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Service Bulletin

Running the File System Check (fsck) Utility

When a Linux system shuts down properly, the operating system writes a special signature file on the hard drive indicating that the file system data is intact. When the system boots, the operating system checks for this signature file. If the signature file is present, the system deletes the signature file and boots the operating system. If the signature file is missing, the operating system runs the File System Check Utility (fsck) system utility, which attempts to check and repair the Linux file system. As the fsck runs, it displays its progress on the monitor. If the fsck utility finds issues that it cannot repair, it will prompt the user to enter the system password to enter maintenance mode and manually run the file system repairs. The following is an example of the message:

```
***An error occurred during the file system check.  
***Dropping you to a shell; the system will reboot  
***when you leave the shell.
```

Give root password for maintenance
(or type Control-D for normal startup):

Maintenance mode only loads the minimal programs that are necessary to boot the system and displays a command prompt for the user to enter commands.

To keep the operating system in good working order we recommend that you perform a system check of the file system periodically and when you make changes to the system. This system check takes about five minutes to complete but could take up to 30 minutes to complete.

This document describes following different ways to run the file system check utility:

- Running the fsck Utility from the System Prompt
- Running the fsck Utility from during the System Boot Process

Parts List

This media package includes the following:

- 48-000785 Revision 1 *Running the File System Check (fsck) Utility* (this document)

Product:

Linux Machines

Operating System:

Linux

P/N:

48-000785 Revision 1

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Running the fsck Utility from the System Prompt

This section describes how to perform a manual system check from the system prompt. To run the fsck utility while the system is running, follow these steps:

1. Type **root** at the system password prompt and press the **Enter** key. The system displays the following command prompt:
bash#
2. Type **fsck -y -C /dev/hda1** at the bash command prompt and press the **Enter** key to run fsck. The fsck utility could display the following message:
WARNING!!! Running e2fsck on a mounted filesystem may cause SEVERE filesystem damage.
Do you really want to continue (y/n)?
3. Press the **Y** key to continue the file system check, if necessary
4. Type **reboot** at the bash command prompt and press the **Enter** to restart the system when the fsck completes.

Running the fsck Utility from during the System Boot Process

This section describes how to perform a manual system check during the system boot process. When the computer starts the power up process, there are a few seconds that you can type a command before the power up process continues. Look for the prompt LILO early in the process. If you miss this opportunity, shut down the computer and start the process over again. To boot the system and perform the manual file system check with the computer in the power off mode, follow these steps:

1. Press the power button on the computer's front panel to start the computer. The LILO prompt displays after the Systems Configuration chart.
2. Type **linux -s** at the LILO prompt and press the **Enter** key.
3. Type **fsck -y -C /dev/hda1** at the bash# prompt and press the **Enter** key.
4. Type **reboot** at the bash# prompt and press the Enter key to reboot the system.