

CxD8400-54SX

48 Ports 25G Data Center Switch with 6x100G Uplink Ports



Build for a high-performance data center network



M-LAG architecture



Hardware-based traffic visualization



Carrier-grade reliability protection



Comprehensive Security Control Strategy



Flexible Duct Orientation Options



CxD8400-54SX

Product Overview

CxD8400-54SX switch is a new generation high-performance and high-density data center class Ethernet switch for cloud data center and cloud computing network. It supports 48*25G slots and 6*100G slots. It supports 1+1 hot-swappable redundant power, 4+1 hot-swappable redundant fans with flexible adjustment of fan speed. Supports the spine-leaf network architecture design requirements.

Key Features

- Supports VxLAN to meet the requirements of data center Overlay network construction.
- Support EVPN protocol, and the automatic discovery and authentication of VTEPs reduces the flooding of the VxLAN data plane and prevents the dependency of the VxLAN on the multicast of the underlying deployment. This simplifies the VxLAN deployment, improves the construction efficiency of the large layer-2 network.
- Supports the M-LAG (Multi-chassis Link Aggregation Group) cross-device link aggregation technology. Two physical devices are virtualized into one device at the forwarding layer to achieve cross-device link aggregation. The control layer is independent from each other, which improves board-level reliability to device-level reliability.

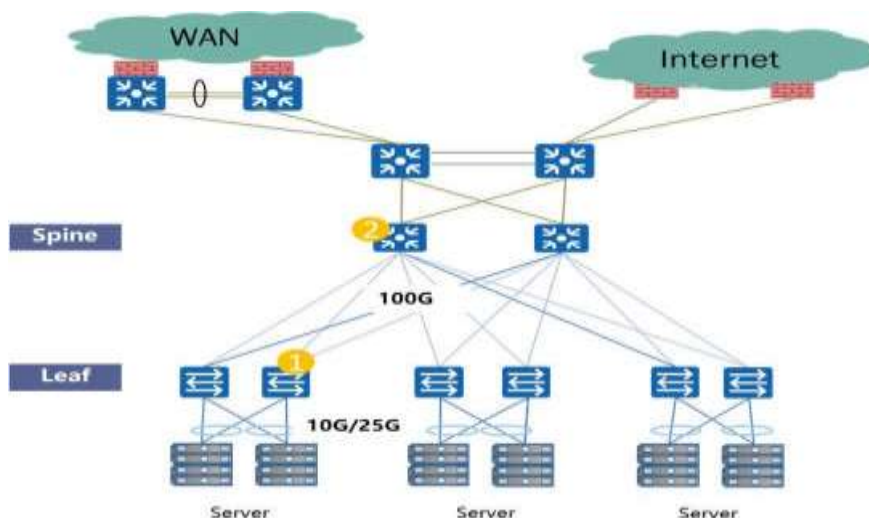
- Combined with the hardware capability provided by the chip itself, it can realize the end-to-end traffic visualization in the complex multi-path, multi-node network through protocols such as RSPAN and sFlow.
- Multiple reliability protection at device level and link level. Adopt over current protection, over voltage protection and over heat protection technology. Built-in hot-swappable redundant power modules and fan modules. Supports AC or DC power modules as per the actual environment requirements.
- Rich IPv4 routing protocols, including static routes, RIP, OSPF, IS-IS, and BGP4. A variety of IPv6 routing protocols, including static routes, RIPng, OSPFv3, and BGP4+, can be flexibly selected to build a network whether upgrading an existing network to an IPv6 network or creating an IPv6 network.
- In order to better match the air duct design of the data center, the switch provides users with a more flexible air duct scheme. When the front and rear air ducts are implemented, users can also select different fan modules to realize different wind directions (power side air or port side air)
- The hardware supports IPv4/IPv6 dual-stack multi-layer line-speed switching, differentiates and processes IPv4 and IPv6 packets, and supports multiple Tunnel technologies (such as manual tunnel configuration, automatic tunnel, and ISATAP tunnel). It can provide flexible IPv6 inter-network communication solutions based on IPv6 network requirements and network status.
- Supports ERPS fast ring network protection mechanism, MRPP fast link switching mechanism. Supports the BFD fast forwarding detection mechanism. When multiple services and heavy traffic are carried on the network, the convergence time of the network is not affected, ensuring the normal development of services.
- Support inbound and outbound ACLs, and VLAN-based ACLs to ensure legitimate users to use the network properly, such as multi-group binding, port security, time ACL, and bandwidth limiting based on data flow

Hardware Specifications

Model	CxD8400-54SX
Interface	48*SFP28 Slots 6*100G QSFP28 Slots
Management port	1 MGMT Port, 1 Console Port, 1 USB Port, USB 2.0 compliant
Transmission mode	Support store-forward mode and cut-through mode
Packet Forward Speed	1050Mpps
Switching Capacity	3.6T
Dimension(L*W*H)	440mm(W) * 470mm(D) * 44mm(H)
Full weight	About 10kg
Fan	5 hot-swappable fan modules, front and rear or rear front ventilation
Power Supply	Dual module power supply
AC Input	Rated voltage range: 100~240V Maximum voltage range: 90~264V Frequency: 50~60Hz Rated input current: 5~10A
DC Input	Rated voltage range: 100~240V Maximum voltage range: 90~264V Frequency: 50~60Hz Rated input current: 3.5~7.2A
Power consumption	Static (Dual AC): 76W; Maximum (Dual AC): 373W
Operating temperature	0°C ~ 40 °C
Storage temperature	-40 °C ~ +70 °C
Operating humidity	10% ~ 90% non-condensing
Storage humidity	5% ~ 90% non-condensing

Application Diagram

The CxD8400-54SX switch is used as TOR switches to provide high-density 25G/10G server access. the CxD8400-54SX switch used as spine node. In the spine-leaf network architecture, the spine nodes are interconnected with leaf nodes through 100G



Application of CxD8400-54SX series switches in data centers

Technical Specifications

Datcenter Features

- VxLAN Bridging
- VxLAN Routing
- EVPN VxLAN
- M-LAG
- RoCE v2, PFC, ECN

VLAN

- GVRP
- PVLAN
- Voice VLAN
- VLAN Translation
- Q-in-Q
- Subnet-based VLANs
- Protocol-based VLANs
- MAC-based VLAN

MAC Address

- Dynamic, static and black hole MAC address table entries
- MAC address auto learning and aging
- MAC address learning restrictions
- Source MAC address filtering

Multicast

- IGMP Snooping v1/v2/v3
- MLD Snooping v1/v2
- PIM-DM, PIM-SM, PIM-SSM
- Multicast VLAN
- Multicast Traffic Suppression

Quality of Service

- Port-based rate limiting for incoming and outgoing messages
- Stream-based rate limiting
- Based on port, source-destination MAC, source-destination IP
- 802.1p
- CoS
- DSCP
- IP priority
- Source destination L4 Port
- WRR
- SP
- DSCP & CoS Mapping

MPLS

- MPLS L2VPN
- VPLS
- VPWS
- LDP

Quality of Service

- Port Security
- Port Isolation
- IEEE802.1x AAA
- ACLs L2/L3/L4
- IPv4/v6 ACL
- User hierarchy
- IP source protection (IP MAC port binding, IP-MAC-port-VLAN binding)
- Dynamic ARP protection
- Illegal packet detection
- Broadcast storm suppression
- RADIUS/TACACS+
- RADIUS authentication (RFC2138)
- DDoS Attack Prevention
- HTTPs and SSL
- SSH v1.5/v2.0
- DHCP Listening
- DHCP Relay

Layer-3 Protocol (IPv4)

- Default Routing
- Static routes
- RIP V1/V2
- OSPF V2
- ISIS
- BGP4
- ECMP
- VRRP

IPv6 Foundation

- IPv6 ND
- IPv6 Web/SSL
- IPv6 NTP/SNTP
- IPv6 Telnet/SSH
- IPv6 Ping/Traceroute
- IPv6 RADIUS/TACACS+

- Static Routing
- Equivalent Routing
- OSPFv3
- RIPngd
- BGP4+
- Manual tunnelling
- Automatic tunnelling
- IPv4 over IPv6 tunnelling
- ISATAP tunnelling

Visualization

- sFlow Sampling

Reliability

- STP, RSTP, MSTP
- BPDU Guard
- STP Root Guard
- Loop Protection, Loop Detection
- BFD Detection
- Ethernet OAM
- ULDP
- Power supply 1+1 redundancy
- Fan redundancy design
- Hot-swappable power supply and fan modules
- SNMP (v1, v2c, v3)
- RMON (1,2,3 & 9)
- Firmware Upgrade
- Configuration Export/Import

Ordering information

CxD8400-54SX	48*25G SFP28 Slots ,6*100G QSFP28 Slots ,1 MGMT Port, 1 USB Port ,1 Console Port, Managed Switch
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