



# Release Notes

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<b>Product</b>	DXi 2.0.1.1 Software for DXi4500, DXi6500, and DXi6700
<b>Supported Browsers (Remote Management Console)</b>	Microsoft Internet Explorer 7.x or higher, Mozilla Firefox 3.x or higher
<b>Date</b>	September 2011

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## Purpose of This Release

DXi 2.0.1.1 Software is a maintenance release for DXi4500, DXi6500, and DXi6700:

- The 2.0.1.1 release is a mandatory field upgrade for DXi4500, DXi6500, and DXi6700 systems currently running software version 2.0.1.
- DXi4500, DXi6500, and DXi6700 family systems running 1.4.x should be upgraded directly to 2.0.1.1

This software release provides the following new capabilities:

- Supports single-step upgrade directly from 1.4.x.
- Provides bug fixes (see [Resolved Issues](#) on page 6)

To upgrade to DXi 2.0.1.1 Software, contact Quantum Customer Support (see [Contacting Quantum](#) on page 26).

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## Hardware Compatibility List

The following table provides information about hardware compatibility with DXi 2.0.1.1 Software. This information is current as of the publication date of these release notes.

Component	Description
DXi4500 - 4510	<ul style="list-style-type: none"><li>• 1 system</li><li>• 1 RAID controller card</li><li>• 4 x 1GbE ports</li><li>• 2.2 TB usable capacity</li></ul>
DXi4500 - 4520	<ul style="list-style-type: none"><li>• 1 system</li><li>• 1 RAID controller card</li><li>• 4 x 1GbE ports</li><li>• 4.4 TB usable capacity</li></ul>
DXi6500 - 6510	<ul style="list-style-type: none"><li>• 1 base node</li><li>• 1 RAID controller card</li><li>• 2 x 1GbE ports</li><li>• 8 TB usable capacity</li></ul>
DXi6500 - 6520	<ul style="list-style-type: none"><li>• 1 base node</li><li>• 2 RAID controller cards</li><li>• 0 to 3 expansion modules (JBODs)</li><li>• 6 x 1GbE ports</li><li>• 8 TB to 32 TB usable capacity</li></ul>

Component	Description
DXi6500 - 6530	<ul style="list-style-type: none"> <li>• 1 base node</li> <li>• 4 RAID controller cards</li> <li>• 2 to 9 expansion modules (JBODs)</li> <li>• 6 x 1GbE ports</li> <li>• 24 TB to 80 TB usable capacity</li> </ul>
DXi6500 - 6540	<ul style="list-style-type: none"> <li>• 1 base node</li> <li>• 4 RAID controller cards</li> <li>• 2 to 9 expansion modules (JBODs)</li> <li>• 6 x 1GbE ports</li> <li>• 2 x 8Gb Fibre Channel ports (for OST path to tape only, not ingest)</li> <li>• 24 TB to 80 TB usable capacity</li> </ul>
DXi6500 - 6550	<ul style="list-style-type: none"> <li>• 1 base node</li> <li>• 4 RAID controller cards</li> <li>• 2 to 9 expansion modules (JBODs)</li> <li>• 2 x 10GbE ports plus 2 x 1GbE ports</li> <li>• 2 x 8Gb Fibre Channel ports (for OST path to tape only, not ingest)</li> <li>• 24 TB to 80 TB usable capacity</li> </ul>
DXi6700 - 6700	<ul style="list-style-type: none"> <li>• 1 base node</li> <li>• 4 RAID controller cards</li> <li>• 2 to 6 expansion modules (JBODs)</li> <li>• 2 x 1GbE Ethernet ports</li> <li>• 4 x 8Gb Fibre Channel ports (VTL, PTT)</li> <li>• 24 TB to 56 TB usable capacity</li> </ul>
DXi6700 - 6701	<ul style="list-style-type: none"> <li>• 1 base node</li> <li>• 2 or 4 RAID controller cards</li> <li>• 0 to 9 expansion modules (JBODs)</li> <li>• 6 x 1GbE Ethernet ports</li> <li>• 4 x 8Gb Fibre Channel ports (VTL, PTT)</li> <li>• 8 TB to 80 TB usable capacity</li> </ul>
DXi6700 - 6702	<ul style="list-style-type: none"> <li>• 1 base node</li> <li>• 2 or 4 RAID controller cards</li> <li>• 0 to 9 expansion modules (JBODs)</li> <li>• 2 x 1GbE Ethernet ports</li> <li>• 2 x 10GbE Ethernet ports</li> <li>• 4 x 8Gb Fibre Channel ports (VTL, PTT)</li> <li>• 8 TB to 80 TB usable capacity</li> </ul>

## OST Plug-In Support

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

- Symantec Veritas NetBackup and Backup Exec 2010 (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](#) and [Table 2](#) 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 NetBackup 6.5.2 (or later) and Backup Exec 2010 (or later) OST Plug-in Compatibility List

Platform	Plug-in Version	DXi Software Version
RedHat Linux x86 32-bit (NetBackup only)	2.4.0	2.0.1.1
SUSE Linux x86 32-bit (NetBackup only)	2.4.0	2.0.1.1
Solaris x86 64-bit (NetBackup only)	2.4.0	2.0.1.1
Solaris SPARC 32-bit (NetBackup only)	2.4.0	2.0.1.1
Solaris SPARC 64-bit (NetBackup only)	2.4.0	2.0.1.1
Windows 2003/2008 32-bit	2.4.0	2.0.1.1
Windows 2003/2008 64-bit	2.4.0	2.0.1.1

The Quantum OST Plug-in availability for NetBackup 7.0 is limited to the platforms in [Table 2](#).

Table 2 NetBackup 7.0 OST Plug-in Compatibility List

Platform	Plug-in Version	DXi Software Version
RedHat Linux x86 64-bit	2.4.0	2.0.1.1

Platform	Plug-in Version	DXi Software Version
SUSE Linux x86 64-bit	2.4.0	2.0.1.1
Solaris_10 64-bit	2.4.0	2.0.1.1
Solaris SPARC 64-bit	2.4.0	2.0.1.1
Windows 2003/2008 32-bit	2.4.0	2.0.1.1
Windows 2003/2008 64-bit	2.4.0	2.0.1.1

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## Replication Compatibility

The following DXi-Series systems are capable of sending replicated data to or receiving replicated data from a DXi running DXi 2.0.1.1 Software:

- DXi8500
  - Software Version: **1.4.x\_85**
- DXi7500 Express and DXi7500 Enterprise
  - Software Versions: **1.2, 1.2.x, 1.4, 1.4.x**
- DXi6701 and DXi6701
  - Software Version: **2.0.1.1**
- DXi6700 (VTL Replication Only for 1.4.x)
  - Software Version: **1.4.x, 2.0.1.1**
- DXi6500 (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**
- DXi4500 (NAS Replication Only)
  - Software Version: **1.3.1\_45, 1.4.x, 2.0, 2.0.0.x, 2.0.1.1**
- DXi2500-D (NAS Replication Only)
  - Software Version: **1.4.x**

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

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**Note:** If data is replicated from a DXi running DXi 2.0 or 2.0.x Software to another DXi running 2.0 or 2.0.x, that data cannot be failed back to a DXi running system software 1.x. Perform a failback to a DXi running DXi 2.0 or 2.0.x Software.

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## Resolved Issues

The following issues are resolved in DXi 2.0.1.1 Software.

Change Request Number	SR Number	Description
23798	1279904 1291402 1288074 1295626 1297146 1299450 1298888 1308800 1312272 1315510 1316672 1312682 1318582 1319266	Connectivity to NAS shares is temporarily lost due to a crash in the <b>smbd</b> server.
24616	1311508 1312806 1317172 1308236	The following error occurs on a DXi configured for replication: ERROR: Service "DataPath" has failed.
24879	1300148 1302804 1311026 1311636	Upgrade failed due to file system timeout in <b>FormatSNFS.sh</b> .
25113	1312320 1315532	Garbage collection scan never completes because the directory delete events caused by OST (and other NAS use, if the backup client does directory delete frequently) triggers the file system scan to restart.
25205	1306804	Number of MI threads needs to be configurable to prevent thread exhaustion when using OST.

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## Known Issues

DXi 2.0.1.1 Software has the following known issues:

- [Replication Known Issues](#) on page 7
- [Space Reclamation Known Issues](#) on page 10
- [Network Known Issues](#) on page 11
- [CLI Known Issues](#) on page 12

- [GUI Known Issues](#) on page 12
- [VTL Known Issues](#) on page 14
- [OST Known Issues](#) on page 15
- [Installation and Upgrade Known Issues](#) on page 18
- [Miscellaneous Known Issues](#) on page 20
- [Cosmetic Issues](#) on page 22

## Replication Known Issues

Change Request 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.
12089		Scheduled replication creates errors when all shares are disabled using the <b>Replication &gt; Source Role &gt; Actions &gt; Disable</b> GUI option.	To prevent the logging errors, remove the schedules of the share in question using <b>Data Services &gt; Replication &gt; NAS</b> . Select the share you want to disable scheduling for and then click <b>Edit &gt; Uncheck Enable Schedule Replication &gt; Uncheck Enable Replication</b> and then <b>Click Apply</b> .  Do this for each NAS share that you want to remove the scheduled replication for instead of disabling all shares from replication using <b>Replication &gt; Source Role &gt; Actions &gt; Disable</b> .
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.

Change Request 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.
15975		When specifying a replication source or target, the DXi does not issue a warning if the source or target is running a system software version that is not supported for replication.	Only replicate with a DXi that is running a system software version that is supported for replication (see <a href="#">Replication Compatibility</a> on page 5).
18068		If an attempt is made to replicate a VTL to a target DXi running DXi 2.0 or 2.0.0.x Software, replication will fail only after all data is sent to the target DXi rather than failing immediately.	DXi 2.0 or 2.0.0.x Software does not support VTL replication. If you specify a DXi running DXi 2.0 or 2.0.0.x Software as a target, make sure all VTLs on the source have replication disabled.
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 2.0 or 2.0.x Software to another DXi running 2.0 or 2.0.x, that data cannot be failed back to a DXi running system software 1.x.	Perform a failback to a DXi running DXi 2.0 or 2.0.x Software.
20455		After aborting replication, shares in the replication queue are removed from the queue but are still replicated to the target DXi.	Disable replication for shares in the queue that you do not want to replicate. This will cause replication for those shares to fail.

Change Request Number	SR Number	Description	Workaround
20479		Enabling directory/file based (trigger) replication on a NAS share that contains a large number of files causes trigger based replication to slow down on the DXi due to a large number of trigger requests in the queue. A share might contain a large number of files if a backup job is restored to the share.	Synchronize the NAS share with the target frequently to reduce the number of trigger requests in the queue.
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 <b>Commit</b> attribute ( <b>sync</b> or <b>async</b> ) is not preserved.	Manually reset the <b>Commit</b> attribute for the share after it is recovered on the target, or fail back the share to the source.
22732		After deleting a replication target or source on the <b>Replication Send</b> or <b>Replication Receive</b> page, the following admin alert occurs: Error occurred removing host <IP address> as allowed host for replication to this system. Resolving the IP address to a fully qualified host name failed. However, the target or source is successfully deleted.	This occurs when deleting a target or source IP address that is no longer valid. You can disregard the alert. However, you should also delete the same IP address on other target or source systems.
22954		If a source DXi replicates to a VTL-only target, and then the target is changed to a multi-protocol target, clicking <b>Enable</b> on the <b>Replication &gt; Actions</b> page does not enable replication for all NAS shares on the DXi, even though NAS replication to the target is now supported.	Individually enable each share for replication.
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.

Change Request 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.

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### Space Reclamation Known Issues

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Change Request Number	SR Number	Description	Workaround
20826		After upgrading the system software, the <b>Space Reclaimed</b> statistics are incorrect on the <b>Space Reclamation &gt; General</b> page.	The statistics will be correct after space reclamation is run.

## Network Known Issues

Change Request 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 <b>Domain Suffix Search List</b> has not been specified on the <b>Network</b> page, and the DXi is added to an Active Directory server, the DXi is added to the domain with the suffix <b>localdomain</b> . After this, the DXi cannot be managed using Active Directory.	Specify the correct domain suffix in the <b>Domain Suffix Search List</b> 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.
20894		If the <b>netcfg</b> CLI command is used to create a custom network configuration, and then the <b>Basic Network</b> page in the remote management console is used to change the host name or DNS IP addresses, the custom network configuration is lost.	After changing the host name or DNS IP addresses, reconfigure the custom network settings using the <b>netcfg</b> CLI command.
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.
23313		A Windows 7 or 2003 client is unable to access a NAS share when both the client and the DXi are joined to a Windows 2008 R2 domain.	Add the following parameter to the <b>smb.conf.extra</b> file: server signing = auto Then connect to the DXi using the hostname rather than IP address.
23808		A CIFS share cannot be mapped when using Windows 2008 R2 SP1 with the <b>RequireSecuritySignature</b> registry key set to 1.	Edit the Windows 2008 registry and set the following key to 0: HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LanmanWorkstation\Parameters\RequireSecuritySignature

## CLI Known Issues

Change Request 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.	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.
23497		The CLI allows an underscore ( _ ) in the name of a VTL partition, but this is not supported by the remote management console.	When naming a VTL partition using the CLI, do not use an underscore ( _ ) in the name.

## GUI Known Issues

Change Request Number	SR Number	Description	Workaround
7874		<b>Alert &gt; Service Tickets &gt; View Recommended Actions</b> - 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.
11776		On the target system, when "Allowed Replicated source" is added as an IP Address, the replicated share can be deleted even when the share is enabled on source.	Use the hostname instead of an IP address for allowed replicated source on the target to prevent replicated shares from being deleted on the target.
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

Change Request Number	SR Number	Description	Workaround
15310		<p>When the system is running a backup and a partition is created with &gt; than 5000 cartridges, the GUI displays:</p> <p>PLEASE WAIT...</p> <p>The system is either busy with a previous request or in the process of restarting the web-based interface.</p>	This is normal operation. Wait until the GUI becomes responsive. Do NOT reboot the system.
17436		Bold text is not visible in FireFox.	This will be fixed in a future release.
19289		When a Fully Qualified Domain Name (FQDN) is used as an NDMP host name, the NetBackup media server reads data from the DXi to a media server host and then writes the data to a tape connected to the DXi. This results in slow OST path-to-tape (PTT) performance.	Do not use a Fully Qualified Domain Name (FQDN) as an NDMP host name. In this case, the NDMP server on the DXi reads the data from disk and writes it directly to a tape connected to the DXi instead of reading it to a media server. This results in faster OST PTT performance.
20673		On the <b>Email Home &gt; On Demand</b> page, after viewing and saving a configuration data report, the <b>OK</b> button is disabled.	Refresh the Web browser to return enable the <b>OK</b> 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.
21558		On the <b>Network</b> page in the remote management console, if the <b>Advanced</b> option is selected and IP information is entered, but no bonding option is selected, an error does not occur if <b>Apply</b> is subsequently clicked. Instead, the DXi reboots, and basic network settings are applied.	Specify advanced network settings again on the <b>Network</b> page, and make sure to select a bonding option before clicking <b>Apply</b> .
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 <b>Network Mask</b> field blank when creating the community.

Change Request Number	SR Number	Description	Workaround
23165		When deleting host access groups on the <b>Host Mapping</b> 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.
24567		In the <b>OST Wizard</b> , on <b>Step 3: Add LSUs</b> , if you sort the list of LSUs by name, and then select one or more LSUs, the <b>Delete</b> button remains disabled.	Click <b>Previous</b> to return to the previous step, then click <b>Next</b> to return to Step 3. Select the LSUs to delete, and click <b>Delete</b> .
24858	1310026 1313332 1315922 1318772	When configuring e-mail notifications, an error occurs when attempting to enter an e-mail address in which the domain portion of the address contains a hyphen ( - ) or an underscore ( _ ). For example: johndoe@my-domain.com	Use an alternate e-mail address that does not contain a hyphen or underscore in the domain portion of the address.

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## VTL Known Issues

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Change Request 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.

Change Request Number	SR Number	Description	Workaround
24341		Backup jobs to NAS shares may fail if they are run simultaneously with heavy or continuous VTL ingest. <b>Note:</b> This issue only occurs during simultaneous NAS and VTL ingest. Other protocol combinations are unaffected. For example, you may perform simultaneous OST and VTL ingest, OST and NAS ingest, or any type of replication in combination with VTL, NAS, or OST ingest.	Do not perform simultaneous NAS and VTL ingest. You may perform both types of ingest, but you should schedule them to occur at different times.
25223		The DXi6700 family <i>Installation Guides</i> provide instructions for configuring the default VTL partition shipped with the system. However, DXi6700 systems no longer ship with a pre-configured VTL partition.	Use the <b>VTL Wizard</b> to create VTL partitions on the DXi. For more information, refer to the chapter "DXi6700 Configuration Wizards" in the <i>DXi6700 User's Guide</i> .

## OST Known Issues

Change Request 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 restarting 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.

Change Request Number	SR Number	Description	Workaround
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 / <b>tmp/dm/shadow</b> 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.

Change Request Number	SR Number	Description	Workaround
23253		<p>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:</p> <pre> 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 </pre>	<p>If the NetBackup spanning worked as expected, and if the job completed successfully, these errors may be ignored.</p>
24628		<p>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.</p> <p>When the limit is reached, the following error is logged to the OST Plug-in log:</p> <pre> VServer "hybrid-dedupe-no- encrypt" limit reached (limit 20). </pre> <p>Also, the following error is logged in the NetBackup progress log:</p> <pre> Critical bpdm (pid=12515) image open failed: error 2060020: storage server connection limit exceeded </pre>	<p>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.</p> <p>The default connection timeout is 300 seconds. The timeout value can be increased using the following setting in <code>/usr/Quantum/QuantumPlugin.conf</code>.</p> <pre> DATA_CONNECTION_BUSY_TIMEOUT </pre>

## Installation and Upgrade Known Issues

Change Request 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 <b>Inode Expand Min</b> , <b>Inode Expand Max</b> , and <b>Inode Expand Inc</b> 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.
23375		After upgrading, information for <b>Disk Usage</b> , <b>Data Reduction Statistics</b> , and <b>Current Activity</b> does not display in the remote management console.	Re-install the latest version of DXi Advanced Reporting on the DXi.
23456		After upgrading, a service ticket is generated with the following error: QUANTUM software : File System component node-1-[04/26/11-18:07:09.204] : Not responding	You can safely disregard this service ticket. No action is needed, and the system is operating as expected.
24366	1293264	(DXi4500 only) When upgrading to 2.0.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.

Change Request Number	SR Number	Description	Workaround
24372		<p>After upgrading from 1.4.x to 2.0.x, the following error appears in the <b>upgrade1to2.out</b> log.</p> <pre>*** 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</pre>	<p>You may safely disregard this error. The upgrade completed successfully.</p>
23503		<p>After upgrading from 1.4.x to 2.0.x, the following errors appear in the <b>upgrade1to2.out</b> log.</p> <p><b>Error 1</b> useradd: UID 62 is not unique error reading information on service Upgrade: No such file or directory</p> <p><b>Error 2</b> Can't open control driver /dev/ cvfsctl0, error No such file or directory (2)</p> <p><b>Error 3</b> I/O warning : failed to load external entity "/snfs/common/ data/HoldTagRefsMap"</p>	<p>You may safely disregard these errors. The upgrade completed successfully.</p>
24969		<p>When upgrading from 1.4.x to 2.0.x, the initial stage of the upgrade process may appear to hang at the step:</p> <pre>Found Galaxy 2.0.1 media: QTM- DXi6500-DVD-2.0.1.1-6079-42867 on /dev/cdrom</pre>	<p>Wait for the initial stage of the upgrade process to complete. This stage can take a significant amount of time and may not provide feedback or output while in progress. After the DXi reboots, the upgrade process will continue.</p>

## Miscellaneous Known Issues

Change Request 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 <i>DXi-Series User's Guide</i> for further information.
12523		Occasionally, the NTP server cannot be contacted during the wizard setup.	Change the NTP setting using the GUI <b>Configuration &gt; System &gt; Date &amp; Time</b> option. See the <i>DXi-Series User's Guide</i> for further information.
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 <b>RSTP</b> to <b>Classic STP</b> . 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: <a href="http://support.microsoft.com/kb/304101/en-us">http://support.microsoft.com/kb/304101/en-us</a>
18370 19091		Errors are received after a DSET log is generated. After retrieving a DSET log, the system status can also briefly show the system board as "failed".	Ignore these error messages.
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.

Change Request Number	SR Number	Description	Workaround
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.
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.
21560		Hard links do not function on NFS shares.	Hard links are not supported by DXi 2.0 Software. Do not use hard links.
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 <b>Collecting -FC scst-</b> .	Reboot the DXi again using the remote management console or the CLI.
24495		The online help content for the <b>Utilities &gt; Diagnostics &gt; Healthchecks &gt; General</b> page does not include <b>Contact Support</b> in the list of possible healthcheck statuses.	If running a healthcheck results in the <b>Contact Support</b> status, contact Quantum Customer Support.

## Cosmetic Issues

Change Request 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.
20505		If you have used the Configuration Wizards to configure the system, after the DXi reboots, the green check marks on the <b>Wizards</b> 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.
21409		Low capacity error messages and associated recommended actions still refer to file truncation.	Files are no longer truncated in DXi 2.0 Software. Disregard the references to truncation.
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 <b>OK</b> to dismiss the message.

## Documentation

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

Document Number	Document Title
6-67093	<i>DXi4500 Site Planning Guide</i>
6-67084	<i>DXi6500 Site Planning Guide</i>
6-67200	<i>DXi6700 Site Planning Guide</i>
6-67128	<i>DXi4500 User Essentials</i>
6-67120	<i>DXi6500 User Essentials</i>

Document Number	Document Title
6-67193	<i>DXi6700 User Essentials</i>
6-67092	<i>DXi4500 User's Guide</i>
6-67083	<i>DXi6500 User's Guide</i>
6-67199	<i>DXi6700 User's Guide</i>
6-67094	<i>DXi4500 Installation and Configuration Guide</i>
6-67085 6-67086 6-67087 6-67088 6-67089	<i>DXi6500 Installation and Configuration Guides</i> <ul style="list-style-type: none"> <li>• <i>Model 6510</i></li> <li>• <i>Model 6520</i></li> <li>• <i>Model 6530</i></li> <li>• <i>Model 6540</i></li> <li>• <i>Model 6550</i></li> </ul>
6-67201 6-67196	<i>DXi6700 Installation and Configuration Guides</i> <ul style="list-style-type: none"> <li>• <i>Model 6700</i></li> <li>• <i>Model 6701 and Model 6702</i></li> </ul>
6-67090	<i>DXi6500 and DXi6700 Expansion Module Upgrade Instructions</i>
6-67079	<i>DXi-Series Symantec NetBackup OST Configuration Guide</i>
6-67080	<i>DXi-Series Symantec Backup Exec OST Configuration Guide</i>
6-67081	<i>DXi-Series Command Line Interface (CLI) Guide</i>

## Supported Backup Application Filters

Backup Application	Revision
Symantec NetBackup	6.x and later
Symantec Backup Exec	12.5 and later
CommVault Galaxy / Simpana	7 and later
EMC NetWorker	7.4 and later
CA ARCserve	11.5 and later
IBM Tivoli Storage Manager	5.5.x and later

Backup Application	Revision
HP Data Protector	6.x and later
BakBone NetVault	7.4 and later
NetApp NDMP	DataONTAP 7.2.4, WAFL FS dump format
Oracle Secure Backup	10.2 and later
Oracle RMAN	10.x and later (Supported with Oracle OSB, CommVault SIS, and Symantec NetBackup)
Roxio Retrospect	8 and later

All filters support the backup application version above and also one previous version. Contact the backup application vendor for the latest software revision information.

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## Additional Notes

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### System Metadata

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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:

$$\text{System Metadata} = [\text{File System Used Space}] - [\text{Blockpool Reduced Data Size}] - [\text{Non-Deduplicated Data Size}]$$

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.

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## Date & Time Configuration

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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>

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## Network Hostname Restrictions

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The network hostnames must not exceed 64 characters.

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## Internet Explorer Security Level

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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.

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## Changing the Number of Allowed Sources

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

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## Space Reclamation

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The **Space Reclaimed** value displayed on the **Space Management > 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.

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### StorageCare Vision

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You must update to the latest version of Quantum Vision (4.0.4 or later) to operate with DXi 2.0.x Software.

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### StorageCare Guardian

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You must update to the latest version of StorageCare Guardian (2.0.5 or later) to operate with DXi 2.0.x Software.

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### OST NetBackup Version

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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.

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### Running Healthchecks

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

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## Contacting Quantum

More information about this product is available on the Service and Support website at [www.quantum.com/support](http://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:

<b>United States</b>	800-284-5101 (toll free) 949-725-2100
<b>EMEA</b>	00800-4-782-6886 (toll free) +49 6131 3241 1164
<b>APAC</b>	+800 7826 8887 (toll free) +603 7953 3010
<b>For additional contact information:</b>	<a href="http://www.quantum.com/support">www.quantum.com/support</a>
<b>To open a Service Request:</b>	<a href="http://www.quantum.com/osr">www.quantum.com/osr</a>

For the most updated information on Quantum Global Services, please visit: [www.quantum.com/support](http://www.quantum.com/support)