

HOW TO UPGRADE THE FIRMWARE ON A POWERCONNECT 3024, 3048, OR 5012 USING SOLARWINDS™ TFTP SERVER 5.0

Content: Greg Gibbs 7/6/2003 (revised 5/20/2005)

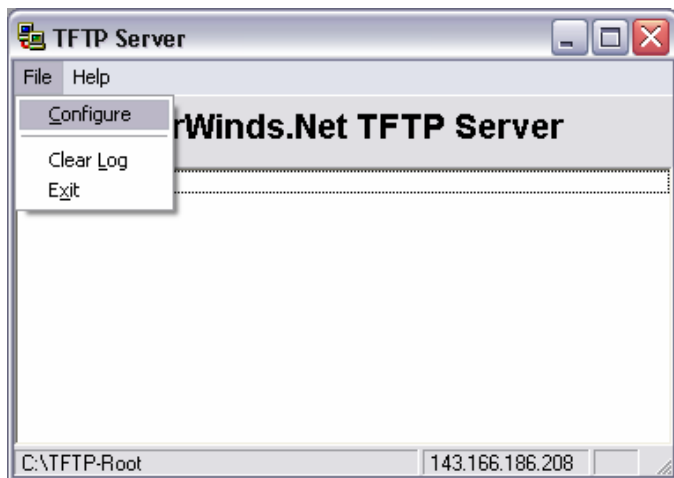
Recommended configuration for a firmware upgrade:

- Single switch (not in a stacked configuration) configured with a static IP address and netmask
- System running a TFTP Server application connected directly to the switch via console (null modem cable) and Ethernet (Category 5 or higher).
- TFTP Server system configured with a static IP address and netmask.

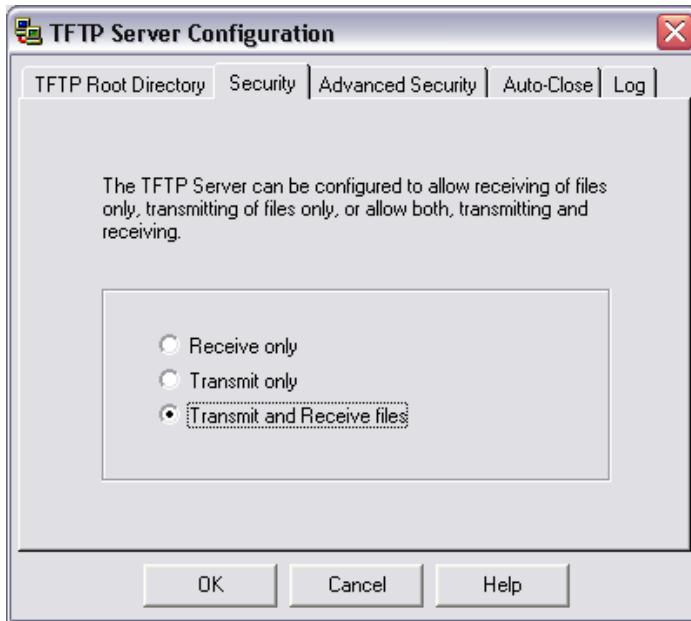
Note: A firmware update across a fiber uplink is not possible. The switch does not initialize the fiber ports fast enough to allow the switch to boot from the TFTP Server on the other side of the fiber.

1. Download the TFTP server software from <http://support.solarwinds.net/updates/New-customerFree.cfm> and install the program.
2. Run the TFTP server application. The first time it is run, it will create a folder on the root of the C: drive called TFTP-ROOT. By default, this will be the root directory of the TFTP server.

Note: If you wish to change the default root directory, you can do so from the TFTP Root Directory tab of the Configuration options. Click on File → Configure to access the Configuration options.

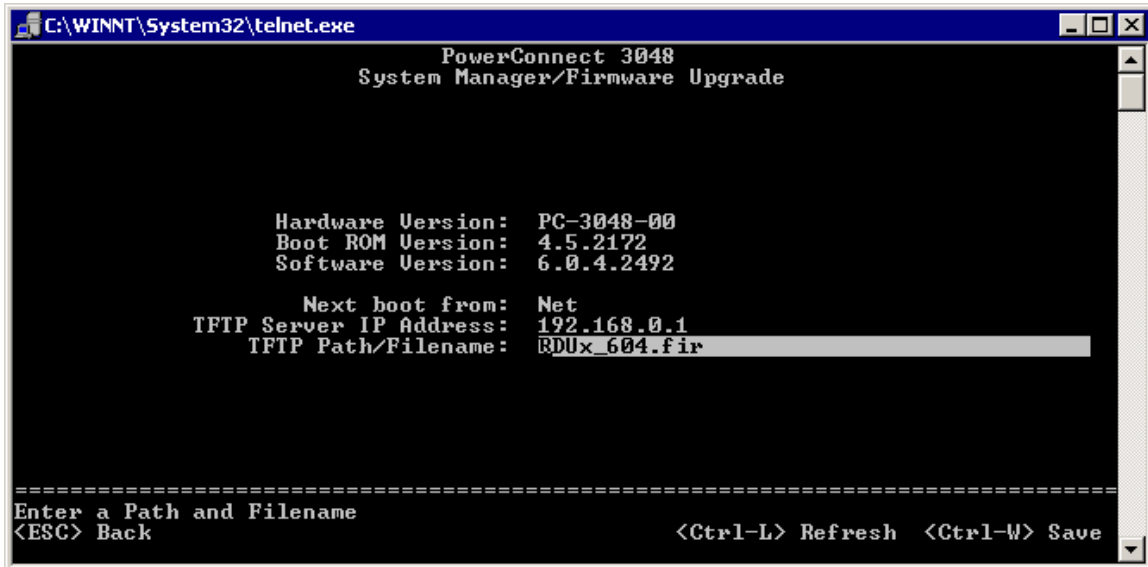


4. On the Security tab of the Configuration options, select Transmit and Receive files.



5. Click OK to save the settings and leave the main TFTP Server window open.
*** If the application window is closed, the TFTP service will be stopped ***
6. Download the firmware from www.premiersupport.dell.com. The filename for the 6.0.4 firmware is 604firm.zip. Unzip the file and place the firmware binary file (RDUx_604.fir) in the root directory of the TFTP Server (C:\TFTP-ROOT by default).
7. Connect to the management interface of the switch using a terminal emulation program (ex. Hyperterminal private edition, Tera Term, etc.)
8. Browse to the **System Manager/Firmware Upgrade** menu. Highlight the option for Next Boot From: and hit the spacebar to change the setting to Net (the default is Last Saved).
9. For the TFTP Server IP address option, input the IP address of the system running the TFTP Server application (this will also be shown in the bottom right-hand corner of the main TFTP Server application window).

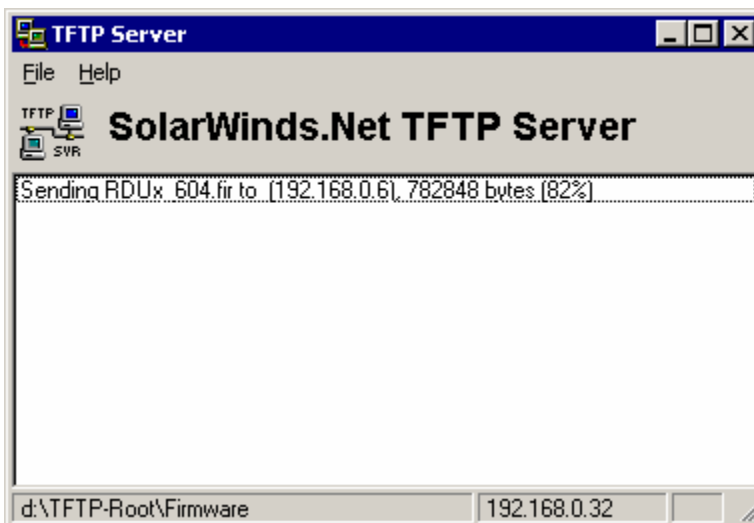
10. For the TFTP Path/Filename option, input only the filename. If the file is in another folder, input the path from the TFTP root directory.



11. Use the Ctrl-W keystroke to save the changes.

12. Press Esc to navigate back to the System Manager menu and select the Reset option.

13. The switch will attempt to boot from the TFTP Server. Once the TFTP Server establishes a connection, it will output status information and errors to the main application window as seen from the following screenshot.



14. Once the switch has booted, verify that the Firmware Upgrade menu now displays the new firmware version and verify that the firmware file is not corrupt by navigating through a couple of menus. If there appears to be any problem, try downloading another copy of the firmware file and re-flash with the new file.

15. If there appears to be no problem with the firmware flash, navigate back to the **System Manager/Firmware Upgrade** menu and change the Next Boot From: option to Net & Save.
16. Save the settings again by using the Ctrl-W keystroke.
17. Press Esc to navigate back to the System Manager menu and select the Reset option. The switch will now boot to the new firmware from the TFTP Server and automatically save the new firmware to the flash memory. The Next Boot From: option will be changed back to Last Saved.
18. Once the switch has booted, verify that the Firmware Upgrade menu now displays the new firmware version.

***** Note: Configuration files created under the 5.x firmware can cause adverse effects after updating to the 6.x revision. It is highly recommended to reset the factory default configuration after updating the firmware. As there is no option under the 5.x firmware to copy the configuration to TFTP, customers are advised to write down the existing configuration changes and manually reconfigure the switch after the upgrade.*****

The most common manifestation of these adverse effects is that the ports will display on the console (Port Manager menu) as Administratively Disabled. When changing the port Admin state to Enabled, it will automatically transition to a Disabled state. In this scenario, the switch will not pass any traffic. Resetting the factory default configuration will typically remedy this problem.