

H3C MSR3600-XS Series Routers

Product Overview

The MSR3600-XS series routers use the industry's latest high-performance multi-core processors and H3C's advanced software and hardware design technologies to provide superb service forwarding capabilities and excellent network experience, integrating routing, switching, security, wireless and other features to meet the flexible and integrated networking requirements of enterprises.

The advantages are mainly reflected in the following aspects:

- It uses the industry's most advanced network communication processor and combines H3C's advanced software and hardware design architecture to provide excellent business concurrent processing capabilities.
- It supports integrated routing and switching, and has a built-in full Gigabit Ethernet switching interface, which not only facilitates management but also reduces users' investment costs.
- Industry-leading H3C intelligent traffic scheduling and refined service control technologies provide customers with an excellent network experience.
- Zero-configuration deployment supports multiple deployment methods such as USB flash drives, simplifying network deployment complexity and reducing implementation costs.
- Oasis Cloud centralized management supports device software upgrades, automatic configuration distribution, device operation monitoring, fault alarms, etc.
- Rich VPN interconnection technologies, including IPSec, GRE, L2TP VPN, etc., provide cloud network VPN access in various application scenarios and enjoy cloud network services.

MSR3600-XS Multi-Service Router products include: MSR3660-XS, MSR3640-XS, MSR3620-X1-XS, MSR3620-XS, MSR3610-XS, MSR3600-

28-XS_y



MSR3660-XS



MSR3640-XS



MSR3620-X1-XS



MSR3620-XS



MSR3610-XS



MSR3600-28-XS

Features

Advanced technical support

- Adopting H3C's mature Comware network operating system, it provides a more intelligent service scheduling management mechanism, supports loose coupling of service modularization, and can realize process and dynamic loading of patches
- Excellent high-performance multi-core CPU processor, greatly improving the concurrent processing capabilities of multiple businesses
- The independently innovative intelligent link engine CUBE technology not only improves the bus bandwidth of the SIC card, but also automatically and flexibly allocates interface resources

Powerful security features

- Supports packet quintuple filtering, ASPF state filtering, MAC address filtering, URL filtering, domain-based firewall, IPS, etc.
- Diverse VPN technologies, including: IPsec, L2TP, GRE, ADVPN, MPLS VPN, and the overlapping use of multiple VPN technologies
- Terminal access security: support 802.1X/Portal authentication, EAD security check authentication, terminal MAC address authentication, etc.
- DDoS attack prevention: Supports protection against SYN flood, ACK flood, RST flood, UDP flood and other attacks
- Device management security: Supports role-based permission management, can allocate resources based on roles, correspond users to roles, and flexibly and securely control permissions
- Support control plane traffic restriction: support traffic control and filtering based on known protocol types and custom protocol packets

Refined business control

- Through refined identification and refined control, we can achieve speed limiting, bandwidth guarantee, filtering and other functions for application layer services, and guide network optimization through refined statistics.
- Supports equal-cost link load balancing (ECMP) and unequal-cost link load balancing (UCMP). UCMP supports load balancing based on link bandwidth ratio.
- Support load sharing based on terminal IP and bandwidth ratio, support load sharing based on operator address

Intelligent network management

- Supports Telnet/SSH, SNMP, TR069, Netconf and other network management methods
- Support EAA (Embedded Automation Architecture) function, with TCL and Python script self-programming capabilities, can monitor the internal events and status of system hardware and software components
Monitor and automatically execute pre-defined scripts when specific events occur

High reliability

- Link millisecond-level fast fault detection technology (BFD) can realize linkage with static routing, RIP/OSPF/BGP/ISIS dynamic routing, VRRP and interface backup
- Network quality of service intelligent detection technology (NQA), which can be linked with static routing, VRRP and interface backup
- Supports multi-device redundancy backup and load sharing (VRRP/VRRPE)

Network virtualization

- In order to reduce the complexity of user networking and improve management efficiency, we are the first to support IRF2 (second generation intelligent resilient architecture) technology on WAN equipment, which combines the two physical
Virtualizing a device into a logical device greatly reduces the operation and maintenance costs of the user network and improves link bandwidth utilization and device utilization.

- Support cross-device Ethernet link aggregation technology to achieve load sharing and mutual backup of multiple uplinks, thereby improving the reliability of the entire network architecture and link resources.

Source utilization

Green and environmentally friendly

- Advanced air duct design improves space utilization
- Multi-level fan speed control scheme, the system will determine the fan speed required by the system according to the internal temperature of the product, which can minimize the fan noise and energy consumption.

Product Specifications

MSR3600-XS Series Hardware Specifications

Firewall	MSR3660-XS	MSR3640-XS	MSR3620-X1-XS MSR3620-XS		MSR3610-XS
performance 30Gbps	Encryption	20Gbps	20Gbps	6Gbps	4Gbps
performance 10Gbps		8Gbps	8Gbps	4Gbps	1.9Gbps
IPSEC VPN	4000	4000	4000	512	256
Number of tunnels: 2000		1500	1500	800	600
	4GB	2GB	2GB	2GB	2GB
FLASH	1GB	1GB	1GB	512MB	512M
USB2.0	1, support USB 3/4G Modem Expansion	1, support USB 3/4G Modem Extension	1, support USB 3/4G Modem Extension	1, USB supported 3/4G Modem Expansion	1. Support USB 3/4G Modem Extension
WITH					1
1 TF card/hard disk				1 1ÿ64G /	1ÿ64G
slot/20*10GE optical		1 / /	1 / /		support
Fixed GE port	+10*GE power	3*10GE optical + 2*GE optical +1*GE(Combo)+8*GE Electric	6*10GE optical + 16*GE	4*GE Combo+2* Light	4*GE(2Combo)+2* Light
SIC slot 4 HMIM slot 4		4	4	4	4
Maximum power		4	2	2	/
consumption 300W Redundant		300W	150W	200W	54W
power supply support	(AC/DC)	Support (AC/DC)	Support (AC/DC)	support	/
power supply	AC:100V a.c.ÿ 240V a.c.ÿ 50Hz/60Hz DC:-48ÿ-60V	AC:100V a.c.ÿ240V a.c.ÿ 50Hz/60Hz DC:-48ÿ-60V	AC:100V a.c.ÿ 240V a.c.ÿ 50Hz/60Hz DC:-48ÿ-60V	AC:100V a.c.ÿ 240V a.c.ÿ 50Hz/60Hz	AC:100V a.c.ÿ 240V a.c.ÿ 50Hz/60Hz
Rack height (U height)	2 RU	2 RU	1 RU	1 RU	1 RU
Dimensions ÿWxDx Hÿmmÿ	440x480x88.1 440x480x88.1		440x470x44.2	440x470x44.2 440x360x43.6	
Ambient temperature	0ÿ45ÿ				
Relatively humid environment	5ÿ95% (no condensation)				
degree					

Attributes	MSR3600-28-XS
Firewall performance	1.5Gbps
Encryption performance	400Mbps
Number of IPSEC VPN tunnels	128
NAT session number	250,000
and machine	350-450
memory (default/maximum)	1GB
FLASH	256MB
USB2.0	1. Support 3/4G Modem expansion
WITH	1
WAN Ethernet interface	3GE (electrical) + 2GE (optical)
LAN Ethernet interface	24GE
SIC slot	4
maximum	54W
power	/
	100V a.c.~240V a.c.~50Hz/60Hz
consumption Redundant	1 rack height (1RU)
power supply Rack height (U height)	440(W)×360(D)×44.2mm(H)
Dimensions	0y45y
(W×D×H, mm) Ambient temperature Ambient relative humidity	0~55°C (no condensation)

*Note: The capacity is a comprehensive evaluation recommendation under specific circumstances and may vary based on the actual on-site environment.

EMC and safety standards

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 EN 300 386 EN 301 489-1 EN 301 489-17
Safety	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

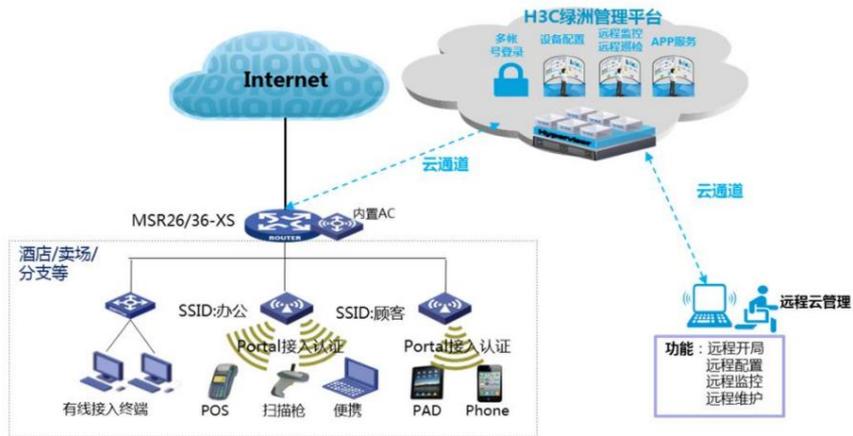
MSR3600-XS Series Software Specifications

property	
Layer 2 protocol	Function support Ethernet, Ethernet II, VLAN, 802.3x, 802.1p, 802.1Q, 802.1x, STP (802.1D), RSTP (802.1w), MSTP (802.1s), PPP, PPPoE Client, PPPoE Server, HDLC, FR, DDR, ModemN, etc. Support TCP, UDP, IP Option, IP Unnumber
IP Services	Support policy routing, Netstream, sFlow, etc. Support ECMP Support UCMP Support Ping, Trace, ICMP, DHCP Server, DHCP Relay, DHCP Client,
IP Application	DNS Client, DNS Proxy, DDNS, UDP Helper, NTP, SNTP, etc. Static routing Dynamic routing protocols: RIPv1/v2, OSPFv2, BGP, IS-IS Route iteration Routing policy Multicast routing protocols: IGMPV1/
IPv4 routing	V2/V3, PIM-DM, PIM-SM, MBGP, MSDP Support IPv6 ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, NAT-PT, IPv6 tunnel, 6PE, DS-LITE IPv6 tunnel technologies: manual tunnel, automatic tunnel, GRE tunnel, 6to4,
IPv6	ISATAP Static routing Dynamic routing protocols: RIPng, OSPFv3, IS-ISv6, BGP4+ IPv6 multicast protocols: MLD V1/V2, PIM-DM, PIM-SM Support for LR, Port-Based Mirroring, Port Trust Mode, Port Priority, etc. Support for CAR (Committed Access Rate) Support for FIFO, WFQ, CBQ, etc. Support for GTS (Generic Traffic Shaping) Support for traffic classification
QoS	
Wireless Controller ýAMý	AP management: AP access, AP configuration parameter delivery, AP version upgrade, AP restart, AP display WLAN access, WLAN user security, WLAN user access authentication, WLAN roaming, etc.;
voice	Support FXS/FXO/E&M/VE1/VT1, support R2, DSS1, Q.sig, Digital E&M, etc. Support G.711, G.723, G.726, G.729AB, AMR-NB, GSM-FR, iLBC, RT-Audio, etc. Support rich voice services, voice backup, DTMF transmission Support RFC2833, smart dial-up router, 1:1 binding of FXS and FXO, power failure escape, SIP Sever local survival, IVR, etc. Support extended 3/4G and 5G extended access, support 5G NR NSA/SA, support TDD/FDD
3/4/5G	LTE, TD-SCDMA, CDMA2000/EVDO, WCDMA/HSPA+ network
Safety Features	PORTALý802.1x Local authentication, RBAC, Radius, Tacacs+ ASPF, ACL, FILTER, domain-based firewall, connection limit, IPS IKE/IPSec VPNýADVPNýGDVPNýL2TP VPNýGRE VPN NAT/NAPT, PKI, RSA, URPF support DDoS attack prevention, ARP attack prevention, URL filtering support EAD endpoint access defense function support DPI deep message identification, speed limit and filter business flow national secret SM1/2/3/4 algorithm
MPLS	LDPýStatic LSP L3VPN: cross-domain MPLS VPN (Option 1/2/3), nested MPLS VPN, hierarchical PE (HoPE), CE dual-homing, MCE, multi-role host, etc. L2VPN: Martini, Kompella, CCC, and SVC methods MPLS TE, RSVP TE
reliability	Supports IRF2, VRRP, VRRPv3, load balancing and backup based on multiple links, and linkage of NQA with routing, VRRP, and interface backup to achieve end-to-end link detection and backup. Supports GR, SNMP V1/V2c/V3,
Management and maintenance	TR069, SYSLOG, and RMON, Telnet, SSHv1.5/2.0, and FTP, and EAA. Embedded automation architecture supports command line management, file system management, and Dual Image NQA. Supports DHCP, FTP, HTTP, ICMP, UDP public, UDP private, TCP public, TCP private, and SNMP protocol tests.

Typical networking

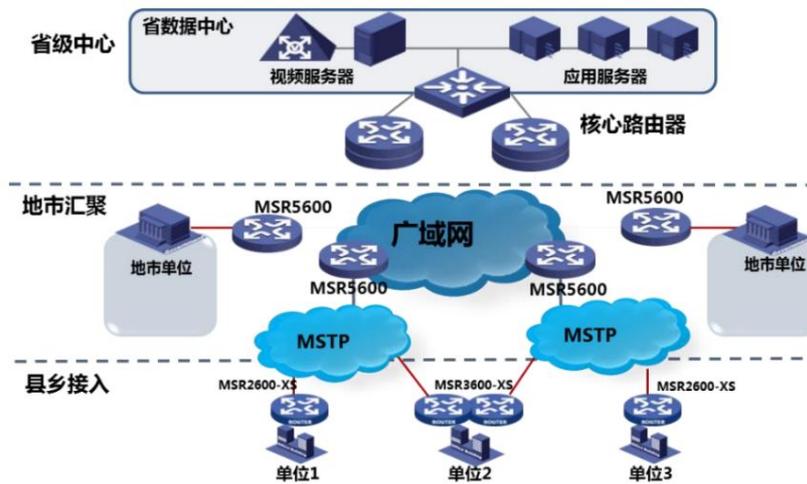
Small and medium-sized enterprise networking

MSR2600/3600-XS routers support routing, switching, security, wireless and other integrated features, and are the best choice for small and medium-sized enterprise egress gateway devices; support application identification control Function, can carry out refined management and control of enterprise internal traffic; support built-in AC features, unified management and access of APs deployed within the enterprise, to meet wired and wireless Integrated networking requirements. Centralized management, deployment, and monitoring can be performed through the Oasis Cloud, improving overall network deployment and management efficiency.



Government branch network

In government branch office scenarios, the MSR5600 series routers can serve as downlink aggregation devices for cities or access devices for cities. The MSR2600/3600-XS series routers can serve as The router can be used as access equipment for county and township branch units, such as social security, street, industry and commerce, taxation and other departments. The MSR series supports firewall, QoS, IRF, EAD and other functions to ensure wide coverage. Reliability and security of the LAN.



Government branch network

Ordering Information

model	describe
MSR3640-XS	H3C MSR3640-XS 10G Integrated Services Gateway (3*10GE(SFP+), 2*GE(SFP), 1*GE(Combo), 8*GE(RJ45))
MSR3660-XS	H3C MSR3660-XS 10G Integrated Services Gateway (20*10GE(SFP+), 10*GE(RJ45))
MSR3600-28-XS	H3C MSR3600-28-XS Gigabit Integrated Services Gateway (27GE (RJ45) + 2GE (SFP), 4 SIC slots)
MSR3610-XS	H3C MSR3610-XS Gigabit Integrated Services Gateway (4GE (2Combo) + 2SFP, HD Support)
MSR3620-XS	H3C MSR3620-XS Gigabit Integrated Services Gateway (4GE Combo+2SFP, dual power supply, 1U)
LIS-WX-8-BE	Enhanced Wireless Controller License Authorization Letter - Manage 8AP - Enterprise Network Dedicated - V7 Dedicated
LIS-WX-32-BE	Enhanced Wireless Controller License Authorization Letter - Manage 32AP - Enterprise Network Dedicated - V7 Dedicated
LIS-WX-1-BE	Enhanced Wireless Controller License Authorization Letter - Manage 1AP - Enterprise Network Dedicated - V7 Dedicated
LIS-WX-16-BE	Enhanced Wireless Controller License Authorization Letter - Manage 16APs - Enterprise Network Dedicated - V7 Dedicated
LIS-WX-128-BE	Enhanced Wireless Controller License Authorization Letter - Manage 128APs - Enterprise Network Dedicated - V7 Dedicated
LIS-MSR-SSL-200	H3C MSR/ICG Series SSL VPN 200 User Authorization Letter
LIS-MSR-SSL-30	H3C MSR/ICG Series SSL VPN 30-User Authorization Letter
LIS-MSRB-ACG-1Y	H3C MSR 26/36/56/ICG Series Application Identification Signature Library Upgrade Service Authorization Letter, 1 Year
LIS-MSRB-ACG-3Y	H3C MSR 26/36/56/ICG Series Application Identification Signature Library Upgrade Service Authorization Letter, 3 Years
LIS-MSRC-IPS-1Y	H3C MSR 56/ICG Series IPS Signature Database Upgrade Service License, 1 Year
LIS-MSRC-IPS-3Y	H3C MSR 56/ICG Series IPS Signature Database Upgrade Service License, 3 Years
HDD-500G-SATA-3G-5.4K-SFF	500GB 2.5-inch SATA HDD hard drive module
HDD-2T-SATA-6G-5.4K-SFF	2TB 2.5-inch SATA HDD hard drive module
AC-PSR300-12A2	300W AC power supply
DC-PSR300-12D2	300W DC Power Module
AC-PSR150-A1	150W AC power supply
DC-PSR150-D1	150W DC power supply
SIC optional modules	
RT-SIC-1EPRI-V3	1-port E1/CE1/PRI SIC module
RT-SIC-1GEC-V2	1-port 1000BASE-T (RJ45) + 1-port 1000BASE-X (SFP, Combo) Ethernet SIC module
RT-SIC-4GSW	4-port 10/100/1000BASE-T Ethernet Layer 2 switching electrical interface SIC module
RT-SIC-2SAE	2-port enhanced synchronous/asynchronous serial port interface module
RT-SIC-4SAE	4-port enhanced synchronous/asynchronous serial port interface module
RT-SIC-4G-CNDE-SJK	4G LTE (TDD/FDD LTE, TD-SCDMA, WCDMA, EVDO full band, dual SIM) and national encryption SIC module (support SM1/2/3/4)
RT-SIC-D4G-CNDE-SJK	Dual 4G LTE (TDD/FDD LTE, TD-SCDMA, WCDMA, EVDO full band, dual SIM) and national secret encryption SIC module (support SM1/2/3/4)

model	describe
RT-SIC-4GSWF	4-port 100/1000BASE-T optical L2/L3 SIC module
RT-SIC-2E1-F-H3	2-port non-channelized E1 interface SIC module
RT-SIC-16AS-H3	16-port asynchronous serial port SIC interface module
RT-SIC-1E1-F-V3-H3	1-port non-channelized E1 interface SIC module
RT-SIC-5G	5G NR (NSA/SA/4G FDD/TDD LTE-A/3G WCDMA,Sub6,GNSS) SIC 模块
HMIM module	
RT-HMIM-4XP	4-port Ethernet 10G optical interface HMIM module
RT-HMIM-2GEE	2-port Gigabit Ethernet electrical interface HMIM module
RT-HMIM-4GEE-V2	4-port Gigabit Ethernet electrical interface HMIM module
RT-HMIM-8GEE-V2	8-port Gigabit Ethernet electrical interface HMIM module
RT-HMIM-2GEF	2-port Gigabit Ethernet optical interface HMIM module
RT-HMIM-4GEF-V2	4-port Gigabit Ethernet optical interface HMIM module
RT-HMIM-8GEF-V2	8-port Gigabit Ethernet optical interface HMIM module
RT-HMIM-24GSW	24-port Gigabit Ethernet Layer 2 switch electrical interface HMIM module
RT-HMIM-1CPOS	1-port OC-3/STM-1 CPOS HMIM module
RT-HMIM-1POS	1-port OC-3c/STM-1c POS HMIM module
RT-HMIM-4SAE	4-port enhanced synchronous/asynchronous serial port HMIM module
RT-HMIM-8SAE	8-port enhanced synchronous/asynchronous serial port HMIM module
RT-HMIM-16ASE-V2	16-port enhanced asynchronous serial port HMIM module
RT-HMIM-4FXS	4-port FXS HMIM module
RT-HMIM-4FXO	4-port FXO HMIM module
RT-HMIM-8EM	8-port E&M HMIM module
RT-HMIM-8GSW	8-port 10/100/1000BASE-T (RJ45) + 2-port 100BASE-FX/1000BASE-X (SFP, Combo) Ethernet Layer 2 switching HMIM module
RT-HMIM-8GSWF	8-port 100/1000M Ethernet (4 optical + 4 optical/electrical combo) L2/L3 HMIM module
RT-HMIM-8E1T1	8-port E1/CE1/T1/CT1/PRI HMIM module
RT-HMIM-4E1T1	4-port E1/CE1/T1/CT1/PRI HMIM module
RT-HMIM-2E1T1	2-port E1/CE1/T1/CT1/PRI HMIM module
RT-HMIM-2E1T1-F	2-port non-channelized E1/T1 HMIM interface module
RT-HMIM-4E1T1-F	4-port non-channelized E1/T1 HMIM interface module
RT-HMIM-8E1T1-F	8-port non-channelized E1/T1 HMIM interface module



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