

H3C Aolynk UR510MG High-Performance Enterprise Gateway

Product overview

The H3C Aolynk UR510MG gateway is a new-generation enterprise-class router developed by H3C for small and medium-sized enterprise users. It adopts high-performance ARM tri-core processor and an advanced software architecture, with 2.5G Giga line rate forwarding and 5G-level service throughput capabilities, supporting up to 200,000 concurrent NAT sessions. It provides high-density, high-concurrent secure access and service experience for scenarios such as small and medium enterprises, education, healthcare, hotels, retail, and high-end residences, helping users achieve high-speed, stable, and intelligent digital connections.



UR510MG

Product Features

High-Performance Service Processing Capability

- **Tri-Core processor, Full-Speed Forwarding:** Equipped with a high-performance tri-core processor and deeply integrated with H3C's proprietary hardware and software optimization technology, it provides total bandwidth throughput of up to 5Gbps and 2.5Gbps Giga line rate forwarding capability, ensuring smooth and unblocked performance even under high-concurrent use cases.
- **Massive Connections, Stable Bearing:** Supports up to 200,000 NAT sessions, easily handling large-scale terminal access and dense access demands, ensuring connection stability and response speed under long-term high network load operation.

Multi-WAN load balancing

- **Flexible Expansion, Flexible Access:** Default dual WAN ports, up to 4 concurrent WAN ports. Supports bandwidth aggregation, load sharing, and redundancy backup, effectively enhancing egress bandwidth and reliability.
- **Intelligent Routing, Efficient Utilization:** Built-in multi-dimensional intelligent routing algorithms based on carrier, link bandwidth, policy-based routing (PBR), etc., enabling automatic traffic distribution, optimizing access experience, and improving multi-link utilization efficiency.

Whole-Network Management

- Supports whole-network management function, enabling unified management, configuration, and upgrade of H3C Aolynk series wireless APs and switches
- APs and switches support zero configuration and plug and play (PnP)

Convenient Network Management

- Supports Aolynk APP for mobile operations: conveniently viewing network status, modifying parameter configurations, and troubleshooting network breakdown, helping customers efficiently manage the network;
- Supports Aolynk Cloud hosting: enabling efficient network operations experience without the need to build professional management servers and software, significantly reducing the investment cost for enterprise customer in network management;
- Supports UWEB whole-network management: local deployment can also use simple and easy-to-use whole-network management tools, helping customers with easy deployment, rapid deployment, and efficient configuration and management of the whole network devices;
- Supports single-device Web management, meeting the needs of different user scenarios: supports remote login to the device's local Web via the Aolynk Cloud platform or the UWEB whole-network management platform for service configuration and remote diagnosis, making management more convenient and efficient.

Enterprise-class VPN

- Supports IPSec VPN, supports multiple encryption algorithms (EA), facilitating enterprises to build virtual private networks over the Internet
- Supports hardware VPN encryption engine, providing high-speed VPN encryption capability
- Supports L2TP VPN, supporting both LNS and LAC modes

Internet Access Behavior Control

- Supports HTTP and HTTPS URL filtering, website blacklists and whitelists, keyword fuzzy match
- Supports the firewall function of packet filtering to flexible define traffic control policies
- Supports IP-based network traffic limiting mechanism
- Supports traffic control and terminal management

Product Specifications

Hardware specifications

Name	UR510MG
Recommended number of clients	500

Name	UR510MG
Bandwidth	5Gbps
IPSec Encryption Performance	1000Mbps
IPSec VPN Tunnels	100
NAT sessions	200000
NAT Mapping Entries	100
Manageable APs	120+
Memory	1GB
WAN Ethernet Ports	2x2.5G (1x2.5G WAN port can be switched over to LAN)
LAN Ethernet Ports	4xGE+3x2.5G+1xSFP+ (3xGE+3x2.5G+1xSFP+ LAN ports can be switched over to WAN)
PoE	Not supported
Reset button	1
Maximum power consumption	15W
AC Power	Built-in Open Frame Power Supply, Rated Range: 100 ~ 240V 50/60Hz
Dimensions (W×D×H, mm)	440x225.5x43.6
Ambient temperature	-10 ~ 45°C
Operating Environment Relative Humidity	5~95% (non-condensing)
Warranty	3 years
Certification	CE、CB、RoHS

Note: The recommended number of supported devices and applicable bandwidth are comprehensive evaluation values under specific lab environments and may vary based on actual on-site conditions.

Software Specifications

Name	Feature
WAN Access	Support static IP address, DHCP, PPPoE Support link state detection, ICMP, DNS, and NTP Support static route and policy-based routing (PBR) Support VLAN Tagging
LAN	Support port-based VLAN configuration, MAC address learning, broadcast storm suppression, and traffic mirroring
QoS	Support traffic limiting per-IP Support traffic limiting based on user groups
Security	Support defining firewall filtering policies based on source and destination addresses and ports
	Support MAC address filtering and MAC address blacklist and whitelist
	Support ARP scanning, ARP detection, and ARP protection
	Support DDoS defense and statistics
	Prevent WAN port Ping Prevent TCP syn scanning

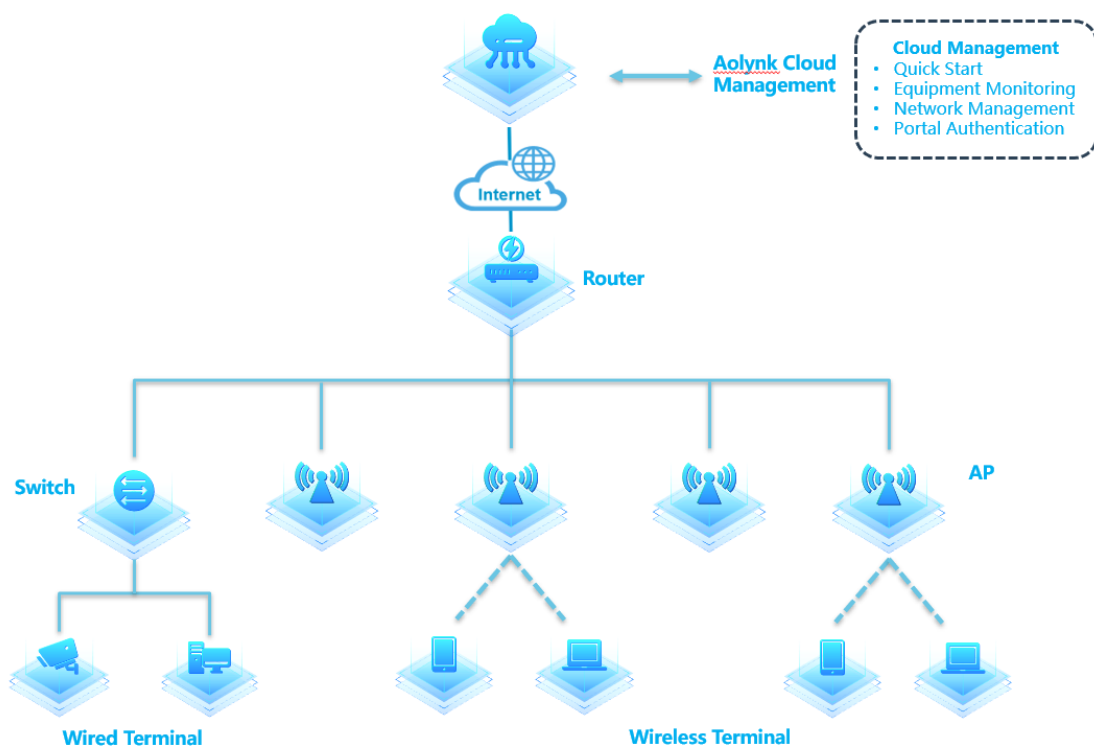
Name	Feature
	Prevent TCP Stealth FIN scanning Prevent TCP Xmas Tree scanning Prevent TCP Null scanning Prevent UDP scanning Prevent Land attack Prevent Smurf attack Prevent WinNuke attack Prevent Ping of Death attack Prevent SYN Flood attack Prevent UDP Flood attack Prevent ICMP Flood attack Prevent IP Spoofing Prevent fragmented packet attacks Prevent TearDrop attack Prevent Fraggles attack Support Portal authentication Support connection limit based on IP address and interface Support abnormal host traffic protection function Support IP address traffic measurement and ranking Support terminal management Support traffic control Support multiple SSID configuration Support binding SSIDs to different VLANs
Multi-WAN load balancing	Support load balancing based on carrier destination address Support load balancing based on link bandwidth Support load balancing based on user (IP address) Support PBR specified line forwarding Support end to end link detection and backup
Network Features	Support DHCP Server Support NTP Client Support DDNS Support UPnP Support IPTV Support IPv6
VPN	Supports IPSec VPN Supports 100 IPSec connections AH and ESP protocols Supports IKE automatic establishment of security association (SA) ESP supports multiple encryption algorithms (EA) such as 3DES and AES MD5 and SHA-1 authentication algorithms IKE main mode and aggressive mode Supports NAT-T traversal Supports configuring IPSec connections via domain name (DDNS)

Name	Feature
	Supports L2TP VPN (LAC and LNS)
Management and maintenance	Supports WEB/UWEB management interface Supports remote management via Aolynk Cloud network management platform Supports Aolynk APP management

Network diagram

Small and Medium-Sized Network Egress Gateway

The Aolynk UR510MG serves as the gateway for small and medium-sized enterprise network, providing an excellent internet experience through professional hardware and software platforms. Simultaneously, the UR510MG supports intelligent management and operations via Aolynk Cloud and APP, reducing network management and operations costs and providing a good network management experience.



Small and Medium-Sized Network Egress Gateway Networking Diagram

- Supports multiple Ethernet WAN interfaces, allowing simultaneous connection of multiple lines from the same or different carriers for load sharing.
- Supports self-networking whole-network management (UWEB), enabling centralized management of Aolynk switches and wireless APs, achieving integrated wired and wireless networking within the enterprise intranet.
- Supports internet access behavior management and security functions such as URL filtering, packet filtering firewall, and IP traffic limiting.

- Supports intelligent network management and operations via the Aolynk Cloud network management platform, reducing network management costs and providing a convenient network management experience.
- Supports implementing various authentication methods via the Aolynk Cloud network management platform and provides customized marketing pages and backend big data analysis functions.
- Supports network deployment, common device management and operations, and product literature queries via Aolynk APP management, improving network management efficiency.

Ordering information

Model	Description
H3C Aolynk UR510MG	H3C Aolynk UR510MG 10-Port 2.5G enterprise-class router, 2x2.5GE WAN (1x2.5GE WAN/LAN), 8xLAN (3x2.5G(LAN/WAN) + 4xGE LAN (3xGE LAN/WAN) + 1x10G SFP+ (LAN/WAN))



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