

Контроллер Wi-Fi точек доступа PheeNet WMS-308N



Authentication / Authorization / Accounting (AAA gateway)	Router / Firewall / QoS	Central AP Management / Control / Monitoring
Local RADIUS / Remote RADIUS server	2 WAN / Load Balancing	4 LAN Giga Ethernet

PheeNet WMS-308N контроллер Wi-Fi точек доступа является центром управления беспроводной сети, одновременно сочетает в себе IP-маршрутизатор / Firewall / Multi- WAN / QoS, а так же AAA шлюз (Authentication, Authorization, Accounting). Контроллер WMS-308N создан для быстрого развертывания и обеспечения надежной работы защищённых Wi-Fi сетей средних и крупных предприятий, складов, офисов, гостиниц и торговых центров.

Встроенный AAA шлюз позволяет настроить общедоступные сервисы, используя гибкие правила и ограничения клиентского доступа, без дополнительного RADIUS сервера. Это удобно для беспроводных сетей кафе, отелей, торговых центров или университетов, где необходимо развернуть коммерческую Wi-Fi сеть. Провайдер будет иметь полную информацию о клиентских подключениях (времени соединения, объеме переданных / полученных данных, биллинга и т.д.)

Поддержка контроллером WMS-308N функции бесшовного роуминга, а так же высокая производительность системы позволяет полностью осуществить переход проводной корпоративной сети на беспроводную. Данная функция позволит сотрудникам иметь непрерывное Wi-Fi соединение при перемещении в зоне покрытия беспроводной сети (IP телефония и мобильные устройства)

Функция предварительного генерирования и печати паролей, реализованная в контроллере PheeNet позволит сохранить надёжность корпоративной сети, не усложняя процедуру предоставления гостевого доступа.

Основные функции PheeNet WMS-308N

1 Access Point Management and Support

1.1 WMS-308N Network Access Gateway / Controller Support

- Max: 120 Access Points per Controller
- Max: 1000 wireless client per Controller
- Provide Local Account : 5000

1.2 AP Management – Control - Monitoring

1.2.1 Centralized AP Management

- AP Group management –maintain a set of setting templates that simplify the task to assign the same setting to multiple APs
- AP-Automatic configuration and provisioning by WMS-308N
- Locally maintained configuration profiles for managed APs
- Auto discovery for managed APs
- Automatic recovery of APs in case of system failure
- Central firmware Upgrade-Select multiple APs and upgrade their firmware at the same time, including bulk upgrade
- Remote Firmware upgrade
- Zero Configuration technology to restore defective AP's setting onto the replacement AP

1.2.2 Central AP Control

- Provides MAC address Control list of client stations for each managed APs
- Access Filter
- Time-based AP access control
- Single UI for upgrading and restoring managed APs' firmware
- WLAN Partition – if enabled, WLAN clients are not allowed to exchange data through the AP
- Max allowed APs
- Support Roaming – Intra-Switch , Inter-band , Inter-Switch

1.2.3 Central AP Monitoring

- Monitor AP Status
- The number of associated clients to the AP
- The AP RF information
- Associated Station List
- Monitoring IP List
- Load balancing based on number of users
- Load balancing based on utilization
- AP User Statistic – Maintain all wireless clients connection history and depict statics in diagrams
- Support Monitor IP on third-party APs
- System alarms and status reports on managed APs
- Topology Monitor-list monitored device; periodically updates devices' status
- AP life check-real time tracking monitors APs status (AP Health Checking)
- Provide centralized remote management via HTTP/SNMP interface
- Support MIB's: 802.11, 802.1X, MIBII, RADIUS authentication, RADIUS Accounting
- SYSLOG support including remote servers
- Log-system log: operator action log

1.3 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 (supports fail-over as a standby AP)
- Load Balance with another available AP (Real-time users limitation)
- Radio Management
- Coverage interference detection

1.4 Convergence

- 8 Hardware queues per port
- IEEE802.11p Class of Service/Quality of Service (CoS/QoS)
- IEEE802.11e Wi-Fi Multimedia (WMM)
- DiffServ Codpoint (DSCP)

1.5 Wireless Encryption

- WPA personal and enterprise
- WPA2 personal and enterprise

- AES(CCMP): 128bit (FIP-197)
- WEP40/64 and 104/128-bit
- TKIP: RC4-40
- SSL and TLS: RC4 128-bit and RSA1024 and 2048 bit
- EAP-TLS, EAP-TTL/MSCHAPv2

1.6 Wireless 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)
- IEEE802.1X user authentication of controller management on controller 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
- Simultaneous Centralized and distributed WLAN support

1.7 Identity –Based Security

- 802.1X Authentication with WPA,WAP2 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 fail-over protection

1.8 Wireless Roaming Support

- Inter AP roaming
- Fast roaming
- L2 roaming

2 User Management

- Support 500 simultaneous authentication users
 - Max 5000 Pregenerated/ On-Demand/ Local RADIUS/ authentication users
 - Users Session Management
 - Configurable user Black list (with schedule)
 - Allows MAC address and user identity binding for local user authentication
 - Authentication methods supported: Pregenerated/ On-Demand, Local RADIUS, LDAP, and Remote RADIUS
 - SSL protected login portal page
 - Session idle timer
 - Login Session idle time out setting
 - Session and account expiration control
 - User Log and traffic statistic notification via automatically email service
 - Login time frame control
 - Session limit
 - Real-Time Online Users Traffic Statistic Reporting
- ➔ Support local account roaming
- ➔ Seamless Mobility: User-centric networking manages wired and wireless users as they roam between ports or wireless Aps

3 Service Domain

- Integrating with all PheeNet products to have Service Domain feature and each Service Domain can have its own settings:
- The network is divided into maximum of 8 groups, each defined by VLAN Tag
- Each Domain has its own (1) login portal page (2) authentication options (3) LAN/VLAN interface IP address range (4) Session number limit control (5) Traffic shaping (6) IP Plug and Play (IP PnP) (7) Multiple Authentication
- Enable DHCP or not, and DHCP address range
- Enable authentication or not
- Types of authentication options (Local, RADIUS, LDAP, On-Demand and Pregenerated)
- Web login/ logout/ redirected page (customizable)

3.1 Default Policy

- NAT or Route Mode
- Specific Route (WAN1 or WAN2 , or a specified gateway)
- Login schedule
- Bandwidth (max/min)

4 Authentication

- Authentication : single sign-on (SSO) client with authentication integrated into the local authentication environment through local/domain, LDAP, RADIUS, MAC authentication, and 802.1X
- Customizable Login and Logout Portal Pages
- Customizable Advertisement Links on Login Portal Page
- User authentication with UAM (Universal Access Method), 802.1X/EAPoLAN, MAC address
- Allow MAC address and user identity binding for local user authentication
- No. Of Registered RADIUS Servers: 2
- Support MAC control list (ACL)
- Support Multiple Login service on one Accounts
- Support auto-expired guest accounts
- Users can be divided into user groups
- Each group (role) may get different network policies in different service zones
- ➔ Max simultaneous user session (TCP/UDP) limit
- ➔ Configurable user black list
- ➔ Export/Import local users list to/from a text file
- ➔ Web-based Captive Portal for SSL browser-based authentication
 - Authentication Type
 - IEEE802.1X (EAP, LEAP, EAP-TLS, EAP-TTLS, EAP-GTC, EAP-MD5)
 - RFC2865 RADIUS Authentication
 - RFC3579 RADIUS Support for EAP
 - RFC3748 Extensible Authentication Protocol
 - MAC Address authentication
- ➔ Web-based captive portal authentication

5 Authorization

Authorization: access control to network resource such as protected network with Intranet, Internet, bandwidth, VPN, and full stateful packet firewall

6 Accounting

- Provides billing plans for Pregenerated accounts
- Provides billing plans for On-Demand accounts
- Enables session expiration control for On-Demand accounts by time (hour) and data volume (MB)
- Detailed per-user traffic history based on time and data volume for both local and on-demand accounts
- Support local on-demand and external RADIUS server
- Contain 10 configurable billing plans for on-demand accounts
- Support credit card billing system by PayPal
- Provide session expiration control for on-demand accounts
- Support automatic email network traffic history

7 Dual WAN

- ➔ Load Balancing
 - Outbound Fault Tolerance
 - Outbound load balance
 - Multiple Domain Support
 - By Traffic
 - Bandwidth Management by individual and distribution on different network(Service Domain)
- ➔ WAN Connection Detection

8 QoS Enforcement

- Packet classification via DSCP (Differentiated Services code Point)
- Diff/ToS
- IEEE802.11p/CoS
- IEEE 802.1Q Tag VLAN priority control
- IEEE 802.11e WMM
- Automatic mapping of WMM priorities to 802.1p and IP DSCP
- IGMP Snooping for efficient multicast delivery
- Upload and Download Traffic Management

9 Firewall

- Built-in DoS attack protection
- Inspection Full stateful packet filter
- Access Control List
- Layer 7 Protocol Blocking
- Multiple Domain Support
- Active Firewall Session – 16,000

10 Network

- Support NAT or Router Mode
- Support Static IP, Dynamic IP (DHCP Client), PPPoE and PPTP on WAN connection
- DHCP Server per Interface; Multiple DHCP Networks
- 802.3 Bridging
- Proxy DNS/Dynamic DNS
- IP/Port destination redirection
- DMZ server mapping

- Virtual server mapping
- H.323 pass-through
- Built-in with DHCP server
- Support Static Routing
- Binding VLAN with Ethernet interface
- Support MAC Filter
- Support IP Filter
- Support Walled garden (free surfing zone)
- Support MAC-address and IP –address pass through
- Support IP Plug and Play (IP PnP)

11 System Administration

- Three administrator accounts
- Provide customizable login and logout portal page
- CLI access (Remote Management) via Telnet and SSH
- Remote firmware upgrade (via the Web)
- Utilities to backup and restore the system configuration
- Full Statistics and Status Reporting
- Real-time traffic monitoring
- Ping Watchdog

12 Network Management

- Event Syslog
- Status monitoring of on-line users
- IP-based monitoring of network devices
- Interface connection status
- Support Syslog for diagnosing and troubleshooting
- User traffic history logging
- User's session log can be sent to Syslog server
- Remote Syslog reporting to external server
- Traffic Analysis and Statistics
- SNMP v1, v2c, v3
- SNMP Traps to a list of IP Addresses
- Support MIB-II
- NTP Time Synchronization
- Administrative Access : HTTP / HTTPS

Технические характеристики PheeNet WMS-308N

Ethernet Configuration	10/100/1000 BASE-TX auto-negotiation Ethernet port x 6 (RJ-45 connector) WAN * 2 LAN * 4
DRAM	On board : 256Mbytes
Flash	On board : 32 Mbytes
CF Socket	1 (reserved for option)
Built-In LED Indicators	1 * Power ; 1 * Status, 1 * Net Status (This is for AP management, when system can't detect managed AP)
Environmental & Mechanical Characteristics	
Operating Temperature	0 °C ~ 55 °C
Storage Temperature	-20 °C ~ 75 °C
Operating Humidity	10% to 80% Non-Condensing
Storage Humidity	5% to 90% Non-Condensing
Power Supply	110 – 220V AC Power; 12 VDC, 1.5A input.
Unit Dimensions	243 x 150 x 45.5 (mm) (Width x Depth x Height)
Unit Weight	1.4 Kg
Form Factor	Wall Mountable , Metal case
Certifications	FCC/CE
Hardware Specifications	
Base Platform	32-bit , MIPS24K Processor
CPU Clock Speed	680 MHz
Serial Port	1 (DB-9)
USB Port	1 (Optional 3G interface radio with major brands – ODM only)
Reset Switch Built-in	Push-button momentary contact switch