



LevelOne

GSW-4876

48-Port 10/100/1000Mbps
Gigabit Ethernet Web Smart Switch
with 4-Port mini-GBIC SFP

User Manual

Safety

FCC Warning

This equipment has been tested and found to comply with the regulations 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 this user's guide, 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 or her 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.



Table of Contents

1. INTRODUCTION	43
1.1. FEATURES	44
1.2. PACKAGE CONTENT	45
2. HARDWARE DESCRIPTION	46
2.1. FRONT PANEL	46
2.2. LED INDICATORS	47
Power and System.....	47
Ports 1~48 Status LEDs.....	47
mini-GBIC 45F~48F Status LEDs.....	47
2.3. REAR PANEL	48
3. INSTALLATION	49
3.1. RACK MOUNTING.....	50
3.2. CONNECTING NETWORK CABLE	51
3.3. AC POWER	51
4. SETUP	52
4.1. WEB MANAGEMENT UTILITY.....	52
Discovery List.....	53
Monitor List.....	54
Device Setting.....	56
Toolbar	58
4.2. CONFIGURING THE SWITCH.....	59
Default Setting.....	59
Login	59
5. WEB CONFIGURATION	61
5.1. SETUP	62
Port Settings.....	62
IEEE 802.1Q VLAN.....	64
Trunk Setting.....	67
Mirror Setting.....	68
IEEE 802.1p Default Priority	69
Broadcast Storm Control Setting	70
Jumbo Frame Setting.....	70
5.2. SYSTEM SETTING	71
System Information	71

System Setting	72
Trap Setting.....	73
Password Setting	74
Statistic.....	75
Factory Reset.....	76
Backup Setting.....	76
Firmware Upload.....	77
System Reboot.....	77
Logout	78
6. APPENDIX	79
6.1. TECHNICAL SPECIFICATIONS	79
6.2. GLOSSARY	80
Gigabit Ethernet Technology	80
Fast Ethernet Technology	81
Switching Technology	82
VLAN (Virtual Local Area Network).....	83

1. INTRODUCTION

GSW-4876 is a high-density smart switch that provides the ultimate bandwidth and versatile features for large workgroups or backbones with the aggregated 96Gbps bandwidth. We offer outstanding connectivity by providing different 48-port 1000T combo with 4-port SFP interfaces to interoperate with your copper or fiber network and also to provide non-blocking, wire-speed switching performance for maximum throughput.

GSW-4876 is equipped with 48 10/100/1000Mbps ports and 4 additional SFP ports reaching 96Gbps back plane bandwidth thus creating high-speed backbone data transmissions and meet the requirement of heavy-duty bandwidth-consuming applications. Each RJ-45 port supports Auto-MDIX allowing unlinking to another switch directly without cable selection hassle. The four SFP interfaces allow you to extend the network connection distance up to 70km or to integrate other advanced solutions for investment protection.

It supports versatile smart features efficiently to manage network resources. The Trunk function enables cascading of two or more devices with a larger bandwidth, up to 6 trunk groups eliminate network bottlenecks from increased bandwidth. In order to reduce latency, increase security for confidential data and save costs for expensive routers, you can partition the network into 4096 groups of VLANs using 802.1Q Tagging technology. Moreover, the port-based QoS and 802.1p tagged QoS allow you to priorities traffic for time-sensitive applications.

1.1. Features

- 48 x 1000BASE-T Auto-negotiation Gigabit Ethernet ports
- 4 x mini-GBIC (Auto-Sense) for optional mini-GBIC transceiver to extend distance, share with 4 1000BASE-T ports
- All 1000BASE-T ports support auto MDI/MDIX, so there is no need to use cross-over cables or an up-link port
- Half duplex transfer mode for connection speed 10Mbps and 100Mbps
- Full duplex transfer mode for connection speed of 10Mbps, 100Mbps and 1000Mbps
- Store-and-Forward switching scheme capability to support rate adaptation and ensure data integrity
- Up to 8K Unicast addresses entities per device, self-learning, and table aging
- 1024KBytes packet buffer
- Supports IEEE 802.3x flow control for full-duplex mode
- Supports IEEE 802.1Q VLAN
- Supports IEEE 802.1p Priority Queues
- Supports Static Port Trunk
- Supports Jumbo Frame
- Supports Broadcast Storm Control
- Supports Port Mirroring
- Supports Port Setting for Speed, Flow control
- Easy configuration via WEB Browser
- Easy setting via Web Management Utility
- Standard 19" Rack-mount size

1.2. Package Content

Open the shipping cartons of the Switch and carefully unpacks its contents. The carton should contain the following items:

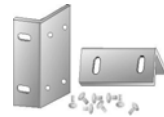
- GSW-4876 Gigabit Web Smart Switch
- Power Cord
- Rack-mount Kit
- Rubber Feet
- CD Manual/Utility



GSW-4876



Power Cord



Rack-mount Kit



Rubber Feet



CD Manual/Utility

If any item is found missing or damaged, please contact your local reseller for replacement

2. HARDWARE DESCRIPTION

2.1. Front Panel



LED Indicator

Comprehensive LED indicators display the status of the switch and the network (see the LED Indicators chapter below).

1000BASE-T Gigabit Ethernet Ports (Port 1~48)

The Switch 48 Gigabit twisted pair ports, supported auto negotiable 10/100/1000Mbps and auto MDI/MDIX crossover detection function, this function gives true “plug and play” capability, just need to plug-in the network cable to the hub directly and don’t care if the end node is NIC (Network Interface Card) or switch and hub. These ports can operate in half-duplex mode for 10/100Mbps and full- duplex mode for 10/100/1000Mbps.

mini-GBIC Ports (Port 45F~48F)

The Switch is equipped with four mini-GBIC ports, supported optional 1000BASE-SX/LX mini-GBIC module.

Port 45, 46, 47 and 48 are the same ports with the mini-GBIC 45F, 46F, 47F and 48F ports, when plug in the mini-GBIC module, the device will activate mini-GBIC, and the RJ45 port will be disabled.

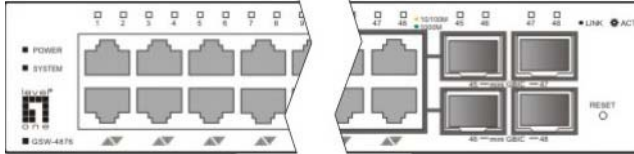
Reset

The Reset button is to reset all the setting back to the factory default.

Note:

1. When the port was set to “Forced Mode”, the Auto MDI/MDIX will be disabled.
2. Be sure that you recorded the setting of your device, else all the setting will be erased when pressing the “Reset” button.

2.2. LED Indicators



Power and System

POWER: Power Indicator

On	:	When the Power LED lights on, the Switch is receiving power.
Off	:	When the Power turns off or the power cord has improper connection.

System: Management Indicator

Blinking	:	When the CPU is working, the System LED is blinking.
On/Off	:	The CPU is not working.

Ports 1~48 Status LEDs

Link/ACT: Link/Activity(left side of each RJ-45 ports)

On	Amber	:	When the Link/ACT LED lights green, the respective port is successfully connected to a 10 Mbps Ethernet or 100Mbps Fast Ethernet network.
	Green:		
Blinking	Amber	:	When the Link/ACT LED is blinking amber, the port is transmitting or receiving data on the 10Mbps Ethernet or 100Mbps Fast Ethernet network.
	Green:		
Off	:		No link.

mini-GBIC 45F~48F Status LEDs

Link/ACT

On	:	When the fiber line connected to the mini-GBIC module is installed and connected to a network, the Link/ACT LED will lights on.
Blinking	:	When the Link/ACT LED is blinking, the port is transmitting or receiving data on the Gigabit Ethernet network.
Off	:	Fiber line or mini-GBIC module is not installed.

2.3. Rear Panel

The rear panel of the Switch consists of an AC power connector. The following shows the rear panel of the Switch



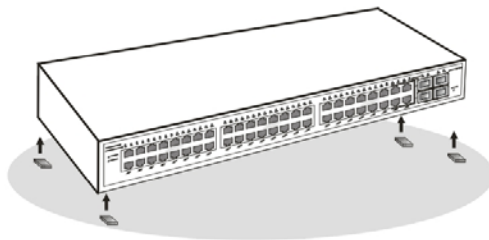
AC Power Connector:

This is a three-pronged connector that supports the power cord. Plug in the female connector of the provided power cord into this connector, and the male into a power outlet. Supported input voltages range from 100-240V AC at 50-60Hz.

3. INSTALLATION

The site where you install the hub stack may greatly affect its performance. When installing, consider the following pointers:

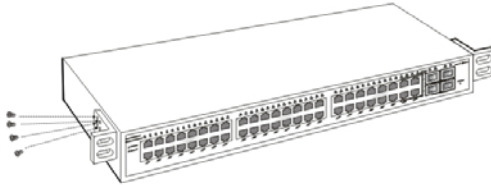
- Install the Switch in a fairly cool and dry place. See Technical Specifications for the acceptable temperature and humidity operating ranges.
- Install the Switch in a site free from strong electromagnetic field generators (such as motors), vibration, dust, and direct exposure to sunlight.
- Leave at least 10cm of space at the front and rear of the hub for ventilation.
- Install the Switch on a sturdy, level surface that can support its weight, or in an EIA standard-size equipment rack. For information on rack installation, see the next section, Rack Mounting.
- When installing the Switch on a level surface, attach the rubber feet to the bottom of each device. The rubber feet cushion the hub and protect the hub case from scratching.



Attach the adhesive rubber pads to the bottom

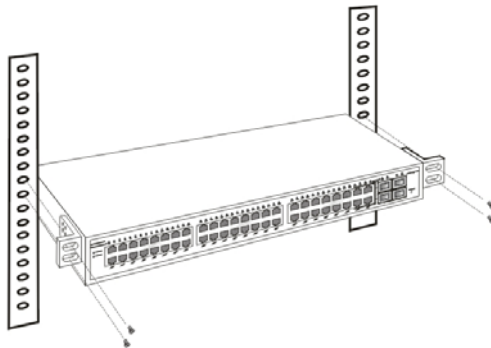
3.1. Rack Mounting

The switch can be mounted in an EIA standard-size, 19-inch rack, which can be placed in a wiring closet with other equipment. Attach the mounting brackets at the switch's front panel (one on each side), and secure them with the provided screws.



Combine the Switch with the provided screws

Then, use screws provided with the equipment rack to mount each switch in the rack.



Mount the Switch in the rack

3.2. Connecting Network Cable

The Switch supports 1000Mbps Gigabit Ethernet that runs in Auto-negotiation mode and 10Mbps Ethernet or 100Mbps Fast Ethernet that runs both in half and full duplex mode and 1000Mbps Gigabit Ethernet runs in full duplex mode using four pairs of Category 5 cable.

These 1000BASE-T ports are Auto-MDI type port. The Switch can auto transform to MDI-II or MDI-X type, so you can just make an easy connection that without worrying if you are using a standard or crossover twisted-pair cable.

There are additional 4 ports mini-GBIC slot for optional mini-GBIC module.

3.3. AC Power

The Switch used the AC power supply 100-240V AC, 50-60 Hz. The power switch is located at the rear of the unit adjacent to the AC power connector and the system fan. The switch's power supply will adjust to the local power source automatically and may be turned on without having any or all LAN segment cables connected.

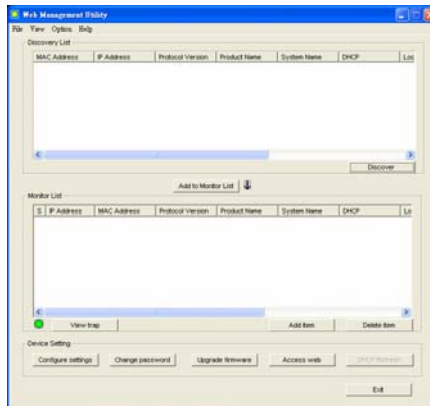
4. SETUP

With the attached Web Management Utility, you can easily discover all the Web Management Switch, assign the IP Address, changing the password and upgrading the new firmware.

4.1. Web Management Utility

The following gives instructions guiding you through the installations of the Web Management utility.

1. Insert the Utility CD in the CD-Rom Drive.
2. From the Start menu on the Windows desktop, choose Run.
3. In the Run dialog box, type D:\Utility\setup.exe (D:\ depends where your CD-Rom drive is located) and click OK.
4. Follow the on-screen instructions to install the utility.
5. Upon completion, go to Program Files -> Web Management Utility and execute the Web Management utility.



Web Management Utility

The Web Management Utility was divided into four parts, **Discovery List**, **Monitor List**, **Device Setting** and **Toolbar** function, for details instruction, follow the below section.

Discovery List

This is the list where you can discover all the Web management devices in the entire network.

By pressing the “**Discovery**” button, you can list all the Web Management devices in the discovery list.

Double click or press the “**Add to monitor list**” button to select a device from the Discovery List to the Monitor List.


System word definitions in the Discovery List:

- MAC Address: Shows the device MAC Address.
- IP Address: Shows the current IP address of the device.
- Protocol version: Shows the version of the Utility protocol.
- Product Name: Shows the device product name.
- System Name: Shows the appointed device system name.
- DHCP: Shows the DHCP status of the device.
- Location: Shows where the device is located.
- Trap IP: Shows the IP where the Trap to be sent.
- Subnet Mask: Shows the Subnet Mask set of the device.
- Gateway: Shows the Gateway set of the device.

Monitor List

All the Web Smart Device in the Monitor List can be monitored; you can also receive the trap and show the status of the device.

System word definitions in the Monitor List:


- S: Shows the system symbol of the Web-Smart device,  represent for device system is not alive.
- IP Address: Shows the current IP address of the device.
- MAC Address: Shows the device MAC Address.
- Protocol version: Shows the version of the Utility protocol.
- Product Name: Shows the device product name.
- System Name: Shows the appointed device system name.
- DHCP: Shows the DHCP status of the device.
- Location: Shows where the device is located.
- Trap IP: Shows the IP where the Trap to be sent.
- Subnet Mask: Shows the Subnet Mask set of the device.
- Gateway: Shows the Gateway set of the device.

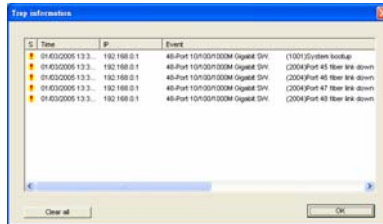
View Trap: The Trap function can receive the events that happen from the Web Management Switch in the Monitor List. There is a light indicator behind the “View Trap” button, when the light indicates in green, it means that there is no trap transmitted, and else when it indicates in red, it means that there is new trap transmitted, this is to remind us to view the trap.



View Trap button

When the “View Trap” button is clicked, a Trap Information window will pop out, it will show the trap information including the Symbol, Time, Device IP and the Event occurred.

The symbol “” represents the trap signal arise, this symbol will disappear after you review and click on the event record.



Trap Information

Note:

In order to receive Trap information, switch has to be configured with Trap IP and Trap Events in Web browser, which are available in the Trap Setting Menu

Add Item: To add a device to the Monitor List manually, enter the IP Address of the device that you want to monitor.

Delete Item: To delete the device in the Monitor List.

Device Setting

You can set the device by using the function key in the Device Setting Dialog box.

Configuration Setting: In this Configuration Setting, you can set the IP Address, Subnet Mask, Gateway, Set Trap to (Trap IP Address), System name, Location and DHCP function.

Select the device in the Discovery list or Monitor List and press this button, then the Configuration Setting window will pop out, after filling up the data that you want to change, you must fill up the password and press the “Set” to process the data changed immediately. The default password of this 48-Port 10/100/1000Mbps Gigabit Ethernet Web Smart Switch configuration is “admin”.

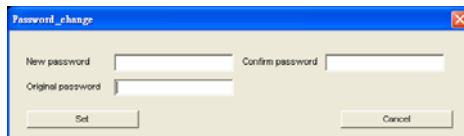


The screenshot shows a dialog box titled "Configuration setting" with a blue title bar and a close button (X) in the top right corner. The dialog contains several input fields and controls:

- Product name: 480 Web-Smart Switch
- IP Address: 192 . 168 . 1 . 1
- Subnet mask: 255 . 255 . 255 . 0
- Gateway: 192 . 168 . 1 . 254
- Set trap to: 192 . 168 . 1 . 51
- System name: (empty)
- Location: (empty)
- Password: (empty)
- DHCP: Enable Disable
- Buttons: Set and Cancel

Configuration Setting

Password Change: You can use this Password Change when you need to change the password, fill in the password needed in the dialog box and press “Set” button to proceed the password change immediately.

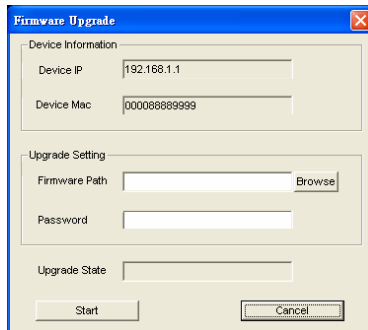


The screenshot shows a dialog box titled "Password_change" with a blue title bar and a close button (X) in the top right corner. The dialog contains three input fields and two buttons:

- New password: (empty)
- Confirm password: (empty)
- Original password: (empty)
- Buttons: Set and Cancel

Password Change

Firmware Upgrade: When the device has a new function, there will be a new firmware to update the device, use this function to update.



The image shows a 'Firmware Upgrade' dialog box with a blue title bar and a close button. It is divided into three sections: 'Device Information', 'Upgrade Setting', and 'Upgrade State'. The 'Device Information' section contains two text boxes: 'Device IP' with the value '192.168.1.1' and 'Device Mac' with the value '000068889999'. The 'Upgrade Setting' section contains a 'Firmware Path' text box with a 'Browse' button to its right, and a 'Password' text box. The 'Upgrade State' section contains an empty text box. At the bottom of the dialog are two buttons: 'Start' and 'Cancel'.

Firmware Upgrade

Access Web: Double click the device in the Monitor List or select a device in the Monitor List and press this “**Web Access**” button to access the device in Web browser.

DHCP Refresh: Press this “**DHCP Refresh**” button to refresh IP address of selected device form DHCP server.

Toolbar

The toolbar in the Web Management Utility have four main tabs, File, View, Options and Help.

In the “**File TAB**”, there are Monitor Save, Monitor Save As, Monitor Load and Exit.

- **Monitor Save:** To record the setting of the Monitor List to the default, when you open the Web Management Utility next time, it will auto load the default recorded setting.
- **Monitor Save As:** To record the setting of the Monitor List in appointed filename and file path.
- **Monitor Load:** To manually load the setting file of the Monitor List.
- **Exit:** To exit the Web Management Utility.

In the “**View TAB**”, there are view log and clear log function, this function will help you to show trap setting.

- **View Log:** To show the event of the Web Management Utility and the device.
- **Clear Log:** to clear the log.

In the “**Option TAB**”, there are Refresh Time function, this function helps you to refresh the time of monitoring the device. Choose 15 secs, 30 secs, 1 min, 2 min and 5 min to select the time of monitoring.

In the “**Help TAB**”, there is About function, it will show out the version of the Web Management Utility.

4.2. Configuring the Switch

The 48-Port 10/100/1000Mbps Gigabit Ethernet Web Smart Switch has a Web GUI interface for smart switch configuration. The Switch can be configured through the Web Browser. A network administrator can manage, control and monitor the switch from the local LAN. This section indicates how to configure the Switch to enable its smart functions

Default Setting

Default IP Address: **192.168.0.1**

Default Subnet Mask: **255.255.255.0**

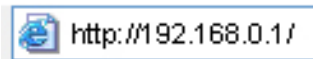
Default password: **admin**

Login

Before you configure this device, note that when the Web Smart Switch is configured through an Ethernet connection, make sure the manager PC must be set on same the IP network. For example, when the default network address of the default IP address of the Web Smart Switch is 192.168.0.1, then the manager PC should be set at 192.168.0.x (where x is a number between 2 and 254), and the default subnet mask is 255.255.255.0.

Open Internet Explorer 5.0 or above Web browser.

Enter IP address <http://192.168.0.1> (the factory-default IP address setting) to the address location.



Or through the Web Management Utility, you do not need to remember the IP Address, select the device shown in the Monitor List of the Web Management Utility to settle the device on the Web Browser. When the following dialog page appears, remain enter the default password "admin" and press Login to enter the main configuration window.

Login	
System Name	
Location Name	
IP Address	192.168.0.1
MAC Address	00-11-6b-25-d5-c9
Password	<input type="text"/> <input type="button" value="Login"/>

Login

After entering the password, the main page comes up, the screen will display the device status.

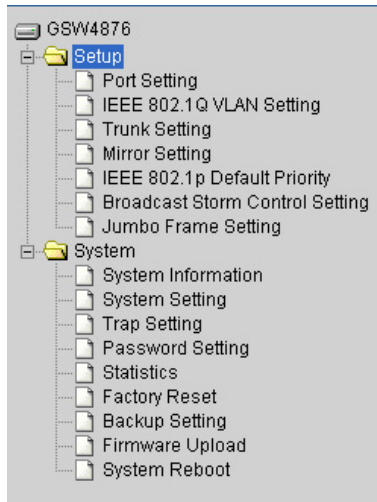
The screenshot shows the 'System Information' page. On the left is a navigation tree with 'System Information' selected. On the right is a table with the following data:

System Information	
Product Name	OSW4876
Firmware Version	3.00.00
Protocol Version	2.001.003
MAC Address	00-11-6b-25-d5-c9
System Name	
Location Name	
IP Address	192.168.0.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.254
Trap IP	0.0.0.0
Login Timeout (minutes)	5
System Up Time	0 days 0 hours 12 mins 38 seconds

System Information

5. WEB CONFIGURATION

When the main page appears, find the Configuration menu in the left side of the screen. Click on the setup item that you want to configure. There are sixteen options: Port Setting, IEEE 802.1Q VLAN Settings, Trunk Setting, Mirror Setting, IEEE 802.1p Default Priority, Broadcast Storm Control Setting, Jumbo Frame Setting, System Information, System Setting, Trap Setting, Password Setting, Statistics, Factory Reset, Backup Setting, Firmware Upload and System Reboot as shown in the Configuration Menu screen.



Configuration menu

Speed:

The 1000BASE-T connections can operate in Forced Mode settings (1000M Full, 100M Full, 100M Half, 10M Full, 10M Half), Auto, or Disable. The default setting for all ports are Auto. The mini-GBIC (Gigabit Fiber) connections can operate in Forced Mode settings (1000M Full), Auto, or Disable

Flow Control:

This setting determines whether or not the Switch will be handling flow control. Set Flow Control to Enable for avoiding data transfer overflow. Or it sets to Disable; there is either no flow control or other hardware/software management.

When the port is set to forced mode, then the flow control will automatically set to Disable.

QoS:

Displays each port's 802.1p QoS priority level for received data packet handling. Default setting for all ports is Middle. You can change the priority settings in 802.1p Default Priority.

Port Setting				
Port ID	Speed	Flow Control	QoS	Link Status
01	Auto	Disabled	Middle	Down
02	1000M Full	Disabled	Middle	Down
03	100M Full	Disabled	Middle	Down
04	100M Half	Disabled	Middle	Down
05	10M Full	Disabled	Middle	Down
06	10M Half	Disabled	Middle	Down

IEEE 802.1Q VLAN

A VLAN is a group of ports that can be anywhere in the network, but communicate as though they were in the same area.

VLANs can be easily organized to reflect department groups (such as R&D, Marketing), usage groups (such as e-mail), or multicast groups (multimedia applications such as video conferencing), and therefore help to simplify network management by allowing users to move devices to a new VLAN without having to change any physical connections.

The IEEE 802.1Q VLAN Configuration page provides powerful VID management functions. The original settings have the VID as 01, named “default”, and all 48 ports as “Untagged”.

IEEE 802.1Q VLAN Setting				
VID	VLAN Name	Untag VLAN Ports	Tag VLAN Ports	<input type="checkbox"/>
01	default	01,02,03,04,05,06,07,08, 09,10,11,12,13,14,15,16, 17,18,19,20,21,22,23,24, 25,26,27,28,29,30,31,32, 33,34,35,36,37,38,39,40, 41,42,43,44,45,46,47,48		<input type="checkbox"/>
<input type="button" value="Add VID"/>				<input type="button" value="Delete"/>

802.1Q VLAN Setting

Add VID:

Click to create a new VID group, assigning ports from 01 to 48 as Untag, Tag, or Not Member. A port can be “Untagged” in only one VID. To save the VID group, press Apply.

Add VID

VID	<input type="text"/>
VLAN Name	<input type="text"/> (Name should be less than 20 characters)

Port	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Select All
Untag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	All
Tag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	All
Not Member	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	All

Port	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Select All
Untag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	All
Tag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	All
Not Member	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	All

Add New VID

Delete:

Click to delete selected VID.

IEEE 802.1Q VLAN Setting

VID	VLAN Name	Untag VLAN Ports	Tag VLAN Ports	<input type="checkbox"/>
01	default	01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48		<input type="checkbox"/>
02	Engineer		01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48	<input checked="" type="checkbox"/>

Delete VID

Trunk Setting

The Trunking function enables the cascading of two or more ports for a combined larger bandwidth. Up to six Trunk groups may be created, each supporting up to 8 ports. Add a Trunking Name and select the ports to be trunked together, and click Apply to activate the selected Trunking groups.

Trunking Configuration																									
ID	Trunking Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
01		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ID	Trunking Name	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
01		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note : The selected trunk port setting must set to the same VLAN Group.

Apply

Trunk Configuration

Be sure that the selected trunk setting port must connect to the device with a same VLAN group.

Mirror Setting

Port Mirroring is a method of monitoring network traffic that forwards a copy of each incoming and/or outgoing packet from one port of the Switch to another port where the packet can be studied. This enables network managers to better monitor network performances.

Mirror Setting

Mirror Enabled Disabled

Sniffer Port: 01

Source Port Selection

Sniffer Mode	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Select All
TX	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	All
RX	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	All
Both	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	All
None	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	All

Source Port Selection

Sniffer Mode	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Select All
TX	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	All
RX	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	All
Both	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	All
None	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	All

Apply

Mirror Setting

Selection of the Sniffer mode is as follow:

TX (transmit) mode: this mode will duplicate the data transmit from the source port and forward to the Sniffer port.

RX (receive) mode: this mode will duplicate the data that send to the source and forward to the Sniffer port.

Both (transmit and receive) mode: this mode will duplicate both the data transmit from and data that send to the source port, then it will forward to the Sniffer port.

IEEE 802.1p Default Priority

This feature displays the status Quality of Service priority levels of each port, and for packets that are untagged, the switch will assign the priority in the tag depending on your configuration.

The screenshot shows a configuration page titled "IEEE 802.1p Default Priority" with a blue background. At the top right is an "Apply" button. Below the title is a table with two columns: "Port" and "Priority". The "Port" column lists ports 01 through 15. The "Priority" column shows "Middle" for each port, with a small dropdown arrow to the right of each entry.

Port	Priority
01	Middle
02	Middle
03	Middle
04	Middle
05	Middle
06	Middle
07	Middle
08	Middle
09	Middle
10	Middle
11	Middle
12	Middle
13	Middle
14	Middle
15	Middle

IEEE 802.1p Default Priority Setting

This screenshot is similar to the one above, but the dropdown menu for port 02 is open, showing four options: "Highest", "High", "Middle", and "Low". The "Middle" option is currently selected and highlighted in blue.

Port	Priority
01	Middle
02	Highest
03	High
04	Middle
	Low

IEEE 802.1p Default Priority Setting

Broadcast Storm Control Setting

The Broadcast Storm Control feature provides the ability to control the receive rate of broadcasted packets. If Enabled (default is Disabled), threshold settings of 8,000 ~ 4,096,000 bytes per second can be assigned. Press Apply for the settings to take effect.

Broadcast Storm Control Setting	
Broadcast Storm Control	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Threshold (bytes per second)	<input type="text" value="0"/>
<input type="button" value="Apply"/>	

Broadcast Storm Control Setting

Jumbo Frame Setting

Jumbo Frames enable the transportation of identical data in fewer frames. This ensures less overhead, lower processing time, and fewer interruptions. Maximum packet length supported is 9220 bytes.

Jumbo Frame Setting	
Jumbo Frame	<input checked="" type="radio"/> Enabled (Maximum Length is 9220 bytes) <input type="radio"/> Disabled
<input type="button" value="Apply"/>	

Jumbo Frame Setting

5.2. System Setting

Find that there are nine items, including System Information, System Setting, Trap Setting, Password Setting, Statistics, Factory Reset, Backup Setting, Firmware Upload and System Reboot in System menu.

System Information

Press on the “**System Information**” to present the system information status on this screen, it will show the Product Name, Firmware Version, Protocol Version, MAC Address, System Name, Location Name, IP Address, Subnet Mask, Default Gateway, Trap IP, Login Timeout and System Up Time.

System Information	
Product Name	GSW4876
Firmware Version	3.00.00
Protocol Version	2.001.003
MAC Address	00-11-8b-25-d5-c9
System Name	
Location Name	
IP Address	192.168.0.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.254
Trap IP	0.0.0.0
Login Timeout (minutes)	5
System Up Time	0 days 0 hours 12 mins 28 seconds

System Information

System Setting

The System Setting includes IP Information and System information. There are two ways for the switch to attain IP: Static and DHCP (Dynamic Host Configuration Protocol).

When using static mode, the IP Address, Subnet Mask and Gateway can be manually configured. When using DHCP mode, the Switch will first look for a DHCP server to provide it with an IP address, network mask, and default gateway before using the default or previously entered settings. By default the IP setting is static mode.

By entering a System Name and System Location, the device can more easily be recognized through the Web Management Utility and in other Web-Smart devices on the LAN. The Login Timeout controls the idle time-out for security purposes, when there is no action in the Web-based Utility. When the Login Timeout expires, the Web based Utility requires a re-login before using the Utility again.

System Setting	
IP Information	
IP Setting	<input checked="" type="radio"/> Static <input type="radio"/> DHCP
IP Address	192 . 168 . 0 . 1
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 0 . 254
<input type="button" value="Apply"/>	
System Information	
System Name	<input type="text"/>
Location Name	<input type="text"/>
Login Timeout (3-30 minutes)	5 <input type="text"/>
<input type="button" value="Apply"/>	

System Setting

Trap Setting

By configuring the Trap Setting, it allows Web Management Utility to monitor specified events on this Web-Smart Switch. By default, Trap Setting is Disabled. When the Trap Setting is Enabled, enter the Destination IP address of the managing PC that will receive trap information.

Trap Setting	
Trap Setting	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Trap IP	<input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/>
System Events	<input type="checkbox"/> Device Bootup <input type="checkbox"/> Illegal Login
Fiber Port Event	<input type="checkbox"/> Link Up/ Link Down
Twisted Pair Port Event	<input type="checkbox"/> Link Up/ Link Down
<input type="button" value="Apply"/>	

Trap Setting

System Events: Monitoring the system's trap.

- **Device Bootup:** a trap when booting up the system.
- **Illegal Login:** a trap when there is using a wrong password login, and it will record from where the IP to be login.

Fiber Port Events: Monitoring the Fiber port status.

- **Link Up/Link Down:** a trap when there is linking status happens in mini-GBIC connection.

Twisted Pair Port Events: Monitoring the twisted pair port status.

- **Link Up/Link Down:** a trap when there is linking status happens in 1000BASE-T connection.

Note:

Only cold start device will sending trap for the Device Bootup

Password Setting

Setting a password is an invaluable tool for managers to secure the Web Smart Switch. After entering the old password and the new password two times, press Apply for the changes to take effect.

If you forget the password, press the “**Reset**” button in the front panel of the Switch, the current setting includes VLAN, Port Setting... etc. will be lost and the Switch will restore to the default setting.

Password Setting	
Old Password	<input type="text"/>
New Password	<input type="text"/>
Re-type New Password	<input type="text"/>
<small>Note : The maximum length is 20 and is case-sensitive.</small>	
<input type="button" value="Apply"/>	

Password Setting

Statistic

The Statistic Menu screen will show the status of each port packet count.

Statistics				
		<input type="button" value="Refresh"/>	<input type="button" value="Clear Counter"/>	
Port ID	TxOK	RxOK	TxError	RxError
01	0	0	0	0
02	0	0	0	0
03	0	0	0	0
04	0	0	0	0
05	0	0	0	0
06	0	0	0	0
07	0	0	0	0
08	0	0	0	0
09	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0

Statistics

Refresh: To renew the details collected and displayed.

Clear Counter: To reset the details displayed.

To view the statistics of individual ports, click the Port ID

Port Statistics	
Port ID : 47	<input type="button" value="Previous Page"/> <input type="button" value="Refresh"/> <input type="button" value="Clear Counter"/>
TX	
OutOctets	139247
OutUcastPkts	273
OutNUcastPkts	7
OutErrors	0
LateCollisions	0
ExcessiveCollisions	0
InternalMacTransmitErrors	0
RX	
InOctets	271076
InUcastPkts	409
InNUcastPkts	2507
InDiscards	0
InErrors	0
FCSerrors	0
FrameTooLongs	0
InternalMacReceiveErrors	0

Port Statistics

Factory Reset

The Factory Reset helps you to reset the device back to the default setting from the factory. All of the configuration will be reset, the IP address of the device will be set to default setting 192.168.0.1.

Factory Reset	
Please be aware that all configuration will reset to default value.	
<input type="button" value="Factory Reset"/>	

Factory Reset

Backup Setting

The backup setting help you to backup the current setting of the Switch. Once you need to backup the setting, press the “**Backup**” button to save the setting.

To restore a current setting file to the device, you must specify the backup file and press “**Restore**” button to proceed the setting of the recorded file.

Backup Setting	
Backup current setting to file	<input type="button" value="Backup"/>
Restore saved setting from file	<input type="text"/> <input type="button" value="Browse..."/>
	<input type="button" value="Restore"/>

Note : Please be aware that the device will reboot after config restore successfully.

Backup Setting

Note:

When restoring a recorded file, the current password will not be erased.

Firmware Upload

The Firmware Upload helps you to backup or upload firmware from/to the Switch. Once you need to backup the current firmware of the Switch, press the “**Backup**” button to save the current firmware of the Switch; To restore or upgrade firmware to the Switch, you must specify the firmware file and press “**Upload**” button to proceed the firmware upload.

Firmware Upload	
Backup Firmware to File	<input type="button" value="Backup"/>
Upload Firmware from File	<input type="text"/> <input type="button" value="Browse..."/>
	<input type="button" value="Upload"/>

Firmware Upload

System Reboot

Provides to a safe way to reboot the system. Ensure the configuration has been saved, or all the changes you just made may be lost after system reboot.

System Reboot
<input type="button" value="System Reboot"/>

System Reboot

Logout

When press this function, the web configuration will go back to first Login page.

System Information	
Product Name	GSW4876
Firmware Version	3.00.00
Protocol Version	2.001.003



Login	
System Name	
Location Name	
IP Address	192.168.0.1
MAC Address	00-11-6b-25-d5-c9
Password	<input type="password"/>
	<input type="button" value="Login"/>

Login Page

6. APPENDIX

6.1. Technical Specifications

General	
Standards	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3x Full Duplex Flow Control IEEE 802.3z 1000BASE-SX/LX Gigabit Ethernet
Protocol	CSMA/CD
Data Transfer Rate	Ethernet: 10/20Mbps (half/full-duplex) Fast Ethernet: 100/200Mbps (half/full-duplex) Gigabit Ethernet: 2000Mbps (full-duplex)
Topology	Star
Network Cables	10BASE-T: 2-pair UTP Cat. 3, 4, 5; up to 100m 100BASE-TX: 2-pair UTP Cat. 5; up to 100m 1000BASE-T: 4-pair UTP Cat. 5; up to 100m Fiber module: mini-GBIC Fiber module
Number of Ports	48 × 10/100/1000Mbps Auto-MDIX RJ-45 ports 4 × mini-GBIC slots
Physical and Environmental	
AC inputs	100-240V AC, 50-60 Hz internal universal power supply
Power Consumption	79 Watts (Max)
Temperature	Operating: 0~ 40 °C, Storage: -10 ~ 70 °C
Humidity	Operating: 10% ~ 90%, Storage: 5% ~ 90%
Dimensions	440 x 310 x 44 mm (W x H x D)
EMI:	FCC Class A, CE Mark Class A, VCCI Class A
Safety:	IEC60950

Performance	
Transmits Method	Store-and-forward
RAM Buffer	1024KBytes per device
Filtering Address Table	8K entries per device
MAC Address Learning	Automatic update
Packet Filtering/Forwarding Rate	10Mbps Ethernet: 14,880/pps 100Mbps Fast Ethernet: 148,800/pps 1000Mbps Gigabit Ethernet: 1,488,000/pps

6.2. Glossary

Gigabit Ethernet Technology

Gigabit Ethernet is an extension of IEEE 802.3 Ethernet utilizing the same packet structure, format, and support for CSMA/CD protocol, full duplex, flow control, and management objects, but with a tenfold increase in theoretical throughput over 100-Mbps Fast Ethernet and a hundredfold increase over 10-Mbps Ethernet. Since it is compatible with all 10-Mbps and 100-Mbps Ethernet environments, Gigabit Ethernet provides a straightforward upgrade without wasting a company's existing investment in hardware, software, and trained personnel.

The increased speed and extra bandwidth offered by Gigabit Ethernet is essential to coping with the network bottlenecks that frequently develop as computers and their busses get faster and more users use applications that generate more traffic. Upgrading key components, such as your backbone and servers to Gigabit Ethernet can greatly improve network response times as well as significantly speed up the traffic between your subnets.

Gigabit Ethernet enables fast optical fiber connections to support video conferencing, complex imaging, and similar data-intensive applications. Likewise, since data transfers occur 10 times faster than Fast Ethernet, servers outfitted with Gigabit Ethernet NIC's are able to perform 10 times the number of operations in the same amount of time.

In addition, the phenomenal bandwidth delivered by Gigabit Ethernet is the most cost-effective method to take advantage of today and tomorrow's rapidly improving switching and routing internetworking technologies. And with expected advances in the coming years in silicon technology and digital signal processing that will enable Gigabit Ethernet to eventually operate over unshielded twisted-pair (UTP) cabling, outfitting your network with a powerful 1000-Mbps-capable backbone/server connection creates a flexible foundation for the next generation of network technology products.

Fast Ethernet Technology

The growing importance of LANs and the increasing complexity of desktop computing applications are fueling the need for high performance networks. A number of high-speed LAN technologies have been proposed to provide greater bandwidth and improve client/server response times. Among them, 100BASE-T (Fast Ethernet) provides a non-disruptive, smooth evolution from the current 10BASE-T technology. The non-disruptive and smooth evolution nature, and the dominating potential market base, virtually guarantees cost-effective and high performance Fast Ethernet solutions.

100Mbps Fast Ethernet is a standard specified by the IEEE 802.3 LAN committee. It is an extension of the 10Mbps Ethernet standard with the ability to transmit and receive data at 100Mbps, while maintaining the CSMA/CD Ethernet protocol. Since the 100Mbps Fast Ethernet is compatible with all other 10Mbps Ethernet environments, it provides a straightforward upgrade and takes advantage of the existing investment in hardware, software, and personnel training.

Switching Technology

Another approach to pushing beyond the limits of Ethernet technology is the development of switching technology. A switch bridges Ethernet packets at the MAC address level of the Ethernet protocol transmitting among connected Ethernet or Fast Ethernet LAN segments.

Switching is a cost-effective way of increasing the total network capacity available to users on a local area network. A switch increases capacity and decreases network loading by dividing a local area network into different segments, which don't compete with each other for network transmission capacity.

The switch acts as a high-speed selective bridge between the individual segments. The switch, without interfering with any other segments, automatically forwards traffic that needs to go from one segment to another. By doing this the total network capacity is multiplied, while still maintaining the same network cabling and adapter cards.

Switching LAN technology is a marked improvement over the previous generation of network bridges, which were characterized by higher latencies. Routers have also been used to segment local area networks, but the cost of a router, the setup and maintenance required make routers relatively impractical. Today switches are an ideal solution to most kinds of local area network congestion problems.

VLAN (Virtual Local Area Network)

A VLAN is a group of end-stations that are not constrained by their physical location and can communicate as if a common broadcast domain, a LAN. The primary utility of using VLAN is to reduce latency and need for routers, using faster switching instead. Other VLAN utility includes:

Security, Security is increased with the reduction of opportunity in eavesdropping on a broadcast network because data will be switched to only those confidential users within the VLAN.

Cost Reduction, VLANs can be used to create multiple broadcast domains, thus eliminating the need of expensive routers.