



H3C MSR830

Series Router

Branch Router

Release Date: Jan, 2024



Product overview

The MSR830 router series can be deployed as an egress router for small- to medium-sized enterprise networks to operate with VPN, NAT, and IPSec service gateways. Together with other H3C products, the MSR830 can provide comprehensive network solutions for government, power, financial, tax, public security, railway, and education customers.

The MSR830 series has the following models: MSR830-6EI-GL, MSR830-10EI-GL, MSR830-6HI-GL, and MSR830-10HI-GL.



H3C MSR830-6EI-GL router



H3C MSR830-10EI-GL router



H3C MSR830-6HI-GL router



H3C MSR830-10HI-GL router

Features and benefits

Advanced technologies

- Uses H3C's leading Comware network operating system to provide intelligent service scheduling management mechanism, and supports loose coupling of different service modules as well as the dynamic loading of processes and patches.
- Adopts an outstanding high-performance, multi-core CPU processor, which greatly enhances

concurrent multi-service processing capabilities.

Powerful security features

- Service security
 - Packet filtering, including stateful filtering, MAC address filtering, IP and port number filtering, and time range filtering.
 - Real-time traffic analysis.
- Network security
 - Rich and comprehensive VPN technologies, including IPSec, L2TP, GRE, MPLS VPN and mix usage of different VPN technologies.
 - Routing security protection, including OSPF/RIP/IS-IS/BGP dynamic routing protocol, OSPFv3/RIPng/IS-ISv6/BGP IPSec encryption and rich routing policy control functions.
- End device access security
 - Unified endpoint access binding authentication, including EAD secure check authentication, 802.1X authentication, endpoint MAC address authentication, web-based portal authentication, endpoint access static binding, and MAC address auto-learning and binding.
 - ARP attack prevention, including fixed source MAC address, ARP attack protection, ARP source suppression, ARP detection, source MAC consistency check and protection, ARP rate limit, and ARP active acknowledgement mechanism.
- Equipment management security
 - Role-based access control that allocates resources based on roles, and provides users and roles mapping.
 - Control plane traffic restriction, traffic control and filtering based on protocol type, queue, known protocol and specific protocol.
 - Remote security management, such as SNMPv3, SSH, and HTTPS remote management.
 - Management behavior control and audit, including AAA server central authentication, command line authority and real-time report of operation records.

Granular control

- Uses granular identification and control to rate limit and filter application layer services and ensure bandwidth and provides detailed network statistics for network optimization.
- Performs load balancing based on bandwidth, user, user group, service, or application by using asymmetric link, traffic load balancing, and multi-topology dynamic routing technologies.
- Supports flexible bandwidth sharing based on service, user, user group, link, and user bandwidth.

Intelligent network management

- Comprehensive network management methods—Supports command line and SNMP.
- Zero-configuration setup—Enables zero configuration setup and USB-based automatic configuration.
- Comware embedded EAA function—Monitors the internal events and status of the system's software and hardware components. If a fault occurs, it collects diagnostic information and attempts to make automatic repairs as well as sending the diagnostic information to a specific email address.

High availability

- Independent hardware processing module for monitoring and programmable components that supports online upgrade and auto loading to strengthen product reliability.
- Millisecond link fault detection technology Bidirectional Forwarding Detection (BFD) and Track between BFD and static routing, RIP/OSPF/BGP/ISIS dynamic routing, VRRP, or interface backup.
- Network quality analyzer (NQA) and Track between NQA and static routing, VRRP, or interface backup.
- Multi-device redundancy and load balancing (VRRP/VRRPE).

Cloud interconnection

- Support of using VXLAN to provide Layer 2 connection in data centers. VXLAN-provided Layer 2 connection can be achieved simply by deploying edge devices with VXLAN capabilities without changing the original network structure. This reduces the networking cost and can provide enhanced security for traffic transmitted in the public network if used together with IPsec technologies

Technical specifications

Hardware specifications

Item	MSR830-6EI-GL	MSR830-10EI-GL	MSR830-6HI-GL	MSR830-10HI-GL
IP Forwarding Performance (IMIX)	400 Mbps	400 Mbps	1.5 Gbps	1.5 Gbps
Forwarding Performance with ACL+NAT+QOS (IMIX)	200 Mbps	200 Mbps	1 Gbps	1 Gbps
IPSec Forwarding Performance (1400byte)	70 Mbps	70 Mbps	250Mbps	250Mbps
CPU	800MHz	800MHz	1.3GHz	1.3GHz
Memory	1 GB	1 GB	1 GB	1 GB
Flash (default/maximum)	256 MB	256 MB	256 MB/32GB	256 MB/32GB



Item	MSR830-6EI-GL	MSR830-10EI-GL	MSR830-6HI-GL	MSR830-10HI-GL
External Flash	N/A	N/A	Micro SD card	Micro SD card
USB ports	N/A	1	1	1
CON ports	1	1	1	1
WAN ports	2 × GE copper ports	4 × GE copper ports	1 × GE copper ports 1 × GE combo port	3 × GE copper ports 1 × GE combo port
LAN ports	4 × GE ports (can be configured as WAN interfaces)	6 × GE ports (can be configured as WAN interfaces)	4 × GE ports (can be configured as WAN interfaces)	6 × GE ports (can be configured as WAN interfaces)
Console ports	1	1	1	1
Max power consumption	22 W	22 W	22 W	22 W
Rated voltage	100 VAC to 240 VAC @ 50 Hz/60 Hz			
Dimensions (H × W × D)	44 × 440 × 225 mm (1.73 × 17.32 × 8.86 in)			
Weight	2.45 kg (5.40 lb)			
Operating temperature	0°C to 45°C (32°F to 113°F)			
Operating humidity	5% RH to 95% RH, non-condensing			
EMC	FCC Part 15 (CFR 47) CLASS A			
	ICES-003 CLASS A			
	VCCI-3 CLASS A			
	VCCI-4 CLASS A			
	CISPR 22 CLASS A			
	EN 55022 CLASS A			
	AS/NZS CISPR22 CLASS A			
	CISPR 24			
	EN 55024			
	EN 61000-3-2			
EN 61000-3-3				
EN 61000-6-1				
ETSI EN 300 386				
EN 301 489-1				
EN 301 489-17				

Item	MSR830-6EI-GL	MSR830-10EI-GL	MSR830-6HI-GL	MSR830-10HI-GL
Security	UL 60950-1			
	CAN/CSA C22.2 No 60950-1			
	IEC 60950-1			
	EN 60950-1/A11			
	AS/NZS 60950			
	EN 60825-1			
	EN 60825-2			
	FDA 21 CFR Subchapter J			
	GB 4943			

Software specifications

Item	Specification
Layer 2 switching	Ethernet, Ethernet II, VLAN (port-based VLAN, guest VLAN), 802.3x, 802.1p, 802.1Q, 802.1X, STP (802.1D), RSTP (802.1w), MSTP (802.1s), PPP, PPPoE client, PPPoE server, and DDR
IP services	Unicast/multicast, TCP, UDP, IP option, IP unnumbered, policy-based routing, NetStream, and sFlow
IP application	Ping, Tracert, ICMP, DHCP server, DHCP relay, DHCP client, DNS client, DNS proxy, DDNS, NTP, and SNTP
IPv4 routing	Static routing
	Dynamic routing: RIPv1/v2, OSPFv2, BGP, IS-IS
	Route iteration
	Policy routing
	Equal-cost multi-path routing (ECMP)
IPv6	Multicast routing: IGMPv1/v2/v3, PIM-DM, PIM-SM, MBGP, MSDP
	IPv6 ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, NAT-PT, 6PE, and DS-LITE
	IPv6 tunneling: Manual tunneling, automatic tunneling, GRE tunnel, 6to4, ISATAP
	Static routing
QoS	Dynamic routing: RIPng, OSPFv3, IS-ISv6, BGP4+
	IPv6 multicast: MLDv1/v2, PIM-DM, PIM-SM
	LR, port-based mirroring, Port Trust Mode, and port priority
	Committed access rate (CAR)
	FIFO, WFQ, CBQ

Item	Specification
Security	Generic Traffic Shaping (GTS)
	Traffic classification
	PPPoE client & server, portal, 802.1X
	Local authentication, RBAC, RADIUS, TACACS+
	Basic Firewall Function, ASPF, ACL, filter, connection limit
	IKE, IPsec
	L2TP, NAT/NAPT, PKI, RSA, SSH v1.5/2.0, URPF, mGRE, GRE
	ARP attack prevention
	SSL VPN, ADVPN, GDVPN
	AES, DES, 3DES, MD5, SHA1
MPLS	LDP, Static LSP
	L3VPN: Inter-AS MPS VPN (Option 1/2/3), MPLS nested VPN, hierarchy of PE (HoPE), dual-homed CE, MCE, and multirole host
	L2VPN: Martini, Kompella, CCC PWs and static PWs
	MPLS TE, RSVP TE
High availability	VRRP, VRRPv3
	Bandwidth-based load balancing and backup
	IP address-based load balancing and backup
	NQA collaboration with routing, VRRP or interface backup
Management and maintenance	SNMP v1/v2c/v3, MIB, SYSLOG, RMON
	BiMS remote management, booting from USB drive
	CLI, file system, and dual image
	DHCP, FTP, HTTP, ICMP, UDP public, UDP private, TCP public, TCP private, and SNMP
	Console port login, Telnet (VTY) login, SSH login, and FTP login

Ordering information

Product ID	Description
RT-MSR830-6EI-GL	H3C MSR830 6-Port Gigabit Router(2GE WAN,4GE LAN/WAN)
RT-MSR830-10EI-GL	H3C MSR830 10-Port Gigabit Router(4GE WAN,6GE LAN/WAN)
RT-MSR830-6HI-GL	H3C MSR830 6-Port Gigabit Router(2GE WAN(1Combo),4GE LAN/WAN)
RT-MSR830-10HI-GL	H3C MSR830 10-Port Gigabit Router(4GE WAN(1Combo),6GE LAN/WAN)



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