

CS6300 Series 100G Stackable Aggregation Routing Switch

Product Overview

DCN CS6300 is a L3 stackable routing switch with 100GE fiber uplink ports. It has advanced hardware and software architecture design, built-in modular 1+1 AC redundant power supplies, 3+1 redundant fans, cross ventilation and wind direction adjustable. It is ideal for high-density aggregation in Enterprise networks or Campus networks. It also provides data center features, such as VxLAN*, EVPN*, M-LAG*, Netconf*, Telemetry*, etc. So it is also ideal for the application scenarios of the new generation of 10G access and 100G aggregation data centers.

Appearance	Description
 CS6300-24X6C-HI	● 24 x 10G SFP+ and 6 x 100G QSFP28 ● 1+1 power supplies(AC), 3+1 fans ● 1 console, 1 USB, 1 RJ45 management ports ● Forwarding performance: 600Mpps ● Switching capacity: 1.68Tbps
 CS6300-48X6C-HI	● 48 x 10G SFP+ and 6 x 100G QSFP28 ● 1+1 power supplies(AC), 3+1 fans ● 1 console, 1 USB, 1 RJ45 management ports ● Forwarding performance: 600Mpps ● Switching capacity: 2.16Tbps

Key Features and Highlights

High Performance and scalability

With high switching capacity, the switches support wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols.

The 10G Ethernet connectivity is accomplished via a hot-pluggable 10G SFP+ transceiver which supports distance up to 300 meters over multi-mode fiber and 10 to 40km over single-mode fiber (The distance depends the optical module chosen).

High Reliability

The series of switches support modular 1+1 redundant power supplies and 3+1 redundant fans. Business won't be interrupted in case replacing power supplies and fans. System supports dual images. Even though the primary image was destroyed, system will still boot via backup image normally.

VSF (Virtual Switch Framework)

As new generation data center switch, the switches support VSF which not only guarantees the flexibility, but also enhanced the scalability of datacenter network.

Rich L3 Features

The series of switches delivers high-performance, hardware-based IP routing, RIP, OSPF and BGP provide dynamic routing by exchanging routing information with other Layer 3 switches and routers. With The series of switches, customers could easily achieve Policy based Route (PBR), which is important when they need multi exit application.

MPLS/VPLS

The series of switches supports MPLS L3 VPN/MPLS L2 VPN (VPLS) and helps customer to construct more secure/extendable network. The switches could be deployed as P & PE devices, guarantees the variety of services.

Abundant IPv6 Support

The series of switches supports IPv6 switching and routing based on hardware for maximum performance. With increased network devices growing and the need for larger addressing and higher security becomes critical, the switches will be a right product to meet the requirement. The series of switches passed IPv6 form Phase II certification, which is the best proof of the application.

Strong Multicast

The series of switches supports abundant multicast features such as IGMPv1/v2/v3 snooping and fast leave and IGMPv1/v2/v3, PIM-DM, PIM-SM, PIM-SSM and even MSDP. With Multicast VLAN Register (MVR), multicast receiver/sender control and illegal multicast source detection functions, the switches provides great application experience for customer.

Specifications

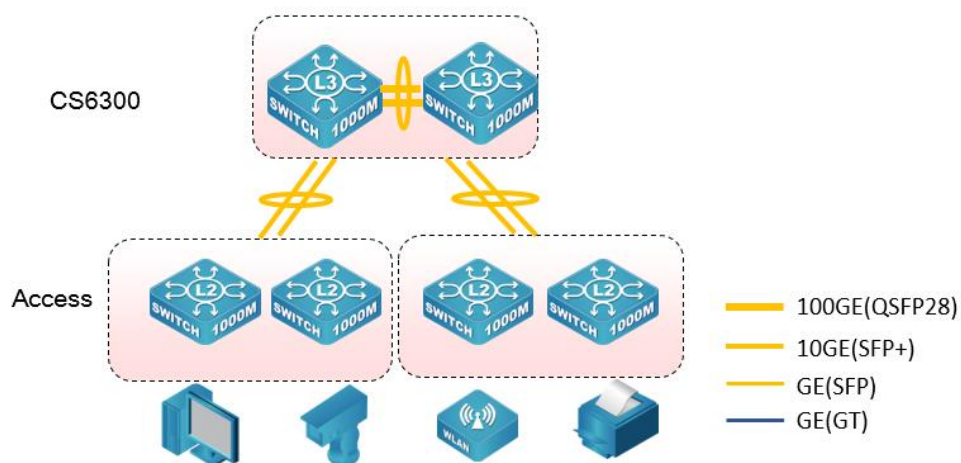
Item	CS6300-24X6C-HI		CS6300-48X6C-HI	
Physical port	24*10GbE(SFP+)+ 6*100GbE(QSFP28)		48*10GbE(SFP+)+ 6*100GbE(QSFP28)	
Management port	Console port RJ45 100/1000Mbps RJ45 Ethernet Management port USB Management port			
Performance				
Switching Capacity	1.68Tbps		2.16Tbps	
Forwarding Rate	600Mpps		600Mpps	
MAC Address	32K			
ARP Table	8K			
Routing Table	30K			
Physical				
Dimension(W*H*D)	442.5mm x 473mm x 43.95mm		442.5mm x 473mm x 43.95mm	
Relative Humidity	5%~95% non-condensing			
Temperature	Working 0°C~45°C, storage -40°C~70°C			
Power Input	AC: 100~240V,50~60 Hz			
Power Supply	1+1 Modular Redundant AC			
Power consumption	TBD		TBD	
Main Features				
L1, L2 Features	10k Jumbo Frame Port Loopback Detect LLDP and LLDP-MED UDLD 802.3ad LACP, 127 groups LACP Load Balance			
	N:1 Port Mirroring RSPAN ERSPAN			
	IEEE802.1d(STP) IEEE802.1w(RSTP) IEEE802.1s(MSTP) Root Guard BPDU Guard BPDU Tunnel ERPS(ITU-T G.8032)			
	802.1Q, 4096 VLAN MAC VLAN, VOICE VLAN, Private VLAN, Protocol VLAN, Multicast VLAN QinQ, Flexible QinQ GVRP N:1 VLAN Translation Broadcast / Multicast / Unicast Storm Control			

	IGMP v1/v2/v3 Snooping and L2 Query ND Snooping MLDv1/v2 Snooping Port Security Flow control: HOL, IEEE802.3x Bandwidth Control
L3 Features	Static Routing, RIPv1/v2, OSPFv2, BGP4 OSPFv3, BGP4+ OSPF Multiple Process LPM Routing Policy-based Routing (PBR) for IPv4 and IPv6 VRRP URPF, ECMP BFD IGMP v1/v2/v3, IGMP Proxy, DVMRP, PIM-DM, PIM-SM, PIM-SSM, any cast RP, MSDP Static Multicast Route Multicast Receive Control Illegal Multicast Source Detection ARP Guard, Local ARP Proxy, Proxy ARP, ARP Binding, Gratuitous ARP, ARP Limit Anti ARP Cheat, Anti ARP Scan DNS Client GRE Tunnel
IPv6	6to4 Tunnel, Configured Tunnel, ISATAP Tunnel, GRE Tunnel ICMPv6, ND, DNSv6 IPv6 LPM Routing, IPv6 Policy-Based Routing (PBR) IPv6 VRRPv3, IPv6 URPF, IPv6 RA RIPng, OSPFv3, BGP4+ MLD Snooping, IPv6 multicast VLAN MLDv1/v2, PIM-SM/DM for IPv6, IPv6 Anycast RP, IPv6 ACL, IPv6 QoS
MPLS	MPLS, VRF, LDP MPLS L3 VPN, MPLS L2 VPN(VPLS), VPWS
QoS	8 Queues SP/WDRR/SP+WDRR, Traffic Classification Based on 802.1p CoS, ToS, DiffServ DSCP, ACL, port number Traffic Shaping PRI Mark/Remark
ACL	IP ACL, MAC ACL, IP-MAC ACL Standard and Expanded ACL Based on source/destination IP or MAC, IP protocol, TCP/UDP port, DSCP, ToS, IP Precedence), VLAN, Tag/Untag, CoS REDIRECT and accounting-based ACL Rules can be configured to port, VLAN Time ranged ACL

Security	802.1x AAA Port, MAC based authentication Accounting based on time length and traffic Guest VLAN and Auto VLAN
	RADIUS for IPv4 and IPv6
	TACACS+ for IPv4 and IPv6
	MAB
DHCPv4/v6	DHCP Server/Client for IPv4/IPv6 DHCP Relay/Option 82 DHCP Snooping/Option 82
Traffic Monitor	sFlow Traffic Analysis
Security Network Management	CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6 Syslog and external Syslog server HTTP SSL SNMP MIB, SNMP TRAP FTP/TFTP SNTP/NTP RMOM 1,2,3,9 Authentication by radius SSH v1/v2 Dual firmware images/ Configuration files 802.3ah OAM, 802.1ag OAM
Data Center Features	VXLAN* MLAG* VSF (Virtual Switch Framework)

Application

CS6300 are deployed as full 10G Core switches in campus networks



Order Information

Product	Description
CS6300-24X6C-HI	100G Advance Enhanced Datacenter Switch (24*10GbE(SFP+)+6*100GbE(QSFP28)) , Redundant and modular Design, High performance. Full L3 features, Default with two hot-swap AC power supply, Default with 4(3+1) fans
CS6300-48X6C-HI	100G Advance Enhanced Datacenter Switch (48*10GbE(SFP+)+6*100GbE(QSFP28)) , Redundant and modular Design, High performance. Full L3 features, Default with two hot-swap AC power supply, Default with 4(3+1) fans