

Summit X460 Series

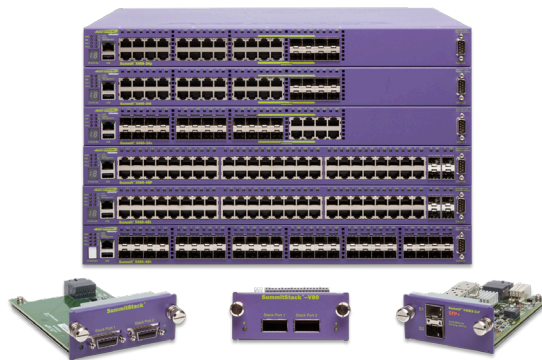


Extreme Networks® Summit X460 series switches are based on ExtremeXOS, the revolutionary core-class operating system. Whether deployed at the network core or edge, or as an aggregation device, the Summit X460 series benefits from the highly robust and modular architecture of ExtremeXOS and provides high levels of availability, resilience and simplified management of your entire network.

As an edge switch offering optimum support for converged applications, the Summit X460 series provides low latency line-rate performance and supports IEEE 802.3at standards-based PoE-plus. Summit X460 switches are highly flexible and scalable, making them ideal aggregation switches or a top-of-rack switch solution offering cross-rack stacking within data centers and longer-reach stacking options among data centers. Summit X460 switches are good choices for DSLAM or CMTS aggregation or active Ethernet access.

The versatile Summit X460 series supports a full range of Layer 2 – 4 features on each port. Each switch supports optional 40 or 80 Gigabits per second (Gbps) stacking modules and optional two-port 10 Gigabit Ethernet in a compact 1RU format. The switches also support the new SummitStack-V capability to utilize 10 GbE ports as stacking ports, enabling long-distance stacking of up to 40 km. In addition, Summit X460 switches support optional dual, hot-swappable AC/DC power supplies and a hot swappable fan tray to ensure continuous network operation that is crucial to meeting your business needs.

With the Summit X460 series, Extreme Networks continues its tradition of simplifying network deployment through consistent use of common architecture, delivering line-rate IPv6 capabilities for Gigabit Ethernet LAN environments.



Summit® X460 series switches—providing high availability, control and simplified management of your network with ExtremeXOS®.

Features

- High availability to reduce or eliminate network outages
- Voice-grade SummitStack™ 40 Gbps, SummitStack-V80 80 Gbps high-speed stacking or SummitStack-V longer distance stacking
- Flexible Power over Ethernet Plus (PoE-plus) to meet the growing demand of converged network applications
- Advanced Layer 2 – 3 switching with MPLS/H-VPLS support
- Comprehensive security
- Threat detection and response instrumentation to react to network intrusion with CLEAR-Flow Security Rules Engine
- User policy, host integrity enforcement and Identity Management
- Virtualized Data Center support: Direct Attach™ and XNV™ (ExtremeXOS Network Virtualization)
- Ease of management

Target Applications

- Advanced edge switch for campus networks or core switch for small networks
- Aggregation switch in a traditional three-tiered network
- Top-of-rack switch for data centers with optional high-speed 80 Gbps cross-rack stacking at up to 100 meters
- Interconnect switch providing low latency connections for High Performance Cluster Computing (HPCC)
- DSLAM aggregation, active Ethernet access or access aggregation device in a Carrier Ethernet network
- Access or access aggregation switch in a business E-Line or E-LAN over VPLS network

High Availability

The Summit X460 series provides high availability by employing a modular operating system, incorporating resilient software features and supplying hardware redundancies. High availability protocols such as Ethernet Automatic Protection Switching (EAPS) that failover in less than 50 milliseconds provide toll-quality voice and picture-perfect video.

Summit X460 switches offer dual SummitStack stacking interfaces with flexible bandwidth choices to support converged services such as video and Voice over IP through its highly available architecture. SummitStack supports 40 Gbps with up to eight units in a stack that can be a mixture of compatible switches.

Using QSFP+ technology, SummitStack-V80 supports 80 Gbps for applications where a high volume of traffic traverses the stacking links, or when stacking across longer distances or across data center racks is needed.

The new SummitStack-V capability utilizes 10 GbE ports as stacking ports, enabling the use of standard cabling and optics technologies used for 10 GbE. SummitStack-V enables long-distance stacking connectivity of up to 40 km while reducing the cable complexity of implementing a stacking solution.

Redundancies in AC/DC power supplies, uplink ports, operating system and configuration images further contribute to continuous network availability.

Flexible PoE with Automatic VoIP Provisioning

Summit X460 switches support the IEEE at 802.3 PoE-plus standard and provide up to 30 watts to power standards-compliant PoE devices. The switches provide advanced traffic management capabilities and allow large-scale rollout of equipment such as Voice-over-IP phones, wireless access points, security cameras and other devices that require power from the LAN connection.

Supporting Universal Port and LLDP, a Summit X460 switch allows enterprises to add new access devices in a non-disruptive plug-and-play fashion while simplifying troubleshooting and minimizing complexities that arise from convergence-driven network changes. It allows dynamic configuration of voice VLANs and Quality of Service (QoS).

Carrier Ethernet Service Delivery

Summit X460 switches meet dual service delivery requirements as an Ethernet access central office switch which can reduce the provider's operational expense. By supporting granular traffic classification and metering incoming packets at line rate, the switches are ideal solutions for carrier deployments. The switches support Extreme Networks vMAN tag stacking mechanism, compliant with the IEEE 802.1ad Provider Bridging standard, as well as MPLS/H-VPLS. Additional purpose-built features include multicast and MAC address scalability and advanced buffer control for consistent toll-quality service.

Support for Virtualized Data Centers

Direct Attach eliminates switching at the virtual switch layer, simplifying the network and improving performance. Direct Attach enables data center simplification by reducing network tiers from 4 or 5 tiers to just 3 or 2 tiers, depending on the size of the data center. (Requires the Direct Attach Feature Pack, part number 11011.)

XNV (ExtremeXOS Network Virtualization) is a set of software modules for the ExtremeXOS based switching product portfolio, and is available via the Data Center Feature Pack for Ridgeline™, a network and service management application. XNV brings insight, control and automation for highly virtualized data centers to the network.

Comprehensive Security Management

User authentication and host integrity checking enforce admission and usage policies on dedicated and shared ports at the edge of

the network. The powerful technologies sFlow® and IPFIX offer continuous and simultaneous monitoring of application-level traffic flows on all interfaces.

The Universal Port dynamic scripting framework available in Summit X460 switches lets you implement security profiles to create fine-grained and robust security policies. Upon authentication, the switch can load dynamic ACL/QoS for a user or group of users, to deny/allow the access to the application servers or segments within the network.

Summit X460 switches complement perimeter firewalls by utilizing the CLEAR-Flow Security Rules Engine. Summit X460 switches can be programmed to automatically detect and mitigate security threats in seconds.

Identity Manager

Identity Manager allows network managers to track users who access their network. User identity is captured based on NetLogin authentication, LLDP discovery and Kerberos snooping. ExtremeXOS uses the information to then report on the MAC, VLAN, computer hostname, and port location of the user. Further, Identity Manager can create both roles and policies, and then bind them together to create role-based profiles based on organizational structure or other logical groupings, and apply them across multiple users to allow appropriate access to network resources.

Ease of Management

Ridgeline™ network and service management provides fault, configuration, accounting, performance and security functions, allowing more effective management of Extreme Networks products, solutions and third-party devices, in a converged network.

Features	Summit X460 Series Switches
Copper 10/100/1000BASE-T	Summit X460-24t Summit X460-24p Summit X460-24x Summit X460-48tDC Summit X460-48t Summit X460-48p Summit X460-24tDC Summit X460-24xDC
Fiber 100/1000BASE-X	Summit X460-48x Summit X460-48xDC
Power over Ethernet Plus	Summit X460-24p Summit X460-48p
Optional Stacking Modules (40 Gbps or 80 Gbps)	2-port SummitStack module 2-port SummitStack-V80 module (QSFP+)
Optional 10 Gigabit Ethernet	2-port 10 Gbps XGM3-2sf (SFP+)
Simultaneous Dual 10 GbE and Stacking Modules	Yes
Dual, Hot-swappable AC/DC Power Supplies	Summit 300W AC PSU Summit 300W DC PSU Summit 750W AC PoE PSU



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