Firmware Update on PVIQ Hardware via TFTP
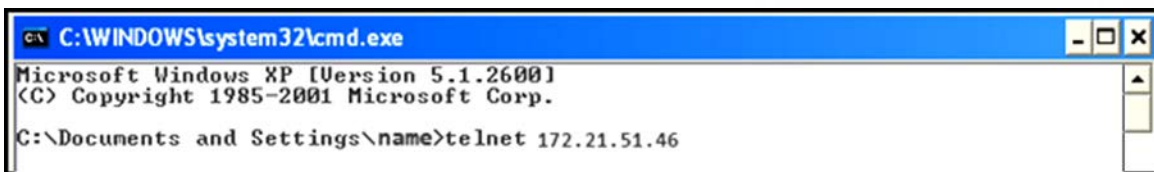
Applies to:	SmartZone PVIQ panel
Objective:	Download firmware files to PVIQ PMs and PVIQ EMs
Documentation Reference:	• System Hardware Installation Instructions • Technical Reference #TR44
Pre-Requisites:	• Install and connect the PViQ hardware as indicated in the System Hardware Installation Instructions • Make sure that you complete all Firmware Preparations as instructed in Technical Reference # TR44 • Make sure that you have access to a DHCP server

Description

A TFTP server can be used to download the firmware files to your PVIQ™ PMs and PVIQ™ EMs.
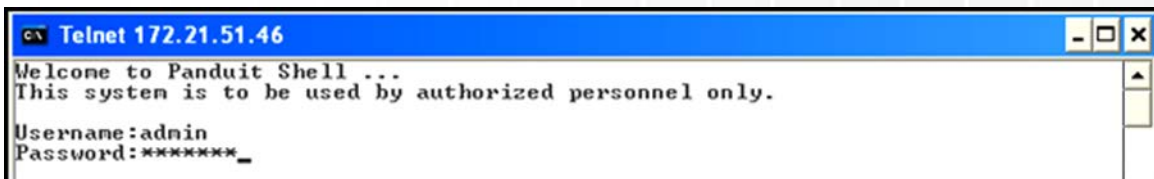
Performing the Procedure

1. Telnet into the PViQ device (i.e. "telnet 172.21.51.46").

```
C:\WINDOWS\system32\cmd.exe

Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\name>telnet 172.21.51.46
```

2. At the login prompt, use the following to bring up the Welcome Screen.
   login: admin
   password: Panduit

```
Telnet 172.21.51.46

Welcome to Panduit Shell ...
This system is to be used by authorized personnel only.

Username:admin
Password:*******_
```

3. At the PSH prompt, type **show fw**

4. The screen will display information pertaining to your firmware ending with another PSH > prompt.
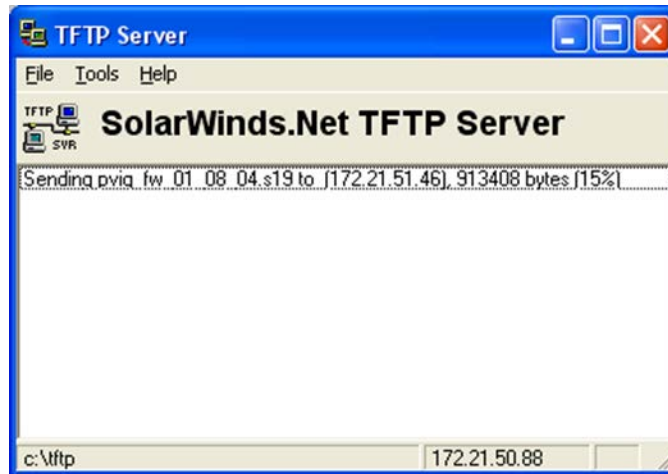

5. At the PSH> Prompt, type **start fwupdate** (and IP ADDRESS FILENME – see example below).

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```
C:\WINDOWS\system32\cmd.exe                                    _ □ ×
PSH >
PSH >
PSH > start fwupdate 172.21.50.88 PUiQ_FW_01_08_04.s19
PSH > fwupdate: Starting Firmware Update.
fwupdate: Server is reachable.
fwupdate: Sync internal data changes (~1-10 minutes)
fwupdate: Sync complete
fwupdate: Start maintenance mode
CFmngr_trans_mode: Error: failed to send buzzer job
CFpln_set_pepic_mode: Can't set PEPIC to mode 9 ret -1
fwupdate: Erase scratch memory.
fwupdate: Erase FLASH sectors 36 to 19.
fwupdate: Begin TFTP download/verify. (~5 minutes)
fwupdate: Download complete - verify image.
Image Info:
#######################################
#         nyx #  2008         #
#PUiQ:FW Version 01.08.04 (31Mar2008) Onyx #
#######################################

fwupdate: Server image is valid.
CFfwup_does_image_match_flash(1997): Image Mismatch addr:x00260400 i:0x0010
fwupdate: Program FLASH with server image (~2 min) [cnt=65535].
fwupdate: Erase FLASH sectors 36 to 19.
fwupdate: Write image to FLASH.
CFfwup_copy_scratch_to_working(2118): Image copy complete
fwupdate: Programming complete.
fwupdate: ( fwupdate: PASS, 1548 )
fwupdate: Processor Reset in 5 seconds.
PAN SHELL is closed by your end, bye ..


Connection to host lost.

C:\>
```

6. Check to see that the Firmware update has been sent by the TFTP server. You will see a file transfer status in the window.

```
TFTP Server                                              _ □ X
File   Tools   Help

TFTP    SolarWinds.Net TFTP Server
SVR

Sending pviq_fw_01_08_04.s19 to [172.21.51.46], 913408 bytes [15%]




c:\tftp                              172.21.50.88
```

NOTE: The TFTP server process takes approximately 5 minutes, followed by an additional 30 minutes for the panel to be updated. During this time, it is common for the panel to experience various LED flashes and audible beeps from the panel.

7. The process is complete when all the ports LEDs turn from red to off.

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NOTE: It is a good idea to shut down the TFTP server when not-in-use for network security reasons.

8. Should an error occur during the TFTP process, verify the following:

   a. Did you specify the correct IP address for the TFTP server?
      Note: this TFTP server IP address is not the same as the IP address for the PVIQ panel.
   b. Did you specify the correct TFTP file name? The file name will look similar to this:
      PViQ_FW_01_14_04.s19 although the name will change for every firmware release.
   c. Is the TFTP server powered up?
   d. Is the TFTP server ping-able? If not, then verify your network settings.
   e. Is the TFTP server application configured to point to the directory with the firmware file? We generally use the **c:\tftp** directory to perform transfers, although you can use another directory if desired. Be sure to put the firmware file in this directory.
   f. Is the TFTP server application enabled? Some TFTP servers allow you to turn TFTP communication on/off, even though they are installed and running.
   g. For multiple simultaneous TFTP updates, be sure your TFTP server supports multiple simultaneous TFTP updates; some free TFTP servers allow one or two downloads while others allow many.

End State

You have downloaded the firmware files to your PVIQ PMs and PVIQ EMs.