





# **WSW-1808A**

8-Port 10/100Mbps Intelligent Wireless Switch with 8 Passive PoE Port

Intelligent RF Management

AP Management

User Management

PheeNet WSW-1808A is a Wireless Switch, which is centrally managed smart Wireless LAN (WLAN) system developed specifically for small to medium enterprise (SMEs) and hot zone operators. It provides all essential service to simplify management, lower the cost of deployment, and provide multiple layers of security.

#### **Simplify Wireless Management**

Easy of management and troubleshooting comes from self-configuration and self-healing of the wireless networks. It accurately locates each user and recognizes all of the characteristics of the user along with the AP ranging from the location, MAC address (BSSID), channel, radio type, manufacturer, status on the network and network name for ease of management.

As the Wireless Switch is aware of the RF characteristics within a network infrastructure, it can easily detect interferences between nearby APs and re-configure their power and channel settings automatically. Through these principles, when the switch detects a coverage break due to an AP going down, it can instruct nearby APs to increase the power levels to fill the break.

#### Lowering the cost of deployment

Factors that contribute significantly to the high costs of deployment are pre-installation site-surveys for example, where to place the access point, installing new cables and power to APs and re-configuring the existing network infrastructure including configuring the individual access points which take time and money

A Wireless Switch provides Power over Ethernet, eliminating the need to draw power to each access point. It does not required the access points to be directly connected to the wireless switch, the access Points can be deployed anywhere in the network and they will be discovered and configured by the wireless switch such as the power level settings, security and channel setting to optimize performance and coverage on a system-wide basis .

#### **Unifying Wired and Wireless Security**

- A. Authentication
- B. Authorization
- C. Encryption
- D. RF security

WLANs must simultaneously authenticate employees, guests and contractors using a variety of authentication methods such as 802.1x since wireless users cannot be treated as the same as wired users. One can control wireless user's access privileges using a variety of deterministic criteria such as authentication method, device type, and the application requested is key to providing differentiated access to maintain security. WLAN must provide state-of-art encryption techniques to maintain security but must also identify all the security extended over the wire setup until all the security policies are applied. This means not stopping the encryption at the AP but keeping WLAN traffic fully isolated unit it has passed through a firewall at the WLAN switch.

Finally, being able to detect and stop unauthorized (rogue) APs and stop all unauthorized wireless connectivity in the network is a key component of WLAN security. Accurately identifying on AP as a rogue or simply as an interfering AP(i.e., " neighboring AP " ) along with precisely pinpointing its location is an essential part of providing complete RF security . In turn, Wireless Switch now let small and mid-sized business literally "secure the air".

To conclude, PheeNet WSW-1808A is a must-to-have device for SME, Enterprise, or operator to manage their wired and wireless network efficiently.

**APPLICATION** 



## **Features**

#### Wireless Switch Performance and Capacity

- Controlled access points per Switch: 32
- Max Wireless Users per Switch: 256
- Max Local account per Switch: 3000

#### Radio Resource Management

- Automatic Channel Assignment and power setting for controlled APs
- Simultaneous air monitoring and end user service
- Self-healing coverage based on dynamic RF condition
- Dense deployment options for capacity optimizations
- Multiple BSSID per Radio : 8
- Hot Standby at AP mode (support fail-over a standby AP)
- Load Balance to another available AP (Realtime users limitation)

#### **Convergence**

- 2 Hardware queues per port
- IEEE802.1p Class of Service/Quality of Service (CoS/QoS)
- IEEE802.11e Wi-Fi Multimedia (WMM)
- Differv Codepoint (DSCP)

#### Wireless Encryption

- WPA personal and enterprise
- WPA2 personal and enterprise
- AES(CCMP) : 128-bit (FIPS-197)
- WEP 40/64 and 104/128-bit
- TKIP: RC4-40-bit
- SSL and TLS: RC4 128-bit and RSA1024 and 2048 bit
- EAP-TLS , EAP-TTL/MSCHAPv2

#### Security

- IEEE802.1X network login user authentication (EAP-MD5/TLS/TTLs)
- EAP over LAN (EAPoL) transport with PEAP and EAP-TLS authentication
- RADIUS server authentication (RFC2618)
- IEEE 802.1X user authentication of switch management on switch Telnet and console sessions; multiple access privilege levels
- Hierarchical management and password protection for management interface
- EAP offload for AAA server scalability and survivability

- Stateful 802.1x authentication for standalone APs
- SSID and Location based authentication
- Multi-SSID support for operation of Multiple WLANs
- SSID-based RADIUS server selection
- Simultaneous Centralized and distributed WLAN support

#### Identity –Based Security

- 802.1x Authentication with WPA, WPA2 and 802.11i
- Local Accounts of 802.1x Authentication
- Support Radius /LDAP for AAA server
- User Name and encryption key binding for strong network identity creation
- Local User Data Base for AAA failover protection

#### Wireless Roaming Support

- Inter AP roaming
- Fast roaming
- Layer 2 roaming

#### AP Management

- AP-Automatic configuration and provisioning by WSW-1808A
- Central AP Management Monitor AP status and wired ports
- AP Group management-maintain a set of setting templates that simplify the task to assign the same setting to multiple APs
- Log-System log : operator action log
- Logging Filters- Errors only, all events, per station, per AP
- Central firmware Upgrade-Select multiple APs and upgrade their firmware at the same time
- TP Topology Monitor-List monitored devices; periodic update on device status
- Zero configuration- technology to restore broken AP's setting onto its replacement AP
- AP life check-real time tracking monitors APs status
- AP User Statistic-Maintain all wireless clients connection history and depict statistics in diagrams
- AP Traffic Statistic Maintain all APs history and depict statistics in diagrams
- WLAN Partition- if enabled, WLAN clients are not allowed to exchange data though the AP
- Max allowed APs
- Support Roaming- Intra-Switch , Inter-band, Inter-Switch
- Managed AP models: WAP-854NP

#### User Management

- Max 3000 accounts
- Support Local Radius Accounts

#### **Authentication**

- Support LDAP, Radius, 802.1x authentication
- Authentication type IEEE802.11x (EAP, LEAP, EAP-TLS, EAP-TTLS, EAP-MD5 RFC2865 Radius Authentication RFC3579 Radius Support for EAP RFC3748 Extensible Authentication Protocol

### Switching

- Port State (administrative status)
- Port Status (link monitoring)
- 802.1p Priority Queues port Port: 2
- 802.1p Queuing method : Weighted Round Robin Scheduling (WRR)
- Traffic Classes (2 active priorities)
- 802.1p Class of Service: VID, DSCP physical switch ports

### Manageability

- Web Interface
- SNMP v1/v2/v3
- SNMP trap group
- RMON(1,2,3,9)
- Syslog
- Software Download via Web
- Boot Loader with network support
- SNTP Client

### MIBS

- MIB-II (RFC1213)
- SNMPv2-MIB (RFC3814)
- IP-MIB (RFC2011)
- Interface Group MIB (RFC2863)
- TCP-MIB (RFC4022)
- UDP-MIB (RFC2013)
- SNMP-User-Base-SM-MIB (RFC3414)
- View-based access control model for SNMP (RFC3415)
- RMON (RFC2819)

# **Specification**

Specification	
Standard	IEEE802.3 10Base-T
	IEEE802.3u 100Base-TX Fast Ethernet
Protocol	CSMA/CD
Topology	Star
Number of Port	8 x 10/100Mbps, Auto-MDIX POE / POE Plus Ports (Port 1 to Port 8)
POE / POE Plus	Up to 15.4W POE Over Current Protection
	POE Budget: Up to 15.4W max. per port, for Port 1-8, 64W Total
	Up to 30W POE Plug Over Current Protection
	POE Plug Budget: Up to 30W max. per port, for Port 1-8, 64W Total
	PD Classification identify
	POE / POE Plus Over Current Protection
	POE / POE Plus Circuit Sorting Protection
	• POE / POE Plus Power on RJ-45 pin 3,6 for Power+ and 1,2 for Power
Hardware Platform	CPU: Atheros 7130
	SW Control: RTL 8309G
	Flash: 8 MB
	RAM: 64 MB
LEDs	Per Unit : Power * 1
	Pert Fast Ethernet : Activity * 8
Power Consumption	6.3W (max. no PD device connected)
	64W
Power Supply	48V DC/ 1.5 A
Environment	Operating Temperature : 0 – 40°C
Temperature	Storage Temperature : -10 – 70°C
	Operating Humidity: 10% - 90% RH
	Storage Humidity: 5% - 90% RH
Dimensions	147 (L) * 52(W) * 42(H) (mm)
Weight	420g
Certification	FCC , CE

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