Release Notes

Product	DXi 2.1.2 Software for DXi-Series (DXi8500, DXi6500 Family, DXi6700 Family, and DXi4000 Family)
Supported Browsers (Remote Management Console)	Microsoft Internet Explorer 7.x or higher, Mozilla Firefox 7.x or higher
Date	June 2012

Contents

Purpose of This Release

DXi 2.1.2 Software provides the following enhancements:

- **Support for DXi8500 with 3TB Drives** - New DXi8500 configurations including Array and Expansion modules with 3TB drives are now available. The new configurations offer increased storage density, providing up to 330TB usable capacity in a single rack enclosure.

- **Data-at-Rest Encryption** - Data-at-Rest Encryption secures all data stored on the DXi8500, including file data and metadata, configuration files, and the DXi software and operating system. Data-at-Rest Encryption ensures that a hard drive that is physically removed from the DXi cannot be read using another system or device.

  > **Note:** To enable Data-at-Rest Encryption, the feature must be licensed, and all of the drive controllers and hard drives (active and hot spares) in the DXi must support Self Encrypting Drive (SED) technology.

- **Metadata Upgrade Kit** - A metadata upgrade is available for DXi8500 2TB base systems running DXi 2.1.2 Software. The upgrade kit includes three additional hard drives, as well as software, that increase the metadata storage capacity of the system.

  The metadata upgrade kit is designed to support specific, rare usage scenarios. A system that may require additional metadata space can be identified by the following:

  - A RAS ticket stating that the metadata filesystem space exceeds 85%.

  - Messages in the hourly **cvlog** statistics that indicate all metadata stripe groups are becoming full.

  - Using the **cvadmin show** command to identify that all metadata stripe groups are becoming full. (Total metadata free space is more important that individual stripe groups running out of space.)

- **DXi Advanced Reporting** - The latest version of DXi Advanced Reporting (version 2.0.3) is included with DXi 2.1.2 Software. There is no need to install or update DXi Advanced Reporting after upgrading to DXi 2.1.2 Software.

- **Maintenance Release** - DXi 2.1.2 software is a maintenance release that provides bug fixes. For more information, see

Hardware Compatibility List

The following table provides information about hardware compatibility with DXi 2.1.2 Software. This information is current as of the publication date of these release notes.

Component	Description
DXi4500 - 4510	• 1 system • 1 RAID controller card • 4 x 1GbE ports • 2.2 TB usable capacity
DXi4500 - 4520	• 1 system • 1 RAID controller card • 4 x 1GbE ports • 4.4 TB usable capacity
DXi4000 - 4601	• 1 system • 1 RAID controller card • 4 x 1GbE ports • 4–12 TB nominal capacity (3.87–11.61 TB usable capacity)
DXi6500 - 6510	• 1 base node • 1 RAID controller card • 2 x 1GbE ports • 8 TB usable capacity
DXi6500 - 6520	• 1 base node • 2 RAID controller cards • 0 to 3 expansion modules (JBODs) • 6 x 1GbE ports • 8 TB to 32 TB usable capacity
DXi6500 - 6530	• 1 base node • 4 RAID controller cards • 2 to 9 expansion modules (JBODs) • 6 x 1GbE ports • 24 TB to 80 TB usable capacity
DXi6500 - 6540	• 1 base node • 4 RAID controller cards • 2 to 9 expansion modules (JBODs) • 6 x 1GbE ports • 2 x 8Gb Fibre Channel ports (for OST path to tape only, not ingest) • 24 TB to 80 TB usable capacity

Component	Description
DXi6500 - 6550	• 1 base node • 4 RAID controller cards • 2 to 9 expansion modules (JBODs) • 2 x 10GbE ports plus 2 x 1GbE ports • 2 x 8Gb Fibre Channel ports (for OST path to tape only, not ingest) • 24 TB to 80 TB usable capacity
DXi6700 - 6700	• 1 base node • 4 RAID controller cards • 2 to 6 expansion modules (JBODs) • 2 x 1GbE Ethernet ports • 4 x 8Gb Fibre Channel ports (VTL, PTT) • 24 TB to 56 TB usable capacity
DXi6700 - 6701	• 1 base node • 2 or 4 RAID controller cards • 0 to 9 expansion modules (JBODs) • 6 x 1GbE Ethernet ports • 4 x 8Gb Fibre Channel ports (VTL, PTT) • 8 TB to 80 TB usable capacity
DXi6700 - 6702	• 1 base node • 2 or 4 RAID controller cards • 0 to 9 expansion modules (JBODs) • 2 x 1GbE Ethernet ports • 2 x 10GbE Ethernet ports • 4 x 8Gb Fibre Channel ports (VTL, PTT) • 8 TB to 80 TB usable capacity
DXi8500	• 1 System Node • 1 to 2 Metadata modules • 2 to 10 Array modules • 0 to 10 Expansion modules • 1 Fibre Channel switch (1TB and 2TB systems only) • 1 Ethernet switch • 1 redundant power system (RPS) for the Ethernet switch • 20TB to 330TB usable capacity

OST Plug-In Support

The following components are required for OST (OpenStorage) operation with the DXi-Series:

- Symantec Veritas NetBackup 6.5.2 or higher, and Backup Exec 2010 or higher (both available from Symantec).

- Quantum OST storage server (included with the Quantum DXi-Series software).

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

You must use the correct versions of all of these OST components. Refer to Table 1, Table 2, and Table 3 for version compatibility information regarding the DXi-Series OST components. The tables include compatibility information for Windows, Linux, and Solaris operating systems. This information is current as of the publication date of these release notes.

For further information concerning the OST plug-in, see the *Quantum DXi-Series NetBackup OST Configuration Guide* or the *Quantum DXi-Series Backup Exec OST Configuration Guide*, located on the documentation CD.

Table 1 Backup Exec 2010 (or later) Plug-in Compatibility List

Platform	Plug-in Version	DXi Software Version
Windows 2003/2008 32-bit	2.5.2	2.1.2
Windows 2003/2008 64-bit	2.5.2	2.1.2

Table 2 NetBackup 6.5.2 (or later) Plug-in Compatibility List

Platform	Plug-in Version	DXi Software Version
RedHat Linux x86 32-bit	2.5.2	2.1.2
RedHat Linux x86 64-bit*	2.5.2	2.1.2
SUSE Linux x86 32-bit	2.5.2	2.1.2
Solaris 10 and Solaris 11 x86 64-bit	2.5.2	2.1.2
Solaris 10 and Solaris 11 SPARC 32-bit	2.5.2	2.1.2
Solaris 10 and Solaris 11 SPARC 64-bit*	2.5.2	2.1.2
HP-UX 11i v3 IA-64	2.5.2	2.1.2
Windows 2003/2008 32-bit	2.5.2	2.1.2
Windows 2003/2008 64-bit	2.5.2	2.1.2

Platform	Plug-in Version	DXi Software Version

* RedHat Linux x86 64-bit and Solaris SPARC 64-bit are supported, but you must use the 32-bit OST Plug-in on these platforms.

Table 3 NetBackup 7.x (or later) Plug-in Compatibility List

Platform	Plug-in Version	DXi Software Version
RedHat Linux x86 64-bit	2.5.2	2.1.2
SUSE Linux x86 64-bit	2.5.2	2.1.2
Solaris 10 and Solaris 11 x86 64-bit	2.5.2	2.1.2
Solaris 10 and Solaris 11 SPARC 64-bit	2.5.2	2.1.2
HP-UX 11i v3 IA-64	2.5.2	2.1.2
Windows 2003/2008 32-bit	2.5.2	2.1.2
Windows 2003/2008 64-bit	2.5.2	2.1.2

* NetBackup 7.1.0.3 or later requires Quantum OST Plug-in 2.5.2 or later.

Replication Compatibility

The following DXi-Series systems are capable of sending replicated data to or receiving replicated data from a DXi running DXi 2.1.2 Software:

- DXi8500
    - Software Version: **1.4.x_85, 2.1, 2.1.1, 2.1.2**
- DXi7500 Express and DXi7500 Enterprise
    - Software Versions: **1.2, 1.2.x, 1.4, 1.4.x, 1.5**
- DXi6701 and DXi6702
    - Software Version: **2.0.1.1, 2.1.1, 2.1.2**
- DXi6700 (VTL Replication only for 1.4.x)
    - Software Version: **1.4.x, 2.0.1.1, 2.1.1, 2.1.2**
- DXi6500 Family (DXi6510, DXi6520, DXi6530, DXi6540, DXi6550) (NAS Replication Only)
    - Software Versions: **1.3_65, 1.3.x_65, 1.4, 1.4.x, 2.0, 2.0.0.x, 2.0.1.1, 2.1.1, 2.1.2**
- DXi4000 Family (DXi4510, DXi4520, DXi4601) (NAS Replication Only)

- Software Version: **1.3.1_45, 1.4.x, 2.0, 2.0.0.x, 2.0.1.1, 2.0.2_46, 2.0.2.1_46, 2.1.1, 2.1.2**

- DXi2500-D (NAS Replication Only)

  - Software Version: **1.4.x, 1.5**

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

Note: If data is replicated from a DXi running DXi 2.x Software to another DXi running 2.x, that data cannot be failed back to a DXi running system software 1.x. Perform a failback to a DXi running DXi 2.x Software.

Resolved Issues

The following issues are resolved in DXi 2.1.2 Software.

Bug Number	SR Number	Description
21593	1346114, 1330470, 1381850	Synchronizing a share configured for replication causes incorrect disk usage statistics.
22059	1237860	Provide the IPMI card time in the collect log to help determine time drift on IPMI card.
22877	1346114, 1330470, 1381850	Failed synchronization of a share configured for replication causes incorrect disk usage statistics.
24043	1384514, 1366376, 1386686, 1389940	Using Symantec NetBackup to delete an OST image that does not exist results in the wrong error code (STS_EINTERNAL).
24173	1378346, 1380220	An assertion error occurs during shutdown.
24718	1361032, 1407268, 1399616	Space reclamation incorrectly invokes replication file change event processing.
25811	1308558	Use the correct API calls instead of the CLI to perform OST optimized duplication.
26232	1379696, 1387016, 1387806, 1395866	A kernel panic occurs when a Fibre Channel cable is unplugged during system use.
26270	1344668, 1346114, 1387718	Less than 100% of the directories in **/snfs** consume 100% of the file system metadata.
26301	1344668	Orphaned deduplication tags and directories are not cleaned up.
26334	1344444	Link to wrong version of MegaCLI SAS RAID Management Tool causes a kernel panic.
26353	1372042, 1378564	Cold booting an unresponsive host causes all inquiry commands to fail and every LUN (VTD) to be LUN reset.
26489	1350900	All OST images for an LSU are kept in a single directory.
26576	1372508	File system metadata space must be monitored and handled as part of low space handling.

Bug Number	SR Number	Description
26589	1349928	The **tftp** service, used to exchange switch configurations, is open to external connection requests.
26797	1353316, 1341974, 1341980, 1397022, 1398772, 1405312, 1418110	Backups fail with multiple HP-UX hosts connected to VTLs.
26800	1357704	A service ticket occurs stating that **hwmond** has crashed.
27068	1359406	The system locks up during VTL configuration.
27347	1330470, 1353336, 1346114	A utility is needed to correct blockpool wrapper statistics after they become erroneous
27374	1363292	The **/var/log/DXi/RADIminicollect.log** file does not roll once it has reached a certain size.
27375 27969	1367940	Need to use recommended SNFS settings for io-scheduler.
27427	1370592. 1383172, 1379886	Poor CIFS performance is improved by browsing the file system.
27441	1345840, 1377204, 1419370	A kernel panic (**ql24tgt** driver) occurs during heavy VTL ingest.
27462	1367940, 1380906	The **CMD** file is read after it is written by a flush.
27525	1389642, 1389640, 1403546	Hardware conversion followed by a software upgrade from 2.0.1.2 to 2.1.1 causes the system to fail the upgrade and enter a busy state.
27671	1391306, 1394644, 1394964, 1387628	Bonding the 10GbE ports after hardware conversion makes the DXi unreachable.
27736	1407268, 1399616	Possible data loss due to **AttrBall messageQueue** merging a file rename event with another events.
27746	1379200	The remote management console incorrectly reports the status of Blockpool verify.

Bug Number	SR Number	Description
27780	1378922	On DXi6500 and DXi6700, when upgrading from 1.4.x to 2.1.1, the upgrade process does not complete. The following error is logged to the console and the **/var/log/DXi/upgrade1to2.log** file: ERROR 1 in upgrade1to2(1787): UpgradeQbfs failed! Also, an error displays in the upgrade GUI, or the progress bar in the upgrade GUI stops progressing.
27808	1383058, 1388404	The **netcfg.sh** service script deletes the IP address of the host from **/etc/hosts** file when modifying it.
27832	1380906	Extra blobs are stored and received when writing into a VTD.
27855	1380906	VTDs flush includes a 0.4 second sleep.
27949	1378564	After a drive failure and replacement, errors in **hwmon** occur and fail to clear.
27998	1391178	Symantec NetBackup image cleanup jobs fail (due to incorrect reference count).
28004	1382294	Ethernet switch events are not in sync with DXi time.
280009	1382294, 1383130, 1408074	Fibre Channel connection failure causes system to go down.
28012	1364090	A historic version of the **bpwd_tags.log** file is not kept after the log is rolled.
28029	1392206, 1399478	Network segmentation does not display correctly after configuring it in the remote management console.
28120	1392322	Unable to convert from DXi6701-2R (2RxJ-1G4FC) to DXi6702-2R (2RxJ-10G4FC).
28240	1387100, 1394598	The *DXi-Series Software Installation and Upgrade Guide* needs information about setting the Source IP address for replication.
28300	1394644	Unable to access the remote management console after converting a DXi6540 to a DXi6550 and setting the network to segmented mode.
28322	1394644, 1391964, 1398276, 1398280, 1401140, 1403896, 1402902, 1403024	The **confignetdef.sh** script (used by Save-To-Ship and hardware conversion, or executed directly at shell prompt) creates incomplete contents in the **/etc/modprobe.conf** file, causing networking failures.
28470	1402142	DXi6700 conversion does not apply new blockpool settings.
28492	1397358, 1397028, 1398194	Some arrays do not appear in **arraycache** due to MediaScan not being enabled on the arrays.
28523	1405138, 1405180	Hitachi drive replacement failure due to the drive not reporting expected firmware version.

Bug Number	SR Number	Description
28726	1399616, 1407268	Directory creation during space reclamation and replication (**AttrBall**) scan triggers the scan to restart.
28788	1403578	**MegaSAS.log** resides in root file system directory.
28874	1234654, 1273150, 1284126, 1289840, 1302774, 1299696, 1299496, 1307164, 1306838, 1320552, 1352656, 1354900, 1369318, 1368026, 1371640, 1344762, 1369344, 1355632, 1374864, 1373706, 1378620, 1386032, 1381278, 1390472, 1394612, 1341964, 1343360, 1347708	Update blockpool settings to reduce cluster allocation time.
29076	1410236	Schedule should serialize start and end actions of a specific event type.
29077	1410236	Wait for a scheduled event start or end action process to initiate before processing the next action
29135	1408754	The **locate** and **updatedb** commands are enabled to run daily and includes SNFS file systems,
29239	1415856, 1407140	System disk failures occur and DXi will not boot up.

Known Issues

DXi 2.1.2 Software has the following known issues:

Replication Known Issues

Bug Number	SR Number	Description	Workaround
7269		Replicating a filename which begins with & in a directory caused all of the files in the entire directory to replicate to the target.	Do NOT use the & character in a filename.
7915		Aborting a synchronization job when a namespace and synchronize are queued up aborts only the synchronization and leaves the namespace replication in a queued state.	Manually abort the namespace replication.
11683		If the same user exists on both source and target systems, the user should be prompted to overwrite permissions on the target system before synchronization or Directory/File Based replication occurs.	Set the same permissions on both source and target for the same user.
13617		If the replication target is changed while a namespace replication on a NAS share or VTL is in progress (such as due to a power outage), the replication may become stuck or stay queued up.	Cancel the queued job and restart the replication or wait until the next scheduled replication to take effect.

Bug Number	SR Number	Description	Workaround
13692		No Service alert is logged for failback jobs when the failure is due to a power outage.	Re-initiate the failback after system resumes operation.
14974	1132956	A Target system will fail a failback operation if the replication target IP (source role) is not configured.	Use an IP address on the Target system to specify the network address of the Source system.
18326		If Directory/File Based Replication is enabled for a share and then disabled at a later time, a replication report will not show any of the replication activity that occurred during the time that Directory/File Based Replication was enabled.	Re-enable Directory/File Based Replication for the share, then run the replication report again to see the historical replication activity.
18787		A manual or scheduled replication initiated immediately after changing the replication target may fail.	Perform the replication again.
18845		An error occurs if the same DXi is configured to be a source as well as the target for replication.	Do not include the configured target DXi in the list of source DXis.
20351		If data is replicated from a DXi running DXi 2.x Software to another DXi running 2.x, that data cannot be failed back to a DXi running system software 1.x.	Perform a failback to a DXi running DXi 2.x Software.
20674		An error is returned when attempting to delete a replication source if the source was added with an invalid (cannot be resolved) host name.	Pause replication before deleting a source with an invalid host name.
21612		When recovering or failing back an NFS share, the value of the **Commit** attribute (**sync** or **async**) is not preserved.	Manually reset the **Commit** attribute for the share after it is recovered on the target, or fail back the share to the source.
24005		A missing file error occurs during replication or space reclamation. This can occur if files were deleted while replication or space reclamation was in progress.	Retry the replication or space reclamation. To avoid this issue, do not delete files while performing replication or space reclamation.
24277		If several synchronization jobs are queued, and then while the first job is in progress the other jobs are canceled, the DXi will begin synchronizing the canceled jobs after finishing the first job in the queue.	Cancel the synchronization jobs again.

Bug Number	SR Number	Description	Workaround
23228		When attempting to recover or synchronize a VTL partition, a capacity mismatch error occurs if the target DXi does not support the library emulation and drive type used by the original partition.	When creating the source partition, make sure to use a library emulation and drive type supported by the target.
24731		If the configured replication target does not support VTL, enabling replication at the time of partition creation results in an error, and the partition is not created. If you then attempt to create the same partition again, with the same name and replication enabled, the DXi will become unresponsive and must be rebooted.	If the configured replication target does not support VTL, do not enable replication at the time of partition creation.
24896		An NFS share can perform Directory/File Based (trigger based) synchronization to a CIFS share with the same Sync ID. This should not be allowed due to the protocol mismatch.	When configuring source and target shares for Directory/File Based (trigger based) replication, make sure both the source and target shares use the same protocol (NFS or CIFS).
26167		When performing a failback from a DXi running 2.1 or 2.1.x software to a DXi running software version 2.0.x or earlier, the failback fails if a valid source IP address has not been specified on the DXi running 2.1 or 2.1.x software.	On the DXi running 2.1 or 2.1.x software, specify a valid **Source IP Address** on the **Configuration > Replication > Send** page.
28885		A RAS ticket occurs stating that the DXi cannot connect to the blockpool on the replication target.	Manually pause replication to prevent failed replication jobs. Verify that the replication configuration is correct (IP traffic type, source IP, target IP, and network connection). After verifying the replication configuration is correct, restart replication.

Space Reclamation Known Issues

Bug Number	SR Number	Description	Workaround
20826		After upgrading the system software, the **Space Reclaimed** statistics are incorrect on the **Space Reclamation > General** page.	The statistics will be correct after space reclamation is run.
27205 29423		Space reclamation remains at Stage 2 and does not complete even after a long period of time elapses.	Space reclamation cannot complete while directories are continually being renamed on NAS shares or while VTL cartridges are continually being mounted and unmounted. Suspend directory rename and mount/unmount activities until space reclamation completes.

Network Known Issues

Bug Number	SR Number	Description	Workaround
8628		A replication IP address should not be required to configure the network if the user does not use replication.	Enter a "dummy" IP address. This will be fixed in a future revision.
20448		If a **Domain Suffix Search List** has not been specified on the **Network** page, and the DXi is added to an Active Directory server, the DXi is added to the domain with the suffix **localdomain**. After this, the DXi cannot be managed using Active Directory.	Specify the correct domain suffix in the **Domain Suffix Search List** before adding the DXi to an Active Directory server. (If adding multiple entries to the list, make sure the correct path is first in the list.)
20572		When using Active Directory, the DXi is not automatically added to the DNS server in the parent domain after the DXi is added to a child domain.	Cross domain joining is not supported by Samba. Instead, manually add a DNS entry to the DNS server.
20574		Unable to manage DXi Local Users and Groups from the Active Directory controller after the DXi is added to a child domain.	Log off of the Active Directory controller, then log back on. Users and groups will be listed correctly.
21603		If the DXi is assigned an IP address in the 10.17.21.0 to 10.17.21.24 range, a network connection to the DXi cannot be established.	The IP addresses in this range are reserved. Configure the DXi using a different IP address.

Bug Number	SR Number	Description	Workaround
23808		A CIFS share cannot be mapped when using Windows 2008 R2 SP1 with the **RequireSecuritySignature** registry key set to **1**.	Edit the Windows 2008 registry and set the following key to **0**: `HKEY_LOCAL_MACHINE\SYSTEM\Curren tControlSet\Services\LanmanWorks tation\Parameters\RequireSecurit ySignature`
28985	107852	The DXi starts in diagnostic mode due to a DataParth startup error. This error occurs because a reserved network port is incorrectly controlled by another process.	Reboot the DXi.

CLI Known Issues

Bug Number	SR Number	Description	Workaround
13604		Enabling jumbo frames disrupts active network configurations.	Don't change the setting if I/O is running.
14032		By default the "syscli --getstatus jumbo" command displays only bonded network devices' jumbo frame status. If some network devices are not bonded (segmented) the "syscli –getstatus jumbo" will not display jumbo frame status for those devices when using the command without any option specified. **Note:** The **--getstatus jumbo command** has been deprecated.	To display all the network devices' jumbo frame status, use the "--all' option in the command (i.e. syscli –getstatus jumbo --all"). To display a single network device jumbo frame status, specify the network device using the "--dev" option in the command. For example, "syscli –getstatus **jumbo** --dev eth0" command displays ETH0 device jumbo status.
27534		When adding or deleting a replication throttle schedule using the CLI, various INFO and ERROR messages may display before the command completes successfully.	If the message `Command completed successfully` displays, then the throttle schedule was correctly added or deleted, and the INFO and ERROR messages can be ignored.
28058		The **syscli** does not appear to include commands to get SAS host bust adapter (HBA) status on DXi8500 3TB systems.	The following commands for Fibre Channel HBA status return information for SAS HBAs on DXi8500 3TB systems: **--getstatus fcadapter** **--getstatus fcadapterdetails**
29474		Data-at-Rest Encryption cannot be enabled using the **syscli --enable hdsecurity** command.	Use the **Configuration > System > Security > Data-at-Rest** page in the remote management console to enable Data-at-Rest Encryption.

GUI Known Issues

Bug Number	SR Number	Description	Workaround
7874		**Alert > Service Tickets > View Recommended Actions** - Quantum Support link hyperlink missing.	Manually copy and paste the hyperlink into your browser to access the Quantum Support web page.
7935		When selecting all share administrators including default domain administrator for deleting, the GUI should display an error indicating that it can not delete the default domain administrator.	The default domain administrator can NOT be deleted.
11790 11792 11954		Usernames beginning with "#" or "$" characters, or OST LSU names beginning with the "_" character are not displayed correctly.	Do not use these characters to begin usernames or OST LSU names
15310		When the system is running a backup and a partition is created with > than 5000 cartridges, the GUI displays: PLEASE WAIT... The system is either busy with a previous request or in the process of restarting the web-based interface.	This is normal operation. Wait until the GUI becomes responsive. Do NOT reboot the system.
20673		On the **Email Home > On Demand** page, after viewing and saving a configuration data report, the **OK** button is disabled.	Refresh the Web browser to return enable the **OK** button.
21019		Immediately after a fresh software install, the disk capacity statistics displayed in the remote management console are incorrect.	Wait a few minutes for the disk capacity statistics to be updated.
22417		When adding an SNMP community, the following error displays: The IP Address/Network Mask pair does not imply a valid network address. This error occurs even though the pair is in fact valid.	Leave the **Network Mask** field blank when creating the community.
23165		When deleting host access groups on the **Host Mapping** page, the job status indicator does not complete.	The host access groups were successfully deleted. To clear the job status indicator, navigate to another page in the remote management console, then navigate back.

Bug Number	SR Number	Description	Workaround
24567		In the **OST Wizard**, on **Step 3: Add LSUs**, if you sort the list of LSUs by name, and then select one or more LSUs, the **Delete** button remains disabled.	Click **Previous** to return to the previous step, then click **Next** to return to Step 3. Select the LSUs to delete, and click **Delete**.
24644		On the **Utilities > Diagnostics > System Diag File** page, after clicking **Generate New** to create a new system diagnostics file, the message No file has been generated appears, and the **Download Current** button remains disabled.	Check the **Admin Alerts** page to see if an admin alert was generated. If the **/scratch** file system is out of space, the system cannot create a new diagnostics file, and an admin alert is generated.
26174		On the **Configuration > VTL > Media > Actions**, when **Show All Media** is selected in the **Action** drop-down box, an **Unresponsive Script** error dialog box may display if there is a very large number of media.	Keep clicking **Continue** on the error dialog box until the media displays. To avoid this error, view media for a particular partition, or apply a barcode filter.
26245		On the **Configuration > Scheduler** page, the horizontal scroll bar does not allow you to scroll to the right to see the entire view.	Navigate to a different page in the remote management console, and then navigate back to the **Scheduler** page.
26021		Web browser save password features (and similar third party browser add-ons) are not able to store and recall the DXi password when logging on.	To maintain proper security, enter the password manually each time you log on to the DXi.
26767		Using the **Scheduler** page or the CLI, if a replication throttle event is deleted after it has started but before it has ended, then replication throttling mode will continue and will not stop.	To manually stop a replication throttle event, use the following CLI command: `syscli --del throttle --service REP` Alternately, on the **Scheduler** page, create a new event with a start time just after the current system time, a new throttle bandwidth, and a 15 minute duration. The old throttling bandwidth is replaced with the new throttling bandwidth. When the end of the new event is reached, throttling is stopped.
27206		When generating a storage array diagnostics file, the operation does not appear to complete even after a long period of time elapses.	Press **F5** to refresh the page. Or navigate to another page, and then navigate back to the **Utilities > Diagnostics > Storage Array Diag File** page.

Bug Number	SR Number	Description	Workaround
27343		On the **Configuration > Scheduler** page, if you attempt to edit an instance of a recurring event that has already started, the edit dialog box is grayed out as expected. However, if you then try to edit a future instance, the edit dialog box incorrectly remains grayed out.	Press **F5** to refresh the page.
27346		On the **Configuration > Scheduler** page, attempting to modify a future instance of a recurring event that uses the **until** option to define its end may fail with the error `Invalid entry, please check all values and try again.` **Note:** This issue occurs only if the recurring event was created on a DXi8500 running 2.1, and the DXi was subsequently upgraded to 2.1.1.	To resolve the issue, do one of the following: • Edit the entire recurring series rather than a single event. After saving the changes to the series, you should then be able to edit a single instance. • Delete the recurring series, and then add it again.
28189		After clicking **Update** on the **Status > Hardware > Firmware Version** page, the system appears busy and does not appear to complete the operation.	Updating the **Firmware Version** page takes some time. Wait for the operation to complete.
28361		Generating a Storage Array Diagnostics File takes a long time to complete, but there is no warning about this on the **Utilities > Storage Array Diag File** page.	This is expected behavior. Generating a Storage Array Diagnostics File can require 60 minutes or more depending on the system configuration. Wait for the operation to complete.
29729		On the **Configuration > System > Security > Data-at-Rest** page, if an incorrect premium feature key (PFK) file is uploaded using Internet Explorer, an error message is not returned. Instead, a message displays stating the PFK file was successfully uploaded.	Use Firefox to upload a PFK file on the **Data-at-Rest** page.

Bug Number	SR Number	Description	Workaround
29730		On the **Configuration > System > Security > Data-at-Rest** page, when uploading a premium feature key (PFK) file is uploaded using Internet Explorer, the border around the file name turns red.	The red border does not indicate an error. However, you should use Firefox to upload a PFK file on the **Data-at-Rest** page (see bug 29729 above).
29741		On the **Configuration > System > Security > Data-at-Rest** page, attempting to upload a premium feature key (PFK) file results in the error: Event you were trying to undefined does not exits. Also, the system does not respond when attempting to download a recovery file.	This occurs because the current login session timed out. Log out of the remote management console, then log back and retry the actions.

VTL Known Issues

Bug Number	SR Number	Description	Workaround
21688		The following error occurs when editing a partition to reduce the number of storage slots: Error: setting number of slots: 150. Error:-1	To remove slots, the slots at the end of the range of slots must be empty. Export cartridges from the highest numbered slots, and then edit the partition again.
22019		Media can be recycled (erased) on the Media Actions page even if it is write protected (WP).	The WP status is respected by the host but not the DXi. Do not recycle media that has data.
27751		The DXi6700 and DXi8500 online help and *User's Guides* incorrectly state that an underscore (_) must not be used in the name of a VTL partition.	Underscores (_) are allowed in the names of VTL partitions.

OST Known Issues

Bug Number	SR Number	Description	Workaround
10041	1423609 1066048 1236048	Subsequent Optimized Duplication jobs may fail or become stuck when running jobs are canceled or stopped.	Restart the NetBackup services.
13795	1913763	Unable to delete undiscovered OST devices from Backup Exec 2010.	Reestablish connection from the Backup Exec OST device and the DXi system. The connection can be reestablished by re-starting Backup Exec services or rebooting the DXi system. Once the connection is established, the device will be discovered, and the you will be able to delete it. Alternately, upgrade to Backup Exec 2010 R2, which contains a fix for this bug.
15286		New OpenStorage Devices added to Backup Exec 2010 initially show as "Undiscovered".	Press Refresh in the Backup Exec View pull-down menu until the device show as discovered.
15322		Optimized Duplication Succeeds, but the following error is shown: V-79-8192-4881 - The count of Files and Directories processed is not available for this operation. The File and Directory count might be displayed as zero.	This is expected behavior. You are able to restore using the duplicated image with no issues.
20587		On a NetBackup media server, temporary files created during backups are not removed.	This issue is resolved. To remove any temporary files that were created by previous versions, delete all files in the /**tmp/dm/shadow** directory on the NetBackup media server.
21267		A storage server cannot be deleted even when it contains no LSUs and there are no active connections.	Disregard the empty storage server. Note that you cannot use the same name for the storage server, and that the empty storage server counts toward the 100 storage servers limit.
23109		(DXi6700 only) There is a small chance of observing a discrepancy in the aggregate statistics for DXi Accent and the statistics for individual media servers.	Navigate to another page in the remote management console, then navigate back.

Bug Number	SR Number	Description	Workaround

23253		If a storage server is configured to use multiple LSUs, and if LSU spanning is configured, when one LSU gets full and NetBackup is handling a disk full condition, the following errors are logged in OST Plug-in log:
		
		`ERROR    - 20110526 14:53:50 11818 /pgnimage.cpp:2500 Write to image failed.  dm_error: -812, STS Error: 2060031`
		
		`ERROR    - 20110526 14:53:50 11818 /pgnimage.cpp:2584 EXIT pgn_write_image: (out of space:2060031) ih=0x13c1ed00, bytesWritten=0`
		
		OR
		
		`ERROR    - 20110414 23:27:36 20648 /pgnbfst.cpp:1153 Received error(2060031) from server, OST_RESERVE_LSUSPACE for 262144 bytes failed`
			If the NetBackup spanning worked as expected, and if the job completed successfully, these errors may be ignored.

24628 26580		When DXi Accent is enabled, a maximum number of jobs (backups, restores, and/or optimized duplications) can be run against the DXi. The maximum is 10 total jobs for DXi4500 and DXi6510 and 20 total jobs for all other DXi models.
		
		When the limit is reached, the following error is logged to the OST Plug-in log:
		
		`VServer "hybrid-dedupe-no-encrypt" limit reached (limit 20).`
		
		Also, the following error is logged in the NetBackup progress log:
		
		`Critical bpdm (pid=12515) image open failed: error 2060020: storage server connection limit exceeded`
			If the connection limit is reached on the DXi, the OST Plug-in retries for 300 seconds by default. If the connection cannot be established within 300 seconds, the connection times out and an error is returned.
			
			The default connection timeout is 300 seconds. The timeout value can be increased using the following setting in **/usr/Quantum/QuantumPlugin.conf**.
			
			DATA_CONNECTION_BUSY_TIMEOUT

Bug Number	SR Number	Description	Workaround

26627		When attempting to perform an optimized synthetic full backup using NetBackup running on a Windows-based media server, a normal synthetic full backup occurs instead. During a normal synthetic full backup, all data is read back to the media server, resulting in a longer backup window.
		
		Note: This issue usually occurs with existing storage servers and disk pools.
			Make sure the storage server and disk pools are correctly configured for optimized synthetic full backups. To do this, run the following commands on the media server:
			
			`nbdevconfig -changests -stype Quantum -storage_server <ss_name> -setattribute`
			
			`nbdevconfig -changedp -stype Quantum -dp <dp_name> -setattribute OptimizedImage`
			
			To verify the configuration, run the following commands and make sure they return the flag **OptimizedImage**:
			
			`nbdevquery -liststs -U`
			
			`nbdevquery -listdp -U`
			
			For more information, see the following Symantec online support article: http://www.symantec.com/business/support/index?page=content&id=TECH77767

26147		When using OST with a media server configured with RedHat Linux and a Chelsio 10GbE card, restore operations take significantly longer to complete than backup operations.	Use the **perftune.sh** and **ifup-local** scripts (provided by Chelsio) to correctly set kernel parameters on the media server. To do this, you must copy the **perftune.sh** and **ifup-local** scripts to **/sbin** on the media server. For more information, refer to the Chelsio driver installation instructions (in the **ReadMe** file included with the driver).
29687		An OST optimized duplication job fails when running concurrent OST optimized duplication jobs and no replication target is specified. This occurs only when performing optimized duplication from 2.x to 2.x systems.	Specify a valid replication target on the **Configuration > Replication > Send** page.

Installation and
Upgrade Known Issues

Bug Number	SR Number	Description	Workaround
13711		If a power cycle occurs while uploading the software image, the system displays only an "Activation Error Occurred!" message.	Do not power cycle in middle of an upgrade. Begin the upgrade again.
13366		The system goes into diagnostic mode if a SAS cable is pulled during storage expansion upgrade.	Don't pull cables during storage capacity upgrade.
15362		During installation, warnings appear that the **Inode Expand Min**, **Inode Expand Max**, and **Inode Expand Inc** configuration variables are deprecated.	These warnings do not affect installation and can be ignored.
21270		When upgrading to DXi 2.0 Software, the 1.4.x diagnostic files are deleted.	Before upgrading to 2.0, save copies of the 1.4.x collect logs to a location that is not on the DXi.
24366	1293264	(DXi4500 only) When upgrading to 2.x Software, the following service ticket is generated: `fs 'vol0':FSS on host 127.0.0.1 not currently accessible`	This is expected behavior during a successful upgrade. You may safely close the service ticket.
24372		After upgrading from 1.4.x to 2.0.x, the following error appears in the **upgrade1to2.out** log. `*** Speedy VMC_MEDIA_TYPE_GENERIC table upload` `*** Error of appending row 9` `Loarel: (903) duplicate value for primary or unique key` `Loarel: system error: 0` `Loarel: (903) duplicate value for primary or unique key in adding row number 1`	You may safely disregard this error. The upgrade completed successfully.

Bug Number	SR Number	Description	Workaround
26455	1329228	A custom setting for MI thread count in the **/etc/init.d/ost** file is lost when upgrading and is reset to the default value (20 threads).	Prior to upgrading, note the value for MI threads in the **/etc/init.d/ost** file, and then reset the value following the upgrade. **Note:** In general, in DXi 2.1.x Software, it is no longer necessary to alter the MI thread setting to optimize performance.
28245		After upgrading a source DXi to 2.1.x Software, replication to the configured target DXi no longer works.	To avoid this issue, upgrade the target DXi to 2.1.x Software prior to upgrading the source DXi to 2.1.x Software. To correct this issue if it occurs, specify a valid **Source IP Address** on the **Configuration > Replication > Send** page. For more information, see the *DXi-Series Software Installation and Upgrade Guide* (6-67321-03).

Miscellaneous Known Issues

Bug Number	SR Number	Description	Workaround
12454		If a single file is replicated using the Command Line Interface (CLI), the ACL for that file will be lost.	Use Synchronize option from the GUI. See the *DXi-Series User's Guide* for further information.
12523		Occasionally, the NTP server cannot be contacted, resulting in the following admin alert: WARNING: Unable to access NTP server/pool.	Check the NTP settings on the **Configuration > System > Date & Time** page and change if necessary. Before a valid NTP Server can be configured by hostname or selected from an **NTP Server Pool** on the **Configuration > System > Date & Time** page, a Primary DNS server must be configured on the **Configuration > System > Network** page. When updating the NTP settings through the **Getting Started Wizard**, configure the Primary DNS Server in the **Network** step prior to configuring the NTP server in the **Date & Time** step.

Bug Number	SR Number	Description	Workaround
13621		NTP server error and Admin Alert are produced after changing from NTP 24-hr to 12-hr NTP format.	Verify time format has changed. If the time format has changed, ignore the alert.
15848		Backups jobs running to a DXi6550 with the optical option via a Dell 8024f switch may not complete or will complete with very slow performance.	Change the Dell 8024f settings from **RSTP** to **Classic STP**. Refer to the Dell switch documentation for more information.
17553		Long backups on a NetBackup client running on Windows 2003 can fail due to insufficient system resources.	Edit the registry settings on the client as described in the following Microsoft knowledge base article: http://support.microsoft.com/kb/304101/en-us
18370 19091 27478		Errors are received after a DSET log is generated on the **Utilities > DSET** page. After retrieving a DSET log, the system status can also briefly show the system board as "failed".	You may ignore these error messages, and download the DSET log as usual.
19332		NFS recovery jobs performed with a supported backup application fail to complete.	Make sure the backup client system has a minimum of 8 GB of RAM.
19935		Attempting to delete a share while performing I/O on the share (for example, copying files to the share) results in an error. After this error occurs, the share cannot be deleted, and replication cannot be performed to the share.	Wait for I/O on a share to complete prior to deleting a share.
19936		A file/directory path with more than 244 characters cannot be accessed on a mapped NAS share.	Limit file/directory paths on a mapped NAS share to 244 characters or less.
20336		When FC port 9 is pulled or down, a correct RAS ticket is generated, but Admin Alerts incorrectly reports that the wrong HBA FC port numbers (FC0, FC1, FC2, FC3, FC4, and FC5) are down.	Although the FC port numbering is incorrect, the Admin Alert is a valid alert indicating that a customer-facing FC link is down. This alert will be fixed in a future release.
20707		If one of the processes in the DataPath cores, this can cause other processes in the DataPath to core as well. Process cores will results in RAS alerts. DataPath consists of the following processes: bpwd, bpwapid, qfsd, ost, ndmp, nas_control, nfslock, smb, nfs	If a core occurs, only the first core requires investigation, as it is the root cause. The subsequent cores are expected and can be disregarded.

Bug Number	SR Number	Description	Workaround
21407		Empty files and directories can still be created on NFS shares when the DXi is in a low space condition.	Do not attempt to write files and directories to NFS shares on the DXi when it is in a low space condition. Run space reclamation to free up disk space before writing additional files.
23218		When mounting NFS shares on Solaris clients using the noac option, performance is degraded.	Do not use the noac option when mounting shares, or use a non-Solaris client.
23372		After a reboot, the DXi comes up in diagnostic mode, and attempting to retrieve a collect log does not proceed past the step **Collecting -FC scst-**.	Reboot the DXi again using the remote management console or the CLI.
24495		The online help content for the **Utilities > Diagnostics > Healthchecks > General** page does not include **Contact Support** in the list of possible healthcheck statuses.	If running a healthcheck results in the **Contact Support** status, contact Quantum Customer Support.
26044		If a mounted NFS share containing a large number of files is deleted, and then a new share with the exact same name is immediately created and mounted by clients, then files written to the new share may be lost.	Do not immediately recreate an NFS share after deletion. Instead, wait for the deletion to properly complete, or give the new share a unique name.
26066		When using Quantum Vision to view status and reporting data for a DXi, data is not collected from the DXi at the frequency specified in Vision.	Upgrade to Quantum Vision 4.1 or later.
26248		When a good drive is removed from a storage array, the resulting service ticket incorrectly states that the drive has failed.	Drive status is correctly report on the **Status > Hardware > Details > Storage Arrays** page.
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.
27883		Unable to use Firefox browser to access the iDRAC console on a DXi8500.	In Firefox, navigate to **Options > Advanced > Encryption** and click **View Certificates**. In the list, delete all Dell certificates.

Bug Number	SR Number	Description	Workaround
28540		Backups are slow or fail when attempting to write a large number of small files (for example, 8KB files) to a NAS share.	The DXi is optimized for backup use (a small number of large files) rather than for use as primary NAS storage (a large number of small files). Do not use the DXi as primary NAS storage; instead, use the DXi with a backup application to store backup images on NAS shares.
28699		When running a Retina Security scan, the following security event is reported: `OpenSSH X11 Port Forwarding Session Hijack Vulnerability.`	This is a false positive result and can be safely ignored. The version of **OpenSSH** included with DXi 2.1.2 Software already includes the required security fixes.
28747		When running a Retina Security scan, the following security event is reported: `IBM WebSphere Application Server JavaHashTable Denial of Service.`	This is a false positive result and can be safely ignored. IBM WebSphere Application Server is not included with DXi Software.
28805		When running a Nessus Security scan, the following security event is reported: `Signing is disabled on the remote SMB server.`	SMB server signing is disabled by default to allow interoperability with a wide range of Windows clients. To enable SMB server signing, use the **Configuration > NAS > Advanced Setting** page in the remote management console.
29384		Plugging and unplugging a Fibre Channel cable on an Array module multiple times in rapid succession may cause the system to reboot.	After plugging or unplugging a Fibre Channel cable from an Array module, wait 10 minutes before plugging or unplugging it again.

Cosmetic Issues

Bug Number	SR Number	Description	Workaround
11800		Although all NAS shares are deleted, if there is at least 1 OST share, the target will still have value and display grayed out.	This issue can be ignored and does not impact functionality.
11803		On the Ethernet performance page, the "average" drop-down menu reflects "all" ports and not just the "active" ports.	When viewing the Ethernet performance "average," be aware that the calculation is affected by potentially inactive ports, including one of the service ports.
12092		Service Ticket: Recommended Actions: Contains information on barcode/ cartridge when a NAS share fails.	This issue can be ignored and does not impact functionality. This will be fixed in a future release.

Bug Number	SR Number	Description	Workaround
20505		If you have used the Configuration Wizards to configure the system, after the DXi reboots, the green check marks on the **Wizards** menu that indicate a wizard was completed no longer display.	This is cosmetic only. All settings made using the Configuration Wizards are retained after a reboot.
21497		The first time an NFS share is modified after a CIFS share is modified, a message appears incorrectly stating that the CIFS service was started successful.	Click **OK** to dismiss the message.
29034		The DXi remote management console does not display the SAS port layout for the DXi8500 3TB node.	To see the SAS port layout on the rear of the System Node, refer to the *Quantum DXi8500 User's Guide* (6-67205-03).

Documentation

The following documents are currently available for the DXi-Series:

Document Number	Document Title
6-67093	*DXi4500 Site Planning Guide*
6-67084	*DXi6500 Site Planning Guide*
6-67200	*DXi6700 Site Planning Guide*
6-67206	*DXi8500 Site Planning Guide*
6-67128	*DXi4500 User Essentials*
6-67120	*DXi6500 User Essentials*
6-67193	*DXi6700 User Essentials*
6-67107	*DXi8500 User Essentials*
6-67092	*DXi4500 User's Guide*
6-67083	*DXi6500 User's Guide*
6-67199	*DXi6700 User's Guide*
6-67205	*DXi8500 User's Guide*
6-67094	*DXi4500 Installation and Configuration Guide*

Document Number	Document Title
6-67085 6-67086 6-67087 6-67088 6-67089	*DXi6500 Installation and Configuration Guides* • *Model 6510* • *Model 6520* • *Model 6530* • *Model 6540* • *Model 6550*
6-67201 6-67196	*DXi6700 Installation and Configuration Guides* • *Model 6700* • *Model 6701 and Model 6702*
6-67090	*DXi6500 and DXi6700 Expansion Module Upgrade Instructions*
6-67203 6-67204	*DXi8500 Unpacking and Installation Guides* • *Pre-Racked Configurations* • *Un-Racked Configurations*
6-67036	*DXi8500 Array and Expansion Module Upgrade Instructions*
6-67079	*DXi-Series Symantec NetBackup OST Configuration Guide*
6-67080	*DXi-Series Symantec Backup Exec OST Configuration Guide*
6-67081	*DXi-Series Command Line Interface (CLI) Guide*
6-67082	*DXi-Series SNMP Reference Guide*

Supported Backup Applications

The following backup applications are supported for use with DXi 2.1.2 Software:

Backup Application	Revision
Symantec NetBackup	6.5 and later
Symantec Backup Exec	12.5 and later
EMC NetWorker	7.4 and later
CommVault Simpana	7.0 and later
CA ARCserve	12.5 and later

Backup Application	Revision
Oracle Secure Backup	10.2 and later
IBM Tivoli Storage Manager	5.5.4 and later
HP Data Protector	6.0 and later
Quest NetVault	8.x 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.

Additional Notes

Configuring a Constant Replication Bandwidth Throttle

The **Configuration > Scheduler** page can be used to create a recurring series of replication throttle events. However, if you want a replication throttle bandwidth to always be in effect at all times, you need to configure a constant replication throttle bandwidth. To configure a constant replication throttle bandwidth, do not use the **Scheduler** page to schedule the throttle event. Instead, use the following CLI command:

```
syscli --add throttle --service REP --bw <bandwidth><K|M>
```

For example, to enforce a constant replication throttle of 32KB/s at all times:

```
syscli --add throttle --service REP --bw 32K
```

Note: For more information about using CLI commands, see the *DXi-Series Command Line Interface (CLI) Guide* (6-67081).

Making Multiple Changes to a Recurring Scheduled Event

This section describes the expected result when making multiple changes to a recurring scheduled event in DXi 2.1 Software and later. This information applies only when a DXi administrator has performed *all* of the following steps in the order listed:

1 Create a recurring event having two or more instances in the series.

2 Edit one or more instances within the series, creating exception instances, using one or both of the following methods:

   a Deleting (one or more instances within the series).

   b Changing the start time (of one or more instances within the series).

3 Finally, change the base start time of the entire recurring event series.

The change in step 3 will cause the system to fill in the holes in the series that were left by the instances that were deleted or moved in step 2. This is the expected behavior.

If the instances that were moved in step 2b are no longer needed after step 3, they should be manually deleted. Similarly, if the new instances filled in by step 3 are not needed, then they should be manually deleted.

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] - [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.

- **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 first increase as reference counts are decremented, and then decrease as data with zero reference counts is removed from the blockpool.

- **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 DXi, you might not always be able to easily correlate changes in this statistic to your typical usage patterns.

Because of the way it is calculated, the system metadata statistic can be affected by space reclamation activity. During space reclamation, the file system used space value includes un-referenced data that will not be freed up until compaction is complete. Because of this, the value for system metadata may appear larger during space reclamation.

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 hostnames 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.

Space Reclamation

The **Space Reclaimed** value displayed on the **Space Reclamation > General** tab displays the amount of physical disk space that will be reclaimed as a result of deleting deduplicated data. However, the actual amount of physical disk space may be less than the value indicated because of fixed overhead of the deduplication module. Since the disk space usage in the system is also dynamic, other activities in the system may impact the accuracy of the **Space Reclaimed** value.

Quantum Vision

You must update to the latest version of Quantum Vision (4.0.4 or later) to operate with DXi 2.1.2 Software.

StorageCare Guardian

You must update to the latest version of StorageCare Guardian (2.0.5 or later) to operate with DXi 2.1.2 Software.

OST NetBackup Version

You must use NetBackup version 6.5.3 or higher to resolve the following known issue in older versions of NetBackup:

- Subsequent Optimized Duplication jobs may fail or become stuck when running jobs are canceled or stopped.

Running Healthchecks

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

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).

For further assistance, or if training is desired, contact Quantum:

United States	800-284-5101 (toll free) 949-725-2100
EMEA	00800-4-782-6886 (toll free) +49 6131 3241 1164
APAC	+800 7826 8887 (toll free) +603 7953 3010
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