



# **8-PORT POWER OVER ETHERNET WEB SMART SWITCH**

## **User's Manual**

(DN-95311)



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

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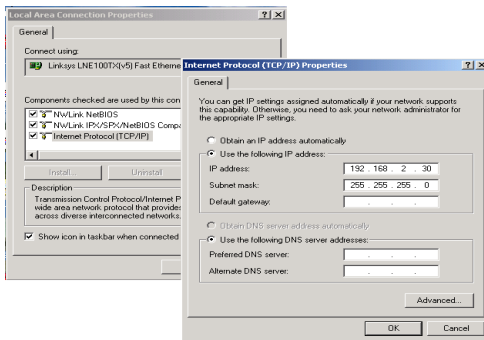
## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Web Smart Switch Configure

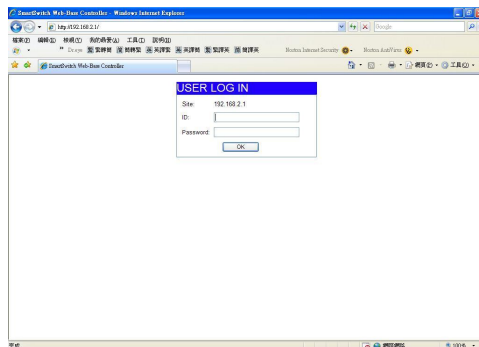
Please follow the steps to configure this Web Smart switch.

**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.



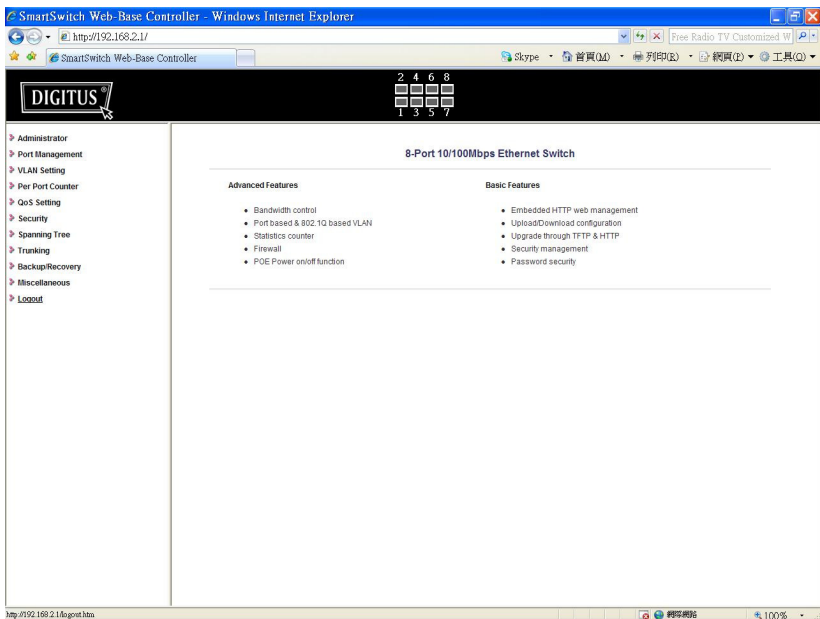
ID and the password: admin



## 8-PORTR POWER OVER ETHERNET WEB SMART SWITCH

**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





## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Administrator: Authentication Configuration

The screenshot shows the 'Authentication Configuration' page of the DIGITUS Web Base Controller. The page is viewed in Internet Explorer at the URL http://192.168.2.1/. The left sidebar contains a navigation menu with the following items: Administrator (Authentication Configuration, System IP Configuration, System Status, Load default setting, Firmware Update, Reboot Device), Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree, Trunking, Backup/Recovery, Miscellaneous, and Logout. The main content area is titled 'Authentication Configuration' and contains a table with the following data:

Setting	Value
Username	admin max:15
Password Confirm	***** max:15

Below the table is an 'Update' button. A note below the button states: 'Note: Username & Password can only use "a-z","A-Z","0-9","\_","\*",".",",","=".

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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Administrator: System IP Configuration

The screenshot shows the DIGITUS Web-Base Controller interface in a Windows Internet Explorer browser. The page title is "System IP Configuration". The interface includes a navigation menu on the left with options like "Authentication Configuration", "System IP Configuration", "System Status", "Load default setting", "Firmware Update", and "Reboot Device". The main content area displays the "System IP Configuration" settings in a table format.

Setting	Value
IP Address	[92] , [68] , [2] , [1]
Subnet Mask	[255] , [255] , [255] , [0]
Gateway	[92] , [68] , [2] , [34]
IP Configure	<input checked="" type="radio"/> Static <input type="radio"/> DHCP

Update

Note:  
Invalid IP Address  
"127.0.0.1",  
"127.\*.\*.\*",  
"0.0.0.0",  
"\*. \*.\*.0",  
"\*.\*.\*.255",  
and Greater than 223.\*.\*.\*

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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Administrator: System Status

The screenshot shows the 'System Status' page of a DIGITUS web-based controller. The page is displayed in a Windows Internet Explorer browser window. The address bar shows 'http://192.168.2.1/'. The page header includes the DIGITUS logo and a port configuration diagram (2, 4, 6, 8 ports in two columns). The main content area is titled 'System Status' and contains a form with the following fields:

MAC Address	00:03:ce:d1:89:a4
Number of Ports	8
System Version	V100414
Idle Time	0 (1-30 Minutes)
Idle Time Security	<input type="radio"/> Auto Logout(Default). <input type="radio"/> Back to the last display.

An 'Update' button is located at the bottom of the form. A left-hand navigation menu is visible, with 'System Status' selected under the 'Administrator' section.

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

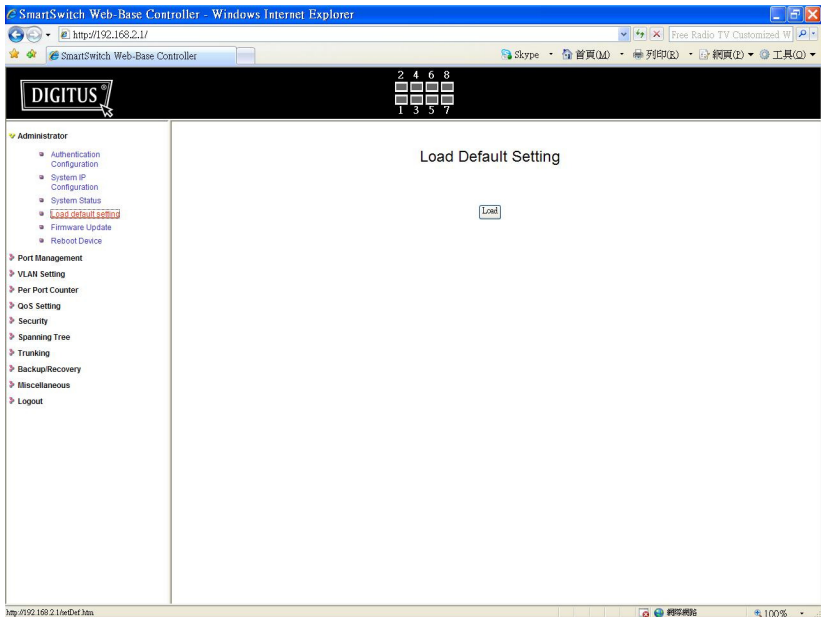
1. Change the new comment of this switch by typing the new comment.
2. Click “Update” to confirm the new change.  
“Update Successfully!” will be shown on the screen.
3. Click "Reboot" to use new setting to login

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



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### 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.

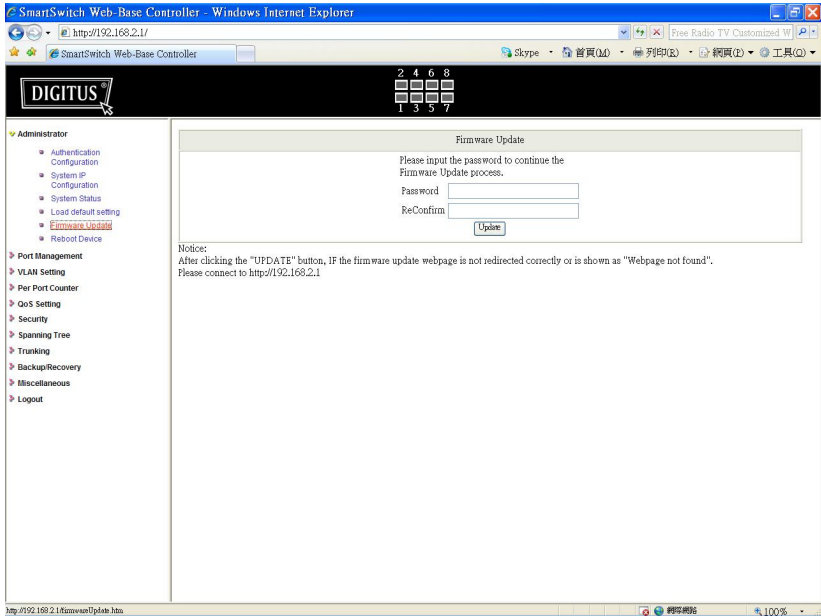
Now, the default is loaded.





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### Administrator: Firmware Update



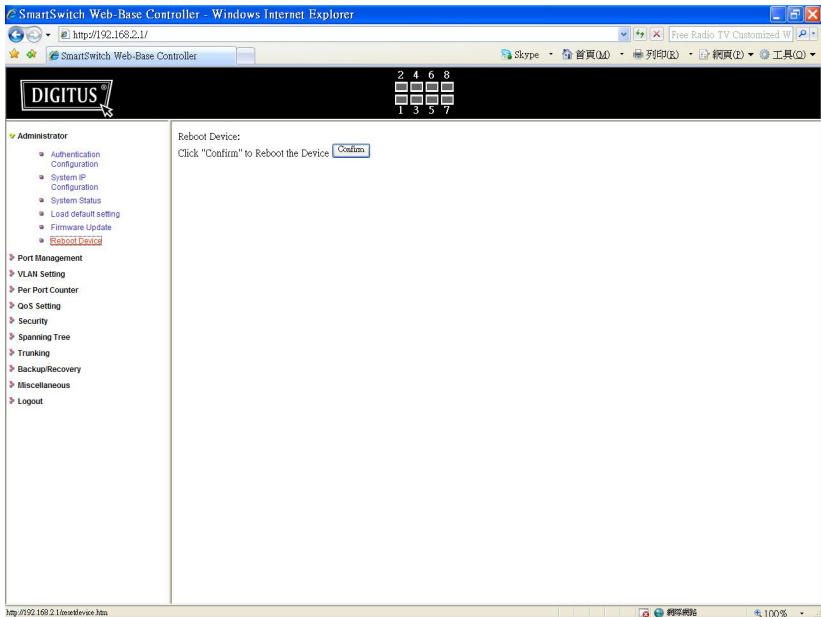
Follow the instruction on the screen to update the new firmware.

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



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Administrator: Reboot Device



1. Click “Confirm” to reboot the device.

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



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Port Management: Port Configuration

**Port Configuration**

Function	Auto	Speed	Duplex	Pause	Backpressure	Tx Capability	Addr. Learning
Select Port No.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	---	---	---	---	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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Port Management: Port Mirroring

The screenshot shows the DIGITUS Web-Base Controller interface in a Windows Internet Explorer browser. The address bar shows <http://192.168.2.1/>. The page title is "SmartSwitch Web-Base Controller". The interface features a navigation menu on the left with the following items:

- Administrator
- Port Management
  - Port Configuration
  - Port Mirroring**
  - Bandwidth Control
  - Broadcast Storm Control
  - POE
- VLAN Setting
- Per Port Counter
- QoS Setting
- Security
- Spanning Tree
- Trunking
- Backup/Recovery
- Miscellaneous
- Logout

The main content area is titled "Port Mirroring" and contains the following configuration options:

Dest Port	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitored Packets	Disable							
Source Port	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Below the configuration options is an "Update" button and a note: "Multi to Multi Staifer function".

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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Port Management: Bandwidth Control

**Bandwidth Control**

Port No	Tx Rate Value	Rx Rate Value
<input type="text" value="0"/>	Bandwidth = <input type="text" value="X"/> resolution. (0~19/195/255) 0: Full speed. 1~19/195/255: Specified bandwidth.	Bandwidth = <input type="text" value="X"/> resolution. (0~19/195/255) 0: Full speed. 1~19/195/255: Specified bandwidth.
Resolution	Low: 32Kbps High: 512Kbps (1). When link speed is 10M and the resolution is 512Kbps, the Rate value should be 1~19. (2). When link speed is 100M and the resolution is 512Kbps, the Rate value should be 1~195. All ports use the same bandwidth resolution.	

If the link speed of selected port is lower than the rate that you setting, this system will use the value of link speed as your setting rate.

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	---

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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Port Management: Broadcast Storm Control

The screenshot shows the DIGITUS Web-Base Controller interface in a Windows Internet Explorer browser. The page title is "SmartSwitch Web-Base Controller - Windows Internet Explorer" and the address bar shows "http://192.168.2.1/". The interface includes a navigation menu on the left with options like Administrator, Port Management, VLAN Setting, and others. The main content area is titled "Broadcast Storm Control" and contains a form with the following fields:

Threshold	[63] 1~63							
Enable Port	1	2	3	4	5	6	7	8
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Below the form is an "Update" button and a note: "The 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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Port Management: PoE Configuration

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

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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### VLAN Setting: VLAN Mode

The screenshot shows the DIGITUS SmartSwitch Web-Base Controller interface. The main content area is titled "VLAN Mode" and features a "Tag Based VLAN" dropdown menu set to "Change VLAN mode". Below this is a table for configuring ports 01 through 08. Each port has three radio button options: "Add Tag", "Forward", and "Remove Tag".

VLAN Mode	Port 01	Port 02	Port 03	Port 04
	<input type="radio"/> Add Tag	<input type="radio"/> Add Tag	<input type="radio"/> Add Tag	<input type="radio"/> Add Tag
	<input type="radio"/> Forward	<input type="radio"/> Forward	<input type="radio"/> Forward	<input type="radio"/> Forward
	<input type="radio"/> Remove Tag	<input type="radio"/> Remove Tag	<input type="radio"/> Remove Tag	<input type="radio"/> Remove Tag
Outgoing packets	Port 05	Port 06	Port 07	Port 08
	<input type="radio"/> Add Tag	<input type="radio"/> Add Tag	<input type="radio"/> Add Tag	<input type="radio"/> Add Tag
	<input type="radio"/> Forward	<input type="radio"/> Forward	<input type="radio"/> Forward	<input type="radio"/> Forward
	<input type="radio"/> Remove Tag	<input type="radio"/> Remove Tag	<input type="radio"/> Remove Tag	<input type="radio"/> Remove Tag

Below the table is an "Update" button. The "Operation principle" section explains the behavior of the "Add Tag", "Forward", and "Remove Tag" settings.

**Operation principle for Add Tag, Forward and Remove Tag**  
Before a packet sending out from the port

1. Add Tag
  - (a) Insert a tag using the default VLAN tag value of the source port if there is no tag in the original packet.
  - (b) Forward packet if the original packet contains VLAN tag.
2. Forward
  - Forward packet without modification
3. Remove Tag
  - (a) Remove tag if the original packet contains VLAN tag.
  - (b) Forward without modification if there is no tag in the original packet.

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.





## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### VLAN Setting: VLAN Member Setting (Port Based)

The screenshot shows the DIGITUS Web-Base Controller interface in a Windows Internet Explorer browser. The page title is "SmartSwitch Web-Base Controller". The address bar shows "http://192.168.2.1/". The interface includes a navigation menu on the left with options like Administrator, Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree, Trunking, Backup/Recovery, Miscellaneous, and Logout. The main content area is titled "VLAN Member Setting (Port Based)". It features a table for "Member Selection" with columns for ports 01 through 08 and checkboxes for each. Below this is a "VLAN MEMBER" table with columns for ports 1 through 8 and rows for each port, containing 'v' in each cell. At the bottom of the table are "Update" and "LoadDefault" buttons.

Port	01	02	03	04	05	06	07	08
Dest PORT								
Member Selection	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Port	1	2	3	4	5	6	7	8
1	v	v	v	v	v	v	v	v
2	v	v	v	v	v	v	v	v
3	v	v	v	v	v	v	v	v
4	v	v	v	v	v	v	v	v
5	v	v	v	v	v	v	v	v
6	v	v	v	v	v	v	v	v
7	v	v	v	v	v	v	v	v
8	v	v	v	v	v	v	v	v

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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### VLAN Setting: Multi to 2 Setting

**Multi to 2 Setting**

Destination PortNo: [01] Home VLAN 1: [01] Home VLAN 2: [01]

Current Setting: Port- & -

Disable Port	01	02	03	04	05	06	07	08
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Per Port Counter: Counter Category

The screenshot shows the DIGITUS web interface in Internet Explorer. The browser address bar shows <http://192.168.2.1/>. The page title is "Counter Category". The left sidebar contains a navigation menu with the following items: Administrator, Port Management, VLAN Setting, Per Port Counter (selected), QoS Setting, Security, Spanning Tree, Trunking, Backup/Recovery, Miscellaneous, and Logout. The "Per Port Counter" menu item is expanded to show "Port Counter".

The main content area is titled "Counter Category". It features a "Counter Mode Selection:" dropdown menu set to "Receive Packet & Transmit Packet". Below this is a table with 8 rows representing ports 01 through 08. Each row has three columns: "Port", "Receive Packet", and "Transmit Packet". All values in the "Receive Packet" and "Transmit Packet" columns are 0. A "Refresh" button is located at the bottom right of the table.

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	0	0

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.

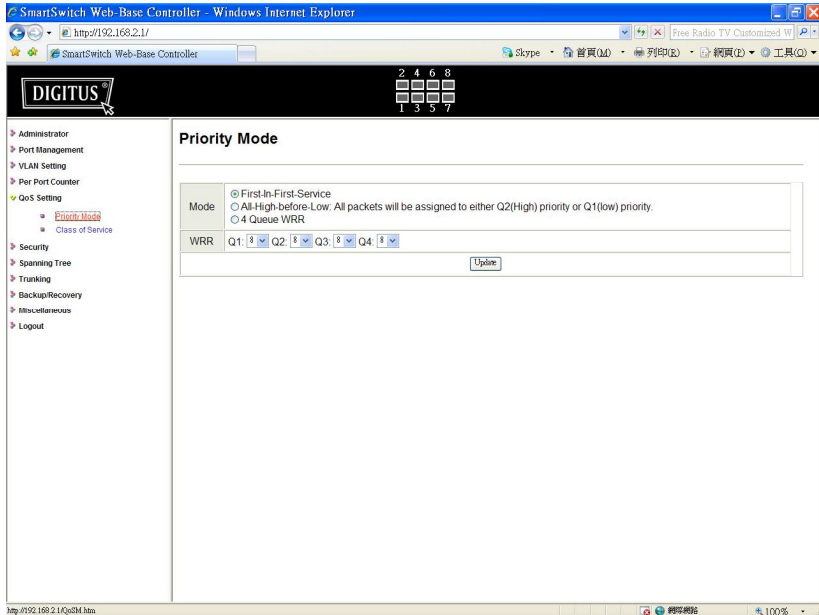
You can read the transmitting and receiving packet of the connecting port.

Click “Refresh” or “Clear” the data.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### 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.



# 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

## QoS Setting: Class of Service

SmartSwitch Web-Base Controller - Windows Internet Explorer

http://192.168.2.1/

SmartSwitch Web-Base Controller

**DIGITUS**

2 4 6 8  
1 3 5 7

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

### Class of Service

The switch treats TCP/UDP, IP TOS/D5, 802.1p and physical port CoS scheme in the following priority.  
TCP/UDP > IP TOS/D5 > 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
FTP	Q1	Q2	Q3	Q4
SSH	Q1	Q2	Q3	Q4
TELNET	Q1	Q2	Q3	Q4
SMTP	Q1	Q2	Q3	Q4
DNS	Q1	Q2	Q3	Q4
TFTP	Q1	Q2	Q3	Q4
HTTP	Q1	Q2	Q3	Q4
POP3	Q1	Q2	Q3	Q4
NEWS	Q1	Q2	Q3	Q4
SNTp	Q1	Q2	Q3	Q4
NetBIOS	Q1	Q2	Q3	Q4
IMAP	Q1	Q2	Q3	Q4
SNMP	Q1	Q2	Q3	Q4
HTTPS	Q1	Q2	Q3	Q4
MSN	Q1	Q2	Q3	Q4
XRD_RDP	Q1	Q2	Q3	Q4
QQ	Q1	Q2	Q3	Q4
ICQ	Q1	Q2	Q3	Q4
Yahoo	Q1	Q2	Q3	Q4
BOOTP DHCP	Q1	Q2	Q3	Q4
User-defined A TCP/UDP	Q1	Q2	Q3	Q4
User-defined B TCP/UDP	Q1	Q2	Q3	Q4
User-defined C TCP/UDP	Q1	Q2	Q3	Q4

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

User-defined Port range (802.1p-1)	User-defined A Port1 - Port2	User-defined B Port1 - Port2	User-defined C Port1 - Port2

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

01	02	03	04	05	06	07	08
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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/D5

IP TOS/D5 Priority Setting:  0  1  2  3  4  5  6  7  8  9

IP TOS/D5 Port Setting:  01  02  03  04  05  06  07  08

(3) 802.1p

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

0 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"/>

(4) Physical port

1	Q1	Q2	Q3	Q4	5	Q1	Q2	Q3	Q4
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

By 192.168.2.1/QoS.htm



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

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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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Security: MAC Address Configuration

The screenshot shows the DIGITUS Web-Base Controller interface in a Windows Internet Explorer browser. The page title is "SmartSwitch Web-Base Controller - Windows Internet Explorer" and the address bar shows "http://192.168.2.1/". The interface includes a navigation menu on the left with options like Administrator, Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree, Trunking, Backup/Recovery, Miscellaneous, and Logout. The "Security" section is expanded, showing "MAC Address Binding" and "TCP/UDP Filter". The main content area is titled "MAC Address Configuration" and features a form for configuring MAC addresses for a selected port (01). The form includes a "Port No." field with the value "1" and a "MAC Address" field with six input boxes. Below the form is a "Read" button and a "Select Port" dropdown menu set to "01", with "Binding" selected and "Disable" and "Update" buttons. At the bottom, there is a table showing the filter status for all ports (1-8).

Port No.	Filter Status	Port No.	Filter Status
1	Disable	5	Disable
2	Disable	6	Disable
3	Disable	7	Disable
4	Disable	8	Disable

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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Security: TCP\_UDP Filter Configuration

**TCP/UDP Filter Configuration**

Function Enable: **Deny**

Port Filtering Rule: **Deny**

Note:  
1. The secure WAN port should be set at the physical port which is connected to the server.  
2. Once this function is enabled, the switch will check the destination TCP/UDP port number at the outgoing direction of the secure V. If the condition matches, this packet will be dropped or forwarded.

Secure Port	<input type="checkbox"/> Port01	<input type="checkbox"/> Port02	<input type="checkbox"/> Port03	<input type="checkbox"/> Port04
	<input type="checkbox"/> Port05	<input type="checkbox"/> Port06	<input type="checkbox"/> Port07	<input type="checkbox"/> Port08
Protocol	<input type="checkbox"/> FTP	<input type="checkbox"/> SSH	<input type="checkbox"/> TELNET	<input type="checkbox"/> SMTP
	<input type="checkbox"/> DNS	<input type="checkbox"/> TFTP	<input type="checkbox"/> HTTP	<input type="checkbox"/> POP3
	<input type="checkbox"/> NEWS	<input type="checkbox"/> SNTP	<input type="checkbox"/> NetBIOS	<input type="checkbox"/> IMAP
	<input type="checkbox"/> SNMP	<input type="checkbox"/> HTTPS	<input type="checkbox"/> XRD_RDP	<input type="checkbox"/> BOOTP/DHCP
	<input type="checkbox"/> User-defined A TCP/UDP	<input type="checkbox"/> User-defined B TCP/UDP	<input type="checkbox"/> User-defined C TCP/UDP	
	<input type="button" value="Update"/>			

Note: The description of Secure WAN port is shown below.

Example: Set the secure WAN port at P5

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





## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

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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/UDP 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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Spanning Tree: STP Bridge Settings

The screenshot shows the DIGITUS web interface for configuring STP Bridge Settings. The interface includes a navigation menu on the left with options like Administrator, Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree, Trunking, Backup/Recovery, Miscellaneous, and Logout. The main content area displays the "STP Bridge Settings" form, which includes a table for "STP Bridge Status" with columns for STP Mode, Bridge Priority, Hello Time, Max Age, and Forward Delay. Below the form is a "Submit" button and a note: "Note: 2\*(Forward Delay) >= Max Age, Max Age >= 2\*(Hello Time)".

STP Bridge Status				
STP Mode	Bridge Priority	Hello Time	Max Age	Forward Delay
Disable	(0~61440)	(1~10 Sec)	(6~40 Sec)	(4~30 Sec)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: 2\*(Forward Delay) >= Max Age  
Max Age >= 2\*(Hello Time)

STP Bridge Status					
STP Mode	Bridge ID	Hello Time	Max Age	Forward Delay	Root ID
RSTP	32768:00 03 CE 01 09 A4	2	20	15	I'm 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. After a topology changed, bridges should be waited before transitioning to a new state (If a bridge transition is very fast, some network links might not be ready to change their states. Under this circumstance, loops might be occurred.)
6. Click "Update" to confirm and finish the setting.

Now, the setting of "STP Bridge Settings" is finished.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Spanning Tree: STP Port Settings

The screenshot shows the DIGITUS Web-Base Controller interface in a Windows Internet Explorer browser. The address bar shows the URL <http://192.168.2.1/>. The interface includes a navigation menu on the left with options like Administrator, Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree, Trunking, Backup/Recovery, Miscellaneous, and Logout. The main content area is titled "STP Port Settings" and contains two tables.

**STP Port Settings**

Port No.	Priority (0~240)	RPC (Root Path Cost) (1~200000000)
<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="1"/>

**STP Port Status**

Port No.	RPC	Priority	State	Status	Designated Bridge	Designated Port
1	Auto(200000)	0x90	--	Disable	--	--
2	Auto(200000)	0x90	--	Disable	--	--
3	Auto(200000)	0x90	--	Disable	--	--
4	Auto(200000)	0x90	--	Disable	--	--
5	Auto(200000)	0x90	--	Disable	--	--
6	Auto(200000)	0x90	--	Disable	--	--
7	Auto(200000)	0x90	--	Disable	--	--
8	Auto(200000)	0x90	--	Disable	--	--

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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Trunking: Link Aggregation Settings

The screenshot shows the DIGITUS web interface for configuring Link Aggregation Settings. The left sidebar contains a navigation menu with options: Administrator, Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree, Trunking (selected), Backup/Recovery, Miscellaneous, and Logout. Under Trunking, 'Link Aggregation Settings' is highlighted.

The main content area is titled 'Trunking' and contains the following configuration fields:

- System Priority: 1 (1~65535)
- Link Aggregation Algorithm: MAC Src&Dst
- Notice: If any trunk group is set to LACP type, each port in the trunk group will not be enabled(can't Forward/Receive) until the port can finish LACP procedure with its link partner port.
- Refresh button

Below these fields is a table for configuring two Link Groups:

Member	Link Group 1				Link Group 2			
	P1	P2	P3	P4	P5	P6	P7	P8
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	--	--	--	--	--	--	--	--
State	Disable				Disable			
Type	LACP				LACP			
Operation Key	1 (1~65535)				2 (1~65535)			
Time Out	Short Time Out				Short Time Out			
Activity	Passive				Passive			

At the bottom of the table is a 'Submit' button.

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

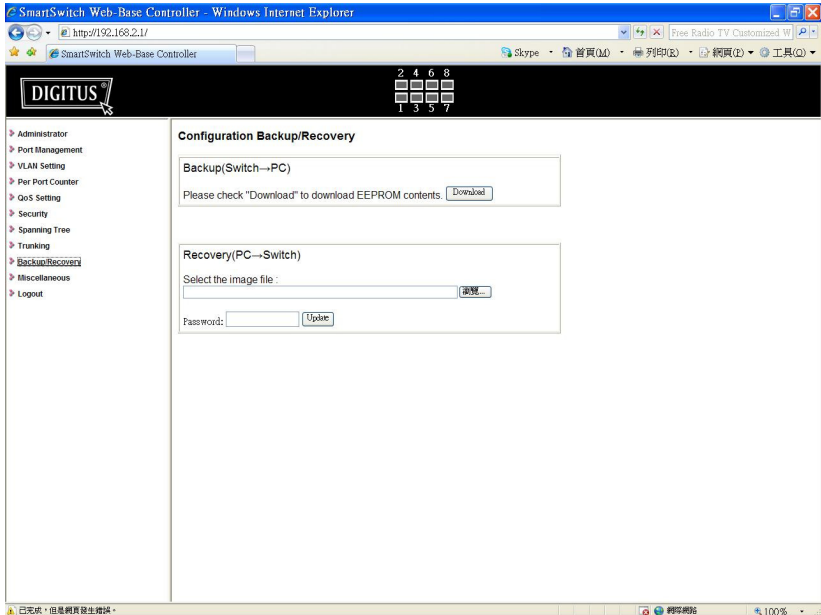
“Type” – LACP/ Static

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



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### 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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

### Miscellaneous: Miscellaneous Setting

The screenshot shows the DIGITUS SmartSwitch Web-Base Controller interface in a Windows Internet Explorer browser. The address bar shows the URL <http://192.168.2.1/>. The interface features a navigation menu on the left with options like Administrator, Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree, Trunking, Backup/Recovery, Miscellaneous, and Logout. The main content area is titled "Miscellaneous Setting" and contains three sections:

- Output Queue Aging Time**: Includes a dropdown menu for "Aging time" set to "ms" and a description: "The output queue aging function allows the administrator to select the aging time of a packet stored in the output queue. A packet stored in the output queue for a long time will lower the free packet buffer, resulting in the poor utilization of the buffer and the poor switch performance."
- VLAN Striding**: Includes a dropdown menu for "VLAN Striding" set to "Disable" and a description: "When this function is enabled, the switch will forward a uni-cast packet to the destination port. No matter whether the destination port is in the same VLAN group."
- IGMP Snooping V1 & V2**: Includes a dropdown menu for "IGMP Snooping" set to "Disable" and a description: "IGMP Snooping V1 & V2 function enable".

An "Update" button is located at the bottom right of the settings area.

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.



## 8-PORT POWER OVER ETHERNET WEB SMART SWITCH

**Logout: You can click “Logout” to logout.**

