

CloudEngine S5736-S Series All-Optical Switches

CloudEngine S5736-S series switches are next-generation standard all-optical GE access switches that provide 24-port and 48-port models, and provide four 10GE ports and one extended slot(optional).




Product Overview


CloudEngine S5736-S series all-optical GE access switches are developed based on next-generation high-performing hardware and the Huawei Versatile Routing Platform (VRP), support enhanced Layer 3 features simplified operations and maintenance (O&M), flexible Ethernet networking and mature IPv6 features. CloudEngine S5736-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 S5736-S series.

Models and appearances of the CloudEngine S5736-S series

Models and Appearances	Description
 CloudEngine S5736-S24S4XC	<ul style="list-style-type: none"> • 24 x GE SFP ports, 4 x 10 GE SFP+ ports • One extended slot • 1+1 power supply backup • Forwarding performance: 240 Mpps • Switching capacity: 448 Gbps/1.36 Tbps
 CloudEngine S5736-S48S4XC	<ul style="list-style-type: none"> • 48 x GE SFP ports, 4 x 10 GE SFP+ ports • One extended slot • 1+1 power supply backup • Forwarding performance: 240 Mpps • Switching capacity: 496 Gbps/1.36 Tbps
 CloudEngine S5736-S48S4X-A	<ul style="list-style-type: none"> • 48 x GE SFP ports, 4 x 10 GE SFP+ ports • Built-in AC power • Forwarding performance: 480 Mpps • Switching capacity: 1.04 Tbps/2.72 Tbps <p><i>Note: All ports support GE by default. You can purchase right-to-use (RTU) licenses to upgrade the port rate from GE to 10GE.</i></p>

Models and Appearances	Description
 <p>CloudEngine S5736-S48S4X-D</p>	<ul style="list-style-type: none"> • 48 x GE SFP ports, 4 x 10 GE SFP+ ports • Built-in DC power • Forwarding performance: 480 Mpps • Switching capacity: 1.04 Tbps/2.72 Tbps <p><i>Note: All ports support GE by default. You can purchase right-to-use (RTU) licenses to upgrade the port rate from GE to 10GE.</i></p>

Note: The value before the slash (/) refers to the device's switching capability, while the value after the slash (/) means the system's switching capability.

Features and Highlights

Flexible Port Access On-demand

- CloudEngine S5736-S series switches provide 48 downlink optical ports and four 10GE uplink optical ports. Based on the innovative RTU mode, the downlink port rate can be increased on demand (Only S5736-S48S4X-A/D support). With the rapid growth of services, the rate can be smoothly upgraded from 1 Gbit/s to 10 Gbit/s, maximizing the investment on the existing network.

Powerful Service Processing Capability

- CloudEngine S5736-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 backhaul and video conferencing access.
- CloudEngine S5736-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.

Multiple Reliability Mechanisms

- In addition to traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), the CloudEngine S5736-S supports Huawei-developed Smart Ethernet Protection (SEP) technology and the latest Ethernet Ring Protection Switching (ERPS) standard. 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. It implements millisecond-level protection switching based on traditional Ethernet MAC and bridging functions.
- The CloudEngine S5736-S supports Smart Link and Virtual Router Redundancy Protocol (VRRP), which implement backup of uplinks. One CloudEngine S5736-S switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.
- CloudEngine S5736-S supports Ethernet OAM (IEEE 802.3ah/802.1ag) to fast-detect link faults.

Multiple Security Control Mechanisms

- CloudEngine S5736-S supports MAC address authentication, 802.1X authentication, and Portal authentication, and implements dynamic delivery of policies (VLAN, QoS, and ACL) to users.
- CloudEngine S5736-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 S5736-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 S5736-S supports strict ARP learning, which protects a network against ARP spoofing attacks to ensure that users can connect to the Internet normally.
- CloudEngine S5736-S supports Media Access Control Security (MACsec) with the ports of subcard (8*10GE SFP+ subcard). It provides identity authentication, data encryption, integrity check, and replay protection to protect Ethernet frames and prevent attack packets.

Easy Network deployment

- CloudEngine S5736-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 S5736-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 S5736-S functions as a client in an SVF system.
- CloudEngine S5736-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 S5736-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.

Mature IPv6 Technologies

- CloudEngine S5736-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 S5736-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.

Intelligent Stack (iStack)

- CloudEngine S5736-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 S5736-S support stacking through fixed downlink/uplink ports.

VXLAN Features

- VXLAN is used to construct a Unified Virtual Fabric (UVF). As such, multiple service networks or tenant networks can be deployed on the same physical network, and service and tenant networks are isolated from each other. This capability truly achieves 'one network for multiple purposes'. The resulting benefits include enabling data transmission of different services or customers, reducing the network construction costs, and improving network resource utilization.
- The CloudEngine S5736-S series switches are hardware ready to support VXLAN and allow centralized and distributed VXLAN gateway deployment modes. These switches also support the BGP EVPN protocol for dynamically establishing VXLAN tunnels and can be configured using NETCONF/YANG.

Intelligent O&M

- CloudEngine S5736-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.
- CloudEngine S5736-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 S5736-S supports a variety of intelligent O&M features for audio and video services, including the enhanced Media Delivery Index (eMDI). With this eMDI function, the switch can function as a monitored node to periodically conduct statistics and report audio and video service indicators to the iMaster NCE-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 S5736-S supports the intelligent upgrade feature. Specifically, CloudEngine S5736-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(Open Programmability System)

- CloudEngine S5736-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 S5736-S switch through Python scripts to quickly innovate functions and implement intelligent O&M.

Licensing

CloudEngine S5736-S supports both the traditional feature-based licensing mode and the latest Huawei IDN One Software (N1 mode for short) licensing mode. The N1 mode is ideal for deploying Huawei CloudCampus Solution in the on-premises scenario, as it greatly enhances the customer experiences in purchasing and upgrading software services with simplicity.

Software Package Features in N1 Mode

Switch Functions	N1 Basic Software	N1 Foundation Software Package	N1 Advanced Software Package
Basic network functions: Layer 2 functions, IPv4, IPv6, SVF, and others Note: For details, see the Service Features	√	√	√
Basic network automation based on the iMaster NCE-Campus: <ul style="list-style-type: none"> ● Basic automation: Plug-and-play ● Basic monitoring: Application visualization ● NE management: Image and topology management and discovery ● User access authentication 	×	√	√
Advanced network automation and intelligent O&M: CampusInsight basic functions	×	×	√

RTU license

CloudEngine S5736-S series all-optical switches use the innovative RTU license design(only S5736-S48S4X-A/D). The RTU license is used to flexibly manage and control downlink GE ports.The switches can be configured and upgraded on demand,when working with Wi-Fi 6 APs, aggregation switches, and core switches, they can quickly build a flexible campus network to meet actual service requirements , enable customers' networks and services to grow together, and avoid excessive investment

RTU license description	CloudEngine S5736-S48S4X-A/D
SPF 1G to 10G Electronic RTU License	√

Note: Only V200R020C30 and later versions can support N1 mode

Product Specifications

Item	CloudEngine S5736-S24S4XC	CloudEngine S5736-S48S4XC
Fixed port	24 x GE SFP ports, 4 x 10 GE SFP+ ports	48 x GE SFP ports, 4 x 10 GE SFP+ ports
Extended slot	One extended slot, support 4 x 40GE QSFP+, 2 x 40GE QSFP+ and 8 x 10GE SFP+ cards	
Dimensions (H x W x D)	43.6 mm x 442 mm x 420 mm	43.6 mm x 442 mm x 420 mm
Chassis height	1 U	1 U
Chassis weight (including packaging)	8.2kg	8.6kg
Power supply type	<ul style="list-style-type: none"> 150 W AC 600 W AC 180 W DC 1000 W DC 	<ul style="list-style-type: none"> 150 W AC 600 W AC 180 W DC 1000 W DC
Rated voltage range	<ul style="list-style-type: none"> AC input (150/600 W AC): 100 V AC to 240 V AC, 50/60 Hz DC input (180/1000 W DC): -48 VDC to -60 V DC 	<ul style="list-style-type: none"> AC input (150/600 W AC): 100 V AC to 240 V AC, 50/60 Hz DC input (180/1000 W DC): -48 VDC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input (150/600 W AC): 90 V AC to 290 V AC, 45 Hz to 65 Hz High-voltage DC input (600 W AC): 190 V DC to 290 V DC (meeting 240 V high-voltage DC certification) DC input (180/1000 W DC): -38.4 V DC to -72V DC 	<ul style="list-style-type: none"> AC input (150/600 W AC): 90 V AC to 290 V AC, 45 Hz to 65 Hz High-voltage DC input (600 W AC): 190 V DC to 290 V DC (meeting 240 V high-voltage DC certification) DC input (180/1000 W DC): -38.4 V DC to -72V DC
Maximum power consumption	74W	100W
Noise	<ul style="list-style-type: none"> Under normal temperature (sound power): 49.9dB (A) Under high temperature (sound power): 73.9dB (A) Under normal temperature (sound pressure): 37.8dB (A) 	<ul style="list-style-type: none"> Under normal temperature (sound power): 49.9dB (A) Under high temperature (sound power): 73.9dB (A) Under normal temperature (sound pressure): 37.8dB (A)
Long-term operating temperature	<ul style="list-style-type: none"> 0-1800 m altitude: -5°C to +45°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m. 	<ul style="list-style-type: none"> 0-1800 m altitude: -5°C to +45°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.
Short-term operating temperature	-5°C to +50°C	-5°C ~50°C

Item	CloudEngine S5736-S24S4XC	CloudEngine S5736-S48S4XC
Storage temperature	-40°C to +70°C	-40°C to +70°C
Relative humidity	5% to 95% (non-condensing)	5% to 95% (non-condensing)
Surge protection specification (power port)	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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

Item	CloudEngine S5736-S48S4X-A	CloudEngine S5736-S48S4X-D
Fixed port	48 x GE SFP ports(optional RTU upgrade to 10G), 4 x 10 GE SFP+ ports	48 x GE SFP ports(optional RTU upgrade to 10G), 4 x 10 GE SFP+ ports
Dimensions (H x W x D)	43.6 mm x 442 mm x 220 mm	43.6 mm x 442 mm x 220 mm
Chassis height	1 U	1 U
Chassis weight (including packaging)	4.7kg	4.3kg
Power supply type	Build-in AC power	Build-in DC power
Rated voltage range	<ul style="list-style-type: none"> AC input : 100V AC~130V AC, 200V AC~240V AC; 50/60Hz High-Voltage DC input: -240V DC 	<ul style="list-style-type: none"> DC input : -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input : 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190V DC~290V DC 	<ul style="list-style-type: none"> DC input : -36 V DC to -72V DC
Maximum power consumption	111W	108W
Noise	<ul style="list-style-type: none"> Under normal temperature (sound power): 56.8dB (A) Under high temperature (sound power): 73.9dB (A) Under normal temperature (sound pressure): 44.8dB (A) 	<ul style="list-style-type: none"> Under normal temperature (sound power): 56.8dB (A) Under high temperature (sound power): 73.9dB (A) Under normal temperature (sound pressure): 44.8dB (A)
Long-term operating temperature	<ul style="list-style-type: none"> 0-1800 m altitude: -5°C to +45°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m. 	<ul style="list-style-type: none"> 0-1800 m altitude: -5°C to +45°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.
Short-term operating temperature	-5°C~50°C	-5°C~50°C
Storage temperature	-40°C to +70°C	-40°C to +70°C
Relative humidity	5% to 95% (non-condensing)	5% to 95% (non-condensing)
Surge protection specification (power port)	<ul style="list-style-type: none"> ± 6 kV in differential mode, ± 6 kV in common mode 	<ul style="list-style-type: none"> ± 2 kV in differential mode, ± 4 kV in common mode
Heat dissipation	Air-cooled heat dissipation and intelligent	Air-cooled heat dissipation and intelligent

Item	CloudEngine S5736-S48S4X-A	CloudEngine S5736-S48S4X-D
	speed adjustment	speed adjustment

Service Features

Item	Description
MAC address table	IEEE 802.1d compliance
	32K 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, RIPv6, OSPF, OSPFv3, ECMP, IS-IS, IS-ISv6, BGP, BGP4+, VRRP, and VRRP6
	Up to 8K FIBv4 entries
	Up to 4K FIBv6 entries
IPv6 features	10K ND entries
	Path MTU (PMTU)
	IPv6 ping, IPv6 traceroute, 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

Item	Description
	Port-based multicast traffic statistics
QoS/ACL	Rate limiting on packets sent and received by a port
	Packet redirection
	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
VxLAN*	VXLAN L2 and L3 gateways
	Centralized and distributed gateway
	BGP-EVPN
	Configured through the NETCONF protocol
SVF	Plug-and-play SVF client
	Automatically loading the system software packages and patches of SVF clients

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

*Hardware ready

Standard Compliance

Standard Organization	Standard or Protocol
IETF	<ul style="list-style-type: none"> • 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

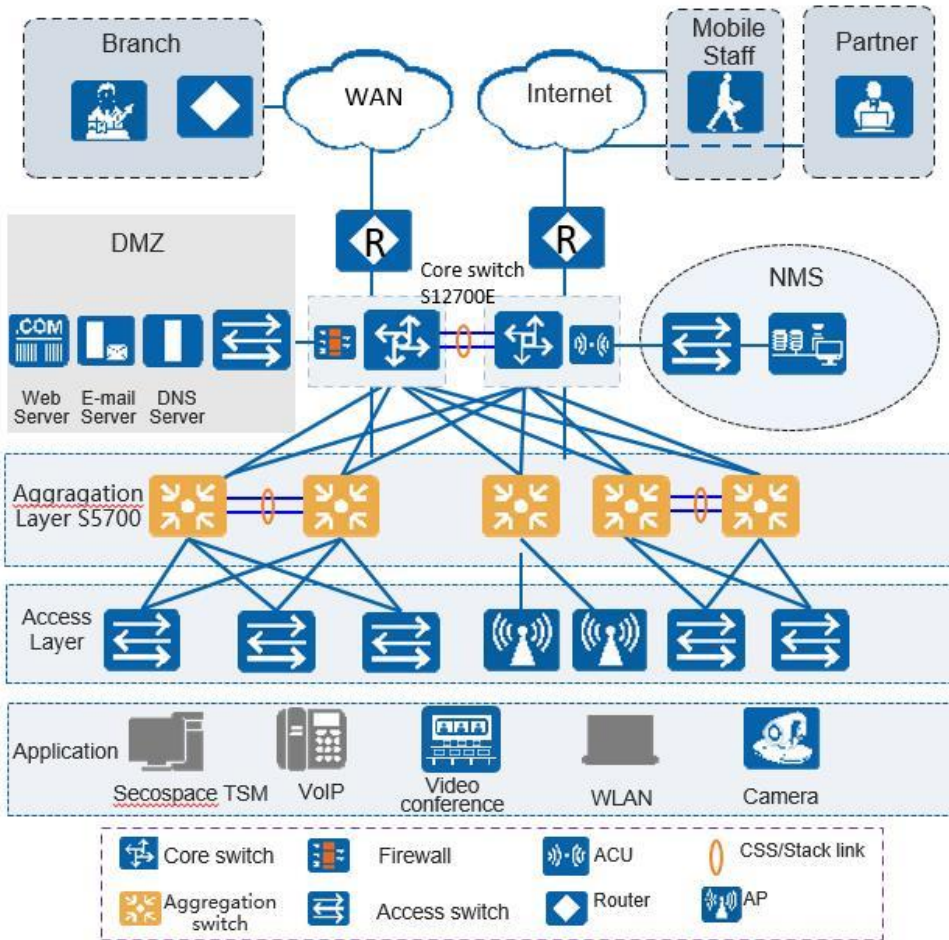
Standard Organization	Standard or Protocol
	<ul style="list-style-type: none"> • RFC 1643 Ethernet Interface MIB • RFC 1757 Remote Network Monitoring (RMON) • RFC 1901 Introduction to Community-based SNMPv2 • RFC 1902-1907 SNMP v2 • RFC 1981 Path MTU Discovery for IP version 6 • RFC 2131 Dynamic Host 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 • 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	<ul style="list-style-type: none"> • 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

Standard Organization	Standard or Protocol
	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • ITU SG13 Y.17ethoam • ITU SG13 QoS control Ethernet-Based IP Access • ITU-T Y.1731 ETH OAM performance monitor
ISO	<ul style="list-style-type: none"> • ISO 10589 IS-IS Routing Protocol
MEF	<ul style="list-style-type: none"> • 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 • 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

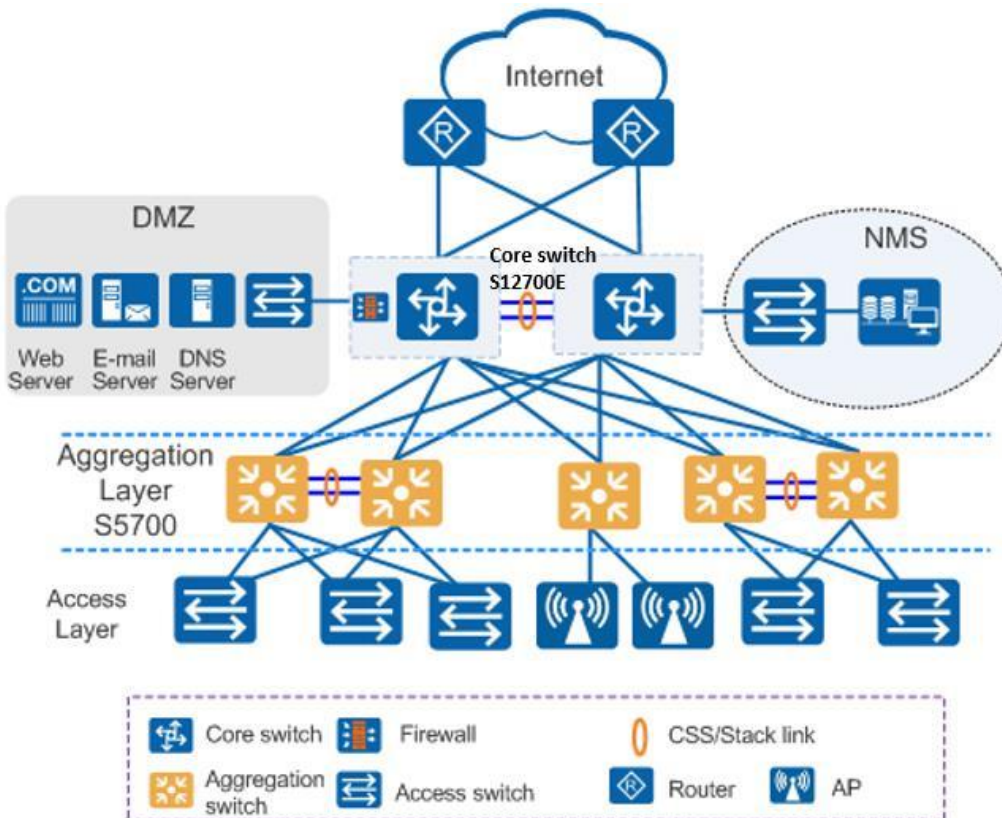
Large-Scale Enterprise Campus Network

CloudEngine S5736-S series switches can be deployed at the access layer of a campus network to build a high-performance and highly reliable enterprise network.



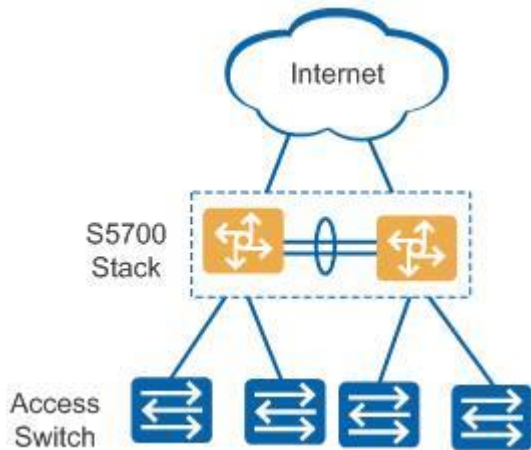
Small- or Medium-scale Enterprise Campus Network

CloudEngine S5736-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.



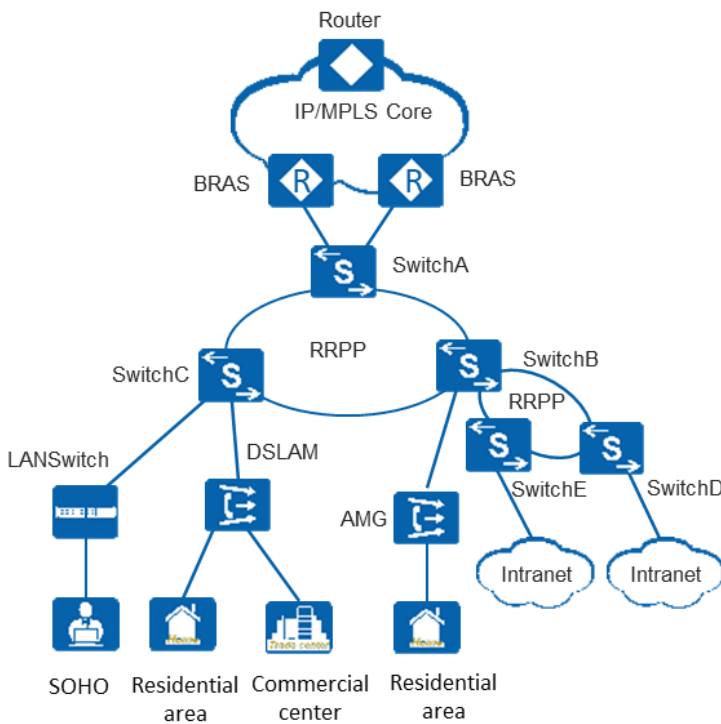
Small-scale Enterprise Campus Network

With powerful aggregation and routing capabilities of CloudEngine S5736-S series switches make them suitable for use as core switches in a small-scale enterprise network. Two or more S5736-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

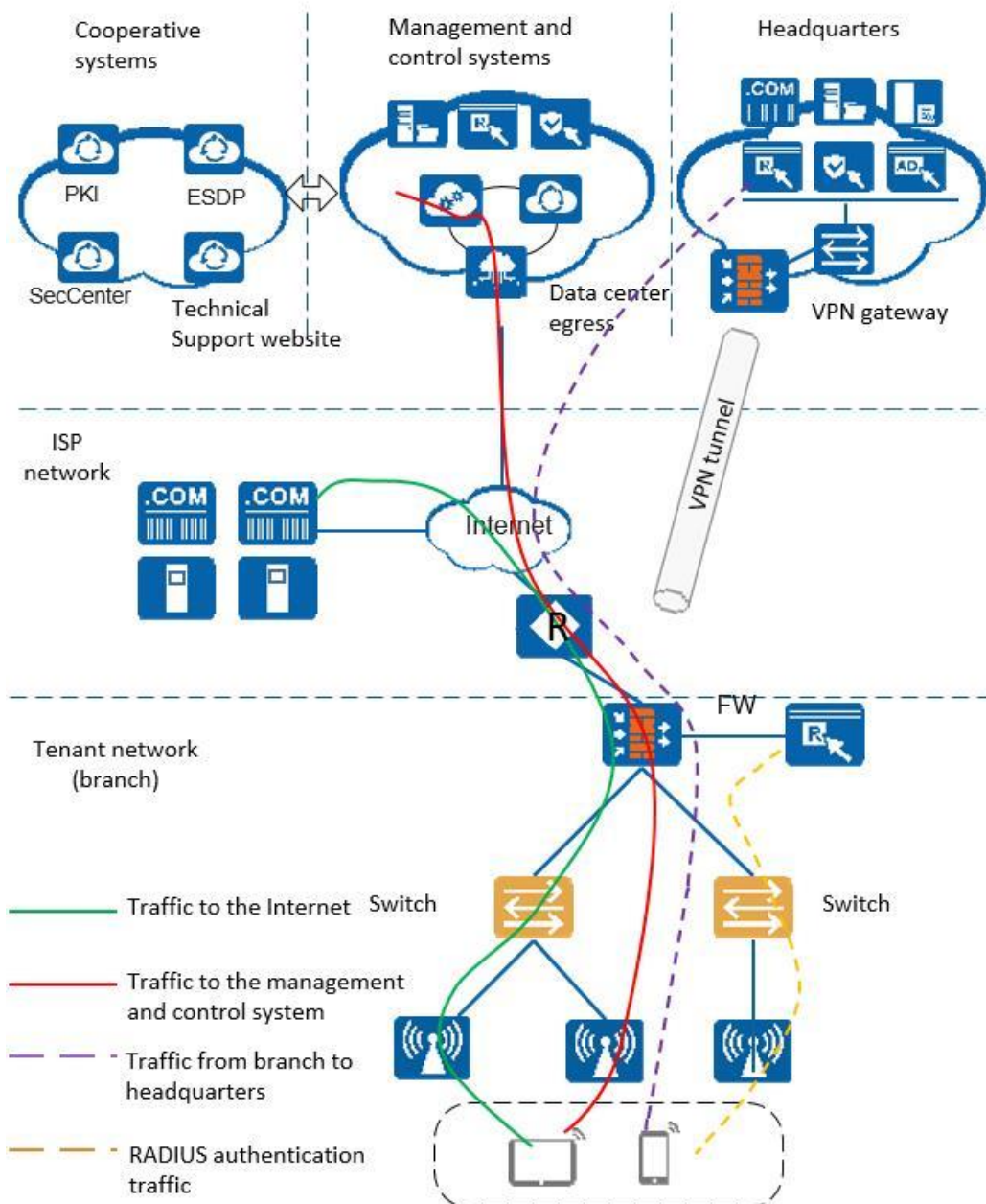
CloudEngine S5736-S series switches can be deployed at the access layer of a MAN(Metropolitan Area Network) to build a high-performance, multi-service, and highly reliable ISP MAN network.



Application in Public Cloud

CloudCampus Solution is a network solution suite based on Huawei public cloud. CloudEngine S5736-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 (iMaster NCE-Campus for switches running V200R020C00 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 S5736-S series all-optical switches.

Model	Product Description
CloudEngine S5736-S24S4XC	CloudEngine S5736-S24S4XC (24 x GE SFP ports, 4 x 10 GE SFP+ ports, 1*expansion slot, without power module)
CloudEngine S5736-S48S4XC	CloudEngine S5736-S48S4XC (48 x GE SFP ports, 4 x 10 GE SFP+ port, 1*expansion slot, without power module)
CloudEngine S5736-S48S4X-A	CloudEngine S5736-S48S4X-A base (48*GE SFP ports, optional RTU upgrade to 10G, 4*10GE SFP+ ports, AC power supply, front access)
CloudEngine S5736-S48S4X-D	CloudEngine S5736-S48S4X-D base (48*GE SFP ports, optional RTU upgrade to 10G, 4*10GE SFP+ ports, DC power supply, front access)
PAC150S12-R	150 W AC power module

Model	Product Description
PDC180S12-CR	180 W DC power module
PAC600S12-CB	600 W AC power module
PAC600S12-DB	600 W AC power module
PAC600S12-EB	600 W AC power module
PDC1000S12-DB	1000 W DC power module
S7X08000	8-port 10GE SFP+ interface card
S7Q02001	2-port 40GE QSFP+ interface card
ES5D21Q02Q00	2-port 40GE QSFP+ interface card
ES5D21Q04Q01	4-port 40GE QSFP+ interface card
L-P1GUPG10G-S57S	S57-S Series, SFP 1G to 10G Electronic RTU License,Per Device
N1-S57S-M-Lic	S57XX-S Series Basic SW,Per Device
N1-S57S-M-SnS1Y	S57XX-S Series Basic SW,SnS,Per Device,1Year
N1-S57S-F-Lic	N1-CloudCampus,Foundation,S57XX-S Series,Per Device
N1-S57S-F-SnS	N1-CloudCampus,Foundation,S57XX-S Series,SnS,Per Device,1Year
N1-S57S-A-Lite-Lic	N1-CloudCampus,Advanced,S57XX-S Series,Per Device
N1-S57S-A-Lite-SnS	N1-CloudCampus,Advanced,S57XX-S Series,SnS,Per Device,1Year
N1-S57S-FToA-Lite-Lic	N1-Upgrade-Foundation to Advanced,S57XX-S,Per Device
N1-S57S-FToA-Lite-SnS	N1-Upgrade-Foundation to Advanced,S57XX-S,SnS,Per Device,1Year

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

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