

# Next-Generation All-in-One Edge Gateway Solution





## OVERVIEW

The AirPro EG Gateway is a high-performance, next-generation all-in-one edge device, powered by a multi-core processor and a dedicated ASIC chipset. With superior performance and robust data processing capabilities, EG Gateway series offers wire-speed throughput and an industry-leading number of new connectivity options, surpassing traditional fire walls and broadband routers.

Gateway integrates a variety of essential network functions, including:

- Broadband router
- Hotel PMS
- Switch
- Traffic management and control
- Wireless controller
- Captive Portal – Voucher, OTP, Facebook
- Firewall
- VPN
- Network security
- Easy configuration

It is the ideal solution for small and medium enterprises, schools, government organizations, Hotel's, chain stores, medium-sized Internet cafes, operators, and other complex network environments.

| Appearance  | Description   |
|---|---|
|  <p style="text-align: center;"><b>AP-EG320</b></p>    | <ul style="list-style-type: none"> <li>• SMB Edge</li> <li>• 32 APs management capability</li> <li>• Recommended concurrent 300 users</li> </ul>            |
|  <p style="text-align: center;"><b>AP-EG320-R1</b></p> | <ul style="list-style-type: none"> <li>• SMB Edge</li> <li>• 64 APs management capability</li> <li>• Recommended concurrent 500 users</li> </ul>            |
|  <p style="text-align: center;"><b>AP-EG-520</b></p>   | <ul style="list-style-type: none"> <li>• Campus Edge</li> <li>• 512 APs management capability</li> <li>• Recommended concurrent 2000 users</li> </ul>       |
|  <p style="text-align: center;"><b>AP-EG-720</b></p>   | <ul style="list-style-type: none"> <li>• Large Campus Edge</li> <li>• 1024APs management capability</li> <li>• Recommended concurrent 5000 users</li> </ul> |

## KEY FEATURES AND HIGHLIGHTS

### Strong Performance with Advanced Hardware Architecture

The AirPro Gateway all-in-one edge device leverages multi-core processors and a dedicated ASIC high-speed switching engine, enabling the entire hardware platform to operate on a high-speed Ethernet architecture. This high-performance design ensures superior data processing capabilities, providing a solid foundation for advanced functions such as depth detection, traffic shaping, and the stable operation of security features, including firewall/VPN, IPv6, and other upper-layer software functionalities.

### Accurate Flow Control and Behavior Management

The EG Gateway offers precise flow control policies, allowing management based on applications, IP addresses, subscribers, protocols, and more. Users can configure maximum, minimum, and guaranteed bandwidth for both uplink and downlink traffic.

With the ability to identify over 200 protocols, Gateway enables fine-grained bandwidth guarantees and bandwidth control tailored to specific protocols. Additionally, it features an accurate NAT session limit, mitigating the risk of high session numbers caused by multi-process download tools or virus attacks.

### Rich Firewall Functions

The Gateway features robust anti-attack capabilities, offering detailed statistics and accurate analysis of various packet types, including ARP, IP, ICMP, TCP, UDP, and others. This enables the detection and blocking of attacks such as SYN Flood, DDoS, IP packet fragmentation

attacks, and IP address scanning attacks. Additionally, alarm notifications are provided to enhance network security and management.

Leveraging advanced state detection technology, gateway offers powerful anti-ARP mechanisms, including:

- IP + MAC binding
- ARP scanning
- Trusted ARP learning
- ARP filtering

The system automatically performs IP/MAC binding and applies anti-ARP mechanisms between clients and devices, further strengthening network security.

### Efficient and Easy Management and Maintenance

The Gateway all-in-one edge device features a fully graphical web-based management interface, simplifying the setup and management process. With the configuration wizard, connecting the gateway to the network takes just three easy steps.

The system supports various monitoring tools, including performance monitoring, failure alerts, virus/attack warnings, and more. Additionally, it provides comprehensive statistics and ranking information based on bandwidth and session data, making network management and maintenance both efficient and straightforward.

## PRODUCT SPECIFICATIONS

### Hardware Specifications

| Item                       |                             | AP-EG320                                | AP-EG320R1 | AP-EG520   | AP-EG720   |
|----------------------------|-----------------------------|---|------------|------------|------------|
| CPU                        | Architecture                | Intel Multi-core                        |            |            |            |
|                            | Frequency                   | 1GHz                                    | 1.2GHz     | 2.0GHz     | 2.4GHz     |
| Memory                     |                             | 2G DDR III                              | 2G DDR III | 2G DDR III | 4G DDR III |
| FLASH                      |                             | NA                                      | 64G SSD    | 64G SSD    | 64G SSD    |
| Interface                  | 10/100/1000M Base-T         | 8                                       | 8          | 9          | 17         |
|                            | SFP/RJ45 Combo              | NA                                      | 2          | 4          | 4          |
| Management port            |                             | 1 RS-232 (RJ-45) console, 2 USB2.0 port |            |            |            |
| Led                        |                             | Power/ system Run/ port status          |            |            |            |
| Temperature                |                             | Operating 0°C-40°C                      |            |            |            |
|                            |                             | Storage -20°C-65°C                      |            |            |            |
| Humidity                   |                             | Operating 10%-85% Non-condensing        |            |            |            |
|                            |                             | Storage 5%-95% Non-condensing           |            |            |            |
| Power Supply               | Redundancy                  | No                                      |            |            | Yes        |
|                            | Range                       | AC 100-240V, 47-63Hz                    |            |            |            |
| <b>Performance</b>         |                             |   |            |            |            |
| Suggested Concurrent users |                             | 150                                     | 450        | 2000       | 5000       |
| Suggested Export Bandwidth |                             | 100M                                    | 250M       | 1500M      | 2800M      |
| Bidirectional Throughput   | 64 bytes                    | 135Mbps                                 | 185Mbps    | 480Mbps    | 850Mbps    |
|                            | 1518 bytes                  | 2000Mbps                                | 2800Mbps   | 4500Mbps   | 6000Mbps   |
| NAT                        | New session per second      | 8000                                    | 10000      | 30,000     | 40,000     |
|                            | Max concurrent session      | 100K                                    | 300K       | 500K       | 1000K      |
| VPN                        | IPsec Throughput (64 bytes) | 20M                                     | 20M        | 40M        | 50M        |
|                            | Max IPsec channel           | 10                                      | 20         | 300        | 1000       |
|                            | Max L2TP access users       | 10                                      | 20         | 100        | 500        |
| Web authentication users   |                             | 100                                     | 300        | 1500       | 3000       |
| Wi-Fi Access Controller    | Default manageable APs      | 2                                       | 4          | 12         | 24         |
| Controller                 | Maximum manageable Aps      | 32                                      | 64         | 512        | 1024       |

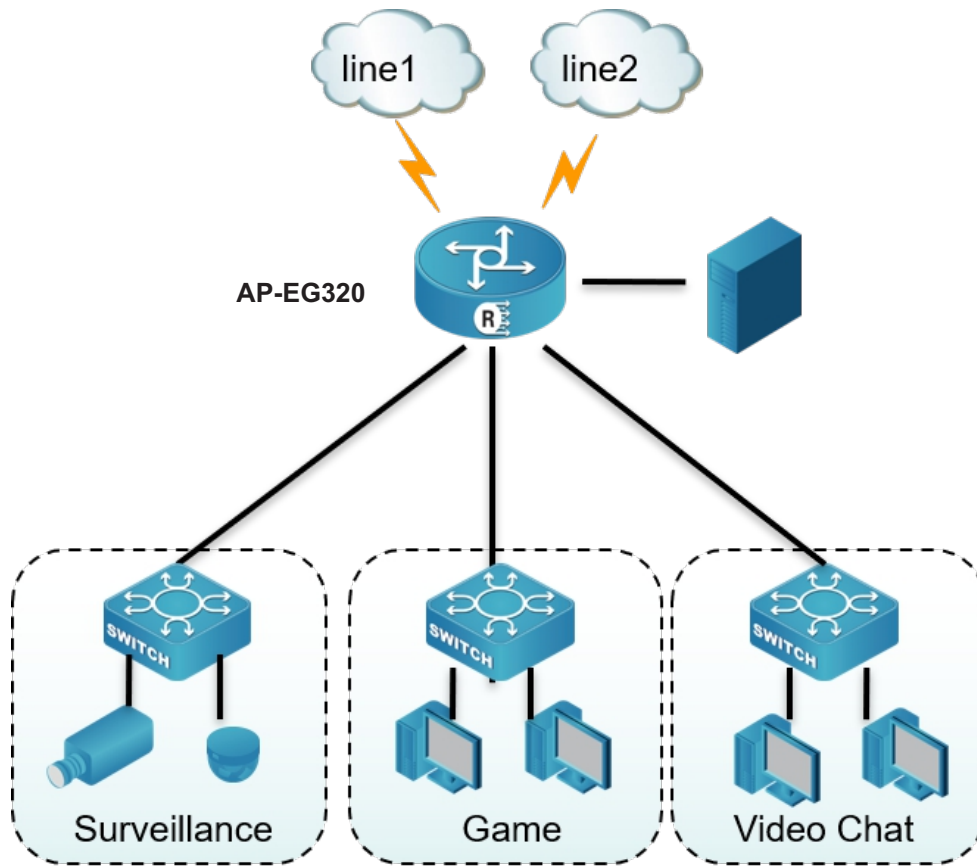
## PRODUCT SPECIFICATIONS

### Software Specifications

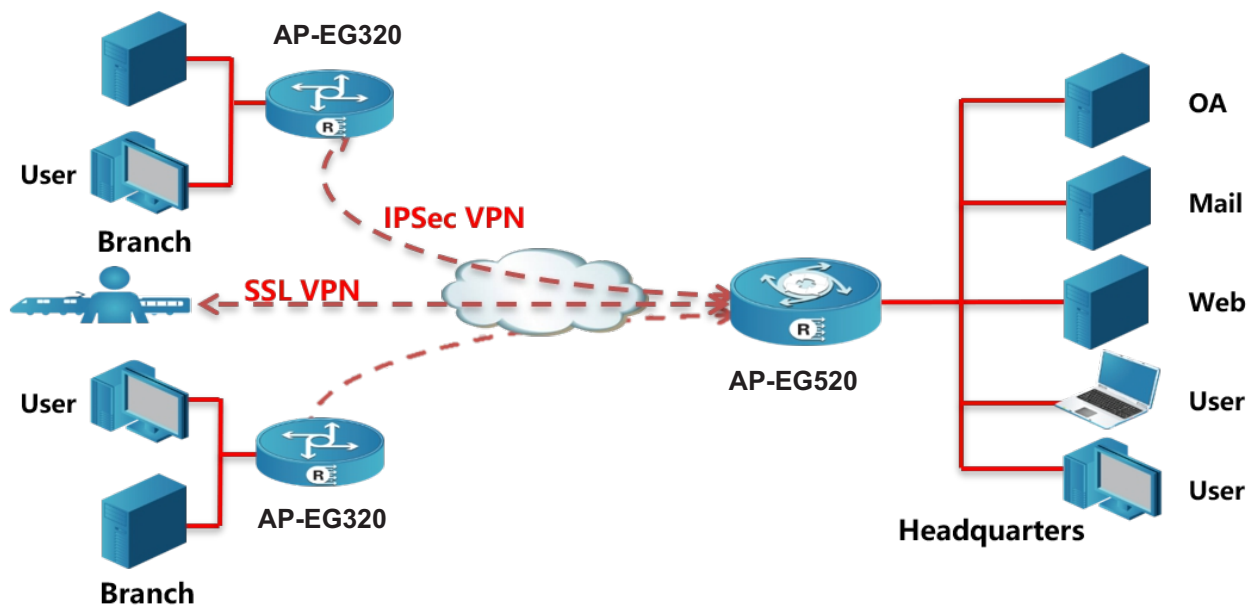
| Main Features              | EG Gateway Series  |
|----------------------------|--|
| Working mode Network       | Routing/ NAT/ Bridge   |
|                            | PPPoE client, PPPoE chap / pap / any three authentication methods, PPPoE client reconnection<br>DHCP Server, Client, relay<br>DNS server, proxy<br>DDNS  |
| Routing                    | Static routing, static routing with priority<br>PBR (based on source address, source port, a destination address, protocol, and other strategies), support next-hop IP or interface<br>Equivalent multi-route load balancing, and bandwidth load automatically adjust the proportion of each route, to achieve load balancing based on the line. Multilink backup function, schedule link state detection, and automatic switching and back between links  |
| NAT                        | Source NAT Static / Dynamic<br>1:1 NAT<br>1: N NAT<br>N: N NAT<br>Server Load Balancing<br>Multi-protocol NAT ALG  |
| QoS                        | IP-based bandwidth control<br>Application-based bandwidth control<br>Flow-based bandwidth control<br>Bandwidth guarantee, bandwidth reservation, flexible bandwidth allocation<br>2 levels of bandwidth control (IP and application bandwidth control, port-based)   |
| Attack protection          | ARP attack defense mechanisms (arp learning, free arp, arp protection)<br>IP-MAC binding, manual and automatic<br>DoS, DDoS attack protection<br>Flood protection: ICMP flood, UDP flood, SYN flood<br>DNS queries flood protection: DNS queries & DNS recursive query flooding attack protection<br>Malformed packet protection<br>IP anomaly detection, TCP anomaly detection<br>IP address scanning attack prevention, port scan protection<br>Denial of Service Protection: Ping of Death, Teardrop, IP fragmentation, IP options, Smurf or Fraggle, Land, ICMP big packet |
| Session control            | based on interface, source IP, destination IP, and applications (new sessions per second and the number of concurrent sessions)<br>Timing session control  |
| Access controller          | 802.11, 802.11a, 802.11b, 802.11g, 802.11n, 802.11d, 802.11h, 802.11i, 802.11e, 802.11k<br>CAPWAP<br>Wi-Fi management, configuration, monitor  |
| System                     | Dual image<br>Firmware upgrade via WEB and TFTP<br>Configuration backup and restore<br>SNMPv1/v2<br>HTTPS\HTTP\TELNET\SSH<br>NTP<br>Web configuration wizard<br>WEB authentication<br>Object management based on IP addresses, protocols, schedule, and interface  |
| Log and monitor statistics | Monitoring and statistics on interface traffic<br>Monitoring and statistics on IP traffic<br>Monitoring and statistics on session number based on IP address<br>Monitoring and statistics on bandwidth and session number based on applications<br>Monitoring and statistics on the number of attacks<br>Monitoring and statistics on IP, application, and attacks based on Security domain<br>Event log / traffic log / configuration log / alarm log / security log<br>USB log backup  |
| High reliability           | Support link load balancing, link backup<br>Multiple link failure detection mechanism  |

### Typical Application

Typical Application 1: Edge device, integrates functions of a broadband router, firewall, traffic management and control, network security.



Typical Application 2: Build VPN Connection between headquarters and branches



## ORDER INFORMATION

| Product    | Description   |
|------------|---|
| AP-EG320   | All-in-one edge, with features of broadband router, firewall, switch, VPN, traffic management and control, network security, wireless controller, with ports of 8*10/100/1000M Base-T, 1*Console, 2*USB2.0. default with 2 units AP license, support controlling max.32 APs, suggest a maximum of 300 users.                    |
| AP-EG320R1 | All-in-one edge, with features of broadband router, firewall, switch, VPN, traffic management and control, network security, wireless controller, with ports of 8*10/100/1000M Base-T, 2* 1000M Combo, 1*Console, 2*USB2.0. default with 4 units AP license, support controlling max.64 APs, suggest a maximum of 500 users.    |
| AP-EG520   | All-in-one edge, with features of broadband router, firewall, switch, VPN, traffic management and control, network security, wireless controller, with ports of 9*10/100/1000M Base-T, 4* 1000M Combo, 1*Console, 2*USB2.0. default with 12 units AP license, support controlling max.512 APs, suggest a maximum of 2000 users. |
| AP-EG720   | All-in-one edge with features of broadband router, firewall, switch, VPN, traffic management and control, network security, wireless controller, with ports of 17*10/100/1000M Base-T, 4* 1000M Combo, 1*Console, 2*USB2.0. Suggest a maximum of 5000 users.  |



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