

IBM TotalStorage™ Network Attached Storage 300G
(Model G00)



Release Notes

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2/26/01

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Release notes

This document contains the release notes for this storage product.

Refer to www.storage.ibm.com/support/nas for possible updates to these release notes and for copies of the base documents.

Functional notes

The following section(s) contain information on 300G function.

Failover for redundant Ethernet

The 10/100 Ethernet adapter that is built-in (on the planar) of the engine is not redundant-capable. However, the IBM 10/100 Ethernet Server Adapters (NIC adapter) that you install in the PCI card slots are redundant-capable. If you install two NIC adapters and connect them to the same logical segment, you can configure the server to support an Ethernet-adapter failover function.

In failover mode, if the primary Ethernet adapter detects a link failure, all Ethernet traffic associated with it is switched to the redundant (secondary) adapter. This switching occurs without your intervention. When the primary link is restored to an operational state, the Ethernet traffic switches back to the primary Ethernet adapter. The switch back to the primary Ethernet adapter can be automatically or manually controlled, depending on the setup.

Administration notes

The following section(s) contain information on administering the 300G.

Determining who is using the network-attached storage

Occasionally, the administrator may want to know who is using the network-attached storage. The administrator can determine this information as follows:

1. Start a Windows Terminal Services session from the administrator's console to the 300G.
2. Click on the **IBM NAS Admin** icon on the desktop.
3. In the left pane, click on **File Systems**, then **Shared Folders**, then **Sessions**.
4. The users currently using the storage are displayed. If necessary, you can close those sessions with a right-click. Before you close a session, you can notify the user that you are going to close the session by clicking on Start, Program, Accessories, Command Prompt, and then issuing the **net send hostname msgagetext** command.

Recovery procedure for the system hard disk drive

Chapter 6 of the *User's Reference* documents the Recovery CD-ROM procedure. This section documents additional steps and considerations not included in the *User's Reference*. Please use the following procedure to recover the 300G:

1. If you are using the recovery procedure to restore the 300G after replacing the internal hard disk drive, proceed to step 2 on page 2 now. Otherwise continue with this step.

Delete all persistent images on the system volume and on any volumes on storage devices on the storage area network (SAN) that the 300G can access via fibre channel. (See the section titled "Persistent Images" in Chapter 4 of the *User's Reference* for more information on persistent images.)

2. Disconnect all fibre cables from the 300G's fibre channel adapters.
3. Use the Recovery CD-ROM procedure described in Chapter 6 of the *User's Reference*.

Note: If you have installed more processor memory, you will need to attach a keyboard and display to the 300G so that you can step through the menu-driven BIOS configuration program which will appear during two of the 300G restarts that take place during the recovery process (as a result of the additional memory having been installed).

The BIOS configuration program will appear for the first time when you restart the 300G from the Recovery CD-ROM (after you use the IBM TotalStorage Recovery Enablement Diskette to allow the 300G to restart from CD-ROM). The BIOS configuration program will appear the second time when you restart the 300G without the Recovery CD-ROM (after the Recovery CD-ROM has finished copying its preloaded software image onto the 300G's internal hard disk drive).

To step through the BIOS configuration program, select **Continue** on the first screen, then select **Continue** again, then select **Exit Setup**, and finally, select **Yes, save and exit Setup**. Once you have done this for the second time, you may detach the keyboard and display from the 300G and allow the recovery process to complete automatically.

4. Reinstall all software updates you had installed on the 300G from when you installed the 300G itself (out of the box). Or, if the Recovery CD-ROM you used in step 3 is a newer version than that you received with the 300G, reinstall only those software updates that are newer than that Recovery CD-ROM.
5. Start Disk Management on the 300G. You can do this in one of two ways:
 - a. Start a Terminal Services session to the 300G, 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 300G, then select **Disks and Volumes**, then select **Disks and Volumes** again, and then provide your administrator user name and password when prompted.

If you are using the recovery procedure to restore the 300G after replacing the internal hard disk drive, continue with step 6. Otherwise, go to step 7.

6. You must now rebuild the Maintenance (D:) partition on the new hard disk drive, as the recovery process only rebuilds the System (C:) partition. In the Disk Management window, right-click on the unallocated area of Disk 0, and then click **Create Partition**. In the Create Partition wizard, click **Next**, select **Primary Partition**, click **Next**, select *D:* as the drive letter, click **Next**, change the volume label to *Maintenance* and click **Finish** to close the wizard.

The partition will then be formatted, which will take some time to complete. Once formatting is complete, the status of the partition should appear as *Healthy*, and the other properties should appear as: name *Maintenance*, drive letter *D:*, file system *NTFS*, size (approximately) *5.6 GB*.

7. Reconnect the fibre cables to the 300G's fibre channel adapters.

8. In the Disk Management window, select **Rescan Disks** from the Action menu. Once the rescan has completed, the SAN-attached storage volumes should be visible, with the drive letters you assigned to them before the recovery procedure.

Persistent Storage Manager cache file relocation and resizing considerations

The Persistent Storage Manager (PSM) cache file is located, by default, on the Maintenance partition (D:) and has a size of 1 gigabyte. You will probably need to increase the size of this file and move it to another volume because the size of the Maintenance partition is only 6 GB. As a general guideline, you should size the cache file so that it is roughly 10 percent of the total storage capacity.

To resize and move the cache file, you must first delete all existing persistent images. Then, using the Windows 2000 for NAS user interface, select **Disks and Volumes**, then **Persistent Storage Manager**, then **Configure...** from the right-hand menu. On the Configuration panel, select the volume to which you wish to relocate the cache file in the **Persistent image cache file volume** combo box, and in the **Persistent image cache file size** combo box select the new size of the cache file. Click **OK** to activate the changes you made.

Notes:

1. You should choose your PSM cache size carefully. This cache must be large enough to contain all sector changes since you took the first persistent image (of all currently active persistent images). If you do not provide a large enough cache and the cache size is exceeded, this cache is (and must be) automatically deleted.
2. You should be aware that while the PSM cache saves sector but not file changes, when an application changes (writes) a file, it generally writes the entire file to a different set of sectors. And therefore, to PSM, all sectors appear to have changed.

AntiVirus protection

You can perform AntiVirus scanning of 300G storage from clients having the appropriate access permissions. Also, you can install Norton AntiVirus Version 7.1 or later on the 300G engine using normal Windows 2000 software installation procedures.

Depending on configuration options, AntiVirus scanning may use substantial CPU or disk resources. Therefore, you should carefully select scanning options and scan schedule.

Memory notes

The following section(s) contain information on adding memory.

Adding more engine memory to increase performance

You can enhance the performance of the 300G in an NFS environment by adding more RAM to its processor. To do this:

1. Purchase one or two 512M memory SIMMs (part number 33L3127) from Options by IBM at www.pc.ibm.com/us/options/
2. Follow the instructions in Chapter 3, section *Replacing memory modules*, of the *Installation Guide*.

3. Before rebooting the box, attach a keyboard and display directly to the rear connectors of the product. During the first IPL, you will have to read and answer questions about the additional memory you have installed.

Using the Recovery CD-ROM if you have added more processor memory

If you have installed more processor memory, and later use the Recovery CD-ROM (see the *User's Reference*), you will have to attach a keyboard and display and answer questions about the additional memory you have installed.



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