Recovery Process Supplement

P/N 38P8647

These instructions supersede the information contained in *IBM TotalStorage® Network Attached Storage 300 Model 326 User's Reference,* GA27-4276-01.

This document defines the changes to the recovery process as defined by Chapter 8 of the referenced document. Any page references in this supplement are to the original book. This document is not a complete replacement for Chapter 8. Please review the original information prior to using this supplement.

Chapter 8. Using the Recovery and Supplementary CDs

Using the Recovery Enablement Diskette and Recovery CD

The Recovery CD Set (three CDs, labeled as "Recovery CD 1", "Recovery CD 2", and "Recovery CD 3") contains the preload image for the Model 326 and is used to recover the preloaded image on either node of the appliance. You must start the (failed) appliance node using the Recovery Enablement Diskette before you can use Recovery CD 1.

CAUTION:

The Model 326 does not have a monitor, keyboard, or mouse attached to it under normal operating conditions. Because of this, you can not interact with the preload-image restore process using a monitor. Starting Recovery CD 1 will, without visually prompting the user, automatically destroy all data on the system drive. Use the Recovery Enablement Diskette and Recovery CD Set only when it is absolutely necessary to restore the preloaded system image.

To recover the preloaded image on a (failed) node, do the following steps. Note that the recovery process invalidates persistent images and leaves them in a state that is inconsistent with their pre-recovery state. So, if you plan to use the Recovery CD Set, it is recommended that you first delete all persistent images to ensure a clean reload of the system software.

1. On the other (working) node of the Model 326, select Cluster Administration, located in the Cluster Tools folder in the IBM NAS Admin. If prompted for a cluster name, enter the name of the cluster, and then click **Open**.
2. The cluster name appears in the left panel. Underneath it, locate the name of the failed node, right-click on the failed node machine name, and select **Evict Node**. The name of the failed node will be removed from the left pane, and the cluster will now contain only the working node of the Model 326.
3. Attach a keyboard and monitor to the failed node.
4. Insert the Recovery Enablement Diskette into the diskette drive and place "Recovery CD 1" into the CD-ROM drive of the failed node.

> **Important**
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> The Recovery Enablement Diskette enables the Model 326 to start from the CD-ROM drive. You will not be able to restore the preload image from the Recovery CD Set without first restarting the appliance using the Recovery Enablement Diskette.

5. Restart the appliance.
6. If you installed additional processor memory on the appliance, the BIOS configuration program will appear. Click **Continue** on the first screen, click **Continue** again, click **Exit Setup**, and finally, click **Yes, save and exit Setup**.
7. When the diskette loads, you will be prompted with a message which asks if you wish to proceed. Type "Y" to proceed. If you type "N", you will be returned to a command prompt.
8. The recovery process will begin automatically. Follow the instructions provided by the image restoration software, and the original manufacturing preload will be restored. During the restoration of the preload, you will be prompted to insert the other recovery CDs into the CD-ROM drive. Once the preload image is restored, the Model G26 restarts automatically. You may now remove Recovery CD 3 from the CD-ROM drive.

9. If you installed additional processor memory, the BIOS configuration program will now appear a second time. Click **Continue** on the first screen, click **Continue** again, click **Exit Setu**p, and finally, click **Yes, save and exit Setup**. You may now detach the keyboard and display from the failed node and allow the recovery process to complete automatically.

> **Important**
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> After the node restarts, a series of configuration and system preparation programs that finish configuring the node run automatically. These programs must finish running before you use any included applications (such as the IBM Advanced Appliance Configuration Utility or the Terminal Services Client) to connect to or configure the Model 326. Do not connect to or configure the node for at least 15 minutes after system restart. This notice applies only to the first time the Model 326 node is started after using the Recovery CD Set.
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> Logical Disk 0 will be configured to have a 6-GB NTFS boot partition. Any other previously configured logical disk drives, as well as the remainder of Logical Disk 0 (which, on the original hard disk drive of the node, contains the Maintenance partition, but for a replacement hard disk drive would not contain any other partitions), will be left unchanged.

10. Reinstall all software updates you had installed on the failed node since you installed the Model 326 out of the box. Or, if the Recovery CD Set you used in this procedure is a newer version than the one you received with the Model 326, reinstall only those software updates that are newer than those on the Recovery CD Set.

11. If you are using the recovery procedure to restore the failed node after replacing the internal hard disk drive, continue with this step. Otherwise, go to Step 12. You must now rebuild the Maintenance (D:) partition on the new hard disk drive, as the recovery process only rebuilds the System (C:) partition.

    Start Disk Management on the failed node. You can do this in one of two ways:

    a. Start a Terminal Services session to the node, then click the **IBM NAS Admin** icon, and then from the IBM NAS Administration console that appears, select **Computer Management**, then **Disk Management**.
    b. Start a Windows 2000 for NAS user interface session to the node, then select **Disks and Volumes**, then select **Disks and Volumes** again, and then provide your administrator user name and password when prompted.

    Once Disk Management has started, do the following:

    a. In the Disk Management window, right-click on the unallocated area of Disk 0, and then click **Create Partition**.
    b. In the Create Partition wizard, click **Next** and select **Primary Partition**.
    c. Click **Next** and select **D:** as the drive letter.
    d. Click **Next** and select **FAT32** as the file system and change the volume label to *Maintenanc*e.
    e. Click **Finish** to close the wizard. The partition will then be formatted. Once formatting is complete, the status of the partition should appear as *Healthy*, and the other properties should appear as: name *Maintenanc*e, drive letter *D*:, file system *FAT3*2.

12. On the failed (now recovered) node, follow the procedures for configuring a joining node outlined in "Roadmap for setting up and configuring the Model 326" on page 3 (and described in detail in other chapters, for which the outline provides a roadmap). The recovered node will rejoin the cluster which already contains the other (working) node. You will also need to reconfigure any cluster resource balancing you had set up prior to recovery, such that the recovered node will once again be the preferred owner of any resources for which it had been the preferred owner prior to the recovery. See "Cluster resource balancing" on page 40 for more details on configuring resource balancing.