H3C S9855 Series

Data Center Switches

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New H3C Technologies Co., Limited

H3C S9855 Series Data Center Switches

Product overview

H3C S9855 series switches are a new generation of high-performance, high-density 400GE/100GE Ethernet switches launched by H3C for data centers. Provides high-density 400GE/200GE/100GE ports; S9855 series switches supports redundant and hot-swappable power supplies and fans. The S9855 can be used in the core and aggregation networking of the new generation data center. It connects to the S12500 series core switches through 400GE uplinks, and connects to 200GE/100GE servers in the downlink, providing high-bandwidth and large-capacity server access.
The S9855 switch series includes four models:

- H3C S9855-48CD8D: Supports 48*100G DSFP ports + 8 *400G QSFP-DD ports
- H3C S9855-24B8D: Supports 24 *200G QSFP56 ports + 8 *400G QSFP-DD ports
- H3C S9855-40B: Supports 40 *200G QSFP56 ports
- H3C S9855-32D：Supports 32 *400G QSFP-DD ports+2* SFP/ SFP+ ports(The 400G ports supports downward compatibility with 100G which support split into 4*10G or 4*25G.).

S9855-24B8D front panel

S9855-24B8D rear panel

S9855-48CD8D front panel

S9855-48CD8D rear panel

S9855-40B front panel

S9855-40B rear panel

S9855-32D front panel

S9855-32D rear panel

Features and Benefits

High port density and powerful forwarding capacity

- The switch offers high-density 400G/200G/10G ports and a forwarding capacity as high as 16Tbps, which enables the switch to provide high-density server access in high-end data centers without oversubscriptions.

Abundant Data Center Features

The switch supports abundant data center features, including:

- H3C S9855 series switches supports MP-BGP EVPN and VxLAN VTEP.
- H3C S9855 series switches support ROCEv2 network, based on Priority-based Flow Control (PFC), ECN Enhanced Transmission Selection (ETS). Which ensures low latency and lossless RDMA applications and high-speed computing services.

Powerful visibility

- With the rapid development of data center, the scale of the data center expands rapidly, reliability, operation and maintenance become the bottleneck of data center for further expansion. H3C S9855 switch series conform to the trend of automated data operation and maintenance, and support visualization of data center. H3C S9855 switch series can send real-time resources information, statistics and alarm of RDMA information to the data center operation and maintenance platform through ERSPAN and GRPC protocols. This can allow the operation and maintenance center to perform real-time analysis in order to achieve network quality tracing, troubleshooting, risk warning and system optimization, etc. Visualization can even adjust network configuration automatically and reduce network congestion, which makes it possible to move to automated data center operation and maintenance.

Powerful SDN Capability

- H3C S9855 series switches adopt the next-generation chip with more flexible Openflow flow Table, more resources and accurate ACL matching, which greatly improves the software-defined network (SDN) capabilities and meet the demand of data center SDN network.
- H3C S9855 series switches can interconnect with H3C SeerEngine-DC Controller for SeerFabric solutions.

Rich QoS features

- H3C S9855 switch series support Layer 2 to Layer 4 packet filtering, which can provide traffic classification based on source MAC address, destination MAC address, source IP address, destination IP address, TCP/UDP port number, protocol type, and VLAN.
- S9855 switch series supports five queuing modes include SP (Strict Priority), WRR (Weighted Round Robin), SP+WRR, WFQ, and SP+WFQ.
- S9855 switch series supports CAR (Committed Access Rate) function with a minimum granularity of 8Kbps, and port mirroring on both directions used to monitor packets on the specified port and forward the packets to the monitoring port for network detection and troubleshooting.

Outstanding management capacity

The switch improves system management through the following ways:

- Provides multiple management interfaces, including the serial console port, mini USB console port, USB port, two out-of-band management ports, and two SFP ports. The SFP ports can be used as service ports or in-band data management ports, through which the sampled packets are encapsulated and sent to the controller or other management devices for in-depth analysis.
- Supports configuration and management from CLI or a mainstream network management platform and H3C IMC Intelligent Management Center.
- Supports multiple access methods, including SNMPv1/v2c/v3, Telnet, SSH 2.0, SSL, and FTP.
- Supports GRPC and provides a flexible programmable interface for customized development.

Hardware Specification

Item	S9855-48CD8D	S9855-24B8D	S9855-40B	S9855-32D
Dimensions (H × W × D)	44 × 440 × 660 mm (1.73 × 17.32 × 25.98 in)	44 × 440 × 660 mm (1.73 × 17.32 × 25.98 in)	44 × 440 × 550 mm (1.73 × 17.32 × 21.65 in)	44 × 440 × 660 mm (1.73 × 17.32 × 25.98 in)
Weight(Full loaded)	≤ 12.2 kg (26.90 lb)	≤ 12.2 kg (26.90 lb)	≤ 12.2 kg (26.90 lb)	≤ 15 kg (33.07 lb)
Serial console port	1*RJ-45			
Out-of-band management port	1* 10/100/1000BASE-T			
USB port	1	1	1	1
SFP+	-	-	-	2
200G QSFP56 port	/	24	40	-
DSFP port	48	/	/	-
QSFP-DD port	8	8	/	32
Power module slot	2	2	2	2
Fan tray slot	6	6	6	6
Air flow direction	From front to rear	From front to rear From rear to front	From front to rear	From front to rear
Minimum power consumption	Single AC input: 125 W Dual AC inputs: 140 W	Single AC input: 133 W Dual AC inputs: 146 W	Single AC input: 131 W Dual AC inputs: 146 W	Dual DC inputs: 234 W
Typical power consumption	Single AC input: 238 W Dual AC inputs: 250 W	Single AC input: 251 W Dual AC inputs: 263 W	Single AC input: 258 W Dual AC inputs: 263 W	Dual DC inputs: 476 W
Maximum power consumption	Single AC input: 713 W Dual AC inputs: 719 W	Single AC input: 739 W Dual AC inputs: 748 W	Single AC input: 709 W Dual AC inputs: 748 W	Dual DC inputs: 1265 W
CPU	2.9GHz@4core	2.9GHz@4core	2.9GHz@4core	2.9GHz@4core
Flash/SDRAM	240G/16G	240G/16G	240G/16G	240G/16G
Latency	<1.2μs	<1.2μs	<1.2μs	<1μs
Switching capacity	16Tbps	16Tbps	16Tbps	25.6Tbps
Forwarding capacity	2680Mpps	2680Mpps	2680Mpps	5346.7Mpps
Buffer(byte)	82M	82M	82M	132M
Operating temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C
Operating humidity	5% to 95%, noncondensing	5% to 95%, noncondensing	5% to 95%, noncondensing	5% to 95%, noncondensing
MTBF(year)	49.3	34.9	34.9	56.07
MTTR(hour)	<0.5	<0.5	<0.5	<0.5

Software Specification

Item	Feature description
Device Virtualization	M-LAG(DRNI)
	S-MLAG
Network Virtualization	BGP-EVPN
	VxLAN
VxLAN	L2 VxLAN gateway
	L3 VxLAN gateway
	Distributed VxLAN gateway
	Centralized VxLAN gateway
	EVPN VxLAN
	manual configured VxLAN
	IPv4 VxLAN tunnel
	IPv6 VxLAN tunnel
	QinQ VxLAN access
SDN	H3C SeerEngine-DC for SeerFabric
Lossless network	PFC and ECN

Item	Feature description
	DCBX
	RDMA and ROCE
	PFC deadlock watchdog
	ROCE stream analysis
Programmability	Openflow1.3
	Netconf
	Python//TCL/Restful API to realize DevOps automated operation and maintenance
Traffic analysis	Sflow
VLAN	Port-based VLANs
	QINQ
MAC address	Dynamic learning and aging of mac address entries
	Dynamic,static and blackhole entries
IPv4 routing	OSPF (Open Shortest Path First) v1/v2
	ISIS(Intermediate System to Intermediate system)
	BGP (Border Gateway Protocol)
	Routing policy
	VRRP
	PBR
IPv6 routing	OSPFv3
	IPv6 ISIS
	BGP4+
	Routing policy
	VRRP
	PBR
MPLS	MPLS label number
	MPLS label depth
	MPLS interface number
	Static LSP number
	Maximum number of LSPs supported
	ECMP LSP
	LDP local peer number
	LDP remote peer number
	MPLS LSP tracert
	MPLS LSP ping
Reliability	LACP
	LLDP
	STP/RSTP/MSTP protocol
	STP Root Guard and BPDU Guard
	BFD for OSPF/OSPFv3, BGP/BGP4, IS-IS/IS-ISv6 and Static route
QOS	Weighted Random Early Detection (WRED) and tail drop
	Flexible queue scheduling algorithms based on port and queue, including strict priority (SP), Weighted Deficit Round Robin (WDRR), Weighted Fair Queuing (WFQ), SP + WDRR, and SP + WFQ.
	Traffic shaping
	Packet filtering at L2 (Layer 2) through L4 (Layer 4); flow classification based on source MAC address, destination MAC address, source IP (IPv4/IPv6) address, destination IP (IPv4/IPv6) address, port, protocol, and VLAN to apply qos policy,including mirroring,redirection,priority remark etc.
	Committed access rate (CAR)
	Account by packet and byte
	COPP
Telemetry	Real-time telemetry
	Telemetry Stream
	INT
	Packet capture
Configuration and maintenance	Console telnet and SSH terminals
	SNMPv1/v2/v3
	ZTP
	System log
	File upload and download via FTP/TFTP, BootRom update and remote update
	NQA
	ping,tracert

Item	Feature description
	NTP
Security and management	Hierarchical management and password protection of users
	AAA /RADIUS/HWTACACS
	SSH 2.0
	HTTPS
	Boot ROM access control (password recovery)
	RMON
EMC	FCC Part 15 Subpart B CLASS A ICES-003 CLASS A VCCI CLASS A CISPR 32 CLASS A EN 55032 CLASS A AS/NZS CISPR32 CLASS A CISPR 24 EN 55024 EN 61000-3-2 EN 61000-3-3 ETSI EN 300 386 GB/T 9254 YD/T 993
Safety	UL60950-1 EN60950-1 IEC60950-1 GB4943

Standards and Protocols Compliance

Organization	ID	Name
IEEE	1588-2008	Timing and Synchronization for Time-Sensitive Applications in Bridged Local Area Networks
IEEE	802.1	LAN/MAN Bridge and Management
IEEE	802.17-2011	Part 17: Resilient packet ring (RPR) access method and physical layer specifications
IEEE	802.1AB-2005	IEEE Standard for Local and metropolitan area networks Station and Media Access Control Connectivity Discovery
IEEE	802.1AB-2009	IEEE Standard for Local and metropolitan area networks Station and Media Access Control Connectivity Discovery
IEEE	802.1ad-2005	Virtual Bridged Local Area Networks
IEEE	802.1AE-2006	IEEE Standard for Local and metropolitan area networks—Port-Based Network Access Control Part 9:MACsec Key Agreement protocol (MKA)
IEEE	802.1ag-2007	Virtual Bridged Local Area Networks Amendment 5: Connectivity Fault Management
IEEE	802.1ak-2007	Virtual Bridged Local Area Networks—Amendment 7: Multiple Registration Protocol
IEEE	802.1AS-2011	Timing and Synchronization for Time-Sensitive Applications in Bridged Local Area Networks
IEEE	802.1AX-2008	Link Aggregation
IEEE	802.1D-2004	Media Access Control (MAC) Bridges
IEEE	802.1p	Traffic Class Expediting and Dynamic Multicast Filtering
IEEE	802.1Q-2005	Virtual Bridged Local Area Networks
IEEE	802.1Q-2011	IEEE Standard for Local and metropolitan area networks——Media Access Control (MAC) Bridges and Virtual Bridge Local Area Networks
IEEE	802.1Qaz-2011	Draft Standard for Local and Metropolitan Area Networks Virtual Bridged Local Area Networks Amendment 18: Enhanced Transmission Selection for Bandwidth Sharing Between Traffic Classes
IEEE	802.1Qbb-2011	Media Access Control (MAC) Bridges and Virtual Bridged Local Area Networks—Amendment 17: Priority-based Flow Control
IEEE	802.1s-2002	Virtual Bridged Local Area Networks—Amendment 3: Multiple Spanning Tree
IEEE	802.1v-2001	Virtual Bridged Local Area Networks—Amendment 2: VLAN Classification by Protocol and Port
IEEE	802.1w-2001	Part 3:Media Access Control (MAC) Bridges—Amendment 2: Rapid Reconfiguration
IEEE	802.1X-2001	Standard for Port based Network Access Control
IEEE	802.1X-2010	IEEE Standard for Local and metropolitan area networks—Port-Based Network Access Control Part 9:MACsec Key Agreement protocol (MKA)

IEEE	802.2	Logical Link Control
IEEE	802.3	Carrier Sense Multiple Access with Collision Detection (CSMA/CD) access method and physical layer specifications
IEEE	802.3ad-2000	Link Aggregation Control Protocol
IEEE	802.3ah-2004	IEEE Standard for Operations, Administration, and Maintenance (OAM)
IETF	RFC0768	User Datagram Protocol
IETF	RFC0791	Internet Protocol
IETF	RFC0792	Internet Standard Subnetting Procedure
IETF	RFC0793	Transmission Control Protocol
IETF	RFC0826	Ethernet Address Resolution Protocol: Or Converting Network Protocol Addresses to 48.bit Ethernet Address for Transmission on Ethernet Hardware
IETF	RFC0854	Telnet Protocol Specification
IETF	RFC0855	Telnet Option Specifications
IETF	RFC0856	Telnet Binary Transmission
IETF	RFC0857	Telnet Echo Option
IETF	RFC0858	Telnet Suppress Go Ahead Option
IETF	RFC0862	Character Generator Protocol
IETF	RFC0864	Character Generator Protocol
IETF	RFC0894	A Standard for the Transmission of IP Datagrams over Ethernet Networks
IETF	RFC0919	Broadcasting Internet Datagrams
IETF	RFC0922	Broadcasting Internet Datagrams in the Presence of Subnets (IP_BROAD)
IETF	RFC0950	Internet Standard Subnetting Procedure
IETF	RFC0959	FILE TRANSFER PROTOCOL (FTP)
IETF	RFC1002	Protocol Standard For a NetBIOS Service on a TCP/UDP Transport: Detailed Specifications
IETF	RFC1034	Domain names - implementation and specification
IETF	RFC1035	Domain names - implementation and specification
IETF	RFC1112	Host Extensions for IP Multicasting
IETF	RFC1119	Network Time Protocol (version 2) specification and implementation
IETF	RFC1155	Structure and identification of management information for TCP/IP-based internets
IETF	RFC1212	Concise MIB definitions.
IETF	RFC1213	Management Information Base for Network Management of TCP/IP-based internets: MIB-II
IETF	RFC1350	Trivial File Transfer Protocol(TFTP).
IETF	RFC1661	The Point-to-Point Protocol (PPP)
IETF	RFC1662	PPP in HDLC-like Framing
IETF	RFC1722	RIP Version 2 Protocol Applicability Statement
IETF	RFC1723	RIP Version 2 Carrying Additional Information
IETF	RFC2085	HMAC-MD5 IP Authentication with Replay Prevention
IETF	RFC2228	FTP Security Extensions
IETF	RFC2328	OSPF Version 2
IETF	RFC2453	RIP Version 2
IETF	RFC2578	Structure of Management Information Version 2 (SMIv2).
IETF	RFC2579	Textual Conventions for SMIv2.
IETF	RFC2580	Conformance Statements for SMIv2.
IETF	RFC2819	Remote Network Monitoring Management Information Base
IETF	RFC2981	Event MIB
IETF	RFC3019	Multicast Listener Discovery Protocol MIB used for managing MLD version 1.
IETF	RFC3411	An Architecture for Describing Simple Network Management Protocol (SNMP) Management Frameworks.

IETF	RFC3412	Message Processing and Dispatching for the Simple Network Management Protocol (SNMP).
IETF	RFC3413	Simple Network Management Protocol (SNMP) Applications.
IETF	RFC3414	User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3).
IETF	RFC3415	View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP).
IETF	RFC3416	Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP).
IETF	RFC3417	Transport Mappings for the Simple Network Management Protocol (SNMP).
IETF	RFC3418	Coexistence between Version 1, Version 2, and Version 3 of the Internet-standard Network Management Framework.
IETF	RFC3489	STUN - Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators (NATs)
IETF	RFC3576	Dynamic Authorization Extensions to Remote Authentication Dial In User Service (RADIUS)
IETF	RFC3925	Vendor-Identifying Vendor Options for Dynamic Host Configuration Protocol version 4 (DHCPv4)
IETF	RFC3947	Negotiation of NAT-Traversal in the IKE.
IETF	RFC3961	Encryption and Checksum Specifications for Kerberos 5
IETF	RFC3962	Advanced Encryption Standard (AES) Encryption for Kerberos 5
IETF	RFC3970	A Traffic Engineering (TE) MIB
IETF	RFC4120	The Kerberos Network Authentication Service (V5)
IETF	RFC4121	The Kerberos Version 5 Generic Security Service Application Program Interface (GSS-API) Mechanism: Version 2
IETF	RFC4822	RIPv2 Cryptographic Authentication
IETF	RFC5250	The OSPF Opaque LSA Option
IETF	RFC5311	Simplified Extension of Link State PDU (LSP) Space for IS-IS
IETF	RFC5329	Traffic Engineering Extensions to OSPF Version 3
IETF	RFC5396	Textual Representation of Autonomous System (AS) Numbers
IETF	RFC5424	The Syslog Protocol
IETF	RFC5427	Textual Conventions for Syslog Management
IETF	RFC5575	Clarification of the Flowspec Redirect Extended Community
IETF	RFC5603	Ethernet Pseudowire (PW) Management Information Base (MIB)
IETF	RFC5642	Dynamic Hostname Exchange Mechanism for OSPF
IETF	RFC5643	Management Information Base for OSPFv3
IETF	RFC5647	AES Galois Counter Mode for the Secure Shell Transport Layer Protocol
IETF	RFC5656	Elliptic Curve Algorithm Integration in the Secure Shell Transport Layer
IETF	RFC5675	Mapping Simple Network Management Protocol (SNMP) Notifications to SYSLOG Messages
IETF	RFC5676	Definitions of Managed Objects for Mapping SYSLOG Messages to Simple Network Management Protocol (SNMP) Notifications
IETF	RFC5709	OSPFv2 HMAC-SHA Cryptographic Authentication
IETF	RFC5880	Bidirectional Forwarding Detection (BFD)
IETF	RFC5881	Bidirectional Forwarding Detection (BFD) for IPv4 and IPv6 (Single Hop)
IETF	RFC5882	Generic Application of Bidirectional Forwarding Detection (BFD)
IETF	RFC5883	Bidirectional Forwarding Detection (BFD) for Multihop Paths
IETF	RFC5884	Bidirectional Forwarding Detection (BFD) for MPLS Label Switched Paths (LSPs)
IETF	RFC5885	Bidirectional Forwarding Detection (BFD) for the Pseudowire Virtual Circuit Connectivity Verification (VCCV)
IETF	RFC6074	Provisioning, Auto-Discovery, and Signaling in Layer 2 Virtual Private Networks (L2VPNs)
IETF	RFC6146	Stateful NAT64 Network Address and Protocol Translation
IETF	RFC6165	Extensions to IS-IS for Layer-2 Systems
IETF	RFC6242	Using the NETCONF Protocol over Secure Shell (SSH)
IETF	RFC6391	Flow-Aware Transport of Pseudowires over an MPLS Packet Switched Network
IETF	RFC6445	Multiprotocol Label Switching (MPLS) Traffic Engineering Management Information Base for Fast Reroute
IETF	RFC6470	Network Configuration Protocol (NETCONF) Base Notifications

IETF	RFC6536	Network Configuration Protocol (NETCONF) Access Control Model
IETF	RFC6620	FCFS SAVI: First-Come, First-Served Source Address Validation Improvement for Locally Assigned IPv6 Addresses
IETF	RFC6810	BGP Prefix Origin Validation
IETF	RFC6860	Hiding Transit-Only Networks in OSPF
IETF	RFC6939	Client Link-Layer Address Option in DHCPv6
IETF	RFC7348	Virtual eXtensible Local Area Network (VXLAN): A Framework for Overlaying Virtualized Layer 2 Networks over Layer 3 Networks
IETF	RFC7431	Multicast-Only Fast Reroute
IETF	RFC7432	BGP MPLS-Based Ethernet VPN
IETF	RFC7490	Remote Loop-Free Alternate (LFA) Fast Reroute (FRR)
IETF	RFC7513	Source Address Validation Improvement （SAVI） Solution for DHCP
IETF	RFC7637	NVGRE: Network Virtualization Using Generic Routing Encapsulation
IETF	RFC7674	Clarification of the Flowspec Redirect Extended Community
IETF	RFC7684	OSPFv2 Prefix/Link Attribute Advertisement
IETF	RFC7770	Extensions to OSPF for Advertising Optional Router Capabilities
IETF	RFC7854	BGP Monitoring Protocol (BMP)
IETF	RFC7911	IEEE 802.1x
IETF	RFC8102	Remote-LFA Node Protection and Manageability
IETF	RFC8202	IS-IS Multi-Instance
IETF	RFC8214	Virtual Private Wire Service Support in Ethernet VPN
IETF	RFC8231	Path Computation Element Communication Protocol (PCEP) Extensions for Stateful PCE
IETF	RFC8281	Path Computation Element Communication Protocol (PCEP) Extensions for PCE-Initiated LSP Setup in a Stateful PCE Model
IETF	RFC8362	OSPFv3 Link State Advertisement (LSA) Extensibility
IETF	RFC8365	A Network Virtualization Overlay Solution Using Ethernet VPN (EVPN)
IETF	RFC8408	Conveying Path Setup Type in PCE Communication Protocol (PCEP) Messages
IETF	RFC8664	Path Computation Element Communication Protocol (PCEP) Extensions for Segment Routing
IETF	RFC8697	Path Computation Element Communication Protocol (PCEP) Extensions for Establishing Relationships between Sets of Label Switched Paths (LSPs)
IETF	RFC8745	Path Computation Element Communication Protocol (PCEP) Extensions for Associating Working and Protection Label Switched Paths (LSPs) with Stateful PCE
IETF	RFC8754	IPv6 Segment Routing Header (SRH)
IETF	RFC8986	SRv6 Network Programming
ITU	G.8032	Ethernet ring protection switching
ITU	X.509	Public-key and attribute certificate frameworks
ITU-T	G.8261/Y.1361	Timing and synchronization aspects in packet networks
ITU-T	G.8275.1/Y.1369.1	Precision time protocol telecom profile for phase/time synchronization with full timing support from the network
ITU-T	G.8275.2	PTP profile for phase/time synchronization with partial timing support from the network
ITU-T	Q.921	ISDN user network interface - Data Link Layer specification
ITU-T	Q.931	ISDN user network interface - Layer 3 specification for basic call control
ITU-T	Y.1731	OAM functions and mechanisms for Ethernet based networks

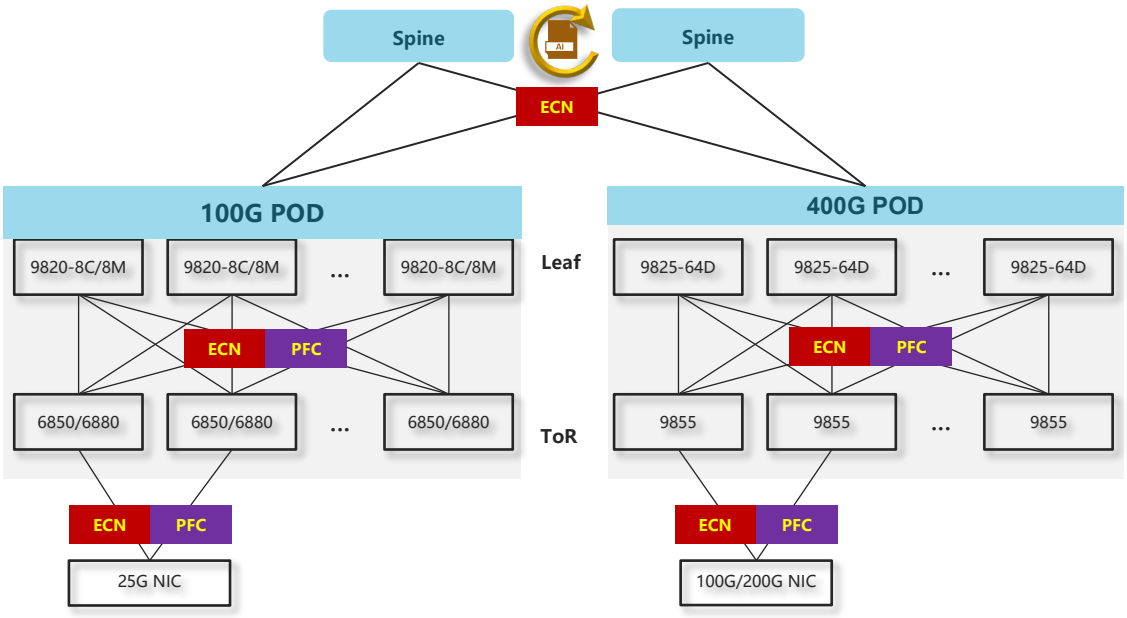
Performance and scalability

Item	Description	
Virtualization	M-LAG device number	2
ACL	max number of ingress ACLs	S9855-48CD8D/ S9855-24B8D/S9855-40B: 16k-1@160bit/pipe,2pipes

Item	Description	
		S9855-32D: 12k-1@160bit/pipe, 4pipes
	max number of ingress Car	S9855-48CD8D/ S9855-24B8D/S9855-40B: 512*2 S9855-32D: 512*4
	max number of ingress Counter	24k-2
	max number of egress ACLs	S9855-48CD8D/ S9855-24B8D/S9855-40B: 2K-1@160bit/pipe，2 pipes S9855-32D: 2K-1@160bit/pipe，4 pipes
	max number of egress Car	S9855-48CD8D/ S9855-24B8D/S9855-40B: 128*2 S9855-32D: 128*4
	max number of egress Counter	4K-2
Forwarding table	Jumbo frame length(byte)	9216
	Mirroring group	4
	max number of MACs per switch	routing mode：32K mac mode：224K
	max number of ARP entries IPv4	28K-3
	max ND table size for IPv6	28K-3
	max number of unicast routes IPv4	980000(24B) 1000000(32B)
	max number of unicast routes IPv6	1000000（80B/128B）
	LAGG group	1000
	LAGG member per group	128
	ECMP group	Max Group：4095 2/4(member)--4095; 8--4000; 16--2000; 32--1000; 64--490; 128—240
	ECMP member per group	2-128
	VRF	4K
Interface	Loopback interface number	1K
	L3 sub interface number	4K
	SVI interface number	4K
	VxLAN AC number	14K-10
	VxLAN VSI number	8K-1
	VxLAN tunnel number	4095
	VSI interface number	4K
	VLAN number	4094
Performance	RIB	4M
	MSTP instance	64
	VRRP VRID	255
	VRRP group	4096
	NQA group	32
Static table	static mac-address	16K
	static ARP	28K-3
	static ND	28K-3
	static IPv4 routing table	same as FIB
	static IPv6 routing table	same as FIB

Data Center Application

The typical data center application for S9855 is ROCE scenarios.



Order information

PID	Description
LS-9855-24B8D	H3C S9855-24B8D L3 Ethernet Switch with 24 200G QSFP56 Ports and 8 400G QSFP-DD Ports
LS-9855-48CD8D	H3C S9855-48CD8D L3 Ethernet Switch, with 2 AC Power Supplies and 6 Fan Modules
LS-9855-40B	H3C S9855-40B 40 Port 200G QSFP56 Switch
LS-9855-32D	H3C S9855-32D Ethernet Switch with 32*400G QSFP-DD Ports
LS-Z+A2+M6-5	H3C S9855-24B8D L3 Ethernet Switch,with 2 AC Power Supplies and 6 Fan Modules
LS-Z+A2+M6-2	H3C S9855-48CD8D-W1 L3 Ethernet Switch,with 2 AC Power Supplies and 6 Fan Modules
LS-Z+A2+F6-1	H3C S9855-32D Ethernet Switch with 32*400G QSFP-DD Ports, 2 AC Power Supplies and 6 Fan Modules
LS-Z+A2+M6-11	H3C S9855-40B L3 Ethernet Switch,with 2 AC Power Supplies and 6 Fan Modules
Power	
PSR1600C-12A-B	1600W AC Power Supply Module (Power Panel Side Exhaust Airflow)
PSR1300-12A-C-A	H3C 1300W AC Power Supply Module (Power Panel Side Exhaust Airflow
Fan	
FAN-40B-1-C	Fan Module (Fan Panel Side Exhaust Airflow, Electronic Label Supported)
FAN-40F-1-D	H3C Fan Module(Fan Panel Side Intake Airflow)
FAN-40B-1-H	Fan Module(Fan Panel Side Exhaust Airflow,SN Code Supported)
Transceiver	
QSFP-100G-LR4-WDM1300	100G QSFP28 Optical Transceiver Module(1310nm,10km,LR4,WDM,LC)
QSFP-100G-LR4L-WDM1300	100G QSFP28 Optical Transceiver Module (1310nm,2km,LR4L,CWDM4,LC)
QSFP-100G-PSM4-SM1310	100G QSFP28 Optical Transceiver Module (1310nm,500m,PSM4,MPO/APC)
QSFP-100G-eSR4-MM850	100G QSFP28 Optical Transceiver Module (850nm,300m OM4,eSR4,MPO)
QSFP-100G-SWDM4-MM850	100G QSFP28 Optical Transceiver Module (850nm,100m OM4,SWDM4,LC)
QSFP-100G-SR4-MM850	100G QSFP28 Optical Transceiver Module (850nm,100m OM4,SR4,MPO)

QSFPDD-400G-FR4-WDM1300	400G QSFPDD Optical Transceiver Module(1300nm,2km,FR4,LC)
QSFPDD-400G-SR8-MM850	400G QSFPDD Optical Transceiver Module(850nm,100m OM4,SR8,MPO16/APC)
QSFP-40G-LR4-WDM1300	QSFP+ 40GBASE Optical Transceiver Module (1310nm,10km,LR4,LC)
QSFP-40G-BIDI-SR-MM850	QSFP+ 40GBASE BIDI Optical Transceiver Module (850nm,100m,SR)
QSFP-40G-BIDI-WDM850	QSFP+ 40GBASE BIDI Optical Transceiver Module (850nm,300m)
QSFP-40G-LR4L-WDM1300	QSFP+ 40GBASE Optical Transceiver Module (1310nm,2km,LR4L,LC)
QSFP-40G-ER4-WDM1300	QSFP+ 40GBASE Optical Transceiver Module (1310nm,40km,ER4,LC)
QSFP-40G-LR4-PSM1310	QSFP+ 40GBASE Optical Transceiver Module (1310nm,10km,MPO/APC,LR4,Parallel Single Mode)
QSFP-40G-LR4-PSM1310-A	QSFP+ 40GBASE Optical Transceiver Module (1310nm,10km,MPO/APC,LR4,Parallel Single Mode)
QSFP-40G-SR4-MM850	QSFP+ 40GBASE Optical Transceiver Module (850nm,100m,SR4,Support 40G to 4*10G)
QSFP-40G-CSR4-MM850	QSFP+ 40GBASE Optical Transceiver Module (850nm,300m,CSR4,Support 40G to 4*10G)
QSFP-40G-LR4-WDM1300	QSFP+ 40GBASE Optical Transceiver Module (1310nm,10km,LR4,LC)
QSFP-40G-CSR4-MM850	QSFP+ 40GBASE Optical Transceiver Module (850nm,300m,CSR4,Support 40G to 4*10G)
QSFP-40G-SR4-MM850	QSFP+ 40GBASE Optical Transceiver Module (850nm,100m,SR4,Support 40G to 4*10G)
QSFP-40G-LR4-PSM1310	QSFP+ 40GBASE Optical Transceiver Module (1310nm,10km,MPO/APC,LR4,Parallel Single Mode)
QSFP-100G-SR4-MM850	100G QSFP28 Optical Transceiver Module (850nm,100m OM4,SR4,MPO)
QSFP-40G-BIDI-WDM850	QSFP+ 40GBASE BIDI Optical Transceiver Module (850nm,300m)
QSFP-40G-LR4L-WDM1300	QSFP+ 40GBASE Optical Transceiver Module (1310nm,2km,LR4L,LC)
QSFP-40G-BIDI-SR-MM850	QSFP+ 40GBASE BIDI Optical Transceiver Module (850nm,100m,SR)
QSFP-100G-LR4-WDM1300	100G QSFP28 Optical Transceiver Module(1310nm,10km,LR4,WDM,LC)
QSFP-40G-ER4-WDM1300	QSFP+ 40GBASE Optical Transceiver Module (1310nm,40km,ER4,LC)
QSFP-100G-SWDM4-MM850	100G QSFP28 Optical Transceiver Module (850nm,100m OM4,SWDM4,LC)
QSFP-100G-PSM4-SM1310	100G QSFP28 Optical Transceiver Module (1310nm,500m,PSM4,MPO/APC)
QSFP-100G-LR4L-WDM1300	100G QSFP28 Optical Transceiver Module (1310nm,2km,LR4L,CWDM4,LC)
QSFP-100G-eSR4-MM850	100G QSFP28 Optical Transceiver Module (850nm,300m OM4,eSR4,MPO)
QSFP-40G-LR4-PSM1310-A	QSFP+ 40GBASE Optical Transceiver Module (1310nm,10km,MPO/APC,LR4,Parallel Single Mode)
QSFP56-200G-SR4-MM850	200G QSFP56 Optical Transceiver Module (850nm,100m OM4,SR4,MPO12/UPC)
QSFPDD-400G-LR8-WDM1300	400G QSFP-DD Optical Transceiver Module (1300nm,10km,LR8,LC)
Cable	
QSFP-100G-D-AOC-10M	100G QSFP28 to 100G QSFP28 10m Active Optical Cable
QSFP-100G-D-CAB-1M	100G QSFP28 to 100G QSFP28 1m Passive Cable
QSFP-100G-D-AOC-20M	100G QSFP28 to 100G QSFP28 20m Active Optical Cable
QSFP-100G-D-CAB-3M	100G QSFP28 to 100G QSFP28 3m Passive Cable
QSFP-100G-D-CAB-5M	100G QSFP28 to 100G QSFP28 5m Passive Cable
QSFP-100G-D-AOC-7M	100G QSFP28 to 100G QSFP28 7m Active Optical Cable
LSWM1QSTK0	40G QSFP+ Cable 1m
LSWM1QSTK1	40G QSFP+ Cable 3m
LSWM1QSTK2	40G QSFP+ Cable 5m
QSFP-40G-D-AOC-3M	40G QSFP+ to 40G QSFP+ 3m Active Optical Cable
QSFP-40G-D-AOC-10M	40G QSFP+ to 40G QSFP+ 10m Active Optical Cable
QSFP-40G-D-AOC-20M	40G QSFP+ to 40G QSFP+ 20m Active Optical Cable
QSFP-40G-D-AOC-7M	40G QSFP+ to 40G QSFP+ 7m Active Optical Cable
LSWM1QSTK3	40G QSFP+ to 4x10G SFP+ Cable 1m
LSWM1QSTK4	40G QSFP+ to 4x10G SFP+ Cable 3m
LSWM1QSTK5	40G QSFP+ to 4x10G SFP+ Cable 5m

LSWM1QSTK0	40G QSFP+ Cable 1m
LSWM1QSTK1	40G QSFP+ Cable 3m
LSWM1QSTK2	40G QSFP+ Cable 5m
LSWM1QSTK3	40G QSFP+ to 4x10G SFP+ Cable 1m
LSWM1QSTK4	40G QSFP+ to 4x10G SFP+ Cable 3m
LSWM1QSTK5	40G QSFP+ to 4x10G SFP+ Cable 5m
QSFP-40G-D-AOC-7M	40G QSFP+ to 40G QSFP+ 7m Active Optical Cable
QSFP-40G-D-AOC-10M	40G QSFP+ to 40G QSFP+ 10m Active Optical Cable
QSFP-40G-D-AOC-20M	40G QSFP+ to 40G QSFP+ 20m Active Optical Cable
QSFP-100G-D-CAB-1M	100G QSFP28 to 100G QSFP28 1m Passive Cable
QSFP-100G-D-CAB-3M	100G QSFP28 to 100G QSFP28 3m Passive Cable
QSFP-100G-D-AOC-7M	100G QSFP28 to 100G QSFP28 7m Active Optical Cable
QSFP-100G-D-AOC-10M	100G QSFP28 to 100G QSFP28 10m Active Optical Cable
QSFP-100G-D-AOC-20M	100G QSFP28 to 100G QSFP28 20m Active Optical Cable
QSFP-100G-D-CAB-5M	100G QSFP28 to 100G QSFP28 5m Passive Cable
QSFP-40G-D-AOC-3M	40G QSFP+ to 40G QSFP+ 3m Active Optical Cable

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