

ES4626/ES4650

L3 Gigabit Ethernet Switch IP Stacking



Product Overview

The Edge-Core ES4626 and ES4650 are Gigabit Ethernet Layer 3 switches with 20 or 44 10/100/1000 RJ-45 ports, 4 combo Gigabit Ethernet RJ-45/SFP ports and 2 slots for an optional 10GE module. The ES4626/ ES4650 is ideal for aggregating servers in the distribution layer of three-tier networks, providing high performance, wire speed L2 switching and L3 routing. It is also an excellent choice as a small enterprise core switch for Gigabit to the Desktop migration.

Key Features and Benefits

Performance and Scalability

The ES4626/ES4650 provides 2 optional 10 Gigabit Ethernet module for 10G uplink to fulfill any bandwidth-eager customer.

Optional 10 Gigabit Ethernet XFP transceivers can be chosen for different distance fiber uplinks.

IP stacking is up to 24 switches virtual stacking together. The Management Station communicates directly with the Commander via the unique IP address of the switch cluster. This technology provides some of the benefits of stackable switches without requiring direct stacking or connections between switch units.

Continuous Availability

IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence.

IEEE 802.1s Multiple Spanning Tree Protocol runs STP per VLAN base, providing Layer 2 load sharing on redundant links.

IEEE 802.3ad Link Aggregation Control Protocol (LACP) increases bandwidth by automatically aggregating several physical links together as a logical trunk and providing load balancing and fault tolerance for uplink connections.

IGMP snooping prevents flooding of IP multicast traffic, and limits bandwidth intensive video traffic to only the subscribers.

Optional Redundant Power Supply provides uninterrupted power.

Comprehensive QoS

8 egress queues per port enable differentiated management of up to 8 traffic types.

Traffic is prioritized according to 802.1p, DSCP, IP precedence and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video.

Bidirectional rate-limiting, per port or traffic class, preserves network bandwidth and allows full control of network resources

Enhanced Security

IEEE 802.1X port-based and MAC-based access control ensures all users are authorized before being granted access to the network.

Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on L2/L3/L4 headers.

SSL*, SSH, RADIUS authentication protect data communication and ensure data privacy.

Simple Management

TFTP can be used to backup or restore firmware and configuration files.

Industry standard Command Line Interface (CLI) via console port or Telnet can be used for switch management.

Embedded user friendly web interface helps users quickly and simply configure switches.

Support four groups of RMON (1,2,3,9 Group).
Backup and restore Firmware and configuration files via TFTP.

L3 Features

The ES4626/ES4650 delivers high-performance, hardware based IP routing.

RIP, OSPF and BGP4+ provides dynamic routing by exchanging routing information with other Layer 3 switches or routers.

DVMRP, PIM-DM, PIM-SM Multicast Routing Protocols send IP multicast traffic from one subnet to another.

VRRP prevents your system from failing by dynamically backing up multiple L3 switches for routing.

IPv6 Support

The ES4626/ES4650 supports IPv6 routing in hardware for maximum performance. As more network devices growing and the need for larger addressing and higher security become critical, the ES4626/ES4650 will be a right product to meet the requirement.



Features

Physical Ports

20 or 44 RJ-45 10/100/1000Base-T ports
 4 Combo G (RJ-45/SFP) ports
 2 optional I/O Slots for 10G uplink
 2 10G Stacking ports (IP stacking)
 1 RJ-45 console port
 1 Redundant Power Supply Connector

Performance

Switching Capacity: 128Gbps/176Gbps
 Forwarding Rate: 95.2Mpps/130.9Mpps
 MAC Address Table Size: 8K

L2 Features

Auto-negotiation for port speed and duplex mode
 Flow Control: IEEE 802.3x & Back-Pressure
 Spanning Tree Protocol:
 ■ IEEE 802.1D Spanning Tree Protocol (STP)
 ■ IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
 ■ IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
 VLANs:
 ■ Supports 4K IEEE 802.1Q VLANs
 ■ Port-based VLAN
 ■ Protocol-based VLAN
 ■ MAC-based VLAN
 ■ IP subnet VLAN
 ■ Private VLAN
 ■ GVRP
 ■ QinQ
 ■ MVR
 Link Aggregation:
 ■ Static Trunk, IEEE 802.3ad Link Aggregation Control Protocol
 ■ Trunk groups: 8
 ■ Trunk links: 2-8 for Gigabit Ethernet port
 ■ Trunk links: 2 for 10 Gigabit Ethernet port
 IGMP Snooping and IGMP Querier

L3 Features

2K IP Address entries
 512 static routes
 ARP
 Multi-netting, Super-netting (CIDR)
 RIPv1, RIPv2, RIPng
 OSPF/OSPFv3
 BGP4+
 DVMRP, PIM-DM, PIM-SM
 VRRP
 IPv6 hardware IP routing
 Policy based routing
 DHCP/BootP relay, DHCP server
 DHCP Snooping*

QoS Features

Priority Queues: 8 hardware queues per port
 Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP,
 TCP/UDP port number, Access Control List, Marking
 DiffServ
 Supports WRR and Strict scheduling
 Port Rate Limiting

Ordering Information

Optional Accessories

RPS600WA
 EM4626H-XG-XFP
 ET4201-SX
 ET4201-LX
 ET4201-LHX
 ET4201-ZX

Security

Port Security
 Supports IEEE 802.1X port-based and MAC based access control
 RADIUS Authentication
 TACACS+ Authentication
 Access Control List
 SSH
 SSL*

Management

Switch Management:
 ■ CLI via console port or Telnet
 ■ WEB management
 ■ SNMP v1, v2c, v3
 Firmware & Configuration:
 ■ Dual firmware images
 ■ Firmware upgrade via TFTP/FTP/Xmodem server
 ■ Multiple configuration files
 ■ Configuration file upload/download via TFTP/FTP server
 Supports RMON (groups 1, 2, 3 and 9)
 Supports Port Mirroring
 Supports SNTp
 Event/Error Log/Syslog

Mechanical

Dimensions (H x W x D): 4.4 x 44.0 x 41.5 cm (1RU)
 LED Indicators: Port, Uplink, System, Diagnostic,

Safety

CSA/NRTL (UL60950, CSA 22.2.No 60950-00)
 TUV/GS (EN60950)
 CB

Electromagnetic Compatibility

CE Mark
 FCC Class A
 VCCI Class A

Environmental Specifications

Temperature:
 ■ IEC 68-2-14
 ■ 0°C to 50°C (Standard Operating)
 ■ -40°C to 70°C (Non-Operating)
 Humidity: 5% to 95% (Non-condensing)
 Vibration: IEC 68-2-36, IEC 68-2-6
 Shock: IEC 68-2-29
 Drop: IEC 68-2-32

Warranty

Limited lifetime warranty

Product Description

4 DC output redundant power supply connectors (Supports max. power output 150W/12V per port)
 1 port 10GBase-LR module with XFP connector
 Small Form Factor Pluggable (Distance: 500m; Wavelength: 850nm)
 Small Form Factor Pluggable (Distance: 10km; Wavelength: 1310nm)
 Small Form Factor Pluggable (Distance: 40km; Wavelength: 1310nm)
 Small Form Factor Pluggable (Distance: 80km; Wavelength: 1550nm)