

H3C S3600 Series Intelligent and Resilient Switches

Product Overview

H3C S3600 Series Ethernet Switches are a new generation of premier multi-layer switches that entirely fulfill the enterprise customers' requirement of designing and implementing a unified, highly resilient network. One of the most important and innovative highlights of the S3600 Series Ethernet Switches is the IRF (Intelligent Resilient Framework) technology which presents the highly efficient advantage of stackable technology. IRF enables network managers to build adaptable networks with high reliability, scalability and easy management. "Pay as you go" is the slogan of the S3600 Series Ethernet Switches.

With flexible software options, the **Standard Software Image (SI)** and the **Enhanced Software Image (EI)** of the S3600 Series Switches are offer a cost-effective path for meeting current and future service requirements from enterprises and commercial businesses. The SI feature set includes advanced quality of service (QoS), rate-limiting, access control lists (ACLs), static and Routing Information Protocol (RIP) routing, and basic IRF function (distributed device management and basic distributed redundant routing), QinQ(VLAN-VPN), Protocol-Based VLAN and Voice VLAN, SSH V2 (Secure Shell V2), MVR (Multicast VLAN Registration), EAD (Endpoint Admission Defense), VCT (Virtual Cable Test), DLDP¹ (Device Link Detection Protocol) and HGMP V2 (Huawei group management protocol V2), GVRP (GARP VLAN Registration Protocol). In addition to these features, the EI feature set provides even richer enterprise-class features such as advanced hardware-based IP unicast, Multicast routing, and advanced IRF functionality (distributed device management, distributed resilient routing and distributed link aggregation), RSPAN (Remote switched port analyzer)², DHCP Server, OSPF (Open Shortest Path First) and VRRP (Virtual Redundancy Routing Protocol), HWTACACS, MSDP(Multicast Source Discovery Protocol)³.

The H3C S3600 Series Ethernet Switches include the following models: **S3600-28P-SI, S3600-28TP-SI, S3600-28P-EI, S3600-28F-EI, S3600-28P-PWR-EI, S3600-28P-PWR-SI, S3600-52P-SI, S3600-52P-EI, and S3600-52P-PWR-EI.**

¹ For detail information, please refer to S3600 Series Switch System Description.

² For detail information, please refer to S3600 Series Switch System Description.

³ For detail information, please refer to S3600 Series Switch System Description.



S3600-28P-SI/S3600-28P-EI/S3600-28P-PWR-SI/ S3600-28P-PWR-EI



S3600-52P-SI/S3600-52P-EI/S3600-52P-PWR-EI



S3600-28TP-SI



S3600-28F-EI

The S3600 Series marks a new milestone in switches with the revolutionary Intelligent Resilient Framework technology

Key Features and Benefits

Ø Full wire-speed, multi-layer switching

- The S3600 Series offer L2/L3 wire-speed switching capability for all ports. The system offers 4 GE ports to meet one piece of equipment's requirement for multiple Gigabit uplinks and for access to the Gigabit server, thereby greatly increasing savings on equipment investment.
- The hardware supports L3 wire-speed switching, and is able to identify and process the application traffic flows from L2~L7.
- All ports have an independent data packet filter, and distinguish different application flows for different management and control.

Ø IRF Technology

Intelligent Resilient Framework (IRF) is an innovative resilient network technology that allows enterprise customers to design and implement Fast Ethernet core and aggregation that are adaptable, providing exceptional reliability, scalability and easy management. With IRF technology, the S3600 Series switches can be interconnected together to behave as a single logical switching entity called a Distributed Fabric. From management and configuration perspectives, the Fabric appears as a single device.

While from a performance perspective, each switch in the Distributed Fabric can make its own forwarding decisions, both at Layer 2 and Layer 3 for traffic that appears on its ports.

- S3600 Series switches support RMON on IRF, customers can collect RMON history and statistics data of any units from any switch in the fabric.
- The HGMP V2 on IRF function allows customers to collect the information about the connection relations of the devices in a network and candidate devices, consequently maintaining and managing the cluster topology.
- The Peer fabric port detection function can decide whether a device can join an IRF fabric or not.

The IRF technology provides: DDM (Distributed Device Management), DRR (Distributed Resilient Routing) and DLA (Distributed Link Aggregation).

- Distributed Device Management (DDM)

Distributed Device Management is the control system for IRF technology, responsible for distributing management and control information across the IRF Distributed Fabric. DDM allows the entire IRF Distributed Fabric to be managed as a single logical entity. Management tasks are all performed across the Distributed Fabric, minimizing complexity and administration overheads. In addition, the management IP address is shared across all units in the IRF Distributed Fabric, ensuring continuous device management and monitoring, in the event of an outage in one of the interconnected switches.

- Distributed Resilient Routing (DRR)

Distributed Resilient Routing, provided by Enhanced Image, is an advanced routing implementation that allows multiple interconnected switches in an IRF Distributed Fabric to behave as a single active routing entity. Unlike resilient Layer 3 implementations such as VRRP and HSRP, DRR intelligently distributes the routing load across all switches in the Distributed Fabric to optimize routing performance and make full use of bandwidth capacity.

- Distributed Link Aggregation (DLA)

Distributed Link Aggregation, provided by Enhanced Image, allows networks and IRF Distributed Fabrics to be coordinated with switches at the edge of the network. With the ability to multi-home across different units in the IRF Distributed Fabric, the availability of the entire network is dramatically increased. Traffic is forwarded across all links in the Aggregated Link to the fabric to optimize the use of available capacity. DLA guarantees high levels of resiliency since failure in one of the members of the Aggregated Link results in automatic redistribution of traffic across the remaining links.

Ø **Excellent PoE (Power over Ethernet) Supply Function**

The S3600 Series Switches support PoE function for the LAN switching infrastructure, which provides power over a copper Ethernet cable to an endpoint (Powered Device).

- S3600 series switches provide up to 48 simultaneous full-powered PoE ports at 15.4W for maximum powered-device support, such as IP telephony and wireless LAN deployments. As PSE (Power Sourcing Equipment) devices, all S3600 series Switches are 802.3af compliant PoE switches.

- With PoE and Voice VLAN technology, these innovative switches can provide the perfect solution for a converged voice and data network.
- S3600 series Switches supports PoE Profile, which means PoE policy configurations applicable to different user groups are stored in the corresponding PoE Profiles. When users connect a PD device to the port that currently has PoE Profile stored, the switch will automatically apply the PoE configuration defined in the corresponding port's PoE Profile to the PD device.

Ø High reliability

- The S3600 series support STP/RSTP and multi-VLAN based MSTP, greatly improving redundant back-up for links and fault tolerance capability, so the network can run with high levels of stability.
- The Series support the optional RPS (Redundant Power Supply, provided by Enhanced Image), thus improving the fault tolerance capability and normal network operation duration.
- The S3600 series support VRRP (provided by Enhanced Image), and can build a VRRP back-up group with other L3 switches. They can build a redundant route topological structure when a fault occurs to guarantee communication continuity and reliability, maintaining network stability.
- The S3600 series support VRRP backup group port tracking function, with the function enabled, customers can specify to track the link state of the master's uplink port and decrease the priority of the switch when the port fails. This in turn triggers the new master to be determined in the backup group.
- S3600 series support ECMP (Equal Cost Multi-path Protocol, provided by Enhanced Image) routing, which can be used for load balance and routing redundancy.

Ø Abundant QoS policies

- S3600 Series support L2~L4 complex flow classification based on source MAC address/destination MAC address/source IP address/destination IP address/ports/protocols.
- S3600 Series support flexible queue scheduling algorithms, which can be set on the basis of port and queue at the same time. They support Strict Priority (SP), Weighted Round Robin(WRR), Weighted Fair Queuing (WFQ), SP+WRR, and SP+WFQ; 8 priority queues and 2 drop precedence; WRED congestion avoidance algorithm and port traffic shaping.
- S3600 Series support Committed Access Rate (CAR) and limit the traffic speed in the 64Kbit/s granularity.
- The S3600 Series support RSPAN (Remote switched port analyzer), breaking through the limitation that the mirrored port and the mirroring port have to be located in the same switch, and making it possible for the mirrored and mirroring ports to be located across several devices in the network, greatly enhancing the way the network administrator can manage the switch.

- The S3600 Series support the Synchronization Feature of Queue Scheduling for Aggregation Ports. This feature provides the synchronization function of queue scheduling on each individual port of the aggregation port group.
- The S3600 Series support Delivery of ACL by RADIUS, this function requires corporation of devices and the CAMS server. Users need to first define the ACL which is of numeric type, and then deliver the ACL to the hardware of the devices in the CAMS server through the configuration of external groups.
- The S3600 Series can configure the Priority for Protocol Packets, each protocol packet has its own priority. Customers can modify the priority of the protocol packet with the help of relevant QoS commands.
- The S3600 Series support configuring the control policy over Telnet, configuring the source IP, destination IP, and source MAC to control over. Also specifying whether the control action is permitting or denying access.

Ø Flexible security control policies

- Based on the longest match routing policy, the S3600 Series forward packets one by one ensuring equal forwarding performance. This function can guard the network against the attack by Code Red and Worm Blaster, thereby guaranteeing equipment security.
- The S3600 Series support 802.1x authentication to identify users who attempt to access the network. With the 802.1x client version checking function enabled on a switch, the switch checks the version and validity of the 802.1x client running on supplicant systems to prevent those using earlier versions of 802.1x client or illegal clients from logging in.
- The S3600 Series support 802.1x PEAP, With PEAP employed, a security channel is created which is encrypted and is protected using (TLS) to ensure integrity. And authentication is carried out through a new type of EAP (extensible authentication protocol) negotiation between supplicant systems and authentication servers.
- The S3600 Series support 802.1x-trusted MAC address. Trusted MAC address here refers to the MAC address of a supplicant system that passes 802.1x authentication and MAC address-based authentication. In this case, the MAC address becomes a trusted Mac address. The 802.1x trusted MAC Address synchronization function propagates the trusted MAC addresses in IRF (intelligent resilient framework) if the corresponding supplicant systems pass the authentication performed by IRF-enabled switches.
- The S3600 Series support Centralized MAC address authentication, it controls accesses to a network through ports and MAC addresses. This kind of authentication requires no client software. When operating in centralized MAC address authentication mode, a switch begins to authenticate the user if it detects a new user MAC address. Further more, the S3600 Series can Perform 802.1x authentication and MAC address-based authentication simultaneously.
- The S3600 Series support The Guest VLAN function, this function enables supplicant systems that are not authenticated to access specific resources and thus

perform the corresponding operations, such as obtaining 802.1x client, upgrading client, or obtaining other upgrading programs.

- The S3600 Series can also prevent unauthorized access to the network by binding any combination of MAC, IP and PORT.
- Secure Shell V2 (SSH V2) offers security information protection and powerful authentication function to safeguard the Ethernet switch from attacks such as IP address spoofing and plain text cipher interception.

Ø **Diversified System Configuration and management modes**

- The S3600 Series support Simple Network Management Protocol (SNMP) v1/v2/v3 and RMON (Remote Monitoring) v1, 1/2/3/9 groups of MIBs, They can be managed by a general network management platform such as OpenView, and Quidview network management system.
- The S3600 Series support Command Line Interface (CLI), Web based network management, modem dial-up and TELNET which make the equipment management more convenient.
- The S3600 Series support HGMP V2 cluster management, After enabling HGMP V2, the network administrator can manage several member switches through one command switch and only the command switch need a public network IP address. This can add up to large public IP address savings and also manages the network more efficiently.
- The S3600 Series support SNMP Agent logging, which means the network management operation logging function can be performed remotely by administrators through SNMP.

Ø **Abundant System Maintenance and debugging methods**

- The S3600 Series support System log, Hierarchical alarm management and alarm filtering, detailed alarm/debug information output, Ping and Tracer. They also support remote maintenance via Telnet Modems and SSH.
- The S3600 Series support HWping, this is a new network diagnostic tool used to test the performance of protocols operating on network and is an enhanced alternative to the ping command.
- The S3600 Series support DLDP (Device Link Detection Protocol). DLDP can detect the link status of the optical fiber cable or copper twisted pair. If DLDP finds an unidirectional link, it disables the related port automatically or informs users to disable it manually depending on specific configuration, to avoid potential network problems.
- The S3600 Series support Loopback detection on ports, after users enable loopback detection for Ethernet ports, the switch will monitor whether the ports have loopback on a regular basis; if the switch detects loopback for a particular port, then it will put that port under control.
- The S3600 Series support VCT (Virtual Cable Test) which is convenient for

troubleshooting. Customers can start the virtual cable test (VCT) to make the system test the cable connected to the current electrical Ethernet port. The test items include: whether short or open circuit exists in the Rx/Tx direction of the cable, and what is the length of the cable in normal status or the length from the port to the fault point of the cable.

Revolutionary resilient network technology that delivers high reliability, scalability, easy management and excellent performance

Specifications

Port Configuration	S3600-28P-SI / S3600-28P-EI / S3600-28P-PWR -SI/ S3600-28P-PWR -EI	S3600-28TP -SI	S3600-52P-SI / S3600-52P-EI / S3600-52P-PWR -EI	S3600-28F-EI
Fixed ports	(1) 24 10/100 BASE-TX Ethernet ports ; (2) 1 console port	(1) 24 10/100 BASE-TX Ethernet ports; (2) 2 10/100/1000 BASE-T Ethernet ports ; (3) 1 console port	(1) 48 10/100 BASE-TX Ethernet ports; (2) 1 console port	(1) 24 100BASE-FX SFP ports; (2) 2 10/100/1000 BASE-T Ethernet ports ; (3) 1 console port
Extended Ports	4 1000M SFP extended ports	2 1000M SFP extended ports	4 1000M SFP extended ports	2 1000M SFP extended ports
Extended Module	(1) SFP-GE-T (2) SFP-GE-SX(850nm, 0.55km) (3) SFP-GE-LX(1310nm, 10km) (4) SFP-GE-LH40(1310nm, 40km) (5) SFP-GE-LH40(1550nm, 40km) (6) SFP-GE-LH70(1550nm, 70km) (7) SFP-GE-LH70 -CW (1470nm, 70km) (8) SFP-GE-LH70 -CW (1490nm, 70km) (9) SFP-GE-LH70 -CW (1510nm, 70km) (10) SFP-GE-LH70 -CW (1530nm, 70km) (11) SFP-GE-LH70 -CW (1550nm, 70km) (12) SFP-GE-LH70 -CW (1570nm, 70km) (13) SFP-GE-LH70 -CW (1590nm, 70km) (14) SFP-GE-LH70 -CW (1610nm, 70km)			(1) SFP-GE-T (2) SFP-GE-SX(850nm, 0.55km) (3) SFP-GE-LX(1310nm, 10km) (4) SFP-GE-LH40(1310nm, 40km) (5) SFP-GE-LH40(1550nm, 40km) (6) SFP-GE-LH70(1550nm, 70km) (7) SFP-GE-LH70 -CW (1470nm, 70km) (8) SFP-GE-LH70 -CW (1490nm, 70km) (9) SFP-GE-LH70 -CW (1510nm, 70km) (10) SFP-GE-LH70 -CW (1530nm, 70km) (11) SFP-GE-LH70 -CW (1550nm, 70km) (12) SFP-GE-LH70 -CW (1570nm, 70km)

	(13) SFP-GE-LH70 -CW (1590nm, 70km) (14) SFP-GE-LH70 -CW (1610nm, 70km) (7) (15) SFP-FE-SX(1310nm, 2km) (16)SFP-FE-LX(1310nm, 15km) (17) SFP-FE-LH40(1310nm 40km) (18) SFP-FE-LH80(1550nm, 80km)
--	---

Features	S3600-SI	S3600-EI
Wire speed L2/L3 switching	Wire speed forwarding on all ports Switching capacity (28/52 ports): 12.8Gbps/17.6Gbps Packet forwarding speed (28/52 ports): 9.53Mpps/11.78Mpps	
Switching Fabric	32G bps	
Switching mode	Store and forward	
SDRAM	64M	
Buffer	32M	
Forwarding Latency	<40μs	
Flash	8M	16M
IRF Stack	RMON on IRF HGMP on IRF Peer fabric port testing ⁴	
	Support Basic IRF stack (DDM, Dynamic link aggregation on one device), up to 8 units, stacking bandwidth is 4G bps.	Support Enhanced IRF Stack (DDM、DDR、DLA through LACP and across devices), up to 8 units, stacking bandwidth is 4G bps. Peer fabric port testing
PoE	N/A	Supported by S3600-28P-PWR-EI and S3600-52P-PWR-EI, S3600-28P-PWR-EI and S3600-52P-PWR-EI support RPS. Support POE profile
Layer 2 switching		
MAC Address	Address self-learning 16K MAC addresses Up to 1k static MAC addresses	
VLAN	4K VLANs (IEEE 802.1Q) Voice VLAN GVRP(GARP VLAN Registration Protocol) Support Port-based VLAN Protocol-based VLAN Configure VLANs in batch VLAN Tag Frame Extension	
Link Aggregation	Dynamic link aggregation (DLA) through Link Aggregation Control Protocol (LACP)	Dynamic link aggregation through LACP and across devices
	Manual link aggregation through command lines Aggregation of FE/GE ports: Up to 8 FE or 4 GE ports in each aggregation group	

⁴ For detail information, please refer to S3600 Series Switch System Description.

Features	S3600-SI	S3600-EI
Mirroring	Many-to-one port mirroring (multiple monitored ports to one monitor port N:1) Traffic mirroring	
Flow Control	IEEE 802.3x full-duplex flow control Back pressure flow control for half-duplex	
STP/RSTP/MSTP	IEEE 802.1D Spanning Tree Protocol (STP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) IEEE 802.1s Multiple Spanning Tree Protocol instances (MSTP) QinQ BPDU Tunnel ⁵ Huawei-3Com-proprietary MSTP overhead standard	
Broadcast / Multicast / Unicast storm suppression	Port rate ratio(1% granularity) and PPS based suppression	
QinQ	Y, Support VLAN-VPN or double tag	
Layer 3 Switching		
IP Routing	Static routing RIP v1, v2 (Routing Information Protocol v1, v2) RIP equivalent route	
	1K IP Routes	8K IP Routes OSPF v2 (Open Shortest Path First) ECMP (Equal Cost Multi-path Protocol): 3 Paths
Multicast	256 Multicast groups IGMP (Internet Group Management Protocol) snooping IGMP Group Limit on Interface Adding multicast MAC addresses manually Multicast source port suppression MVR(Multicast VLAN Registration)	
	N/A	IGMP v1 and v2 PIM-DM PIM-SM MSDP(Multicast Source Discovery Protocol)
Network Protocol	N/A	VRRP (Virtual redundancy routing protocol) DHCP server Mirroring remote ports (Support RSPAN)
	DHCP Snooping (Dynamic Host Configuration Protocol Snooping) DHCP Relay (Dynamic Host Configuration Protocol Relay) DHCP Client DHCP option 60 ARP (Address Resolution Protocol) NTP (Network Time Protocol) BOOTP (Bootstrap Protocol) UDP helper	
Convergence		

⁵ For detail information, please refer to S3600 Series Switch System Description.

Features	S3600-SI	S3600-EI
QoS (Quality of Service)/ ACL (Access Control List)	Support bi-directional port rate-limiting with the granularity of 64kbps Packet redirection Eight hardware queues per port WRED (Weighted Random Early Detect/Discard) Five scheduling algorithms that can be set based on port and queue at the same time: <ul style="list-style-type: none"> • SP (Strict Priority) • WRR (Weighted Round Robin) • WFQ (Weighted Fair Queue) • SP + WRR • SP + WFQ Packet tagging based on 802.1p or DSCP preference L2-L4 Packet filter providing filtering based on source/destination MAC address, source/destination IP address, port, protocol, VLAN, VLAN range, MAC address range, or invalid frame Time-based QoS QoS profile management, allowing QoS service scheme customization Flow statistics for ACL rules defined using the deny keyword Improvements made for the depth-first order of ACL matching DSCP (differentiated services code point) refined when defining ACL rules Delivering ACLs in RADIUS Configuring synchronization for the queue schedule of aggregation ports Protocol packet priority Controlling Telnet users	
Security		
Network Login	Support Centralized MAC address authentication Support Disconnect unauthorized device (DUD) authentication Support Port isolation Support MAC address black hole Support MAC Address Learning Limit Prevent unauthorized access to the network by binding of MAC, IP and PORT Support SSH V2 (Secure Shell) Support Port security Support EAD(endpoint admission defense)	
802.1X	Support IEEE 802.1X user authentication Version checking (802.1 X supplicant system) Guest VLAN Dynamic VLAN 802.1 X PEAP/EAP/TLS/TTLS Performing 802.1 X authentication and MAC address-based authentication simultaneously 802.1 X -trusted MAC address 802.1 X client checking	
AAA&Radius	Separated authentication, authorization, and accounting Authenticated users need to be authenticated again when the device restarts Delivering of trunk ports and hybrid ports in Tag VLAN is supported when performing 802.1x authentications The tag authentication method field is added to RADIUS protocol HWTACACS	
Management/ Maintenance		

Features	S3600-SI	S3600-EI
System Configuration and Management	Support CLI (Command Line Interface) configuration mode Support Configuration via the console port Support Local/Remote configuration via Telnet Support Remote configuration via modem dial-up Support System configuration with SNMP v1, 2 and 3 Support SNMP Agent logging ⁶ Support HGMP V2 Support RMON (Remote Monitoring) v1, 1/2/3/9 groups of MIBs Support Quidview network management system Web-based network management	
File system management and seven-segment display	Upgrading all the units of a fabric using the App (or BootROM, Web) files of an unit Setting an App file of a fabric or a unit of a fabric to be the primary/a secondary configuration file. Specifying a fabric or an unit of a fabric to use the primary configuration file, a secondary configuration file, or no configuration file to start. Performing specific file-related operations for a fabric or a unit of a fabric, such as deleting files stored in the storage devices of a Ethernet switch, displaying the information about specified files or directories in the storage devices of a Ethernet switch, and clearing the recycle bin. Customizing the password for entering the BOOT menu. Configuration files backup/recovery. Seven-segment display, which indicates the progress of loading software using FTP/TFTP.	
System Maintenance and debugging	Detailed alarm/debug information output Support Ping and Tracert Support remote maintenance via Telnet Modems and SSH Support HWping Support System log Hierarchical alarm management and alarm filtering Support DLDP (Device Link Detection Protocol) Saving debugging information into Flash Displaying the information about all enabled types of debugging Displaying the statistics of MAC addresses of a switch Configuring Telnet users with specified source IP addresses/source ports Setting the Daylight Saving Time Loopback detection on ports Support VCT(Virtual Cable Test)	
Information center	Exporting switch synchronization information Setting the format of time stamps to be sent to log hosts	
Hardware configuration		
Outline Dimensions (HxWxD)mm	<ul style="list-style-type: none"> • S3600-28P-SI: 43.6*440*260 mm • S3600-52P-SI: 43.6*440*260 mm • S3600-28TP-SI: 43.6*440*260 mm • S3600-28P-PWR-SI: 43.6*440*420 mm • S3600-28P-EI: 43.6*440*260 mm • S3600-52P-EI: 43.6*440*260 mm • S3600-28F-EI: 43.6*440*260 mm • S3600-28P-PWR-EI: 43.6*440*420 mm • S3600-52P-PWR-EI: 43.6*440*420 mm 	

⁶ For detail information, please refer to S3600 Series Switch System Description.

Features	S3600-SI	S3600-EI
Weight	<ul style="list-style-type: none"> • S3600-28P-SI: 3.5kg • S3600-52P-SI: 4kg • S3600-28TP-SI: 3.5kg • S3600-28P-PWR-SI: 5.8kg • S3600-28P-EI: 3.5kg • S3600-52P-EI: 4kg • S3600-28F-EI: 3.5kg • S3600-28P-PWR-EI: 5.8kg • S3600-52P-PWR-EI: 6.2kg 	
Input Voltage	<p>The S3600-SI series (except S3600-28P-PWR-SI) are AC-powered. The S3600-EI series and S3600-28P-PWR-SI can be AC-powered and DC-powered.</p> <p>AC: 100v ~ 240V AC50/60Hz DC: -48 ~ -60V DC</p>	
Maximum System Power Consumption	<p>40W (S3600-28P-SI/S3600-28P-EI/S3600-28TP-SI) 50W (S3600-52P-SI/S3600-52P-EI) 65W (S3600-28F-EI) 450W (S3600-28P-PWR-SI, AC input) • Dissipated power: 150W • PoE: 300W 430W (S3600-28P-PWR-SI, DC input) • Dissipated power: 60W • PoE: 370W 450W (S3600-28P-PWR-EI, AC input) • Dissipated power: 150W • PoE: 300W 430W (S3600-28P-PWR-EI, DC input) • Dissipated power: 60W • PoE: 370W 465W (S3600-52P-PWR-EI, AC input) • Dissipated power: 165W • PoE: 300W 820W (S3600-52P-PWR-EI, DC input) • Dissipated power: 80W • PoE: 740W RPS(only EI and S3600-28P-PWR-SI support) • RPS1000-A (two PSU slots, with one PSU1500 module and 5 connector cables)</p>	
MTBF	<p>S3600-28P-SI: 54.79years (479,960 hours) S3600-52P-SI: 34.24years (299,942 hours) S3600-28P-EI: 52.51 years (459,987 hours) S3600-52P-EI: 34.96 years (306,249 hours) S3600-28P-PWR-SI: 41.09 years (359,948 hours) S3600-28P-PWR-EI: 41.09 years (359,948 hours) S3600-52P-PWR-EI: 22.83 years (199,990 hours) S3600-28TP-SI: 52.51 years (459,987 hours) S3600-28F-EI: 39.95 years (349,962 hours)</p>	
Noise Parameter	<p>S3600-28P-SI/EI : 40.1dbA S3600-28TP-SI: 40.1dbA S3600-52P-SI/EI: 46.5dBA S3600-28F-EI: 51.3dBA S3600-28P-PWR-SI/EI: 47.3dBA S3600-52P-PWR-EI: 46.3dBA</p>	
Environment	<p>Operation temperature: 0°C ~ 45°C Storage temperature: -40°C ~ 70°C Operating humidity: 5% to 85% non-condensing Relative humidity: 10% ~ 90%, non-condensing</p>	

Industry standards support

I Ethernet Protocols

IEEE 802.1D (STP)

IEEE 802.1p (CoS)
IEEE 802.1Q (VLANs)
IEEE 802.1s (MSTP)
IEEE 802.1w (RSTP)
IEEE 802.1Q(GVRP)
IEEE 802.1X (Security)
IEEE 802.3i (10BASE-T)
IEEE 802.3u (Fast Ethernet)
IEEE 802.3x (Flow Control)
IEEE 802.3z (Gigabit Ethernet)
IEEE 802.3ad (Link Aggregation)
IEEE 802.3p (four levels of priority)
IEEE 802.3ac (VLAN Tag Frame Extension)

I Administration Protocols

RFC 1812 (IPv4)
RFC 826 (ARP)
RFC 959 (FTP)
RFC 783 (TFTP)
RFC 768 (UDP)
RFC 791 (IP)
RFC 792 (ICMP)
RFC 793 (TCP)
RFC 2622 (Routing policy)
RFC 2474 (Diffserv)
RFC 2131 (DHCP)
RFC 1058 (RIPv1)
RFC1723 (RIPv2)
RFC 2328 (OSPF v2)
RFC 2370 (OSPF Opaque LSA Option)
RFC 1587 (OSPF NSSA option)
RFC 1765 (OSPF Database Overflow)
RFC 2338 (VRRP)
RFC 2362 (PIM-SM)
RFC 1112 (IGMPv1)
RFC 2236 (IGMPv2)
RFC 2865 (Radius Authentication)

RFC 2866 (Radius Accounting)
RFC 2869 (RADIUS Extensions)
RFC 2267 (Network Ingress Filtering)
RFC 1157 (SNMP)
RFC 1902 (SNMPv2)
RFC 854 (Telnet)
RFC 896 (Congestion control in IP/TCP network)
RFC 925 (Multi-LAN ARP/Proxy ARP)
RFC 1122 (Requirements for Internet Hosts)
RFC 1156 (TCP/IP MIB)
RFC 1212 (Concise MIB definitions)
RFC 1213 (MIB for Network Management of TCP/IP based internets (MIB II))
RFC 1757 (RMON (groups 1 2 3 and 9))
RFC 1901 (Community based SNMPv2)
RFC 2573 (SNMPv3 Applications)
RFC 2576 (Coexistence between SNMP V1, V2, V3)
RFC 2597 (Assured Forwarding PHB group (partial support))
RFC 2618 (Radius Authentication Client MIB)
RFC 2620 (Radius Accounting MIB)
RFC 2819 (Remote Network Monitoring MIB (group 1,2,3,9))
RFC 2865 (Remote Authentication Dial In User Service)
RFC 2869bis (Radius Support for Extensible Authentication Protocol (EAP))
RFC 2932IP (Multicast Routing MIB)
RFC 3046 (DHCP/BootP Relay)

Safety and Compliance

I Emissions / Agency Approvals

CISPR 22 Class A
FCC Part 15 Class A
EN 55022 Class A
ICES -003 Class A
VCCI Class A
AS/NZS 3548 Class A
EN 61000-3-2
EN 61000-3-3

I Immunity

Product conforms to:

EN 55024: 1998

EN 61000-4-2

EN 61000-4-3

EN 61000-4-4

EN 61000-4-5

EN 61000-4-6

EN 61000-4-11

I Safety Agency Certifications

UL 60950 3rd ed.

IEC 60950: 1999, corr. Feb. 2000; all national deviations

EN 60950: 2000, ZB and ZC deviations

CSA 22.2 No. 950 3rd ed., 1995

AS/NZS 60950:2000, Australia;

Typical Applications

Application 1: Broadband Ethernet Access for Residential Community

For the broadband Ethernet access of a residential community, the S3600 series are usually located in the center of the community. In the downlink direction, users can access the S3600 series via another switch such as the S2000-EI series or S3100 series; in the uplink direction, the S3600 series can be connected to the core layer-3 equipment via GE and finally to the WAN backbone network.

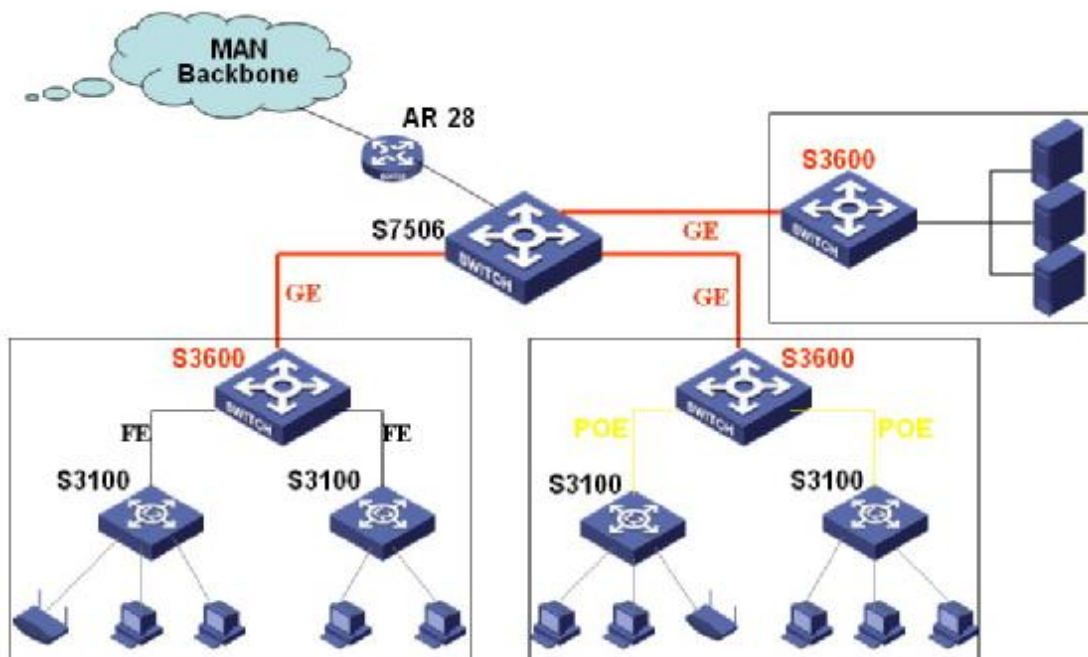


Figure 1: Broadband Ethernet Access for Residential Community

Application 2: Network of Small Enterprise

In a small enterprise network, S3600 series can serve as the backbone switches, which connect to the network of headquarters or other branches. When the size of the enterprise increases, the network can also be easily expanded by using the IRF technology supported by the S3600 series. As the size of the enterprise continues to increase, the network can also be easily further expanded.

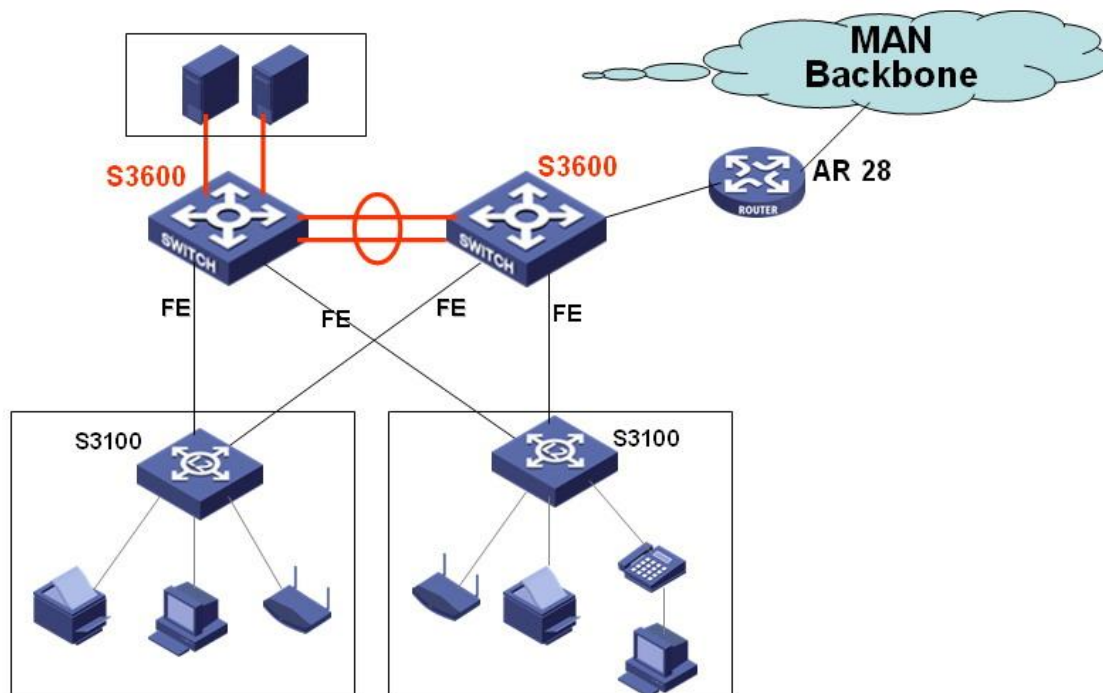


Figure 2: Small Enterprise Networks

Application 3: Large Enterprise Network

In a large enterprise network, the S3600 series are located at the access layer. The S3600 series can be connected to devices with IRF stack technology; in the uplink direction, the S3600 series are connected to the layer-3 switch through the GE expansion module. The diagram below formulates the Gigabit-to-backbone and 100 Mbps-to-desktop network-wide solutions for the Intranet.

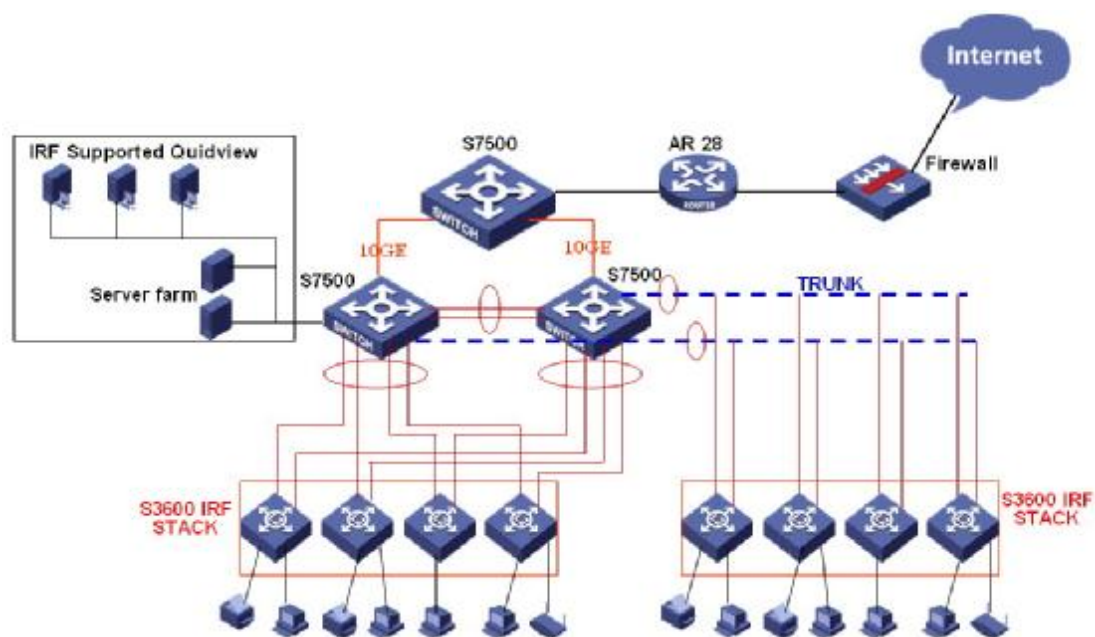


Figure 3: Large Enterprise Networks

Huawei-3Com., Ltd.

Add: Liuhe Road
Zhijiang Science Park,
Hangzhou 310053, P.R. China

Tel: +86 86760000

Email: customer_service@huawei-3com.com

Version No. : GE-082230-20060116-BR-V2.0

Website : www.huawei-3com.com

Copyright@2005 by Huawei-3Com Co., Ltd.

All product photography in this literature is intended for reference only. All rights reserved. No part of this document may be reproduced or transmitted in any form or by any company and product names may be trademarks of their respective companies. While every effort is made to ensure the information given is accurate, Huawei-3Com Co., Ltd. Does not accept liability for any errors or mistakes which may arise. Specifications and other information in this document may be subject to change without notice.