

EX Series Ethernet Switches

ShoreTel & Juniper Networks



Juniper Networks, Inc. is the leader in high-performance networking. Juniper offers a high-performance network infrastructure that creates a responsive and trusted environment for accelerating the deployment of services and applications over a single network.

Products

The Juniper Networks EX3200 and EX4200 Layer 2/Layer 3 Ethernet switches exhibit five key characteristics that, working together, deliver a true enterprise switching solution: carrier-class reliability, security risk management, network virtualization, application control and reduced total cost of ownership (TCO)

• EX3200 Ethernet Switches

The EX3200 Ethernet switches were designed with today's converged communications networks in mind. Both the 24- and 48-port platforms offer full and partial Power over Ethernet (PoE) options to support networked telephones, closed-circuit video cameras, wireless access points and other IP-enabled devices

• EX4200 Ethernet Switches

The EX4200 Ethernet switches satisfy the high-density access and Gigabit Ethernet (GbE) aggregation requirements of today's high-performance businesses. Using Virtual Chassis technology, up to 10 EX4200 switches can be interconnected over a 128 Gigabit-per-second (Gbps) backplane, creating a single virtual switch. High Availability (HA) features such as internal redundant, hot-swappable power supplies and a field-replaceable fan tray with redundant blowers ensure maximum uptime.

• JUNOS Software

By leveraging the same modular JUNOS® Software as Juniper Networks router products, the EX Series Ethernet Switches deliver a consistent implementation of each control plane feature across the entire Juniper infrastructure. A common OS across all products dramatically reduces training as well as maintenance and management overhead, which translates into lower TCO.

Product Overview

Juniper Networks EX Series Ethernet Switches simultaneously advance both the economics and fundamentals of networking. Offering plug-and-play 10/100/1000BASE-T connectivity for today's converged networks, the EX Series switches employ industry standards, carrier-class reliability, and integrated security to deliver an open network for unified communications.

The high-performance, high-density EX Series switches let users start small and grow incrementally, saving valuable space in crowded wiring closets while lowering recurring power and cooling costs. A common operating system and management tools across the Juniper portfolio of switches, routers, and security devices reduces operational and capital expenses for the network.

Solution Overview

Juniper Networks and ShoreTel have partnered to deliver scalable, secure, and cost-effective joint solutions for demanding IP business communications.

The solution is built on a secure, high-performance network architecture based on the Juniper Networks EX Series Ethernet Switches and ShoreTel's ShoreGear® voice switches and ShorePhones™. The ShoreTel IP PBX systems offer a uniquely distributed VoIP architecture with centralized management that extends enterprise-class voice services to every office, keeping employees fully connected wherever they go.

Juniper EX Series Ethernet Switches were designed with today's converged communications networks in mind. Both the 24- and 48-port models offer full and partial Power over Ethernet (PoE) options to support IP telephones, closed-circuit video cameras, wireless access points and other IP-enabled devices. Each EX Series switch delivers a full 15.4 watts of power for every PoE-enabled port, relieving IT from having to worry about power provisioning. Full (all ports) and partial (eight ports) PoE options ensure that there is a solution optimized for virtually every environment.

In order to provide a carrier-class network reliability to support business-critical unified communications, the EX Series switches provide comprehensive High Availability (HA), Quality of Service (QoS) and integrated security—all within a framework of open standards. For example, the EX Series switches support the industry-standard Link Layer Discovery Protocol (LLDP) and LLDP-Media Endpoint Discovery (LLDP-MED), which enable the switches to automatically discover Ethernet-enabled devices, determine their power requirements and assign virtual LAN (VLAN) parameters.

Juniper's commitment to standards means that businesses of any size can deploy EX Series switches with the confidence that they will fully interoperate any ShoreTel IP Telephony solution, giving IT the flexibility to choose the best-in-class solution for both unified communications and networking.

In summary, the EX Series Ethernet Switches provide ShoreTel customers with a carrier-class, open standards network for Unified Communications:

- Full and partial PoE options
- LLDP and LLDP-MED support for plug-and-play deployment
- Comprehensive QoS per port eliminates jitter and improves call quality
- Line-rate performance on every port eliminates latency
- Standards based 802.1x access control enforcement and security
- Carrier-class network availability

Key Features/Benefits

- **Carrier-class reliability**
 - **High availability and uptime:** EX Series Ethernet Switches leverage the same field-proven Juniper technology—including high-performance ASICs, a carrier-class system architecture and JUNOS Software—that powers the world's largest service provider networks.
- **Security risk management**
 - **Protection and compliance:** EX Series switches tightly integrate with Juniper's Unified Access Control (UAC) solution, dynamically delivering network protection, guest access and identity-based QoS based on user, device and location.
- **Network virtualization**
 - **Flexibility and lower cost:** Virtual Chassis technology, available on the EX4200 line, allows up to 10 switches to be interconnected and managed as a single, logical device, delivering the reliability, scalability and manageability of traditional chassis-based systems in a cost-effective, compact platform.
- **Application control**
 - **Quality of Service:** The EX Series switches support eight QoS queues per port, ensuring proper prioritization of control plane, voice, video and multiple levels of data traffic—with room to converge other networks, such as building automation and video security systems.
- **Lower total cost of ownership**
 - **Lower capex and opex:** The plug-and-play implementation delivers ease of use and reduced complexity. A highly scalable pay-as-you-grow architecture, network designs with lower power consumption, space and associated cooling requirements, a common operating system, and unified management tools across the Juniper portfolio all combine to help reduce operational and capital expenses for EX Series Ethernet Switch customers.

Customer Value

ShoreTel IP telephony solution infrastructure provides businesses with a secure, cost-effective, and scalable VoIP solution that is easy to manage. The EX Series Ethernet Switches provide the highest levels of availability for the most demanding converged data, voice and video environments, delivering on open-standards platform for unifying enterprise communications. A combined ShoreTel and Juniper Networks solution can address even the most demanding converged networking needs of any enterprise in the most cost-effective manner.

About Juniper Networks, Inc.

Juniper Networks, Inc. is the leader in high-performance networking. Juniper offers a high-performance network infrastructure that creates a responsive and trusted environment for accelerating the deployment of services and applications over a single network. This fuels high-performance businesses. Additional information can be found at www.juniper.net.

About ShoreTel, Inc.

ShoreTel, Inc., (NASDAQ: SHOR) is a leading provider of Pure IP Unified Communications solutions. ShoreTel enables companies of any size to seamlessly integrate all communications - voice, video, messaging and data - with their business processes. Independent of device or location, ShoreTel's distributed software architecture eliminates the traditional costs, complexity and reliability issues typically associated with other solutions. ShoreTel continues to deliver the highest levels of customer satisfaction, ease of use and manageability while driving down the overall total cost of ownership. ShoreTel is headquartered in Sunnyvale, California, and has regional offices in the United Kingdom, Sydney, Australia and Munich, Germany. For more information, visit www.shoretel.com or call 1-877-80SHORE.



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To be "ShoreTel Certified" means that Technology Partner's product will inter-operate with the ShoreTel system, but ShoreTel does not certify that the features or functionality of Technology Partner's product will perform as specified by Technology Partner nor that Technology Partner's product will meet your specific application needs or requirements. To inter-operate means that Technology Partner's product is able to exchange, use and share information with the ShoreTel system.



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