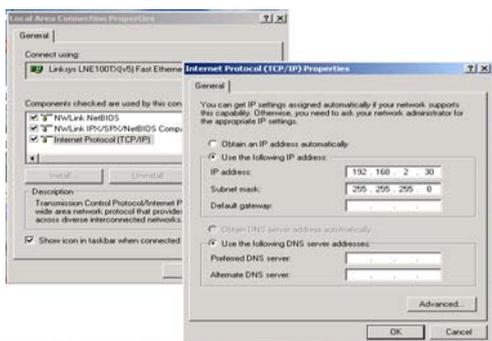


Web Smart Switch Configure

Please follow the steps to configure this Web Smart switch.

Step 1: Use a twisted pair cable to connect this switch to your PC.

Step 2: Set your PC's IP to 192.168.2.xx.



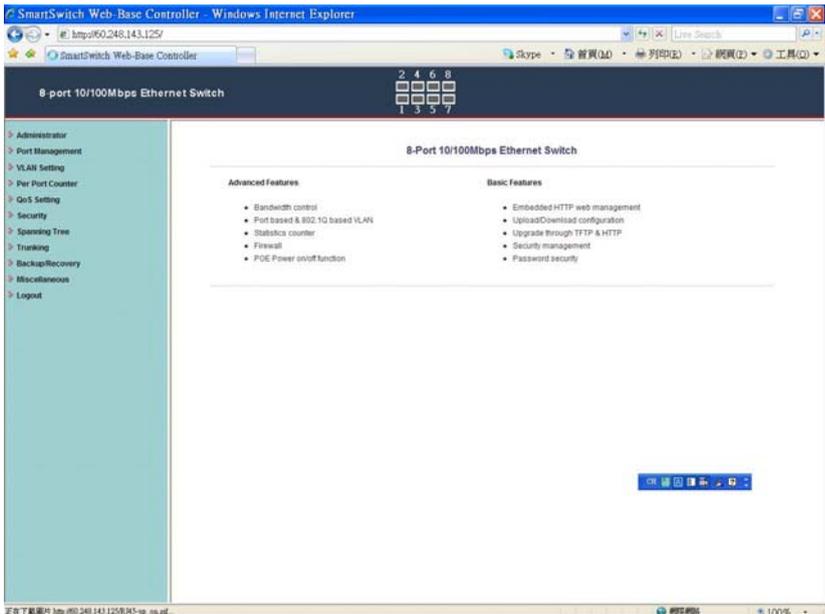
Step 3: Open the web browser (like IE...), and go to 192.168.2.1
Then you will see the login screen.



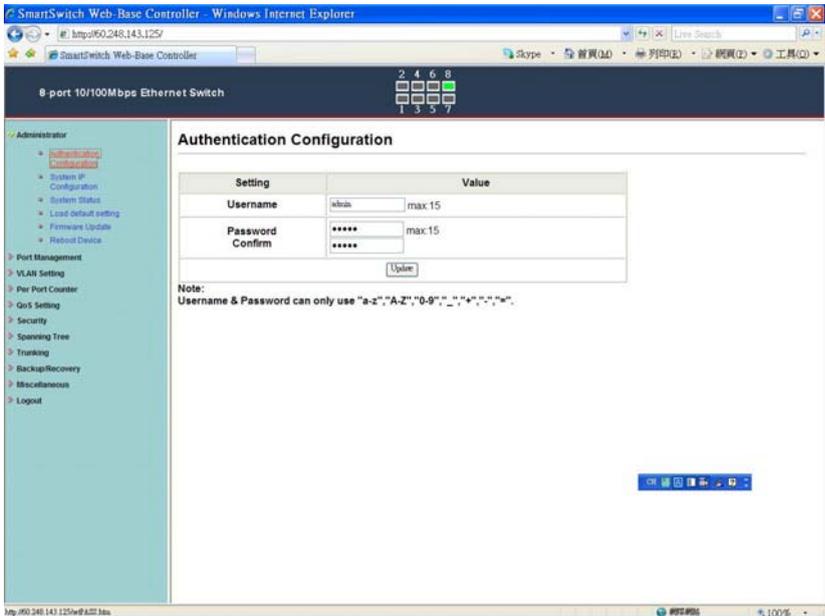
ID and the password: admin

Step 4: After the authentication procedure, the home page shows up.
Select one of the configurations by clicking the icon.

- Administrator
- Port Management
- VLAN Setting
- Per Port Counter
- QoS Setting
- Security
- Spanning Tree
- Trunking
- Backup/Recovery
- Miscellaneous
- Logout



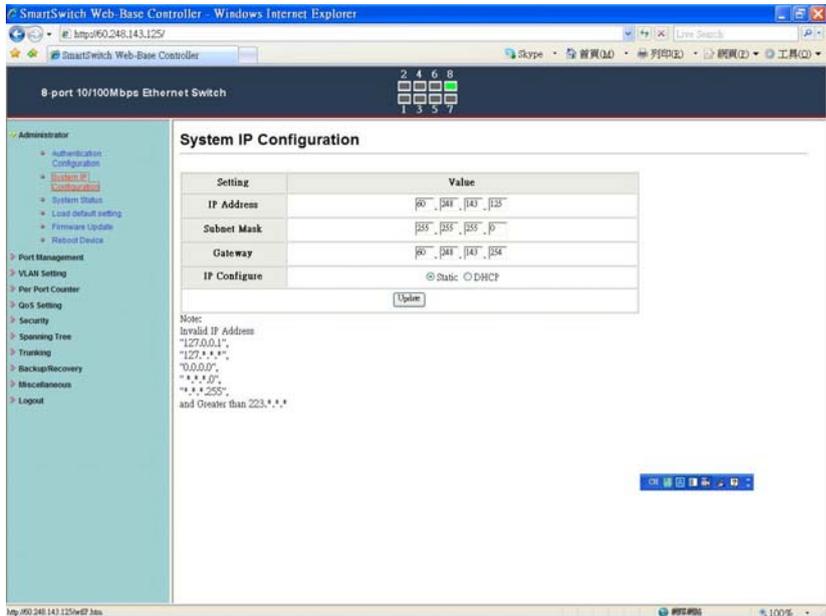
Administrator: Authentication Configuration



1. Change the user name and the password.
2. Click “Update” to confirm the new change.

Now, you can use the new user name and the password.

Administrator: System IP Configuration



1. Change the IP address: type the new IP address or select DHCP IP configuration.
2. Click "Update" to confirm the new change.
"Update Successfully!!" will be shown on the screen.
3. Click "Reboot" to use new setting to login

Now, the setting of "System IP Configuration" is finished.

Administrator: System Status

SmartSwitch Web-Base Controller - Windows Internet Explorer
http://192.168.2.1/

8-port 10/100Mbps Ethernet Switch

Administrator

- Authentication Configuration
- System IP Configuration
- System Status
- Load default setting
- Firmware Update
- Reboot Device

Port Management

- Port Configuration
- Port Mirroring
- Bandwidth Control
- Broadcast Storm Control
- PCE

VLAN Setting

Per Port Counter

QoS Setting

Security

Spanning Tree

Trunking

Backup/Recovery

System Status

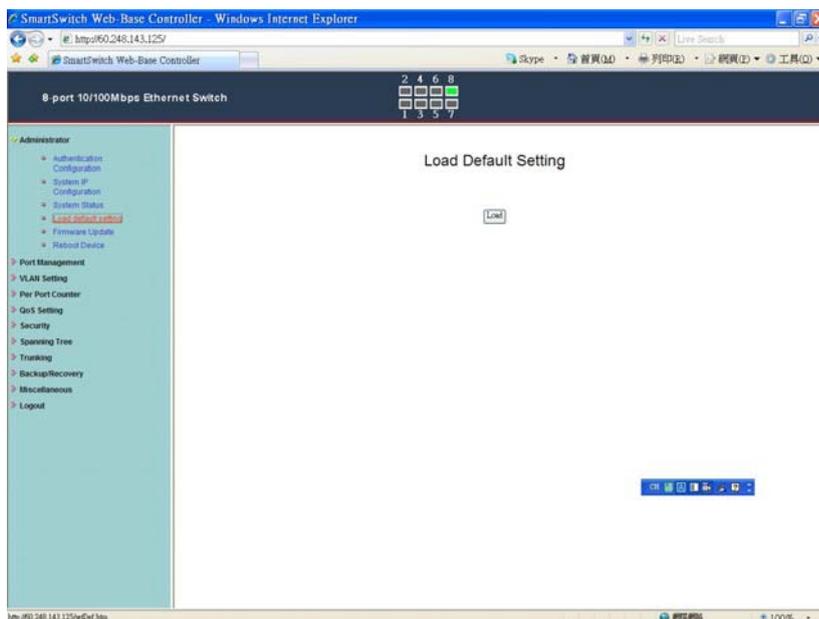
MAC Address	00:03:0cc:01:1c:f8
Number of Ports	8
System Version	V100414
Idle Time	30 (1-30 Minutes)
<input type="checkbox"/> Idle Time Security	<input type="radio"/> Auto Logout(Default). <input type="radio"/> Back to the last display.

MAC address and system version will be shown on the screen.

1. Change the new comment of this switch by typing the new comment.
2. Click “Update” to confirm the new change.
“Update Successfully!!” will be shown on the screen.
3. Click "Reboot" to use new setting to login

Now, the setting of “System Status” is finished.

Administrator: Load Default Setting

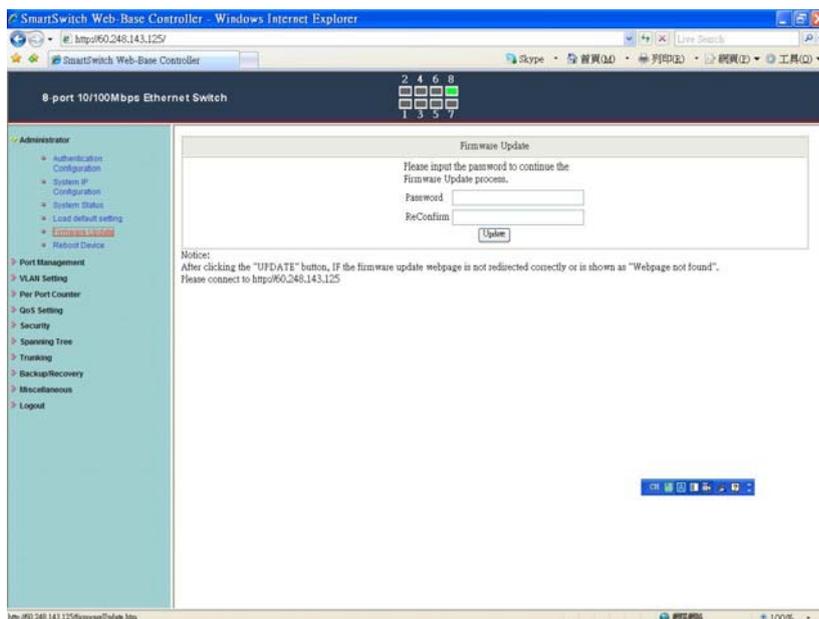


1. Click “Load” to back to the factory default setting.

**Note: Recover switch default setting excluding the IP address, User name and Password.

Now, the default is loaded.

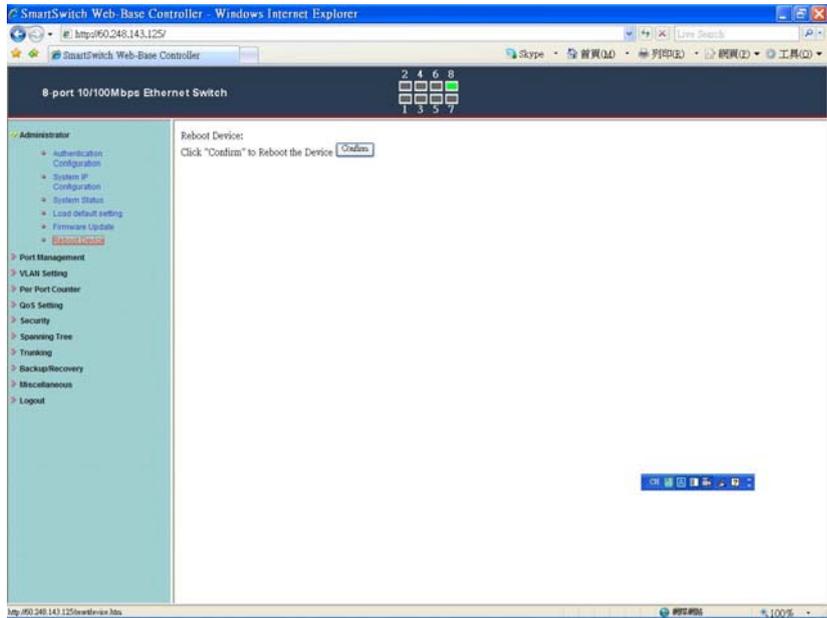
Administrator: Firmware Update



Follow the instruction on the screen to update the new firmware.

Please contact with your sales agents to get the latest firmware information.

Administrator: Reboot Device



1. Click “Confirm” to reboot the device.

Now, the setting of “Reboot Device” is finished.

Port Management: Port Configuration

8-port 10/100Mbps Ethernet Switch

Port Configuration

Function	Auto	Speed	Duplex	Pause	Backpressure	Tx Capability	Addr. Learning
Select Port No.	01 <input type="checkbox"/> 02 <input type="checkbox"/> 03 <input type="checkbox"/> 04 <input type="checkbox"/> 05 <input type="checkbox"/> 06 <input type="checkbox"/> 07 <input type="checkbox"/> 08 <input checked="" type="checkbox"/>						
<input type="button" value="Update"/>							

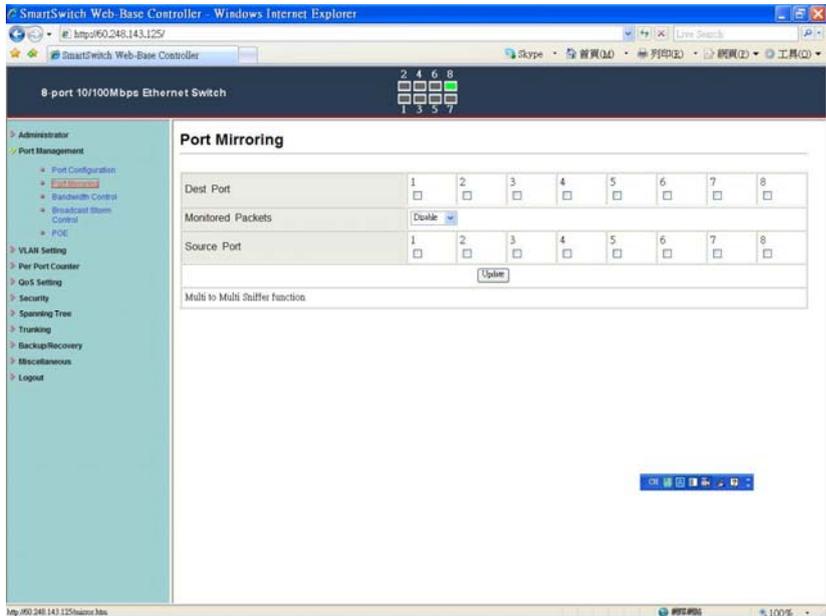
Port	Current Status				Setting Status						
	Link	Speed	Duplex	FlowCtrl	Auto-Nego	Speed	Duplex	Pause	Backpressure	Tx Cap	Addr. Learning
1	---	---	---	---	Auto	100M	Full	On	On	On	On
2	---	---	---	---	Auto	100M	Full	On	On	On	On
3	---	---	---	---	Auto	100M	Full	On	On	On	On
4	---	---	---	---	Auto	100M	Full	On	On	On	On
5	---	---	---	---	Auto	100M	Full	On	On	On	On
6	---	---	---	---	Auto	100M	Full	On	On	On	On
7	---	---	---	---	Auto	100M	Full	On	On	On	On
8	●	100M	Full	On	Auto	100M	Full	On	On	On	On

Select the “Port No.” - configure the mode below:

1. “Auto” - enable/disable Auto-Negotiation.
2. “Speed” - 10M or 100M mode for the selected port.
2. “Duplex” - Full or Half-Duplex mode for the selected port.
4. “Pause” - enable/disable for the selected port.
5. “Backpressure” - enable/disable for the selected port.
6. “Tx Capability (Cap)” - enable/disable for the selected port.
7. “Addr. Learning” - enable/disable for the selected port.

Now, the setting of “Port Configuration” is finished.

Port Management: Port Mirroring



Port Mirroring is used to mirror traffic, RX, TX or TX&RX, from Source port to Destination port for analysis.

1. Select the Destination port: you can choose port 1 to port 8
2. Select the Source port: by clicking the checking box of the port.
3. Click “Update” to save the setting.

Now, the setting of “Port Mirroring” is finished.

Port Management: Bandwidth Control

The screenshot shows the SmartSwitch Web-Base Controller interface. The main content area is titled "Bandwidth Control". It features a configuration form with the following fields:

- Port No.:** A dropdown menu with "1" selected.
- Tx Rate Value:** A text input field containing "Bandwidth # ____ X resolution. (0~19/195/255) 0: Full speed. 1~19/195/255: Specified bandwidth."
- Rx Rate Value:** A text input field containing "Bandwidth # ____ X resolution. (0~19/195/255) 0: Full speed. 1~19/195/255: Specified bandwidth."
- Resolution:** A dropdown menu with "Low" selected. Below it, the text reads: "Low: 32Kbps (1). Rate value: 1~255. High: 512Kbps (2). When link speed is 10M and the resolution is 512Kbps, the Rate value should be 1~19. (3). When link speed is 100M and the resolution is 512Kbps, the Rate value should be 1~195. All ports use the same bandwidth resolution." Below this text are "Update" and "LoadDefault" buttons.

Below the configuration form is a table showing the status of ports 1 through 8:

Port No.	Tx. Rate(Kbps)	Rx. Rate(Kbps)	Link Speed	Port No.	Tx. Rate(Kbps)	Rx. Rate(Kbps)	Link Speed
1	Full Speed	Full Speed	---	5	Full Speed	Full Speed	---
2	Full Speed	Full Speed	---	6	Full Speed	Full Speed	---
3	Full Speed	Full Speed	---	7	Full Speed	Full Speed	---
4	Full Speed	Full Speed	---	8	Full Speed	Full Speed	100M

1. Select the “Port No.”: you can choose port 1 to port 8
2. “TX Rate Value”: set the transmission rate of the selected port. (0:Full speed; 1~255:Specified bandwidth.)
3. “RX Rate Value”: set the receiving rate of the selected port. (0: Full speed; 1~255: Specified bandwidth.)
4. “Resolution” : Low: 32 kbps / High: 512 kbps
5. Click “Update” to confirm the setting or “LoadDefault”.

Now, the setting of “Bandwidth Control” is finished.

Port Management: Broadcast Storm Control

The screenshot shows the SmartSwitch Web-Base Controller interface in a Windows Internet Explorer browser. The page title is "8-port 10/100Mbps Ethernet Switch". The left sidebar contains a navigation menu with categories like Administrator, Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree, Trunking, Backup/Recovery, Miscellaneous, and Logout. The "Broadcast Storm Control" option is highlighted in red. The main content area is titled "Broadcast Storm Control" and features a form with a "Threshold" input field set to "63" (range 1-63) and an "Enable Port" section with checkboxes for ports 1 through 8. An "Update" button is located below the checkboxes. A note at the bottom of the form states: "This value indicates the number of broadcast packet which is allowed to enter each port in one time unit. One time unit is 500 us for 100Mbps speed and 5000us for 10Mbps speed".

1. “Threshold” - Set the threshold from 1~63.
2. “Enable Port” - per port to define the status of broadcast packets.
3. Click “Update” to confirm the setting.

Now, the setting of “Broadcast Storm Control” is finished.

Port Management: PoE Configuration

The screenshot shows the SmartSwitch Web-Base Controller interface in a Windows Internet Explorer browser. The page title is "8 port 10/100Mbps Ethernet Switch". The main content area is titled "POE Configuration" and contains a table with 8 columns representing ports (01 to 08) and several rows for configuration options. The "Enable" row has checkboxes checked for all ports. The "PSE Current" row shows "No Load" for all ports. The "Minimum Output Power" row shows "---" for all ports. The "POE Class" row shows "---" for all ports. Below the table is an "Update" button. Underneath the button, there is a message: "Update: Update the power control function." and two radio button options: "Enable Power On" and "Enable Power Off".

Port	01	02	03	04	05	06	07	08
Enable	<input checked="" type="checkbox"/>							
PSE Current	No Load							
Minimum Output Power	---	---	---	---	---	---	---	---
POE Class	---	---	---	---	---	---	---	---

Update

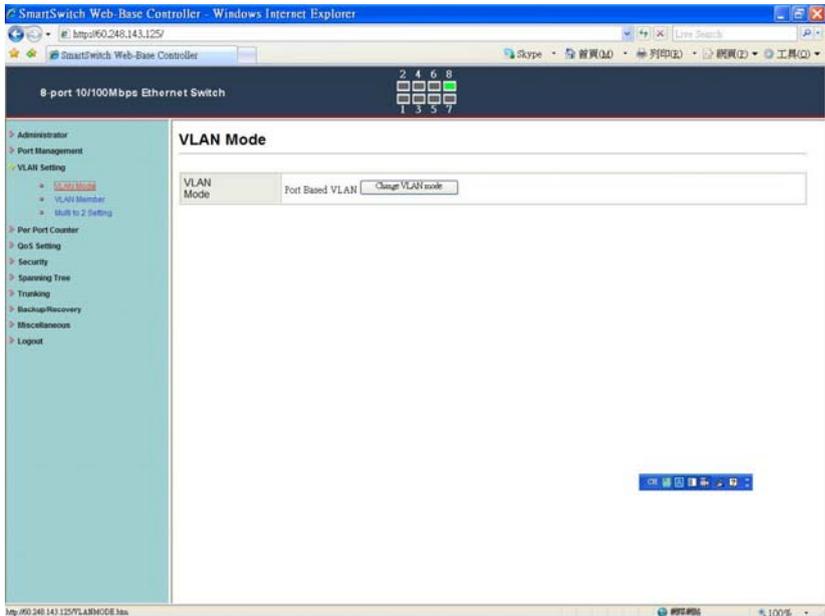
Update: Update the power control function.
Enable Power On
Enable Power Off

Remote access and monitor the attached PD (Powered Device) status by using Enable/Disable function.

1. **Enable:** POE of the port is able to supply power to the attached PD (Powered Device)
2. **PSE Current & Minimum Output Power:** The status of the port current and minimum output power.
3. **POE class:** each POE port will detect the class of the attached PD (Powered Device)
4. Click “Update” to confirm and finish the setting.

Now, the setting of “PoE Configuration” is finished.

VLAN Setting: VLAN Mode



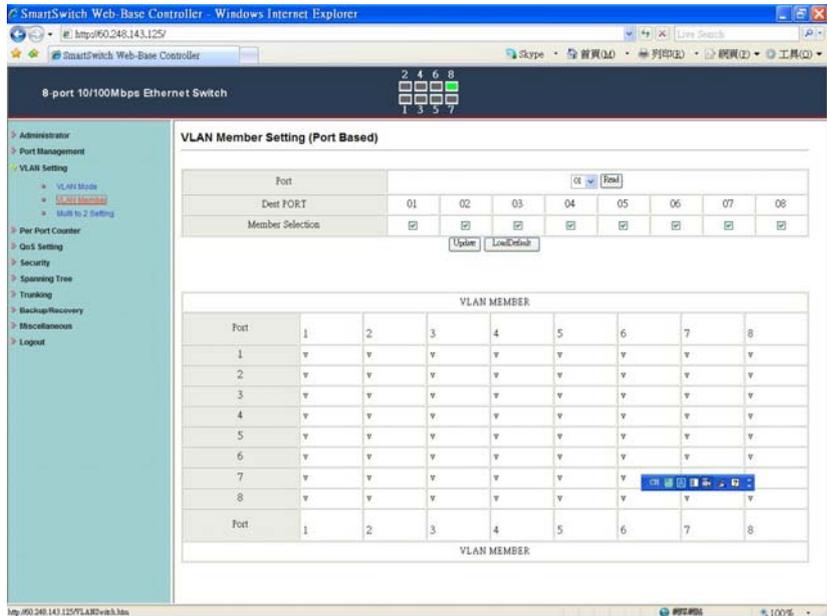
There are two VLAN modes : Port Based VLAN and Tagged VLAN.

Click “Change VLAN mode” to select the mode.

**If the Port Based VLAN function is enabled, Multi to 2 setting and tag Based VLAN will be disabled automatically.

Now, the setting of “VLAN Mode” is finished.

VLAN Setting: VLAN Member Setting (Port Based)



You can select a port group.

1. Click the port numbers: which you want to put them into the selected VLAN group.
2. Click “Update” to confirm and finish the setting.
3. Click “LoadDefault” to back to the original factory setting.

Now, the setting of “VLAN Mode” is finished.

VLAN Setting: Multi to 2 Setting

SmartSwitch Web-Base Controller - Windows Internet Explorer

8-port 10/100Mbps Ethernet Switch

2 4 6 8
1 3 5 7

Administrator
Port Management
VLAN Setting
 -> VLAN Mode
 -> VLAN Member
 -> Multi to 2 Setting
Per Port Counter
QoS Setting
Security
Spanning Tree
Trunking
Backup/Recovery
Miscellaneous
Logout

Multi to 2 Setting

Destination Port No	Home VLAN 1: 01
Current Setting	Home VLAN 2: 01
Disable Port	Port: &-
	01 <input type="checkbox"/> 02 <input type="checkbox"/> 03 <input type="checkbox"/> 04 <input type="checkbox"/> 05 <input type="checkbox"/> 06 <input type="checkbox"/> 07 <input type="checkbox"/> 08 <input type="checkbox"/>

Update

1. A example for Multi-to-2 structure

VLAN Configuration

2. The original setting of the VLAN Group will be cleared and replaced by this special structure if you enable this function.
On the other hand, if you set the VLAN Group again, this special structure will be cleared and replaced by your newest setting.

This is a special design for easily setting the switch VLAN into “VLAN Per Port“.

1. Choose “Destination Port No”.
2. Choose “Disable Port”
3. “Disable Port” – choose the port which you don’t want to use
4. Click “Update” to confirm and finish the setting.

After this setting, all ports can only connect to destination ports.

Per Port Counter: Counter Category

SmartSwitch Web-Base Controller - Windows Internet Explorer
http://60.248.143.125/

8-port 10/100Mbps Ethernet Switch

Administrator
Port Management
VLAN Setting
Per Port Counter
 + **Per Counter**
QoS Setting
Security
Spanning Tree
Trunking
Backup/Recovery
Miscellaneous
Logout

Counter Category

Counter Mode Selection: Receive Packet & Transmit Packet

Port	Receive Packet Transmit Packet	
01	0	0
02	0	0
03	0	0
04	0	0
05	0	0
06	0	0
07	0	0
08	2747	3077

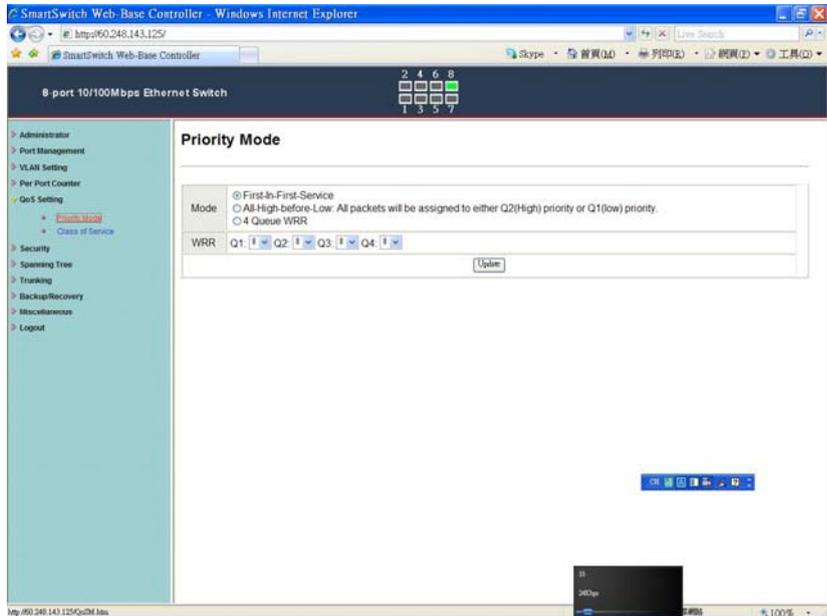
Note:
If Counter Mode is switched from the old one to a new one, the counter value of the old one will be discarded. And the counter value of the new one will be counted from zero.

100%

You can read the transmitting and receiving packet of the connecting port.

Click “Refresh” or “Clear” the data.

QoS Setting: Priority Mode



There are three Priority Modes to select.

1. “First-in-First-Service” - the first receiving packet will be firstly transmitted.
2. “All-High-before-Low” – All packets will be assigned to either high priority queue or low priority queue.
3. “4 Queue WRR (Weight-Round-Robin)” - set the ratio of the transmitting packet.
4. Click “Update” to confirm and finish the setting.

QoS Setting: Class of Service

SmartSwitch Web Base Controller - Windows Internet Explorer

8-port 10/100Mbps Ethernet Switch

Administrator

Port Management

VLAN Setting

Port Forward

QoS Setting

Priority Queue

Security

Spanning Tree

Trunking

Backup/Recovery

System/Access

Logout

Class of Service

The switch treats TCP/UDP, IP TOS/DS, 802.1p and physical port CoS scheme in the following priority.

TCP/UDP > IP TOS/DS > 802.1p > Physical port

This means TCP/UDP CoS will override all other settings.

(1) TCP/UDP port

Note:
 (1) Q1 - Q4 options are effective for the selected physical port only.
 (2) "Drop" option is the global setting for all physical ports.

Protocol	Q1	Q2	Q3	Q4	Drop
FTP	Q1	Q2	Q3	Q4	Drop
SSH	Q1	Q2	Q3	Q4	Drop
TELNET	Q1	Q2	Q3	Q4	Drop
SMTP	Q1	Q2	Q3	Q4	Drop
DNS	Q1	Q2	Q3	Q4	Drop
TFTP	Q1	Q2	Q3	Q4	Drop
HTTP	Q1	Q2	Q3	Q4	Drop
POP3	Q1	Q2	Q3	Q4	Drop
NEWS	Q1	Q2	Q3	Q4	Drop
SNTP	Q1	Q2	Q3	Q4	Drop
NetBIOS	Q1	Q2	Q3	Q4	Drop
IMAP	Q1	Q2	Q3	Q4	Drop
SNMP	Q1	Q2	Q3	Q4	Drop
HTTPS	Q1	Q2	Q3	Q4	Drop
MSN	Q1	Q2	Q3	Q4	Drop
XRD_RDP	Q1	Q2	Q3	Q4	Drop
QQ	Q1	Q2	Q3	Q4	Drop
ICQ	Q1	Q2	Q3	Q4	Drop
Yahoo	Q1	Q2	Q3	Q4	Drop
BOOTP/DHCP	Q1	Q2	Q3	Q4	Drop
User-defined A TCP/UDP	Q1	Q2	Q3	Q4	Drop
User-defined B TCP/UDP	Q1	Q2	Q3	Q4	Drop
User-defined C TCP/UDP	Q1	Q2	Q3	Q4	Drop

Note: These user-defined TCP/UDP port are the same as that used in TCP/UDP filter

User-defined Port range (85535-1)

User-defined A Port: Port1 - Port2

User-defined B Port: Port1 - Port2

User-defined C Port: Port1 - Port2

The TCP/UDP port will be checked on the following physical port

01 02 03 04 05 06 07 08

[Update]

The Class of Service for TCP/UDP port number allows the network administrator to assign the specific application to a priority queue.

(2) IP TOS/DS

IP TOS/DS Priority Setting

0x001010 0x010010 0x011010 0x010010 Other Values: Q1

IP TOS/DS Port Setting

01 02 03 04 05 06 07 08

[Update]

(3) 802.1p

For 802.1p priority field, the switch utilizes the following priority mapping table.

6 and 7 are mapped to the "Q4" priority queue.
 4 and 5 are mapped to the "Q3" priority queue.
 0 and 3 are mapped to the "Q2" priority queue.
 1 and 2 are mapped to the "Q1" priority queue.

Port No/Mode	802.1p	Port No/Mode	802.1p
1	<input type="checkbox"/>	5	<input type="checkbox"/>
2	<input type="checkbox"/>	6	<input type="checkbox"/>
3	<input type="checkbox"/>	7	<input type="checkbox"/>
4	<input type="checkbox"/>	8	<input type="checkbox"/>

[Update]

(4) Physical port

1	Q1	5	Q1
2	Q2	6	Q2
3	Q3	7	Q3
4	Q4	8	Q4

[Update]

ip: 85.238.143.125@2P File

8.10.0.5

You can set QoS mode of per port by different bases.

TCP/UDP > TP TPS/DS > 802.1P > Physical port

1. “TCP/UDP Port” – Q1 ~ Q4 options are effective for the selected physical port only. “Drop” option is the global setting for all physical ports.

The packet queue will be transferred based on the number of “4 Queue WRR” on **QoS Setting: Priority Mode**.

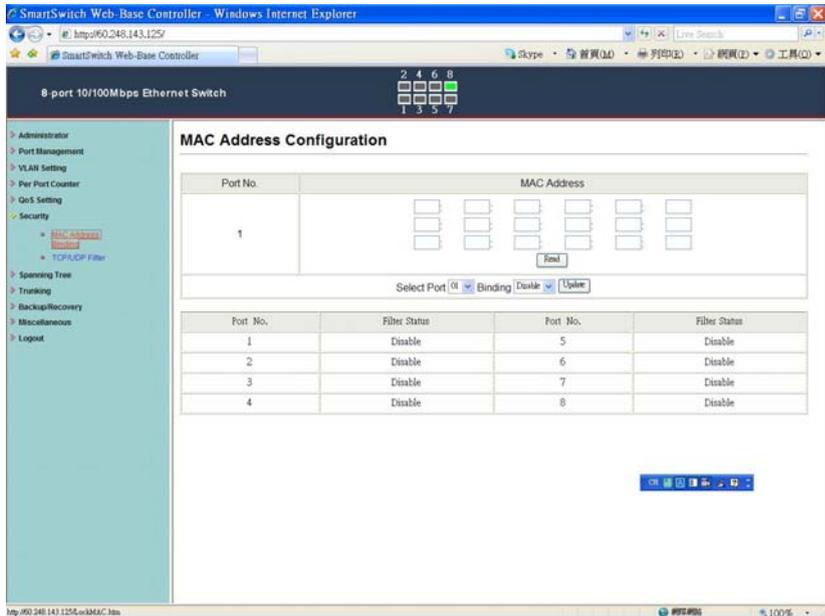
**WRR –Q1/Q2/Q3/Q4

**“Drop” - packets will be dropped.

2. “IP TOS/DS” – “Priority Setting”: Q1 ~ Q4; “IP TOS/DS Port Setting” - It means the packets with special IP will be firstly transmitted.
3. “802.1p” – Priority mapping table as the screen shown.
4. “Physical port” - you can select the port which you want to configure as Q1~Q4 priority.
5. Click “Update” to confirm and finish the setting.

Now, the setting of “Class of Service” is finished.

Security: MAC Address Configuration



Set special MAC address to activate on the selected port

1. Choose “Select Port” – port 1~8
2. “Binding” – “Enable”: allow the packet with the specified source MAC address to enter this port.
3. Click “Update” to confirm and finish the setting.

Now, the setting of “MAC Address Filter” is finished.

Security: TCP_UDP Filter Configuration

The screenshot displays the 'TCP/UDP Filter Configuration' page in a web browser. The interface includes a navigation menu on the left with categories like Administrator, Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree, Training, Backup/Recovery, Miscellaneous, and Logout. The main content area is titled 'TCP/UDP Filter Configuration' and features a 'Function Enable' dropdown set to 'Deny'. Below this, a 'Port Filtering Rule' section has a 'Deny' dropdown and explanatory text: 'Deny' means outgoing packets to the selected port with selected protocol will be dropped and other protocols will be forwarded. 'Allow' means the selected protocol will be forwarded and other protocol will be dropped. A 'Note' specifies that the secure WAN port should be set at the physical port connected to the server, and that once this function is enabled, the switch will check the destination TCP/UDP port number at the outgoing direction of the secure WAN. The configuration grid includes checkboxes for 'Secure Port' (Ports 01-08) and 'Protocol' (FTP, DNS, NEWS, SNMP, User-defined A, B, C). A diagram at the bottom illustrates the configuration for a Secure WAN port (P5) connected to a Switch Engine, which is then connected to various servers (TELNET, FTP, HTTP) and clients (TELNET Client, FTP Client, HTTP Client).

You can enable or disable this function of per port.

If the “Function Enable” is “Enable”, please kindly check the following setting:

1. “Port Filtering Rule” –

“Deny”: the outgoing packets to the selected port with selected protocol will be dropped and other protocols will be forwarded.

“Allow”: the selected protocol will be forwarded and other protocol will be dropped.

2. “Secure Port” – choose secure ports which you want.

**Note 1:

- a. The secure WAN port should be set at the physical port which is connected to the server.
- b. Once this function is enabled, the switch will check the destination TCP/UTP port number at the outgoing direction of the secure WAN port.

If the condition matches, this packet will be dropped or forwarded.

**Note 2: The description of Secure WAN port is shown on the bottom of this screen.

3. “Protocol” – choose protocols which you want.

4. Click “Update” to confirm and finish the setting.

Now, the setting of “TCP/UDP Filter Configuration” is finished.

Spanning Tree: STP Bridge Settings

SmartSwitch Web-Base Controller - Windows Internet Explorer

8 port 10/100Mbps Ethernet Switch

Administrator

- Port Management
- VLAN Setting
- Per Port Counter
- QoS Setting
- Security
- Spanning Tree
 - STP Bridge Settings
 - STP Port Settings
- Trunking
- Backup/Recovery
- Miscellaneous
- Logout

STP Bridge Settings

STP Bridge Status				
STP Mode	Bridge Priority (0-61440)	Hello Time (1-10 Sec)	Max Age (6-40 Sec)	Forward Delay (4-30 Sec)
<input checked="" type="checkbox"/> Disable	<input type="text" value="2"/>	<input type="text" value="2"/>	<input type="text" value="20"/>	<input type="text" value="15"/>

Note: 2*(Forward Delay-1) >= Max Age,
Max Age >= 2*(Hello Time+1)

STP Bridge Status					
STP Mode	Bridge ID	Hello Time	Max Age	Forward Delay	Root ID
RSTP	32766500 03 CE 01 01 46	2	20	15	In the root bridge!

This setting is to avoid the loop network.

1. Select the “STP Mode”- choose “Disable”, “STP” or “RSTP”
2. Set the “Bridge Priority” – Set the priority of the Bridge
3. Set the period of “Hello Time” packet – Provides the time period between root bridge configuration messages.
4. Set the “Max Age” – Indicates when the current configuration message should be deleted.
5. Set the “Forward Delay” time – Provides the length of time that bridges should wait before transitioning to a new state after a topology change. (If a bridge transitions too soon, not all network links might be ready to change their state, and loops can result.)
6. Click “Update” to confirm and finish the setting.

Now, the setting of “STP Bridge Settings” is finished.

Spanning Tree: STP Port Settings

The screenshot shows the SmartSwitch Web-Base Controller interface in a Windows Internet Explorer browser. The page title is "8 port 10/100Mbps Ethernet Switch". The left sidebar contains a navigation menu with options like Administrator, Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree, Trunking, Backup/Recovery, Miscellaneous, and Logout. The "Spanning Tree" section is expanded, showing "STP Bridge Settings" and "STP Port Settings".

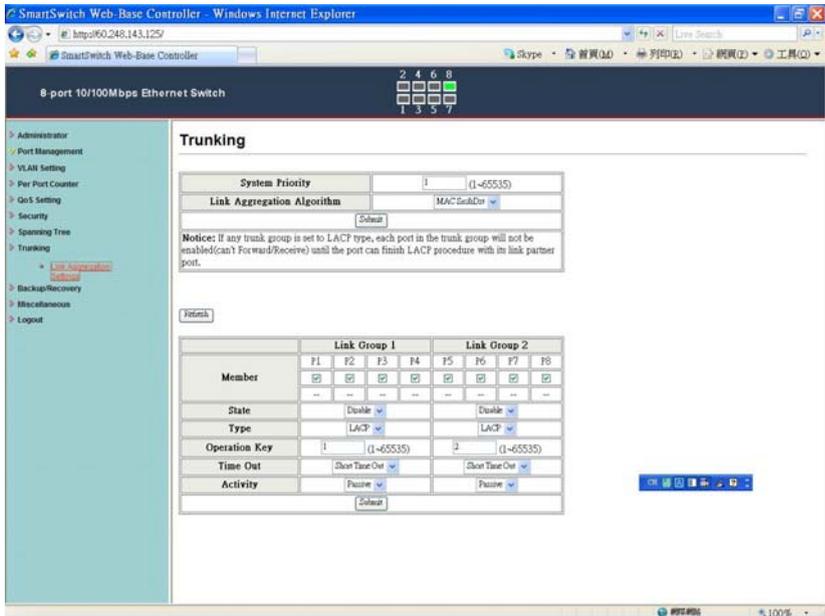
The "STP Port Settings" section contains a table with the following columns: Port No., Priority (0~240), and RPC (Root Path Cost) (1~200000000). Below this table is a "Default" button.

The "STP Port Status" section contains a table with the following columns: Port No., RPC, Priority, State, Status, Designated Bridge, and Designated Port. The table shows the status of 8 ports.

Port No.	RPC	Priority	State	Status	Designated Bridge	Designated Port
1	Auto(200000)	0x80	--	Disable	--	--
2	Auto(200000)	0x80	--	Disable	--	--
3	Auto(200000)	0x80	--	Disable	--	--
4	Auto(200000)	0x80	--	Disable	--	--
5	Auto(200000)	0x80	--	Disable	--	--
6	Auto(200000)	0x80	--	Disable	--	--
7	Auto(200000)	0x80	--	Disable	--	--
8	Auto(200000)	0x80	Designated Port	Forwarding	--	--

1. Choose "Port No.": Port 1 ~ Port 8
2. Choose "Priority": 0~ 240
3. "RPC" = Root Path Cost: 0 = AUTO. When the loop is found, the STP/RSTP will calculate the cost of its path.

Trunking: Link Aggregation Settings



There are two groups to choose and max. for each group is 4 ports.

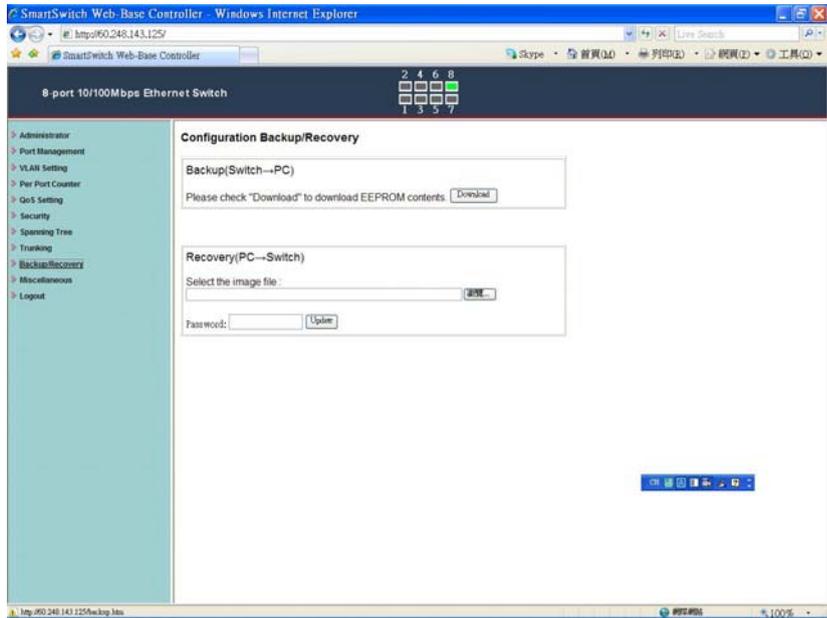
Click “Submit” to confirm and finish the setting.

“State” – Enable / Disable

“Type” – LACP/ Static

“Activity” – Active/Passive: **Both switches use “LACP” to configure the Trunk, at least one of them should be “Active”**

Backup/Recovery

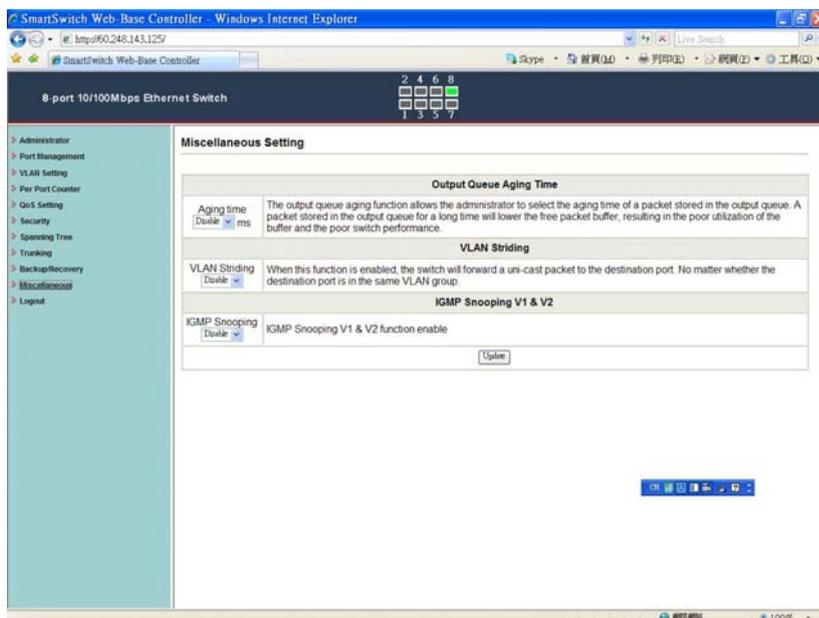


Follow the instruction on the screen to update the original setting.

“Backup” - Click “Download” to confirm the setting.

“Recovery” – select a file and key in the password → Click “Update” to confirm the setting.

Miscellaneous: Miscellaneous Setting



1. “Output Queue Aging Time” - You can set queue aging time into different milliseconds or disable this function.
2. “VLAN Striding” – You can enable/disable this function.
3. “IGMP Snooping V1 & V2” – You can enable/disable this function.
4. Click “Update” to confirm and finish the setting.

Logout: You can click “Logout” to logout.