending on the target configuration, the following error messages appear: "Source and Target Share Type's are not matching. Source share type is cifs and Target share type is nfs" "Source and Target Share Type's are not matching. Source share type is cifs and Target share type is cifs"	If this error message appears, you are attempting to replicate to a target that does not support RMAN shares. Replicate to a target that supports RMAN shares.

Veeam Known Issues

Bug Number	SR Number	Description	Workaround
47806		Veeam cannot be enabled if a "veeam" account is defined on a connected or disconnected windows workgroup.	Delete the "veeam" account from the windows workgroup.

Installation and Upgrade Known Issues

Bug Number	SR Number	Description	Workaround
36686		If the **Software Upgrade Utility** dialog box is open, and the session logs out due to inactivity, the **Login** window does not automatically display, and the **Software Upgrade Utility** remains open. Clicking the **Check Now** button results displays the following error: **PollUpgradeJob not authenticated**.	Close the **Software Upgrade Utility**, log back on to the system, and then access the **Software Upgrade Utility**. Clicking **Check Now** will now work as expected.

Miscellaneous Known Issues

Bug Number	SR Number	Description	Workaround
26610	1349564	Spectra Logic T120 and greater libraries cannot be discovered on the **Configuration > PTT > Physical Device Discovery** page.	Before attempting to discover the Spectra Logic, place the library into STK L700 emulation mode. Data partitions must be individually configured to use the Sun/StorageTek L700 emulation mode. Only data partitions configured to use the STK L700 emulation mode are recognized by the DXi.

DXi Advanced Reporting Known Issues

Bug Number	SR Number	Description	Workaround
30001		Exporting a graph to a JPEG or PNG graphic image in Internet Explorer 9 version 9.0.0.8112.16241 causes the browser to stop responding.	Using a newer version of Internet Explorer 9 or another supported browser.
35537		**Used Disk Space** may appear as unknown or NaN (not a number) if the selected time range begins before the installation date of the DXi.	Select a time range that begins after the installation of the DXi.
36969		After the time zone is changed on the DXi, DXi Advanced Reporting does not log Ethernet or Fibre Channel I/O activity. This issue only occurs if the new time zone is west of the previous time zone. ⓘ **Note:** This also affects ingest statistics displayed on the Home page in the remote management console	Ethernet and Fibre Channel I/O logging will resume after a number of hours equal to the difference in time zones. For example, if the new time zone is 8 hours west of the old time zone, logging will resume in 8 hours.
37013		The **Replication Ingest > Total per Replication** report displays a blank screen.	When no replication ingest has occurred on the DXi, the database will be empty; therefore, the **Replication Ingest > Total per Replication report** will display a blank screen. This is normal behavior.
39487		On the **Replication Ingest** report, data for small replication jobs is not graphed accurately, especially when longer time ranges are selected.	See the exported CSV file **(Reports > Replication Ingest > Export Replication Chargeback**) for the correct data.

Documentation

The following documents are currently available for the DXi system:

Document Number	Document Title
6-67960	DXi4700 Site Planning Guide
6-67967	DXi4700 User Essentials
6-68106	DXi4700 User's Guide
6-67961	DXi4700 Installation and Configuration Guide
6-68107	DXi4700 Capacity Upgrade Guide
6-68305	DXi4700 Optional NIC Instructions
6-68285	DXi4700 Software Installation and Upgrade Guide
6-68161	DXi6900 Site Planning Guide
6-68165	DXi6900 User Essentials
6-68448	DXi6900 Installation Guide ℹ **Note:** Additional installation instructions are provided in a release note addendum.
6-68446	DXi6900 User's Guide
6-68446	DXi6900 Optional NIC Instructions
6-68446	DXi6900 Software Installation and Upgrade Guide
6-67079	DXi-Series NetBackup and Backup Exec OST Configuration Guide
6-67081	DXi-Series Command Line Interface (CLI) Guide
6-67211	DXi-Series Backup Application Specific Path to Tape (PTT) Configuration Guide
6-67082	DXi-Series SNMP Reference Guide
6-67353	DXi Advanced Reporting User's Guide

For the most up-to-date documentation for the DXi-Series, go to:
http://www.quantum.com/ServiceandSupport/Index.aspx

Supported Backup Applications

The following backup applications are supported for use with DXi 3.4.0.2 Software:

Backup Application	Revision
Veritas NetBackup	7.6.x and later
Veritas Backup Exec	2014 and later
CommVault Simpana	9 and later
Quantum vmPRO	3.2 and later
Veeam Backup & Replication	6.5 and later
EMC NetWorker	7.6.5 and later
IBM Tivoli Storage Manager	6.3.3 and later
HP Data Protector	7.1 and later
CA ARCserve	16.5 and later
Dell NetVault	9.0.x and later
Microsoft Data Protection Manager	2010 and later
Oracle Secure Backup	10.2 and later
ASG-Time Navigator	4.2 and later
Syncsort Backup Express	3.1.x and later

Note: Contact the backup application vendor for the latest software revision information.

DXi Additional Notes

For additional information about DXi 3.4.0.2 Software, refer to the following sections.

- Email Reports
- System Metadata
- Date & Time Configuration
- Network Hostname Restrictions
- Internet Explorer Security Level
- Changing the Number of Allowed Sources
- Quantum Vision
- StorageCare Guardian
- Running Healthchecks

Email Reports

Quantum recommends enabling **Email Reports** after upgrading to DXi 3.4.0.2 Software (if not already enabled). When enabled, **Email Reports** periodically sends system configuration and status information to Quantum, including any software upgrades you have installed using the new **Software Upgrade Utility**. Quantum Support can use this information to provide a better support experience in the future.

To configure **Email Reports**:

1. Make sure a valid outgoing e-mail server is specified on the **Configuration > Notifications > Email > Server** page.

2. (Optional) Specify any additional recipients to receive the reports on the **Configuration > Notifications > Email > Email Reports > Recipients** page.

3. Make sure a weekly **Email Reports** schedule is configured on the **Configuration > Scheduler** page. Configure two weekly recurring events: one for **Status** reports and one for **Configuration** reports.

System Metadata

The **System Metadata** statistic appears in two locations in the DXi remote management console:

- On the **Home** page, under **Disk Usage > Show More**.
- On the **Status > Disk Usage** page, under **Used**.

The **System Metadata** statistic represents all internal usage of disk space on the DXi . This statistic is calculated using the following formula:

> **System Metadata = [File System Used Space] - [Reclaimable Space] -**
> **[Blockpool Reduced Data Size] - [Non-Deduplicated Data Size]**

The following values are used in this formula:

- **File System Used Space** - All space used by all parts of the system. This includes temporary files (such as those used by replication, space reclamation, and healthchecks), as well as cached files that have not yet been truncated.

- **Reclaimable Space** - The disk space that can be used for new deduplicated data. The DXi will automatically compact reclaimable space to create more free space as needed.

- **Blockpool Reduced Data Size** - The amount of deduplicated data in the blockpool that has non-zero reference counts (that is, data that is not a candidate for space reclamation). During space reclamation, this value will decrease as reference counts are decremented.

- **Non-Deduplicated Data Size** - The size of data stored on shares that do not have data deduplication enabled. This value increases or decreases as data is added to or removed from these shares.

Because **System Metadata** is affected by many values and represents the internal operations of the system, you might not always be able to easily correlate changes in this statistic to your typical usage patterns.

Date & Time Configuration

The date and time settings are configured using either the **Getting Started Wizard** at installation or the **Configuration > System > Date & Time** page in the remote management console.

Although you may specify the date and time manually for your system, we highly recommend that you configure your system to use NTP (Network Time Protocol) to maintain accurate date and time settings.

If you have configured at least one DNS (Domain Name Server) IP address during network configuration, then you should select one of the Timeserver Pools. The Timeserver Pool most appropriate for your system will depend upon your geographical location. For example, if you are located in the United States we recommend you select **us.pool.ntp.org**.

If you have not configured your system to utilize at least one DNS IP address, then you cannot use a timeserver pool and must specify an NTP timeserver IP address, directly. The **Date & Time** page will provide a recommended default timeserver address of **208.66.174.71**; however, it is possible that the default timeserver may occasionally fail to respond to an NTP query. In this case you may receive an error message attempting to apply NTP settings using the default timeserver address. If you experience an issue with the default timeserver, we recommend that you try an alternate timeserver address (such as **192.43.244.18**) or select another timeserver address from the NTP support Web site at:
http://support.ntp.org

Network Hostname Restrictions

The network hostname must not exceed 64 characters.

Internet Explorer Security Level

The remote management console has been designed to function with Internet Explorer's default security level. If you happen to experience problems logging into the remote management console, then you can view/set your browser's security level by clicking on Internet Explorer's **Tools** menu, selecting the **Internet Options** menu item, and clicking on the **Security** tab in the new window that opens.

Changing the Number of Allowed Sources

The default number of allowed DXi replication sources is 10. If you need to change these default settings, contact Quantum Customer Support.

Quantum Vision

You must update to the latest version of Quantum Vision (4.3.3 or later) to operate with DXi 3.4.0.2 Software.

StorageCare Guardian

You must update to the latest version of StorageCare Guardian (2.0.7 or later) to operate with DXi 3.4.0.2 Software.

StorageCare Guardian - DXi4700

- The Diagnostic Collect and Storage Collect capture log features will not work for DXi 3.x software without first applying the appropriate patch. Contact Quantum Customer Support and reference TSB 00002843.

- The Diagnostic Collect and Storage Collect captures will not work with a DXi4700 running DXi 3.2 software. This is a known issue being worked by Quantum Engineering.

StorageCare Guardian - DXi6900

- To configure your DXi6900 into Guardian, contact Quantum Customer Support to install TSB 00002845.

- The Diagnostic Collect and Storage Collect capture log features will not work for DXi 3.x software without first applying the appropriate patch. Contact Quantum Customer Support and reference TSB 00002845.

- Starting with the DXi 3.2 firmware, you will need to enable the CLI Administrator user and set the password to cliadmin. This will allow Guardian to capture the Diagnostic Collect and Storage Collect log logs.

Running Healthchecks

Quantum recommends running the **Healthcheck** utility (**Utilities > Diagnostics > Healthchecks**) daily to ensure data integrity.

DXi Advanced Reporting Additional Notes

For additional information about DXi Advanced Reporting, refer to the following sections.

- [Logging On to Advanced Reporting](#)
- [Decrease in Before Reduction Data](#)

Logging On to DXi Advanced Reporting

If you cannot access the DXi Advanced Reporting Login window, launch a supported Web browser on a workstation that has network access to the DXi system for which you want to view reports, and in the browser address box, type **http://<IP_address>/reports/index.html** where <IP_address> is the IP address of the system, and then press **Enter**.

Decrease in Before Reduction Data

Backup expiration by your backup application causes the Before Reduction data to decrease immediately in graphs like Data Volume Overview. In earlier versions of the software, backup expiration was not reflected in Before Reduction data until space reclamation was run. The effect of this change is an immediate drop in Before Reduction data any time you expire backups.

Contacting Quantum

More information about this product is available on the Service and Support website at http://www.quantum.com/serviceandsupport/get-help/index.aspx. 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 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:

http://www.quantum.com/serviceandsupport/get-help/index.aspx#contact-support