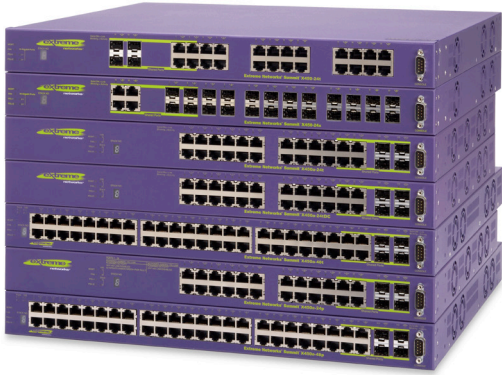


Summit X450a and Summit X450e Series



Summit® X450a and Summit X450e series switches—providing high availability, control and simplified management of your network with ExtremeXOS®.

Extreme Networks® Summit X450a and Summit X450e series switches are based on ExtremeXOS, the revolutionary core-class operating system. Whether deployed at the network core, edge or as an aggregation device, the Summit X450a/e 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, Summit X450e series provides low latency line-rate performance and supports the 802.3af standards-based PoE on every port. Non-PoE versions are also available.

Summit X450a series is highly flexible and scalable, making it an ideal aggregation switch for traditional small core enterprise networks and a first level aggregation device for DSLAMs at a local central office before traffic is passed on to an Extreme Networks BlackDiamond® 8800 access aggregation or core switch where traffic is managed and connected to service networks.

Extreme Networks continues its tradition of simplifying network deployment through consistent use of common hardware and software. Summit X450a and Summit X450e switches utilize the same non-blocking hardware technology found in Extreme Networks BlackDiamond 8800 series switches, delivering line-rate IPv6 capabilities for Gigabit Ethernet LAN deployments.

The versatile Summit X450a and Summit X450e series support a full range of Layer 2 – 4 features on each port. Each switch offers 40 Gigabits per second (Gbps) stacking interfaces and optional 10 Gigabit Ethernet in a compact 1RU format. Optional redundant power supplies are available for each switch to secure against power anomalies, allowing a continuous operational network that is crucial in meeting your business needs.

Features

- High availability to prevent network outages
- SummitStack™ and SummitStack-V — highly available stacking support
- Flexible Power over Ethernet (PoE) to meet growing demand of converged network applications
- Carrier Ethernet service delivery
- Comprehensive security management
- User policy, host integrity enforcement and Identity Management
- Ease of management

Target Applications

- Aggregation switch in a traditional three-tiered network that requires high availability and ExtremeXOS advanced features
- 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
- Edge PoE switch providing high-density gigabit PoE to the desktop
- High-performance non-PoE edge switch
- Core switch for a small network

High Availability

The Summit X450a and Summit X450e series provide 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. Layer 2 and Layer 3 resiliency protocols such as Open Shortest Path First (OSPF), Extreme Standby Router Protocol™ (ESRP) and Virtual Router Redundancy Protocol (VRRP) add to enhanced availability.

Summit X450a and Summit X450e switches offer dual stacking interfaces to provide high-speed 40 Gbps stacking bandwidth. SummitStack is designed to support converged services such as video and Voice-over-IP by its highly available architecture providing rapid failover capability. SummitStack supports up to eight units in a stack, and can be a mixture of units with Summit X250e, X450a/e, X460, X480 and X650 switches. Alternatively, SummitStack-V capability utilizes 10 GbE ports as stacking ports, enabling the use of standard cabling and optics technologies and providing long-distance stacking connectivity of up to 40 km. SummitStack-V is compatible with Summit X450e, X450a, X460, X480, X650 and X670/X670V switches running the same version of ExtremeXOS.

Redundancies in power supplies, uplink ports (at both gigabit and 10 gigabit levels), operating system and configuration images further contribute to continuous availability.

Flexible PoE with Automatic VoIP Provisioning for Converged Networks

Summit X450e switches provide advanced traffic management capabilities and allow large scale rollout of equipment such as IP telephones, wireless APs and other devices that require power from the LAN connection.

Supporting Universal Port and LLDP, a Summit X450e 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). This auto configuration capability helps you to configure VoIP phone settings such as voice VLAN settings, call server IP address configuration, etc. This level of simplicity in managing network changes can greatly reduce operating expenses.

Carrier Ethernet Service Delivery

Summit X450a 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. Advanced traffic management features support triple play delivery of voice, video and data services. The switches support Extreme Networks vMAN tag stacking mechanism, compliant with IEEE 802.1ad Provider Bridging standard used for aggregating subscribers.

Comprehensive Security

The Universal Port scripting framework available in Summit X450a and Summit X450e switches lets you implement Dynamic Security Profiles that help you implement 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.

CLEAR-Flow Security Rules Engine provides first order threat detection and mitigation, and mirrors traffic to third-party security appliances such as an IDS/IPS for further analysis of suspicious traffic in the network. CLEAR-Flow provides cost-effective scalability of security threat detection.

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. In addition, support for Wide Key ACLs further improves security by going beyond the typical source/destination and MAC address as identification criteria access mechanism to provide filtering capabilities.

Ease of Management

Extreme Networks has developed tools that simplify and help in efficiently managing your network. 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 X450a Series Switches	Summit X450e Series Switches
Copper 10/100/1000BASE-T	Summit X450a-24t Summit X450a-48t	Summit X450e-24p Summit X450e-24t Summit X450e-48p Summit X450e-48t
Fiber 1000BASE-X	Summit X450a-24x	Not Available
Power over Ethernet (802.3af)	Not Available	Summit X450e-24p Summit X450e-48p
Optional 2 Port 10 GbE Module	XGM2-2xf (for XFP) XGM2-2sf (for SFP+) XGM2-2bt (For 10G BASE-T)	XGM2-2xf (for XFP) XGM2-2sf (for SFP+) XGM2-2bt (For 10G BASE-T)
DC PSU Version	Yes	No
External Redundant Power Supply	Yes	Yes
IPv6 Routing	Yes	Yes
Policy-Based Routing/Switching	Yes	Yes
ExtremeXOS Advanced Edge License	Included	Optional
ExtremeXOS Core License	Optional	Not Available



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