1 Introduction

This document describes the procedure for setting up and performing an "**initRD**" ("Initialize RAM Disk") procedure on an iStor controller that is currently configured with a D-Link OEM customized version of firmware. After performing this procedure, the controller will contain the latest iStor firmware version, which can then be further customized using the Personality Toolkit. This procedure applies to ATX-based controllers and iS512-based controllers.

2 Equipment and Tools Required

2.1 Windows host system

This can be a Windows 2000, Windows XP or Windows Server 2003 system with at least one RS-232 Serial Port (COM). The Windows host system does not need to have any network access.

2.2 CRT Software

This is an intelligent Terminal Emulation software application that is available from Van Dyke Software at http://www.vandykesoftware.com/download/latestreleases.html. A license key is also required to use this software application for an extended period of time, although an evaluation version of the software can be used without a license key for a limited time. Refer to the Van Dyke Software website for details about the evaluation period.

2.3 initrd.js

This is a JavaScript file that is used by the CRT software to perform the **initRD** process on an ATX-based controller. iStor Networks has provided this file on our public FTP server (see Section 3.2).

2.4 initrdSFF.js

This is a JavaScript file that is used by the CRT software to perform the **initRD** process on an iS512-based controller. iStor Networks has provided this file on our public FTP server (see Section 3.2).

2.5 TFTP Server

This is a Windows or Linux host that includes a "**tftp**" ("trivial FTP") server and at least one network interface. The TFTP Server should have an IP Address assigned (for example, **192.168.aa.bb**).

2.6 Binary Files for iStor Firmware

These binary files represent the functional firmware image that is to be installed on the controller during the initRD process. iStor Networks has provided these files on our public FTP server (see Section 3.3)

2.7 RS-232 Serial Cable

This is a straight-through serial cable with DB-9 connectors at each end. It is used between the Windows host and the serial diagnostic port on the iStor Controller. Depending on the type of iStor controller, a gender changer may be required allow the cable to be connected to the iStor Controller.
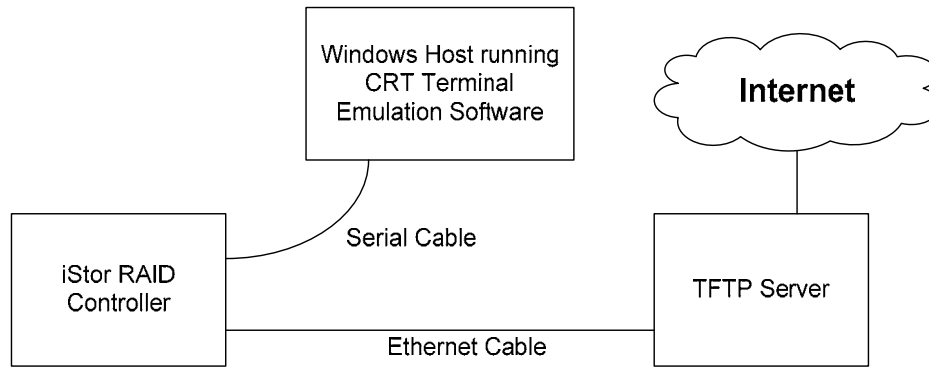
2.8 Ethernet Network Cable

This is a straight-through CAT-5 network cable with RJ-45 connectors at each end. It is used between the Management Port on the iStor Controller and the network interface on the TFTP Server.

3 Setup

3.1 Physical Connections

Connect all of the physical equipment according to the following diagram:

3.2 Download JavaScript files onto the Windows host

Download the **initrd.js** and **initrdSFF.js** files from ftp://ftp.istor.com/dlink/V2.0.0.119_initRD and install those files onto the local hard disk of the Windows system. When connecting to the iStor FTP server, login with a username of "**dlink**" and a password of "**dlink123**".

3.3 Download and Install binary files onto TFTP Server

Download all of the binary files from ftp://ftp.istor.com/dlink/V2.0.0.119_initRD and install those files into the **tftpboot** directory on the TFTP Server. When connecting to the iStor FTP server, login with a username of "**dlink**" and a password of "**dlink123**".

3.4 Set the Part Number and IP Address on the iStor Controller

1. Start the CRT terminal emulation software and connect to the iStor controller using a baud rate of 9600 bps and character framing of 8 data bits, no parity, 1 stop bit, no hardware handshake.

2. Power-on the iStor Controller.

3. Press the **Enter** key when the following prompt appears: `Hit any key to stop autoboot:` and observe the "`I8000E>`" prompt on an ATX-based controller or the "`SFF=>`" prompt on an iS512-based controller.

4. Enter the command: `printenv`

5. Set the IP address of the iStor controller by entering: `setenv ipaddr 192.168.xx.xx`

6. Change the Part Number on the iStor controller by entering: `setenv part# P000XXX`
    (where "**XXX**" depends on the type of controller):
    P000741 for iS512
    P000745 for GigaStorATX-816
    P000746 for GigaStorATX-416
    P000747 for GigaStorATX-408
    P000748 for GigaStorATX-1016

7. Save the new part number and IP address by entering: `saveenv`

8. Verify that you can communicate with the TFTP server by entering: `ping 192.168.aa.bb`
    (use the actual IP address that was specified in Section 2.5 above)

4 <u>Perform the InitRD process</u>

1. In the CRT session that was started in the previous step, select "**Script**" and "**Run**" from the menu.

2. Browse for the **initrd.js** or the **initrdSFF.js** file on the local disk of the Windows system and click "**Run**". Be sure to use the correct script

3. A popup dialog appears with the prompt: **Is Environment to revert to Factory Defaults?** Enter "**Y**" and click "**OK**".

4. A popup dialog appears with the prompt: **Enter the TFTP server's IP address:** Enter the IP address of the Linux-based system that contains the TFTP server and click "**OK**".

5. A popup dialog appears with the prompt: **Enter the gateway's address:** Just click "**OK**" to accept the default value, since it is not used with a direct point-to-point network connection.

6. A popup dialog appears with the prompt: **Enter any directory prefix to use on the tftp server:** Just click "**OK**" to accept the default value (blank).

7. Wait for the InitRD process to complete. The iStor controller will automatically reboot using the new firmware image.

8. After the reboot completes, you can login with a user name of "**admin**" and a password of "**admin**", and reset the system to factory defaults. The system will reboot.

9. After the second reboot completes, login again and select the "**Shutdown**" option twice to shutdown the system.

< End of Procedure >