CloudEngine S5735-S Series Switches

Huawei CloudEngine S5735-S series are standard gigabit Ethernet switches that provide all GE downlink ports and 10GE uplink ports.

Product Overview

CloudEngine S5735-S series switches are developed based on next-generation high-performing hardware and the Huawei Versatile Routing Platform (VRP). CloudEngine S5735-S switches support simplified operations and maintenance (O&M), and flexible Ethernet networking. It also provides enhanced Layer 3 features and mature IPv6 features. CloudEngine S5735-S switches can be used in various scenarios. For example, it can be used as an access or aggregation switch on a campus network or as an access switch for Metropolitan Area Network.

Models and Appearances

The following models are available in the CloudEngine S5735-S series.

Models and appearances of the CloudEngine S5735-S series

Models and Appearances	Description
 CloudEngine S5735-S24T4X	• 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports • 1+1 power supply backup • Forwarding performance: 96 Mpps • Switching capacity: 128 Gbps/336 Gbps
 CloudEngine S5735-S24P4X	• 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports • 1+1 power supply backup • PoE+ • Forwarding performance: 96 Mpps • Switching capacity: 128 Gbps/336 Gbp
 CloudEngine S5735-S48T4X	• 48 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports • 1+1 power supply backup • Forwarding performance: 132 Mpps • Switching capacity: 176 Gbps/432 Gbps
 CloudEngine S5735-S48P4X	• 48 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports • 1+1 power supply backup • PoE+ • Forwarding performance: 132 Mpps

Models and Appearances	Description
	• Switching capacity: 176 Gbps/432 Gbps
 CloudEngine S5735-S32ST4X	• 24 x GE SFP ports, 8 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports • 1+1 power supply backup • Forwarding performance: 108 Mpps • Switching capacity: 144 Gbps/432 Gbps
 CloudEngine S5735-S48S4X	• 48 x GE SFP ports, 4 x 10 GE SFP+ ports • 1+1 power supply backup • Forwarding performance: 132 Mpps • Switching capacity: 176 Gbps/432 Gbps

Features and Highlights

Powerful Service Processing Capability and Multiple Security Control Mechanisms

- CloudEngine S5735-S supports a broad set of Layer 2/Layer 3 multicast protocols, such as PIM SM, PIM DM, PIM SSM, MLD, and IGMP snooping. This capability is ideal for high-definition video surveillance and video conferencing access.
- CloudEngine S5735-S provides multiple Layer 3 features including OSPF, IS-IS, BGP, and VRRP, meeting enterprises' access and aggregation service needs and enabling a variety of voice, video, and data applications.
- CloudEngine S5735-S supports MAC address authentication, 802.1X authentication, and Portal authentication, and implements dynamic delivery of policies (VLAN, QoS, and ACL) to users.
- CloudEngine S5735-S provides a series of mechanisms to defend against DoS attacks and user-targeted attacks. DoS attacks are targeted at switches and include SYN flood, Land, Smurf, and ICMP flood attacks. User-targeted attacks include bogus DHCP server attacks, IP/MAC address spoofing, DHCP request flood, and changing of the DHCP CHADDR value.
- CloudEngine S5735-S sets up and maintains a DHCP snooping binding table, and discards the packets that do not match the table entries. The DHCP snooping trusted port feature ensures that users connect only to the authorized DHCP server.
- CloudEngine S5735-S supports strict ARP learning, which protects a network against ARP spoofing attacks to ensure that users can connect to the Internet normally.

Easy O&M

- CloudEngine S5735-S supports Super Virtual Fabric (SVF), which innovatively virtualizes the "core/aggregation switch + access switch + AP" into one logical device. This simplifies device management and achieves plug-and-play for access switches and APs. In addition, CloudEngine S5735-S supports service configuration templates. The templates are configured on core devices and automatically delivered to access devices, enabling centralized control, simplified service configuration, and flexible configuration adjustment. CloudEngine S5735-S functions as a client in an SVF system.
- CloudEngine S5735-S supports Huawei Easy Operation, a solution that provides zero-touch deployment, replacement of faulty devices without additional configuration, USB-based deployment, batch device configuration, and batch remote upgrade. The capabilities facilitate device deployment, upgrade, service provisioning, and other management and maintenance operations, and also greatly reduce O&M costs. CloudEngine S5735-S can be managed using SNMP v1/v2c/v3, CLI, web-based network management system, or SSH v2.0. Additionally, it supports RMON, multiple log hosts, port traffic statistics collection, and network quality analysis, which facilitate network optimization and reconstruction.
- CloudEngine S5735-S supports the Sampled Flow (sFlow) function. It uses a method defined in the sFlow standard to sample traffic passing through it and sends sampled traffic to the collector in real time. The collected traffic statistics are used to generate statistical reports, helping enterprises maintain their networks.

Multiple Reliability Mechanisms

- CloudEngine S5735-S is equipped with two pluggable power modules that work in 1+1 redundancy backup mode. Mixed installation of AC and DC power modules is supported, allowing for flexible configuration of AC or DC power modules according to service requirements.
- In addition to supporting traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), CloudEngine S5735-S is also designed with Huawei-developed Smart Ethernet Protection

(SEP) technology and the industry's latest Ethernet Ring Protection Switching (ERPS) technology. SEP is a ring protection protocol specific to the Ethernet link layer, and applies to various ring network topologies, such as open ring topology, closed ring topology, and cascading ring topology. This protocol is reliable, easy to maintain, and implements fast protection switching within 50 ms. ERPS is defined in ITU-T G.8032, and it implements millisecond-level protection switching based on traditional Ethernet MAC and bridging functions.

- CloudEngine S5735-S supports Smart Link, which implements backup of uplinks. One CloudEngine S5735-S switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.
- CloudEngine S5735-S supports Ethernet OAM (IEEE 802.3ah/802.1ag) to fast-detect link faults.

Mature IPv6 Technologies

- CloudEngine S5735-S uses the mature, stable VRP platform and supports IPv4/IPv6 dual stack, IPv6 RIPng, and IPv6 over IPv4 tunnels (including manual, 6-to-4, and ISATAP tunnels).
- CloudEngine S5735-S can be deployed on a pure IPv4 network, a pure IPv6 network, or a shared IPv4/IPv6 network, helping achieve IPv4-to-IPv6 transition.

iStack

- CloudEngine S5735-S supports intelligent stack (iStack). This technology combines multiple switches into a logical switch. Member switches in a stack implement redundancy backup to improve device reliability and use inter-device link aggregation to improve link reliability.
- iStack provides high network scalability. You can increase ports, bandwidth, and processing capacity of a stack by simply adding member switches to the stack.
- iStack also simplifies device configuration and management. After a stack is set up, multiple physical switches are virtualized into one logical device. You can log in to any member switch in the stack to manage all the member switches in the stack. CloudEngine S5735-S support stacking through electrical ports.

PoE Function

- **Perpetual PoE**: When a PoE switch is abnormal Power-off or the software version is upgraded, the power supply to PDs is not interrupted. This capability ensures that PDs are not powered off during the switch reboot.
- **Fast PoE**: PoE switches can supply power to PDs within seconds after they are powered on. This is different from common switches that generally take 1 to 3 minutes to start to supply power to PDs. When a PoE switch reboots due to a power failure, the PoE switch continues to supply power to the PDs immediately after being powered on without waiting until it finishes reboot. This greatly shortens the power failure time of PDs.

Intelligent O&M

- CloudEngine S5735-S provides telemetry technology to collect device data in real time and send the data to Huawei campus network analyzer CampusInsight. The CampusInsight analyzes network data based on the intelligent fault identification algorithm, accurately displays the real-time network status, effectively demarcates and locates faults in a timely manner, and identifies network problems that affect user experience, accurately guaranteeing user experience.
- CloudEngine S5735-S supports a variety of intelligent O&M features for audio and video services, including the enhanced Media Delivery Index (eMDI). With this eDMI function, the switch can function as a monitored node to periodically conduct statistics and report audio and video service indicators to the CampusInsight platform. In this way, the CampusInsight platform can quickly demarcate audio and video service quality faults based on the results of multiple monitored nodes.

Intelligent Upgrade

- CloudEngine S5735-S supports the intelligent upgrade feature. Specifically, CloudEngine S5735-S obtains the version upgrade path and downloads the newest version for upgrade from the Huawei Online Upgrade Platform (HOUP). The entire upgrade process is highly automated and achieves one-click upgrade. In addition, preloading the version is supported, which greatly shortens the upgrade time and service interruption time.
- The intelligent upgrade feature greatly simplifies device upgrade operations and makes it possible for the customer to upgrade the version independently. This greatly reduces the customer's maintenance costs. In addition, the upgrade policies on the HOUP platform standardize the upgrade operations, which greatly reduces the risk of upgrade failures.

Cloud Management

- The Huawei cloud management platform allows users to configure, monitor, and inspect switches on the cloud, reducing on-site deployment and O&M manpower costs and decreasing network OPEX. Huawei switches support both cloud management and on-premise management modes. These two management modes can be flexibly switched as required to achieve smooth evolution while maximizing return on investment (ROI).

OPS

- CloudEngine S5735-S supports Open Programmability System (OPS), an open programmable system based on the Python language. IT administrators can program the O&M functions of a CloudEngine S5735-S switch through Python scripts to quickly innovate functions and implement intelligent O&M.

Product Specifications

Item	CloudEngine S5735-S24P4X	CloudEngine S5735-S24T4X	CloudEngine S5735-S32ST4X
Fixed port	24 x 10/100/1000Base-T ports(PoE+), 4 x 10 GE SFP+ ports	24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports	24 x GE SFP ports, 8 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports
Dimensions (H x W x D)	43.6 mm x 442 mm x 420 mm	43.6 mm x 442 mm x 420 mm	43.6 mm x 442 mm x 420 mm
Chassis height	1 U	1 U	1 U
Chassis weight (including packaging)	7.39 kg	7.21 kg	7.47 kg
Power supply type	1000 W AC PoE	• 60 W AC • 1000 W DC	• 60 W AC • 1000 W DC
Rated voltage range	AC input (1000 W AC PoE): 100 V AC to 240 V AC, 50/60 Hz	• AC input (60 W AC): 100 V AC to 240 V AC, 50/60 Hz • DC input (1000 W DC): -48 VDC to -60 V DC	• AC input (60 W AC): 100 V AC to 240 V AC, 50/60 Hz • DC input (1000 W DC): -48 VDC to -60 V DC
Maximum voltage range	• AC input (1000 W AC PoE): 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-voltage DC input (1000 W AC PoE): 190 V DC to 290 V DC (meeting 240 V high-voltage DC certification)	• AC input (60 W AC): 90 V AC to 264 V AC, 47 Hz to 63 Hz • High-voltage DC input (60 W AC): 190 V DC to 290 V DC (meeting 240 V high-voltage DC certification) • DC input (1000 W DC): -36 V DC to -72V DC	• AC input (60 W AC): 90 V AC to 264 V AC, 47 Hz to 63 Hz • High-voltage DC input (60 W AC): 190 V DC to 290 V DC (meeting 240 V high-voltage DC certification) • DC input (1000 W DC): -36 V DC to -72V DC
Maximum power consumption	• 65 W (without PD) • 847 W (with PD, PD power consumption of 720 W)	46 W	66 W
Noise	• Under normal temperature (sound power): 58.9dB (A) • Under high temperature (sound power): 75dB (A) • Under normal temperature (sound pressure): 43.8dB (A)	• Under normal temperature (sound power): 58.9dB (A) • Under high temperature (sound power): 75dB (A) • Under normal temperature (sound pressure): 43.8dB (A)	• Under normal temperature (sound power): 59.3dB (A) • Under high temperature (sound power): 75.4dB (A) • Under normal temperature (sound pressure): 44.2dB (A)

Item	CloudEngine S5735-S24P4X	CloudEngine S5735-S24T4X	CloudEngine S5735-S32ST4X
Long-term operating temperature	• 0-1800 m altitude: 0°C to +50°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.	• 0-1800 m altitude: 0°C to +50°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.	• 0-1800 m altitude: 0°C to +50°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.
Short-term operating temperature	• 0-1800 m altitude: -5°C to +55°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.	• 0-1800 m altitude: -5°C to +55°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.	• 0-1800 m altitude: -5°C to +55°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.
Storage temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Relative humidity	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)
Surge protection specification (service port)	±7 kV in common mode	±7 kV in common mode	±7 kV in common mode
Surge protection specification (power port)	±6 kV in differential mode, ±6 kV in common mode	• AC power port: ±6 kV in differential mode, ±6 kV in common mode • DC power port: ±2 kV in differential mode, ±4 kV in common mode	• AC power port: ±6 kV in differential mode, ±6 kV in common mode • DC power port: ±2 kV in differential mode, ±4 kV in common mode
Heat dissipation	Air-cooled heat dissipation and intelligent speed adjustment	Air-cooled heat dissipation and intelligent speed adjustment	Air-cooled heat dissipation and intelligent speed adjustment

Item	CloudEngine S5735-S48P4X	CloudEngine S5735-S48S4X	CloudEngine S5735-S48T4X
Fixed port	48 x 10/100/1000Base-T ports(PoE+), 4 x 10 GE SFP+ ports	48 x GE SFP ports, 4 x 10 GE SFP+ ports	48 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports
Dimensions (H x W x D)	43.6 mm x 442 mm x 420 mm	43.6 mm x 442 mm x 420 mm	43.6 mm x 442 mm x 420 mm
Chassis height	1 U	1 U	1 U
Chassis weight (including packaging)	7.64 kg	8.27 kg	7.69 kg
Power supply type	1000 W AC PoE	• 150 W AC • 1000 W DC	• 60 W AC • 1000 W DC
Rated voltage range	AC input (1000 W AC PoE): 100 V AC to 240 V AC, 50/60 Hz	• AC input (150 W AC): 100 V AC to 240 V AC, 50/60 Hz • DC input (1000 W DC): -48 VDC to -60 V DC	• AC input (60 W AC): 100 V AC to 240 V AC, 50/60 Hz • DC input (1000 W DC): -48 VDC to -60 V DC

Item	CloudEngine S5735-S48P4X	CloudEngine S5735-S48S4X	CloudEngine S5735-S48T4X
Maximum voltage range	• AC input (1000 W AC PoE): 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-voltage DC input (1000 W AC PoE): 190 V DC to 290 V DC (meeting 240 V high-voltage DC certification)	• AC input (150 W AC): 90 V AC to 264 V AC, 47 Hz to 63 Hz • DC input (1000 W DC): -36 V DC to -72V DC	• AC input (60 W AC): 90 V AC to 264 V AC, 47 Hz to 63 Hz • High-voltage DC input (60 W AC): 190 V DC to 290 V DC (meeting 240 V high-voltage DC certification) • DC input (1000 W DC): -36 V DC to -72V DC
Maximum power consumption	• 77 W (without PD) • 1661 W (with PD, PD power consumption of 1600 W)	89 W	59 W
Noise	• Under normal temperature (sound power): 58.9dB (A) • Under high temperature (sound power): 75dB (A) • Under normal temperature (sound pressure): 43.8dB (A)	• Under normal temperature (sound power): 61dB (A) • Under high temperature (sound power): 75.7dB (A) • Under normal temperature (sound pressure): 46dB (A)	• Under normal temperature (sound power): 58.9dB (A) • Under high temperature (sound power): 75dB (A) • Under normal temperature (sound pressure): 43.8dB (A)
Long-term operating temperature	• 0-1800 m altitude: 0°C to +50°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.	• 0-1800 m altitude: 0°C to +50°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.	• 0-1800 m altitude: 0°C to +50°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.
Short-term operating temperature	• 0-1800 m altitude: -5°C to +55°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.	• 0-1800 m altitude: -5°C to +55°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.	• 0-1800 m altitude: -5°C to +55°C • 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m.
Storage temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Relative humidity	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)
Surge protection specification (service port)	±7 kV in common mode	NA	±7 kV in common mode
Surge protection specification (power port)	±6 kV in differential mode, ±6 kV in common mode	• AC power port: ±6 kV in differential mode, ±6 kV in common mode • DC power port: ±2 kV in differential mode, ±4 kV in common mode	• AC power port: ±6 kV in differential mode, ±6 kV in common mode • DC power port: ±2 kV in differential mode, ±4 kV in common mode
Heat dissipation	Air-cooled heat dissipation and intelligent speed adjustment	Air-cooled heat dissipation and intelligent speed adjustment	Air-cooled heat dissipation and intelligent speed adjustment

Service Features

Item	Description
MAC address table	IEEE 802.1d compliance
	16512 MAC entries
	MAC address learning and aging
	Static, dynamic, and blackhole MAC address entries
	Packet filtering based on source MAC addresses
VLAN	4K VLANs
	Guest VLAN and voice VLAN
	GVRP
	MUX VLAN
	VLAN assignment based on MAC addresses, protocols, IP subnets, policies, and ports
	1: 1 and N: 1 VLAN mapping
Reliability	RRPP ring topology and RRPP multi-instance
	Smart Link tree topology and Smart Link multi-instance, providing millisecond-level protection switchover
	SEP
	STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s)
	ERPS (G.8032)
	BPDU protection, root protection, and loop protection
IP routing	Static route, RIPv1/v2, RIPng, OSPF, OSPFv3, ECMP, IS-IS, IS-ISv6, BGP, BGP4+, VRRP, and VRRP6
	Up to 8192 FIBv4 entries
	Up to 3072 FIBv6 entries
IPv6 features	3072 ND entries
	Path MTU (PMTU)
	IPv6 ping, IPv6 tracert, and IPv6 Telnet
	6to4 tunnel, ISATAP tunnel, and manually configured tunnel
Multicast	PIM DM, PIM SM, PIM SSM
	IGMP v1/v2/v3, IGMP v1/v2/v3 snooping and IGMP fast leave
	MLD v1/v2 and MLD v1/v2 snooping
	Multicast forwarding in a VLAN and multicast replication between VLANs
	Multicast load balancing among member ports of a trunk
	Controllable multicast
	Port-based multicast traffic statistics
QoS/ACL	Rate limiting on packets sent and received by a port
	Packet redirection

Item	Description
	Port-based traffic policing and two-rate three-color CAR
	Eight queues on each port
	WRR, DRR, SP, WRR+SP, and DRR+SP queue scheduling algorithms
	Re-marking of the 802.1p priority and DSCP priority
	Packet filtering at Layer 2 to Layer 4, filtering out invalid frames based on the source MAC address, destination MAC address, source IP address, destination IP address, TCP/UDP port number, protocol type, and VLAN ID
	Rate limiting in each queue and traffic shaping on ports
Security	Hierarchical user management and password protection
	DoS attack defense, ARP attack defense, and ICMP attack defense
	Binding of the IP address, MAC address, port number, and VLAN ID
	Port isolation, port security, and sticky MAC
	MFF
	Blackhole MAC address entries
	Limit on the number of learned MAC addresses
	IEEE 802.1x authentication and limit on the number of users on a port
	AAA authentication, RADIUS authentication, HWTACACS authentication, and NAC
	SSH v2.0
	HTTPS
	CPU defense
	Blacklist and whitelist
	IEEE 802.1x authentication, MAC address authentication, and Portal authentication
	DHCPv4/v6 client/relay/server/snooping
	Attack source tracing and punishment for IPv6 packets such as ND, DHCPv6, and MLD packets Supports separation between user authentication and policy enforcement points IPSec
SVF	Plug-and-play SVF client
	Automatically loading the system software packages and patches of SVF clients
	Automatically delivering service configurations in a one-click manner
	Independent running of SVF clients
OAM	Software OAM:
	EFM OAM
	CFM OAM
	Y.1731 performance test
Management and	iStack
	Cloud management based on Netconf/Yang

Item	Description
maintenance	Virtual cable test
	SNMP v1/v2c/v3
	RMON
	Web-based NMS
	System logs and alarms of different levels
	802.3az EEE
	sFlow
Interoperability	Supports VBST (Compatible with PVST/PVST+/RPVST)
	Supports LNP (Similar to DTP)
	Supports VCMP (Similar to VTP)

Standard Compliance

Standard Organization	Standard or Protocol
IETF	• RFC 768 User Datagram Protocol (UDP) • RFC 792 Internet Control Message Protocol (ICMP) • RFC 793 Transmission Control Protocol (TCP) • RFC 826 Ethernet Address Resolution Protocol (ARP) • RFC 854 Telnet Protocol Specification • RFC 951 Bootstrap Protocol (BOOTP) • RFC 959 File Transfer Protocol (FTP) • RFC 1058 Routing Information Protocol (RIP) • RFC 1112 Host extensions for IP multicasting • RFC 1157 A Simple Network Management Protocol (SNMP) • RFC 1256 ICMP Router Discovery • RFC 1305 Network Time Protocol Version 3 (NTP) • RFC 1349 Internet Protocol (IP) • RFC 1493 Definitions of Managed Objects for Bridges • RFC 1542 Clarifications and Extensions for the Bootstrap Protocol • RFC 1643 Ethernet Interface MIB • RFC 1757 Remote Network Monitoring (RMON) • RFC 1901 Introduction to Community-based SNMPv2 • RFC 1902-1907 SNMP v2 • RFC 1981 Path MTU Discovery for IP version 6 • RFC 2131 Dynamic Host Configuration Protocol (DHCP) • RFC 2328 OSPF Version 2 • RFC 2453 RIP Version 2 • RFC 2460 Internet Protocol, Version 6 Specification (IPv6) • RFC 2461 Neighbor Discovery for IP Version 6 (IPv6) • RFC 2462 IPv6 Stateless Address Auto configuration

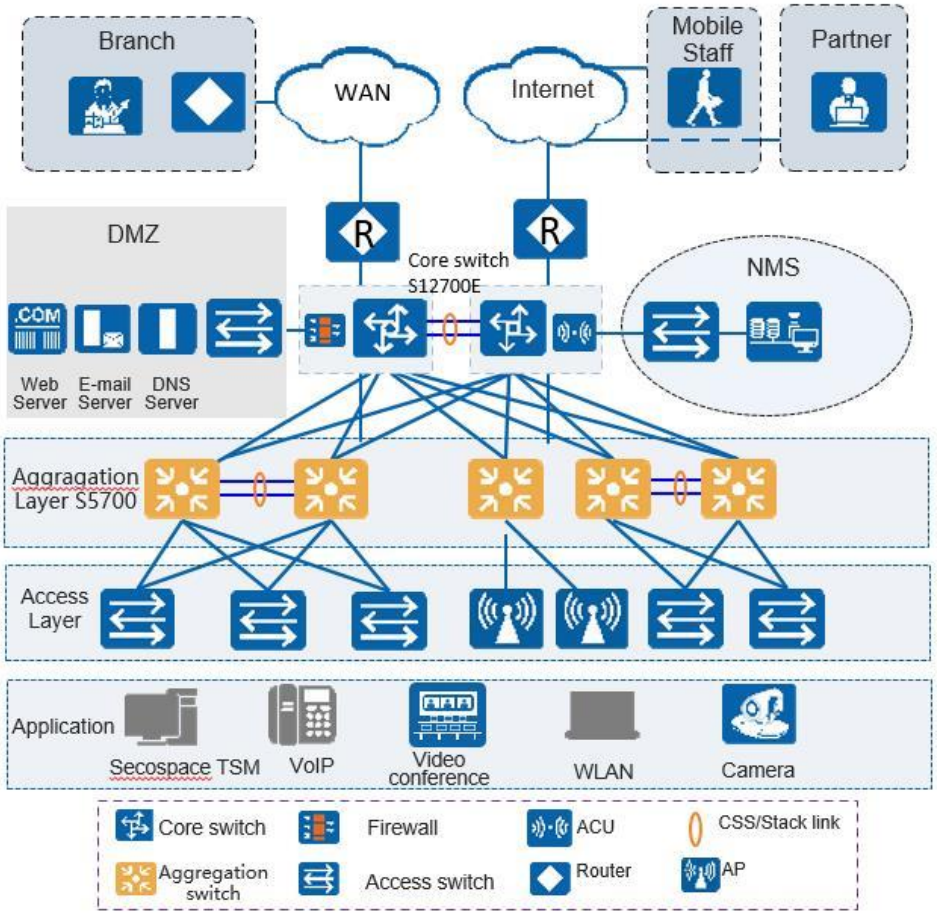
Standard Organization	Standard or Protocol
	• RFC 2463 Internet Control Message Protocol for IPv6 (ICMPv6) • RFC 2474 Differentiated Services Field (DS Field) • RFC 2740 OSPF for IPv6 (OSPFv3) • RFC 2863 The Interfaces Group MIB • RFC 2597 Assured Forwarding PHB Group • RFC 2598 An Expedited Forwarding PHB • RFC 2571 SNMP Management Frameworks • RFC 2865 Remote Authentication Dial In User Service (RADIUS) • RFC 3046 DHCP Option82 • RFC 3376 Internet Group Management Protocol, Version 3 (IGMPv3) • RFC 3513 IP Version 6 Addressing Architecture • RFC 3579 RADIUS Support For EAP • RFC 4271 A Border Gateway Protocol 4 (BGP-4) • RFC 4760 Multiprotocol Extensions for BGP-4 • draft-grant-tacacs-02 TACACS+
IEEE	• IEEE 802.1D Media Access Control (MAC) Bridges • IEEE 802.1p Traffic Class Expediting and Dynamic Multicast Filtering • IEEE 802.1Q Virtual Bridged Local Area Networks • IEEE 802.1ad Provider Bridges • IEEE 802.2 Logical Link Control • IEEE Std 802.3 CSMA/CD • IEEE Std 802.3ab 1000BASE-T specification • IEEE Std 802.3ad Aggregation of Multiple Link Segments • IEEE Std 802.3ae 10GE WEN/LAN Standard • IEEE Std 802.3x Full Duplex and flow control • IEEE Std 802.3z Gigabit Ethernet Standard • IEEE802.1ax/IEEE802.3ad Link Aggregation • IEEE 802.3ah Ethernet in the First Mile • IEEE 802.1ag Connectivity Fault Management • IEEE 802.1ab Link Layer Discovery Protocol • IEEE 802.1D Spanning Tree Protocol • IEEE 802.1w Rapid Spanning Tree Protocol • IEEE 802.1s Multiple Spanning Tree Protocol • IEEE 802.1x Port based network access control protocol • IEEE 802.3af DTE Power via MIDI • IEEE 802.3at DTE Power via the MDI Enhancements
ITU	• ITU SG13 Y.17ethoam • ITU SG13 QoS control Ethernet-Based IP Access • ITU-T Y.1731 ETH OAM performance monitor
ISO	• ISO 10589 IS-IS Routing Protocol
MEF	• MEF 2 Requirements and Framework for Ethernet Service Protection • MEF 9 Abstract Test Suite for Ethernet Services at the UNI • MEF 10.2 Ethernet Services Attributes Phase 2

Standard Organization	Standard or Protocol
	• MEF 11 UNI Requirements and Framework • MEF 13 UNI Type 1 Implementation Agreement • MEF 15 Requirements for Management of Metro Ethernet Phase 1 Network Elements • MEF 17 Service OAM Framework and Requirements • MEF 20 UNI Type 2 Implementation Agreement • MEF 23 Class of Service Phase 1 Implementation Agreement • XMODEM/YMODEM Protocol Reference

Networking and Applications

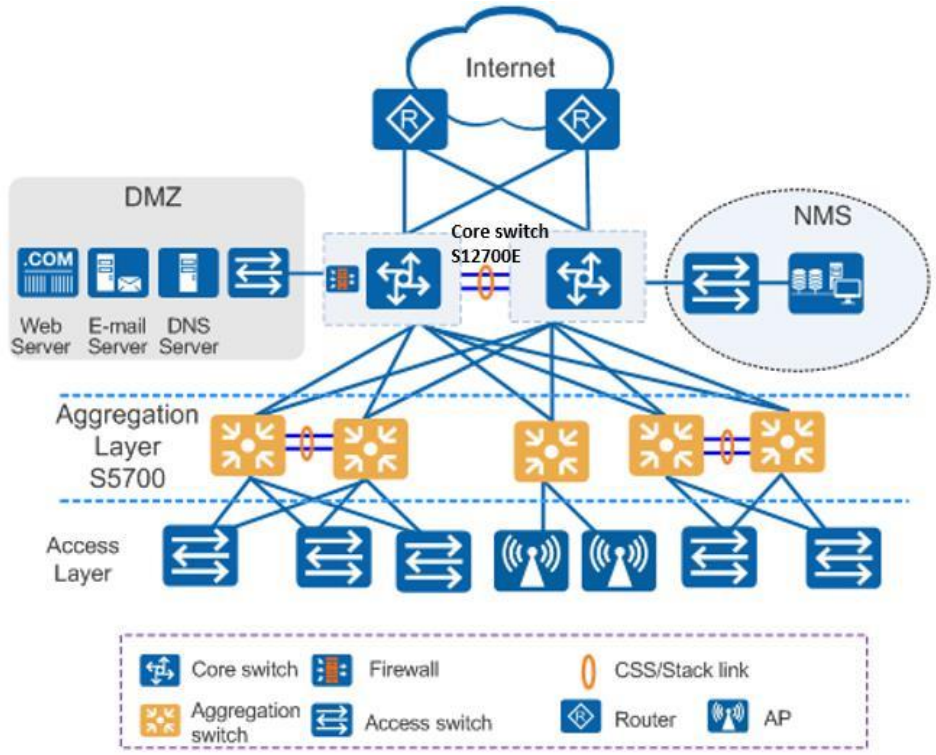
Large-Scale Enterprise Campus Network

CloudEngine S5735-S series switches can be deployed at the access layer of a campus network to build a high-performance and highly reliable enterprise network.



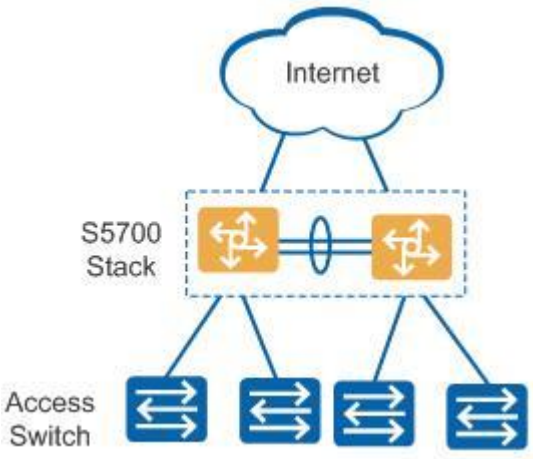
Small- or Medium-scale Enterprise Campus Network

CloudEngine S5735-S series switches can be deployed at the aggregation layer of a campus network to build a high-performance, multi-service, and highly reliable enterprise network.



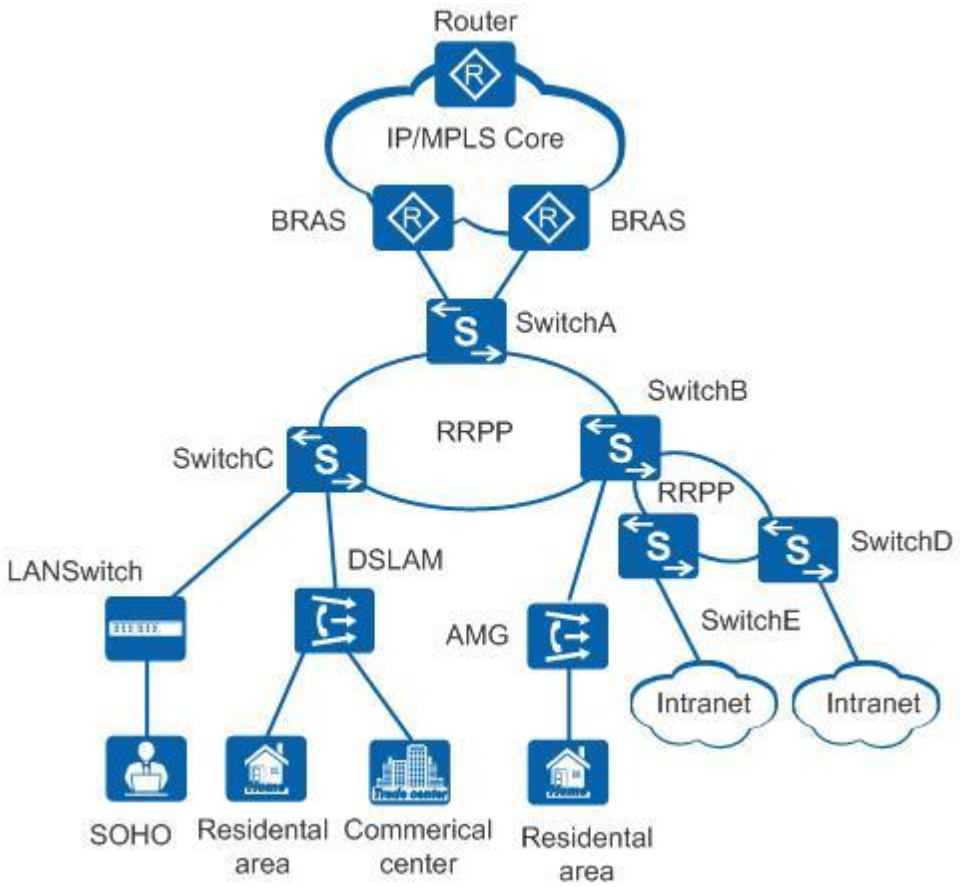
Small-scale Enterprise Campus Network

With powerful aggregation and routing capabilities of CloudEngine S5735-S series switches make them suitable for use as core switches in a small-scale enterprise network. Two or more S5735-S switches use iStack technology to ensure high reliability. They provide a variety of access control policies to achieve centralized management and simplify configuration.



Application on a MAN

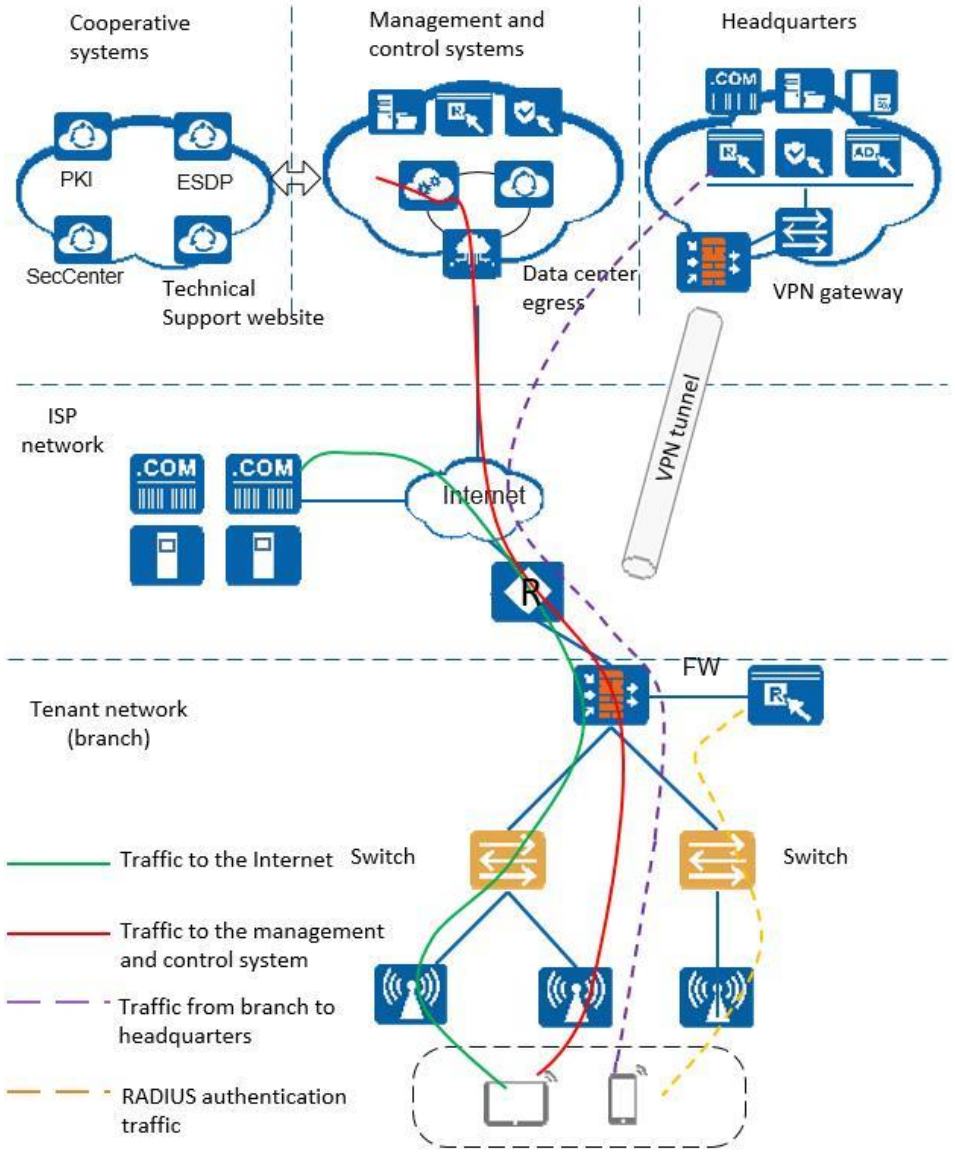
CloudEngine S5735-S series switches can be deployed at the access layer of a MAN(Metropolitan Area Network) to build a high-performance, multi-service, and highly reliable ISP MAN network.



Application in Public Cloud

CloudCampus Solution is a network solution suite based on Huawei public cloud.CloudEngine S5735-S series switches can be located at the access layer.

The switches are plug-and-play. They go online automatically after being powered on and connected with network cables, without the need for complex configurations. The switches can connect to the management and control system (CloudCampus@AC-Campus for switches running V200R019C00 and earlier versions; iMaster NCE-Campus for switches running V200R019C10 and later versions), and use bidirectional certificate authentication to ensure management channel security. The switches provide the NETCONF and YANG interfaces, through which the management and control system delivers configurations to them. In addition, remote maintenance and fault diagnosis can be performed on the management and control system.



Ordering Information

The following table lists ordering information of the CloudEngine S5735-S series switches.

Model	Product Description
CloudEngine S5735-S24T4X	CloudEngine S5735-S24T4X (24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports, without power module)
CloudEngine S5735-S24P4X	CloudEngine S5735-S24P4X (24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports, PoE+, without power module)
CloudEngine S5735-S48T4X	CloudEngine S5735-S48T4X (48 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports, without power module)
CloudEngine S5735-S48P4X	CloudEngine S5735-S48P4X (48 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports, PoE+, without power module)
CloudEngine S5735-S32ST4X	CloudEngine S5735-S32ST4X (24 x GE SFP ports, 8 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports, without power module)
CloudEngine S5735-S48S4X	CloudEngine S5735-S48S4X (48 x GE SFP ports, 4 x 10 GE SFP+ port, without power module)

Model	Product Description
PAC1000S56-CB	1000 W AC PoE power module，used in PoE models
PDC1000S12-DB	1000 W DC power module，used in Non-PoE models
PAC150S12-R	150 W AC power module, used in CloudEngine S5735-S48S4X
PAC60S12-AR	60 W AC power module

More Information

For more information about Huawei Campus Switches, visit http://e.huawei.com or contact us in the following ways:

- Global service hotline: http://e.huawei.com/en/service-hotline
- Logging in to the Huawei Enterprise technical support website: http://support.huawei.com/enterprise/
- Sending an email to the customer service mailbox: support_e@huawei.com

Huawei Technologies Co., Ltd.

Address:Huawei Industrial Base Bantian, Longgang Shenzhen 518129 People's Republic of China

Website:e.huawei.com