Secure WLAN Controller

WHG-311

H/W Version: 1

Overview

The LevelOne WHG-311 Secure WLAN Controller with built-in 3,000 local accounts, 3,000 on-demand accounts, is an ideal security solution for small-scale WLAN deployments, including enterprises, campuses, hotels, airport terminals, and MDUs/ MTUs. The WHG-311 integrates "secure access control", "visitor account provisioning", "flexible accounting and billing", and "centralized WLAN management" into one box to provide simplified manageability and instant mobility. With more powerful hardware, WHG-311 is capable of centrally managing 30 EAP access points through Layer 2 deployment or the Cloud to cover a wider service area in a smaller network.

Secure Business Networking

WHG-311 is suitable for business in managing their wired and wireless network access uniformly. The network access of users from different departments and the access of guests can be segregated in different Service Zones. When needed, tunnelled-AP, Local, Site-to-Site and Remote VPN tunnels can be used to further secure the information flows for business. Small branch office, mobile workers on the road or home-based teleworkers can securely access the office network through VPN tunnels.

Secure corporate network over the Internet

With WHG-311, businesses can easily bridge multiple offices under a centrally managed single internal network. VPN solutions from other service providers are no longer necessary, WHG-311 with EAP APs can service distributed network locations as if under the same internal network via secure tunnelling technology.

Hotel with Property Management System (PMS)

For hotels using Property Management System (PMS) such as Micros Fidelio/Opera, WHG-311 even enables Internet access charges to be incorporated into the room bill*. Moreover, customers are able to purchase Internet service in room anytime or at the front counter. With a single account, a hotel guest can log on the Internet in room through a wired Ethernet port or enjoy wireless access throughout the hotel property

*Note: WHG-311 is capable of posting Internet access charges to various PMS systems through a 3rd party middleware – NetRetriever, which is a separate product made and sold by Votech.

Key Features

- Simplified Deployment and Reliable Internet Connection
- Powerful Network Security Capabilities for Enterprise Applications
- Comprehensive Access Control and User Management
- Centralized Access Point (AP) Management
- Flexible Accounting and Easy Billing
- Support for Location-Based Hotspot Services and Customizable UAM Web Pages
- PMS Integration for Hotel Applications
- Built-in 3,000 local accounts and 3,000 on-demand accounts

Works well with

EAP-110
300Mbps Wireless Dual-PoE Managed Access Point

EAP-200
300Mbps Wireless Dual-PoE Managed Access Point

Technical Specification

Networking
- Support NAT or Router mode
- Support Static IP, DHCP, PPPoE mode on WAN interfaces and PPTP (WAN 1 only)
- Choose freely which LAN is authentication-enabled LAN
- Support NAT: (1) IP/Port destination redirection (2) DMZ server mapping (3) Virtual server mapping (4) H.323 pass-through
- Supports email service via designated email server
- Built-in with DHCP Server and support DHCP relay
- Support walled garden (free surfing zone)
- Walled Garden Ad List that enables advertisement website links on user login portal page
- Support MAC-address and IP-address pass-through
- Support HTTP Proxy
- Support IP Plug and Play (IP PnP)
- Support configurable static routes
- Contain built-in hardware-based VPN accelerator
- Support dual uplinks, outbound load balancing and failover for more reliable Internet connection
- Support SIP pass-through NAT
- Support Ethernet connection to external terminal servers
- Port location mapping features for working with DSLAM and VLAN switches

System Administration
- Support web-based management user interface
- Provide customizable login and logout portal page
- SSH remote management
- Remote firmware upgrade
- NTP time synchronization
- Menu driven console management interface
- Utilities to backup and restore the system configuration

Monitoring and Reporting
- Status monitoring of on-line users
- IP-based monitoring of network devices
- Uplink (WAN) connection failure alert
- Support Syslog for diagnosis and troubleshooting
- User traffic history logging
- Traffic history report via email to administrator
- User session log can be sent to FTP or Syslog server
- Graphical system report

User Management and Access Control
- Support 3,000 local accounts and 3,000 on-demand accounts
- Provide on-demand accounts for visitors
- Support Local user account roaming
- Authentication methods supported: Local and On-demand accounts, POP3, LDAP, RADIUS, Windows Domain, and SIP authentication
- Single-Sign-On for Windows Domain
- Allow MAC address and user identity binding for local user authentication
- Support MAC Access Control List
- Support auto-expired guest accounts
- Users can be divided into user groups, each user group has its own network properties, including bandwidth, QoS, accessible service zones, and other privileges
- Support QoS and WMM traffic types: Voice, Video, Best Effort and Background
- Each group (role) may get different network policies in different service zones
- Max concurrent user session (TCP/UDP) limit
- A setting for user-idle-timeout
- Configurable user Black List
- Export/Import local users list to/from a text file

Security
- Support local IPSec VPN tunnels
- Support PPTP VPN tunnels
- Support site-to-site VPN tunnels
- Support VPN pass-through (IPSec and PPTP)
- Built-in DoS attack protection

Service Zones
- The network is divided into maximum 9 Service Zones, each defined by a pair of VLAN tag and ESSID
- Each service zone has its own (1) login portal page (2) authentication options (3) LAN interface IP address (4) DHCP address range
- Each service zone allows access to the selected groups
- Each service zone assigns a network policy to each user group
- WISPr support per service zone

Accounting and Billing
- Support local on-demand and external RADIUS server
- Contain 10 configurable billing plans for on-demand accounts
- Support credit card billing system by Authorize.net, PayPal, SecurePay, and WorldPay.
- Provide session expiration control for on-demand accounts
- Provide detailed per-user network traffic history for both local and on-demand user accounts
- RADIUS VSA implementation for volume-based session control using RADIUS server
- Support automatic e-mail to report network traffic history
- Support Net Retriever, the middleware connection to Property Management System (PMS)

AP Management
- Manage up to 30 x EAP in both Local and Wide Areas AP management totally
- Monitor 3rd party non-integrated AP: up to 100
- Centralized remote management via HTTP/SNMP interface
- Auto discovery for managed APs
- Enable or disable APs easily via user interface
- Templates for managed APs
- Monitoring managed AP for its status, the number of associated clients, and RF information
- Upgrade managed APs centrally, including bulk upgrade
- Rogue AP detection and AP load balancing
- Tunnelled AP management over Internet

Hardware Specifications
- WAN Ports: 2 x 10/100/1000 Base-T RJ-45
- LAN Ports: 8 x 10/100/1000 Base-T RJ-45
- SD card Slot x 1
- USB Port: 1 x USB2.0
- Console Port: 1 x DB9
- LED Indicators: 1 x Power, 1 x Status, 3 x Rev., 2 x WAN, 8 x LAN
- Buttons: 1 x Reset, 3 x Rev.

Physical and Power
- Power Adapter:
  (1) Input: 100~240 VAC, 50/60 Hz
  (2) Output: 12VDC, 2A
- Form Factor: mini Desktop
- Dimensions (W x D x H): 330 mm x 180 mm x 45.5 mm (13" x 7.1" x 1.8")
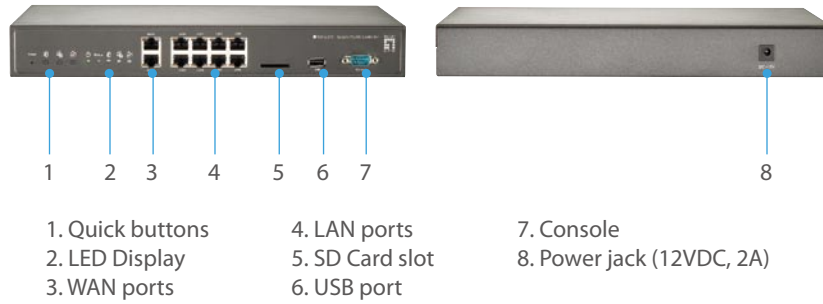- Weight: 2.1 kg (13.2lbs)

Environment
- Operating Temperature: 0 ~ 40 °C
- Storage Temperature: -25 ~ 55 °C
- Operation Humidity: 5% ~ 95% (Non-condensing)
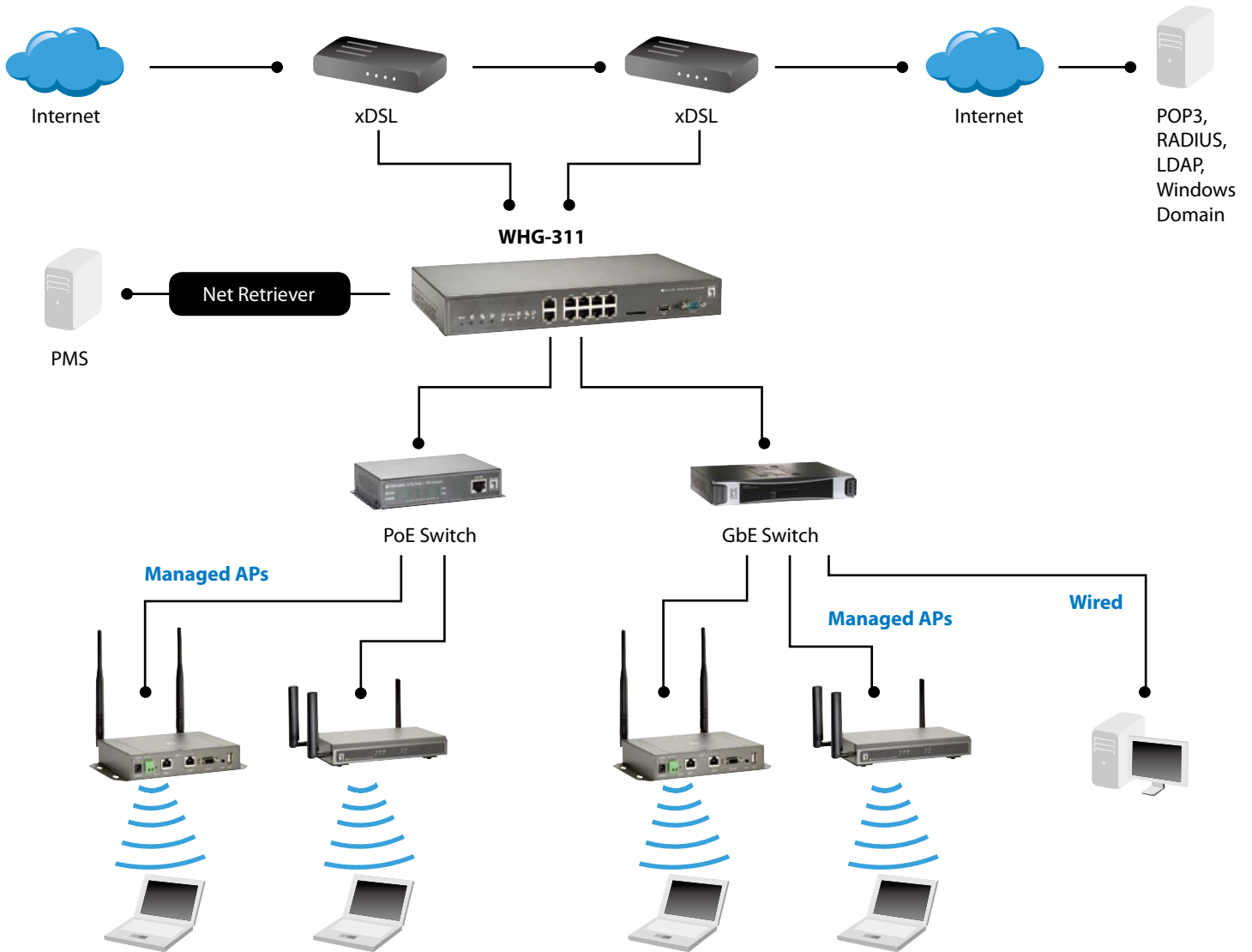- Storage Humidity: 5% ~ 95% (Non-condensing)

Certifications
- CE, FCC
- RoHS compliant

Front View and Rear View

1   2   3   4   5   6 7   8

1. Quick buttons
2. LED Display
3. WAN ports
4. LAN ports
5. SD Card slot
6. USB port
7. Console
8. Power jack (12VDC, 2A)

Product Diagram

WHG-311

Internet — xDSL — xDSL — Internet — POP3, RADIUS, LDAP, Windows Domain

PMS — Net Retriever — WHG-311

PoE Switch   GbE Switch

Managed APs   **Managed APs**   **Wired**

Order Information   **WHG-311:** Secure WLAN Controller

Package Content   WHG-311, CD-ROM (User Manual and QIG), Quick Installation Guide (QIG), RS-232 DB9 Console Cable, Cat.5e Ethernet Cable, Power Adapter (12VDC, 2A)