



ISCOM S6600 series data center switch

The ISCOM S6600 series switches are new-generation high-performance and high-density 10GE/25GE access switches independently developed by Raisecom for data centers and high-end park networks. It has strong hardware forwarding performance and rich data center characteristics, supports pluggable power supply and fan modules, adopts advanced hardware architecture design, supports 100GE uplink interfaces, and provides flexible interface combinations of 10GE, 25GE, and 100GE. The software platform adopts the new-generation OS independently developed by Raisecom, and supports rich data center characteristics. The ISCOM S6600 can be used in conjunction with the core switch ISCOM S10600 to build an elastic and high-quality 100GE data center network, meeting the network requirements of data centers in the cloud era. The ISCOM S6600 is positioned for high-density 10GE/25GE access in cloud data centers and cloud computing networks, helping enterprises and carriers build data center network platforms in the cloud computing era. They can also be used as the core or aggregation of TOR access switches and park networks on Overlay networks or converged networks.



ISCOM S6600-48X8C



ISCOM S6600-48K8C

ISCOM S6600 series data center switch >>

ISCOM S6600-48X8C



- Forty-eight 10GE SFP+ interfaces (supporting 1GE SFP and 10GE SFP+ optical modules)
- Eight 100GE QSFP28 interfaces (supporting 40GE QSFP+ and 100GE QSFP28 optical modules)
- 1 USB interface, 1 Console interface, and 1 management Ethernet interface
- 2 fan module slots. Each fan module contains 2 fans.
- 2 power supply slots, supporting AC/DC power supplies

ISCOM S6600-48K8C



- Forty-eight 25GE SFP28 interfaces (supporting 1GE SFP, 10GE SFP+, and 25GE SFP28 optical modules)
- Eight 100GE QSFP28 interfaces (supporting 40GE QSFP+ and 100GE QSFP28 optical modules)
- 1 USB interface, 1 Console interface, and 1 management Ethernet interface
- 2 fan module slots. Each fan module contains 2 fans.

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- 2 power supply slots, supporting AC/DC power supplies

Characteristics >>

High-density interface for access

- Provide forty-eight 10GE/25GE interfaces, meeting the high-density access needs of servers.
- L2/L3 wire-speed forwarding, meeting the networking needs of high-density servers in next-generation data centers without convergence access
- Support eight 100G high-performance QSFP28 interfaces. Each can be split into four 10GE/25GE interfaces, providing flexible networking capabilities.

Network visualization

- Support intelligent ISF virtualization technology, which virtualizes multiple core switches into one logical device, unifies operation and management, increases network reliability, achieves millisecond-level link fault switching, and ensures uninterrupted key services.
- Implement redundant backup of the control plane and data plane, avoiding the risk of single point of failure, greatly enhancing the reliability of the system.
- Support stacking service interfaces, which not only enables intra-rack stacking and inter-rack stacking but also supports long-distance inter-region stacking.

Inter-device link aggregation

- Support inter-device link aggregation M-LAG, which can achieve link aggregation among multiple devices, thereby increasing link reliability from the card level to device level, achieving dual active link uplink, and doubling the effective network connection bandwidth.
- Each node device of the M-LAG can be independently upgraded. During the upgrade process, other nodes take over service forwarding, avoiding service interruption.
- Suitable for Overlay and traditional Underlay scenarios, with flexible networking.

Rich data center characteristics

- Support the VxLAN technology to meet the needs of building new-generation data centers that are flexible, efficient, highly reliable, and scalable.
- Support BGP-EVPN as the control plane of the VxLAN, thus simplifying VxLAN deployment and improving the efficiency of constructing great Layer 2 networks.
- Support DCB and RoCE v2, meeting the high-performance needs of data centers for low latency and no packet loss of network devices.

Reliable carrier-grade design

- Feature high reliability, and adopt redundancy design for key components, such as power supplies and fans. All modules support hot swapping, maximizing the reliability and availability of the entire device.
- Support hardware health status visualization, thus monitoring key components, system temperature, power modules, fan modules in real time.
- Support hardware BFD, support BFD for VRRP/OSPF/BGP4/ISIS/ISISv6/static routing, and achieve fast fault detection mechanisms for various protocols, and implement the millisecond-level fault detection time.

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Complete security protection

- Support hardware-level encryption technology of MACsec for all interfaces, providing secure data transmission for hop-by-hop devices.
- Support Cloudsec encryption to ensure the security of service traffic based on VXLAN.
- Provide enhanced ACL, and support high-capacity ingress/egress ACLs.
- Support binding multiple elements, such as the user account, IP address, MAC address, VLAN, and interface, to meet the needs of the park network to strengthen control over visitors and restrict unauthorized user communication.
- Support user authentication based on 802.1x or AAA/RADIUS. Hierarchical user permission management ensures the security of device management.
- Support CPU hardware protection queues, enabling separation and processing of the data plane and control plane, preventing security threats, such as DOS attacks, illegal access, and control plane overload.

Comprehensive IPv6 solutions

- Support IPv4/IPv6 dual protocol stacks.
- Support IPv6 static routing, RIPng, OSPFv3, BGP+, IS-ISv6.
- Support rich IPv4 to IPv6 transition technologies, ensuring smooth transition from IPv4 to IPv6 and meeting the needs of IPv6 independent networking and IPv4/IPv6 mixed networking.

Easy OAM

- Support diverse management and maintenance methods, such as CLI, Web, and Telnet, making device management more convenient.
- Support SNMP, RMON, Syslog and other features for daily network diagnosis and maintenance.
- Support Telemetry, which collects device data in real time, accurately presents realtime network status, and timely and effectively locates faults and their causes.
- Support ZTP deployment, which can obtain office deployment files from USB flash disks or file servers and automatically load them, achieving on-site configuration and deployment of devices, reducing labor costs, and improving deployment efficiency.
- Feature complete interface status indication. The innovative 100GE interface split LED clearly shows the status of all sub-interfaces.
- Support remote positioning, which can light up the LED of the device that needs maintenance on the network management, thus accurately locate the device in complex computer room environments.

Green and energy-saving design

- Adopt strict front-to-rear straight air ducts, which completely isolate hot and cold air ducts, improve heat dissipation efficiency, and meet the design needs of data center equipment rooms.
- Support intelligently adjusting rates, effectively reducing device power consumption and noise.
- Support monitoring power consumption in real time and turning off the optical modules of idle ports, which reduces operation and maintenance costs for customers and establish green data centers.

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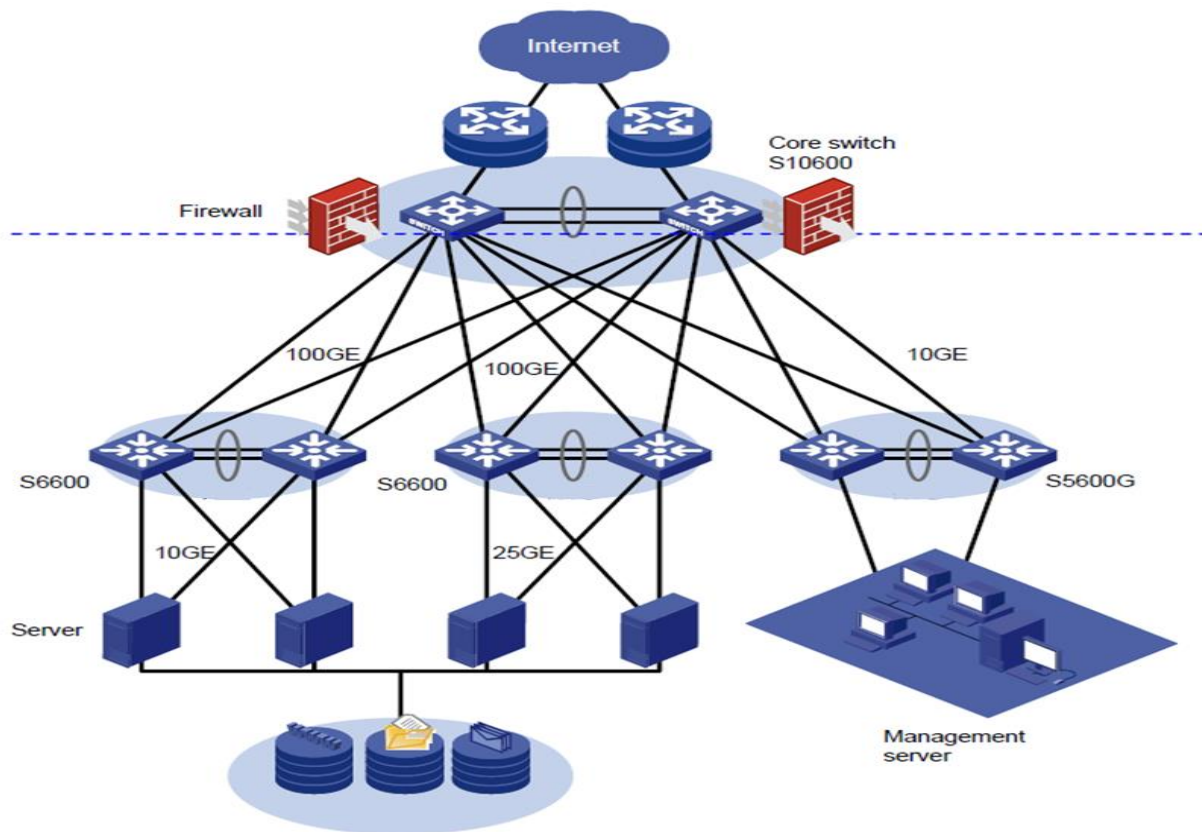
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Typical applications >>

Data center solution

In typical data center networking, the ISCOM S10600 is used as the core switch (Spine node) of the network, and the ISCOM S6600 is used as the TOR switch (Leaf node), 100GE/40GE interfaces are used to interconnect them, thus providing high-density 100G/40G/25G/10G server access solutions. The protocols, such as VxLAN, are used to build a non-blocking great Layer 2 network, ensuring large-scale migration of virtual machines and flexible deployment of user services.



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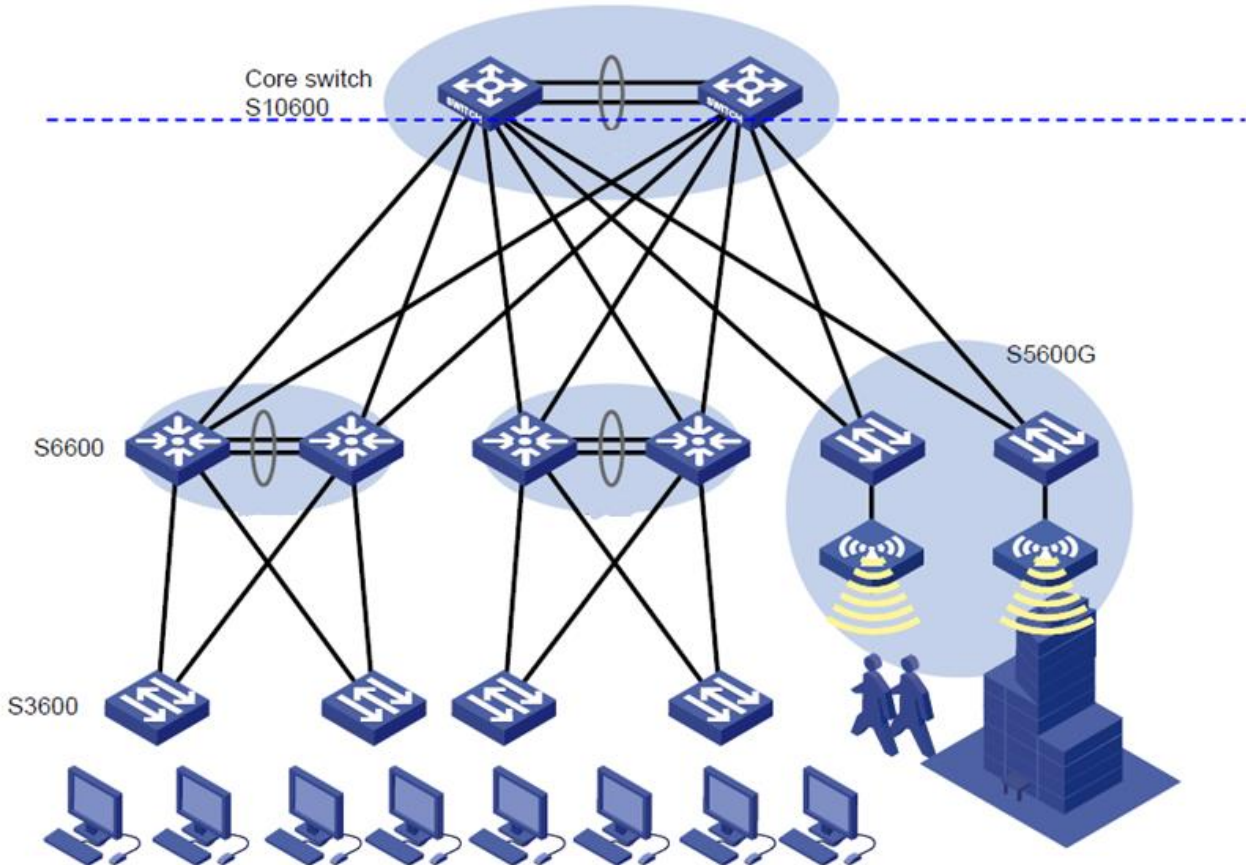
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Park network solution

The ISCOM S6600 has industry-leading high-density wire-speed interfaces, and its high-performance stacking can also be used in park network scenarios. On a typical park network, multiple ISCOM S10600 devices are virtualized into one core switch through HVS stacking technology. At the aggregation layer, multiple ISCOM S6600 devices are stacked as a logical switch through HVS stacking. This increases network reliability and simplifies management.



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Hard specifications >>

Item	ISCOM S6600-48X8C	ISCOM S6600-48K8C
Dimensions (mm) (Width × Depth × Height)	442 x 360 x 44	442 x 360 x 44
Switching capacity	4.8Tbps	4.8Tbps
Packet forwarding rate	2000Mpps	2000Mpps
10GE SFP+ interfaces	48	N/A
25GE SFP28 interfaces	N/A	48
100GE QSFP28 interfaces	8	8
Fan modules	2	2
Power supplies	2	2
Typical power consumption	280W	330W
Fan redundancy	The fan modules support hot backup. When one fan module fails, the device can work properly for a short time; however, we recommend immediately replacing the faulty fan module.	
Rated input voltage	<ul style="list-style-type: none"> ● DC input: -48 VDC ● AC input: 110/220 VAC, 50/60 Hz 	
Maximum input voltage	<ul style="list-style-type: none"> ● DC input: -36 to -72 VDC ● AC input: 90–264 VAC, 47–63 Hz 	
Operating temperature	0–45°C (0–1800 m altitude). When the altitude increases by 220 m between 1800 m and 5000 m, the highest operating temperature decreases by 1°C.	
Operating humidity (RH)	RH: 5%–95% (non-condensing)	
Heat dissipation mode	Front-to-rear straight air duct and intelligent speed adjustment	

Software features>>

Device visualization	Support ISF and local/remote stacking.
	Support inter-device link aggregation M-LAG.
Network visualization	Support VxLAN Layer 2 and Layer 3 gateways.
	Support BGP-EVPN.*
	Support QinQ in VxLAN.
MAC	Support automatically learning and aging MAC addresses.
	Support the static, dynamic, and blackhole MAC addresses.
	Support filtering the source MAC address.

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	Support MAC address limit based on interface or VLAN.
VLAN	Support 4K VLANs.
	Support VLAN based on MAC/protocol/IP subnet/interface.
	Support the Access, Trunk, and Hybrid modes.
	Support basic QinQ and selective QinQ.
	Support VLAN mapping (1:1/N:1).
	Support MVRP.
Multicast	Support IGMP v1/v2/v3, IGMP v1/v2/v3 Snooping, and MLD Snooping.
	Support PIM-DM, PIM-SM, and PIM-SSM.
	Support immediate leave of users.
	Support multicast policies and multicast QoS.
	Support multicast VLAN.
QoS/ACL	Support Ingress/Egress ACL.
	Support priority mapping. Each interface supports 8 queues and priority mapping.
	Support combined traffic classification based on Layer 2 protocol header, Layer 3 protocol, Layer 4 protocol, and 802.1p priority.
	Support the following actions: ACL, CAR, Remark, and Schedule.
	Support SP, WRR, DRR, SP+WRR, and SP+DRR queue scheduling modes.
	Support congestion control mechanisms, such as WRED and tail drop.
	Support traffic shaping.
Loop guard	Support STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s).
	Support BPDU Guard, root Guard, and loop protection.
	Support ERPS (ITU-T G.8032).
Reliability	Support aggregating LACP interfaces.
	Support hardware BFD, support BFD for VRRP/BGP/ISIS/OSPF/static routing, and achieve fast fault detection mechanisms for various protocols.*
	Support VRRP and BFD for VRRP.
	Support Ethernet OAM (802.1ag and 802.3ah).
	Support ISSU and all-service online upgrade.
	Support hot patches for online upgrade.
IP routing	Support IPv4 dynamic routing protocols, such as RIP, OSPF, ISIS, and BGP.
	Support IPv6 dynamic routing protocols, such as RIPng, OSPFv3, ISISv6, and BGP4+.
Security	Support AAA/RADIUS.
	Support TACACS+ and local authentication.
	Support 802.1x.
	Support MAC address authentication.
	Support SSHv2.0, SFTP, and HTTPS.
	Support plaintext authentication and MD5 ciphertext authentication of OSPF, RIPv2, and BGPv4 packets.
Support hierarchical command protection, which avoid illegal access by unauthorized users and assigns different configuration rights for users at different levels.	

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	Support encryption technologies, such as MACsec and Cloudsec.*
	Support interface-based and VLAN-based storm control.
	Support the whitelist, port security MAC, and MAC address limit.
	Support IP Source Guard, DoS attack prevention, ARP attack prevent, TCP SYN Flood attack prevent, UDP Flood attack prevent, broadcast storm attack prevent, and huge traffic attack prevent.
	Support hierarchical scheduling and protection of control plane packets in CPU hardware queues.
Management and maintenance	Support login through the Console interface.
	Support SNMPv1/v2c/v3.
	Support the Raisecom RCView NMS.
	Support gRPC and Telemetry Stream traffic visualization.*
	Support unified user management and group-based/domain-based/time-based authorization.
	Support system logs and hierarchical alarms.
	Support RMON
	Support ZTP deployment, which can obtain office deployment files from USB flash disks or file servers and automatically load them, achieving on-site configuration and deployment of devices.
Support hardware health status visualization, thus monitoring key components, system temperature, power modules, fan modules in real time.	

The features or products marked with * are to be released.

Ordering information >>

Chassis

ISCOM S6600-48X8C	A	ISCOM S6600-48X8C, including 2 fan modules. The power supply needs to be configured separately
ISCOM S6600-48K8C	A	ISCOM S6600-48K8C, including 2 fan modules. The power supply needs to be configured separately.

Fan

FANS340	A	S6600 universal fan module
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Power supply

RPA1551-220D12	A	S6600 universal AC power supply, 550 W
RPD1551-48D12	A	S6600 universal DC power supply, 550 W

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