Data Sheet

SUMMIT® 400 SERIES

- **Technology that reduces costs and preserves the customer's investment**
- **Intelligence to support new services and simplify the network**
- **High availability to keep users connected and productive**

Summit 400-48t

Driving 10 Gigabit Ethernet to the Wiring Closet

Extreme Networks® has once again set the standard for intelligent edge switching with the introduction of the Summit® 400-48t, the first in a series of Summit 400 switches. Delivering the highest Gigabit Ethernet density in the industry and the greatest throughput performance, the Summit 400-48t (Summit 400) enables deployment of new intelligent services faster and more efficiently than ever before. Even the most demanding customer can now have it all: investment protection for years to come through advanced upgradable technology; intelligence to support new services and simplify the network; and high availability features that will keep users connected and productive.

The Summit 400 is an advanced edge switch delivering 48 10/100/1000BASE-T ports, fiber gigabit uplink ports and, another industry-first for Extreme Networks, two modular 10 Gigabit Ethernet uplink ports–all in a surprisingly compact 1 rack unit (1.75") package. But most importantly, the Summit 400 supports industry-leading ExtremeWare® Layer 3 intelligence. Open Shortest Path First (OSPF), Multicast, Quality of Service (QoS), Ethernet Automatic Protection Switching (EAPS), Network Login 802.1x are just a few of the intelligent services supported in the Summit 400. The unique combination of upgradable, high-performance hardware with the most comprehensive Layer 3 intelligence software feature set demonstrates why Extreme Networks continues to be a leader in edge Ethernet switching.

Summit 400 Benefits

- Industry's highest density Gigabit Ethernet for easy scalability and efficient use of rack space
- Highest performance switch fabric (160 Gbps) and throughput (101Mpps) so current and future applications have the bandwidth required
- Two 10 Gigabit Ethernet ports to avoid the common uplink bottleneck
- Modular 10 Gigabit Ethernet design that can be quickly upgraded in the field so you only pay for the bandwidth you need, when you need it
- Advanced Layer 3 intelligence to roll out new services quickly and easily
- Comprehensive security services to protect your network where it's being attacked–at the edge
- 8 queues of QoS on every port to optimize application performance in a converged network
- Redundant hardware and special availability software ensure the highest level of network availability
- Investment protection and operational simplicity results in low cost of ownership

extreme networks

Technology that Preserves Your Investment

The Summit 400 implements state-of-the-art technology to address critical requirements at the edge of the network. Requirements such as the need for more density to support more users, but with the performance to ensure users get the bandwidth they require; the need to deploy services faster while lowering the cost of delivering these services and the need to secure the network but remain open to new opportunities. The Summit 400 delivers the industry's best investment protection by implementing advanced hardware and software technology to meet and exceed these and other emerging edge switch requirements.

Industry Leading 10/100/1000 Scalability

The Summit 400 delivers industry-leading 10/100/1000 density, scalability, and port flexibility which allows customers to easily expand their network and make the most efficient use of available rack space. In just 1.75" (1 rack unit), the Summit 400 supports:

- 48 copper Gigabit Ethernet ports (10/100/1000BASE-T)
- 4 ports of SFP MiniGBICs (logically shared with the 1000BASE-T ports)
- 2 ports of 10 gigabit uplinks (optional)
- 10/100/1000 port for out-of-band management
- 1 serial port

Summit 400 with optional Summit XEN 10 Gigabit Ethernet module and two XENPAK I/O modules

10 Gigabit Ethernet at the Edge–When You Need It

The Summit 400 delivers the industry's first fixed configuration edge switch with multiple 10 gigabit uplinks so the edge switch uplink capacity can grow as the end user's bandwidth demands grow. Based on a modular design, an optional 10 gigabit "daughter card' can be added to the Summit 400 delivering immediate support for two 10 gigabit XENPAK I/O modules. This advanced design enables the user to easily upgrade the Summit 400 to multiple 10 gigabit uplinks when added uplink capacity is required.

160 Gbps Switch Fabric

The Summit 400 delivers industry-leading switch fabric and throughput performance giving users the bandwidth their applications require. The Summit 400 switch fabric has a 160 Gbps capacity supporting 101 million packets per second, making it the industry's highest performance fixed configuration edge switch. This industry-leading performance ensures that the Summit 400 will have the capacity to support ever-growing end user bandwidth requirements. The Summit 400's two 10 gigabit uplinks, its high performance switch fabric and 101 Mpps throughput ensure that the Summit 400 will continue to be a critical edge solution in the customer's network for years to come.

Small, Medium, Large Networks Supported

The Summit 400 supports up to 16,000 MAC addresses, 4,000 Layer 3 forwarding database in hardware, or 64,000 routing table entries making this an ideal switch for both wiring closet implementations and enterprise branch offices. Even as the customer's network grows, the large table sizes supported in the Summit 400 make this an excellent long-term solution more than capable of supporting growth in the network.

Voice-Video-Data Convergence

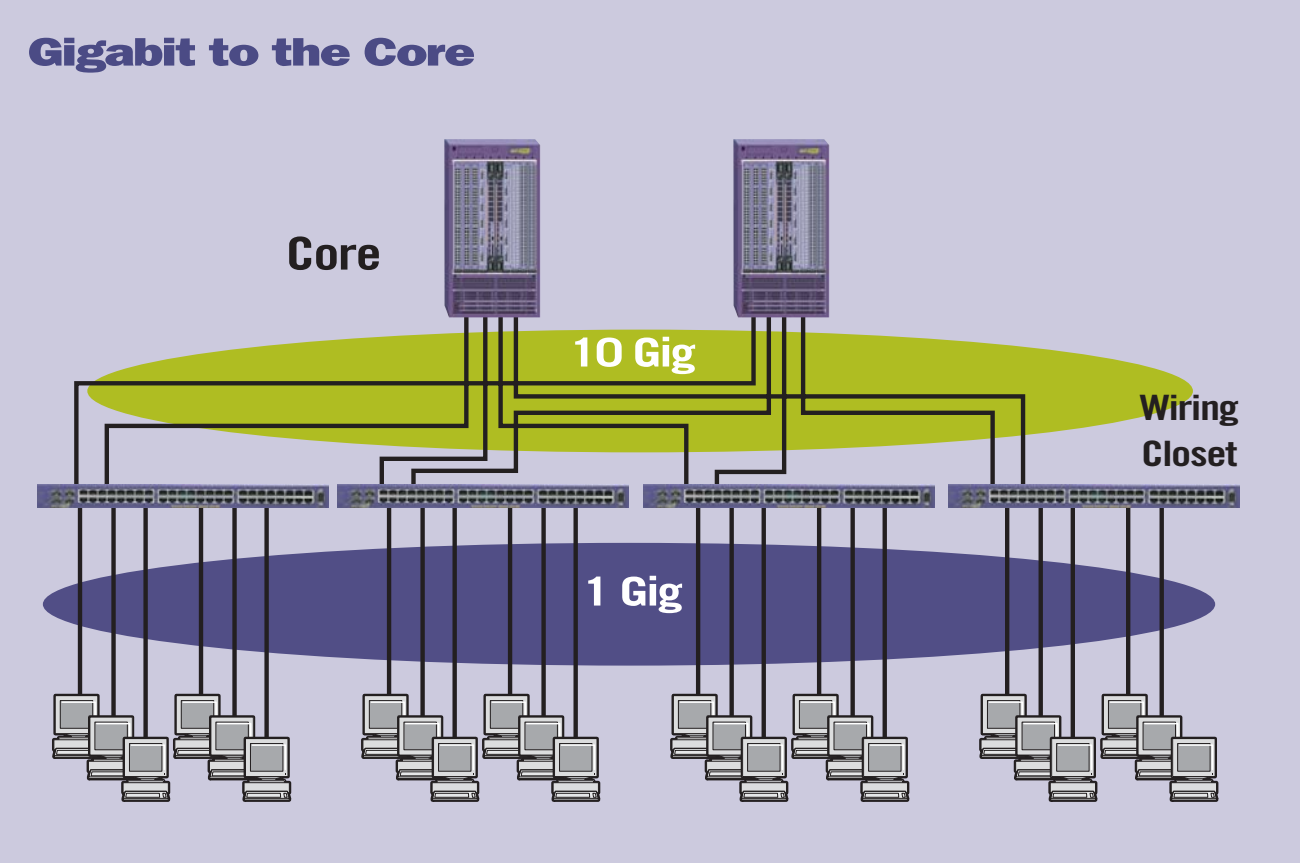
Many customers are starting to reduce their overall networking expenditures by converging their voice-video-data networks into a single network, and the Summit 400 is an ideal solution for this convergence. The Summit 400 supports up to 8 queues on every port to classify and prioritize traffic to ensure that high priority traffic, such as voice and video traffic, get the required bandwidth when it is needed.

Wire Speed Access Control Lists (ACLs)

ACLs are powerful security tools and the use of ACLs in networks is likely to increase as a way to combat security threats. However, the value of ACLs is diminished if, by applying them, traffic slows down, creating a congestion point. The Summit 400 delivers wire speed ACLs on every port for maximum security while maintaining maximum throughput. With the Summit 400 an IT manager can turn on ACLs whenever they are needed without worrying about disrupting business applications or reducing productivity.

Jumbo Frame Support

Jumbo frame support of up to 9,216 bytes is supported–making the Summit 400 an ideal switch for new applications requiring large frames such as storage and graphic/video applications. Studies have indicated that jumbo frames are particularly important in high performance cluster applications where their use can reduce server CPU loads by as much as 50%.



Summit 400 supports industry-leading Gigabit density and 10 Gigabit capacity

Intelligence To Support New Services And Simplify The Network

The Summit 400 delivers the ability to quickly and efficiently provision new services in important areas like security, bandwidth tracking and traffic prioritization. And because these services are provisioned at the edge of the network, the Summit 400 simplifies the network while making it significantly less expensive to quickly roll out new services at individual sites or consistently throughout the network. No other edge switch delivers Layer 3 intelligence and the performance and throughput capacity of a Summit 400 to ensure that new services can be easily and quickly deployed widely in the network.

INTELLIGENCE TO PROTECT THE NETWORK AT THE EDGE

Network Login and 802.1x

The Network Login feature on the Summit 400 is the fastest and most comprehensive user authentication tool available today! Every user on every port can be authenticated so the network is protected at the most common point of attack, the edge. The Summit 400 can immediately reject users not authorized to enter the switch or network. Unauthorized users can't cause problems in the network because they can't enter the network and they can't enter the network unless authorized by Summit 400 web-based or 802.1x based Network Login security features.

Security with Multiple Users on a Single Port

Another advantage of the Summit 400 security solution is the Multiple Supplicant feature for shared port configurations. Normally, when the switched port is shared, a single user authentication opens that port for all other users, authorized or not. Summit 400 solves this problem through the Multiple Supplicant feature of ExtremeWare 802.1x Network Login. This feature associates the user with the device accessing the network. For example, a user may access the network from their PC by submitting an authorized password. If a second user wants LAN access from a different device through the same port via a shared access device (such as a hub), the second user can only enter the LAN with the correct password.

ExtremeWare Layer 3 Intelligent Services

QoS
- 8 priority queues
- Layer 2 classification
- 802.1P priority marking
- Layer 3 DiffServ code points
- Bandwidth rate limiting
- Layer 2/3/4 Access Control Lists

VLAN
- 4096 VLANs
- 802.1Q VLAN tag
- Port-based and MAC-based VLANs

Link Aggregation

16,000 MAC Address Table

STP Edge

EAPS (edge)

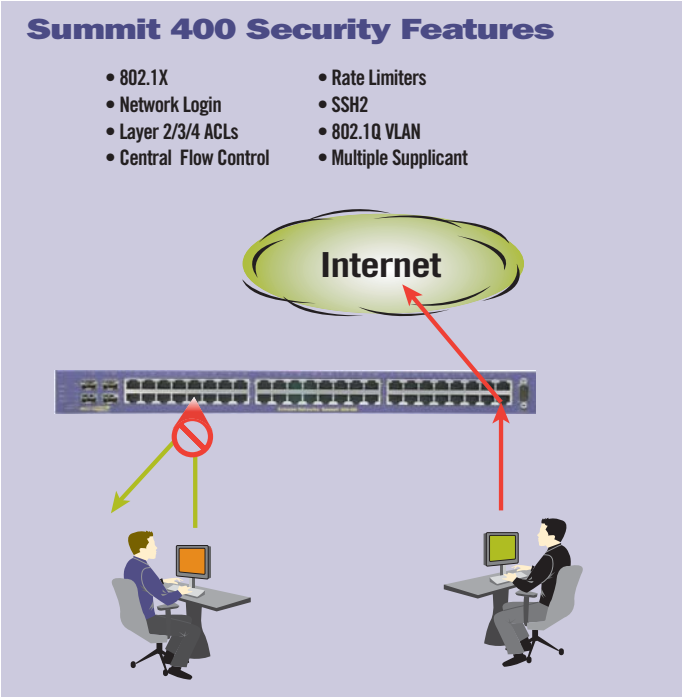
Routing
- RIP v1/v2
- Extreme Standby Router Protocol (ESRP)-aware
- OSPF-edge (2 non-passive interfaces)
- Static route

Multicast Routing
- IGMP v1/v2
- IGMP snooping
- PIM-SM-edge (2 non-passive interfaces)

Network Address Translation

Security Features
- Ingress rate limiting
- Layer 2/3/4 Access Control Points
- RADIUS support
- TACACS+ support
- Access-List support
- Network Login
- 802.1X
- SSH2 server

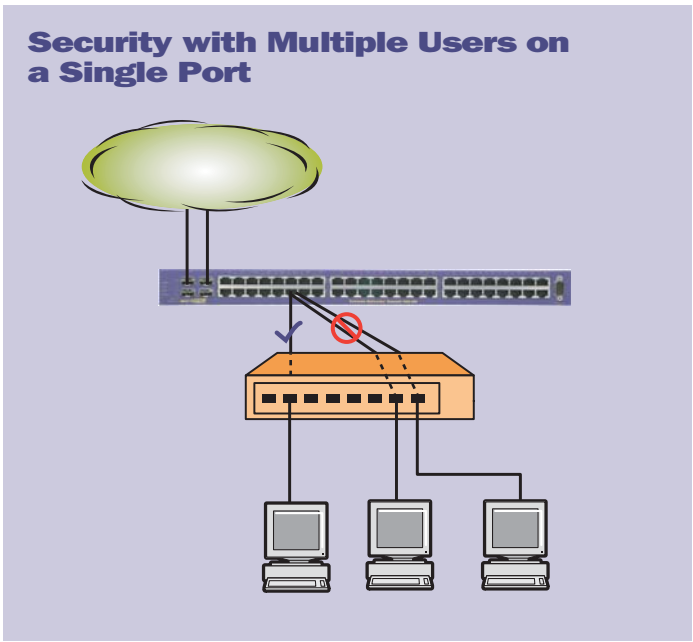
Management Features
- Telnet
- SYSLog
- SNMP v1, 2, 2c
- Port Mirroring (by port #)
- 4 RMON groups per port
- HTML management



Summit 400 Network Login and 802.1x secure the edge of the network

Secure Shell 2 (SSH2)

The Summit 400 supports SSH2 to securely transfer switch configurations and ExtremeWare images into and out of the switch. To fix the known limitations in SSH, it is critical that customers use the latest SSH2 as supported in the Summit 400.



Multiple Supplicant feature enables security for multiple users on a single port

Wire Speed Access Control Lists (ACLs)

ACLs are one of the most powerful tools to control network resource utilization and to secure and protect the network. The Summit 400 supports 5,520 ACLs (115 rules per port) based on Layer 2, 3 or 4 header information such as the MAC address or IP source/destination address and delivers the most comprehensive control of how end users consume bandwidth.

INTELLIGENCE TO ADAPT TO NETWORK PRIORITIES

Quality of Service

The Summit 400 uses advanced QoS DiffServ and 802.1p (Class of Service) protocols to classify, prioritize, and mark LAN traffic as a way to efficiently use existing bandwidth and offer reliable connectivity for mission-critical applications and converged networks that are susceptible to bandwidth availability, system latency and jitter.

Summit 400 QoS supports 8 queues for every port to classify and prioritize traffic on any of the following parameters:

- MAC address
- Type of Service (TOS) marker
- IP source/destination address
- IP subnet address
- 802.1p priority bit
- Ingress source port
- IP protocol ID (TCP-UDP-IGMP)
- 802.1Q VLAN ID
- Icmp-type
- Icmp code
- Layer 4 port
- IP version
- Ethertype

Policy-Based Rate Limiting

The Summit 400 supports 3,000 central flow rate limiters (63 rate limiters per port) to automatically control bandwidth use and increase overall network efficiency. For Policy-Based Mapping, rate limiters can be applied to Layer 1-4 and can re-write DiffServ code points and 802.1p Class of Service.

Rate Limiting Benefits

The central flow control rate limiting feature in the Summit 400 adds a valuable tool for bandwidth management on ingress traffic. Similar to an Access Control List, the rate limiting feature inspects incoming packets headers to allocate a pre-defined amount of bandwidth for that traffic flow. If the flow exceeds the assigned bandwidth, excess packets are either dropped or modified by resetting their DiffServ code point. Rate limits can be configured from 1 Mbps in 1 Mbps increments up to full line rate. Rate limiting is an excellent method of managing and prioritizing the total traffic coming into a switch and it also enables control of the amount of bandwidth any port, user, or application is allowed to consume.

COMMON MANAGEMENT INTELLIGENCE

Compatible Command Line Interface Across All Platforms

The Summit 400 uses the same ExtremeWare management commands and has the same “look and feel” as all other Extreme Networks switches resulting in a common end-to-end management solution that reduces training expenses and increases the sharing of management expertise throughout the network. The Summit 400 supports extensive management interfaces through standard management tools like SNMP, RMON and the command line interface (CLI). The Summit 400 supports web-based (HTML) management for an advanced “manage-anywhere” capability.

High Availability to Keep Users Connected and Productive

High availability is a critical feature of the Summit 400 because Extreme Networks understands that availability is critical to end user productivity. Advanced availability features normally found only on more expensive core switches are now standard on the Summit 400. Features such as hardware redundancy that keep the switch up and running are combined with advanced ExtremeWare availability software to dynamically route around problems in the network ensuring that the end user is not only connected, but remains productive.

External Power System

Extreme Networks has long been a leader in providing redundant power at the edge, but the Summit 400 takes this feature to a new level. Extreme offers an External Power System that supports multiple Summit 400 switches, all with full power simultaneously. This power system provides 1-for-1 power for every Summit 400 connected. No more worrying about inadequate power if more than a single switch fails; the External Power System provides full redundant power for every Summit 400 switch. The External Power System automatically senses when the internal power supply has failed and immediately provides redundant power to the switch, preventing any loss of data.

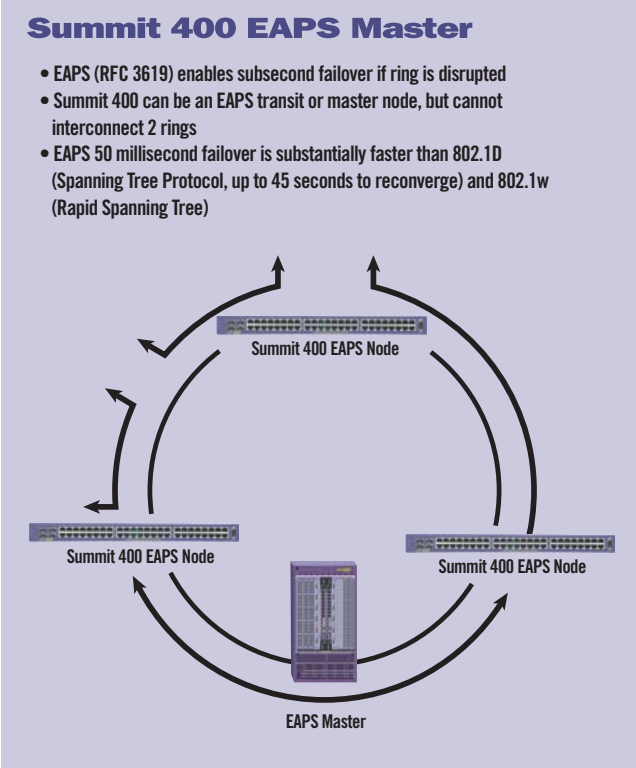
External Power System with 2 EPS-160 Power Supplies

High Availability Uplinks

The Summit 400 supports redundant copper and/or fiber Gigabit Ethernet uplinks and redundant 10 Gigabit Ethernet uplinks for not only the highest uplink capacity at the edge, but also the greatest redundancy. If any single uplink port is not available, the Summit 400 can automatically failover to the redundant port for maximum resiliency and connectivity. The result is true high availability--the user stays connected to the network and remains productive.

EAPS–Sub-Second Layer 2 Resiliency

The Summit 400 supports EAPS (RFC 3619) to deliver sub-second (less than 50 msec recovery) protection switching to Layer 2 switches interconnected in an Ethernet ring topology. EAPS is similar to the Spanning Tree Protocol (STP), but offers the advantage of converging in significantly less time than STP or even Rapid Spanning Tree (802.1w) when a link breaks in the ring. 50 msec convergence times are invisible to routing protocols so the routing protocols don't need to re-converge. Voice-over-IP (VoIP) calls don't drop and video feeds don't flicker because EAPS enables the users to stay connected even when there are link failures in the upstream network.



Summit 400 EAPS Supports the industry-fastest Layer 2 failover

Software Enhanced Availability

The Summit 400 uses advanced Layer 3 availability intelligence to route around problems in the upstream network so that even if part of the network infrastructure is down, users remain connected to the network and productive. Using advanced Layer 3 protocols like OSPF and ESRP, the Summit 400 constantly checks for breaks in the uplink connections and dynamically routes around the problem. Network administrators can now create non-stop routing topologies that combine with switch hardware redundancy to deliver the highest level of availability.

Equal Cost Multi-Path

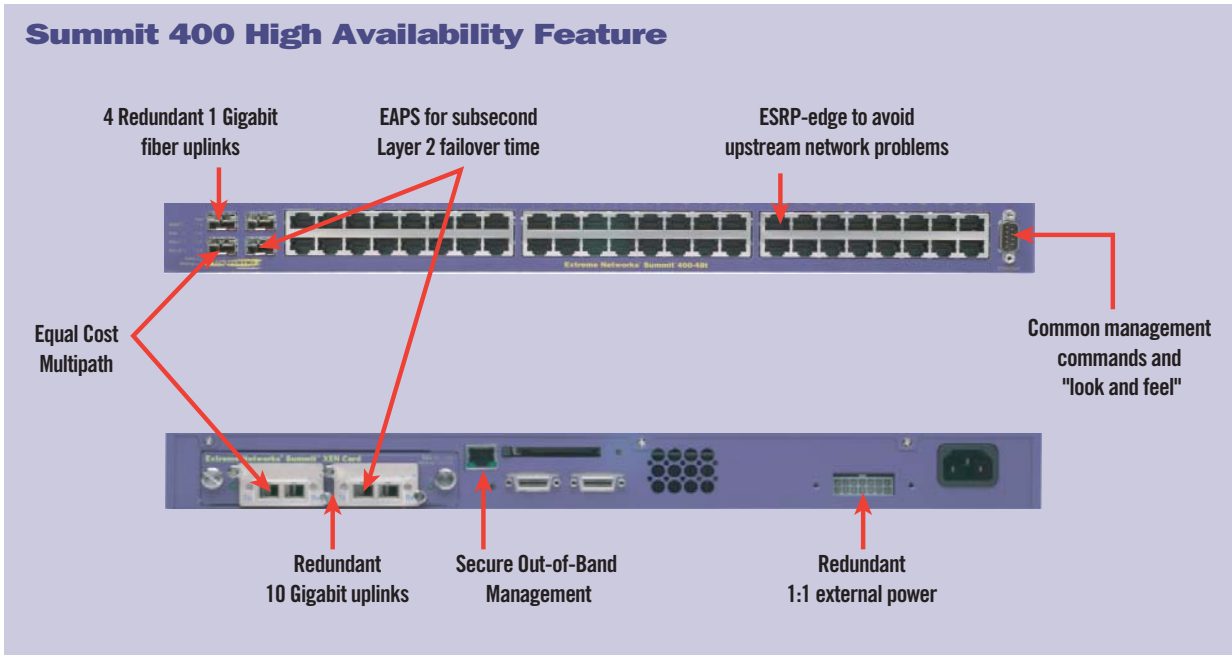
The Summit 400 supports the Equal Cost Multi-Path feature that not only improves switch availability, but also improves performance and saves the customer money. Equal Cost Multi-Path enables dual uplinks to be load balanced for performance and cost savings while also supporting redundant failover. If one uplink fails, traffic is automatically routed to the remaining uplink and connectivity is maintained. The Summit 400 supports a combination of four fiber 1 Gigabit Ethernet and two 10 Gigabit Ethernet uplinks so the network administrator has unprecedented flexibility in choosing the least expensive uplink while maintaining the highest level of availability.

Maximize Availability by Minimizing Downtime

The Summit 400 implements the same ExtremeWare management code base and EPICenter® graphical interface as all other Extreme switches. Common management commands and common "look and feel" help the user's IT Support staff to quickly diagnose problems and rapidly implement fixes. Reducing management complexity means that problems get resolved sooner and the end user can be more productive.

Limited Lifetime Warranty

The Summit 400 supports a Limited Lifetime Warranty.
Detailed information about Extreme Network's Limited Lifetime Warranty can be found at:
www.extremenetworks.com/libraries/prodpdfs/products/SummitWarranty.asp



Summit 400 High Availability Feature

TECHNICAL SPECIFICATIONS

I. PHYSICAL

Dimensions

Height Inches/Cm: 1.75 Inches / 4.4 Cm
Width Inches/Cm: 17.4 Inches / 44 Cm
Depth Inches/Cm: 16.4 Inches / 41.6 Cm
Weight Lbs/Kg: 11 lbs/5 Kg

Indicators

- Per port status LED
- System Status LEDs: management, fan and power

Ports

- 48 ports 10/100/1000BASE-T
- 4 ports SFP (miniGBIC, shared with 1000BASE-T)
- Option module, 2 ports for 10 Gigabit XENPAK
- 1 port 10/100/1000 BASE-T (management)
- 1 port Serial (control point)
- 2 ports 10 Gigabit stacking (stacking SW feature planned)

Forwarding Tables:

- Layer 2/MAC Addresses: 16K
- Layer 3 forwarding database in hardware: 4K
- Layer 3 routing table size: 64K

Temperature

- Operating Temperature Range, Degrees Celsius/ Fahrenheit: 0 to 40 °C (32 to 104 °F)
- Storage Temperature Range, Degrees/Degrees Celsius: -40 to +70 °C (-40 to 158 °F)
- Humidity Range: 10-95% (RH) non-condensing

Power

- Min Voltage/Associated Current: 100VAC / 4A
- Max Voltage/Associated Current: 240VAC / 2A
- Heat Dissipation, Watts/BTU: 160W / 546BTU/hr
- External Power System connector
- External Power System EPS-160 module
  - Heat Dissipation, Watts/BTU: 160W / 546BTU/hr
  - 100-240VAC, 4A-2A

II. PERFORMANCE

- 160 Gbps switch fabric bandwidth
- 101 Mpps frame forwarding rate:
- 9216 Byte maximum packet size (Jumbo Frame)
- 8 link load sharing trunk, 8 members per trunk
- 8 QoS queues/port
- 4096 VLANs (Port, IEEE 802.1Q, MAC-based)
- 5520 total number of ACL Rules/lines
  - 115 rules per port
  - ACL rules can be applied to ingress
  - Additional ACL rules on optional 10 Gigabit Plug-In module

Rate Limiting

- Central flow based bandwidth policing/rate limiting : packets are classified after Ingress into flows with Access Control Lists and a rate limiter is assigned to a given flow

Ingress Rate Limiting Granularity: 1Mb/s

- Available Rate Limiters: 3024 (63 per port)

III. RELIABILITY

- MTBF
- Calculated MTBF: 77,934 hours
- Method: Bellcore TR-332 Operating @ 40 °C

Warranty

- Limited Lifetime Warranty

Acoustic

- 45dBA @ 25 degrees C

III. SOFTWARE

- ExtremeWare 7.2e Supported Protocols:

General Routing and Switching:

- RFC 1812 IPv4 Router Requirements
- RFC 1519 CIDR
- RFC 1256 IPv4 Router Discovery (IRDP)
- RFC 783 TFTP
- RFC 951, 1542 BootP
- RFC 2131 BOOTP/DHCP relay agent and DHCP server
- RFC 1591 DNS (client operation)
- RFC 1122 Host Requirements
- RFC 768 UDP
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- ESRP-aware (Extreme Standby Router Protocol)
- IEEE 802.1D - 1998 Spanning Tree Protocol
- IEEE 802.1Q - 1998 Virtual Bridged Local Area Networks
- EAPS-Edge mode (Ethernet Automatic Protection Switching, master and member of one ring)
- RFC 3619

Quality of Service:

- IEEE 802.1D -1998 (802.1p) Packet Priority
- DiffServ Precedence, including 8 queues/port

Ingress Rate Limiting

- Layer 1-4 Policy-Based Mapping
- Policy-Based Mapping/Overwriting of DiffServ code points, .1p priority

VLANs:

- IEEE 802.1Q VLAN Tagging
- IEEE 802.3ad static configuration
- Port-based VLANs
- Mac-based vlans

RIP:

- RFC 1058 RIP v1
- RFC 2453 RIP v2

OSPF:
- RFC 1901-1907 SNMPv2c, SMIv2, and reviced MIB II
- RFC 1908 SNMPv1 and SNMPv2 Coexistance
- RFC 2328 OSPF v2 (including MD5 authentication) Edge-mode (up to 2 non-passive interfaces, cannot be designated or backup router)
- RFC 1587 OSPF NSSA Option
- RFC 1765 OSPF Database Overflow
- RFC 2370 OSPF Opaque LSA Option

IP Multicast:
- RFC 1112 IGMP v1
- RFC 2236 IGMP v2
- IGMP Snooping with Configurable Router Registration Forwarding
- PIM-SM edge mode (two non-passive interfaces)

Management - SNMP & MIBs:
- RFC 1155 Structure of Mgmt Information (SMIv1)
- RFC 1157 SNMPv1
- RFC 1212, RFC 1213, RFC 1215 MIB-II & TRAPs
- RFC 1757 RMON 4 groups: Stats, History, Alarms and Events
- RFC 2021 RMON2 (probe configuration)
- RFC 2668 802.3 MAU MIB
- RFC 1650 Etherlike-MIB
- RFC 1573 Evolution of Interface
- RFC 1493 Bridge MIB
- RFC 1354 IPv4 Forwarding Table MIB
- RFC 2037 Entity MIB
- RFC 2233 Interface MIB (receive address group not supported)
- RFC 1724 RIPv2 MIB
- RFC 1850 OSPFv2 MIB
- ExtremeWare vendor MIB (includes MAC FDB, IP FDB, QoS policy and VLAN config)

Management - Other:
- RFC 854 Telnet
- Secure Shell (SSH2) and Telnet management,
- Telnet clients
- Configuration logging
- Multiple Images, Multiple Configs
- BSD System Logging Protocol (SYSLOG), with Multiple Syslog Servers
- 999 Local Messages (criticals stored across reboots)
- RFC 2030 SNTP, Simple Network Time Protocol v4

Security:
- Routing protocol authentication (see above)
- Secure Shell (SSHv2) with encryption/authentication
- RFC 1492 TACACS+
- RFC 2138 RADIUS Authentication
- RFC 2139 RADIUS Accounting
- RADIUS Per-command Authentication
- Access Profiles on All Routing Protocols
- Access Profiles on All Management Methods
- Network Login (including DHCP / RADIUS integration)
- Network Address Translation (NAT)
- Layer 2/3/4Access Control Lists (ACLs)
- Wire-speed ACLs
- Rate Limiting by ACLs
- 802.1x- 2001 port-based Network Access Control for Network Login

V. REGULATORY

Safety

North America
- cULus Listed device - UL 60950 3rd Edition (US Safety) - CAN/CSA-C22.2 No. 60950-00 (Canadian Safety)

Europe
- Low Voltage Directive (LVD)
- TUV-R GS Mark by German Notified Body- EN60950:2000 (European Safety)

International
- CB Scheme - IEC60950: 2000 with all country deviations (International Safety)

Country Specific
- Mexico NOM/NYCE (Product Safety & EMC Approval)
- Australia/New Zealand AS/NZS 3260 (ACA DoC, Safety of ITE)
- Argentina S-Mark
- GOST (Russia)

Laser Safety:

North America
- FCC 21 CFR subpart (J) (Safety of Laser Products)
- CDRH Letter of Approval (US FDA Approval)

Europe
- EN60825-2 (European Safety of Lasers)

EMI/EMC

North America
- FCC 47 CFR Part 15 Class A (US Emissions)
- ICES-003 Class A (Canada Emissions)

Europe

89/336/EEC EMC Directive
- ETSI/EN 300 386:2001 (EU Telecommunication Emissions & Immunity)
- EN55022:1998 Class A (Europe Emissions)
- EN55024:1998 includes IEC/EN 61000-2,3,4,5,6,11 (Europe Immunity)
- EN 61000-3-2, -3 (Europe Harmonics and Flicker)

International
- IEC/CISPR 22:1997 Class A (International Emissions)
- IEC/CISPR 24:1998 (International Immunity)
- IEC/EN 61000-4-2 Electrostatic Discharge
- IEC/EN 61000-4-3 Radiated Immunity
- IEC/EN 61000-4-4 Transient Bursts
- IEC/EN 61000-4-5 Surge
- IEC/EN 61000-4-6 Conducted Immunity
- IEC/EN 61000-4-11 Power Dips & Interruptions

Country Specific
- Japan Class A (VCCI Registration, Emissions)
- Australia/New Zealand AS/NZS 3548 (ACA DoC, Emissions)
- Korean MIC Mark (MIC Approval, Emissions & Immunity)
- Mexico NOM/NYCE (Product Safety & EMC Approval)
- GOST (Russia)
- Taiwan CNS 13438:1997 Class A (BSMI Approval, Emissions)

Environmental

Standard:

- EN 300 019-2-1 (2000-09)–Storage Class 1.2-packaged
- EN 300 019-2-2 (1999-09)–Transportation Class 2.3 (Packaged
- EN 300 019-2-2 (1999-09)–Stationalry Use at Weather protected Locations, Class 3.1e - Operational
- EN 300 753 (1997-10)–Acoustic Noise - Operational
- ASTM D5276 * – Drop - Package
- ASTM D3332 * – Shock - Unpackaged
- ASTM D3580 * – Random Vibration - Unpackaged
- ASTM D6179 * – Tilt - Packaged

*Additional testing requested by Extreme Networks

Ordering Information

Part Number	Name	Description
16101	Summit 400-48t	Summit 400-48t, 48 10/100/1000BASE-T, 4 mini-GBIC, Extremeware Edge software license
16102	Summit 400-48t Advanced Edge Voucher	Summit 400-48t ExtremeWare Advanced Edge Upgrade Voucher
16103	Summit XEN	Summit 400-48t 2-port 10 Gigabit Uplink Module (XENPAK I/O modules not included)
10906	EPS-T	External Power System tray, accepts up to 2 EPS power modules
10907	EPS-160	External Power System module, 160 Watts, for use with EPS-T
10051	SX mini-GBIC	1-port, Mini-GBIC, SFP, 1000BASE-SX, LC connector
10052	LX mini-GBIC	1-port, Mini-GBIC, SFP 1000BASE-LX, LC connector
10053	ZX mini-GBIC	1-port, Mini-GBIC, SFP, Extra long distance SMF 70 Km/21 dB budget, LC connector
10111	LR XENPAK	10 Gigabit Ethernet XENPAK Transceiver, 1310 nm range
10112	ER XENPAK	10 Gigabit Ethernet XENPAK Transceiver, 1550 nm range

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