

Summit® 400 Series



The Summit 400 series—voice-class availability for today's high-performance converged networks.

Features

- High availability features to prevent network outages
- Scalable, high density Power over Ethernet (PoE) ports
- UniStack™ stacking to meet scalability requirements
- Ease of management to reduce the complexity of operating your network

Target Applications

- High-performance desktop connectivity switch with integrated wired, wireless and IP Telephony
- High bandwidth switch to support converged applications that require PoE
- Upgrade from 10/100 Ethernet to 10/100/1000 Ethernet to the desktop to support applications such as engineering design
- High-throughput server aggregation switch utilizing 10 gigabit uplinks

Summit 400 series switches—consisting of the Summit 400-48t, Summit 400-24t, and the Summit 400-24p—are designed to meet the performance and availability requirements of today's high-performance converged networks that require Gigabit Ethernet connectivity. Summit 400 series switches were designed to support evolving applications of a converged network with exceptional Quality of Service, low latency, resiliency, line rate performance and PoE.

The Summit 400-48t provides over 100 million packets per second throughput and 10 gigabit uplinks for unparalleled performance in a compact one rack unit format. Both the Summit 400-24t and Summit 400-24p deliver non-blocking Gigabit Ethernet LAN access similar to the Summit 400-48t. The Summit 400-24p further delivers full 802.3af Class 3 PoE on every port and provides inexpensive wireless connectivity by directly supporting Extreme Networks® Altitude wireless Access Points (APs).

The members of the Summit 400 series can be stacked together using Extreme Networks' high-bandwidth UniStack stacking technology—thereby bringing many of the advantages of a chassis-based solution to a stack of fixed switches. The Summit 400 series helps in redefining the enterprise network architecture—replacing the traditional three-tier structure with a streamlined two-tier network that reduces management overhead, operational complexity and costs.

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High Availability

Summit 400 series switches achieve voice-class availability by combining hardware redundancy with unique software resiliency features. These features rapidly respond to network and environmental malfunctions to make these anomalies transparent to users.

UniStack technology delivers chassis-like availability features such as port redundancy across the members of the stack and n-times redundancy of processors, memory, power supplies and uplinks in a stack of Summit 400 series switches.

The Summit 400 series switches run a variety of high availability protocols, including Ethernet Automatic Protection Switching (EAPS), the RFC 3619 link layer resiliency protocol pioneered by Extreme Networks. In most situations, since EAPS fails over in less than 50 milliseconds, the Summit 400 series switches recover from faults without disrupting latency-sensitive sessions, such as Voice-over-IP calls. This helps ensure toll-quality voice and picture-perfect video.

Power redundancy for all members of the Summit 400 series switches are delivered through external redundant power supplies. This approach helps ensure that the

Summit 400-24p PoE switch continues to deliver a full 15.4 watts of power per PoE port, even in the event that its primary power source fails.

Scalable High Density Power Over Ethernet

The rapid rise of IP Telephony and wireless access has made scalable PoE a critical requirement for any edge switch. The Summit 400-24p is the ideal solution for extensible power deployment. Increasing PoE-enabled ports is as simple as adding another switch to a stack. This extensibility lets the Summit 400-24p support the large scale rollout of devices like IP telephones, wireless APs and other devices that require power from the LAN connection.

UniStack Stacking

Summit 400 series switches and UniStack stacking architecture were designed to support converged services. The significant throughput provided by UniStack stacking—up to 160 gigabits per second (Gbps) per stack, and the distributed, shortest path forwarding—provide performance comparable with chassis switches. Resiliency is of key importance for these converged applications like video and IP Telephony and is assured by redundant bidirectional ring architecture and n-1 master redundancy, distributed Layer 2 and Layer 3

link aggregation, link redundancy, and distributed uplinks. Summit 400 series switches deliver the best of both worlds: the benefits of a chassis at the cost of a stackable in an architecture designed to support today's evolving LAN applications. The resulting network simplification yields lower management and maintenance costs while enhancing overall availability.

Ease of Management

The network access layer can pose a complex management challenge with the sheer number of ports and network devices to be managed. The UniStack feature on the Summit 400 series switches offers a better way to contain access layer complexity by integrating multiple switches into one manageable entity that simplifies configuration and upgrades.

UniStack stacking on the Summit 400 series transfers inter-switch packets at a nominal 20 Gbps, with instantaneous throughput at any switch reaching 40 Gbps, and a total stack bandwidth peaking at 160 Gbps. UniStack stacking derives additional performance through distributed Layer 2 and Layer 3 forwarding at every switch. It supports shortest path forwarding to reduced latency.

Summit 400 series switches implement features of Extreme Networks' Unified Access Architecture™ (UAA) that let wired and wireless traffic share the same infrastructure and management tools. Included in UAA features is Link Layer Discovery Protocol which enables Summit 400 series switches to discover and automatically configure IP telephones.

Extreme Networks' Altitude 300 wireless APs connect to PoE ports of a Summit 400-24p. These directly connected APs are configured and managed by the switch itself, thereby eliminating the need for a separate wireless network. Deploying and maintaining one network rather than two reduces management complexity, frees IT staff for other tasks and reduces Total Cost of Ownership.

Configurations	Summit 400-48t	Summit 400-24t	Summit 400-24p
10/100/1000 ports	48	24	24
Mini-GBIC ports (shared with 10/100/1000)	4	4	4
UniStack stacking ports	2	2	2
Serial port	1	1	1
Out of Band 10/100 management port	1	N/A	N/A
External Power System for redundant PSU	EPS-160	EPS-160	EPS-LD
Optional 10 gigabit ports	2	N/A	N/A
Power over Ethernet, watts per port	N/A	N/A	15.4
Wireless support	No	No	Yes
ExtremeWare® Edge License with UniStack	Included	Included	Included
ExtremeWare Advanced Edge License	Optional	Optional	Optional



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