

Huawei NetEngine AR5510-L Series Enterprise Routers




Huawei AR5510-L series enterprise routers are designed for use in small- and medium-sized business (SMBs) and small-sized enterprise branches. The AR5510-L integrates various service features such as SD-WAN, routing, switching, providing diversified services and high performance.





Product Overview

Huawei's next-generation NetEngine AR5510-L series enterprise routers use multi-core processors and a non-blocking switching structure, helping to deliver three times the industry average performance. The NetEngine AR5510-L also integrates functions such as SD-WAN, routing, switching, VPN, ensuring diversified and cloud-based services are fully supported.

Huawei NetEngine AR5510-L series enterprise routers can be deployed at branches of SMBs and small-sized enterprises as required to provide enterprise network egress capabilities.

The NetEngine AR5510-L series consists of models such as the NetEngine AR5510-L5T, NetEngine AR5510-L5T-LTE4EA. Huawei provides various models which can meet networking requirements of enterprises of different scales.

 <p>NetEngine AR5510-L5T</p>	<ul style="list-style-type: none"> • Forwarding Performance: 300Mbps • Fixed WAN ports: 1*GE Combo • Fixed LAN ports: 4*GE RJ45(can be configured as WAN) • Dimensions (H x W x D): 38.0 mm x 240.0 mm x 161.5 mm
 <p>NetEngine AR5510-L5T-LTE4EA</p>	<ul style="list-style-type: none"> • Forwarding Performance: 300Mbps • Fixed WAN ports: 1*GE Combo, , 1 * LTE • Fixed LAN ports: 4*GE RJ45(can be configured as WAN) • Dimensions (H x W x D): 38.0 mm x 240.0 mm x 161.5 mm
	<ul style="list-style-type: none"> • Fixed WAN ports: 1*GE Combo, 1 * VDSL 35B • Fixed LAN ports: 4*GE RJ45(can be configured as WAN) • 2 * FXS • Wi-Fi: 802.11ac/b/g/n

 <p>NetEngine AR5510-L5TVWDS</p>	<ul style="list-style-type: none"> • Dimensions (H x W x D): 38.0 mm x 240.0 mm x 161.5 mm
 <p>NetEngine AR5510-L5TVWDS-LTE4EA</p>	<ul style="list-style-type: none"> • Fixed WAN ports: 1*GE Combo, 1 * VDSL 35B, 1 * LTE • Fixed LAN ports: 4*GE RJ45(can be configured as WAN) • 2 * FXS • Wi-Fi: 802.11ac/b/g/n • Dimensions (H x W x D): 38.0 mm x 240.0 mm x 161.5 mm
 <p>NetEngine AR5510-L5TW</p>	<ul style="list-style-type: none"> • Fixed WAN ports: 1*GE Combo • Fixed LAN ports: 4*GE RJ45(can be configured as WAN) • Wi-Fi: 802.11ac/b/g/n • Dimensions (H x W x D): 38.0 mm x 240.0 mm x 161.5 mm
 <p>NetEngine AR5510-L5TW-LTE6EA</p>	<ul style="list-style-type: none"> • Fixed WAN ports: 1*GE Combo, 1 * LTE • Fixed LAN ports: 4*GE RJ45(can be configured as WAN) • Wi-Fi: 802.11ac/b/g/n • Dimensions (H x W x D): 38.0 mm x 240.0 mm x 161.5 mm

Features and Benefits

Features and Benefits

Service Requirement	Features and Benefits
High performance	<ul style="list-style-type: none"> • Multi-core processors and a non-blocking switching structure • Three times the industry average performance, providing the lowest latency for key services
High reliability	<ul style="list-style-type: none"> • Link backup for enterprise services, improving reliability • Fault detection and determination in milliseconds, minimizing service interruption time
5G Wireless access	<ul style="list-style-type: none"> • AR5510-L series support RU-201, provide high wireless bandwidth experience • Support dual architecture, NSA/SA
Easy O&M	Multiple management modes, including SD-WAN management, SNMP-based network management, web-based network management, and cloud-based management, simplifying network deployment and reducing OPEX
Service convergence	Integration of functions such as routing, switching, VPN, and WLAN, meeting diversified enterprise service requirements, saving space, and reducing TCO
SD-WAN Ready	<ul style="list-style-type: none"> • Built-in SD-WAN solution, building cost-effective and business-friendly connections over the Internet • ZTP (email-, USB-, and DHCP-based deployment), minimizing skill requirements and

Service Requirement	Features and Benefits
	provisioning devices in minutes <ul style="list-style-type: none"> • First packet identification (FPI) for SaaS applications and service awareness for complex applications, identifying over 90% of applications • Traffic steering based on bandwidth and link quality, ensuring experience of key applications and improving bandwidth utilization to up to 90%

Architecture Highlights

Architecture Feature	Benefits
Multi-core processor	High-performance multi-core processors, supporting high-speed WAN connections, powerful route calculation capabilities, and enhanced L4-L7 service processing

Product Specifications

NetEngine AR5510-L Series Technical Specifications

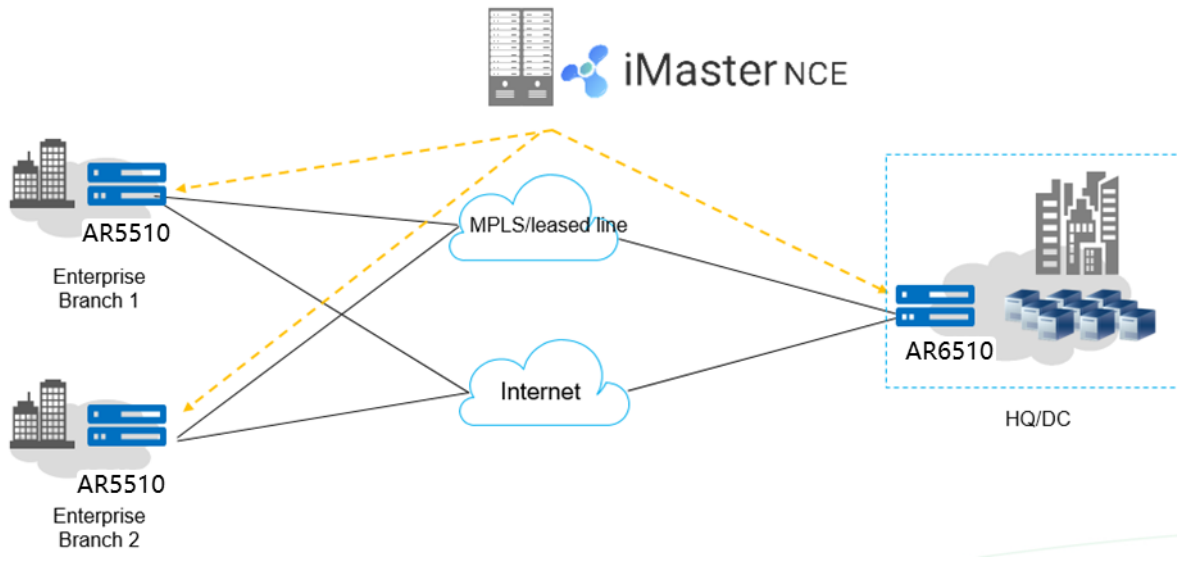
Item	NetEngine AR5510-L5T	NetEngine AR5510-L5T-LTE4EA	NetEngine AR5510-L5TVWDS	NetEngine AR5510-L5TVWDS-LTE4EA	NetEngine AR5510-L5TW	NetEngine AR5510-L5TW-LTE6EA
Forwarding Performance (LAN - > WAN + WAN - > LAN, NAT + ACL + QoS, IMIX)	300Mbps	300Mbps	300Mbps	300Mbps	300Mbps	300Mbps
IPsec performance (IMIX)	200Mbps	200Mbps	200Mbps	200Mbps	200Mbps	200Mbps
Fixed WAN ports	1 x GE combo	1 x GE combo, 1 x LTE	1 x GE combo, 1 x VDSL 35B	1 x GE combo, 1 x VDSL 35B, 1 x LTE CAT4	1 x GE combo	1 x GE combo, 1 x LTE CAT6
Fixed LAN ports	4 x GE RJ45 (can be configured as WAN)					
USB port	1 x USB	1 x USB	1 x USB	1 x USB	1 x USB	1 x USB
Memory	1GB	1GB	1GB	1GB	1GB	1GB
Flash memory	1GB	1GB	1GB	1GB	1GB	1GB
Rated input voltage range (AC)	100 V to 240 V	100 V to 240 V	100 V to 240 V	100 V to 240 V	100 V to 240 V	100 V to 240 V
Rated input frequency (AC)	50 Hz/60 Hz	50 Hz/60 Hz	50 Hz/60 Hz	50 Hz/60 Hz	50 Hz/60 Hz	50 Hz/60 Hz
Maximum input voltage range (AC)	90 V to 264 V	90 V to 264 V	90 V to 264 V	90 V to 264 V	90 V to 264 V	90 V to 264 V
Fan module	Natural heat dissipation, without fans					
Airflow	-					
Noise level	-					

Item	NetEngine AR5510-L5T	NetEngine AR5510-L5T-LTE4EA	NetEngine AR5510-L5TVWDS	NetEngine AR5510-L5TVWDS-LTE4EA	NetEngine AR5510-L5TW	NetEngine AR5510-L5TW-LTE6EA
Operating temperature	0 ° C to 45 ° C					
Operating humidity	5% to 95% (non-condensing)					
Operating altitude	< 5000 m (16404.2 ft.)					
Storage temperature	-40 ° C to +70 ° C					
Storage altitude	< 5000 m (16404.2 ft.)					
Basic function	0 ° C to 45 ° C					
LAN	5% to 95% (non-condensing)					
3G/LTE	-	FDD LTE, DC-HSPA+, HSPA+, HSPA, and WCDMA	-	FDD LTE, TDD LTE, HSPA+, and WCDMA	-	FDD LTE, TDD LTE, DC-HSPA+, HSPA+, and WCDMA
IPv4 unicast routing	Routing policies, static routes, RIP, OSPF, IS-IS, BGP					
IPv6 unicast routing	Static routes, routing policies, RIPng, OSPFv3, IS-ISv6, BGP4+					
Basic IPv6 function	IPv6 ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, ICMPv6, DNSv6, DHCPv6					
IPv6 tunneling	Manual tunnel, automatic tunnel, GRE tunnel, IPv6 over IPv4 tunnel, 6 to 4 tunnel, ISATAP					
Multicast	IGMP v1/v2/v3, PIM-SM, PIM-DM, MSDP, MBGP, IPv6 PIM, MLD					
VPN	IPsec VPN, GRE VPN, DSVPN, A2A VPN, L2TP VPN, L2TPv3 VPN, VxLAN					
QoS	DiffServ mode, priority mapping, traffic policing (CAR), traffic shaping, congestion avoidance, congestion management, MQC (traffic classifier, traffic behavior, and traffic policy), hierarchical QoS, WLAN QoS, FR QoS, Smart Application Control (SAC)					
Management and maintenance	Upgrade management, device management, web-based network management, GTL, SNMP (v1/v2c/v3), RMON, NTP, CWMP, Auto-Config, URL-based/USB-based/DHCP deployment, NETCONF/YANG, CLI, Netstream, IP FPM, TCP FPM, TWAMP Light, IP accounting, NQA					

Networking and Application

- **SD-WAN Using Hybrid Links**

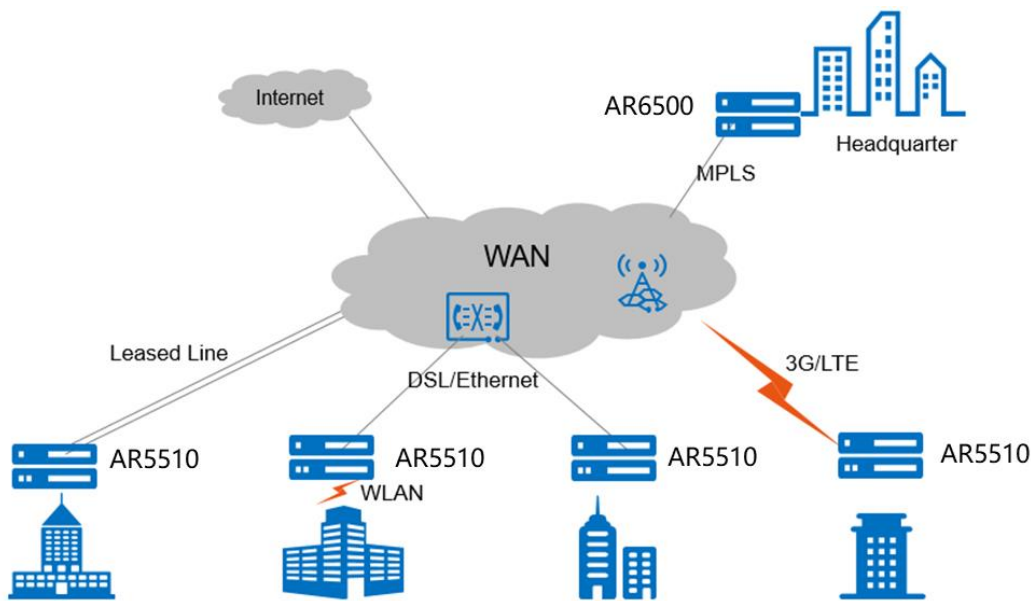
In the SD-WAN Solution, the NetEngine AR5510-L functions as the gateway of SMBs and small-sized enterprise branches and supports hybrid access using multiple physical links, such as Internet links, and LTE links. The solution also leverages Huawei's next-generation controller, the Agile Controller, which implements centralized and visualized management. The NetEngine AR5510-L provides extensive SD-WAN features and delivers optimal service experience for enterprises through intelligent application identification, intelligent traffic steering, and intelligent acceleration.



• **WAN Interconnection Scenario**

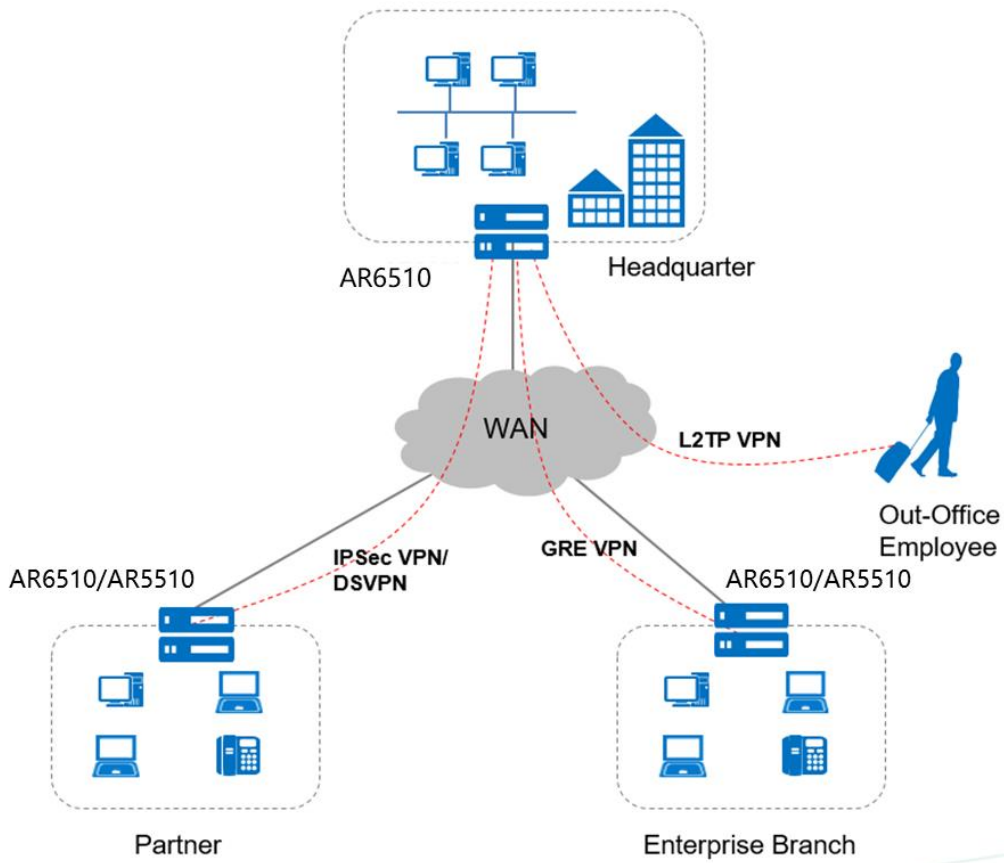
In this scenario, the NetEngine AR5510-L series routers are used as enterprise branch egresses and provide flexible WAN access methods to support remote network connections. A single NetEngine AR5510-L router can satisfy different access requirements, for example, for the private line, Ethernet, 3G, LTE, and WLAN access, helping the customer reduce deployment and maintenance costs while helping them extract much value.

WAN interconnection networking



• **Building Different Types of VPNs by Leveraging Internet Resources**

The NetEngine AR5510-L provides various secure access functions for communication between enterprise branches and between branches and headquarters. These functions also allow an enterprise's partners to access its resources. Secure tunnels such as GRE VPN, IPSec VPN, DSVPN, L2TP VPN, and EVPN tunnels can be set up between the headquarters and branches for secure data access and transmission. The NetEngine AR5510-L supports quick tunnel deployment and authentication for branches. Furthermore, partners authenticated and authorized by the AR5510-L can remotely access the enterprise resources over these tunnels.



Ordering Information

The NetEngine AR5510-L series routers are configured by selecting and installing the appropriate configuration module. The configuration module ordering information and descriptions are shown in the following tables.


Ordering components

Chassis Configuration	Description
NetEngine AR5510-L5T	AR5510-L5T, 1*GE COMBO WAN, 4*GE LAN, 1*USB
AR5510-L5T-LTE4EA	AR5510-L5T-LTE4EA, 1*GE COMBO WAN, 1*LTE, 4*GE LAN, 1*USB
NetEngine AR5510-L5TVWDS	AR5510-L5TVWDS, 1*GE COMBO WAN, 1*VDSL, 4*GE LAN, 1*USB, Wi-Fi 2.4G+5G
NetEngine AR5510-L5TVWDS-LTE4EA	AR5510-L5TVWDS-LTE4EA, 1*GE COMBO WAN, 1*VDSL, 1*LTE, 4*GE LAN, 1*USB, Wi-Fi 2.4G+5G
NetEngine AR5510-L5TW	AR5510-L5TW, 1*GE COMBO WAN, 4*GE LAN, 1*USB, Wi-Fi 2.4G+5G
NetEngine AR5510-L5TW-LTE6EA	AR5510-L5TW-LTE6EA, 1*GE COMBO WAN, 1*LTE, 802.11b/g/n/ac, 4*GE LAN, 1*USB

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