



# Secure WLAN Controller



WHG-515

H/W Version: 1

The LevelOne WHG-515 Secure WLAN Controller with built-in 10,000 local accounts, 10,000 on-demand accounts, is an ideal security solution for large-scale WLAN deployments, including enterprises, campuses, hotels, airport terminals, and MDUs/ MTUs. The WHG-515 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-515 is capable of centrally managing 250 managed access points through Layer 2 deployment or the Cloud to cover a wider service area in a smaller network.

## Secure Business Networking

WHG-515 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.

## Centralized WLAN Management

The Controller detects supported APs and push configuration to batch APs at the same time. Therefore, setting up the whole system can be done through the mouse clicks in just few minutes. It provides comprehensive set of capabilities for configuration, fault detection, performance management, and reporting, so the system administrator can immediately identify the fault by receiving notification from the system

## Hotspot Billing

WHG has hotspot billing software built-in, no additional software or license to pay to create complete hotspot solution. It tracks Internet usage and redirects customers to login page before they can browse. User is forced to buy a ticket at front desk, or pay for desired online payment. Up to ten billing plans can be created. User accounts for each plan are based on a set duration, a cumulative usage period, a traffic volume quota, or a cut-off time for limiting usage to business hours or to finish at a set time. User can be presented with a captive portal, where you can offer up to 20 URLs for advertising or allow them to access some sites free of charge. You can take payments using a range of online methods, including PayPal, Authorize.net, SecurePay and WorldPay.

## Key Features

- Simplified deployment and reliable Internet connection
- Powerful network security capabilities for enterprise applications
- Comprehensive access control and user management
- Centralized Access Point management over Layer2/3 network up to 250 Access Points
- Simple generation of user accounts with built-in online payment such as credit card or PayPal
- Supports for location-based hotspot services and customizable UAM web pages
- Property management system integration for hotel applications
- Built-in 10,000 local accounts and 10,000 on-demand accounts

## Works well with



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



**EAP-300**  
300Mbps Wireless Dual-Band  
Gigabit PoE Managed Access Point

## Technical Specification

### Networking

- NAT or Router mode
- Static IP, DHCP, PPPoE mode on WAN interfaces and PPTP (WAN 1 only)
- Choose freely which LAN is authentication-enabled LAN
- NAT: (1) IP/Port destination redirection  
(2) DMZ server mapping  
(3) Virtual server mapping  
(4) H.323 pass-through
- Email service via designated email server
- Built-in with DHCP Server and support DHCP relay
- Walled garden (free surfing zone)
- Walled Garden Ad List that enables advertisement website links on user login portal page
- MAC-address and IP-address pass-through
- HTTP Proxy
- IP Plug and Play (IP PnP)
- Configurable static routes
- Dual uplinks, outbound load balancing and failover for more reliable Internet connection
- SIP pass-through NAT
- Ethernet connection to external terminal servers
- Port location mapping features for working with DSLAM and VLAN switches
- Dynamic Routing Protocol: RIP, OSPF, IS-IS
- Seamless L2/L3 Roaming

### System Administration

- Web-based management user interface
- Provides 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
- Built-in root CA and centralized certificate management

### Monitoring and Reporting

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

### User Management and Access Control

- Support 10,000 local accounts and 10,000 on-demand accounts
- Provides on-demand accounts for visitors
- 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
- Allows MAC address and user identity binding for local user authentication
- MAC Access Control List
- 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
- 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
- Definable session limit in policy puts a cap to each user's concurrent sessions (TCP/UDP)

### Security

- Local IPsec VPN tunnels
- PPTP VPN tunnels
- Site-to-site VPN tunnels
- 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
- WISP support per service zone

### Accounting and Billing

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

### AP Management

- Manage up to 250 x EAP in both Local and Wide Areas AP management totally
- Monitor 3rd party non-integrated AP up to 250
- 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 for EAP-110
- Graphical AP statistics display

### Hardware Specifications

- WAN Ports: 2 x 10/100/1000 Base-T RJ-45
- LAN Ports: 4 x 10/100/1000 Base-T RJ-45
- Management Port: 1 x 10/100 Base-T RJ-45
- Console Port: 1 x RJ-45
- LED Indicators: 1 x Power, 1 x Link Status, 5 x Ethernet Connect
- LCD Display

### Physical and Power

- Power 100~240 VAC, 50/60 Hz
- Form Factor: 19 inch 1U Rack Mount
- Dimensions (W x D x H): 431 mm x 276 mm x 44.4 mm  
(17" x 10.9" x 1.7")
- Weight: 7.0 kg (15.4lbs)

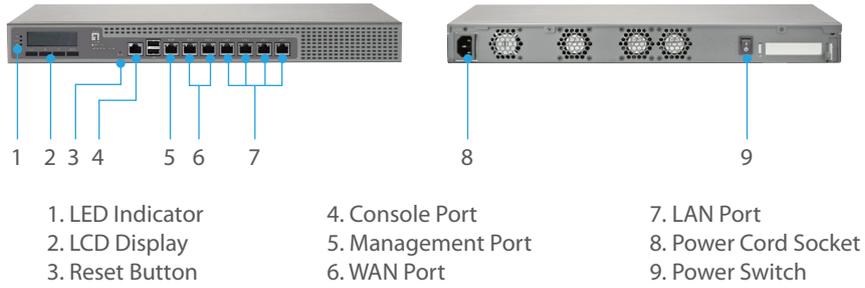
### Environment

- Operating Temperature: 0°C ~ 40°C
- Storage Temperature: -20°C ~ 70°C
- Operation Humidity: 5% ~ 95% (Non-condensing)
- Storage Humidity: 5% ~ 95% (Non-condensing)

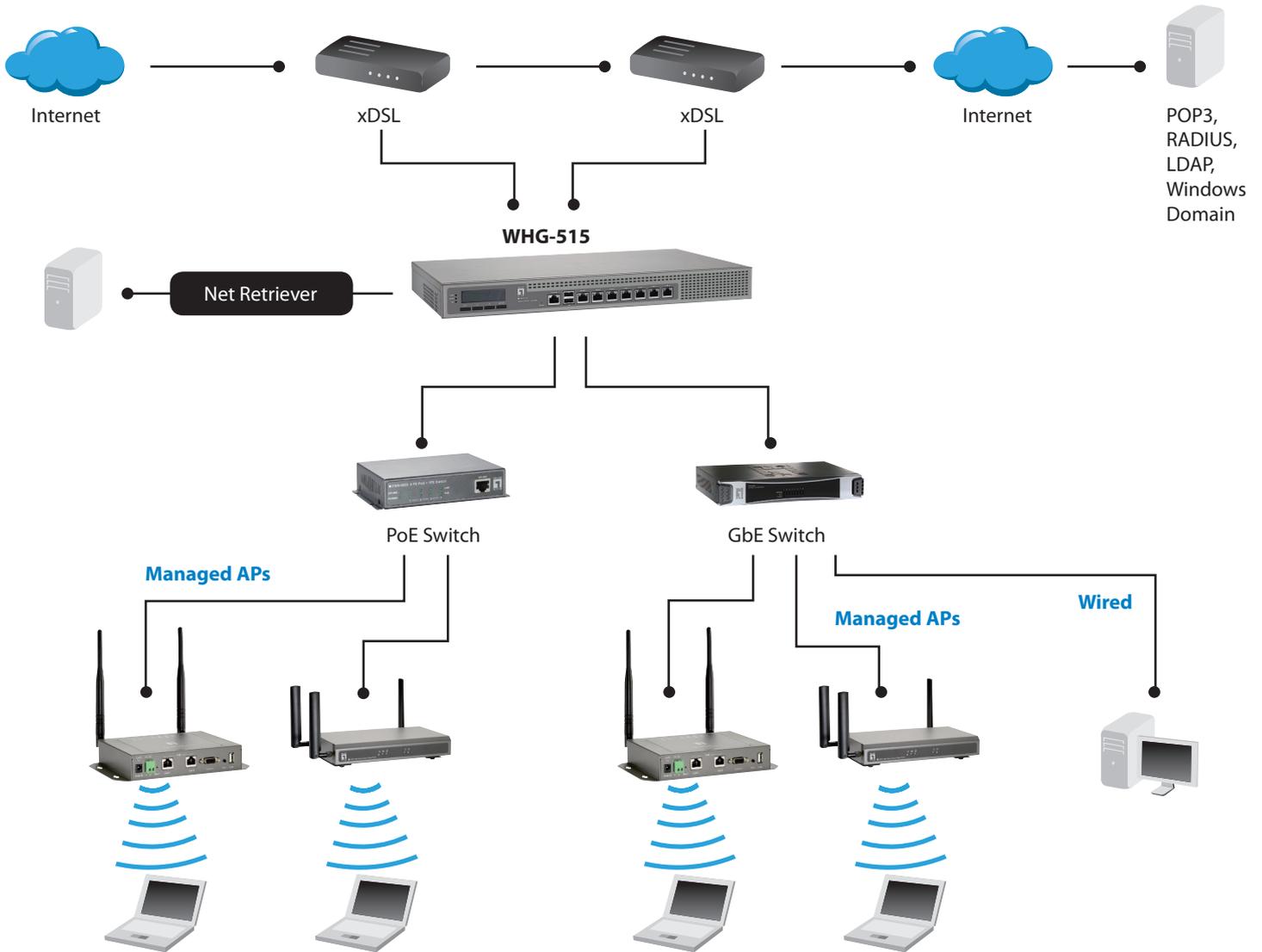
### Certifications

- CE, FCC
- RoHS compliant

## Front View and Rear View



## Product Diagram



## Order Information

### Package Content

### WHG-515: Secure WLAN Controller

WHG-515, CD-ROM (User Manual and QIG), Quick Installation Guide (QIG), RS-232 DB9 to RJ-45 Console Cable, Ethernet Cable, Power Cord, Rack Mount Kit