Product Highlight

- Optimized for IaaS datacenter, HPC and financial sectors requiring high performance, high bandwidth, low power and ultra low latency
- High port density demand in modern datacenters
- Supports Network Automation
- Supports Network Virtualization
- Software Defined Network support by OpenFlow and OpEN API
- Supports ONIE Installer

A Powerful ToR Switch for Data Center and Cloud Computing

LY8

Overview

The Xenya LY8 is a high performance and low latency layer 2/3/4 Ethernet switch with 48 SFP+ ports and up to 6 QSFP+ port in a 1U form factor. Each 40G QSFP+ port can be independently configured as 40GbE or 4 x 10GbE for up to 72 ports of 10GbE. Built for Infrastructure-as-a-service (IaaS) datacenter deployment, high performance computing clusters, and financial applications, the very high port density and high performance as well as ultra-low latency characteristic makes Xenya LY8 ideal for demanding workloads and provides the best TCO.

Automation

Accompanied by the application of cloud computing, big data and parallel calculation, datacenter network devices continue to grow fast and make network automation a critical factor. Supporting auto installation and integration with orchestration tools like Chef and Puppet, Xenya LY8 helps for easy deployment of mass datacenter IaaS build-up.

Virtualization

Network virtualization is becoming an important topic for datacenters. Xenya LY8 provides hardware-based VXLAN feature to support virtual machine mobility. Not limited by 4K VLANs, VXLAN helps for the network scaling out across L3 subnets and can support up to 16.7M possible virtual subnets.

SDN

Software Defined Network has emerged as a new approach to support open, vendor-agnostic, and programmable networks. Xenya LY8 provides OpenFlow and OpEN API with Python script support as SDN solution to fulfill the modern datacenter trend.

High Availability

The Xenya LY8 is designed for high availability from both hardware and software perspectives. The key features include:

- 1+1 hot-swappable power supplies
- 2+1 hot-swappable fans
- Out-of-band management support
- Multi-chassis LAG for preventing the risks of single point failure
- Up to 32 paths ECMP routing for load balancing and redundancy

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XENYA

Xenya LY8 specifications

Physical ports

- 48 1/10GbE SFP+ ports
- 4 40GbE QSFP+ ports
- Dual 40GbE QSFP+ ports (rear panel)
- 1 RJ-45 out-of-band management port (10/100/1000)
- 1 RJ-45 console port
- 1 USB 2.0 port

Performance

- Switching capacity: 1.44Tbps
- Forwarding rate: 1071Mpps
- Memory: 2GB with ECC
- CPU: Freescale P2020
- Storage: 8GB Micro SD
- MAC: UFT

L2 features

- STP(802.1D)/RSTP(802.1w)/MSTP(802.1s)
- Tagged-based/Port-based/Mac-based/IP - subnet VLANs (up to 4093)
- QinQ
- VTP v1/v2
- Storm control (Broadcast, Unknown multicast, Unknown unicast)
- IGMP snooping v1/v2/v3 with v1/v2 querier and immediate leave support
- Link Aggregation: 802.3ad and Cisco EtherChannel Liked (load balance support)
- Multi-chassis LAG (MLAG)
- Link state
- Port backup
- Error-Disable Recovery

QoS

- 8 priority queues per port
- Scheduling for priority queue: WRR, Strict and hybrid (WRR+Strict)
- 802.1p/IP Precedence/DSCP based COS
- Di (Serv)
- iSCSI optimization
- Auto VoIP*

Security

- MAC-based Static/Dynamic port security
- 802.1x: mac-based*, port-based, auto VLAN assignment, guest VLAN, unauthenticated VLAN
- L2/L3/L4 ACLs
- IPv6 ACL: L3/L4
- RADIUS & TACACS+
- SSH 1.5/v2.0 for secure remote login sessions
- Local authentication
- Remote authentication via RADIUS/TACACS+
- AAA
- Denial of Service control
- Management IP filtering (SNMP/WEB/Telnet/SSH)
- MAC filtering
- IP Source Guard
- Dynamic ARP inspection (DAI)
- DHCP snooping
- Control Plane Policing (CoPP)*

Management

- Cisco Like CLI
- SNMP v1/v2c/v3
- CLI filtering
- Telnet/SSH
- Software and configuration file
- download/upload: TFTP/Xmodem/FTP/SCP/SFTP
- Dual image supported
- SNMP inform*
- RMON 1, 2, 3 & 9
- BOOTP/DHCP: client/relay
- DHCP L2/L3 option 82 relay
- Event/error log: local +ash and remote server (RFC 3164) *
- Remote PING
- Traceroute
- DNS client/relay
- SNTPv4
- LLDP (802.1ab)
- CDP
- UDLD
- SPAN and RSPAN
- sFlow v5
- Auto-Installation
- DHCPv6 client*
- SNMP/HTTP/SSH over IPv6
- Telnet/DNS/RADIUS/TACACS+ support for IPv6
- Syslog/SNTP/TFTP support for IPv6
- ONIE Installer
- Cable Test
- Email Alerting

IPv4 Layer 3 features

- IP Multinetting/CIDR
- /31 subnets
- IP ARP
- Proxy ARP
- Local proxy ARP
- IRDP
- Static route
- Unicast Routing: OSPF, BGP4 with ECMP (32-way)
- Multicast Routing: IGMP v1/v2/v3, DVMRP, PIM-DM, PIM-SM*, IGMP Proxy
- VRRP
- Loopbacks
- Source IP Configuration
- Policy-based routing

IPv6 Layer 3 features

- Static route
- Unicast Routing: OSFPv3, BGP4*
- Multicast Routing: MLD v1/v2, PIM-DM6, PIM-SM6
- Loopbacks

Datacenter features

- CN*, ETS*, PFC, DCBX*
- FIP snooping*
- EVB, IEEE 802.1Qbg
- VXLAN/NVGRE
- Chef/Puppet

SDN

- Open+ow v1.0/v1.2/v1.3
- OpEN API

Mechanical

- Dimension (HxWxD): 44x435x508 mm
- Weight : 9.13 kg/ 20.11 lbs (NET)

Environmental speci2cations

- Operating temperature: 0~45 C
- Operating humidity: 90% maximum relative humidity

Electrical

- Power requirement: 100~240VAC, 50/60Hz or -48~60V DC
- Maximum power consumption: 215 Watts (tested with 10G-SR optics 100% loading 256B under 250C ambient temp., AC input)

Safety

- UL, cUL, CB

EMC

- CE, FCC

Environmental

- Reduction of Hazardous Substances (RoHS) 6

Order information

- X1LY8BZZ0ST6 (Front to back)
- X1LY8BZZ0ST7 (Back to front)
- X1LY8BZZ0ST4 (Front to back, HW only)
- X1LY8BZZ0ST5 (Back to front, HW only)
- X1LY8BZZ0ST4C (Front to back, bundled with Cumulus Linux) (cumulusnetworks.com)
- X1LY8BZZ0ST5C (Back to front, bundled with Cumulus Linux)

* future upgrade