

BLACKBOX

NETWORK SERVICES

one source for worldwide infrastructure services

Console Port

(24 Port Nway Switch)

User's Manual

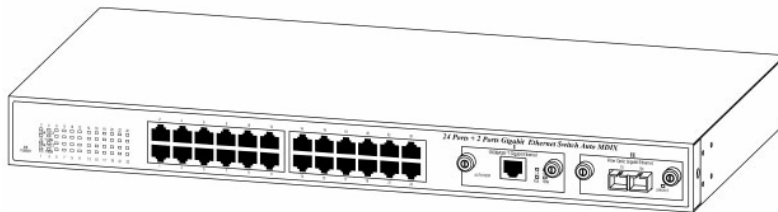
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Chapter 1.

Console port features overview

- Supports real time status read/write operation
- Provides on line link status.
- Supports port setting for N-Way or force mode operation
- One port-based Trunk supports the speed up to 800Mbps.
- Supports Load Balancing on Trunking port.
- Optional fiber optic module for 100Base-FX application.



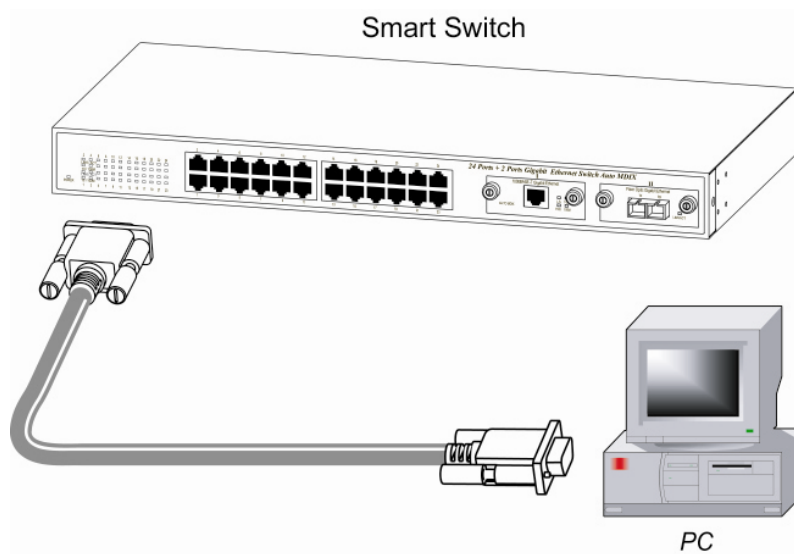
Chapter 2.

Hardware installation

Accessories:

- One Null model cable
- One D-SUB 9 pin female connector on front panel
- Fiber module (optional)-multimodule/single module (ST or SC type connector)

Turn off your PC & Smart Switch powers, and then connect the cable from PC Serial port to Smart Switch D-sub connector.



Note: When you connect the cable from PC Serial port, please remember which serial port you connected. (Please refer to the step 3 of page 4)

Chapter 3.

Software Setting Open Hyper Terminal

Follow the steps to open the program.

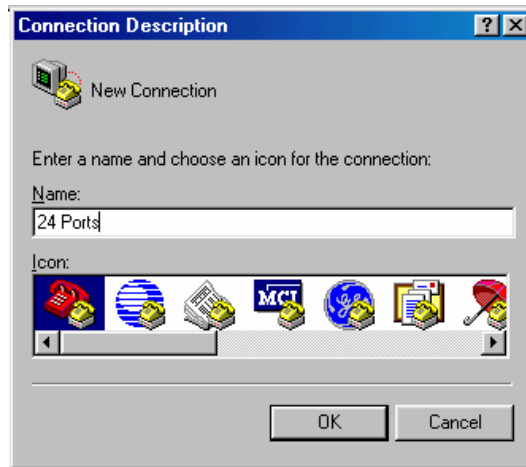
Step 1:

Start ⇒ Programs ⇒ Accessories ⇒ Communications ⇒
HyperTerminal



Step 2:

Enter any name for new connection, and then press OK.



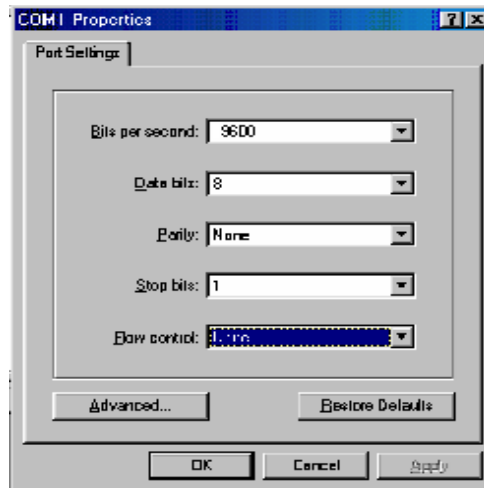
Step 3:

Choose serial port that you connect.



Step 4:
Configuration COM port properties.

Bits per second: **9600**
Data bits: **8**
Parity: **None**
Stop bits: **1**
Flow control: **None**



Step 5:

Press enter any key at keyboard when you see the cursor blinking. (Default) Username **admin**
Password **123**

```
Web Smart 24 + 2 Port Standalone Switch

Username : admin
Password : ***_
```

You will see

```
Switch Main Menu
=====

1. Port Status_
2. Port Configuration
3. Trunk Configuration
4. VLAN Configuration
5. Port Monitoring Configuration
6. QoS Configuration
7. Bandwidth Control
8. Misc Operation
0. Logout
```

The configuration on PC is successful.

Chapter 4.

The Function of Smart Switch

- I. Port Status
- II. Port Configuration
- III. Trunk Configuration
- IV. VLAN Configuration
- V. Port Monitoring Configuration
- VI. QoS Configuration
- VII. Bandwidth Control
- VIII. Misc Operation

I. Port Status

Display current status: enabled/disabled, link up/down, speed/duplex and flow control of each port.

Port Status									
=====									
Port	Enable	Link	Spd Dpx	Flow Ctrl	Port	Enable	Link	Spd Dpx	Flow Ctrl
PORT1	Enable	Down	-----	---	PORT14	Enable	Down	-----	---
PORT2	Enable	Down	-----	---	PORT15	Enable	Down	-----	---
PORT3	Enable	Down	-----	---	PORT16	Enable	Down	-----	---
PORT4	Enable	Down	-----	---	PORT17	Enable	Down	-----	---
PORT5	Enable	Down	-----	---	PORT18	Enable	Down	-----	---
PORT6	Enable	Down	-----	---	PORT19	Enable	Down	-----	---
PORT7	Enable	Down	-----	---	PORT20	Enable	Down	-----	---
PORT8	Enable	Down	-----	---	PORT21	Enable	Down	-----	---
PORT9	Enable	Down	-----	---	PORT22	Enable	Down	-----	---
PORT10	Enable	Down	-----	---	PORT23	Enable	Down	-----	---
PORT11	Enable	Down	-----	---	PORT24	Enable	Down	-----	---
PORT12	Enable	Down	-----	---	MOD1	-----	---	-----	---
PORT13	Enable	Down	-----	---	MOD2	-----	---	-----	---

II. Port Configuration

Configure enable state, auto-negotiation, speed/duplex, and flow control for each port.

Port Configuration									
Port	Enable	Auto	Spd/Dpx	Flow Ctrl	Port	Enable	Auto	Spd/Dpx	Flow Ctrl
PORT1	Enable	On	Auto	On	PORT15	Enable	On	Auto	On
PORT2	Enable	On	Auto	On	PORT16	Enable	On	Auto	On
PORT3	Enable	On	Auto	On	PORT17	Enable	On	Auto	On
PORT4	Enable	On	Auto	On	PORT18	Enable	On	Auto	On
PORT5	Enable	On	Auto	On	PORT19	Enable	On	Auto	On
PORT6	Enable	On	Auto	On	PORT20	Enable	On	Auto	On
PORT7	Enable	On	Auto	On	PORT21	Enable	On	Auto	On
PORT8	Enable	On	Auto	On	PORT22	Enable	On	Auto	On
PORT9	Enable	On	Auto	On	PORT23	Enable	On	Auto	On
PORT10	Enable	On	Auto	On	PORT24	Enable	On	Auto	On
PORT11	Enable	On	Auto	On					
PORT12	Enable	On	Auto	On	M1	-----	---	----	---
PORT13	Enable	On	Auto	On	M2	-----	---	----	---
PORT14	Enable	On	Auto	On					

III. Trunk Configuration

Configure the trunk groups. There are max. 7 trunk groups can be configured. User can arbitrarily select up to four ports from port1~port24 or port25~port26 to make a trunk group.

Trunk Configuration															
		T T T T T T T							T T T T T T T						
		1	2	3	4	5	6	7	1	2	3	4	5	6	7
Trunk 1 : Disable	PORT1	-	-	-	-	-	-	-	PORT13	-	-	-	-	-	-
Trunk 2 : Disable	PORT2	-	-	-	-	-	-	-	PORT14	-	-	-	-	-	-
Trunk 3 : Disable	PORT3	-	-	-	-	-	-	-	PORT15	-	-	-	-	-	-
Trunk 4 : Disable	PORT4	-	-	-	-	-	-	-	PORT16	-	-	-	-	-	-
Trunk 5 : Disable	PORT5	-	-	-	-	-	-	-	PORT17	-	-	-	-	-	-
Trunk 6 : Disable	PORT6	-	-	-	-	-	-	-	PORT18	-	-	-	-	-	-
Trunk 7 : Disable	PORT7	-	-	-	-	-	-	-	PORT19	-	-	-	-	-	-
	PORT8	-	-	-	-	-	-	-	PORT20	-	-	-	-	-	-
	PORT9	-	-	-	-	-	-	-	PORT21	-	-	-	-	-	-
	PORT10	-	-	-	-	-	-	-	PORT22	-	-	-	-	-	-
	PORT11	-	-	-	-	-	-	-	PORT23	-	-	-	-	-	-
	PORT12	-	-	-	-	-	-	-	PORT24	-	-	-	-	-	-

Notice:

- 1: The 10/100Mbps port cannot be trunked with gigabit port.
- 2: All ports in the same trunk group will be treated as a single port.
If VLAN group exist, all of the members in a trunk group **must** be in the same VLAN group.

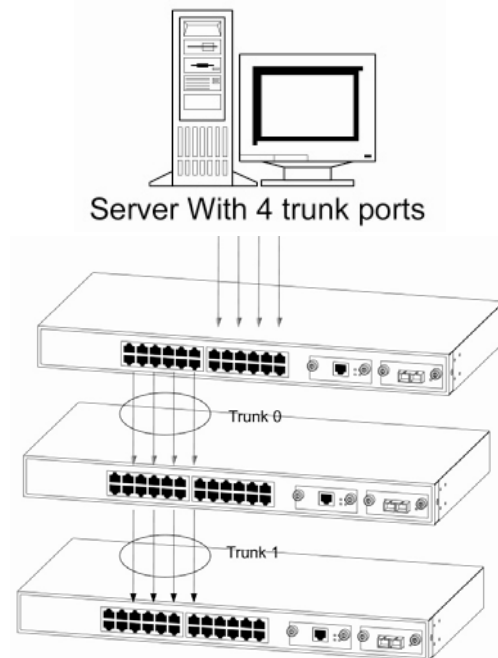


Figure 1:

**Figure1.
Cascaded Connection:**

Three 24 ports Smart Switches and one 4 port Server. 24 ports Smart Switch can support up to Two Trunks and each Trunk with maximum 4 ports in cascaded connection.

IV. VLAN Configuration

VLAN is a logical network group that limits the broadcast domain. It allows you to isolate network traffic so only members of the VLAN receive traffic from the same VLAN members. Basically, creating a VLAN within a switch is logically equivalent of reconnecting a group of network devices to another Layer 2 switch. However, all the network devices are still plug into the same switch physically.

```
VLAN Configuration
=====
1. VLAN Configuration
2. Advanced 802.1Q VLAN Setting
0. Return to Main Menu
```

V. Port Monitoring Configuration

Port monitoring is forwarding specified direction of packets from several monitored ports to a specified monitoring port.

```
Port Monitoring Configuration
=====
Port Monitoring Mode : RX
Monitoring Port : PORT1
Monitored Port :
-----
PORT1 ----- PORT10 ----- PORT19 -----
PORT2 ----- PORT11 ----- PORT20 -----
PORT3 ----- PORT12 ----- PORT21 -----
PORT4 ----- PORT13 ----- PORT22 -----
PORT5 ----- PORT14 ----- PORT23 -----
PORT6 ----- PORT15 ----- PORT24 -----
PORT7 ----- PORT16 -----
PORT8 ----- PORT17 -----
PORT9 ----- PORT18 -----
```

VI. QoS Configuration

Configure QoS mode, 802.1p priority and static port priority.

```
QoS Configuration
=====
QoS Mode : High : Low = 3 : 1
Static Port Ingress Priority :
-----
PORT1  Off   PORT10  Off   PORT19  Off
PORT2  Off   PORT11  Off   PORT20  Off
PORT3  Off   PORT12  Off   PORT21  Off
PORT4  Off   PORT13  Off   PORT22  Off
PORT5  Off   PORT14  Off   PORT23  Off
PORT6  Off   PORT15  Off   PORT24  Off
PORT7  Off   PORT16  Off
PORT8  Off   PORT17  Off
PORT9  Off   PORT18  Off

802.1p Priority [7-0] :
High High High High Low  Low  Low  Low
```

VII. Bandwidth Control

Configure input rate or output rate of each port. For example:
assume port 1 is 10Mbps, users can set it's effective Output
Rate to 1Mbps, Input Rate to 500Kbps.

Bandwidth Control					
=====					
Port	InRate	OutRate	Port	InRate	OutRate
-----			-----		
PORT1	0	0	PORT13	0	0
PORT2	0	0	PORT14	0	0
PORT3	0	0	PORT15	0	0
PORT4	0	0	PORT16	0	0
PORT5	0	0	PORT17	0	0
PORT6	0	0	PORT18	0	0
PORT7	0	0	PORT19	0	0
PORT8	0	0	PORT20	0	0
PORT9	0	0	PORT21	0	0
PORT10	0	0	PORT22	0	0
PORT11	0	0	PORT23	0	0
PORT12	0	0	PORT24	0	0

VIII. Misc Operation

Miscellaneous operation of the switch.

Misc Operation
=====
1. Advanced Switch Configuration
2. Password Setting
3. Restore System Default Setting
4. Reboot System
5. System Information
6. IP Configuration
0. Return to Main Menu

1. Advanced Switch Configuration
Configure advanced switch functions: BSF, Collision
retry, age-out time ...
2. Password Setting
Change user name and password
3. Restore System Default Setting
Restore to manufacture default.
4. Reboot System
Reboot switch.
5. System Information
Firmware version, chip revision, ...

Chapter 5.

Web Login

I. Setting IP Address by Console Port

When you are going to login the web pages, you have to set the IP address properly. You could login with the default IP address **192.168.1.1**. But you have to make sure this IP could work in your network environment. Or you have to re-configure the IP address, subnet mask and default gateway.

- Step 1:
login with the console port .
- Step 2:
go to the "IP Configuration " screen. Then, set the IP address properly

```
IP Configuration
=====

MAC Address:      00:00:00:00:00:00
IP Address:       192.168.1.1
Subnet Mask:      255.255.255.0
Default Gateway: 192.168.1.254
```

II. Login with a Web Browser

When you connect to the switch with a web browser, a login screen is displayed. Enter a user name and password to login to access the switch.

```
Web Smart 24 + 2 Port Standalone Switch

Username: admin
Password: ●●●
Login
```