

Better to buy right!

DCN Ethernet Switch 2025

DCN

www.dcnglobal.com

2025

06.20



Switch

01 Enterprise Switch Overview

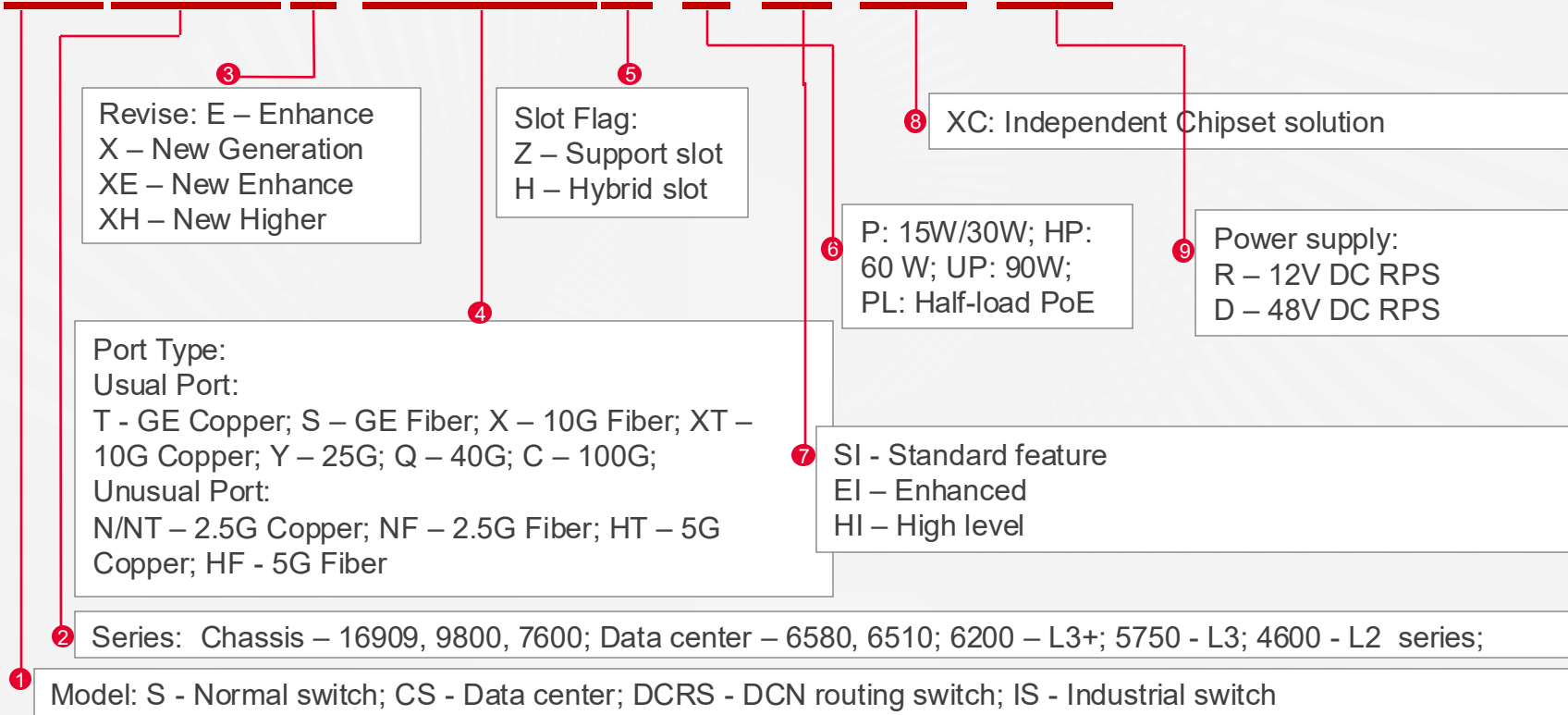
02 Enterprise Switch Highlights

03 Industrial Switch

04 Case study

Naming of Switch

CS6200C-24T6XH-P-SI-XC-AA



Naming of Switch



CS6580-48S6CQ-HI

Full **L3** switch with **48*10/25G** downlink ports and **6*100G** uplink ports.



S5750E-30X-P-SI-XC

L3 switch with **24*1G** PoE ports, **4*1G** SFP and **6*10G** SFP+.



CS6200X-48T6X-P-EI

New generation of L3+ series, 48*10/100/1000Base-T PoE, 6*10GbE(SFP+).

FY25 Ethernet Switch Product Family

Chassis Switch



CS16909E



DCRS-7608



DCRS-7604

Data Center Switch



CS6510X-48X8C-HI



CS6580X-48Y8C-HI



CS6580X-32C-HI



CS6300-24X6C-HI



CS6300-48X6C-HI

Customized Model



CS6200-28X-HI-24F



CS6200-8G24S2Q-EI



S5750E-26X-SI



S5750E-16F-SI-D

mGig Switch



S5750M-18X-P-SI



S5750M-30X-P-SI



S5750X-24NT6X-P-SI



S5750X-24NT6X-SI

PoF & Uni-P Switch



S5750X-24NF6X-P-SI



S5750X-48S6X-U-SI

L3 10G Aggregation Switches



S5750X-24T6X-SI



S5750X-24S6X-EI



S5750X-48T6X-SI



S5750X-48S6X-EI



S5750X-24T6X-P-SI



S5750X-48T6X-P-SI

L3+ 10G Aggregation Switches



CS6200X-24T6X-EI



CS6200X-48S6X-EI



CS6200X-24T6X-HI



CS6200X-48T6X-EI



CS6200X-24T6X-P-EI



CS6200X-24S6X-HI



CS6200X-48T6X-HI



CS6200X-24S6X-EI



CS6200X-48T6X-P-EI



CS6200X-48S6X-HI

L2/L3- 1G/10G Access Switches



S4600-28P-SI



S4600-12X-P-SI



S4600-52X-P-SI



S4200-10P-SI



S4600-28P-P-SI



S4600-28X-SI



S4200-10P-P-SI



S4600-52P-SI



S4600-28X-P-SI



S4200-28P-SI



S4600-12X-SI



S4600-52X-SI



S4600-54X-P-SI



S4200-28P-P-SI

Opportunity—DCN Branding and Position

JUNIPER
NETWORKS



Higher cost

ZTE中兴

DCN

Ruijie

Your choice

TP-LINK®

D-Link®

Less performance

DCN

CS16909E core layer chassis switch

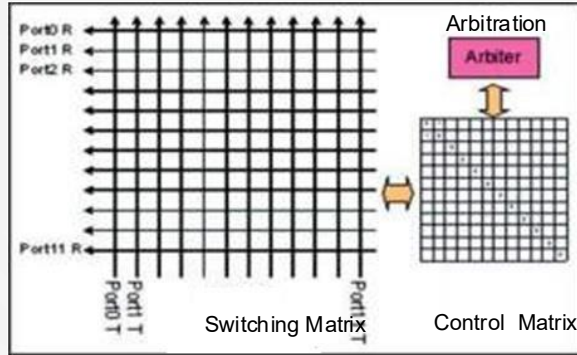
Application: Core switch in data center & enterprise network



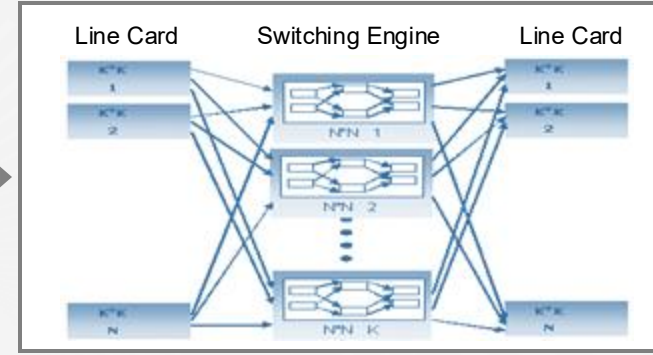
CS16909E

- 1 — Advanced architecture: CLOS
- 2 — Compact structure design
- 3 — Switch capacity up to 10Tbps
- 4 — Completely separated three planes

CS16909E – Advanced CLOS architecture



Crossbar



CLOS

ITEMS	Crossbar	CLOS
Switching and control hardware	Unified / combined	Separate
Performance (Switching capacity)	<1TB	5~10TB or more
Packet drop during engine changing	A few	Zero
Switching cards redundancy	1+1	N+1

CS16909E - Completely independent planes



Control plane

Management plane



Switching plane

Independent MP, CP, SP provide more **Reliability**

DCRS-7600E chassis switch

Application: Core / aggregation switch in middle enterprise network

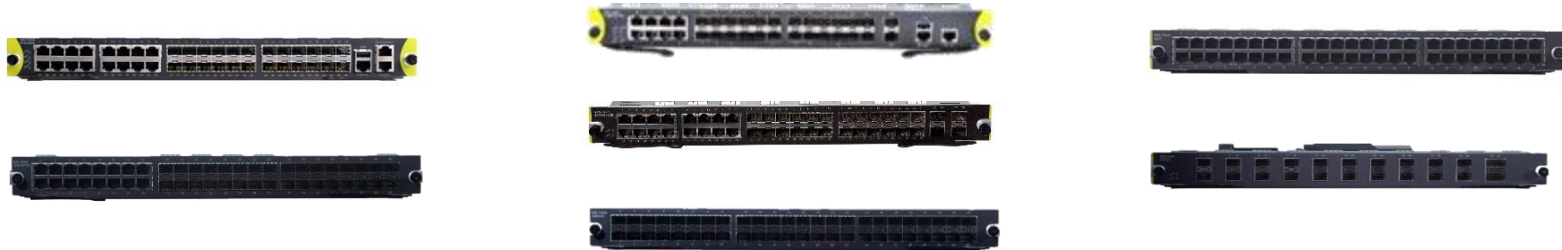


DCRS-7600

- 1 — Hot-swappable & redundant PSU&FAN
- 2 — Rich variety of business cards
- 3 — Up to 384 GbE fiber ports
- 4 — Hardware stacking

Abundant business cards for DCRS-7600E

- Rich types of 1G, 10G, fiber and copper modules
- Up to **384** GE ports per switch
- Up to **224** 10GE ports per switch



Full 10G/25G+100G data center switch

CS6500X series



CS6510X-48X8C-HI



CS6580X-48Y8C-HI



CS6580X-32C-HI

Interfaces

- CS6510X-48X8C-HI : 48*10G + 8*100G
- CS6580X-48Y8C-HI : 48*10G/25G + 8*100G
- CS6580X-32C-HI 32*100G
- Hot swappable modular AC & FAN

Features

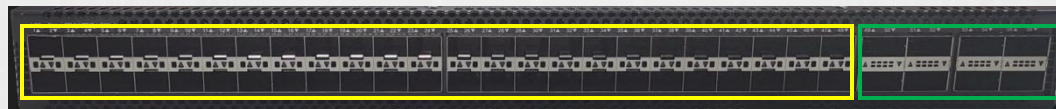
- VXLAN, MC-LAG, ROCE*, Netconf, Telemetry, MPLS VPN*, IPV6
- Higher performance

Interface details

CS6580X-48S6CQ-HI

48*10/25G SFP28

6*100G QSFP28

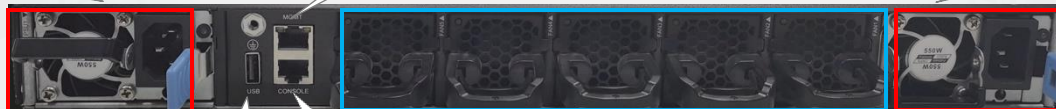


Modular AC

1*management

4+1 Modular Fans

Modular AC



1*USB2.0

1*Console

New data center features

VXLAN	M-LAG	Telemetry	Netconf
Static tunnel	Group member auto-discovery	GRPC	SSH access
EVPN	Auto-sync ARP addresses	CPU & RAM monitoring	YANG
L2 gateway	Auto-sync MAC addresses	Interface statistics monitoring	Sysrepo data base
L3 gateway	Interactive with STP		VLAN config
DCI*			BGP config
			Interface statistics

Data center scenario with VxLAN deployed

EVPN - not only inherits the advantages of MP-BGP and VxLAN,
but also provides new functions:

- Simplified auto-configuration
- Active and standby backup of multi-homing sites
- Separated control plane and data plane
- Symmetric IRB (Integrated Bridging and Routing)

Control Plane

BGP MPLS-Based Ethernet VPN
RFC 7432

Data Plane

MPLS
RFC 7432

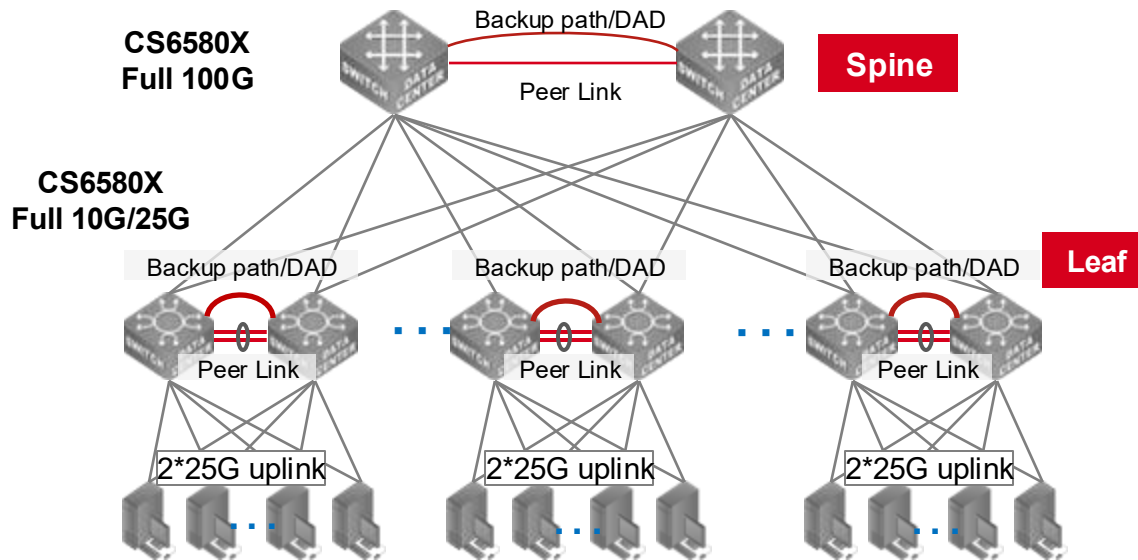
PBB
draft-ietf-l2vpn-
pbb-evpn

VXLAN
draft-boutros-
l2vpn-vxlan-
evpn

M-LAG - Multi-chassis Link Aggregation Group

Application - Data centers and campus networks with high-efficient and reliable requirements

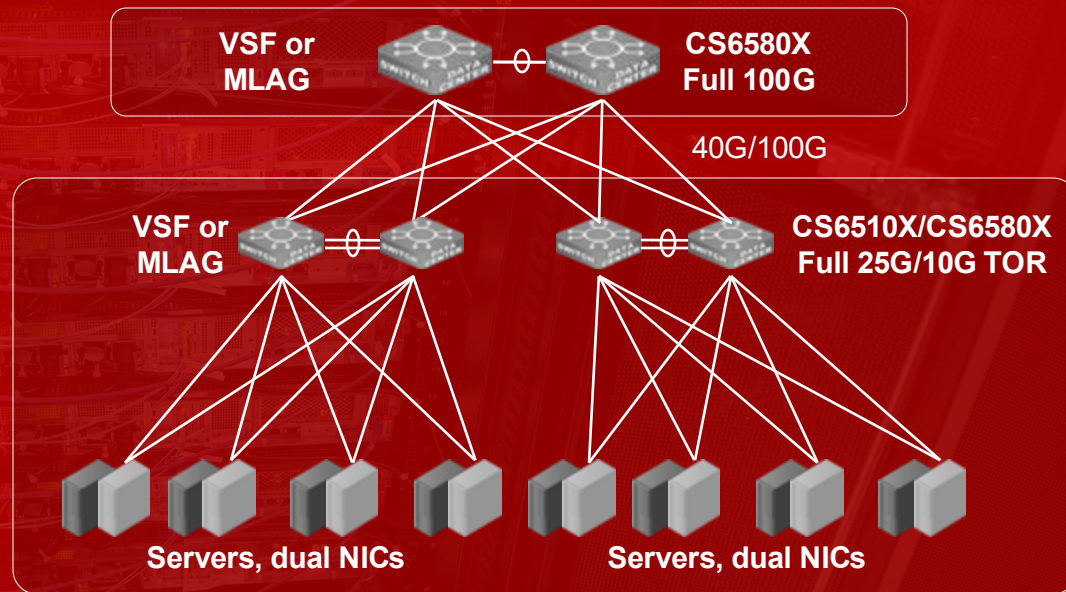
- Performance double
- All links active
- Multi-chassis link aggregation
- High reliability
- Independent master / backup devices (2 pcs, detect each other)



Data center TOR

Top of Rack

- Dual homing dual alive
- High density of 100G connections
- VSF running, High bandwidth, High performance

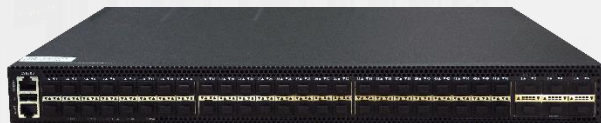


Full 25G/10G+40G/100G switch

CS6300 series



CS6300-24X6C-HI



CS6300-48X6C-HI

1

Redundant and modular design

2

Hot-swappable, redundant PSU&FAN

3

10GbE downlink & 100GbE uplink

4

Abundant data center features

CS6200X-HI L3+ Multi Slots



Copper

CS6200X-24T6X-HI

24GT+6XS+1 slot/ Hot-swappable AC & HDC



Copper

CS6200X-48T6X-HI

48GT+6XS+1 slot/ Hot-swappable AC & HDC



Fiber

CS6200X-24S6X-HI

24GB+6XS+1 slot/ Hot-swappable AC & HDC



Fiber

CS6200X-48S6X-HI

48GB+6XS+1 slot/ Hot-swappable AC & HDC



Note: CS6200X-HI series power consumption is 150W

8*10G card (CS6200X-HI dedicated)



CS6200X-EI L3+ GE Copper



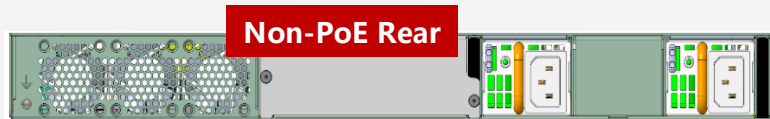
CS6200X-24T6X-EI
24GT+6XS/ Hot-swappable AC (60W)



CS6200X-24S6X-EI
24GB+6XS/ Hot-swappable AC (60W)



CS6200X-24T6X-P-EI
24GT+6XS/ Hot-swappable AC & HDC (600W)



CS6200X-48T6X-EI
48GT+6XS/ Hot-swappable AC (60W)



CS6200X-48S6X-EI
48GB+6XS/ Hot-swappable AC & HDC (100W)



CS6200X-48T6X-P-EI
48GT+6XS/ Hot-swappable AC & HDC (600W)



L3+ GE+10G fiber switch

**8 x 1GE+
24 x 10GE(SFP+) +
2 x 40G(QSFP+)**



CS6200-8G24S2Q-EI

1

Flexible Physical Ports

2

Dual Redundant PSU
Fixed AC+48VDC

3

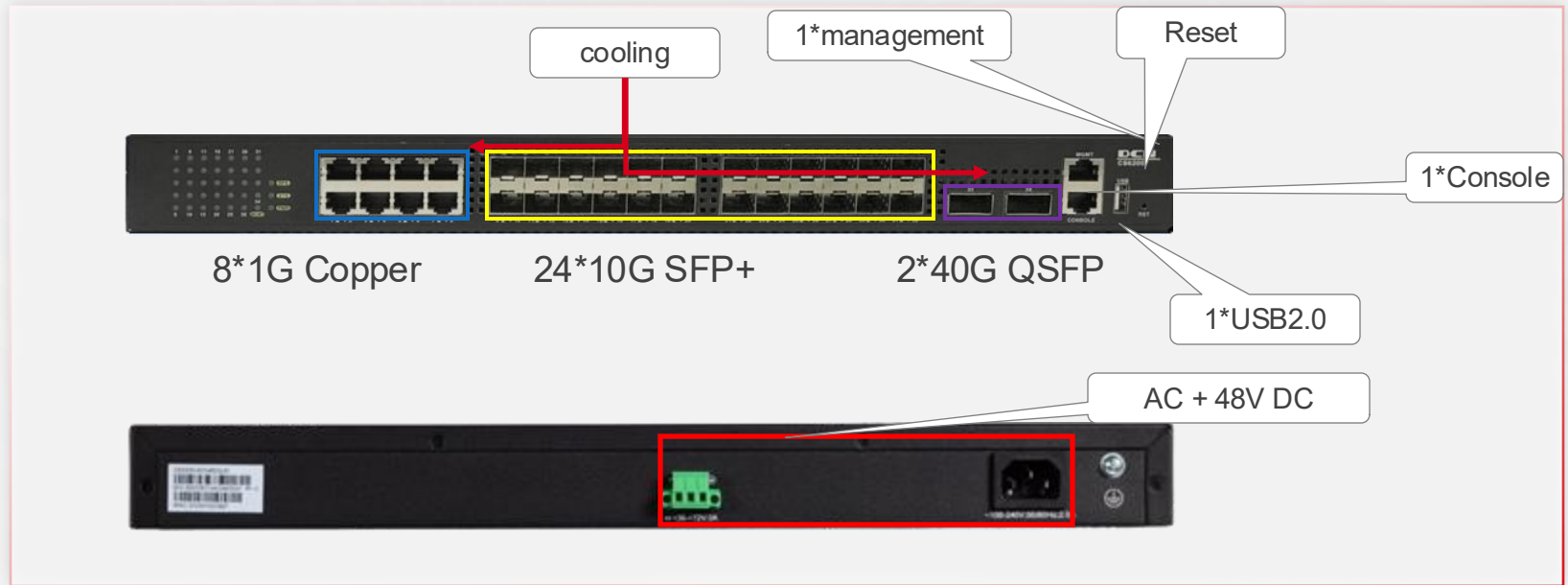
Hardware stacking

4

Large scale NAND flash, RTC

Interface details

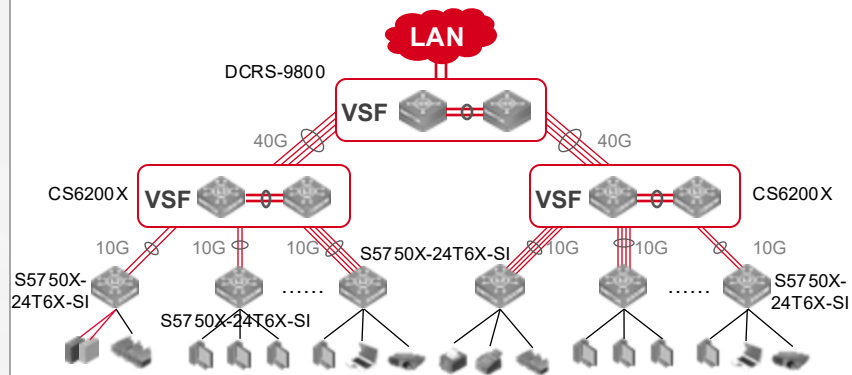
CS6200-8G24S2Q-EI



CS6200 series - typical scheme

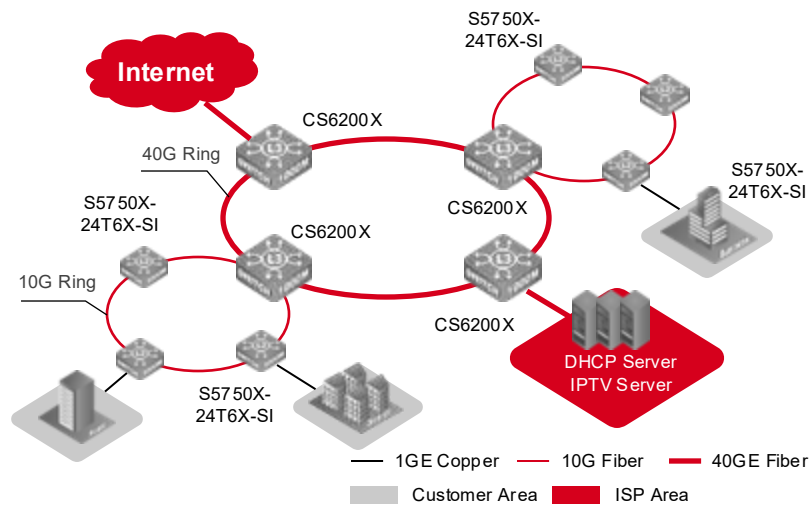
Enterprise aggregation

- Hardware Stacking
- LAG cross switch



Small ISP core switch

- ERPS, link failure recovery time < 20ms
- L3 advanced dynamic routing



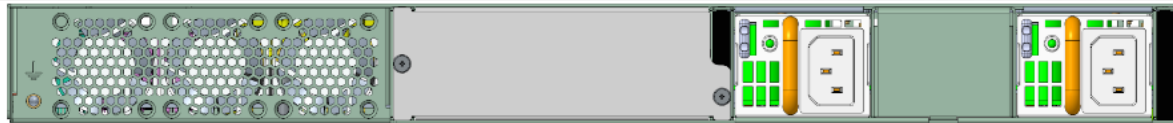
S5750X-EI L3+ GE Fiber Model



S5750X-24S6X-EI
24GB+6XS/Hot-swappable AC (60W)



S5750X-48S6X-EI
48GB+6XS/ Hot-swappable AC & HDC (100W)



S5750X-SI L3+ GE Copper Model



Copper

S5750X-24T6X-SI
24GT+6XS/Fixed Single AC (36W)



Copper

S5750X-48T6X-SI
48GT+6XS/Fixed Single AC (60W)



POE

S5750X-24T6X-P-SI (POE:370W)
24GT+6XS POE/Fixed Single AC (430W)



POE

S5750X-48T6X-P-SI (POE:740W)
48GT+6XS POE/Fixed Single AC (880W)



Note: POE models have additional 2 fans in the middle of rear, totally 5 fans

L3+ 1G+10G switch

S5750 mGig series



S5750X-24NT6X-P-SI
24*2.5GT/POE + 6* 10G SFP+



S5750X-24NT6X-SI
24*2.5GT + 6* 10G SFP+



S5750M-18X-P-SI
12*2.5G/5G/10GBase-T +
6*25GbE (SFP28)

Items	S5750X-24NT6X-P-SI	S5750X-24NT6X-SI	S5750M-18X-P-SI
Main ports	24*2.5GT	24*2.5GT	12*2.5G/5G/10GT
Uplink ports	6*10G SFP+	6*10G SFP+	6*25GbE (SFP28)
MGMT ports	OOB, console, USB	OOB, console, USB	OOB, console, USB
PoE	802.3af/at, 740W	NA	802.3af/at/bt, 370W
PSU	AC	AC	AC+48VDC
Cooling	Active	Active	Active
Dimension	440mmx380mmx44mm	440mmx380mmx44mm	440mmx380mmx44mm

S5750X & CS6200X

Model name	S5750X-SI	S5750X-EI	CS6200X-EI	CS6200X-HI
MAC Entry	32K	32K	32K	32K
Power Supply	Fixed AC	Modular AC	Modular AC	Modular AC
Routing Protocol	ISIS, OSPF, BGP	ISIS, OSPF, BGP	ISIS, OSPF, BGP	ISIS, OSPF, BGP
ACL	4K	4K	4K	4K
ARP	1K	1K	8K	8K
Route	1K	1K	12K	12K
Extended Slot	No	No	No	1

L3-10G+40G S5750E-26X-SI



S5750E-26X-SI

**24 x 10GE(SFP+)+
2 x 40G(QSFP+)**

1

Dual 40G uplink

2

Dual Redundant PSU
Fixed AC+48VDC

3

Hardware Stacking

4

Cost-effective 10G Access

S5750X/CS6200X VS S5750E/CS6200

Series	New models	Old models
S5750X-SI	S5750X-48T6X-P-SI	S5750E-52X-P-SI (2.0)
	S5750X-48T6X-SI	S5750E-52X-SI (2.0)
	S5750X-24T6X-SI	S5750E-28X-SI (2.0)
	S5750X-24T6X-P-SI	S5750E-28X-P-SI
S5750X-EI	S5750X-48S6X-EI	S5750E-52F-SI-R
	S5750X-24S6X-EI	S5750E-28F-SI-R
CS6200X-EI	CS6200X-48T6X-EI	CS6200-52X-EI
	CS6200X-24T6X-EI	CS6200-28X-EI (2.0)
	CS6200X-24T6X-P-EI	CS6200-28X-P-EI
	CS6200X-24S6X-EI	CS6200-28F-EI-R
	CS6200X-48T6X-P-EI	
	CS6200X-48S6X-EI	
CS6200X-HI	CS6200X-48T6X-HI	
	CS6200X-24T6X-HI	
	CS6200X-48S6X-HI	
	CS6200X-24S6X-HI	

L2+ GE+10G intelligent switch

S4600-X 10G series



S4600-28X-SI



S4600-28X-P-SI



S4600-52X-SI



S4600-52X-P-SI



S4600-12X-P-SI



S4600-12X-SI

1

10G uplink

2

Cost-effective

3

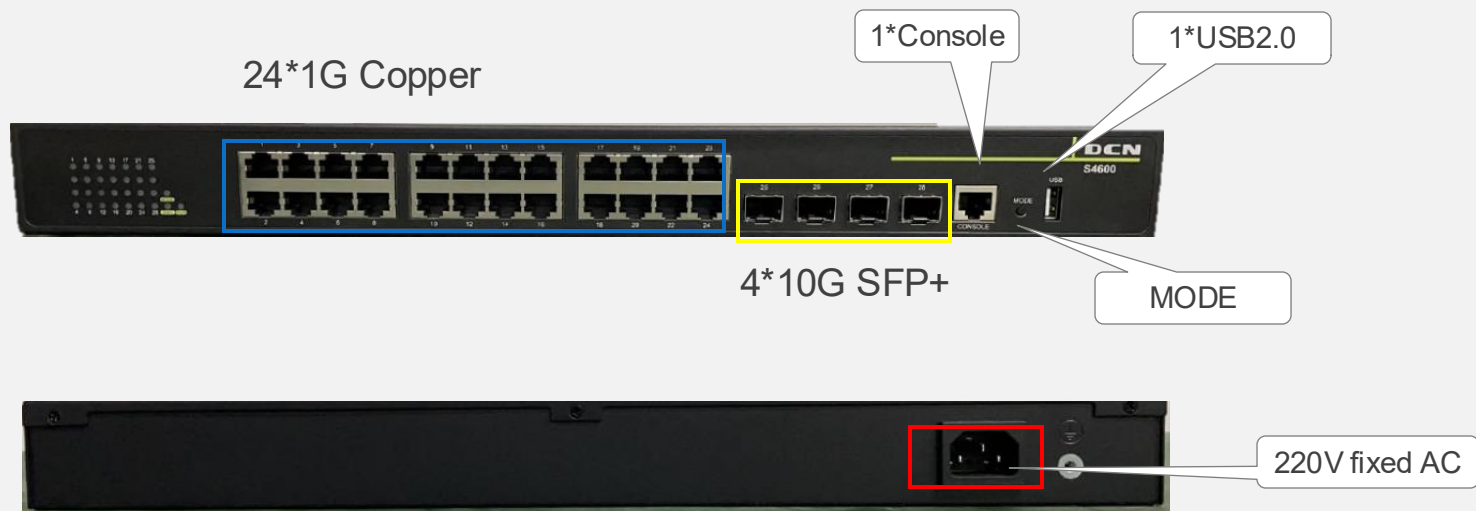
Static routing

4

Zero touch provisioning

Interface details

S4600-28X-P-SI



L2+ GE+10G intelligent switch

S4600-54X 10G series



S4600-54X-P-SI



S4600-54X-SI

- 1 — Up to 6*10G SFP+ ports
- 2 — 740W PoE budget
- 3 — Static routing
- 4 — Zero touch provisioning

L2 GE intelligent switch

S4600 GE series



S4600-28P-SI(R3.5)



S4600-52P-SI



S4600-28P-P-SI(R3.5)

1

Small size & fanless design

2

AF/AT, 185w / 370w for PoE

3

ERPS, failure recovery <50ms

4

Zero touch provisioning

L2 GE intelligent switch

S4200 GE series



S4200-10P-SI(R2)

PoE



S4200-10P-P-SI(R2)



S4200-28P-SI(R3)

PoE



S4200-28P-P-SI(R2)

1

— Small size & fanless design

2

— Cost-effective

3

— ERPS, failure recovery <50ms

4

— Zero touch provisioning

S4200 vs. S4600

Model name	S4200	S4600
MAC Entry	8k	16k
Multicast MAC Entry	500	1k
Packet Buffer	4.1Mb	12Mb
Sflow	No	Yes
ACL rules	1408	2048



Switch

- 01 Enterprise Switch Overview
- 02 Enterprise Switch Highlights**
- 03 Industrial Switch
- 04 Case study

DCNOS, self-developed operating system

Management

- Unified Operation system
- OpenFlow / SDN
- Hardware stacking
- High available
- Ethernet OAM

User Control

- MAC address binding
- MAC address filter
- Rate Limit
- 802.1X
- MAC based 802.1x
- AAA

Reliable Security

- G.8032, MRPP
- L2-7 ACL
- CPU Protection
- IP Source Guide
- DHCP OPTION 82

Powerful Feature

- N:1 VLAN Mapping
- But also you see well listed here. There are also some special customer switch models which is totally different from our tradition box switch products. Please clarify them around of

Key features

Virtual Switching Framework

- Simple Management
- Simple structure
- Load balance
- Quick failure recovery

Zero Touch Provisioning

- Quick deployment
- Plug and play
- Save Maintenance cost

ERPS & Multi-process MSTP

- Redundant ring topology
- Fit for varieties of networking structures
- Quick failure recovery<50ms

Resilient PoE

- 90w PoE
- PD failure detection
- Continuous powering in case switches restart

SDN

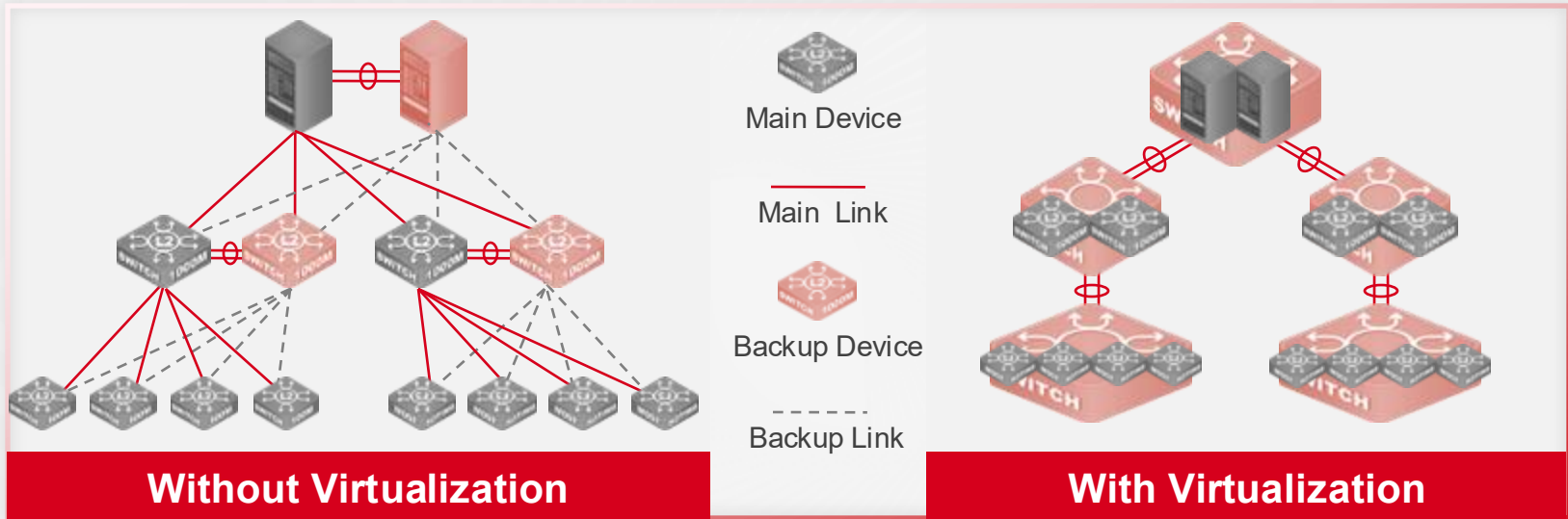
- ONF member
- OpenFlow 1.0&1.3
- The first pass consistency standard certification test

Leading IPv6 technology

- IPv6 ready certification
- IPv6 ready enhanced
- IPV6 Outstanding Contribution Enterprise in 2019

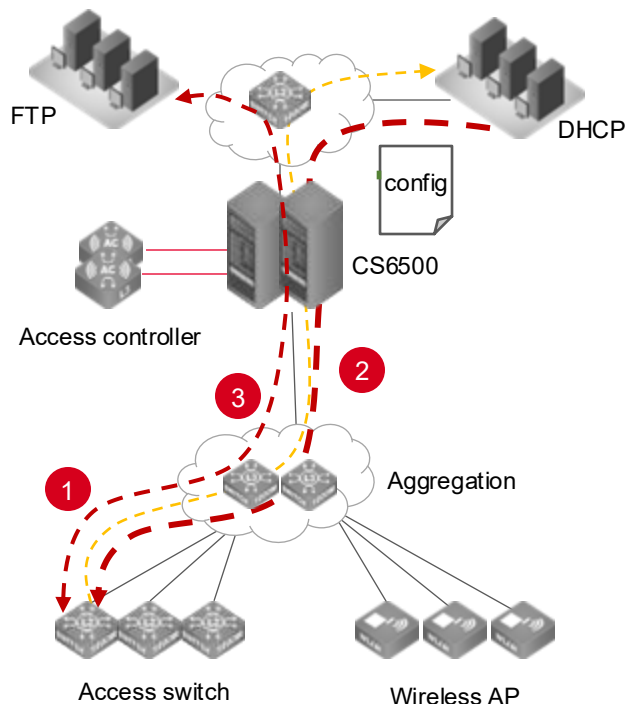
Virtualized switching framework

DCN Virtualized Solution vs Traditional Solution



Structure		Deployment	Performance	Convergence	Stability
Traditional		Difficult	Active + Standby	Seconds	Easy to shock
Virtualization		Easy	Active + active	Milliseconds	Stable

Zero touch provisioning



1

Configuration time save **80%**

2

Maintenance cost reduce **65%**

3

Access device Plug and play

DCN become ONF member

<https://www.opennetworking.org/sdn-resources/onf-specifications/openflow-conformance>

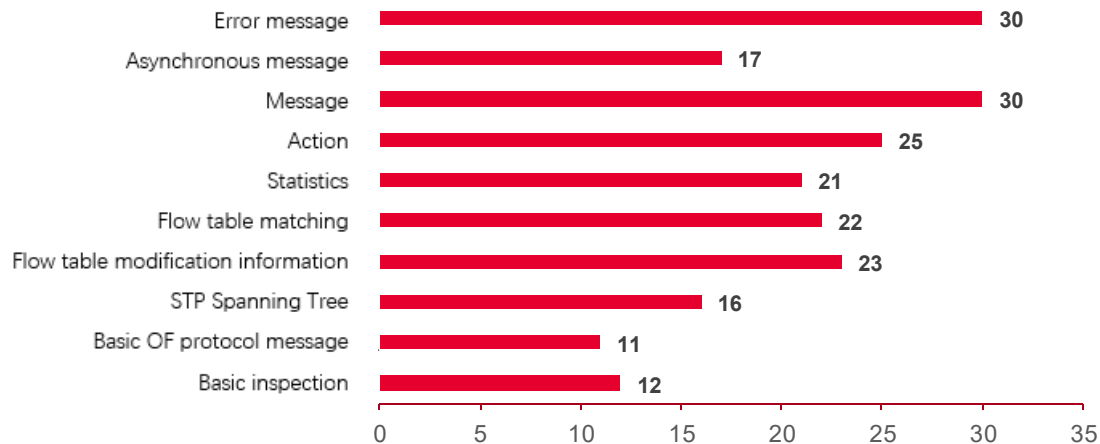
Beijing Global SDN Technology Conference, May 2014

- Dan Pitt presenting a Certificate of Conformance to the OpenFlow 1.0 Specification to Mr. Chen Xiang of DCN Digital China Networks Ltd



The first vendor pass consistency standard certification test in China

- CS6500 data center switch : The first vendor pass consistency standard certification test of ONF/OpenFlow1.0 protocol in china (full test, covered L2/L3)
- CS6500 features: 48 10G SFP+, 4 40G QSFP; support OpenFlow 1.0 and 1.3, compatible with the traditional mode and openflow mode



Leading IPv6 technology

Industrial Recognition and Certification



Release Chinese **first** IPv6 Switch DCRS-7604

The **first** Chinese company get IPv6 ready certification

The **first** Chinese company get IPv6 ready DHCPv6 certification

Full product lines get IPv6 ready enhanced certification

Win “**IPv6 Outstanding Contribution Enterprise**” award by IPv6 Forum in 2019



Main provider for **CERNET**
and **CERNET2** network

Powerful IPV6 Compatibility

- Full product lines support IPv4 and IPv6 **dual stack**
- Abundant **IPv6 tunnel** technology supported, ISATAP tunnel, GRE tunnel, 6to4 tunnel, etc.
- **IPv6 routing**, RIPng, OSPFV3, BGP4+, etc
- **IPv6 multicast**, Pim6, MLD, etc
- **DHCPV6** technology, DHCPv6 server, DHCPv6 client, DHCPv6 option 37/38, DHCPv6 relay, etc
- **IPv6 security**, SAVI, ND snooping, security RA, etc
-



Switch

01 Enterprise Switch Overview

02 Enterprise Switch Highlights

03 **Industrial Switch**

04 Case study

IS2100D Din-rail industrial switch



- 1 — Din-rail installation, IP40
- 2 — Extreme operation temperature
-40°C~ 85°C
- 3 — IEEE 802.3AF/AT
- 4 — Ethernet Ring Protocol
Link failure recovery time < 20ms

Segment market



Smart Grid

Power Generation,
Transmission,
Ammeter, ...



Transportation

Railway, Highway,
video monitoring,
Maritime, ...



Government

Safe City, video
monitoring



Industrial Automation

Packaging,
Monitoring, ...



Reliable hardware design



Chips could run at high-temperature with low power consumption and small heat dissipation



Protection against electromagnetic interference



Enhanced chipset, large capacitance



MTBF > 500000 hours



Long life cycle



Keep reliably running in extreme temperature condition

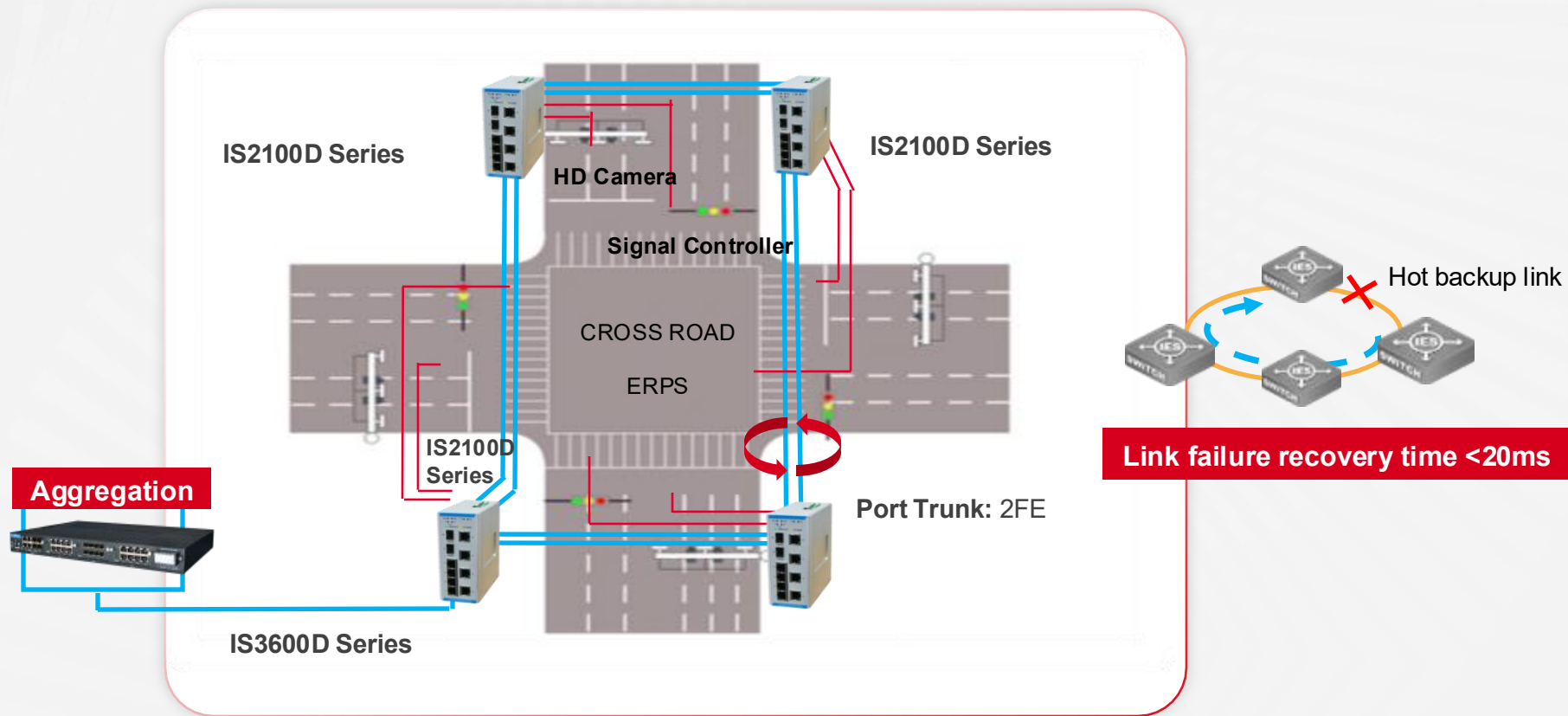


Redundant power supply



Fanless design

Ethernet ring protection protocol





Switch

01 Enterprise Switch Overview

02 Enterprise Switch Highlights

03 Industrial Switch

04 Case study

Successful cases

Europe ISP access network

Application:

- Broadband
- IPTV, VoD
- CCTV
- Data center

Value:

- Virtualized architecture, high reliability
- Enhanced QoS
- Easy deployment
- Cost effective
- Visual management and monitoring



Successful cases

Grand Indonesia shopping town (GIST) Indonesia

Requirement

- Data traffic for NCM, IOS (connect sensing devices, card readers, locking devices etc.)
- Surveillance (IP surveillance Surveillance and Digital Video Recording) can be networked together to provide a centralized management control

Applications

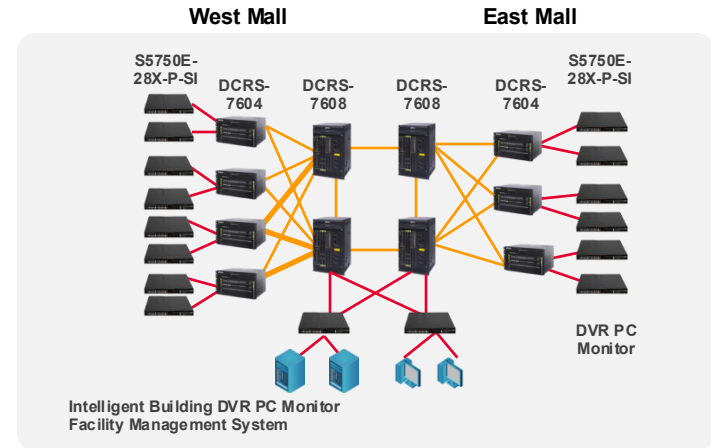
Data communication for
NCM, SMS system
IP surveillance

Network Scale

More than 1000 cameras

Highlights

- A full-mesh topology provided backup of each switches ensuring the traffic of critical service
- Long distance connection between core layer and aggregation layer switches separated in east, west mall and 8 level floors
- The data for surveillance camera was classified as high priority for high quality video display
- Management security allow only IT manager can access and manage the Switches



Related Products

Device type	Model	Quantity
Core Switch	DCRS-7608E	4
Aggregation	DCRS-7604E	7
Access switch	S5750E-28X-P-SI	50

Successful cases

Network-building for Tamil Nadu Court in India

Requirement

- Need cost-effective access device
- Should provide power to camera without adaptor
- High availability of the network
- Ring connection between different court required

Applications

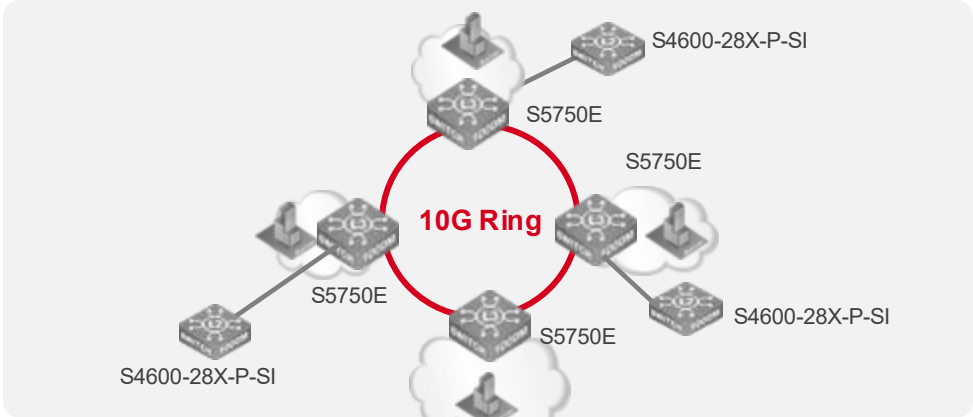
Video Transmission

Network Scale

Hundreds Wards

Highlights

- Cost effective GbE ports for access
- Wide working temperature
- Continuous power during device reboot
- IP40 support
- PoE support



Related Products

Device type	Model	Quantity
Aggregation switch	S5750E-28X-SI	10
	S4600-28X-P-SI	20
Access switch	S4200-28X-PL-SI	30

Successful cases

Turkey Police Department IP Surveillance network

Requirement

- Environment humidity 70%-80%, temperature reaches 40°C
- High bandwidth for video transmitting

Applications

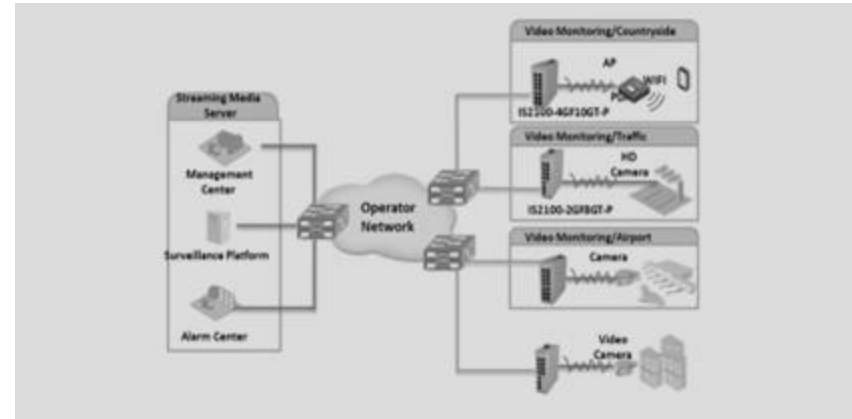
IP surveillance

Network Scale

6000 cameras

Highlights

- Leading 11ac in-wall Wi-Fi network
- traffic shaping can make the video stream run more smoothly
- Din-rail installation, IP40 protection class
- Industrial fanless design, aluminum fold design
- Dual 48V DC Power input
- Support 802.3af/at PoE output
- Wide temperature -40°C ~85 °C



Related Products

Device type	Model	Quantity
Industrial PoE Switch	IS2100D-2GF8GT-P	500
	IS2100D-4GF10GT-P	100

Appendix-Exam

1. DCN is gonna release a new POE switch model for Datacenter scenario, it have to equip with 12GE copper ports, 24 SFP+ ports and 4 QSFP+ ports, and have high end functions. What should we name it?

- A.S6580-12G24F4Q-P-HI B.DCRS6200-36S4Q-P-EI C.CS6580-12G24S4Q-P-HI
D.CS5750E-12G24S4C-POE-EI

The correct answer is **C**, POE switch stands for " -P" , for datacenter scenario stands for "CS" , 12GE copper ports, 24 SFP+ ports and 4 QSFP+ ports stands for "12G24S4Q" , high end function stands for "-HI" , so the correct name should be "CSXXX-12G24S4Q-P-HI" ,check the options, the option C meets all the requirements.

Appendix-Exam

2. Customer requires an access model which can provide 60 watts power supply for his IP monitoring cameras, which model should we choose for him?

- A. S4600-28P-P-SI(R3) B. S5750M-18X-P-SI C. S5750E-26X-SI(R2) D. CS6200-8G24S2Q-EI

The correct answer is **B**, one of the highlight feature of S5750M-18X-P-SI is it supporting the 802.3bt, the POE++, only 2 models of DCN switches which can provide 60 watts power through one ethernet port.