

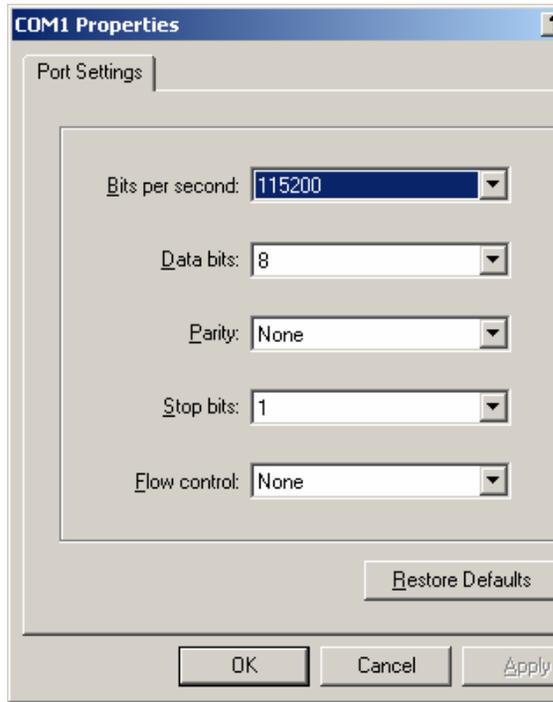
IBM Switched and monitored PDUs: Firmware update instructions

Updated: 4/7/2011

Outline

- ❑ Firmware upgrade via **Bootloader (Hyperterminal)**
- ❑ Firmware upgrade via **WEB Interface**

Firmware upgrade via Bootloader (Hyper-Terminal)

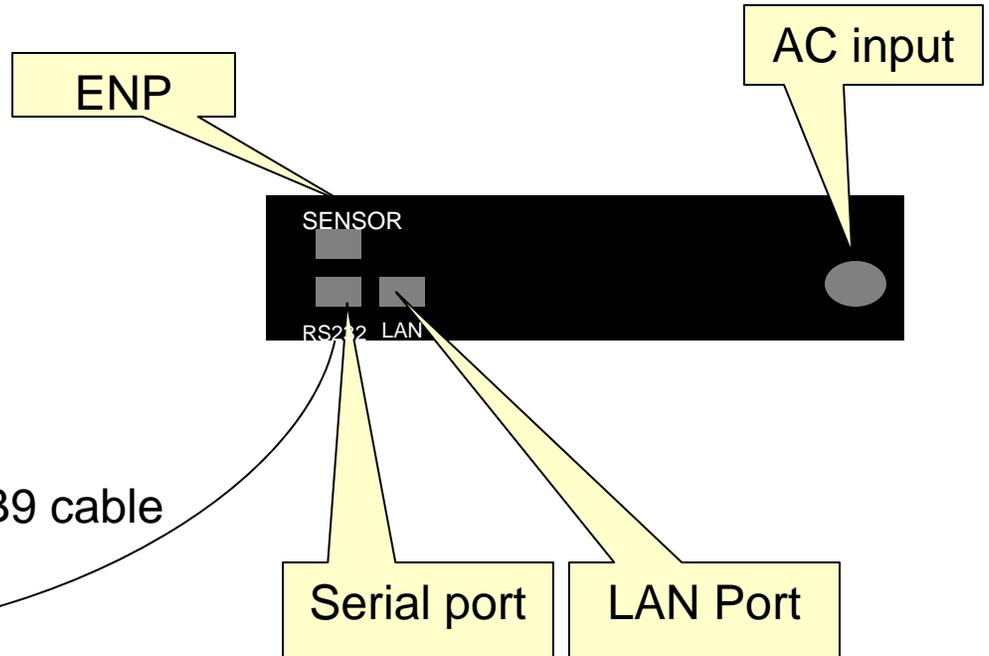


System Setting

Running Hyper-terminal on you computer



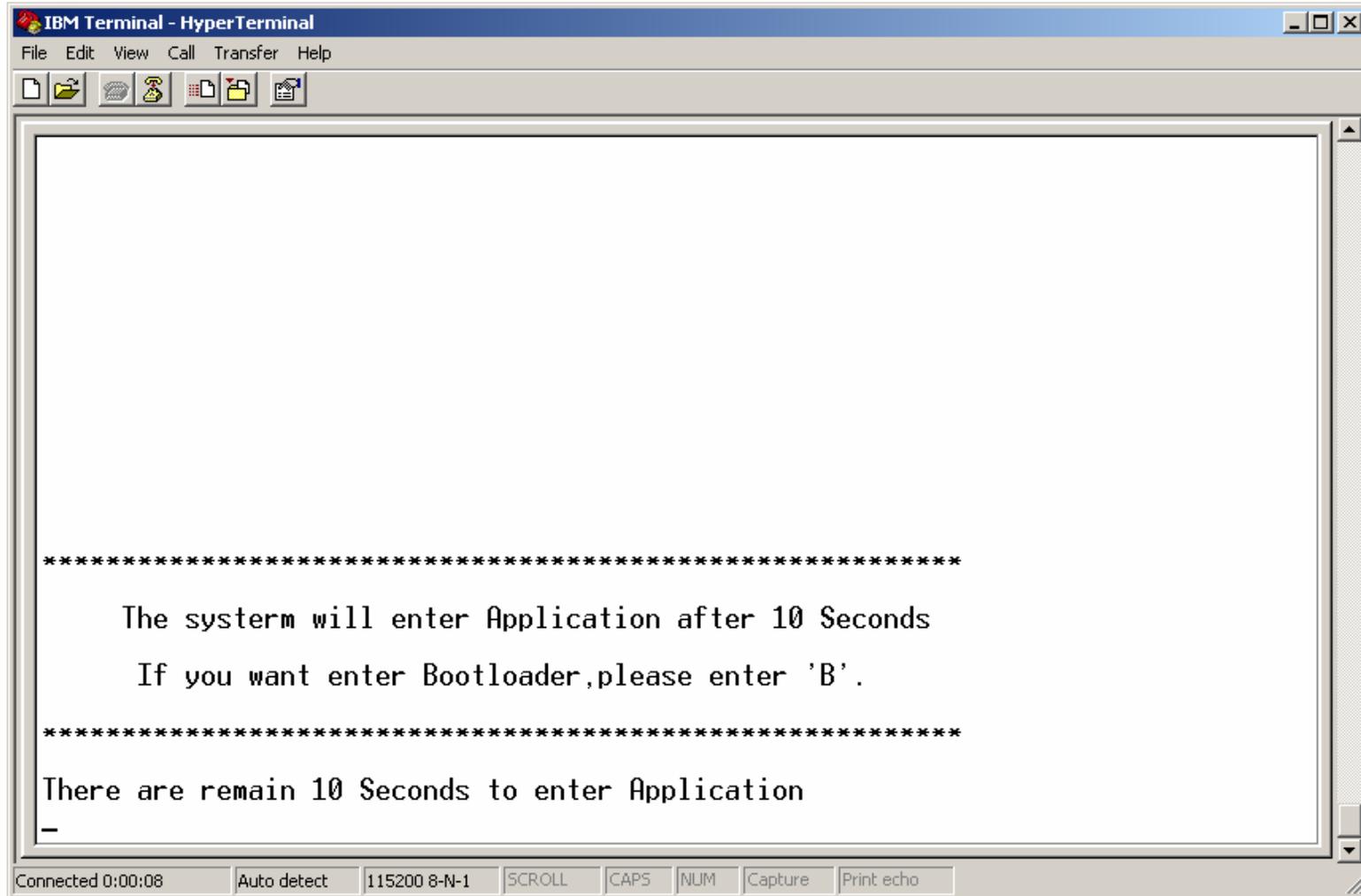
RJ45-to-DB9 cable



After you have system configured and set up, you reset PDU (OFF, then ON)

Firmware upgrade via Bootloader

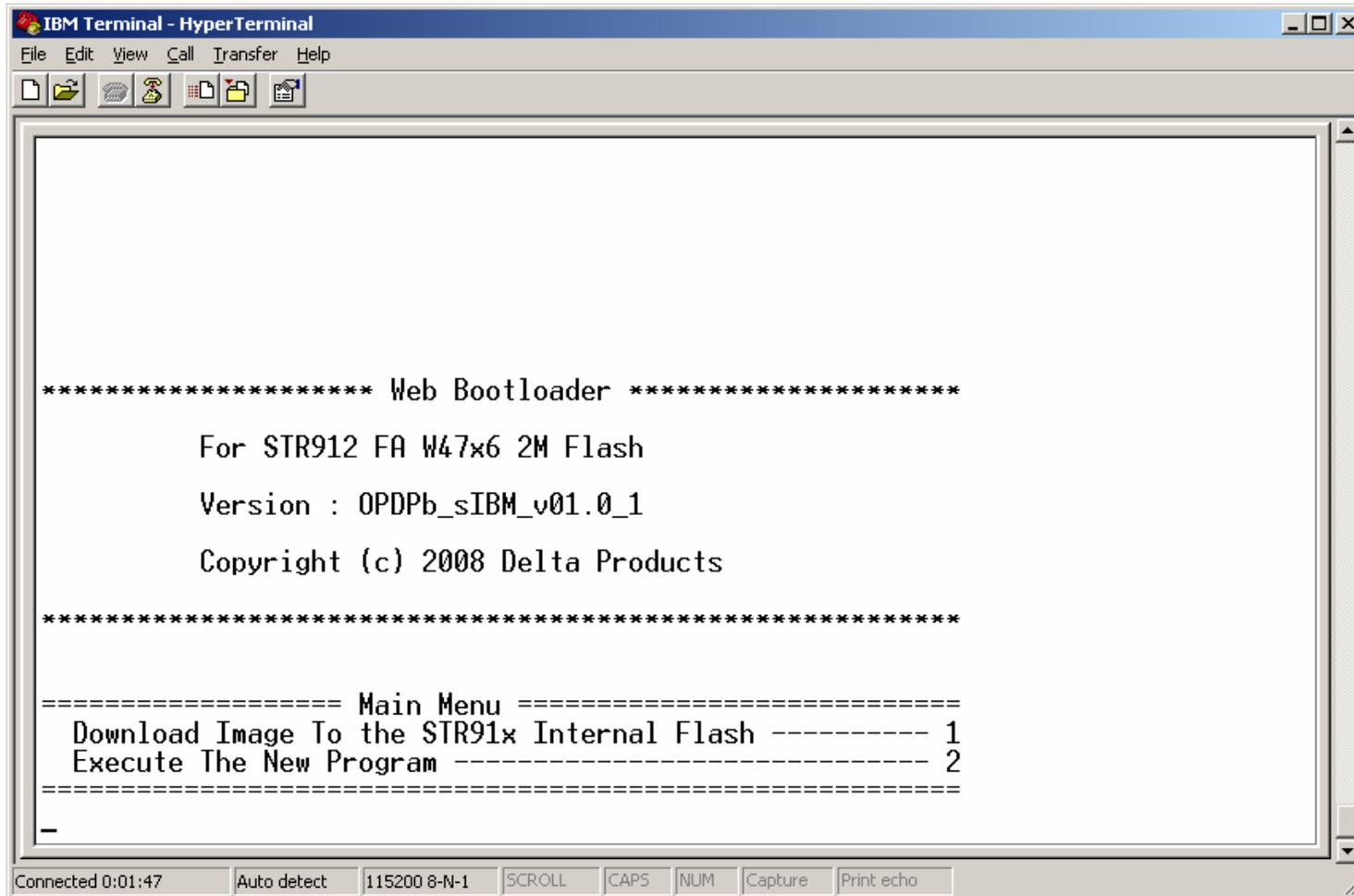
After power on, your hyper-terminal will show up as below:



Enter "B" from your keyboard, you will go into bootloader mode.

Firmware upgrade via Bootloader

Bootloader mode



```
IBM Terminal - HyperTerminal
File Edit View Call Transfer Help

***** Web Bootloader *****

For STR912 FA W47x6 2M Flash
Version : OPDPb_sIBM_v01.0_1
Copyright (c) 2008 Delta Products

*****

===== Main Menu =====
Download Image To the STR91x Internal Flash ----- 1
Execute The New Program ----- 2
=====

_

Connected 0:01:47 Auto detect 115200 8-N-1 SCROLL CAPS NUM Capture Print echo
```

After select “1”, you can start to down load the new firmware.

Firmware upgrade via Bootloader

IBM Terminal - HyperTerminal

File Edit View Call Transfer Help

Transfer>Send File

It must be Ymodem.

Send File

Folder: C:\IBM Potencia\IBM firmware release\20090605

Filename: C:\IBM Potencia\IBM firmware release\20090605

Protocol: Ymodem

Send Close Cancel

Your image file location

```
***** Web Bootloader *****  
  
For STR912 FA W47x6 2M Flash  
Version : OPDPb_sIBM_v01.0_1  
Copyright (c) 2008 Delta Products  
  
*****  
  
===== Main Menu =====  
Download Image To the STR91x Internal Flash ----- 1  
Execute The New Program ----- 2  
=====
```

Waiting for the file to be sent ... (press 'a' to abort)
CCCCC

Connected 0:03:31 Auto detect 115200 8-N-1 SCROLL CAPS NUM Capture Print echo

Start to send file (update firmware) for PDU by "Send".

Firmware upgrade via Bootloader

IBM Terminal - HyperTerminal

File Edit View Call Transfer Help

***** Web Boot *****
For STR912 FA W47x6
Version : OPDPb_sIB
Copyright (c) 2008

===== Main Menu =====
Download Image To the STR91x Internal Flash ----- 1
Execute The New Program ----- 2
=====

Waiting for the file to be sent ... (press 'a' to abort)
CCCCCC

Ymodem file send for IBM Terminal

Sending: C:\IBM Potencia\IBM firmware release\20090605\OPDP_sIBM_v00.0_0E

Packet: 51 Error checking: CRC File size: 1606K

Retries: 0 Total retries: 0 Files: 1 of 1

Last error:

File: 46K of 1606K

Elapsed: 00:00:34 Remaining: 00:19:12 Throughput: 1385 cps

Cancel cps/bps

Connected 0:03:31 Auto detect 115200 8-N-1 SCROLL CAPS NUM Capture Print echo

Updating firmware!!!!

Firmware upgrade via Bootloader

Finished the update!!!

```
IBM Terminal - HyperTerminal
File Edit View Call Transfer Help
[Icons]
For STR912 FA W47x6 2M Flash
Version : OPDPb_sIBM_v01.0_1

Copyright (c) 2008 Delta Products
*****

===== Main Menu =====
Download Image To the STR91x Internal Flash ----- 1
Execute The New Program ----- 2
=====

Waiting for the file to be sent ... (press 'a' to abort)
CCCCC

Programming Completed Successfully!
Name: OPDP_sIBM_v01.1_1.bin
Size: 1532380 Bytes

===== Main Menu =====
Download Image To the STR91x Internal Flash ----- 1
Execute The New Program ----- 2
=====

Connected 00:05:13 ANSIW 115200 8-N-1 SCROLL CAPS NUM Capture Print echo
```

Select "2" to execute the new program.

Firmware upgrade via Bootloader

```
IBM Terminal - HyperTerminal
File Edit View Call Transfer Help
Execute The New Program ----- 2
=====
Waiting for the file to be sent ... (press 'a' to abort)

CCCCC

Programming Completed Successfully!
-----
Name: OPDP_sIBM_v01.1_1.bin
Size: 1532380 Bytes
-----

===== Main Menu =====
Download Image To the STR91x Internal Flash ----- 1
Execute The New Program ----- 2
=====

Select "2" to execute the program

Press Any Key to Enter IBM PDU Configuration Utility.

+-----+
|                               [ IBM PDU Configuration Utility ]                               LOGIN
+-----+

Login ID: _

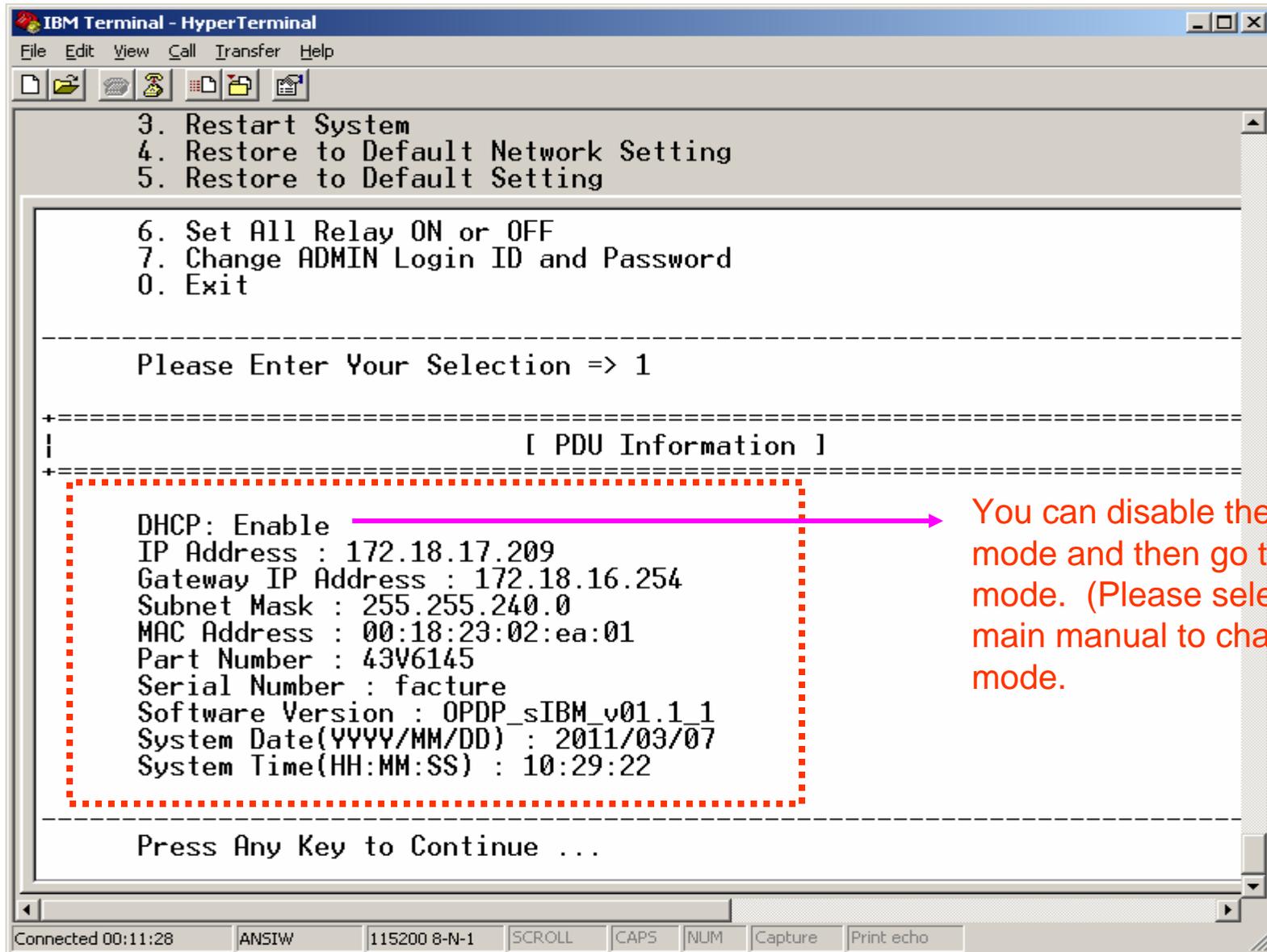
Connected 00:06:36  ANSIW  115200 8-N-1  SCROLL  CAPS  NUM  Capture  Print echo
```

Login ID: **ADMIN**

Login Passwd: **** → it is **1001**

Firmware upgrade via Bootloader

Select "1" for PDU information



Firmware upgrade via Bootloader

Select "2" to modify network information.

1. PDU Information
2. Setup Network Parameter
3. Restart System
4. Restore to Default Network Setting
5. Restore to Default Setting
6. Set All Relay ON or OFF
7. Change ADMIN Login ID and Password
0. Exit

Please Enter Your Selection => 2

[Setup Network Information]

DHCP(Enable):
1. Enable
2. Disable

Please Enter Your Selection => 2

DHCP Function Disable!

Please Enter IP Address (172.18.17.209) =>
Please Enter Gateway IP Address (172.18.16.254) =>
Please Enter Subnet Mask (255.255.240.0) =>

[IBM PDU Configuration Utility] ADMIN Level

1. PDU Information
2. Setup Network Parameter

Select "2" at main manual to modify IP configuration

Select "2" at Network Information to disable DHCP mode (go into Static mode to modify IP address)

Modify this IP , Gateway, and Subnet mask to your network.

Connected 00:16:19 ANSIW 115200 8-N-1 SCROLL CAPS NUM Capture Print echo EN English (United States)

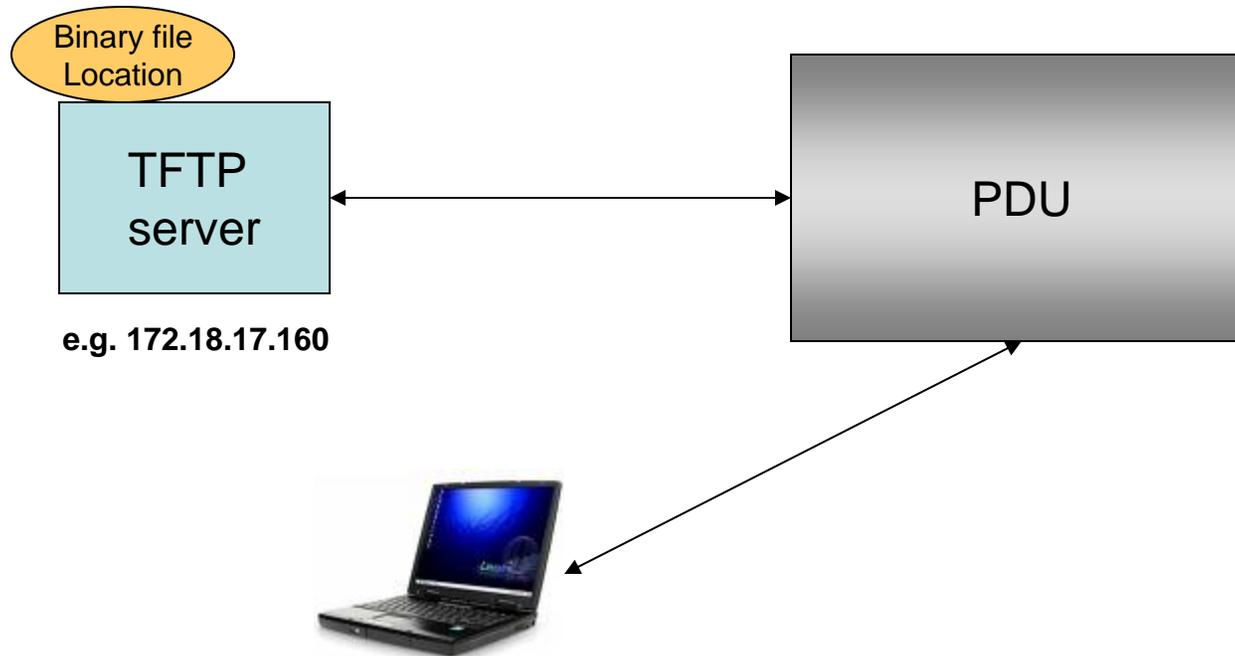
Outline

- ❑ Firmware upgrade via Bootloader (Hyperterminal)
- ❑ Firmware upgrade via **WEB Interface**

Firmware upgrade via WEB

System Setting Up

e.g. OPDP_sIBM_v01.1_1.bin

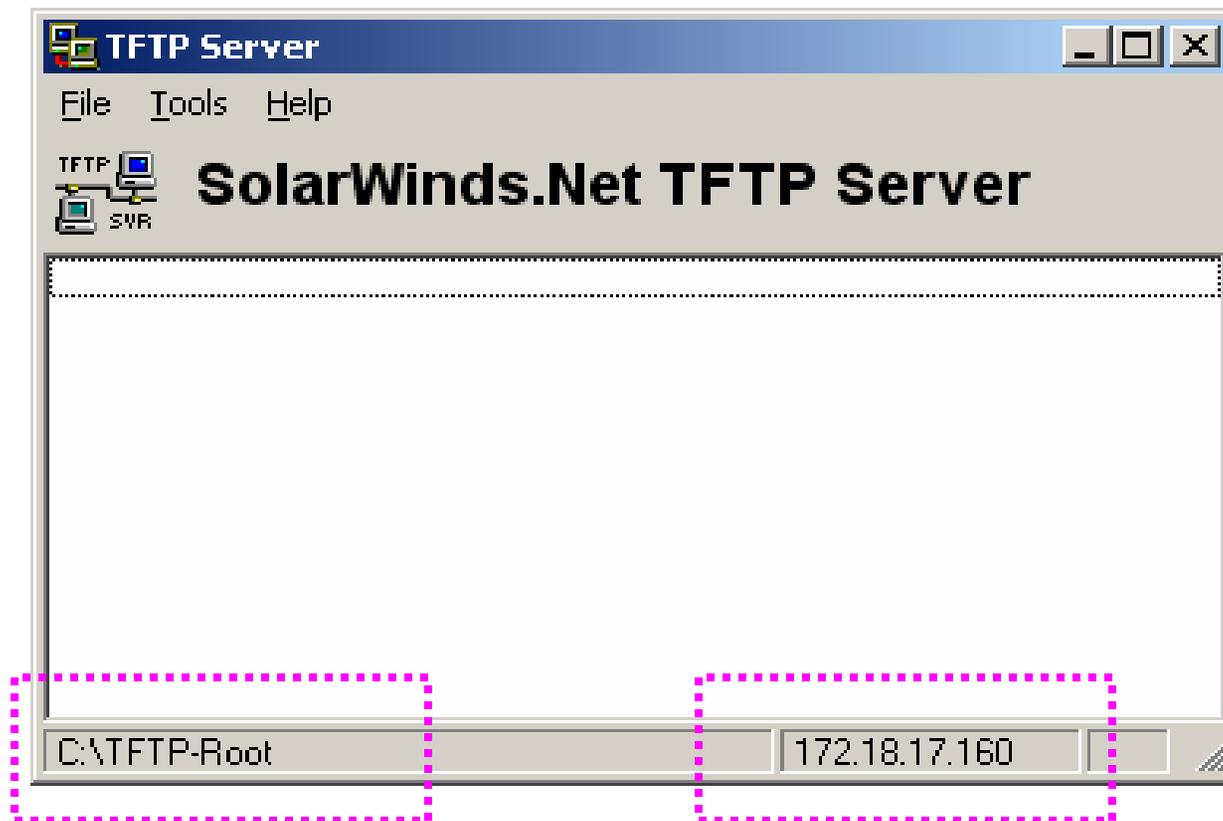


Set up TFTP server IP address and file name for transferring the binary (image) file to PDU (Firmware upgrade) via WEB page.

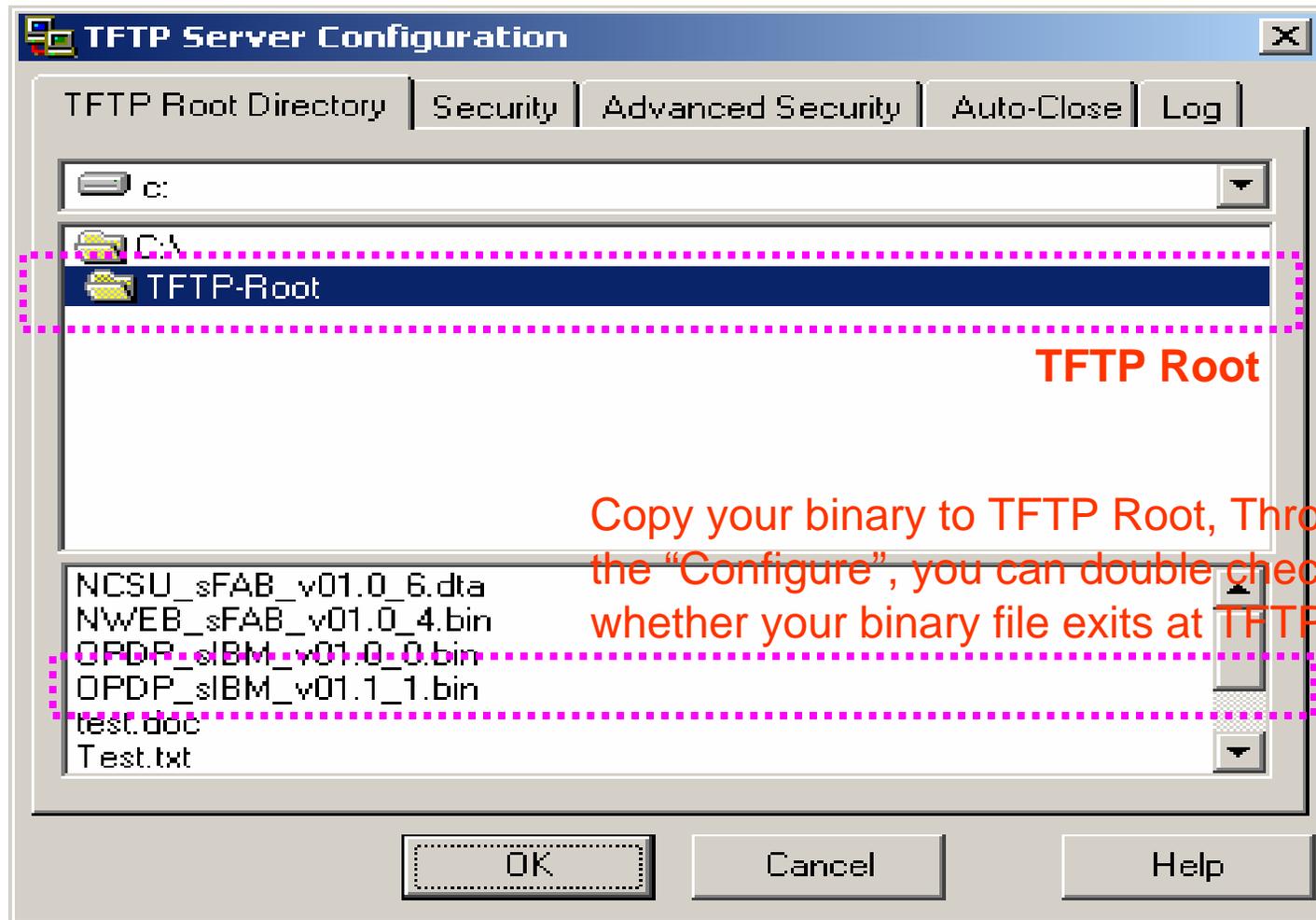
Start TFTP server

(My TFTP server is at 172.18.17.160,

And my the TFTP root is c:\TFTP-Root\ , we will download/put the binary file under TFTP root)



TFTP server configuration: (From main manual)
(File → Configure)



Login to your PDU via WEB Interface

On your browser (e.g. Internet Explore) put
you PDU's IP address (e.g. 172.18.17.209)

IBM DPI Remote Power Management - Windows Internet Explorer

http://172.18.17.209/

File Edit View Favorites Tools Help

Google Search

Share Bookmarks Check Translate AutoFill Sign In

IBM DPI Remote Power Management

IBM Intelligent Power Distribution Unit

User Name

Password

Login Cancel

Microsoft IE 6.0/Firefox3.0.1+ is required
1024*768+ pixel is recommended

Firmware version: OPDP_sIBM_v01.1_1

Done EN English (United States) Internet 100%

User Name → ADMIN (Case-sensitive)
Password → 1001

Firmware upgrade via WEB

At Manual tree, select “System→ Upgrade firmware

The screenshot displays the IBM DPI Remote Power Management web interface in Internet Explorer. The main navigation menu on the left includes 'Power Management', 'Environment', 'System', 'Configuration', 'SNMPv3 USM Setting', 'Identification', 'Date & Time', 'Trap Receiver', 'Upgrade Firmware', 'Import Configuration', and 'Export Configuration'. The 'System' menu is expanded, and 'Upgrade Firmware' is highlighted. A 'SolarWinds.Net TFTP Server' window is open, showing the local file path 'C:\TFTP\Root' and the IP address '172.18.17.160'. A 'Upgrade Communication Board Firmware - TFTP Server Setting' dialog box is shown, with the 'TFTP Server IP Address' field set to '172.18.17.160' and the 'Firmware Image File Name' field set to 'OPDP_sIBM_v01.1_1.bin'. A red text prompt below the fields reads 'Please input the Firmware Image File Name (include extension)'. An 'Upgrade' button is visible at the bottom of the dialog box. The background interface shows the IBM logo, a date/time stamp of '07/2011 11:09:55', the device identifier 'OPDP_sIBM_v01.1_1', and a 'Log Out' button.

Make sure to have the correct TFTP server IP address, and the correct file name under your TFTP Root. (Make sure to have the binary file under your TFTP root.)

Firmware upgrade via WEB

Downloading/transferring the file from TFTP server to PDU...

The screenshot shows a web browser window titled "IBM DPI Remote Power Management - Windows Internet Explorer". The address bar shows the URL "http://172.18.17.209/login.htm". The browser interface includes a menu bar (File, Edit, View, Favorites, Tools, Help), a search bar, and various toolbars. The main content area has a blue header with the IBM logo on the left, the date and time "03/07/2011 11:17:13" in the center, and the version "OPDP_sIBM_v01.1_1" on the right. A "Log Out" button is visible in the top right corner. On the left side, there is a navigation menu with categories: Power Management, Environment, System, Network, and Logs. The "System" category is expanded, showing sub-items: Configuration, SNMPv3 USM Setting, Identification, Date & Time, Trap Receiver, Upgrade Firmware, Import Configuration, and Export Configuration. The main content area displays a "Verify Image" button at the top. Below it, the text "Transferring..." is shown in red. A green progress bar indicates that "178176 bytes have been received." Below the progress bar, a red instruction reads: "After Download Finished, Please Click 'Verify Image' to Continue!". The status bar at the bottom shows "Done", "EN English (United States)", and "Internet" with a 100% zoom level.

Firmware upgrade via WEB

Finished the download process. Click on “Verify the Image” to continue.

The screenshot shows a Windows Internet Explorer browser window displaying the IBM DPI Remote Power Management web interface. The address bar shows the URL `http://172.18.17.209/login.htm`. The page header includes the IBM logo, the date and time `03/07/2011 11:19:10`, the session ID `OPDP_slBM_v01.1_1`, and a `Log Out` button. A left-hand navigation menu lists various system management options. The main content area displays a `Verify Image` button, a `Finished!` message circled in pink, and the text `1532380 bytes have been received.` Below this, a red instruction reads: `After Download Finished, Please Click "Verify Image" to Continue!`

IBM DPI Remote Power Management - Windows Internet Explorer

http://172.18.17.209/login.htm

File Edit View Favorites Tools Help

Google Search Share Bookmarks Check Translate AutoFill Sign In

IBM DPI Remote Power Management

IBM

03/07/2011 11:19:10 OPDP_slBM_v01.1_1 Log Out

Verify Image

Finished!

1532380 bytes have been received.

After Download Finished, Please Click "Verify Image" to Continue!

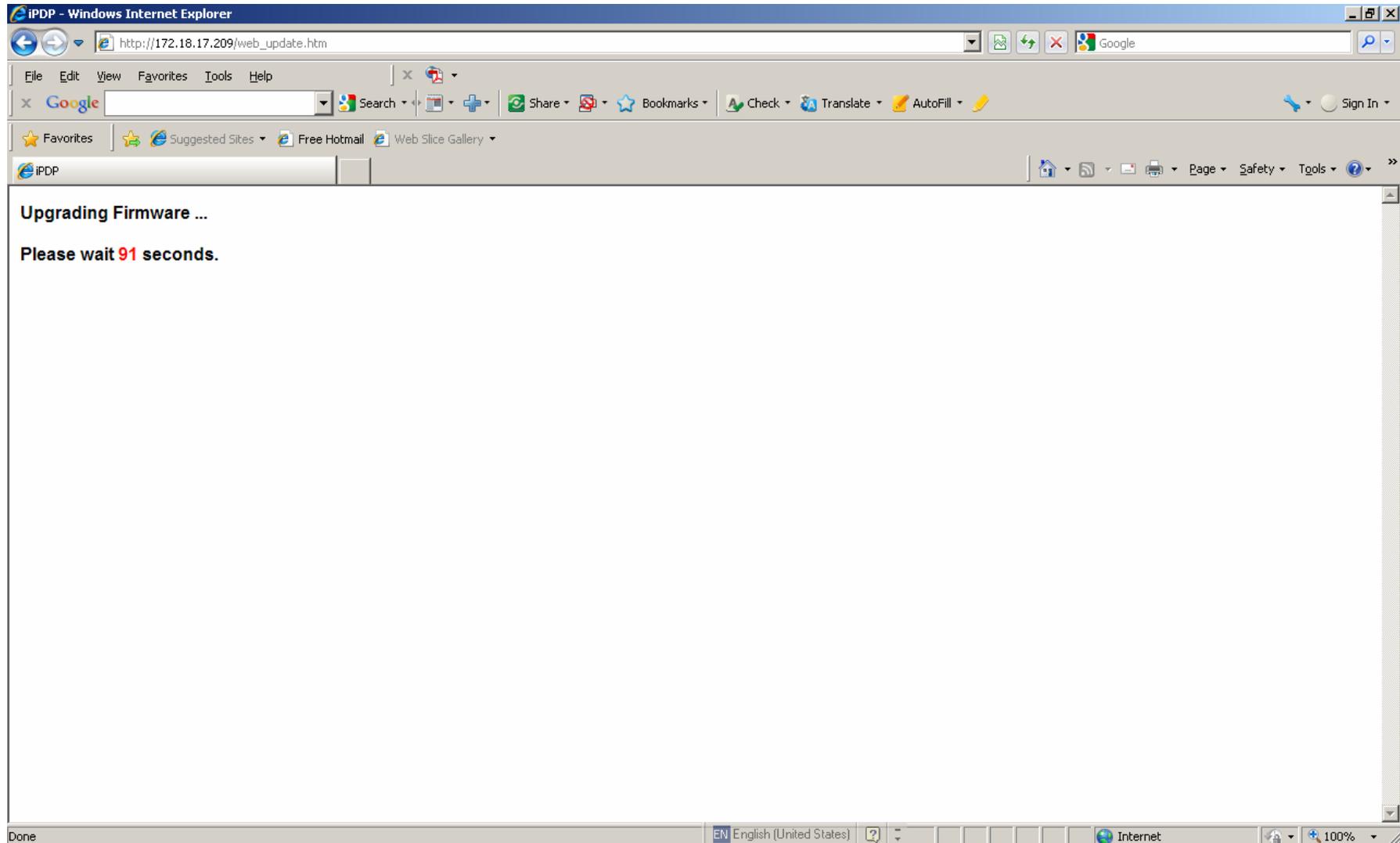
Power Management
Environment
System
Configuration
SNMPv3 USM Setting
Identification
Date & Time
Trap Receiver
Upgrade Firmware
Import Configuration
Export Configuration

Network
Logs

Done EN English (United States) Internet 100%

Firmware upgrade via WEB

After “Verify Image, PDU will automatically upgrade firmware.



Firmware upgrade via WEB

After finished the firmware upgrade, PDU will do “software” reboot automatically without affecting any outlets’ power output!

IBM DPI Remote Power Management - Windows Internet Explorer

http://172.18.17.209/

File Edit View Favorites Tools Help

Google Search

Share Bookmarks Check Translate AutoFill Sign In

IBM DPI Remote Power Management

IBM Intelligent Power Distribution Unit

User Name

Password

Login Cancel

Microsoft IE 6.0/Firefox3.0.1+ is required
1024*768+ pixel is recommended

Firmware version: OPDP_sIBM_v01.1_1

New upgraded firmware via WEB page

Done EN English (United States) Internet 100%