

8-Port 10/100/1000Mbps + 2 100/1000X SFP Managed Ethernet Switch

WGSD-10020



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Presentation Outline

- ◆ **Product Overview**
- ◆ **Product Benefits**
- ◆ **Product Features**
- ◆ **Application**
- ◆ **Comparison**

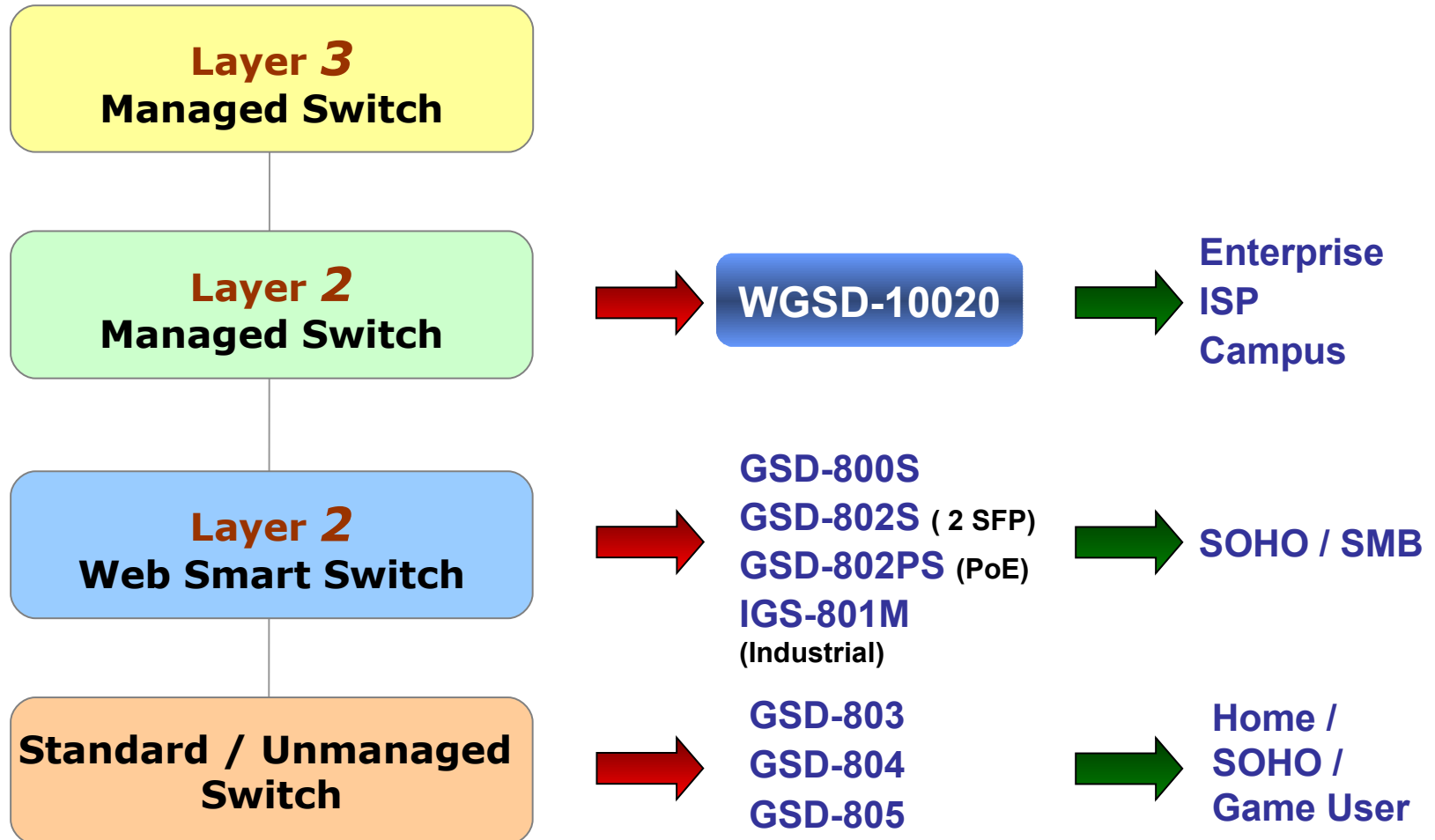
WGSD-10020



Product Overview



◆ PLANET 8-Port Gigabit Switch Product Classification



What is IPv6 ?

◆ Internet Protocol version 6 (IPv6)

- ✓ IPv6 is the **next-generation Internet Protocol version** designated as the successor to IPv4, the first implementation used in the Internet that is still in dominant use currently.
- ✓ It is an **Internet Layer protocol** for packet-switched internetworks. The main driving force for the redesign of Internet Protocol was the foreseeable IPv4 address exhaustion.
- ✓ IPv6 was defined in December 1998 by the Internet Engineering Task Force (IETF) with the publication of an Internet standard specification, RFC 2460.
- ✓ IPv6 has a vastly larger address space than IPv4. This results from the use of a **128-bit** address, whereas IPv4 uses only **32 bits**.

Why IPv6 ?

◆ IPv4 address is going to be not enough

- ✓ Nowadays, lots of **electronic products** or **mobile devices** can browse the Internet, which means the need of IP Address increases. However, the current IPv4 network infrastructure is not capable enough to provide IP Address to each single users / Clients.
- ✓ The situation forces the ISP to build up the IPv6 network infrastructure speedily.

◆ IPv6 / IPv4 Dual Stack

- ✓ WGSD-10020 supports **both IPv4 and IPv6 management** functions. It can work with original network structure (IPv4) and also support the new network structure (IPv6) in the future.
- ✓ With easy and friendly management interfaces and plenty of management functions included, the WGSD-10020 is the best choice for ISP to build the IPv6 FTTx edge service and for SMB to connect with IPv6 network.

Product Overview

◆ Front Panel of WGSD-10020

✓ **8-Port 10/100/1000Base-T RJ-45**

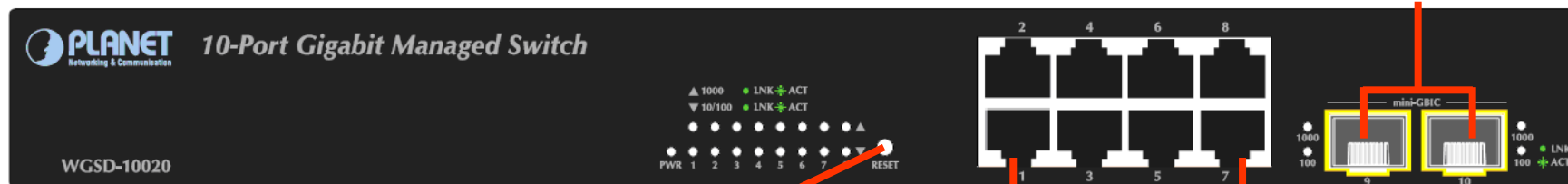
- Auto-MDI/MDI-X, Auto Negotiation
- **Green Networking** Technology - Power Saving
- **Cable Diagnostic**

✓ **2 for 3.3VDC mini GBIC/SFP slots**

- Compatible with **1000Base-SX/LX** or **100FX SFP** modules

✓ **One Reset button**

← 13" / Desktop / Rack-mountable →



100/1000 SFP slot

Reset Button

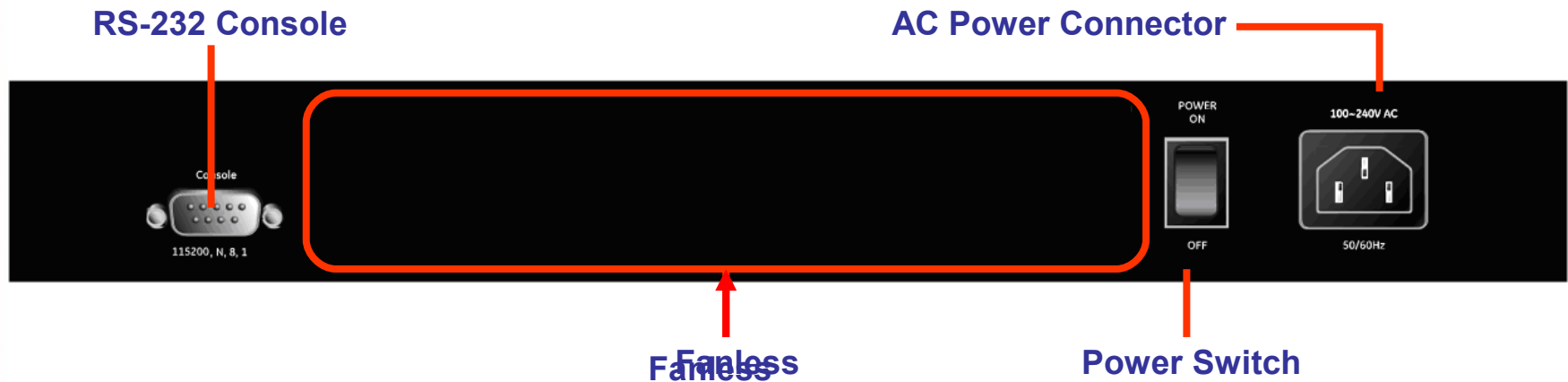
8 x 10/100/1000Base-T, RJ-45

Product Overview



◆ Rear Panel of WGSD-10020

- ✓ RS-232 console Interface
- ✓ 100~240V AC, universal Power Supply
- ✓ One Power Switch
- ✓ Fanless



- ◆ **Cost-Effective *IPv6* Managed Edge/Department Switch**
- ◆ **Full / Secure Management**
 - ✓ *SSH / SSL / SNMPv3* protocols ensure security management
 - ✓ *SNMP* , *RMON* and *Trap* alarm for Centralize Network Management
- ◆ **Excellent Layer 2 / 3 / 4 Traffic Control**
 - ✓ Layer 2 / 3 / 4 *QCL* (*QoS Control List*) Traffic Control
 - ✓ Layer 2 / 3 / 4 *ACL* Security
- ◆ **FTTx Access Capability**
 - ✓ Flexible for *100Base-FX* or *1000Base-SX/LX* Fiber-optic network extension
 - ✓ *Q-in-Q* for *MAN* (*Metro Area Network*) applications
 - ✓ Desktop Size, Rack-Mountable, Easy Installation in space limited environment

Product Benefits – *SMB/SOHO*

◆ **Cost-Effective SMB/SOHO Backbone Switch**

- ✓ **10G** High Performance Wire-Speed Switching
- ✓ **IPv4 / IPv6 Dual Stack** helps to connect to IPv6 network now and in the future

◆ **Right for Office IT Network Applications**

- ✓ Storm Control and IGMP / MLD Snooping handle unicast / multicast streaming to reduce network congestion
- ✓ VLAN, Multiple Spanning Tree, Link Aggregation, Cable Diagnostic and etc
- ✓ QoS provides effective data traffic control VoIP and Video conferencing transmission

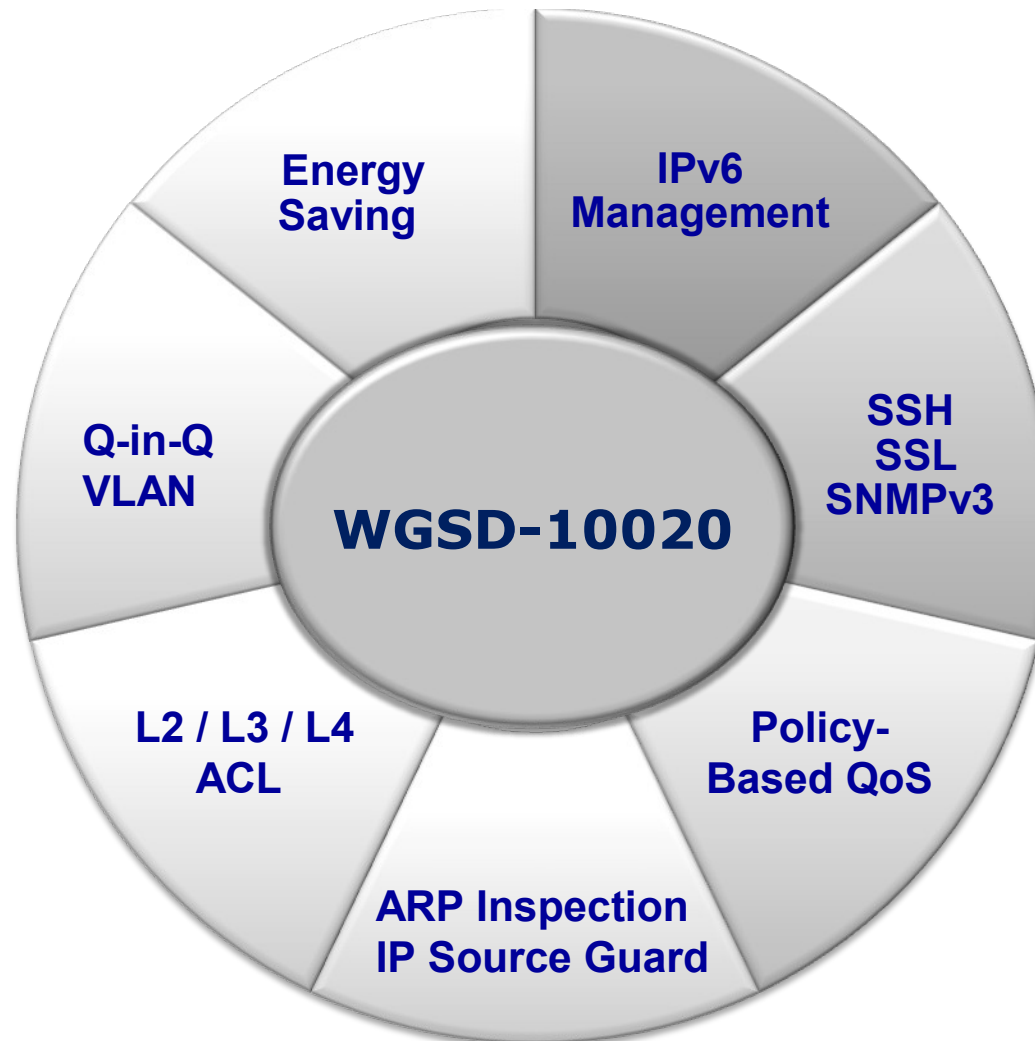
◆ **Simple Management**

- ✓ Friendly WEB management Interface and function setup Wizard
- ✓ "Help" page for online quickly study

◆ **Desktop Size**

- ✓ Easy and flexible installation at any location

Product Key Features



Product Features



◆ Hardware

- ✓ 10-Port Gigabit Interface
- ✓ 2 SFP slots, flexible for Fiber-Optic network extension
 - SFP type, plug and play
 - **1000Base-SX/LX** :Maximum 120 kilometres
 - **100Base-FX** compatible
- ✓ **9K bytes** Jumbo Frame
- ✓ 20Gbps switch fabric
- ✓ Advanced **Green Networking** technologies
 - Hibernation Link Down power saving
 - Intelligent scales power based on cable length
 - LED Power Reduction
- ✓ Desktop Size
- ✓ Rack-mountable installation

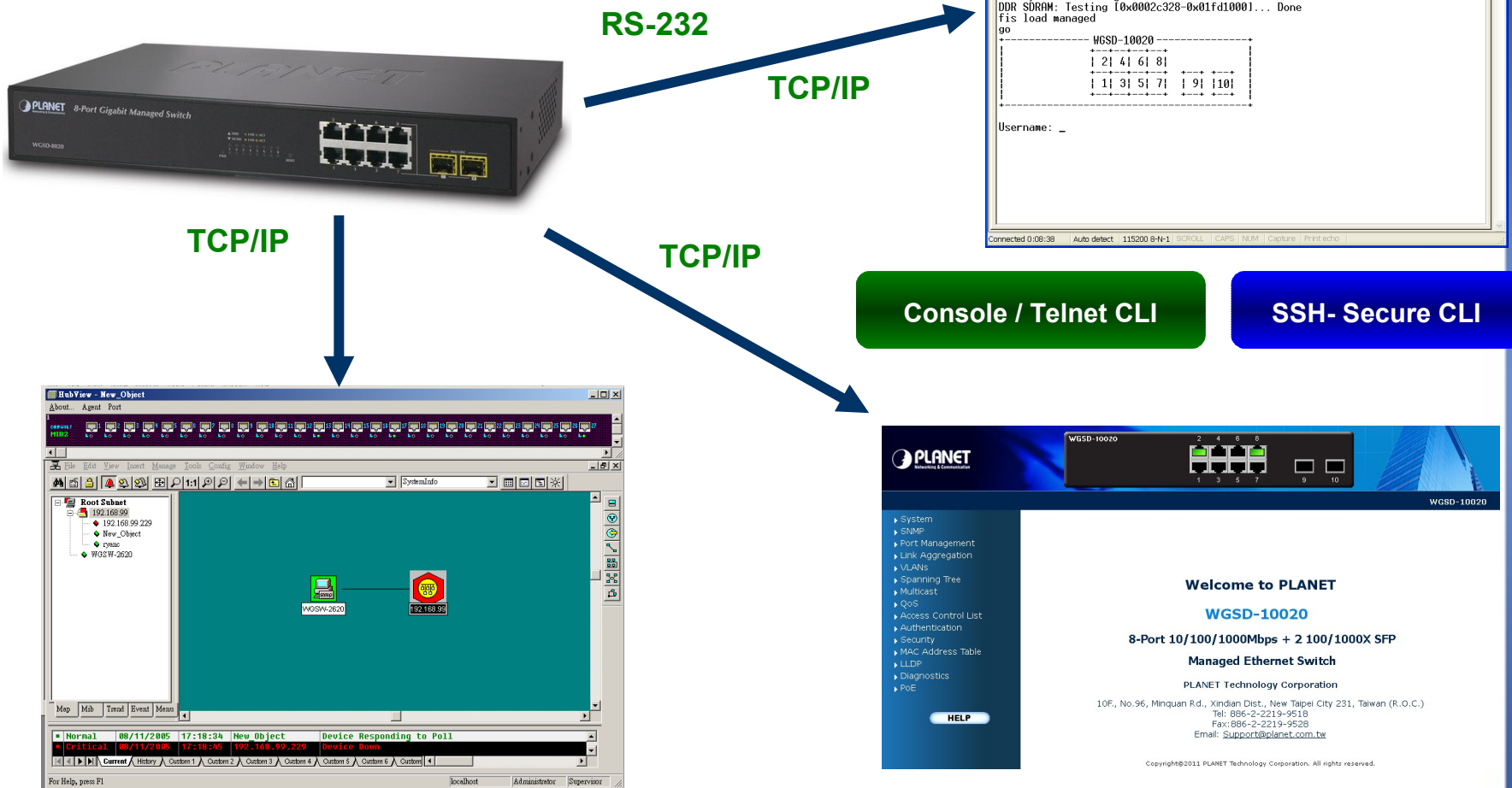
Product Features

◆ Full Management

- ✓ **IPv4 / IPv6** Dual Stack
- ✓ **IPv6** IP Address / NTP / DNS management
- ✓ Standard-based Management
 - WEB-based
 - Telnet
 - SNMP v1 and v2c
 - Console Command Line
- ✓ **Security Authentication** for secure management
 - **SSH**
 - **SSL**
 - **SNMPv3**
- ✓ SNMP RMON 1, 2, 3 and 9 for In/out network traffic and event monitoring
- ✓ SNMP trap for device Link Up / Link Down status monitoring
- ✓ **User Privilege** levels control

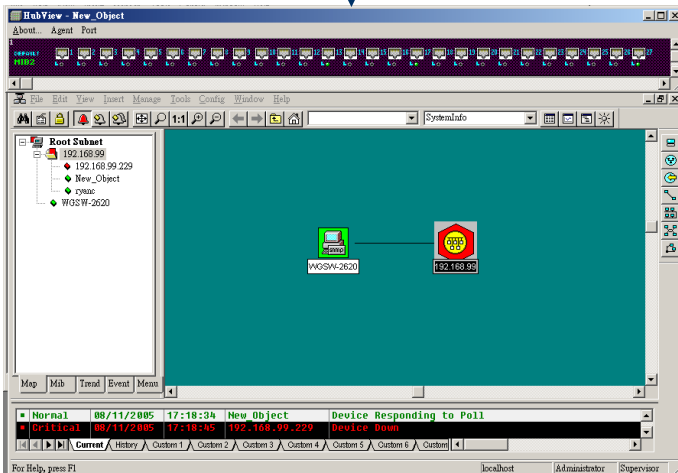
Product Features

◆ Remote IPv4 / IPv6 Management



```

COM4_115200 - HyperTerminal
File Edit View Call Transfer Help
+
Bootloader v1.07 - built Nov 26 2009
diag -a
Memory BIST: Running... Done
DDR SDRAM: Testing [0x0002c328-0x01fd1000]... Done
fis load managed
go
-----WGSD-10020-----
| 2| 4| 6| 8|
| 1| 3| 5| 7| 9| 10|
-----
Username: _
    
```



SNMP v1 / v2c

SNMPv3 – Secure SNMP

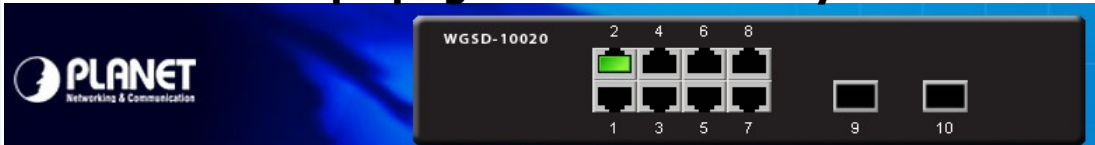
HTTP Web Management

SSL – Secure HTTP

Product Features

◆ Friendly Web User Interface

- ✓ Internet Explorer, Firebox, Safari compatible
- ✓ "Help" page for online study



PLANET
Networking & Communication

- ▶ System
- ▶ SNMP
- ▶ Port Management
- ▶ Port Configuration
- ▶ Port Statistics Overview
- ▶ Port Thermal Protection Status
- ▶ Port Statistics Detail
- ▶ SFP Information
- ▶ Port Mirror
- ▶ Link Aggregation
- ▶ VLANs
- ▶ Spanning Tree
- ▶ Multicast
- ▶ QoS
- ▶ Access Control List
- ▶ Authentication
- ▶ Security
- ▶ MAC Address Table
- ▶ LLDP
- ▶ Diagnostics

HELP

Port Configuration

Port	Port Description	Link	Speed		Flow Control	
			Current	Configured	Current Rx	Current Tx
1		●	Down	Auto	×	×
2		●	1Gfdx	Auto	×	×
3		●	Down	Auto	×	×
4		●	Down	Auto	×	×
5		●	Down	Auto	×	×
6		●	Down	Auto	×	×
7		●	Down	Auto	×	×
8		●	Down	Auto	×	×
9		●	Down	Auto	×	×
10		●	Down	Auto	×	×

Port Configuration Help - Mozilla Firefox

Port Configuration Help
http://192.168.0.108/help/help_ports.htm

Port Configuration Help

This page displays current port configurations. Ports can also be configured here.

Port

This is the logical port number for this row.

Link

The current link state is displayed graphically. Green indicates the link is up and red that it is down.

Current Link Speed

Provides the current link speed of the port.

Configured Link Speed

Select any available link speed for the given switch port.
 Auto Speed selects the highest speed that is compatible with a link partner.
 Disabled disables the switch port operation.

Flow Control

When **Auto Speed** is selected on a port, this section indicates the flow control capability that is advertised to the link partner.
When a fixed-speed setting is selected, that is what is used. The Current Rx column indicates whether pause frames on the port are obeyed, and the Current Tx column indicates whether pause frames on the port are transmitted. The Rx and Tx settings are determined by the result of the last [Auto-Negotiation](#).
Check the configured column to use flow control. This setting is related to the setting for Configured Link Speed.

Maximum Frame Size

Enter the maximum frame size allowed for the switch port, including FCS.

Excessive Collision Mode

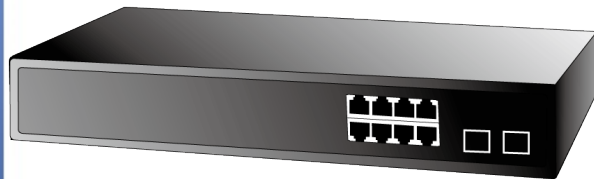
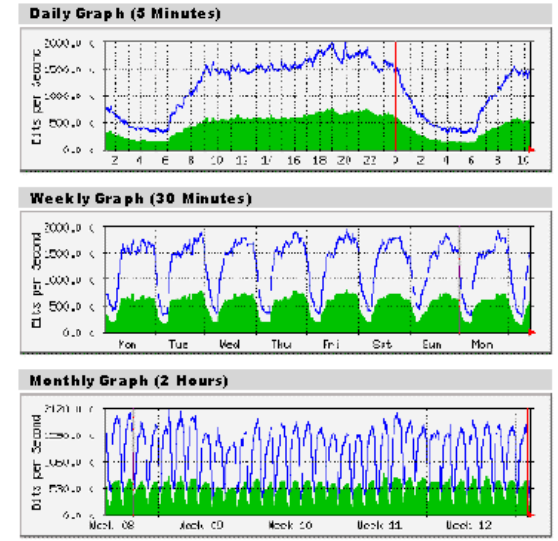
Product Features – SNMPv3

◆ Simple Network Management Protocol

- ✓ **SNMPv3 secure access**
- ✓ **RMON 1,2,3 and 9**

SNMPv3 User Configuration

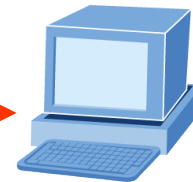
Delete	Engine ID	User Name	Security Level	Authentication Protocol	Authentication Password	Privacy Protocol	Privacy Password
<input type="checkbox"/>	800007e5017f000001	default_user	Auth, Priv	MD5	●●●●●●	DES	●●●●●●



WGSD-10020
SNMP Agent

MD5 encryption

Secure access



SNMP Software

RMON Groups 1, 2, 3, 9

RFC 1757 (statistics, history, alarm, events)

Product Features

◆ Supports VLAN

- ✓ IEEE 802.1Q Tagged VLAN
- ✓ Provider Bridging (VLAN **Q-in-Q**) support (IEEE 802.1ad)
- ✓ Private VLAN Edge (PVE)
- ✓ **Protocol-based VLAN**
- ✓ **MAC-based VLAN**
- ✓ **Voice VLAN**

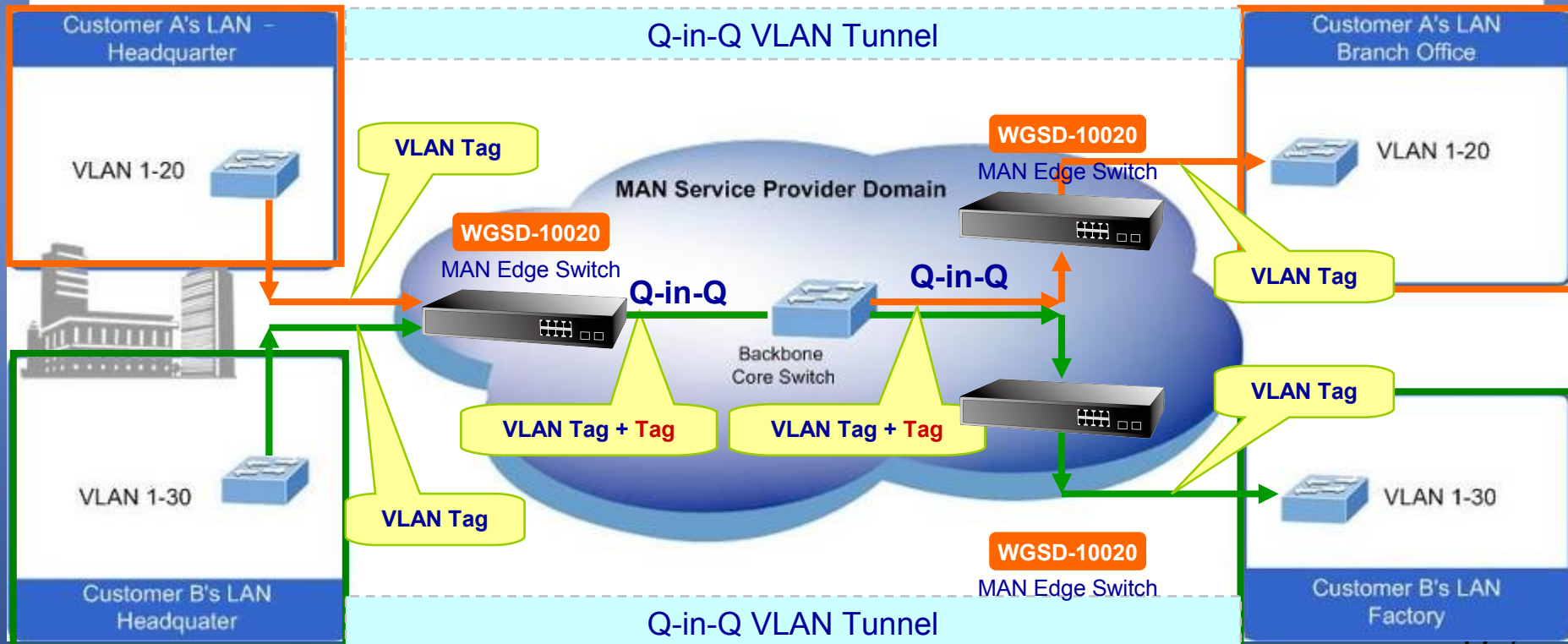
◆ Supports Spanning Tree Protocol

- ✓ STP, IEEE 802.1D (Spanning Tree Protocol)
- ✓ RSTP, IEEE 802.1w (Rapid Spanning Tree Protocol)
- ✓ **MSTP**, IEEE 802.1s Multiple Spanning Tree Protocol, spanning tree by VLAN
- ✓ **BPDU Guard** and **BPDU Filtering** enhances switch network reliability, manageability, and security.

Product Features

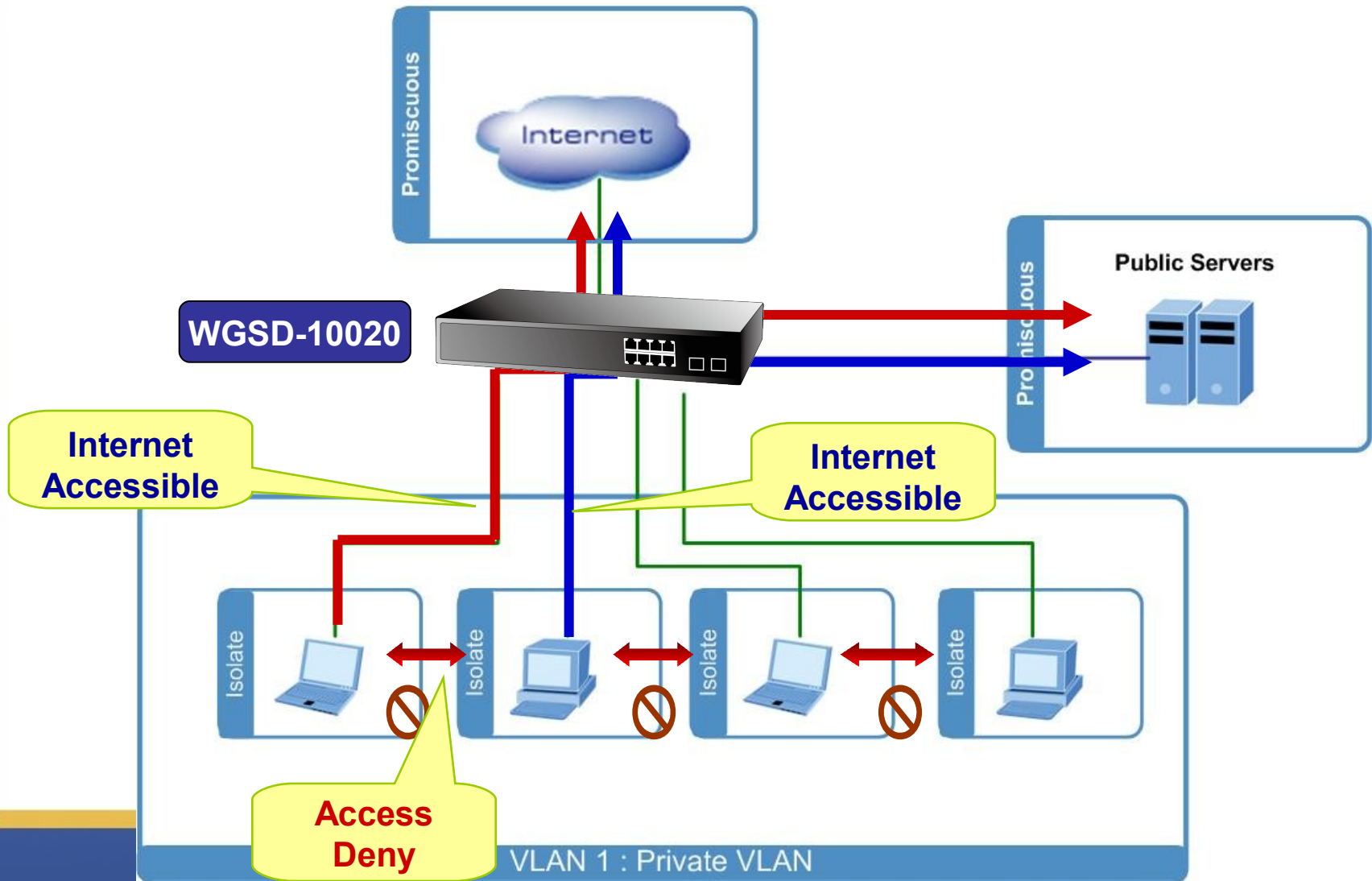
◆ Q-in-Q VLAN Tunnel

- ✓ QinQ is designed for service providers carrying traffic for multiple customers across their networks.
- ✓ It is used to maintain customer-specific VLAN and Layer 2 protocol configurations even when different customers use the same internal VLAN IDs.



Product Features

- ◆ **Private VLAN** – isolates edge ports to ensure privacy



Product Features

◆ Quality of Service

- ✓ **8** priority queues on all switch ports
- ✓ Traffic Classification by:
 - 802.1p CoS
 - IP TOS/**DSCP**/Precedence of IPv4 / IPv6 packets
 - **IP TCP/UDP** port number
 - Typical network applications
- ✓ **Ingress Shaper** and **Egress Rate Limit** per port bandwidth control
- ✓ **Strict priority** and **Weighted Round Robin (WRR)** CoS policie
- ✓ Traffic-policing policies on the switch port
- ✓ **DSCP remarking**

Product Features

◆ Multicast

- ✓ Supports IGMP Snooping v1, v2 and **v3**
- ✓ Support MLD Snooping v1 and **v2**
- ✓ Querier mode support
- ✓ IGMP Snooping filtering
- ✓ MLD Snooping filtering
- ✓ MVR (Multicast VLAN Registration)

◆ Supports Link Aggregation

- ✓ IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- ✓ Cisco ether-channel (Static Trunk)
- ✓ Up to 20Gbps bandwidth (Duplex Mode)

Product Features

- ◆ Excellent Traffic Control guarantees the best performance in Voice and Video conferencing transmission.
 - ✓ **Large file transfers**
 - ✓ **High performance servers**
 - ✓ **Video conferencing**
 - ✓ **Voice over IP**
 - ✓ **Skype Phone, MSN Phone communication**
 - ✓ **Multicast Streaming**



Product Features

◆ Security

✓ Network Access Authentication mechanism

- IEEE 802.1x Port-Based authentication for user identity control
- **MAC-Based** authentication for easy deployment
- RADIUS / **TACACS+** / Local profile

✓ Access Control List (ACL)

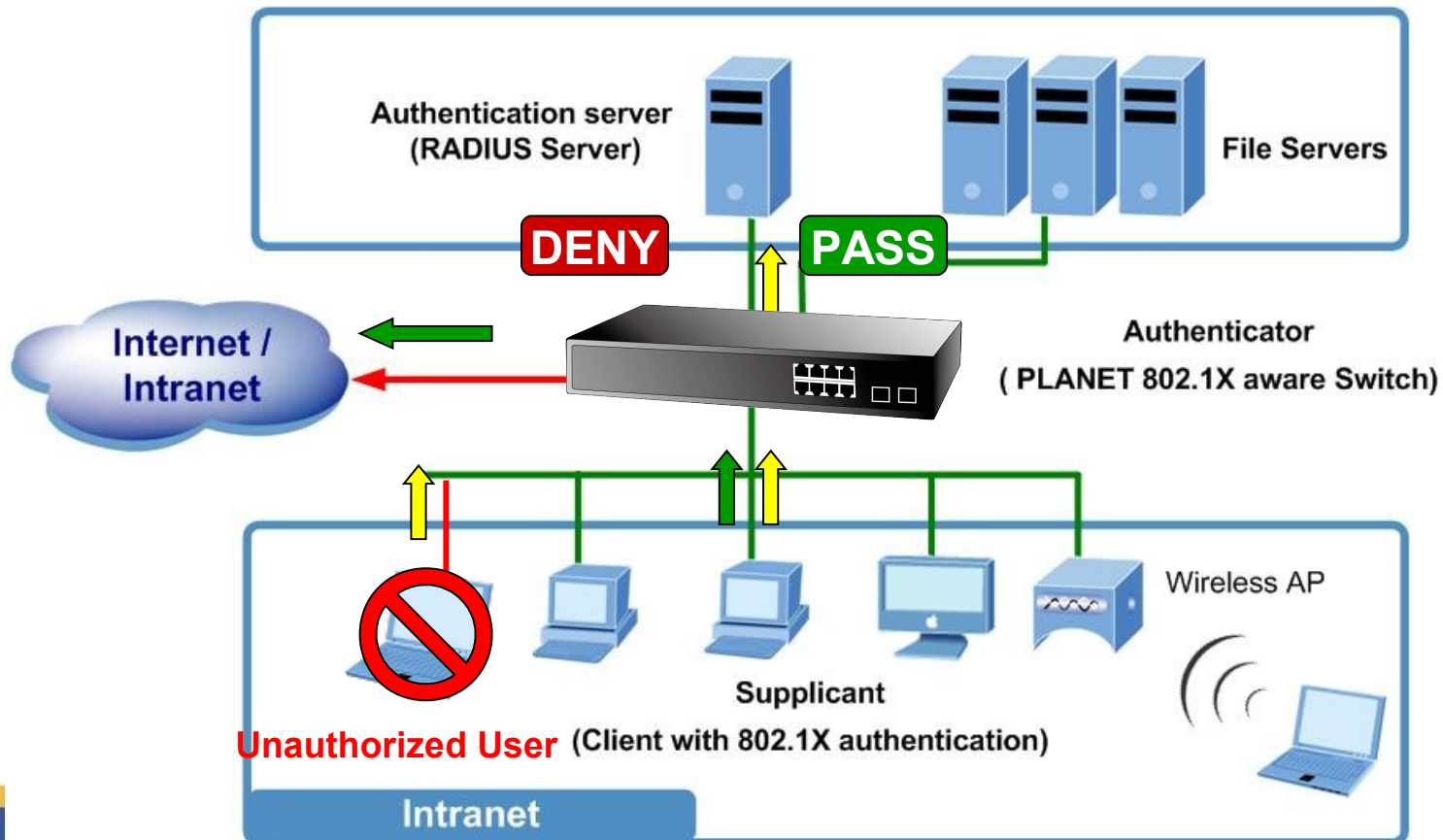
- IP-Based filtering to permit or deny traffic
- MAC-Based filtering to permit or deny traffic

✓ Management **Source MAC / IP address binding** to prevent unauthorized intruder

Product Features

◆ Security - Network Access Authentication mechanism

- ✓ 802.1x Port-Based / MAC-Based User Authentication
- ✓ RADIUS / TACACS+ Authentication for Management Access



Product Features

◆ Enhanced Security

- ✓ **DHCP Snooping** to filter untrusted DHCP messages

- ✓ **Dynamic ARP Inspection**
 - Discards ARP packets with invalid MAC address to IP address binding.
 - Protects the network from certain "**man-in-the-middle**" attacks.

- ✓ **IP Source Guard**
 - Helps prevent **IP spoofing attacks** when a host tries to spoof and use the IP address of another host.
 - Any IP traffic with a source IP address other than that assigned will be filtered out.

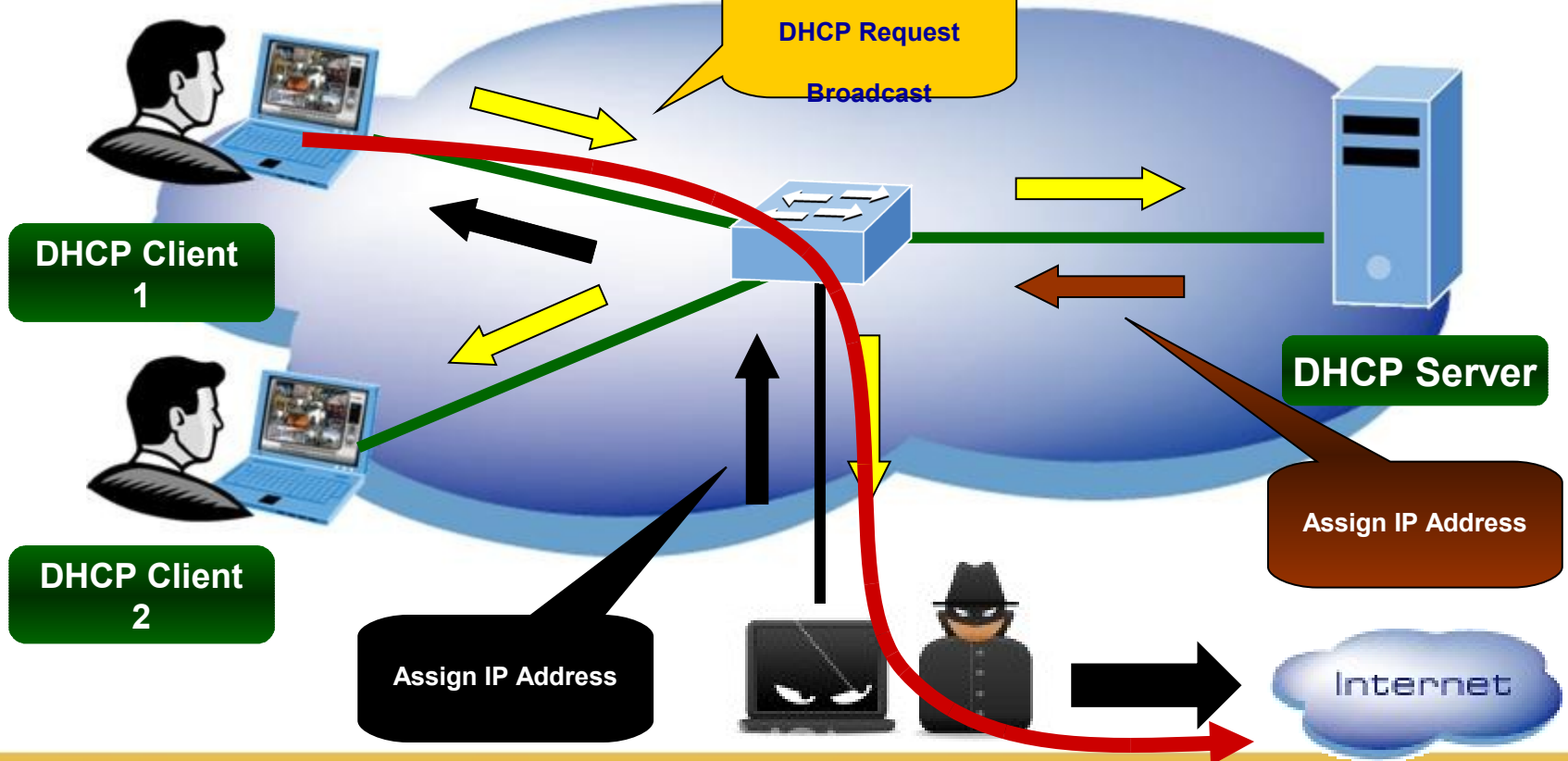
- ✓ **Auto DoS** rule to defend DoS attack

Product Features

◆ DHCP Snooping

INTRANET

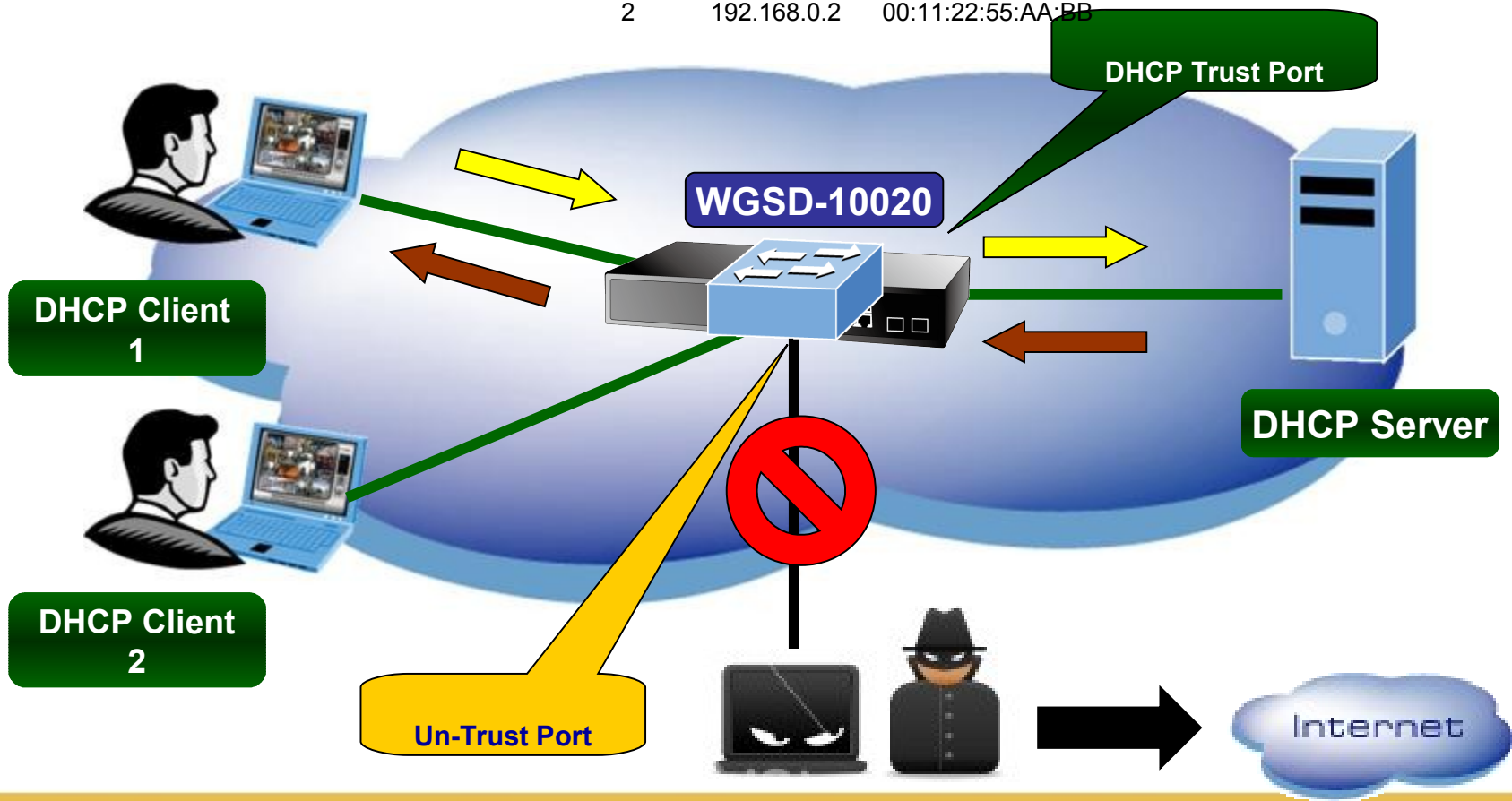
Office Network



Product Features

◆ DHCP Snooping

VLAN ID	IP Address	MAC Address
1	192.168.0.1	00:30:4F:11:22:33
2	192.168.0.2	00:11:22:55:AA:BB



Product Features

◆ Management Tools

- ✓ **IPv6** IP Address / NTP / DNS management
- ✓ Built-in Trivial File Transfer Protocol (TFTP) client
- ✓ DHCP for IP address assignment
- ✓ **Auto-configuration** for IPv6 address assignment
- ✓ Firmware upload/download via HTTP / TFTP
- ✓ NTP (Network Time Protocol)
- ✓ **Link Layer Discovery Protocol (LLDP)** Protocol
- ✓ **Universal Plug and Play (uPnP)**
- ✓ PLANET Smart Discovery Utility for deploy management

Product Features

◆ Link Layer Discovery Protocol (LLDP)

- ✓ LLDP is used to **discover** basic information about neighboring devices on the local broadcast domain

LLDP Neighbor Information for Switch 1

Local Port	Chassis ID	Remote Port ID	System Name	Port Description	System Capabilities	Management Address
Port 10	00-30-4F-24-04-5B	2	WGSW-24040	Port #2	Bridge(+)	192.168.0.100 (IPv4)
Port 11	00-30-4F-10-22-F1	00-30-4F-10-22-F3	SGSW-2840	Ethernet Port on unit 1, port 2	Bridge(+)	192.168.100.101 (IPv4)

Auto-refresh Refresh

WGSD-10020



LLDP Protocol

WGSW-24040



IP: 192.168.0.100

PLANET
Networking & Communication

WGSD-10020

- System
- SNMP
- Port Management
- Link Aggregation
- VLAN
- Spanning Tree
- Multicast
- QoS
- 802.1X Authentication
- Access Control List
- MAC Address Table
- LLDP
- Diagnostics
- Security

Welcome to PLANET
WGSW-24040
24-Port 10/100/1000Mbps with 4 SFP
Management Switch
PLANET Technology Corporation
11F, No. 96, Min-Chuan Road, Hsin-Tien, Taipei, Taiwan, R.O.C.
Tel: 886-2-2219-9518
Fax: 886-2-2219-9529
Email: sales@planet.com.tw
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LLDP Neighbor's WEB UI



Applications

◆ High Performance SMB Backbone Switch

- ✓ Up to **20Gbps** per second of non-blocking switch fabric, the WGSD-10020 can easily provide the high bandwidth and Gigabit Ethernet network for backbone of SMBs.
- ✓ It can easily provide a local, high bandwidth. The WGSD-10020 series can be programmed for advanced switch management functions such as:
 - **Dynamic Port link aggregation**
 - **802.1Q VLAN, Private VLAN**
 - **Multiple Spanning Tree protocol**
 - **IGMP/MLD Snooping**
- ✓ The WGSD-10020 series is loaded with **powerful traffic management** and **QoS** features. The functionality includes QoS features such as :
 - **Layer 4 traffic classifiers**
 - **Bandwidth limiting**
- ✓ Above features of WGSD-10020 empower the SMBs to take full advantages of the limited network resources and guarantees the best performance in VoIP and Video conferencing transmission.

Applications

◆ Security Switch

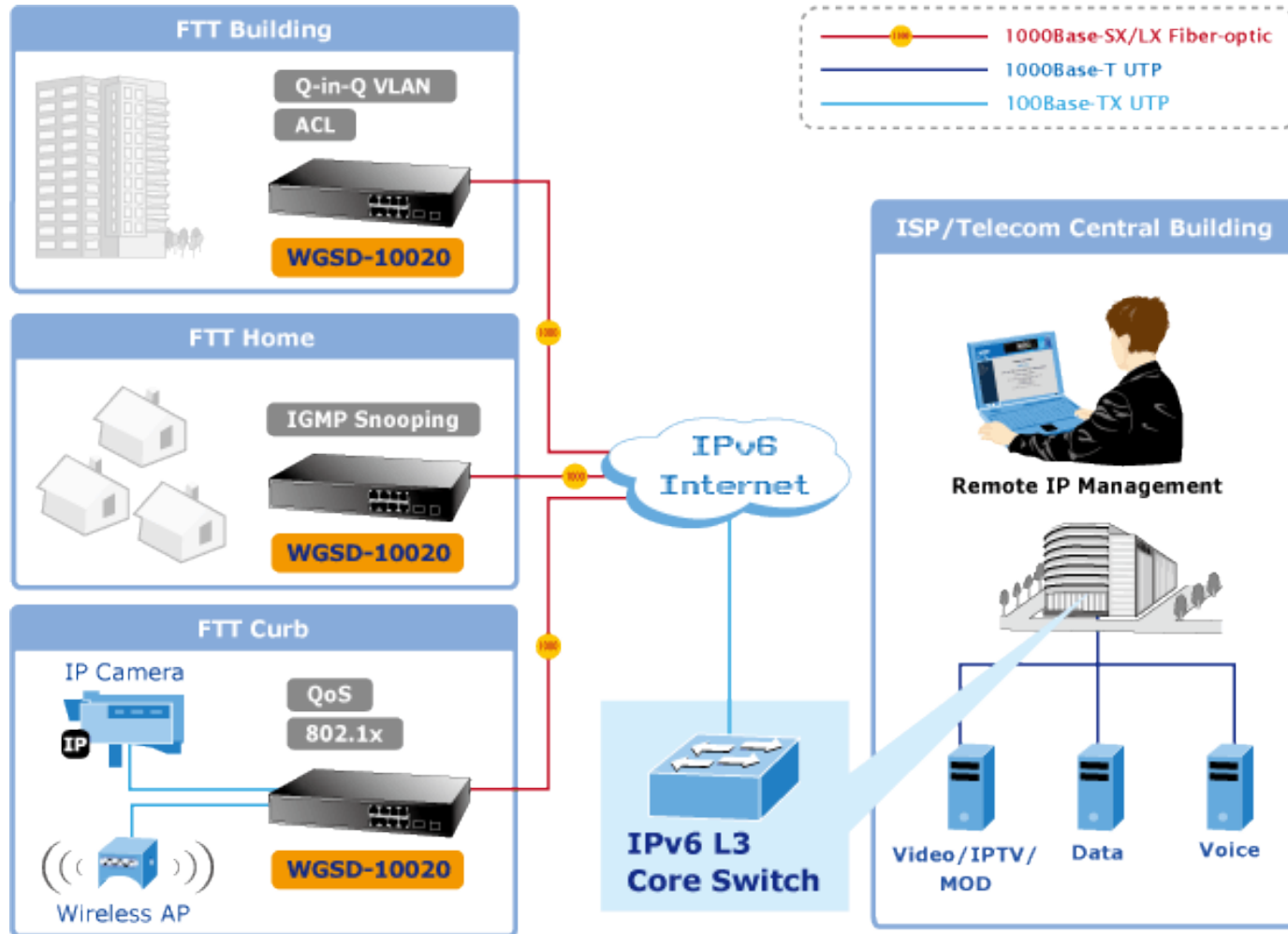
- ✓ PLANET WGSD-10020 offers comprehensive **Layer 2 to Layer 4 Access Control List (ACL)** for enforcing security to the edge. It can be used to restrict network access by denying packets based on **source and destination IP address, TCP/UDP ports** or defined **typical network applications**.
- ✓ Its protection mechanism also comprises of **802.1x port-based** and **MAC-based** user and device authentication.
- ✓ With the **Private VLAN** function, communication between edge ports can be prevented to ensure user privacy.
- ✓ PLANET WGSD-10020 Net Security also provides **DHCP Snooping, IP Source Guard** and **Dynamic ARP Inspection** functions to prevent IP snooping attack and discard ARP packets with invalid MAC address.
- ✓ The network administrators can now construct highly secured corporate networks with considerably less time and effort than before.



◆ FTTx / MAN Edge Switch

- ✓ The WGSD-8020 provides a high-performance edge service for FTTx solutions. To build a network solution of **FTTH** (Fiber to the Home) or **FTTC** (Fiber to the Curb) for ISPs and **FTTB** (Fiber to the Building) for enterprises
- ✓ The WGSD-10020 is equipped with:
 - **100Base-FX / 1000Base-SX/LX** Fiber optical link capability
 - **L2 / L3 / L4 Access Control List** for enforcing security to the edge
 - **IGMP Snooping v1, v2, v3 & MLD Snooping v1, v2** for IPTV multicast stream control
 - **Q-in-Q** for service providers carrying traffic for multiple customers across their networks
 - **SSH / SSL** Secure management
 - **SNMPv3** and RMON security structure consists of security models, with each model having its own security levels.
 - **Traffic Classification** giving optimal performance to real-time applications such as voice and video






Applications - FTTx








Product Comparison

	PLANET	PLANET	Cisco	Cisco Linksys	D-Link
Model name	WGSD-10020	WGSD-8020	Catalyst 2960G-8TC	SRW2008	DGS-3200-10
Feature	Full Managed	Full Managed	Full Managed	Full Managed	Full Managed
Interface					
10/100/1000Base-T	8	8	8	8	10
1000SX/LX SFP Slots	2	2 (Combo)	1 (Combo)	2 (Combo)	2 (Combo)
100FX SFP Slots	Compatible	Compatible	Compatible	-	N / A
Console	DB9 / RS-232	DB9 / RS-232	RJ-45 / RS-232	DB9 / RS-232	DB9 / RS-232
Switch Fabric	20Gbps / non-blocking	16Gbps / non-blocking	16Gbps / non-blocking	16Gbps / non-blocking	20Gbps / non-blocking
Layer 2 Features					
Jumbo Frame	9K Bytes	10K Bytes	9K Bytes	10K Bytes	10K Bytes
Link Aggregation	Static	5 Trunks / 10 Ports	8 Trunks / 8 Ports	8 Trunks / 8 Ports	5 Trunks / 8 Ports
	LACP	5 Trunks / 10 Ports	8 Trunks / 8 Ports	8 Trunks / 8 Ports	5 Trunks / 8 Ports
VLAN	802.1Q	■	■	■	■
	Port-Based	■	■	-	-
	Q-in-Q	■	■	-	-
	Private VLAN	■	■	■	■
Spanning Tree	802.1d/1w/1s	802.1d/1w/1s	802.1d/1w/1s	802.1d/1w/1s	802.1d/1w/1s
STP BPDU Guard	■	■	■	-	-
BPDU Filtering	■	■	■	-	■
Multicast					
IGMP Snooping	V1, V2, V3	V1, V2, V3	V1, V2, V3	V1,V2	V1, V2, V3
IGMP Query mode	■	■	■	-	N/A
IGMP Filtering	■	■	■	-	-
MLD Snooping	■	-	-	-	-
MLD Filtering	■	-	-	-	-
Max. Multicast Groups	256	256	256	32(?)	256
MVR	■	■*	■	-	■

Product Comparison

		PLANET	PLANET	Cisco	Cisco Linksys	D-Link
Model name		WGSD-10020	WGSD-8020	Catalyst 2960G-8TC	SRW2008	DGS-3200-10
						
QoS						
QoS	L2 802.1p	■ / 8 queue	■ / 4 queue	■ / 4 queue	■ / 4 queue	■ / 8 queue
	L3 IP TOS / DSCP	■	■	■	■	■
	L4 TCP/UDP Port	■	■	■	■	■
	Strict / WRR	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■
	DSCP Remarking	■	■	■	-	-
Policy-Base DiffServ	■	■	■	■	■	
Security						
Authentication	802.1X Port Based	■	■	■	■	■
	MAC Based	■	■	N / A	-	■
ACL	L2 / L3 / L4	L2 / L3 / L4	L2 / L3 / L4	L2 / L3 / L4	L2 / L3 / L4	L2 / L3 / L4
Port Security	■	■	■	■	■	■
IP / MAC Security	Static MAC / Binding	Static MAC / Binding	Static MAC / Binding	N / A	MAC Filtering	IP-MAC Port Binding
SSH / SSL	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■
RADIUS	■	■	■	■	■	■
TACACS+	■	■	■	■	■	■
DHCP Snooping	■	■	■	■	-	-
IP Source Guard	■	■	■	■	-	-
ARP Inspection	■	■	■	■	-	-
DoS Protection	■	■	■	■	-	-

Product Comparison

	PLANET	PLANET	Cisco	Cisco Linksys	D-Link	
Model name	WGSD-10020	WGSD-8020	Catalyst 2960G-8TC	SRW2008	DGS-3200-10	
						
Management						
Management & Configuration	WEB, Telnet, Console	WEB, Telnet, Console	WEB, Telnet, Console	WEB, Telnet, Console	WEB, Telnet, Console	
IPv6 Management	■	■	■	-	■	
SNMP	V1, V2c	■	■	■	■	
	V3	■	■	■	■	
	Trap	■	■	■	■	
	RMON	4 Groups	4 Groups	4 Groups	4 Groups	
DHCP Relay	■	■	■	-	■	
Other Management	SNTP, LLDP	SNTP, LLDP	NTP, CDP, LLDP	SNTP	SNTP, CPU monitoring	
Cable Diagnostic	■	■	N / A	■	N / A	
Power Saving	Link down detect	■	■	N / A	-	N / A
	Length detect	■	■	N / A	-	N / A

Appendix

◆ Available Modules:

✓ Gigabit SFP

- **MGB-GT** SFP-Port 1000Base-T Module
- **MGB-SX** SFP-Port 1000Base-SX mini-GBIC module
- **MGB-LX** SFP-Port 1000Base-LX mini-GBIC module – **10KM**
- **MGB-L50** SFP-Port 1000Base-LX mini-GBIC module - **50KM**
- **MGB-L70** SFP-Port 1000Base-LX mini-GBIC module - **70KM**
- **MGB-L120** SFP-Port 1000Base-LX mini-GBIC module-**120KM**
- **MGB-LA10** SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-**10KM**
- **MGB-LB10** SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-**10KM**
- **MGB-LA20** SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-**20KM**
- **MGB-LB20** SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-**20KM**
- **MGB-LA40** SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-**40KM**
- **MGB-LB40** SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-**40KM**

Appendix



◆ Available Modules:

✓ 100Base-FX SFP

- **MFB-FX** SFP-Port 100Base-FX Transceiver (1310nm) -2km
- **MFB-F20** SFP-Port 100Base-FX Transceiver (1310nm) – 20km
- **MFB-F60** SFP-Port 100Base-FX Transceiver (1310nm) – 60km
- **MFB-FA20** SFP-Port 100Base-BX Transceiver (WDM,TX:1310nm) -20km
- **MFB-FB20** SFP-Port 100Base-BX Transceiver (WDM,TX:1550nm) -20km

Appendix



◆ Family Products:

✓ **WGSW-24040**

- 24-Port 10/100/1000Mbps with 4 Shared SFP Layer 2 Managed Switch

✓ **WGSW-24040R**

- 24-Port 10/100/1000Mbps Layer 2 Managed Switch with -48V DC Redundant Power

◆ Relative Layer 3 IPv6 / IPv4 Routing Switch:

✓ **XGS3-24040**

- 24-Port Gigabit with 4 Optional 10G slots Layer 3 Managed Stackable Switch

✓ **XGS3-42000R**

- 4-Slot Layer 3 IPv6/IPv4 Routing Chassis Switch

Appendix Sales Target

◆ Target Markets

- ✓ Enterprise / SMB Office
- ✓ Hotel / Internet cafe
- ✓ Government / Campus
- ✓ ISP / Telecom / Service Provider
- ✓ System Integrator

◆ Target Customers

- ✓ Who buys **WGSD-8020**
- ✓ Who needs cost-effective **IPv6 manageable** switch for next generation IP network
- ✓ Who needs **Traffic Classification** and **Easy Management** network solution
 - They bought **WGSW-24040 series** but don't need too much ports
- ✓ Who needs full / secure managed switches those supports **SSH, SSL, SNMPv3**
 - They bought **SGSD-1022** but need all ports Gigabit
 - They bought **GSD-802S** but need more management features
- ✓ Who needs **Gigabit performance, Robust features but small size for space limited environments**

ACTIVATING IP POWER

