

**8-Port 10/100Mbps with 4-Port PoE
Web Smart Ethernet Switch**

FSD-804PS

User's Manual



Trademarks

Copyright © PLANET Technology Corp. 2006.
Contents subject to revision without prior notice.
PLANET is a registered trademark of PLANET Technology Corp. All other trademarks belong to their respective owners.

Disclaimer

PLANET Technology does not warrant that the hardware will work properly in all environments and applications, and makes no warranty and representation, either implied or expressed, with respect to the quality, performance, merchantability, or fitness for a particular purpose.

PLANET has made every effort to ensure that this User's Manual is accurate; PLANET disclaims liability for any inaccuracies or omissions that may have occurred.

Information in this User's Manual is subject to change without notice and does not represent a commitment on the part of PLANET. PLANET assumes no responsibility for any inaccuracies that may be contained in this User's Manual. PLANET makes no commitment to update or keep current the information in this User's Manual, and reserves the right to make improvements to this User's Manual and/or to the products described in this User's Manual, at any time without notice.

If you find information in this manual that is incorrect, misleading, or incomplete, we would appreciate your comments and suggestions.

FCC Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the Instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

WEEE Warning



To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

PLANET 8-Port 10/100Mbps with 4-Port PoE Web Smart Ethernet Switch User's Manual

FOR MODEL: FSD-804PS

REVISION: 1.0(FEBUARY.2006)

Part No.: 2080-A31120-000

TABLE OF CONTENTS

1. INTRODUCTION	4
1.1 CHECKLIST	4
1.2 ABOUT THE SWITCH	4
1.3 FEATURES	5
1.4 SPECIFICATION	5
2. HARDWARE DESCRIPTION	6
2.1 FRONT PANEL	6
2.2 REAR PANEL.....	6
2.3 HARDWARE INSTALLATION	7
3. SWITCH MANAGEMENT	9
3.1 OVERVIEW	9
3.2 MANAGEMENT METHODS	10
3.2.1 <i>Local Console Management</i>	10
3.2.2 <i>Web Management</i>	10
3.3 ASSIGNING AN IP ADDRESS TO THE SWITCH	10
3.4 LOGGING ON TO THE FSD-804PS.....	11
4. CONSOLE INTERFACE	12
4.1 CONNECT TO PC	12
4.2 LOGIN IN	13
4.3 MAIN MENU SCREEN	13
4.4 GETTING STARTED	14
4.4.1 <i>General Guidelines</i>	14
4.4.2 <i>Show command</i>	15
4.4.3 <i>Set command</i>	22
4.4.4 <i>Factory default</i>	29
4.4.5 <i>Reboot</i>	30
4.4.6 <i>Logout</i>	31
5. WEB MANAGEMENT	32
5.1 LOGIN IN TO THE SWITCH	32
5-2 PORT STATUS.....	33
5-3 PORT SETUP	34
5-4 PORT STATUS COUNTERS	35
5-5 VLAN SETUP	36
5-6 PORT TRUNK SETUP	38
5-7 MISC CONFIGURATION	39
5.7.1 <i>System Information</i>	40
5.7.2 <i>Password / Access Setting</i>	42
5.7.3 <i>Restore System Default</i>	43
5.7.4 <i>Reboot System</i>	45
5.7.5 <i>Firmware Upgrade</i>	47
5-8 POE	51
5-9 LOGOUT	53
6. SWITCH OPERATION	54
6.1 ADDRESS TABLE	54
6.2 LEARNING	54
6.3 FORWARDING & FILTERING	54
6.4 STORE-AND-FORWARD.....	54
6.5 AUTO-NEGOTIATION	54
7.TROUBLESHOOTING	55
APPENDIX A NETWORKING CONNECTION	56
A.1 SWITCH'S RJ-45 PIN ASSIGNMENTS	56
A.2 10/100MBPS, 10/100BASE-TX.....	錯誤! 尚未定義書籤。
A.3 RJ-45 CABLE PIN ASSIGNMENT	56

1. INTRODUCTION

1.1 Checklist

Check the contents of your package for following parts:

- FSD-804PS x1
- User's manual CD x1
- Quick installation guide x1
- Power cord x 1
- RS232 cable x1
- Rubber feet x 4

If any of these pieces are missing or damaged, please contact your dealer immediately, if possible, retain the carton including the original packing material, and use them against to repack the product in case there is a need to return it to us for repair.

1.2 About the Switch

The FSD-804PS is equipped with unshielded twisted-pair (UTP) cable ports providing dedicated 10 or 100Mbps bandwidth. The FSD-804PS supports MDI/ MDI-X convertible on 8-10/100Mbps ports, also provide PoE inject function on port#1, 2, 3, 4, which is able to drive 4 IEEE 802.3af compliant powered devices. The dual speed ports use standard twisted-pair cabling and are ideal for SOHO or segmenting networks into small. Each 10/100Mbps port can supports up to 200Mbps of throughput in full-duplex mode, the FSD-804PS also provides a simple, cost-effective, and highly reliable network connection for data as well as power. Furthermore, it is the ideal device for bridging among Ethernet, Fast Ethernet workgroups and networks.

With 4 PoE interfaces, the FSD-804PS is ideal for small business and workgroups requiring to deploy the PoE for the wireless access points, IP-based surveillance camera or IP phones in any places easily, efficiently and cost effective.

The front panel of FSD-804PS provides LEDs for easy recognition of the switch operation status and troubleshooting. These LED indicators display the power status for the system, LNK/ACT and speed for each10/100M port. Also the PoE in use LED indicates for PoE ports (port#1 to port#4).

With data and power over Ethernet from one unit, the FSD-804PS shall reduce cables and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A wire carries both data and power lowering the installation costs, simplifying the installation effort and eliminating the need for electricians or extension cords. We are also proud of the key feature – energy saving. With more efficient switching power supply, the efficiency of the FSD-804PS would be much better than four linear power adapters in a long run.

The smart functions make it easy to survey and control the PoE power provision to the devices by the Web and Console interface. Basic switching functions such as VLAN, Trunk, QoS are available for network management.

1.3 Features

8-Port 10/100Mbps Fast Ethernet ports
4-Port support 48VDC power to PoE Powered Device
Hardware based 10/100Mbps auto-negotiation
Flow control for full duplex operation and back pressure for half duplex operation
Integrates address look-up engine, support 2K absolute MAC addresses
Automatic address learning and address aging
Supports Auto MDI/MDI-X function
LED indicators for easy network diagnostic
Web/Console management
VLAN for network segregation
Port trunk bandwidth aggregation
Per port High/Low transmission priority configuration
PoE power Disable/Enable by management interface
PoE power consumption monitoring
Ethernet standards comply with IEEE 802.3 Ethernet, IEEE 802.3u Fast Ethernet, IEEE 802.3x Flow Control and IEEE 802.3af Power over Ethernet.
EMI standards comply with FCC, CE class A

1.4 Specification

Model	FSD-804PS
Network Connector	8-Port RJ-45 for 10/100TX, 4-Port with PoE injector function
LED Display	One power, 1-4 port PoE in-use, LNK/ACT, 100, 5-8 port LNK/ACT, 100
Switch architecture	Store and forward switch architecture. Back-plan up to 1.6Gbps
MAC address	2K MAC address table with Auto learning function
Switch fabric	1.6Gbps
Throughput	1.19Mbps
Remote power feeding	End-point insert type and compatible with IEEE 802.3af Per port feeding power: 15.4 Watts (maximum)
Management	Web/Console management
VLAN	Port-Based VLAN, up to 8 groups
Port priority	High/Low
Storm Control	Disable, 10%, 20%, 40%, 4 levels
Port Trunk	Port #7 and #8, fixed
PoE power control	Power provision Enable/Disable, priority configuration
Power	AC 100~240V, 50/60Hz, Max. 45 watts power consumption
Operating environment	0~40 degree C, 10%~95%RH
Storage environment	-40 ~70 degree C, 95% RH
Dimension (W x D x H)	217 x 135 x 43 mm
EMI	FCC Class A, CE
Standard Compliance	IEEE 802.3 Ethernet, IEEE 802.3u Fast Ethernet, IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet.

2. HARDWARE DESCRIPTION

This product provides two different running speeds – 10Mbps, 100Mbps in the same switch and automatically distinguishes the speed of incoming connection.

This section describes the hardware features of FSD-804PS. For easier management and control of the Switch, familiarize yourself with its display indicators, and ports. Front panel illustrations in this chapter display the unit LED indicators. Before connecting any network device to the FSD-804PS, read this chapter carefully.

2.1 Front Panel

The Front Panel of the FSD-804PS PoE Web Smart Ethernet Switch consists of 8x Auto-Sensing 10/100Mbps Ethernet RJ-45 Ports. The LED Indicators are also located on the front panel of the FSD-804PS.

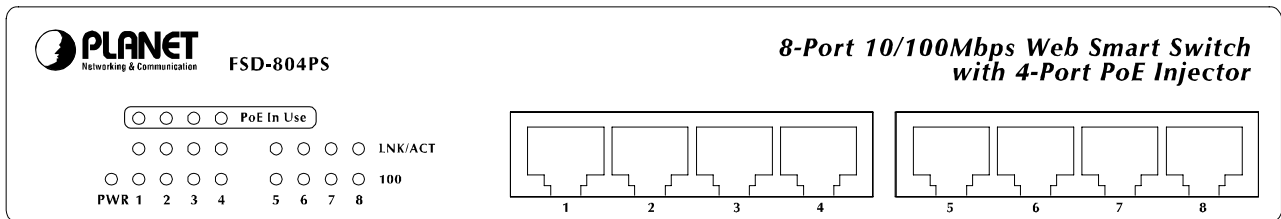


Figure 2-1: FSD-804PS Switch front panel

2.1.1 LED indicators

System

LED	Color	Function
PWR	Green	Lights to indicate that the Switch has power.

Per 10/100Mbps port

LED	Color	Function
PoE in-use	Green	Lights to indicate the port is providing 48VDC in-line power. (1-4 ports)
LNK/ACT	Green	Lights to indicate the link through that port is successfully established.
100	Green	Lights to indicate the port is running in 100Mbps speed.

2.2 Rear Panel

The rear panel of the FSD-804PS indicates an AC inlet power socket, which accepts input power from 100 to 240VAC, 50-60Hz, 1A max. and one console port at rear panel for switch management.

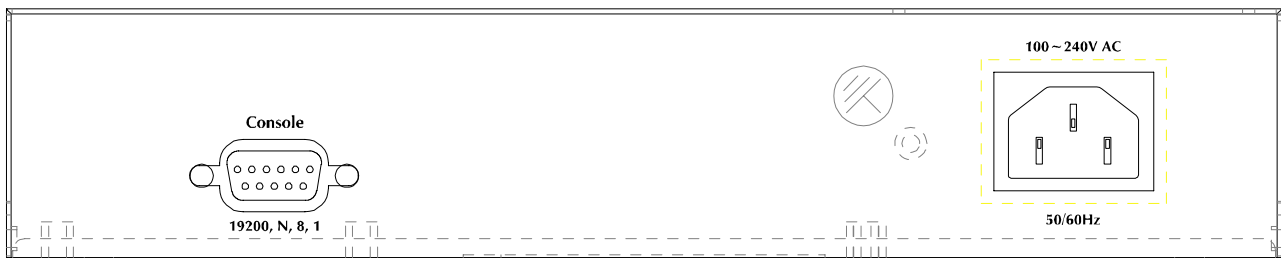


Figure 2-2: FSD-804PS Switch rear panel

Power Notice:

1. The device is a power-required device, it means, it will not work till it is powered. If your networks should active all the time, please consider using UPS (Uninterrupted Power Supply) for your device. It will prevent you from network data loss or network downtime.
2. In some area, installing a surge suppression device may also help to protect your FSD-804PS from being damaged by unregulated surge or current to the FSD-804PS or the power adapter.

2.3 Hardware Installation

2.3.1 Before start up

Before your installation, please refer to the followings for your cabling:

100Base-TX

All 100Base-TX ports come with Auto-Negotiation capability. They automatically support 100Base-TX and 10Base-T networks. Users only need to plug a working network device into one of the 100Base-TX ports, and then turn on the FSD-804PS. The port will automatically runs in 10Mbps, 20Mbps, 100Mbps or 200Mbps after the negotiation with the connected device.

Cabling

Each 10/100Base-TX ports use RJ-45 sockets -- similar to phone jacks -- for connection of unshielded twisted-pair cable (UTP). The IEEE 802.3u Fast Ethernet standard requires Category 5 UTP for 100Mbps 100Base-TX. 10Base-T networks can use Cat.3, 4, or 5 UTP (see table below). Maximum distance is 100meters (328 feet).

Port Type	Cable Type	Connector
10Base-T	Cat 3, 4, 5, 2-pair	RJ-45
100Base-TX	Cat.5 UTP, 2-pair	RJ-45

Any Ethernet devices like hubs/ PCs can connect to the FSD-804PS by using straight-through wires. The eight-10/100Mbps ports are auto-MDI/MDI-X can be used on straight-through or crossover cable.

2.3.2 Connecting end node or switch

1. Place the FSD-804PS on a smooth surface or fasten the mounting brackets purchased separately with the provided screws in a standard 19" rack.
2. Connect the power cord to the power inlet socket of FSD-804PS and the other end into the local power source outlet. When the Switch receives power, the Power LED should remain solid Green.
3. Connect other switch or PC to one port of the FSD-804PS using Category 3/4/5 UTP/STP cabling.
4. Connect another switch or PC to the other port of FSD-804PS by following the same process as described in Step 3.

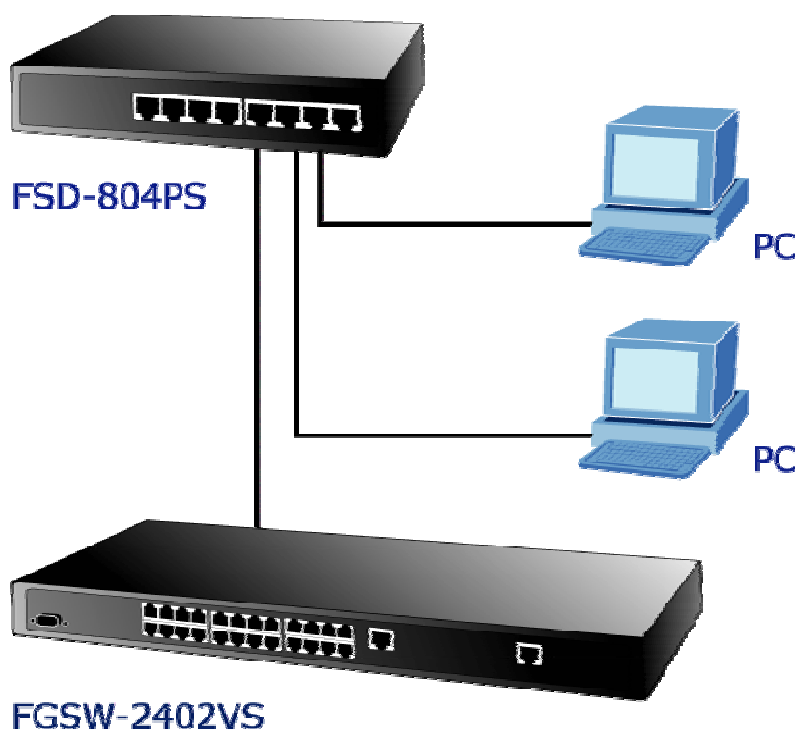


Figure 2-3. End node or Switch connection

Notice:

Cable distance for Switch

The cable distance between the FSD-804PS and PC should not exceed 100 meter for UTP/STP cable.

Make sure the wiring is correct

It can be used Category 3/4/5 cable in 10 Mbps operation. To reliably operate your network at 100Mbps, you must use an Unshielded Twisted-Pair (UTP) Category 5 cable, or better Data Grade cabling. While a Category 3 or 4 cables may initially seem to work, it will soon cause data loss.

2.3.3 As a department / workgroup PoE Switch

Providing up to 4 PoE, in-line power interface, the switch can easily build a power central-controlled IP phone system, IP Camera system, AP group for the enterprise. For instance, 4 camera / AP can be easily installed around the corner in the company for surveillance demands or build a wireless roaming environment in the office. Without the power-socket limitation, the switch makes the installation of cameras or WLAN AP more easily and efficiently.

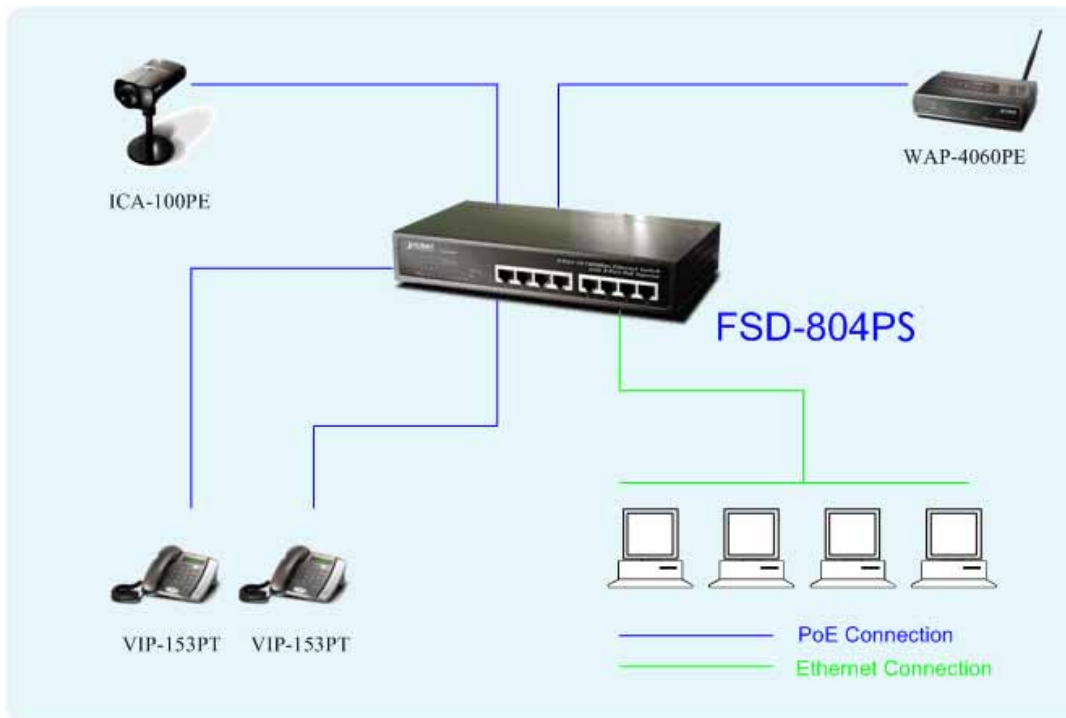


Figure 2-4. PoE Switch connection

3. SWITCH MANAGEMENT

This chapter describes how to manage the FSD-804PS. Topics include:

- Overview
- Management methods
- Assigning an IP address to the FSD-804PS
- Logging on to the FSD-804PS

3.1 Overview

The FSD-804PS provides a user-friendly, command line under console interface. Using this interface, you can perform various switch configuration and management activities, including:

Command	Description
Show port [n] / all	Show per port or all port current status
Show static(n)	Show per port detail Ethernet traffic pass through
Show VLAN	Show current VLAN group status
Show trunk	Show current trunk group test
Show IP	Show current IP subnet address.
Show system	Show firmware version, Mac address and IP address
Show PoE status[n]	Show per PoE port status(On or Off)
Show PoE(n)	Show per PoE port disable/enable and priority
Show management VLAN	Show current management VLAN
Show VLAN mode	Show current VLAN mode of FSD-804PS
Show PVID	Show per port PVID of FSD-804PS
Set port [n]	Set per port auto-negotiation speed duplex mode and QoS function
Set Trunk	Enable or disable trunk group(port 7,8) of FSD-804PS
Set VLAN(n)	Configure VLAN group 1-8
Set PoE[n]	Configure per PoE port
Set VLAN mode	Disable or enable Port-based VLAN function
Set PVID	Assign PVID on each port
Set IP xxx.xxx.xxx.xxx, mmm. mmm, mmm, mmm, ggg.ggg.ggg.ggg	Assign IP address, subnet mask, gateway of FSD-804PS
Set Pass	Change the default password of FSD-804PS, the maximum length is 4 characters
Factory Default	Reset the FSD-804PS to factory default mode
Reboot	Reboot the FSD-804PS
Logout	Logout console interface of FSD-804PS

Please refer to the following Chapter 4 and 5 for the details.

3.2 Management Methods

There are two ways to manage the FSD-804PS:

- Local Console Management via the Switch serial port.
- Web Management via a network or dial-up connection.

3.2.1 Local Console Management

You can manage the FSD-804PS locally by connecting a VT100 terminal, or a personal computer or workstation with terminal emulation software, to the Switch serial port. The terminal or workstation connects to the Switch serial port using a null modem cable that has the appropriate connectors on each end.

This management method is ideal when:

- The network is unreliable
- The Network Manager does not have direct network connection

The serial port of the Switch default setting is set to **19200** baud using a character format of **8** data bits, **no** parity, and **1** stop bit.

Therefore, configure the terminal or workstation to use these settings before you log on to the FSD-804PS. You can change this default setting, if desired, after you log on.

3.2.2 Web Management

You can manage the FSD-804PS remotely by having a remote host with web browser, such as Microsoft Internet Explorer or Netscape Navigator.

Using this management method:

The FSD-804PS must have an Internet Protocol (IP) address accessible for the remote host.

3.3 Assigning an IP Address to the Switch

To manage the FSD-804PS remotely through the web browser with a Management Station, you must assign an IP address to the FSD-804PS.

To set the IP address, please use “**set ip xxx.xxx.xxx.xxx mmm.mmm.mmm.mmm ggg.ggg.ggg.ggg**” command. For example, to configure the switch with the following IP settings:

IP Address: 192.168.0.1

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.0.254

Press the following command and press **<Enter>**

set ip 192.168.0.1 255.255.255.0 192.168.0.254

If the IP is successfully configured, the switch will automatically restart as the following screens. After reboot the Switch and power on completed, you can access the web interface of FSD-804PS through the new IP address.

3.4 Logging on to the FSD-804PS

When you log on to the FSD-804PS console port for the first time, a sign-on string appears and you are prompted for a console login user name and password.

```
[sys_init():->
wait state:reg.0x706d = 0x28
ip inspc.:reg.0x7001 = 0x3f
done<-]

FSD-804PS : System timer init.....done!
FSD-804PS : Eth init.....done!
current tick:00000002 sec
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHC PEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHC PEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:
```

The factory default login username is **admin** without password.

 **Notice:**

1. For security reason, please change and memorize the new password after this first setup.
2. Only accept command in lowercase letter under console interface.

4. CONSOLE INTERFACE

4.1 CONNECT TO PC

RS-232 serial cable

Use the bundled RS-232 serial cable and attach the 9-pin female connector to the male connector on the FSD-804PS. Plug the other side of this cable to your PC.

Hyper Terminal

In Windows 98/2000/ME/XP, launch “**HyperTerminal**”, create a new connection, and adjust settings as below:

- Emulation: **VT-100 compatible**
- Baud per second: **19200**
- Data bits: **8**
- Parity: **None**
- Stop bits: **1**
- Flow Control: **None**

To gain a demo, please see the [Figure 4-1](#).

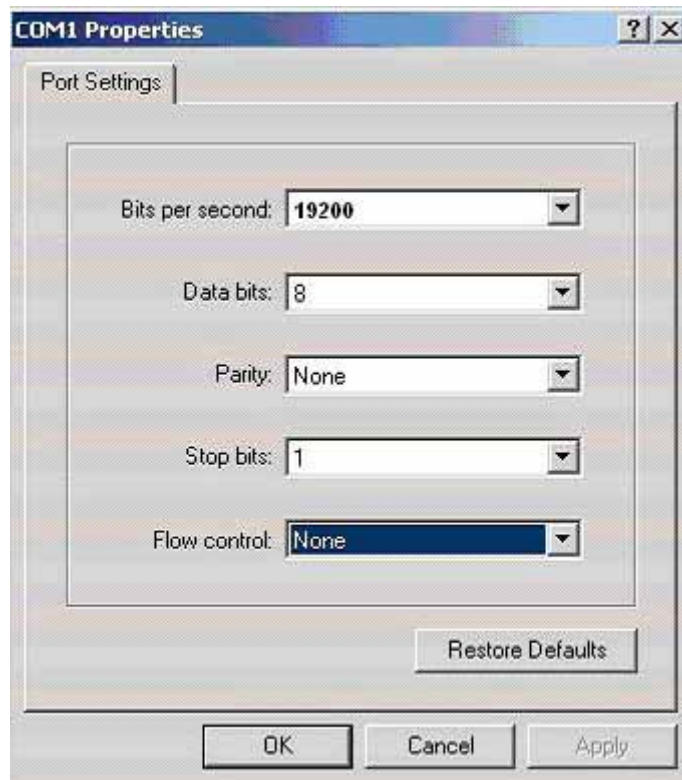


Figure 4-1 Port Settings for console interface

4.2 Login in

Login is required to access the console interface after the self-test completes successfully. The factory default user name is "admin" without password. You may change the password by use "set pass" command. Please always enter the correct user name and password. (See Figure 4-2)

```
[sys_init():->
wait state:reg.0x706d = 0x28
ip inspc.:reg.0x7001 = 0x3f
done<-]

FSD-804PS : System timer init.....done!
FSD-804PS : Eth init.....done!
current tick:00000002 sec
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:
```

Figure 4-2 FSD-804PS login screen

4.3 Main Menu screen

After login the FSD-804PS, the main menu screen shows as below.

```
ip inspc.:reg.0x7001 = 0x3f
done<-]

FSD-804PS : System timer init.....done!
FSD-804PS : Eth init.....done!
current tick:00000002 sec
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS>
```

Figure 4-3 FSD-804PS Main Menu screen

4.4 Getting Started

4.4.1 General Guidelines

The FSD-804PS allows users to configure the device via command line under console interface. Please type “help” or “?” for all available commands in the “FSD-804PS>” prompt. The screen of available commands in [Figure 4-4](#) appears, and the detail description shown in table 4-1.

```
FSD-804PS> ?
show port [n] /all

show static [n]
show vlan
show trunk
show ip
show system
show poe status [n]
show poe [n]
show management vlan
show vlan mode
show pvid
set port [n]
set trunk
set vlan [n]
set poe [n]
set management vlan
set vlan mode
set pvid
set ip xxx.xxx.xxx.xxx mmm.mmm.mmm.mmm ggg.ggg.ggg.ggg
set pass
factory default
reboot
logout


FSD-804PS> _
```

Figure 4-4 FSD-804PS available commands screen

Command	Description
Show port [n] / all	Show per port or all port current status
Show static(n)	Show per port detail Ethernet traffic pass through
Show VLAN	Show current VLAN group status
Show trunk	Show current trunk group test
Show IP	Show current IP subnet address.
Show system	Show firmware version, Mac address and IP address
Show PoE status[n]	Show per PoE port status(On or Off)
Show PoE(n)	Show per PoE port disable/enable and priority
Show management VLAN	Show current management VLAN
Show VLAN mode	Show current VLAN mode of FSD-804PS
Show PVID	Show per port PVID of FSD-804PS
Set port [n]	Set per port auto-negotiation speed duplex mode and QoS function
Set Trunk	Enable or disable trunk group(port 7,8) of FSD-804PS

Set VLAN(n)	Configure VLAN group 1-8
Set PoE[n]	Configure per PoE port
Set VLAN mode	Disable or enable Port-based VLAN function
Set PVID	Assign PVID on each port
Set IP xxx.xxx.xxx.xxx, mmm. mmm, mmm, mmm, ggg.ggg.ggg.ggg	Assign IP address, subnet mask, gateway of FSD-804PS
Set Pass	Change the default password of FSD-804PS, the maximum length is 4 characters
Factory Default	Reset the FSD-804PS to factory default mode
Reboot	Reboot the FSD-804PS
Logout	Logout console interface of FSD-804PS

Table 4-1 Detail description of FSD-804PS available commands

 **Notice:** Only accept command in lowercase letter under console interface.

4.4.2 Show command

From the main menu screen (see Figure 4-3), input “**show**” and press enter. The show command list screen in Figure 4-5 appears.

```

Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> show

show port [n] /all
show static [n]
show vlan
show trunk
show ip
show system
show poe status [n]
show poe [n]
show management vlan
show vlan mode
show pvid

FSD-804PS> _

```

Figure 4-5 Show command list screen

This show command list contains eleven items:

- Show port [n] / all:** Please refer to **chapter 4.4.2.1.**
- Show static [n]:** Please refer to **chapter 4.4.2.2.**
- Show vlan:** Please refer to **chapter 4.4.2.3.**
- Show trunk:** Please refer to **chapter 4.4.2.4.**
- Show ip:** Please refer to **chapter 4.4.2.5**
- Show system:** Please refer to **chapter 4.4.2.6**
- Show poe status [n]:** Please refer to **chapter 4.4.2.7**
- Show poe [n]:** Please refer to **chapter 4.4.2.8**
- Show management vlan:** Please refer to **chapter 4.4.2.9**
- Show vlan mode:** Please refer to **chapter 4.4.2.10**
- Show pvid:** Please refer to **chapter 4.4.2.11**

4.4.2.1 Show port[n] / all

Display the status on each port of FSD-804PS, these two commands allows you to view the port status of the Switch and the correct usage is shown as below:

Show port [n]: n=1-8, to view per port status of FSD-804PS. The screen in [Figure 4-6](#) appears.

Show port: to view all port status of FSD-804PS. The screen in [Figure 4-7](#) appears.

```
show static [n]
show vlan
show trunk
show ip
show system
show poe status [n]
show poe [n]
show management vlan
show vlan mode
show pvid

FSD-804PS> show port 1

Port1 configuration information
-----
Full Duplex Flow Control:    On
Auto Negotiation:           Enable
Speed:                       100M
Duplex:                      Full
PVID:                        0
IP TOS/802.1p Priority:      Enable
Port-based Priority Mapping: Low Queue

FSD-804PS> _
```

Figure 4-6 Per port Status screen


```

_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> show port

Port   Link Speed Duplex FlowControl
-----
Port 1  Down  10M   half  Enable
Port 2  Down  10M   half  Enable
Port 3  Down  10M   half  Enable
Port 4  Down  10M   half  Enable
Port 5  Down  10M   half  Enable
Port 6  Down  10M   half  Enable
Port 7  Down  10M   half  Enable
Port 8  Up    100M  full  Disable

FSD-804PS>

```

Figure 4-7 All port Status screen

4.4.2.2 Show static [n]

Display the traffic counters on each port of FSD-804PS, this command allows you to view per port traffic counters of the Switch and the correct usage is shown as below:

Show static [n]: n=1-8, to view per port traffic counters of FSD-804PS. The per port traffic counters screen in [Figure 4-8](#) appears.

```

Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> show static 1

Port1 Recieve:
- Packets Count:      0
- Packet Byte Count:  0
- Error Count:        0

Port1 Transmit:
- Packets Count:      0
- Packet Byte Count   0
- Collisions:         0

FSD-804PS>

```

Figure 4-8 Port Counters screen

4.4.2.3 Show vlan

Display the current VLAN group status of FSD-804PS, the VLAN group status screen in [Figure 4-9](#) appears.

```
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> show vlan

vlan/port 1 2 3 4 5 6 7 8
1          * * * * * * * *
2          *                               *
3          *                               *
4          *                               *
5          *                               *
6          *                               *
7          *                               *
8          *                               *
```

Figure 4-9 VLAN group status screen

4.4.2.4 Show trunk

Display the current trunk group status of FSD-804PS, the trunk group status screen in [Figure 4-10](#) appears.

```
FSD-804PS : Eth init.....done!
current tick:00000002 sec
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> show trunk

Port 7 & Port 8 Trunking : Disable

FSD-804PS>
```

Figure 4-10 Trunk group status screen

4.4.2.5 Show ip

Display the current IP address, netmask and gateway of FSD-804PS, the IP subnet address information screen in [Figure 4-11](#) appears.

```
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> show ip

IP: 192.168.0.100
Netmask: 255.255.255.0
Gateway: 192.168.0.1

FSD-804PS>
```

Figure 4-11 IP subnet address information screen

4.4.2.6 Show system

Display the system information of FSD-804PS, such as software version, mac address and IP address. The system information screen in [Figure 4-12](#) appears.

```
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> show system

PLANET FSD-804PS
Software Version: 1.0
MAC: 00-30-4f-00-00-00
IP: 192.168.0.100

FSD-804PS> _
```

Figure 4-12 System information screen

4.4.2.7 Show poe status [n]

Display the poe link status on each port of FSD-804PS, this command allows you to view per poe port link status of the Switch and the correct usage is shown as below:

Show poe status [n]: n=1-4, to view per poe port link status of FSD-804PS. The per poe port link status screen in [Figure 4-13](#) appears.

```
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> show poe status 1

Port1 On/Off: Off

FSD-804PS> show poe status 2

Port2 On/Off: Off

FSD-804PS> show poe status 3

Port3 On/Off: Off

FSD-804PS> show poe status 4

Port4 On/Off: Off

FSD-804PS> _
```

Figure 4-13 Per poe port link status screen

4.4.2.8 Show poe [n]

Display the poe status on each port of FSD-804PS, this command allows you to view per poe port status of the Switch and the correct usage is shown as below:

Show poe [n]: n=1-4, to view per poe port status of FSD-804PS. The per poe port status screen in [Figure 4-14](#) appears.

```
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> show poe 1

Port1 POE: Enable

POE Priority: 1

FSD-804PS> _
```

Figure 4-14 Per poe port status screen

4.4.2.9 Show management vlan

Display the management vlan of FSD-804PS, the management vlan display screen in [Figure 4-15](#) appears.

```
FSD-804PS : Eth init.....done!  
current tick:00000002 sec  
EEPROM Init...  
Write EE_TEST ==0x7cf u8EEData1=0xaa  
Read EE_TEST ==0x7cf u8EEData1=0xaa  
[EEPROM 24c16 found!]  
EEPROM: Data valid  
Restore Configuration from EEPROM to Device...  
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)  
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!  
Show MY IP Address(from 24c16): (192.168.0.100)  
_24c16_eeprom_word_read: EE_DHCPEN: (00)  
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00  
Initial MAC Registers.....  
FSD-804PS : Uip init  
  
login: admin  
password:  
  
FSD-804PS> show management vlan  
  
The management vlan is vlan group 1  
  
FSD-804PS> _
```

Figure 4-15 Display management VLAN screen

4.4.2.10 Show vlan mode

Display the current vlan mode of FSD-804PS, the vlan mode display screen in [Figure 4-16](#) appears.

```
FSD-804PS : Eth init.....done!  
current tick:00000002 sec  
EEPROM Init...  
Write EE_TEST ==0x7cf u8EEData1=0xaa  
Read EE_TEST ==0x7cf u8EEData1=0xaa  
[EEPROM 24c16 found!]  
EEPROM: Data valid  
Restore Configuration from EEPROM to Device...  
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)  
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!  
Show MY IP Address(from 24c16): (192.168.0.100)  
_24c16_eeprom_word_read: EE_DHCPEN: (00)  
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00  
Initial MAC Registers.....  
FSD-804PS : Uip init  
  
login: admin  
password:  
  
FSD-804PS> show vlan mode  
  
Port-based VLAN  
  
FSD-804PS>
```

Figure 4-16 Display VLAN mode screen

4.4.2.11 Show pvid

Display the current per port pvid of FSD-804PS, the per port pvid display screen in [Figure 4-17](#) appears.

```
FSD-804PS : Uip init
login: admin
password:
FSD-804PS> show pvid
Port 1 PVID: 1
Port 2 PVID: 1
Port 3 PVID: 1
Port 4 PVID: 1
Port 5 PVID: 1
Port 6 PVID: 1
Port 7 PVID: 1
Port 8 PVID: 1
FSD-804PS> _
```

Figure 4-17 Display pvid screen

4.4.3 Set command

From the main menu screen (see [Figure 4-3](#)), input “set” and press enter. The set command list screen in [Figure 4-18](#) appears.

```
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init
login: admin
password:
FSD-804PS> set
set port [n]
set trunk
set vlan [n]
set poe [n]
set management vlan
set vlan mode
set pvid
set ip xxx.xxx.xxx.xxx mmm.mmm.mmm.mmm ggg.ggg.ggg.ggg
set pass
FSD-804PS>
```

Figure 4-18 Switch Configuration screen

This set command list contains nine items:

- Set port [n]:** Please refer to **chapter 4.4.3.1**.
- Set trunk:** Please refer to **chapter 4.4.3.2**.
- Set vlan [n]:** Please refer to **chapter 4.4.3.3**.
- Set poe [n]:** Please refer to **chapter 4.4.3.4**.
- Set management vlan:** Please refer to **chapter 4.4.3.5**
- Set vlan mode:** Please refer to **chapter 4.4.3.6**
- Set pvid:** Please refer to **chapter 4.4.3.7**
- Set ip xxx.xxx.xxx.xxx.mmm.mmm.mmm.mmm.ggg.ggg.ggg.ggg:** Please refer to **chapter 4.4.3.8**
- Set pass:** Please refer to **chapter 4.4.3.9**

4.4.3.1 Set port [n]

This command allows configuring per port parameters of FSD-804PS. the correct usage is shown as below:

Set port [n]: n=1-8, to configuring per port parameters of FSD-804PS. The configuring per port parameters screen in [Figure 4-19](#) appears and the detail description shown in table 4-2.

```

FSD-804PS> set port 1
Full Duplex Flow Control (1)On (2)Off: 1
Auto Negotiation (1)Enable (2)Disable: 1
Speed (1)100M (2)10M: 1
Duplex (1)Full (2)Half: 1
IP TOS/802.1p Priority (1)Disable (2)Enable: 1
Port-based Priority Mapping (1)High Queue (2)Low Queue: 1

Port1 configuration information
-----
Full Duplex Flow Control:    On
Auto Negotiation:          Enable
Speed:                     100M
Duplex:                    Full
PVID:                      1
IP TOS/802.1p Priority:     Disable
Port-based Priority Mapping: High Queue

FSD-804PS>
    
```

Figure 4-19 Port Configuration screen

Object	Description
Full Duplex Flow Control	Allow disable (off) or enable (on) flow control of each port.
Auto Negotiation	Allow disable or enable Auto negotiation of each port.
Speed	Allow set per port run at 10Mbps or 100Mbps speed mode.
Duplex	Allow set per port run at half or full duplex mode.
IP TOS/802.1p Priority	Allow disable or enable per port IP TOS/802.1p Priority function.
Port-based Priority Mapping	Allow assign low queue or high queue on each port.

Table 4-2 Descriptions of the Port Configuration screen Objects

4.4.3.2 Set trunk

This command allows disable or enable trunk function of FSD-804PS. The trunk function setting screen in [Figure 4-20](#) appears

```
[EEPROM 24c16 found!]  
EEPROM: Data valid  
Restore Configuration from EEPROM to Device...  
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)  
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!  
Show MY IP Address(from 24c16): (192.168.0.100)  
_24c16_eeprom_word_read: EE_DHCPEN: (00)  
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00  
Initial MAC Registers.....  
FSD-804PS : Uip init  
  
login: admin  
password:  
  
FSD-804PS> set trunk  
  
Port 7 & Port 8 Trunking (1)Enable (2)Disable: 1  
  
Port 7 & Port 8 Trunking : Enable  
  
FSD-804PS> _
```

Figure 4-20 Port Configuration screen

4.4.3.3 Set vlan [n]

This command allows configuring eight port-based VLAN groups of FSD-804PS. the correct usage is shown as below:

Set vlan [n]: n=1-8, to configuring eight port-based VLAN groups of FSD-804PS. The configuring port-based VLAN groups screen in [Figure 4-21](#) appears

```
FSD-804PS> set vlan 1  
  
vlan/port 1 2 3 4 5 6 7 8  
1          * * * * * * * *  
  
Turn On/Off VLAN port.  
Please input port number(1-8), exit press enter:  
  
FSD-804PS> set vlan 2  
  
vlan/port 1 2 3 4 5 6 7 8  
2          *                *  
  
Turn On/Off VLAN port.  
Please input port number(1-8), exit press enter: _
```

Figure 4-21 Port based VLAN Configuration screen

4.4.3.4 Set poe [n]

This command allows configuring per poe port parameters of FSD-804PS. the correct usage is shown as below:

Set poe [n]: n=1-4, to configuring per poe port parameters of FSD-804PS. The configuring per poe port parameters screen in [Figure 4-22](#) appears and the detail description shown in table 4-3.

```
FSD-804PS> set poe 1
POE Port 1 (1)Enable (2)Disable : 1
POE Port 1 Priority (0-3): 0

Port1 POE: Enable

POE Priority: 0

FSD-804PS> set poe 2
POE Port 2 (1)Enable (2)Disable : 1
POE Port 2 Priority (0-3): 0

Port2 POE: Enable

POE Priority: 0

FSD-804PS> _
```

Figure 4-22 PoE port Configuration screen

Object	Description
POE Port 1-4 (1) Enable (2) Disable	Allow disable or enable each POE port.
POE Port 1-4 Priority (0-3)	Assign POE power provision priority (0-3) to each POE port.

Table 4-3 Descriptions of PoE port Configuration screen Objects

4.4.3.5 Set management vlan

This command allows assign one VLAN as management VLAN of FSD-804PS. The management vlan function setting screen in [Figure 4-23](#) appears


```
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> set management vlan
Select vlan group (1-8): 1

FSD-804PS>
```

Figure 4-23 Management VLAN Configuration screen

 **Notice:** Before use this function, please enable port-based VLAN function and assign member port into 8 port-based VLAN groups.

4.4.3.6 Set vlan mode

This command allows disable or enable port-based vlan function of FSD-804PS, the vlan mode setting screen in [Figure 4-24](#) appears

```
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> set vlan mode

Select VLAN mode (1)No (2)Port-based : 2

Please wait .....

FSD-804PS>
```

Figure 4-24 VLAN mode Configuration screen

4.4.3.7 Set pvid

This command allows assign PVID of each port from FSD-804PS, the PVID setting screen in [Figure 4-25](#) appears.

```
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> set pvid

Select port (1-8): 1

PVID (1-8): 1

FSD-804PS> _
```

Figure 4-25 PVID Configuration screen

4.4.3.8 Set ip xxx.xxx.xxx.xxx.mmm.mmm.mmm.mmm.ggg.ggg.ggg.ggg

This command allows assign IP address, netmask and gateway of FSD-804PS. the correct usage is shown as below:

set ip 192.168.0.1 255.255.255.0 192.168.0.254 and press <Enter>

If the IP is successfully configured, the switch will automatically restart as the following screens. After reboot the Switch and power on completed, you can use the new IP address access of FSD-804PS.

The IP subnet address setting screen in [Figure 4-26 & 4-27](#) appears.

```
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.1)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> set ip 192.168.0.1 255.255.255.0 192.168.0.254

The IP sets to 192.168.0.1
The Netmask sets to 255.255.255.0
The Gateway sets to 192.168.0.254

The system will restart.
FSD-804PS>
Reset System...
```

Figure 4-26 IP subnet address configuration screen

```
[sys_init():->
wait state:reg.0x706d = 0x28
ip inspc.:reg.0x7001 = 0x3f
done<-]

FSD-804PS : System timer init.....done!
FSD-804PS : Eth init.....done!
current tick:00000002 sec
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.1)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
port_en = 0005
FSD-804PS : Uip init

login:
```

Figure 4-27 IP subnet address configuration screen

4.4.3.9 Set pass

This command allows assign password of FSD-804PS. The password setting screen in [Figure 4-28](#) appears.

```
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> set pass

Old Password :

New Password : test

Change password from [] to [test] successfully!

FSD-804PS> _
```

Figure 4-28 Password configuration screen

 **Notice:**

1. For security reason, please change and memorize the new password after this first setup.
2. The maximum length is 4 characters.

4.4.4 Factory default

This command allows rest FSD-804PS to factory default mode. The factory default screen in [Figure 4-29](#) & [4-30](#) appears.

```
wait state:reg.0x706d = 0x28
ip inspc.:reg.0x7001 = 0x3f
done<-]

FSD-804PS : System timer init.....done!
FSD-804PS : Eth init.....done!
current tick:00000002 sec
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
Invalid EEPROM!!!
Restore Default Value...
Show MY IP Address:192.168.0.100
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> factory default
The system will restart.
FSD-804PS>
Reset System...
```

Figure 4-29 Factory default screen

```
[Memory test (0x0000~0x3FFF)]:
writing 0xAA to memory->reading 0xAA from memory->pass!!
writing 0x55 to memory->reading 0x55 from memory->pass!!
TF33xFU:check Magic Code...[ok]
FSD_804PS : System init
[sys_init():->
wait state:reg.0x706d = 0x28
ip inspc.:reg.0x7001 = 0x3f
done<-]

FSD-804PS : System timer init.....done!
FSD-804PS : Eth init.....done!
current tick:00000002 sec
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
Invalid EEPROM!!!
Restore Default Value...
Show MY IP Address:192.168.0.100
Initial MAC Registers.....
FSD-804PS : Uip init

login: _
```

Figure 4-30 Factory default screen

4.4.5 Reboot

This command allows reboot FSD-804PS, the reboot screen in [Figure 4-31](#) & [4-32](#) appears.

```
wait state:reg.0x706d = 0x28
ip inspc.:reg.0x7001 = 0x3f
done<-|

FSD-804PS : System timer init.....done!
FSD-804PS : Eth init.....done!
current tick:00000002 sec
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
Invalid EEPROM!!!
Restore Default Value...
Show MY IP Address:192.168.0.100
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> reboot
The system will restart.
FSD-804PS>
Reset System..._
```

Figure 4-31 Switch reboot screen

```
FSD_804PS : System init
|sys_init():->
wait state:reg.0x706d = 0x28
ip inspc.:reg.0x7001 = 0x3f
done<-|

FSD-804PS : System timer init.....done!
FSD-804PS : Eth init.....done!
current tick:00000002 sec
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: _
```

Figure 4-32 Switch reboot screen

4.4.6 Logout

This command provides logout the FSD-804PS, the screen in [Figure 4-33](#) appears.

```
FSD-804PS : System timer init.....done!
FSD-804PS : Eth init.....done!
current tick:00000002 sec
EEPROM Init...
Write EE_TEST ==0x7cf u8EEData1=0xaa
Read EE_TEST ==0x7cf u8EEData1=0xaa
[EEPROM 24c16 found!]
EEPROM: Data valid
Restore Configuration from EEPROM to Device...
Show MY MAC Address(from 24c16): (0x00:30:4f:00:00:00)
_24c16_eeprom_word_read: EE_DHCPEN: (00)=> DHCP FALSE!
Show MY IP Address(from 24c16): (192.168.0.100)
_24c16_eeprom_word_read: EE_DHCPEN: (00)
DHCP FALSE! webt_ee_network.dhcp_flag: 0x00
Initial MAC Registers.....
FSD-804PS : Uip init

login: admin
password:

FSD-804PS> logout

login:
```

Figure 4-33 FSD-804PS Logout screen

5. WEB MANAGEMENT

Before login the Web interface of FSD-804PS, please setup the **"IP Address"** with local serial console port (RS232 port) and use this IP address to configure FSD-804PS through the **Web** interface.

Or modify your PC's IP domain to the same with FSD-804PS then use the default IP address (**192.168.0.100**) to remote configure FSD-804PS through the **Web** interface.

5.1 Login in to the Switch

To access the Web-browser interface you must first enter the user name, the default user name is **"admin"** without password. You will see the following screen comes out on the Web browser program:



The screenshot shows a web browser window displaying the login page for FSD-804PS. The page title is "FSD-804PS Login". Below the title, there is a prompt: "Please enter your Username and Password". There are two input fields: "Username: admin" and "Password:". A blue "Login" button is positioned below the password field. The background of the page is white with a repeating "PLANET" watermark.

Figure 5-1 The FSD-804PS login screen

After the User name and Password is entered, you will see the web main menu screen.



Figure 5-2 The web main menu screen of FSD-804PS

5-2 Port Status

This section provides current status of each port from FSD-804PS, the screen in Figure 5-3 appears and Table 5-1 describes the port status object of switch.

PLANET
Networking & Communication

FSD-804PS Web Smart PoE Switch

Port Status

Port	Link	Speed	Duplex	Flow Control
1	Down	10Mbps	Half	Enable
2	Down	10Mbps	Half	Enable
3	Down	10Mbps	Half	Enable
4	Down	10Mbps	Half	Enable
5	Down	10Mbps	Half	Enable
6	Down	10Mbps	Half	Enable
7	Down	10Mbps	Half	Enable
8	Up	100Mbps	Full	Disable

- Port Status
- Port Setup
- Port Status Counters
- VLAN Setup
- Port Trunk Setup
- Misc Configuration
- POE
- Logout

Figure 5-3 FSD-804PS Port Status Web Page screen

Object	Description
Port	Indicate port 1 to port 8.
Link	The state of the link, indicating a valid link partner device. "Up" means a device is successful connected to the port. "Down" means no device is connected.
Speed	Display the 10Mbps or 100Mbps speed state of each port on FSD-804PS.
Duplex	Display half or full duplex mode of each port on FSD-804PS.
Flow Control	Display the flow control Disable or Enable state of each port on FSD-804PS.

Table 5-1 Descriptions of the Port Status screen Objects

5-3 Port Setup

This section introduces detail settings of per port on FSD-804PS, the screen in [Figure 5-4](#) appears and table 5-2 describes the Port Controls objects of switch.



Figure 5-4 FSD-804PS Port Statistics Web Page screen

Object	Description
Auto Negotiation	Allow disable or enable Auto negotiation of each port.
Full Duplex Flow Control	Allow disable (off) or enable (on) flow control of each port.
Speed	Allow set per port run at 10Mbps or 100Mbps speed mode.
Duplex	Allow set per port run at half or full duplex mode.
IP TOS/802.1p Priority	Allow disable or enable per port IP TOS/802.1p Priority function.
Port-based Priority Mapping	Allow assign normal or high queue on each port.

Table 5-2 Descriptions of the Port Setup screen Objects

5-4 Port Status Counters

For those selected port, this function could provide you with an individual statistical counter, it is a useful page for administrator to monitor each port's usage condition. Also, it is helpful to troubleshooting network problems. The screen in [Figure 5-5](#) appears.

Port	RX Packets Count	RX Bytes Count	Error Count	TX Packets Count	TX Bytes Count	Collision
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	0	0	0	0	0	0
7	0	0	0	0	0	0
8	1557	136308	0	162	98495	0

Figure 5-5 FSD-804PS Port Status Counters Web Page screen

5-5 VLAN Setup

A Virtual LAN (VLAN) is a logical network grouping that limits the broadcast domain. It allows you to isolate network traffic so only members of the VLAN receive traffic from the same VLAN members. The FSD-804PS supports port-based VLAN function. In the default configuration with VLAN disable, the screen in [Figure 5-6](#) appears.

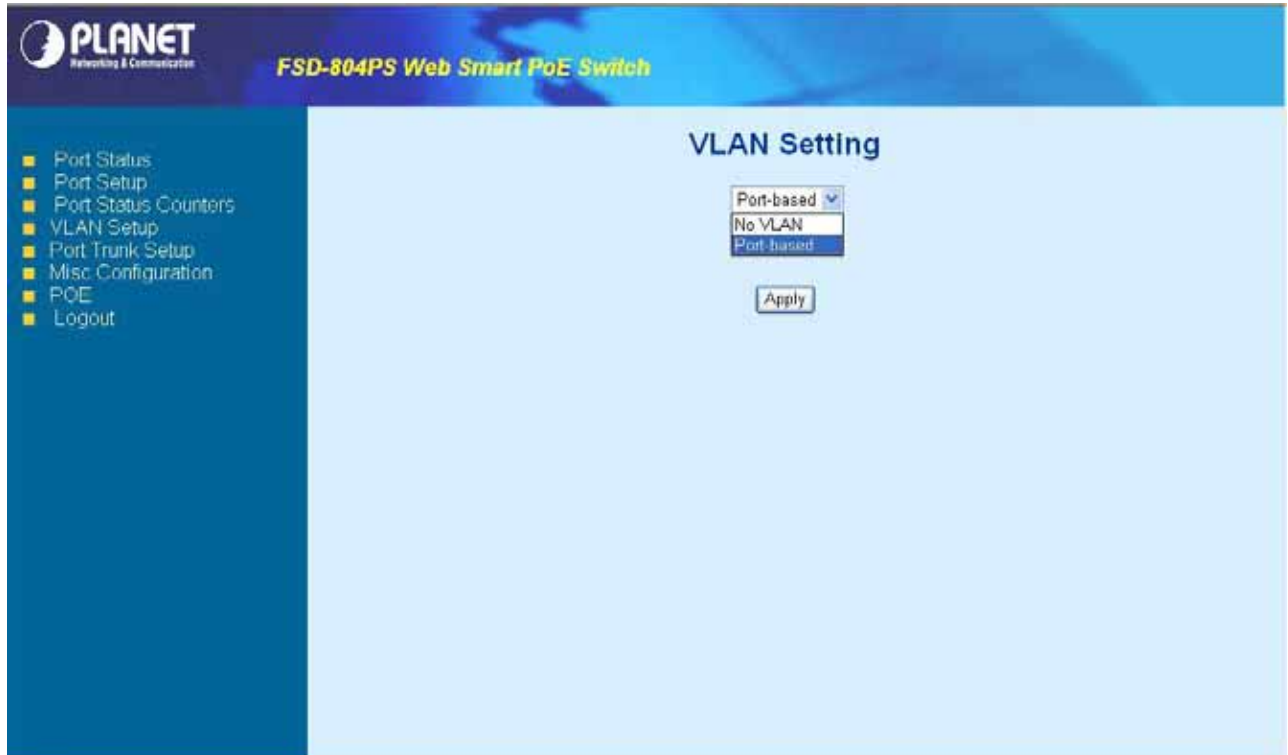


Figure 5-6 FSD-804PS VLAN Setting Web Page screen

Select **“Port-based”** and press **“Apply”** button, to enable the port-based VLAN function then continue configure eight port-based VLAN groups as your request. After setup completed, please press **“Apply”** to take affect. The screen in [Figure 5-7 & 5-8](#) appears.

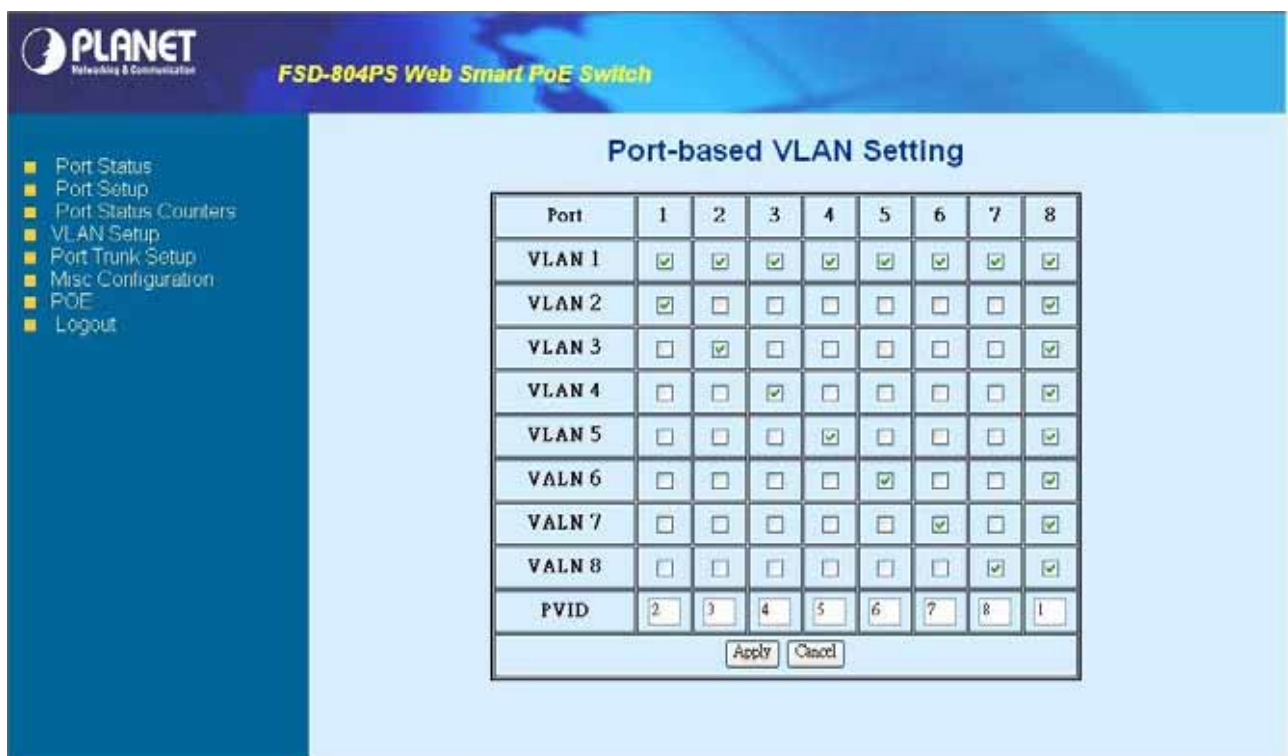


Figure 5-7 FSD-804PS port-based VLAN Setting Web Page screen



Figure 5-8 FSD-804PS port-based VLAN Setting Web Page screen

5.5.1 VLAN setting example:

VLAN scenario

1. Port 8 is the file server port for all the workstations
2. Port 1 to port 7 are different devices that do need to see each other

Setup steps

1. Port Setting
 - 1.1 Assign VLAN 1 as the default VLAN group for all ports
 - 1.2 Assign VLAN 2 for the second VLAN group with port 1 and port 8
 - 1.3 Repeat the same steps for port 2 to port 7. i.e. 2 & 8, 3 & 8,, 7 & 8
2. PVID setup
 - 2.1 Assign "1" (i.e. ID of VLAN 1) to port 8 as its PVID (Port VLAN ID).
 - 2.2 Assign "2" to port 1 as its PVID
 - 2.3 Repeat above steps for port 2 to port 7 with its PVID, i.e. 3 (port 2), 4 (port 3), to 8 (port 7)

After the above steps port 1 to port 7 are being separated physically due to it belongs to different VLAN groups (different VLAN). However, they all can access port 8 due to port 8 is using PVID 1 to communicate with port 1 to port 7. This configuration can be found in [Figure 5-7](#).

5-6 Port Trunk Setup

This section allows you to disable or enable trunk function of two ports together to speed up data transmission. The screen in [Figure 5-9](#) appears.

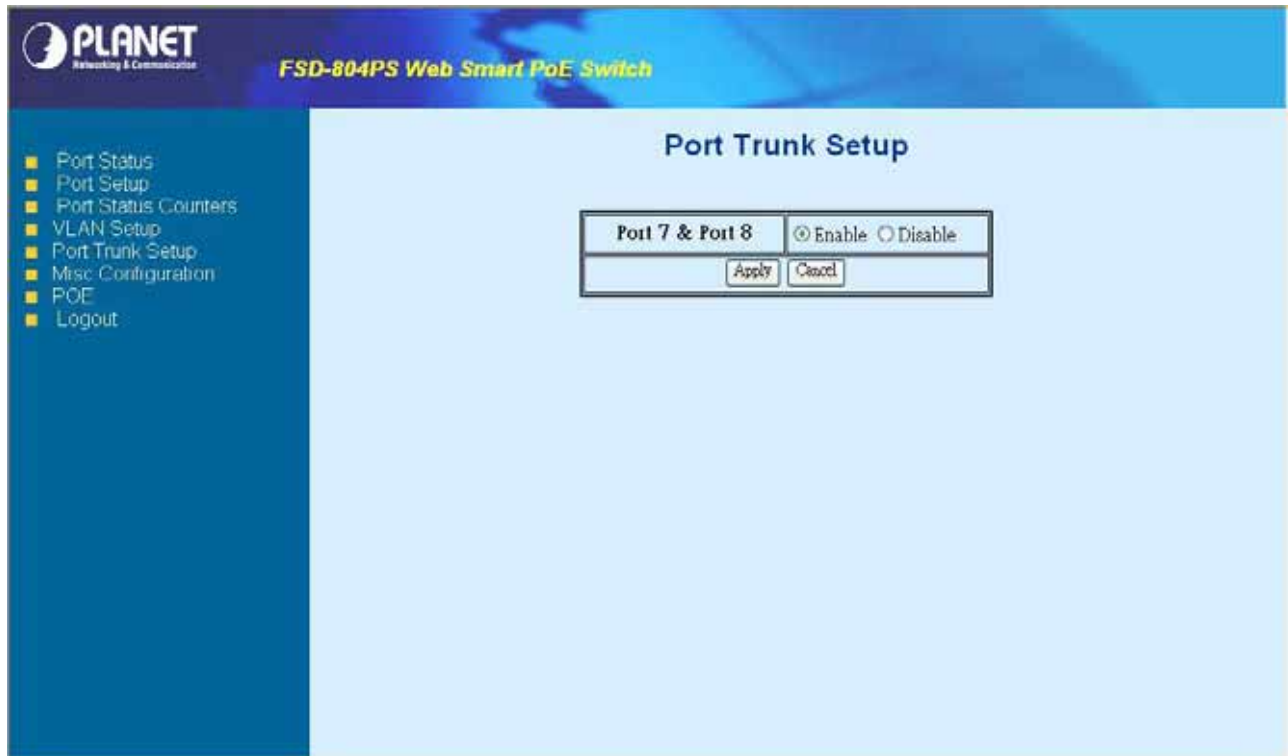


Figure 5-9 FSD-804PS Port Trunk Setup Web Page screen

After turn on the port trunk feature, port 7 and port 8 should connect to another switch, such as another FSD-804PS, that also supports port trunk feature to double the bandwidth in between. Otherwise, if the connected switch do not support port trunk, it will cause network loop and hangs the whole network.

5-7 Misc Configuration

This section provides Misc Configuration of FSD-804PS, the screen in [Figure 5-10](#) appears and [table 5-3](#) descriptions the Misc Configuration objects of FSD-804PS.



Figure 5-10 FSD-804PS Misc Configuration Web Page screen

Object	Description
System Info	Allow user to configure the system configuration, please refer to chapter 5.7.1
Password / Access Setting	Allow user to change the password and maximum up to 4 characters, please refer to chapter 5.7.2
Restore System Default	Allow user to reset the FSD-804PS to factory default mode, please refer to chapter 5.7.3
Reboot System	Allow user to reboot the FSD-804PS, please refer to chapter 5.7.4
Firmware Upgrade	Allow user to proceed the firmware upgrade process of FSD-804PS, please refer to chapter 5.7.5

Table 5-3 Descriptions of the Misc Configuration screen Objects

5.7.1 System Information

This section provides System Configuration of FSD-804PS, the screen in [Figure 5-11](#) appears and table 5-4 descriptions the System Configuration objects of FSD-804PS.



Figure 5-11 FSD-804PS System Configuration Web Page screen

Object	Description
Mac address	Display Mac address of FSD-804PS.
SW Version	Display firmware version of FSD-804PS.
Management VLAN	Allow user to select management VLAN and available options is 1 to 8.The screen in Figure 5-12 appears.
Broadcast Storm Control	Allow user disable or enable broadcast storm control function, the available range is disable, 10%, 20%, 40%. The screen in Figure 5-13 appears.
IP Address	Allow user to assign new IP address of FSD-804PS, after setup completed. Please press “ Apply ” button and switch will reboot automatically to take effect.
Subnet Mask	Allow user to assign new Subnet Mask of FSD-804PS, after setup completed. Please press “ Apply ” button and switch will reboot automatically to take effect.
Gateway	Allow user to assign new Gateway of FSD-804PS, after setup completed. Please press “ Apply ” button and switch will reboot automatically to take effect.

Table 5-4 Descriptions of the Misc Configuration screen Objects

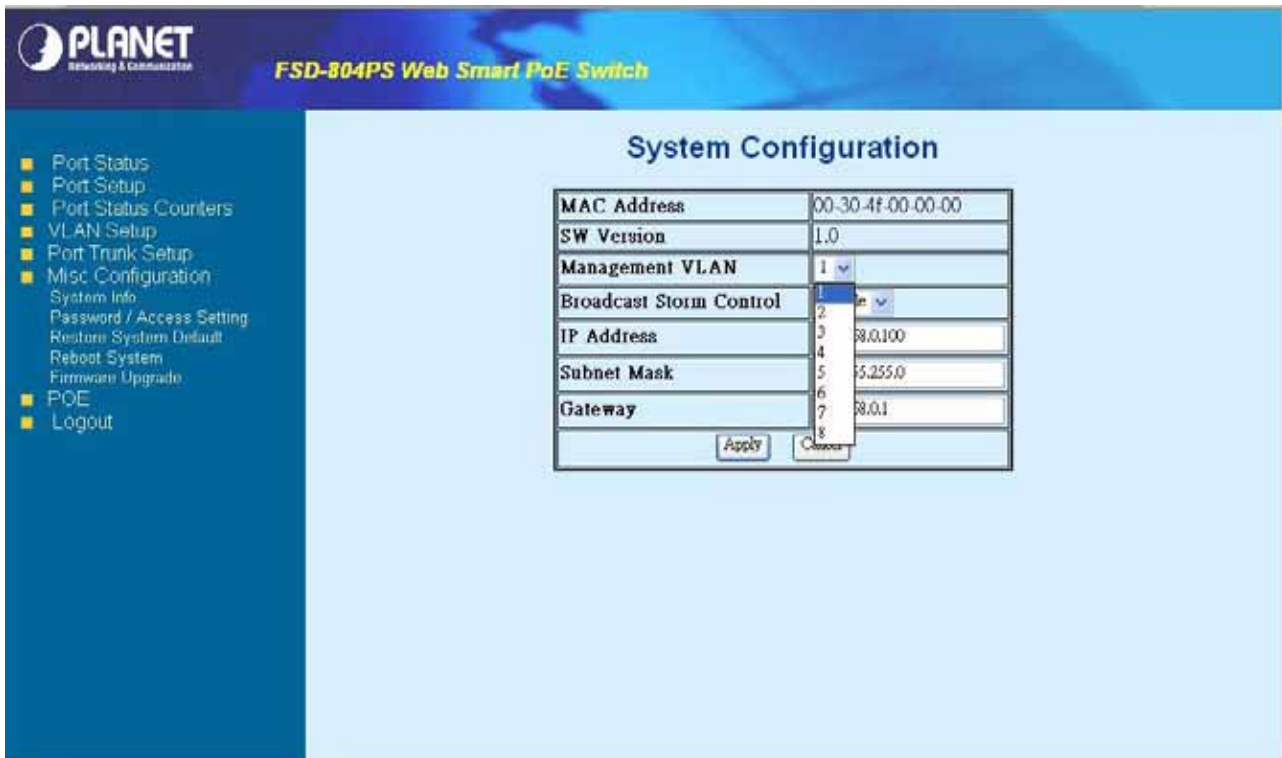


Figure 5-12 FSD-804PS Management VLAN options Web Page screen

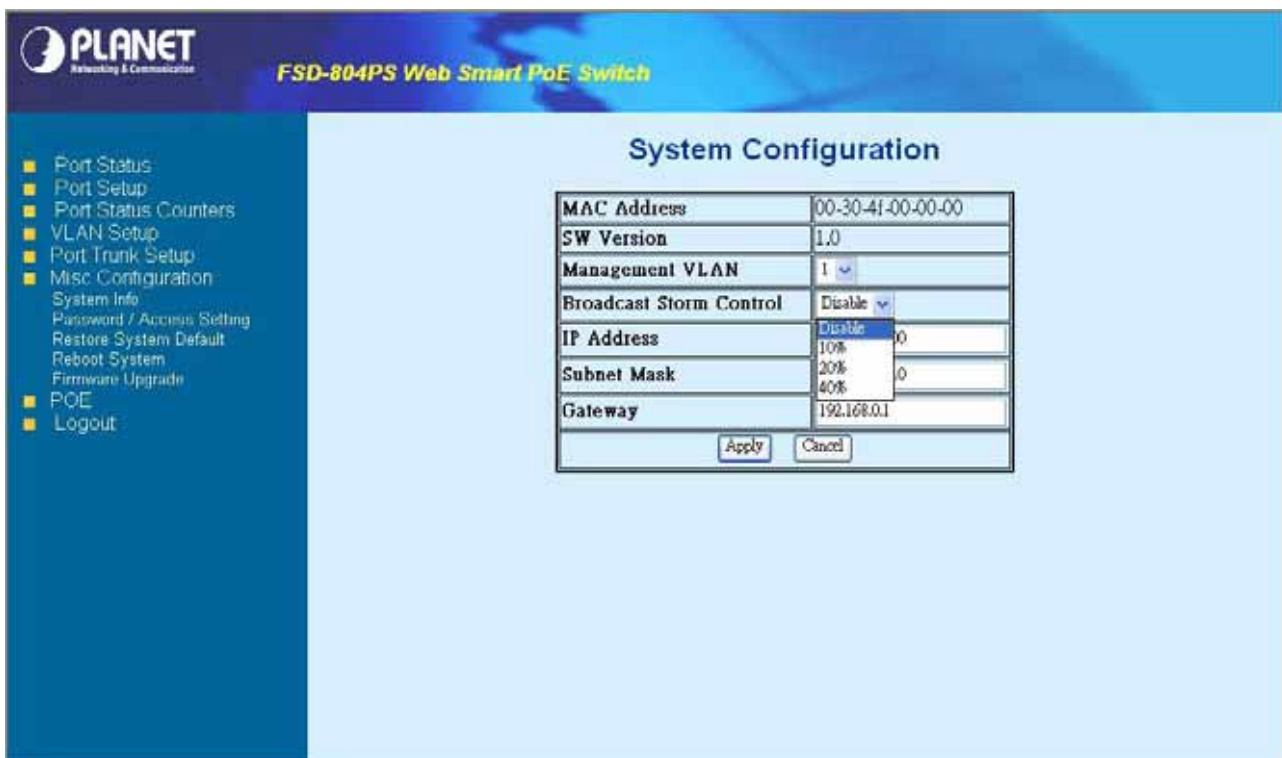


Figure 5-13 FSD-804PS Broadcast Storm Control options Web Page screen

5.7.2 Password / Access Setting

This section provides password change Configuration of FSD-804PS, please input the old password in “**Password**” space and input the new password in “**New Password**” space. After setup completed, please press “**Submit**” button to take effect and the switch will logout automatically. Please login web interface with new password, the screen in [Figure 5-14 & 5-15 & 5-16](#) appears.

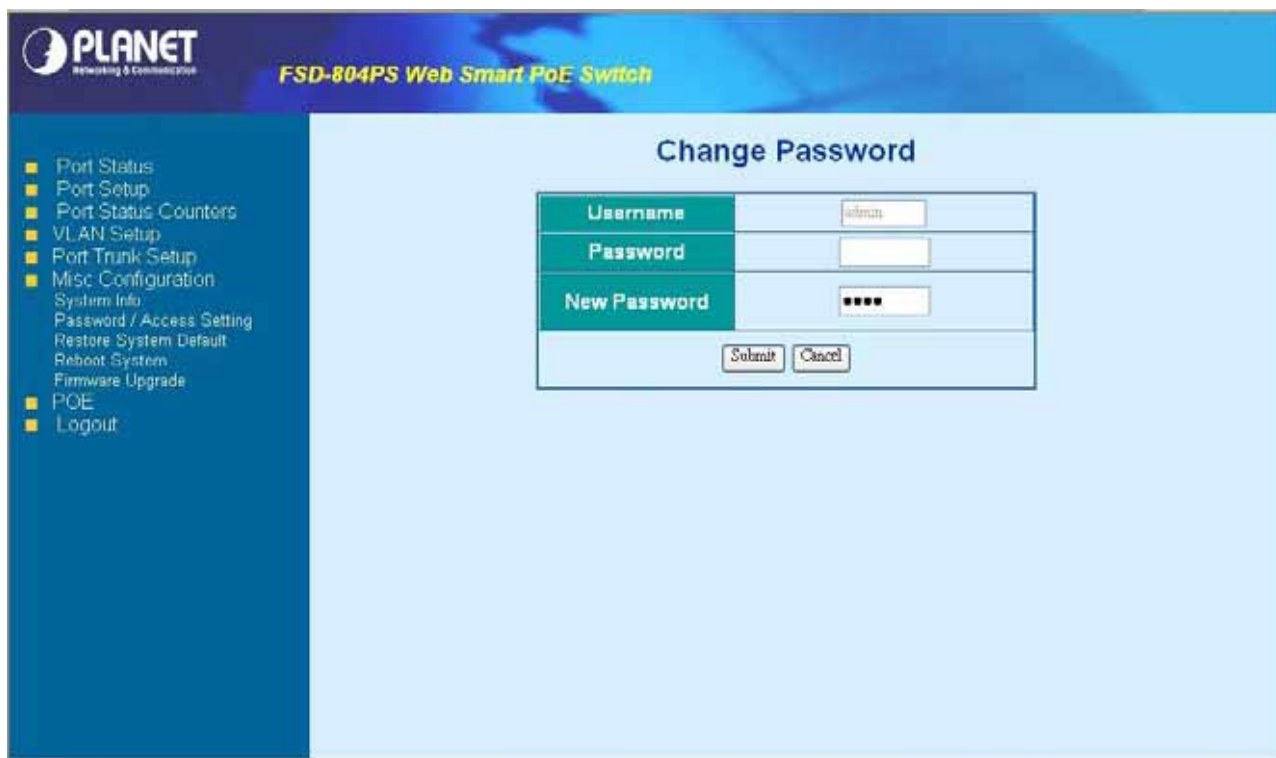


Figure 5-14 FSD-804PS Password change Web Page screen

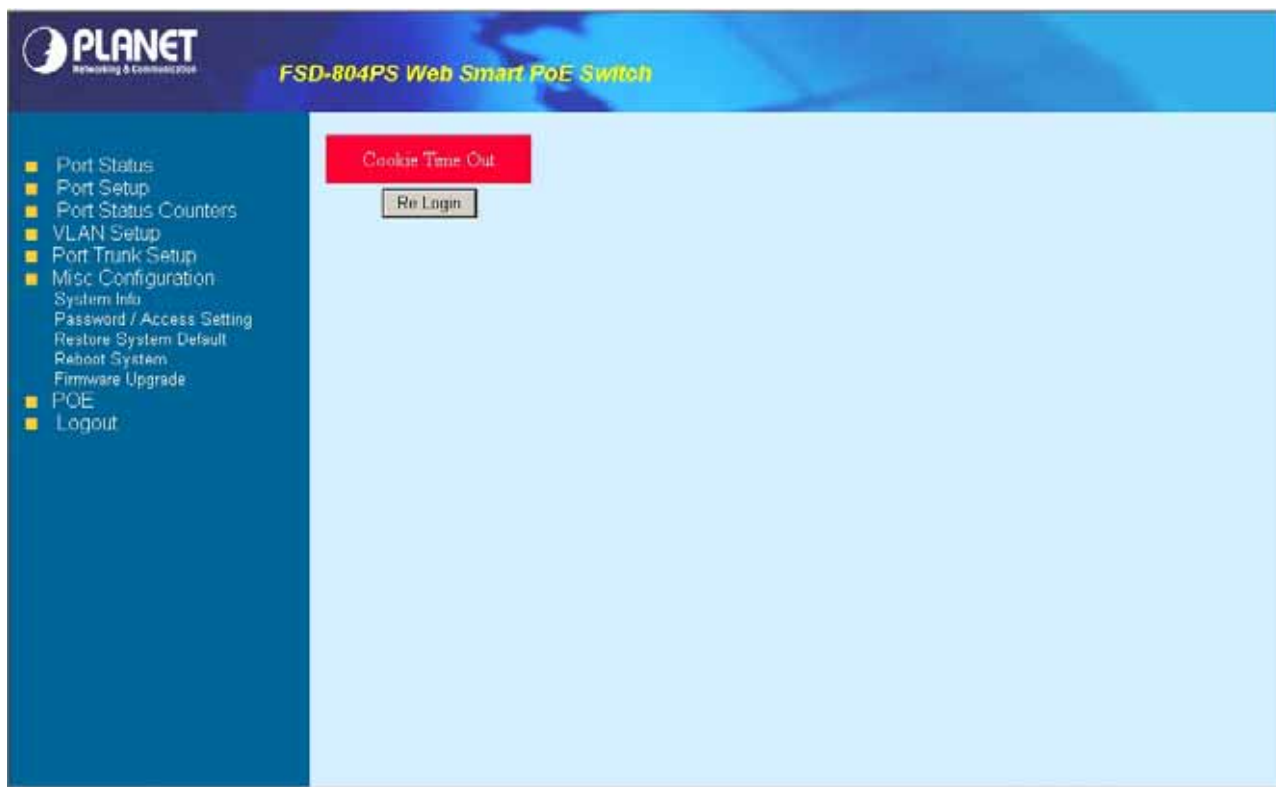


Figure 5-15 FSD-804PS Re Login Web Page screen



Figure 5-16 The FSD-804PS login Web Page screen

5.7.3 Restore System Default

This section provides reset FSD-804PS to factory default mode, after choose this function and the following screen appears in Figure 5-17. Please press “OK” button to take effect and the switch will reboot automatically and ask you to re-login web interface with default username “admin” without password, the screen in Figure 5-18 & 5-19 & 5-20 appears.



Figure 5-17 The FSD-804PS reset to factory default Web Page screen



Figure 5-18 The FSD-804PS rebooting Web Page screen

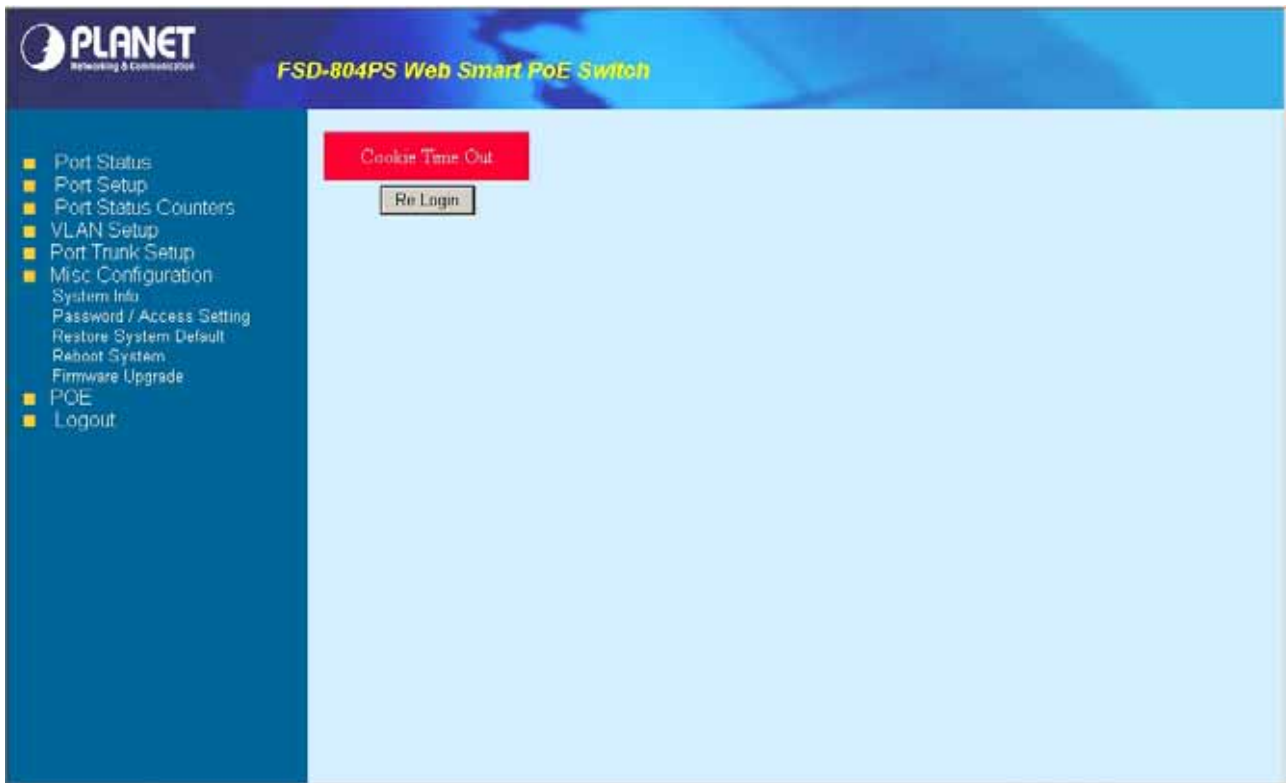


Figure 5-19 FSD-804PS Re Login Web Page screen



Figure 5-20 The FSD-804PS login Web Page screen

5.7.4 Reboot System

This section provides reboot FSD-804PS, after choose this function and the following screen appears in Figure 5-21. Please press “OK” button to take effect and the switch will reboot and ask you to re-login web interface with correct username “admin” and password, the screen in Figure 5-22 & 5-23 & 5-24 appears.



Figure 5-21 The FSD-804PS reboot system Web Page screen



Figure 5-22 The FSD-804PS rebooting Web Page screen

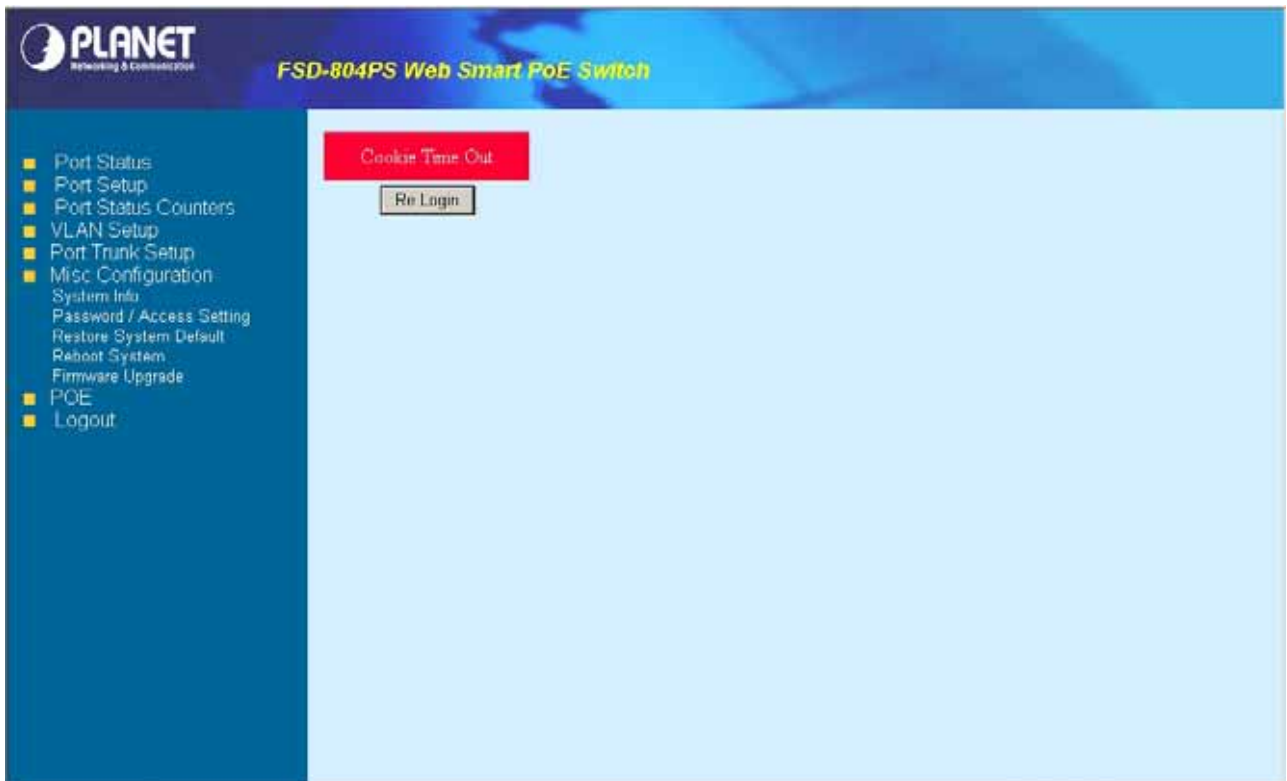


Figure 5-23 FSD-804PS Re Login Web Page screen



Figure 5-24 The FSD-804PS login Web Page screen

5.7.5 Firmware Upgrade

This section provides firmware upgrade of FSD-804PS, after choose this function and the following screen appears in [Figure 5-25](#). Please press “**Update**” button to continue following firmware upgrade process.



Figure 5-25 The FSD-804PS firmware upgrade Web Page screen

Please wait for two seconds and press “**Continue**” to next firmware upgrade web page, the screen in [Figure 5-26](#) appears.



Figure 5-26 The FSD-804PS firmware upgrade Web Page screen

Please press **“Browser”** to locate the latest firmware of FSD-804PS that deposit in your PC and press **“Upgrade”** to start the firmware upgrade process. The screen in [Figure 5-27](#) appears.

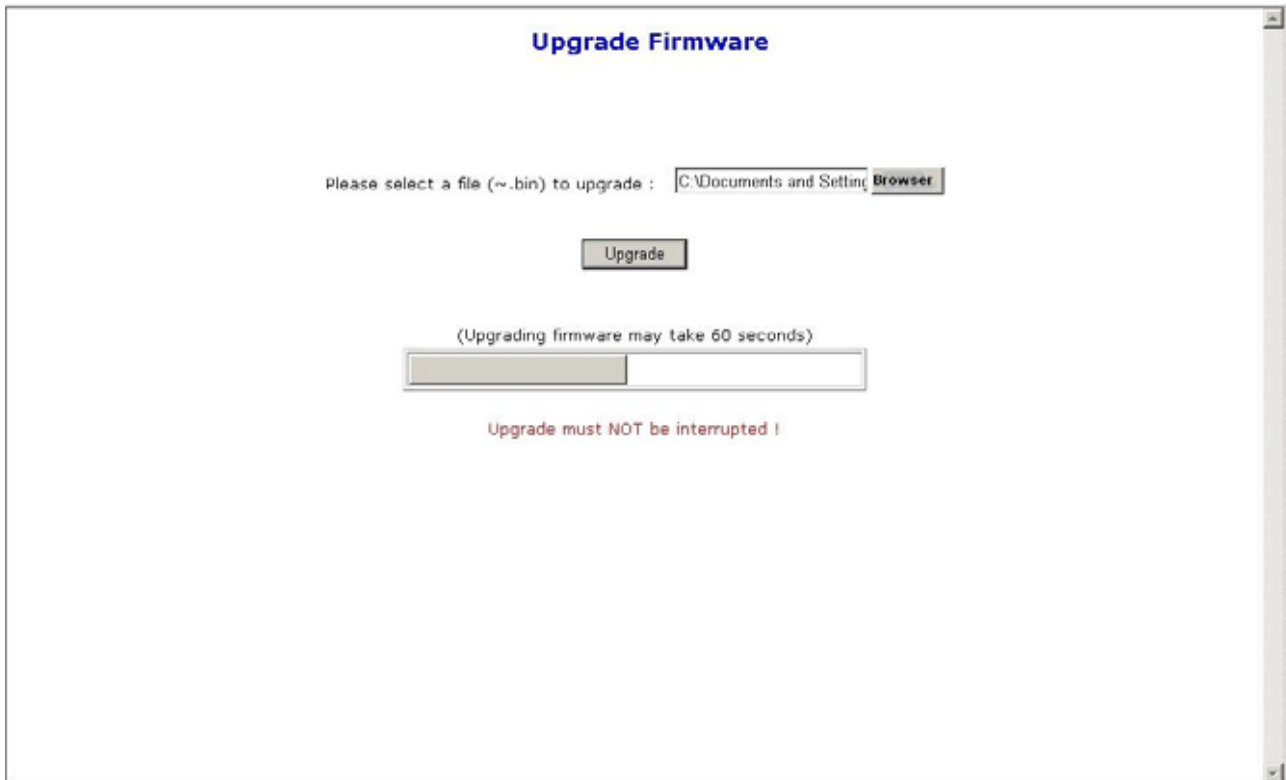


Figure 5-27 The FSD-804PS firmware upgrade Web Page screen

Please wait for twenty-four seconds and go to next firmware upgrade web page, the screen in [Figure 5-28](#) appears.



Figure 5-28 The FSD-804PS firmware upgrade Web Page screen

Then the re-login screen appears in [Figure 5-29](#), please press “**Re login**” button to re-login web interface of FSD-804PS with latest firmware version, the screen in [Figure 5-30](#) appears.

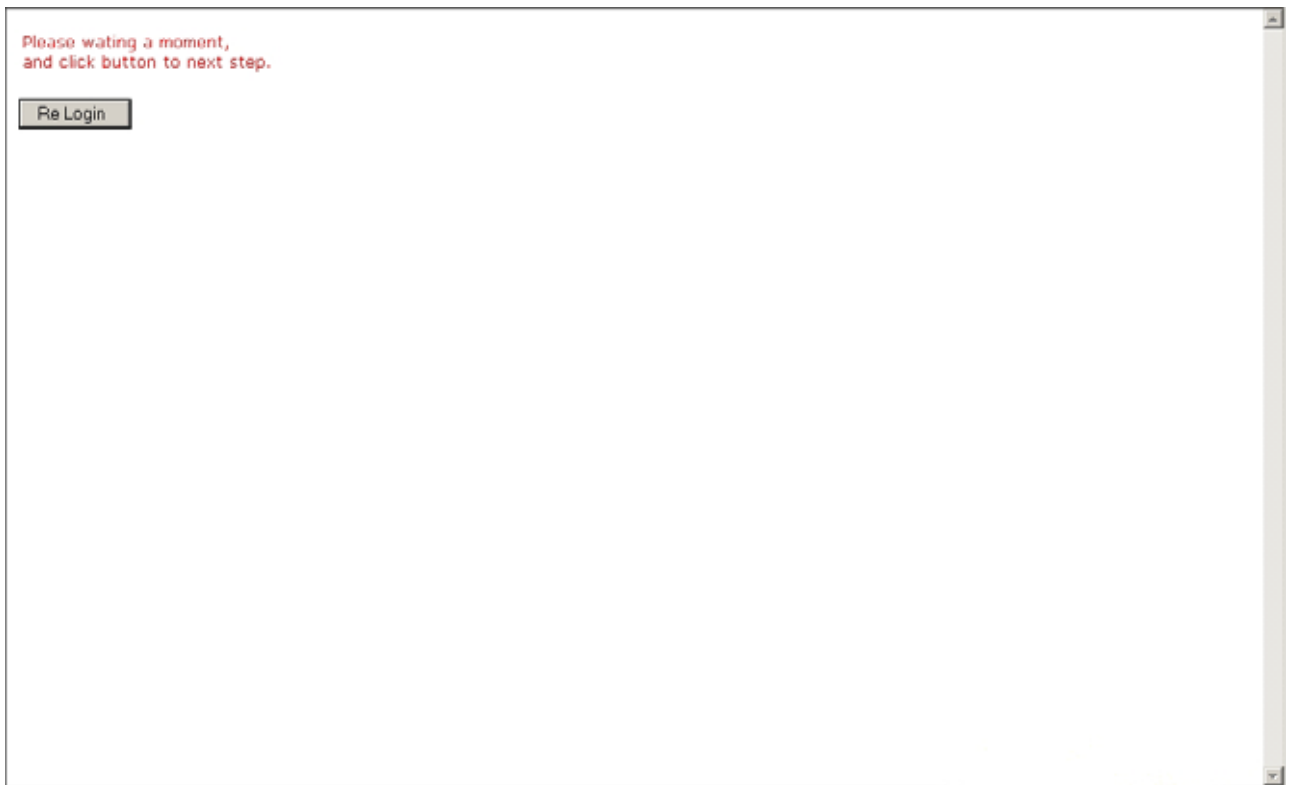


Figure 5-29 The FSD-804PS firmware upgrade Web Page screen



Figure 5-30 The FSD-804PS login Web Page screen

 **Notice:** Please does not power off the FSD-804PS during firmware upgrade process.

5-8 POE

This section provides POE status and POE configuration of FSD-804PS, the POE Status screen in [Figure 5-31](#) appears and [Table 5-5](#) describes the POE status object of FSD-804PS.

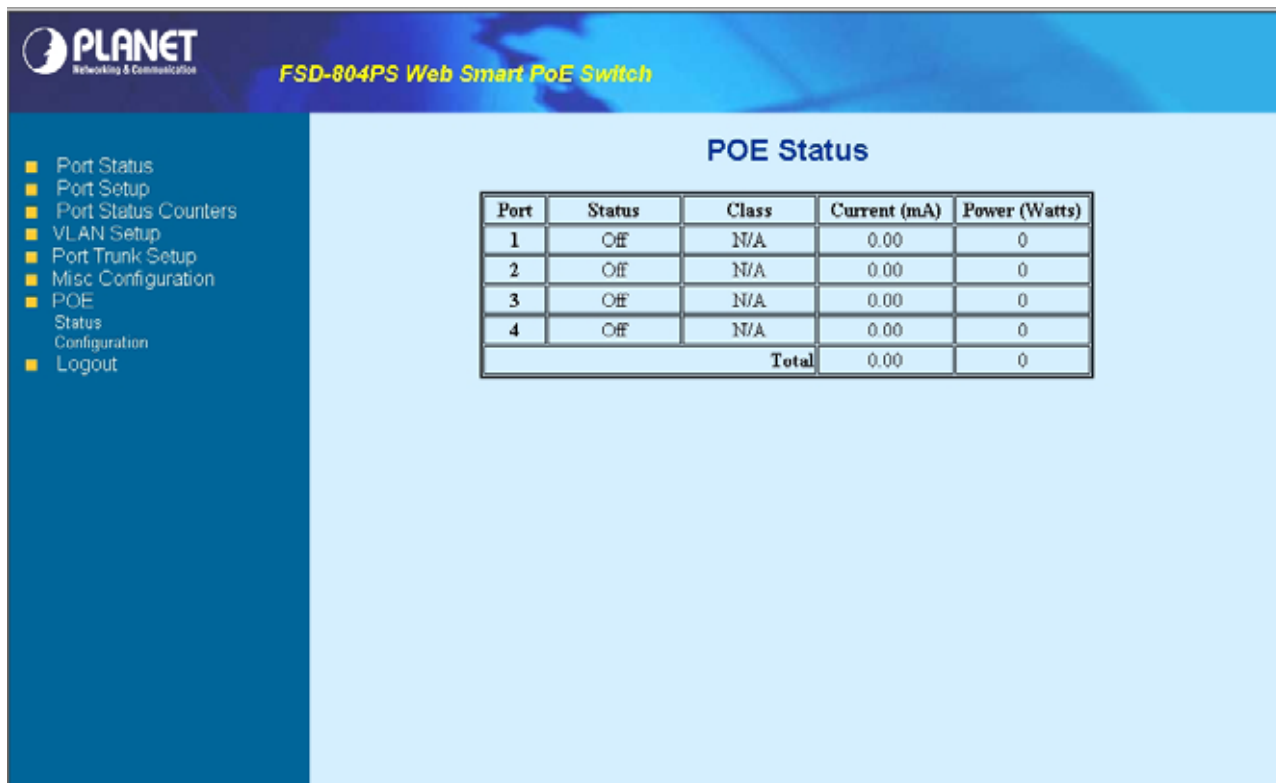


Figure 5-31 FSD-804PS POE Status Web Page screen

Object	Description
Port	Indicate port 1 to port 4.
Status	Indicate the POE status of port 1 to port 4.
Class	Display the POE PD power classification.
Current(mA)	List each connected device current usage.
Power(watts)	List each connected device power usage.
Total	The summary list of Current(mA) and Power(watts)

Table 5-5 Descriptions of the POE Status screen Objects

The POE Configuration screen in [Figure 5-32](#) appears and [Table 5-6](#) describes the POE Configuration object of switch. After setup completed, please press “**Apply**” button to take effect.

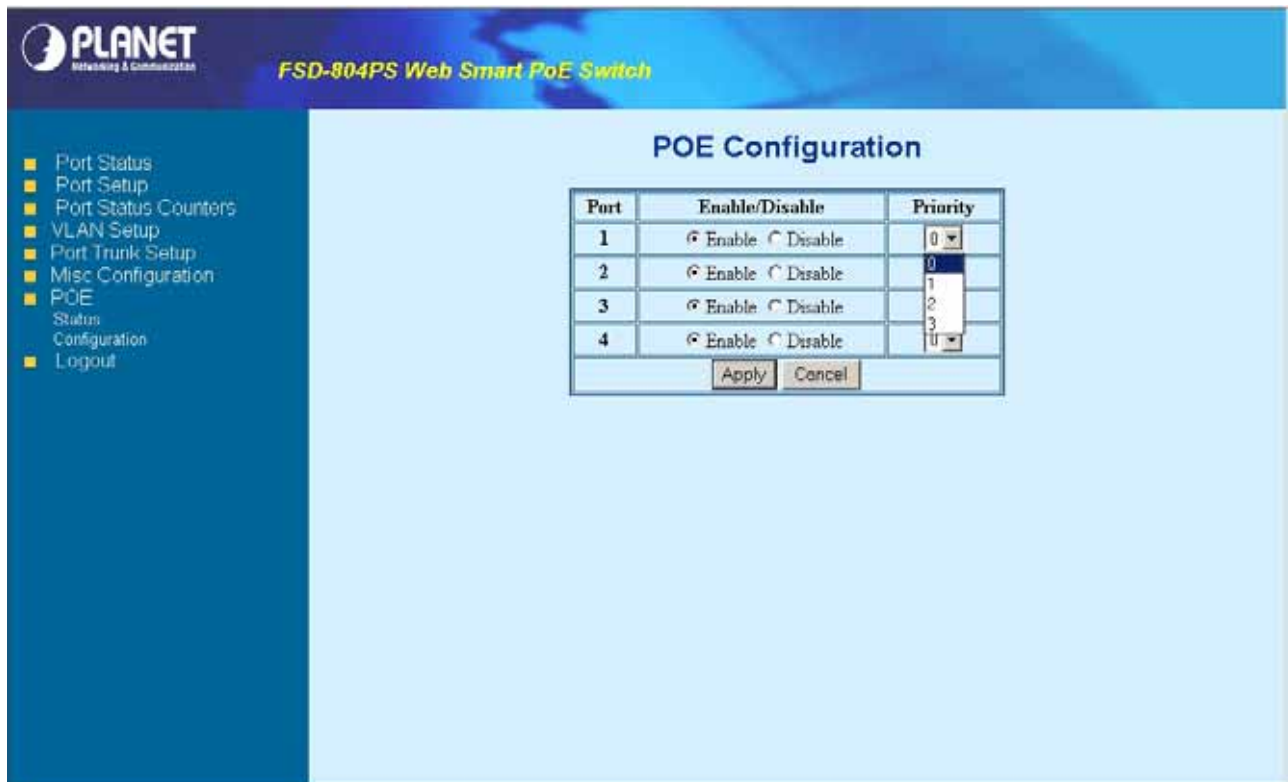


Figure 5-32 FSD-804PS POE Configuration Web Page screen

Object	Description
Port	Indicate port 1 to port 4.
Enable / Disable	Allow to disable or enable each POE port.
Priority	Allow to assign the POE power provision priority on each POE port, the available range is 0-3. The 0 is highest and the 3 is lowest.

Table 5-6 Descriptions of the POE Configuration screen Objects

5-9 Logout

This section allows to logout the FSD-804PS, the screen in [Figure 5-33](#) & [5-34](#) appears.

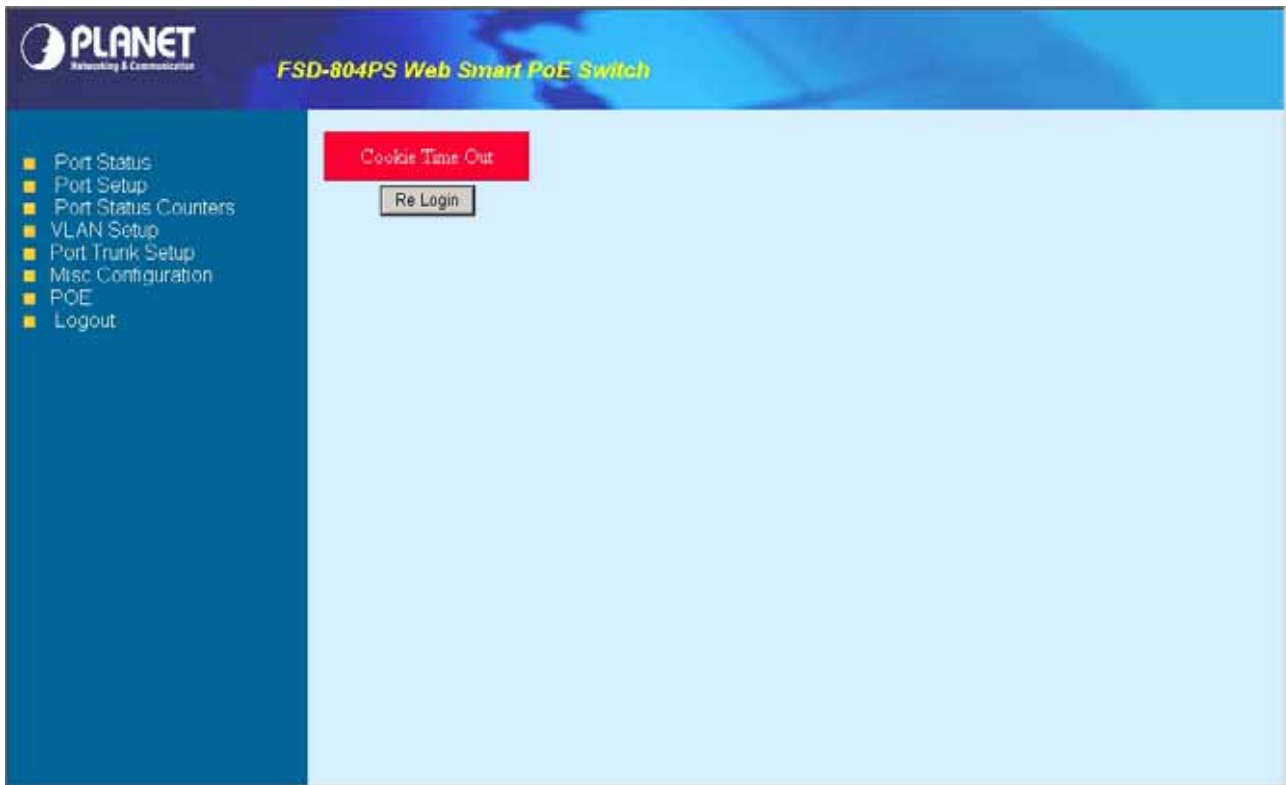


Figure 5-33 FSD-804PS Logout Web Page screen



Figure 5-34 The FSD-804PS login Web Page screen

6. SWITCH OPERATION

6.1 Address Table

The Switch is implemented with an address table. This address table composed of many entries. Each entry is used to store the address information of some node in network, including MAC address, port no, etc. This information comes from the learning process of Ethernet Switch.

6.2 Learning

When one packet comes in from any port. The Switch will record the source address, port no. And the other related information in address table. This information will be used to decide either forwarding or filtering for future packets.

6.3 Forwarding & Filtering

When one packet comes from some port of the Ethernet Switching, it will also check the destination address besides the source address learning. The Ethernet Switching will lookup the address-table for the destination address. If not found, this packet will be forwarded to all the other ports except the port which this packet comes in. And these ports will transmit this packet to the network it connected. If found, and the destination address is located at different port from this packet comes in, the Ethernet Switching will forward this packet to the port where this destination address is located according to the information from address table. But, if the destination address is located at the same port with this packet comes in, then this packet will be filtered. Thereby increasing the network throughput and availability.

6.4 Store-and-Forward

Store-and-Forward is one type of packet-forwarding techniques. A Store-and Forward Ethernet Switching stores the incoming frame in an internal buffer, do the complete error checking before transmission. Therefore, no error packets occurrence, it is the best choice when a network needs efficiency and stability.

The Ethernet Switch scans the destination address from the packet-header, searches the routing table provided for the incoming port and forwards the packet, only if required. The fast forwarding makes the switch attractive for connecting servers directly to the network, thereby increasing throughput and availability. However, the switch is most commonly used to segment existing hubs, which nearly always improves overall performance. An Ethernet Switching can be easily configured in any Ethernet network environment to significantly boost bandwidth using conventional cabling and adapters.

Due to the learning function of the Ethernet switching, the source address and corresponding port number of each incoming and outgoing packet are stored in a routing table. This information is subsequently used to filter packets whose destination address is on the same segment as the source address. This confines network traffic to its respective domain, reducing the overall load on the network.

The Switch performs "Store and forward" therefore, no error packets occur. More reliably, it reduces the re-transmission rate. No packet loss will occur.

6.5 Auto-Negotiation

The STP ports on the FSD-804PS switch have built-in "Auto-negotiation". This technology automatically sets the best possible bandwidth when a connection is established with another network device (usually at Power On or Reset). Detecting the modes does this and speeds at the second of both devices are connected and capable of, both 10Base-T and 100Base-TX devices can connect with the port in either Half- or Full-duplex mode.

7.TROUBLESHOOTING

This chapter contains information to help you solve problems. If the Switch is not functioning properly, make sure the Ethernet Switch was set up according to instructions in this manual.

The Link LED is not lit

Solution:

Check the cable connection and remove duplex mode of the Switch.

Some stations cannot talk to other stations located on the other port

Solution:

Please check the VLAN, port trunking function that may introduce this kind of problem.

Performance is bad

Solution:

Check the full duplex status of the Ethernet Switch. If the Ethernet Switch is set to full duplex and the partner is set to half duplex, then the performance will be poor.

100Base-TX port link LED is lit, but the traffic is irregular

Solution:

Check that the attached device is not set to dedicate full duplex. Some devices use a physical or software switch to change duplex modes. Auto-negotiation may not recognize this type of full-duplex setting.

Why the Switch doesn't connect to the network

Solution:

Check the LNK/ACT LED on the switch Try another port on the Switch Make sure the cable is installed properly Make sure the cable is the right type Turn off the power. After a while, turn on power again.

Why I connect my PoE device to FSD-804PS and it cannot power on?

Solution:

1. Please check the cable type of the connection from FSD-804(port 1 to port 4) to the other end. The cable should be an 8-wire UTP, Category 5 or above, EIA568 cable within 100 meters. A cable with only 4-wire, short loop or over 100 meters, all will affect the power supply.
2. Please check and assure the device that fully complied with IEEE 802.3af standard.

How to deal forgotten password situation of FSD-804PS?

Solution:

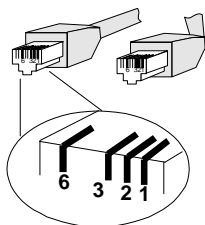
1. Please contact Planet switch support team and the mail address is support_switch@planet.com.tw

APPENDIX A NETWORKING CONNECTION

A.1 Switch's RJ-45 Pin Assignments

Contact	MDI	MDI-X
1	1 (TX +)	3
2	2 (TX -)	6
3	3 (RX +)	1
6	6 (RX -)	2
4, 5, 7, 8	Not used	Not used

A.2 RJ-45 cable pin assignment



There are 8 wires on a standard UTP/STP cable and each wire is color-coded. The following shows the pin allocation and color of straight cable and crossover cable connection:



Figure A-1: Straight-Through and Crossover Cable

Please make sure your connected cables are with same pin assignment and color as above picture before deploying the cables into your network.