

## Product Overview

The Centec E580 Series Routing Switches are high performance Ethernet switches to meet next generation Metro, Data Center and Enterprise network requirements. E580 is designed based on Centec's fourth generation high-end scalable chipset CTC8096, which support L2/L3/Data Center/Metro features. The E580 comes with complete system software with comprehensive protocols and applications to facilitate rapid service deployment and management for both traditional L2/L3 networks and Data Center networks.

The E580 Series are cost-effective Ethernet access and aggregation platform to Enterprise, Data Center and Metro application.

The E580 Series Switches (Figure 1) currently includes five configurations: E580-20Q4Z/E580-48X2Q4Z/ E580-48X6Q/E580-32X2Q/E580-32X.



Figure 1 Centec E580 Series

## Features

### Technical highlights

- Standard 1RU pizza-box solution
- Up to 2.4Tbps switching capacity
- Cut-Through switching method
- Very low system power consumption. The maximum power consumption for E580-20Q4Z is 160W, E580-48X2Q4Z is 200W, E580-48X6Q is 190W, E580-32X2Q and E580-32X are 150W
- L2/L3/Data Center capability
- MEF9/14 Service Compliant
- Configurable profiles for different MAC/IP/Data Center distribution
- Up to 128K MAC and 32K IP Routing tables.
- RJ45 Console port and Out-band RJ45 Eth Management port

### L2 Features

- Up to 128K L2 Forwarding Entries
- Jumbo Frames (9600 Bytes)
- 802.1d Spanning Tree Protocol
- 802.1w Rapid Spanning Tree Protocol
- 802.1s Multiple Spanning Tree Protocol
- 802.1ab Link Layer Discovery Protocol
- 802.3x Flow Control
- Storm Control
- MAC limit per port/rate limiting per port
- 802.1Q VLAN(4094 VID)
- Private VLANs
- Port/MAC based VLAN
- 802.1ad Q-in-Q/VLAN Mapping
- 802.3ad Link Aggregation/LACP
- MEF UNI, EVC services
- Multi-Chassis Link Aggregation (MLAG)

### L3 Features

- Up to 32K IPv4 Routes
- IPv4/IPv6 standard support, ICMP, ARP
- VRF
- RIP v1/v2
- OSPF
- BGP
- 64-way Equal Cost Multi-path Routing (ECMP)
- VRRP / VRRP v3
- Virtual ARP (VARP)
- IS-IS
- URPF
- IP unnumbered

### MPLS Features

- VPWS
- VPLS
- MPLS OAM
- MPLS Stats
- L2VPN/L3VPN
- MPLS ACL
- MPLS QoS

### Multicast

- IGMP v1/v2/v3 snooping/ IGMP
- IGMP Fast Leave & Static Join/ IGMP proxy

### Data Center DCB Features

- Data Center TCP
- Per-Priority Flow Control (PFC)
- Data Center Bridging Extensions (DCBX)
- NVGRE, VXLAN, GENEVE
- Open API interfaces to achieve SDN

- EVPN
- IPFIX

## Advanced Metro Features

- ERPS (Ethernet Ring Protection Switching)
- ITU-T G.8031/Y.1342 ELPS protocol
- ITU-T G.8032/Y.1344 ERPS protocol
- Ethernet OAM: IEEE 802.1ag/Y.1731
- Link OAM IEEE802.1ah (EFM) support

## QoS

- Up to 8 unicast queue, 4 multicast queue and 1 SPAN queue per port
- Strict priority queueing
- 802.1p based classification
- DSCP based classification and remarking
- Egress Rate Shaping/WRR
- Policers
- Rate limiting

## Security

- Centralized port-based and MAC-based 802.1x authentication/access accounting/keep alive
- Standard and extended ACL.
- MAC port binding, port isolation, private VLAN, MAC security and MAC filtering
- DoS attack and CPU traffic protection
- RADIUS
- TACACS+

## Advanced Monitoring and Provisioning

- CPU Mirror
- Elephant Flow Detection(EFD)
- Latency monitor \*
- Buffer monitor \*
- Microburst Detection \*

## Network Management

- 100/1000 Management Port
- RS-232 Serial Console Port
- USB Port
- Telnet and SSHv1/v2
- AAA
- TFTP/FTP/SCP
- SNMPv1/v2/v3
- Syslog
- Role based Access Control
- User block feature
- Industry Standard CLI
- Blue Beacon LED for system identification
- WEB UI
- SmartConfig

Notes: Features remarked with "\*" are in roadmap.

## Applications

A two-tier design has spine switches at the top tier and leaf switches at the bottom tier with servers/compute/storage always attached to leaf switches at the top of every rack and leaf switches uplink to 2 or more spine switches. The E580 is ideal for Spine/Leaf network and scalability as provided by the solution.

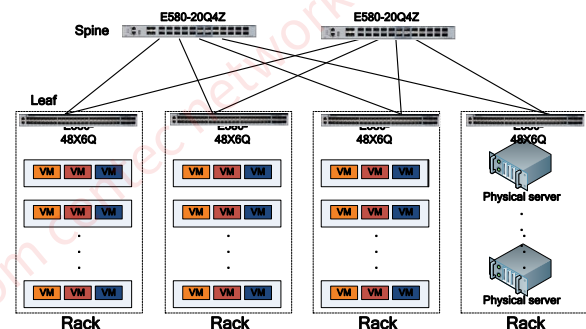


Figure 2 E580 Spine/Leaf Network Designs

## Ordering Info

Product	Description
E580-20Q4Z	E580-20Q4Z, 20x40GbE QSFP+ & 4x100GbE QSFP28 switch, front-to-rear airflow and dual AC power supplies
E580-48X2Q4Z	E580-48X2Q4Z, 48 x SFP+ & 2x40GbE QSFP+ & 4x100GbE QSFP28 switch, front-to-rear airflow and dual AC power supplies
E580-48X6Q	E580-48X6Q, 48 x SFP+ & 6x40GbE QSFP+ switch, front-to-rear airflow and dual AC power supplies
E580-32X2Q	E580-32X2Q, 32 x SFP+ & 2x40GbE QSFP+ switch, front-to-rear airflow and dual AC power supplies
E580-32X	E580-32X, 32 x SFP+ switch, front-to-rear airflow and dual AC power supplies



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