Quantum User Essentials

DXiV-Series with DXi 2.3 software

After installing your DXi V-Series virtual appliance, use this document as a quick reference to keep the system up and running.

Documentation and Training

For information on configuring, operating, and maintaining your DXi V-Series virtual appliance, open a Web browser and go to <u>www.quantum.com/dxiv-seriesdocs</u>. There you will find product documentation, best practice guides, how-to videos, and other product resources.

For information about available training courses, go to

www.quantum.com/ServiceandSupport/StorageCareLearning/index.aspx.

Note: DXi V1000 Standard Edition customers need to go to Forum V (<u>http://www.quantum.com/forumv</u>) for documentation, community support, and other resources. Forum V is Quantum's online support forum for virtualization products.

Licensed Features

The following licensed features are enabled during the installation process:

- Network Attached Storage (NAS): Enables NAS (NFS and CIFS) connectivity to the host.
- Data Deduplication: Enables the process of creating and managing duplicate versions of your data, reducing storage requirements by up to 90% when saving duplicated data.
- Replication: Enables replication of your data to other DXi systems.
- **OpenStorage Technology (OST)**: Enables OpenStorage backup with Symantec OST. Specific versions of NetBackup and Backup Exec are required. For more details, refer to the *DXi-Series OST Configuration Guide*.
- **Storage Capacity**: Enables the licensed storage capacity for the system. This feature determines the capacity available for data deduplication and replication. Supported capacity and upgrade options include:
 - DXi V1000 Trial Edition: 256 GB of storage capacity
 - DXi V1000 Standard Edition: 1 TB
 - DXi V1000 Enterprise Edition: 1 TB, expandable to 2 TB
 - DXi V2000 Trial Edition: 2 TB
 - DXi V2000 Enterprise Edition: 1 TB, expandable to 8 TB in 1 TB increments
 - DXi V4000 Trial Edition: 4 TB
 - DXi V4000 Enterprise Edition: 4 TB, expandable to 24 TB in 1 TB increments

For more information on license keys and licensed features, refer to the *DXi V-Series User's Guide*, "License Keys" section.

Adding Capacity or Extending a Time-Based License

To view the current license type and capacity, and the days before expiration (if applicable) of your system, select **Utilities > License Keys**. You will see a display like the one shown below.

nostics Analyzer Space Reclamation License Keys Security Software Upgrade Reboot & Shutdown

License Keys

License Type Permanent Capacity 2048 GB Installed on Mon Jul 29 15:49:55 2013

To increase capacity or extend a time-based license, contact your sales representative. You will receive information about how to obtain a license key. For license key installation instructions, refer to the *DXi V-Series User's Guide*, "License Keys" section.

Adding Capacity or Extending a Time-Based License (cont.)

You will need your product serial number to complete the upgrade process. The system serial number is available on the Home Page. As shown below, it begins with **CX**, using the pattern **CX1234CAD12345**.

Your System Serial Number: _

DXiV1000	
Hostname	DXi000C29FB1EA1
IP Address	10.00.00.00
Version	2.3.0
Serial Number	CX1234CAD12345

Initial Basic Operation

Change the default passwords by selecting **Configuration > System > Security** (see the *DXi V-Series User's Guide*, "DXi V-Series Configuration" chapter). The default *Web Administrator* password is **password**. The default *CLI Administrator* password is **cliadmin**.

Basic Configuration (Network, NAS, OST, Replication)

The **Configuration Wizards** launch during the initial configuration but they can be used at any time by clicking the **Wizards** button from the DXi Main menu. The **Configuration Wizards** provide you with step-by-step instructions for setting up VTL, NAS, OST, replication, email alerts, and technical support features such as registering your product.

In addition to using the **Wizards** menu, you can configure network, VTL, NAS, OST, replication, and space management settings from the DXi Main menu by doing any of the following:

- Select **Configuration > Network** and edit the network configuration. Consult your network administrator before changing any of the information (see the *DXi V-Series User's Guide*, "DXi V-Series Configuration" chapter).
- Select **Configuration > NAS** and configure NAS (see the *DXi V-Series User's Guide*, "DXi V-Series Configuration" chapter).
- Select **Configuration > OST** and configure OST (see the *DXi V-Series User's Guide*, "DXi V-Series Configuration" chapter or the *DXi-Series OST Configuration Guide*).
- Select **Configuration > Replication** and set up replication (see the *DXi V-Series User's Guide*, "DXi V-Series Configuration" chapter).

During data replication, data is sent from one system (the source) to another system, usually in another location (the target). Sources send replicated data, which consists of unique blocks not already present at the target, as well as the metadata for the entire backup set.

Proper system configuration allows replicated data to be immediately accessible at the target. Quantum recommends that you schedule replication to run after backups are complete. (see the *DXi V-Series User's Guide*, "Adding or Editing a Scheduled Event" section). In addition, always replicate a new share immediately after creating it. This establishes the initial data structure on the target system and greatly increases the speed of the first replication.

Space Management

Space Reclamation is the system's space management process. It is used to delete blocks that are no longer referenced by metadata, which returns capacity to the free space pool for reuse.

To run space Reclamation, select **Utilities > Space Reclamation** (see the *DXi V-Series User's Guide*, "Space Reclamation" section).

Schedule space reclamation to run on a daily basis. Quantum recommends that you schedule space reclamation during periods when other operations (such as ingest and replication) are not being performed. When other operations are scheduled concurrently with space reclamation, system performance will be negatively impacted.

To schedule space reclamation, select **Configuration > Scheduler** (see the *DXi V-Series User's Guide*, "Scheduler" section).

📆 New Event 👻 🖃 🖽 🛙	Filter: search criteria	× Goto:	Now	🥩 Refresh 🛛 🔨 🛅 Da		
Name	Jul 2013	Aug 2013				
Replication Throttle	Event Editor	Event Editor				
,≓ Space Reclamation	*Start	08/02/2013	2:00 AM	~		
U Healthchecks	Description	description of eve	nt			
🔀 Email Reports						
	*Repeats	Daily		~		
AS Replication		every	1 🔷 day(s)			
		and continuing	forever	`		
				Apply Cancel		

Status and Notifications / Alert Options

- Select **Configuration > Notifications > Email > Recipients** and set up e-mail notifications (see the *DXi V-Series User's Guide*, "Notifications" section).
- Select **Configuration > Notifications > SNMP** and set up SNMP (see the *DXi V-Series User's Guide*, "Notifications" section).
- Select Status > Performance and Status > Disk Usage and check performance and disk usage status. You can also select Status > Logs to view the Activity Log, which contains a record of all activities performed by administrative and service users in the past 90 days (see the DXi V-Series User's Guide, "DXi V-Series Status" chapter).
- Check the system **State** indicator on the system banner at the top of the user interface. If the status is yellow or red, click it to see detailed status information (see the *DXi V-Series User's Guide*, "DXi V-Series Remote Management" chapter).
- Review the **Ticket** button. If it is yellow, click it to view the suggested actions (see the *DXi V-Series User's Guide*, "Service Tickets" section).



Software Upgrades

- Check to see if a software upgrade is available. Go to the Home page and click Software Upgrade (DXi6000 User's Guide, "Software Upgrades" section). Software upgrades can include new features as well as bug fixes.
- Configure the system to automatically check for software upgrades on a daily basis (*DXi6000 User's Guide*, "Software Upgrades" section). If a software upgrade is available, you will be notified by an admin alert as well as by a Quick Tip icon on the Home page.



Troubleshooting and Help

Before contacting Quantum Support, review these FAQs:

Question: Why is my deduplication rate so low?

Answer: Three things that will hurt your deduplication ratio are software compression, encryption, and multiplexing. Most backup applications have options that can be enabled or disabled for these functions, and which are often enabled by default. To optimize your dedupe speed, disable these options.

Question: My backup jobs are failing. Why might this be?

Answer: Backup jobs may have failed for some of the following reasons:

- The DXi V-Series system ran out of space during the backup window.
- Your backup host lost network connectivity to the system.
- Your backup application may have crashed. Try re-running the backup before contacting Quantum support.

Question: How can I free up disk space on my system?

Answer: Here are some ways you can remove data from your system:

- Delete data from your NAS share.
- If the DXi is a target system, delete any replicated snapshots.

After you have taken one or more of these actions, you must run Space Reclamation to free up the space.

Question: When should I schedule replication and space reclamation for best performance? Answer: If possible, try to schedule your backups, replication, and space reclamation to run at different times throughout the day. By keeping those processes separate, your overall blockpool performance will be better.

Here are some tips you may find helpful for troubleshooting:

- 1. Review the "Troubleshooting" section in the DXi V-Series User's Guide.
- Visit Forum V at <u>http://www.quantum.com/forumv</u>, Quantum's support forum for virtualization products.
- 3. Search for solutions in the Knowledge Base at http://gsupport.quantum.com/kb/.
- 4. If you purchased the Enterprise version of your DXi V-Series product, do the following:
 - a. Download log files for Technical Support. These will help troubleshoot problems. To do this, select **Utilities > Diagnostics > System > Generate New/Download Current**.
 - b. Access eSupport by opening an Online Service Request at <u>https://onlineservice.quantum.com/OA_HTML/xxibu/jtflogin.jsp.</u>
 - c. Contact Quantum Technical Support at 800-284-5101. You will need your system serial number. For contact information, go to www.quantum.com/ServiceandSupport/Contacts/Index.aspx.

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