Quantum®

Contents

StorNext 4.0.1 HA Quick Reference

This document summarizes the steps involved in configuring and managing an HA system. For more information about the specific steps and HA in general, see the HA chapter and the HA appendix in the *StorNext User's Guide*.

HA Overview

The StorNext HA feature is a special StorNext configuration with improved availability and reliability. The configuration consists of two similar servers, shared disks and possibly tape libraries. StorNext is installed on both servers. One of the servers is dedicated as the initial primary server and the other the initial standby server.

StorNext File System and Storage Manager run on the primary server. The standby server runs StorNext File System and special HA supporting software.

The StorNext failover mechanism allows the StorNext services to be automatically transferred from the current active primary server to the standby server in the event of the primary server failure. The roles of the servers are reversed after a failover event. Only one of the two servers is allowed to control and update StorNext metadata and databases at any given time. The HA feature enforces this rule by monitoring for conditions that might allow conflicts of control that could lead to data corruption.

StorNext provides two main HA functions: **Convert to HA** and **Manage HA**.

Pre-Conversion Steps

Before converting to HA, you should perform the following steps:

1 Identify two servers, which must have similar hardware running the same version of Linux, and have identical LAN and SAN connectivity. For example, on multiple Ethernet port connections, both systems must be connected to the same Ethernet ports (eth0 on System A and System B going LAN1, eht1 on System A and System B going to LAN2, etc.)

2 Synchronize the clocks on both systems.

3 Install StorNext on both servers.

4 Enter StorNext license information on both server nodes.

5 Launch StorNext on one server.

Configure an unmanaged file system for use as the HA shared file system. (For more information about creating a file system, see the Configuration Wizard chapter in the *StorNext User's Guide*.

HA and Distributed LAN Clients

On a StorNext HA system using the StorNext Distributed LAN Client/Server (DLC) feature:

When configuring DLC Server on the MDCs of an HA cluster, it must be configured by-hand on each MDC. Service will be lost when an HA Reset occurs, so DLC clients should be configured to access the DLC file systems through both MDCs.

This practice allows for the best and highest availability of the DLC capability. Ideally, each node in the HA pair should have the same number of NICs and be on the same networks. The dpserver configuration should be done *before* converting an MDC pair into an HA pair.

Converting to HA

Converting to HA consists of selecting your dedicated unmanaged StorNext file system for use as the controlling shared file system, and then instructing StorNext to convert the node to HA.

Note: The **Convert** menu option will be unavailable (grayed out) on the **Tools** menu if you do not have a secondary system. If you have not already done so, specify a secondary system by using the Name Servers function. For more information, see the Configuration Wizard chapter in the *StorNext User's Guide*.

Follow these steps to configure HA:

1   Choose **High Availability > Convert** from the **Tools** menu. The **Tools > High Availability** screen appears.

Figure 1   Tools > HA Screen
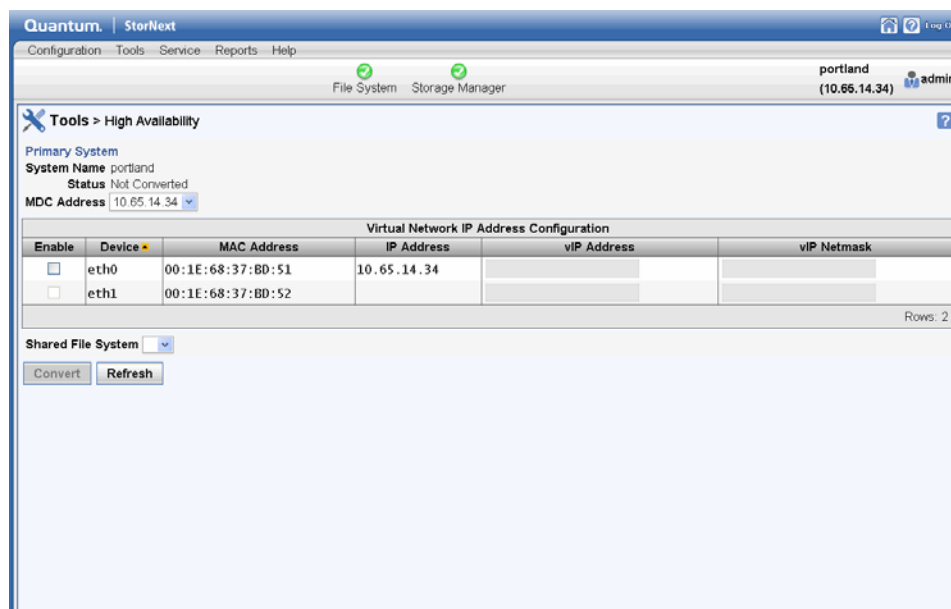
2   At the **Shared File System** field, select the shared file system you want to convert to HA.

3   At the **MDC Address** field, select one IP address to be placed in the `ha_peer` file for use in administrative operations between the MDCs in the HA Cluster.

4   If your HA cluster also runs the blockpool, select **Enable** and then enter the virtual IP address and virtual netmask. (Ask your network administrator for the vIP address and netmask.)

5   Click **Convert** to convert the primary node to HA.

6   Enter the IP address of the secondary system on the same LAN, and then click **Scan**. The licenses will be populated for that secondary system.

7   Click **Convert** to convert the secondary system.

Managing HA

The StorNext Manage HA screen is used to monitor the current statuses of your primary and secondary servers.

The screen includes **Enter Config Mode** and **Exit Config Mode** buttons to place the HA Cluster in a state that allows the Primary MDC to restart CVFS and individual FSMs without incurring an HA Reset, failover of any file systems, or transfer of Primary status to the peer MDC. This is required for making certain types of configuration changes through the GUI.

Follow these steps to lock the HA cluster and enter Config mode, and subsequently to exit Config mode:

1 Choose **High Availability > Manage** from the **Tools** menu. The **Manage High Availability** screen appears.

Figure 2 Manage HA Screen
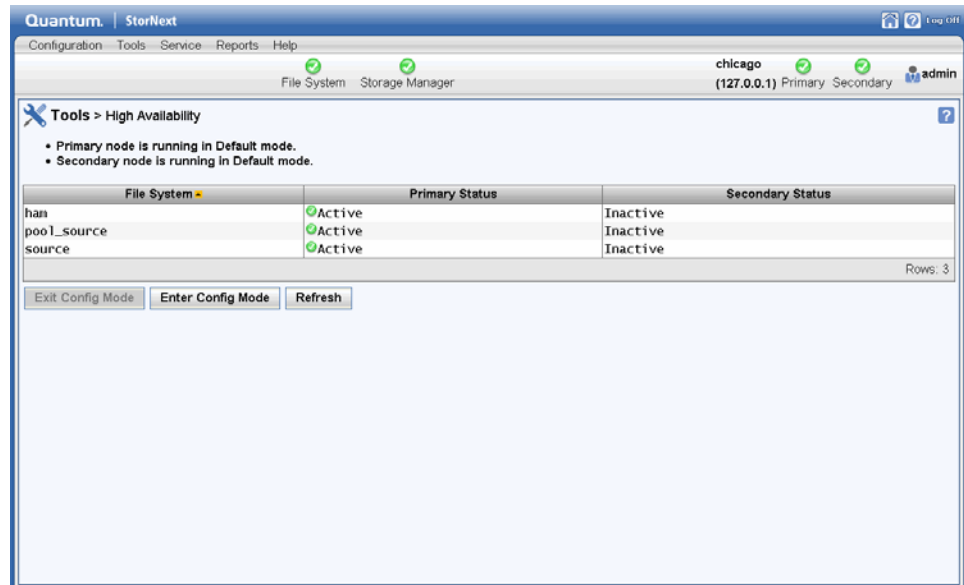
2 Click **Enter Config Mode**.

3 When the confirmation message appears, click **Yes** to proceed or **No** to abort.

4 Click **OK** when a message informs you that the HA cluster was successfully locked.

5 When you are ready to unlock the cluster and exit Config mode, click **Exit Config Mode**.

6 When the confirmation message appears, click **Yes** to proceed or **No** to abort.

7 Click **OK** when a message informs you that the HA cluster was successfully unlocked.

For assistance, contact the Quantum Customer Support Center:
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