

Cipherium M5000



M5000

is a Network Access Controller specially designed for medium-scale wireless and wired network deployment and management.

It provides administrators to effectively manage different categories of users on both wireless and wired network.

In addition, with its Access Point (AP) management function, administrators can discover, configure, upgrade, and monitor all managed APs from a single secured interface, and from there, gain full control of entire network user behavior.

Key Features

- Integrated AAA support
- Failover on dual WAN ports
- Wireless & wired clientless VPN
- Multiple authentication methods
- On-demand accounts for visitors
- Role-based and policy-based access control
- Centralized AP management
- Per-user bandwidth control

Benefits

Integrated Wireless and Wired Network Access

- Supports Bridge, Router and NAT mode, ensuring full compatibility with existing networks
- Flexibility of network resource planning and management through VLAN support
- High efficiency, high flexibility, and low equipment cost
- Ability to manage the entire wireless network from a single point

Powerful Network Security Capabilities

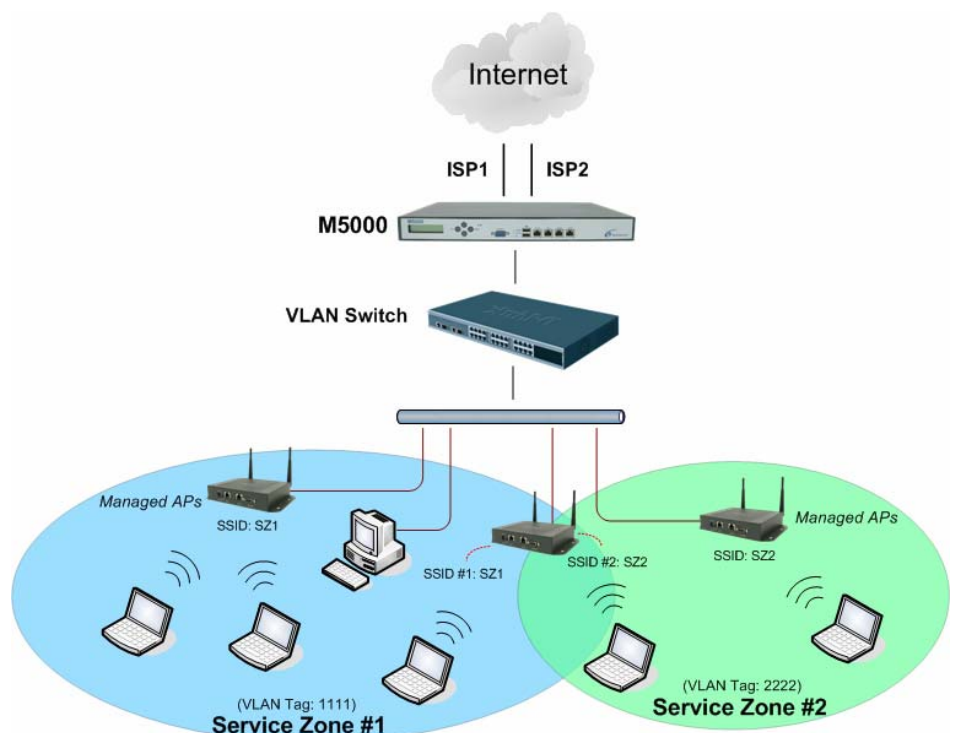
- Integrated user authentication based on industry standards
- End-to-end encryption through IPSec VPN enhances the security of wired and wireless data transmission
- Local VPN termination with clientless approach provides the highest level of wireless security without any hassle
- Data packets filtering through built-in firewall improves the management of data transmission

Comprehensive User Management

- Simultaneous support for internal and external user authentication options
- Easy management of guest access to wireless network
- Policy-based control approach enhances the management of multiple categories of users
- Flexible network access control across LAN segments, and between LAN and WAN
- Individual bandwidth limiting on upper link enables flexible traffic control for different scenarios

Flexible Accounting Engine

- Offers different service levels based on bandwidth, time, or number of access
- Provides detailed per-user traffic history log for analysis and record keeping
- Supports multiple accounting mechanisms and external RADIUS accounting



A Deployment Example

Cipherium M5000

Networking

- Supports Bridge, Router, NAT mode
- Supports VLAN Tagging (IEEE 802.1q)
- Supports Static IP, DHCP, and PPPoE mode on WAN interface
- Supports configurable authentication for each LAN port
- Supports IP Plug and Play (IP PnP)
- Supports Inter-subnet roaming
- Built-in DHCP server and support for DHCP relay
- Supports NAT:
 - (a) DMZ Server Mapping
 - (b) Virtual Server Mapping
 - (c) IP/Port Destination Redirection
 - (d) H.323 Pass-Through
- Supports static route
- Supports SMTP redirection
- Supports Walled Garden
- Supports MAC Address Pass-Through
- Supports HTTP Proxy
- Supports hardware-based VPN accelerator (optional)
- Supports failover on dual WAN ports

Security

- Supports wireless data encryption: WEP, WPA, WPA2, IPsec VPN
- Supports various wireless authentication methods: WPA-PSK, WPA2-PSK, IEEE 802.1X (EAP-MD5, EAP-TLS, CHAP, PEAP)
- Supports local VPN termination of IPsec tunnels
- Supports VPN pass-through (IPsec and PPTP)
- Supports DoS attack protection
- Supports MAC Access Control List
- Supports user Black List
- Allows MAC address and user identity binding for local user authentication

AP Management

- Centralized remote management via HTTP interface
- Automatic discovery of Managed APs
- Provides templates for Managed APs for easy configurations
- Able to enable or disable Managed APs easily
- Provides MAC Access Control List of clients for each Managed AP
- Upgrade managed APs centrally, including bulk upgrade
- Able to centrally monitor Managed APs for the system status, the number of associated clients, and RF information
- System alarms and status reports on Managed APs
- Supports Monitor IP on third-party, non-integrated APs

Monitoring and Reporting

- Status monitoring of on-line users
- IP-based monitoring of network devices
- WAN connection failure alert
- Support Syslog for diagnosing and troubleshooting
- Supports user traffic history logging
- Supports user traffic session (TCP/UDP) logging

Accounting and Billing

- Provides billing plans for On-demand accounts
- Enables session expiration control for On-demand accounts by time (hour) and data volume (MB)
- Supports RADIUS accounting
- Detailed per-user traffic history based on time and data volume for both local and On-demand accounts
- Traffic history report in an automatic email to administrator

User Management

- Supports up to 500 concurrent users
- Provides 5,000 Local accounts
- Provides 4,000 On-demand accounts
- Simultaneous support for multiple authentication methods (Local and On-demand accounts, POP3, LDAP, RADIUS, Windows Domain)
- Role-based and policy-based access control (including Firewall rules, Routing, Login Schedule, Bandwidth, and Session)
- User Session Management:
 - (a) SSL protected login portal page
 - (b) Supports multiple logins with one single account
 - (c) Session idle timer
 - (d) Session and account expiration control
 - (e) Notification email to provide a hyperlink to login portal page
 - (f) Supports Single Sign-On for Windows Domain
 - (g) Login time frame control
 - (i) Per-user concurrent session limit

System Administration

- Web-based management UI
- 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
- Configurable redirected home page

Hardware Specifications

- Form Factor: 19" 1U Rack Mount
- Dimensions (W x D x H): 426 mm x 270 mm x 44 mm
- Weight: 6 Kg
- Operating Temperature: 0 ~ 40 °C
- Power: 90~264 VAC, 47~63 Hz
- WAN Ports: 2 x 10/100/1000 BASE-T RJ-45
- LAN Ports: 2 x 10/100/1000 BASE-T RJ-45
- Console Port: 1 x RS-232 DB9
- LED Indicators: 1 x Power, 1 x Link Status, 4 x Ethernet Connect
- LCD Panel: 16 Characters x 2 Lines
- Certifications: CE, FCC, RoHS