ZXR10 8900E Series Core Switch

The New-Generation Network Core in Era of Merged Services over 100GE

Complicated Network, Simple Choice

ZXR10 8900E series core switch is a milestone of the decade from ZTE. With supreme T-bit capacity, cluster architecture and rich service ability, ZXR10 8900E family brings a new generation networks that carries any service at any bandwidth by a unified infrastructure. This means a new era in front of every users: extremely rich information and communication services with extremely high speed, all at a reasonable cost.

ZXR10 8900E family includes 8912E, 8908E, 8905E and 8902E for flexible applications in IP MAN, Metro Ethernet, FMC (Fixed Mobile Convergence) backhaul, data center and campus cores.

Product Positioning

- *Core and Aggregation Layer of Carrier's IP MAN*
- *Aggregation of FMC Backhaul*
- *Core of Data Center Networks*
- *Core of Campus Networks*

ZXR10 8900E Series core switch

Features and Advantages:

Extreme Performance: 400G Switching Platform

- As a 400G switching platform, the first release provides 320G switching capacity per slot.
- The highest port density in the industry. A single device supports 576*10GE ports or 96*40GE ports.
- Seamless upgrade to even higher capacity. Following releases will support 100GE ports and expand to 480G per slot smoothly.

Elastic Architecture: VSC Cluster

- Virtual Switch Cluster (VSC) is a logical device composed by multiple devices virtually. VSC expands capacity and port density of the cluster system, and simplifies network topology and management at the meantime.

Extraordinary Services: Full Service Scenarios

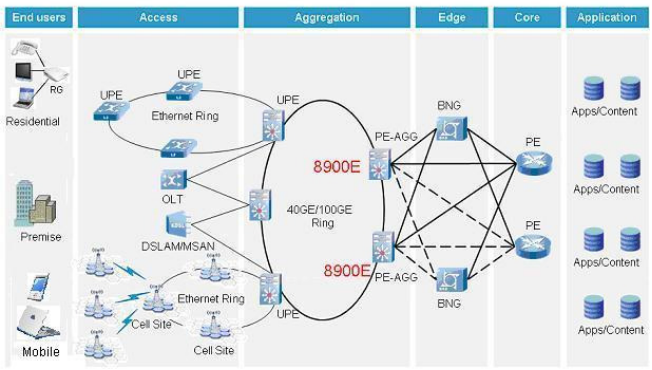
- With highly precise clock features like IEEE 1588v2, Sync.Ethernet, NTP, GPS ports, BITS ports, 8900E provides a perfect clock solution over IP network for 2G/3G/LTE Backhaul.
- The rich Metro Ethernet features like VPLS, VPWS, MPLS L3 VPN, MPLS TE, Multicast VPN, VPN QoS and IPv6, make it perfect for a full service merged metro networks. The possible roles include MPLS P/PE, Active-FTTx aggregation, IPTV or NGN bearer, FMC backhaul, IPv4/IPv6 dual-stack bearer…
- The latest data center technologies supported, e.g. FCoE, TRILL and DCB, make it ready for core of the "Cloud".

Enhanced Reliability: The Creative 5-dimensional Reliability Mechanism

- Reliable architecture: Redundant control and forwarding engines with fast switchover between active and standby. Redundant power supply modules, fans and clocks. Intelligent inspection, control, warning and hot-swappable components.

- Reliable management and control: Three independent control, monitoring and forwarding planes provides best equipment stability.
- Reliable operating system: The re-designed ROS 5.0 operating system is a multi-process system. Each module is strictly protected by independent resource space. It also supports intelligent dynamical upload, non-stop software module upgrade.
- Reliable computing: Based upon multi-core CPU, it provides multi-thread parallel high-performance computing to guarantee seamless connection of multiple planes.
- Reliable service: it supports L5 H-QoS, NSF, GR for OSPF/BGP/IS-IS/LDP/RSVP, LACP, ESRP, ZESS, VRRP+, OAM, BFD for OSPF/BGP/IS-IS/LDP/ RSVP/VRRP/VPLS LSP, ECMP, IP FRR, MPLS OAM and MPLS TE FRR.

Architecture Of Multi-Service Metro-E Network



Specifications

Performance and Capacity

ZXR10 8912E provides up to 5.12Tbps non-blocking switching capability, and 3840Mpps packet forwarding capability.

8900E also supports 4M RIB, 512K forwarding route entries, 512K MAC addresses, 256K ACL entries, to match the highest network requirement.

Model	Switching capacity	Forwarding capacity	slot	Redundant hardware
8912E	5.12T	3840Mpps	12	Yes
8908E	5.12T	3840Mpps	8	Yes
8905E	3.2T	2400Mpps	5	Yes
8902E	1.28T	960Mpps	2	Yes

Interface Modules

ZXR10 8900E core switches provide H5, S5, and E5 series line card. In first release, the available line cards include GE electrical/optical, 10GE optical, and 40GE interface cards.

Interface module	Type and Quantity of Ports
H5-8XG-SF	8 ports of 10GE (SFP+)
H5-24GE-SF	24 ports of GE (SFP)
H5-48GE-SF	48 ports of GE (SFP)
H5-48GE-RJ	48 ports of GE (RJ45)
E5-24GE-SF	24 ports of GE (SFP, enhanced services)
S5-12XG-SF	12 ports of 10GE (SFP+)
S5-48XG-SF	48 ports of 10GE (SFP+)
S5-8XLG-6QSFP2CFP	8 ports of 40GE (6 QSFP, 2 CFP)

Specifications	8912E	8908E	8905E	8902E
L2 Protocols	IEEE 802.3, IEEE 802.3u, IEEE 802.3z, IEEE 802.3x and IEEE 802.1p. STP, MSTP/RSTP, VLAN, QinQ, ESRP			
Advanced features	VSC (Virtual Switch Cluster), 802.1ag, 802.3ah, Y.1731, MPLS OAM, H-QoS for Ethernet/MPLS L2 VPN/MPLS L3 VPN, Sync.E, IEEE 1588v2, GPS, TS, DAI, BFD.			
Routing protocols	RIP1/2,OSPF, BGP, IS-IS, RIPng, BGP4+, OSPFv3, IS-ISv6, 6to4 tunnel and 6PE			
Service features	MPLS VPN, RSVP-TE, OSPF-TE, ISIS-TE, MPLS-TE, FRR, NAT, NAT log, Multicast, Multicast VPN, 802.1x, RADIUS, DHCP Relay.			
Physical dimensions (H×W×D)	755×442×450 mm	577×442×450 mm	440×442×450 mm	175×442×420 mm
Maximum weight	＜65kg	＜50kg	＜38kg	＜22kg
Power supply	AC : 100V~240V, 50Hz ~60Hz; DC: -40V~-60V			
Maximum power	＜1850W	＜1300W	＜850W	＜350W
MTBF/MTTR	200000 hours/30 minutes			
Operating environment	Temperature:0℃~+45℃; Humidity:10%~90% (non-condensing)			

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