# extreme networks

## products at a glance

extreme networks

# The Leader In Open Converged Networks

Extreme Networks® is a leader in providing enterprises and metro service providers with solutions for building open converged networks.

Our vision of a converged network is one where voice, video, data, and diverse applications and services come together in the same network—regardless of the access method. Whether connected by a wire or wireless, all applications and services appear seamless to the user.

Extreme Networks is committed to providing innovative products, technologies and solutions that help enable you to increase application availability, application performance and application reach. Our "open" approach to the development of standards-based Internet and LAN technologies, allows you to deploy best-of-breed technologies that best solve your business problems.

With operations in the United States and 25 other countries, you can be confident that we have the global reach and understanding to serve you. We have established worldwide 24x7 Technical Assistance Centers (TACs) and professional service facilities in the Americas, Europe, Japan and Asia. This allows you to engage our global organization at a local level in most locations, giving you the assistance you need and allowing you to focus on business, rather than your network infrastructure.

## BlackDiamond® 10808

**Ideal for network core and data centers where high Gigabit Ethernet density, availability and security are crucial.**

> ExtremeWare® XOS™ modular high availability and extensible operating system
> Fully redundant, load sharing, hot-swappable management modules, power supplies and I/O modules
> Hardware support for IPv6, MPLS, and NAT
> CLEAR-Flow Security Rules Engine

## BlackDiamond 8800 Series

**Ideal for high-density gigabit and network edge and small to medium network cores.**

> ExtremeWare XOS modular high availability and extensible operating system
> Fully redundant, load sharing, hot-swappable management modules, power supplies and I/O modules
> High density 10/100/1000 Power over Ethernet (PoE)
> Advanced protocols for gigabit and 10 Gigabit Ethernet deployments

## BlackDiamond 6800 Series

**Ideal for network core and data centers where 10/100 and Gigabit Ethernet density and availability are crucial.**

> ExtremeWare hardened real-time operating system
> Fully redundant, load sharing, hot-swappable management modules, power supplies and I/O modules
> Advanced Policy-based QoS and routing capability
> MPLS module for Layer 2/3 transparent LAN services

## Summit®1i/5i/7i

**Ideal for Gigabit Ethernet aggregation in small to medium-sized networks.**

> ExtremeWare hardened real-time operating system
> Redundant power supplies
> Policy-based QoS and routing in a compact form factor

## Alpine® 3800 Series

**Ideal for use throughout the network where price/performance ratio is the primary objective.**

> ExtremeWare hardened real-time operating system
> Fully redundant, load sharing, hot-swappable power supplies and I/O modules
> Policy-based QoS and routing capability in a modular switch

## Summit X450 Series

**Ideal for Gigabit Ethernet aggregation and small network cores where high-availability is crucial.**

> ExtremeWare XOS modular high availability and extensible operating system
> External redundant power supplies
> Advanced protocols for small core deployment in a small form factor
> Optional dual 10 Gigabit Ethernet uplink modules

## Summit 400 Series

**Stackable switches, ideal for Gigabit Ethernet based intelligent services at the edge of the network.**

> ExtremeWare hardened real-time operating system
> External redundant power supplies
> 20 gigabit full-duplex UniStack™ stacking
> Full Layer 2 and Layer 3 high-performance gigabit switch

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## Summit 200 Series

**Ideal for 10/100 Mbps Layer 3 switching at the edge of the network.**

> ExtremeWare hardened real-time operating system
> Full Layer 2 and Layer 3 features for the budget conscious
> 2 gigabit full-duplex UniStack stacking

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## Summit48si

**Ideal for 10/100 Mbps Layer 3 switching at the edge of the enterprise or metro network.**

> ExtremeWare hardened real-time operating system
> Redundant, hot-swappable AC and DC power supplies
> Policy-based QoS and routing in a compact form factor

## Summit 300 Series/Altitude 300

**Ideal for advanced 10/100 Mbps services such as IP Telephony and wireless LAN that requires PoE.**

> ExtremeWare hardened real-time operating system
> Integrated full power 10/100 PoE and wireless support on every port
> Full Layer 2 and Layer 3 feature sets

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## Summit WM Series/Altitude 350-2

**Ideal for implementing a high-performance wireless LAN solution with multiple access types.**

> Easy to use access domains for multiple access types
> Dynamic RF Management
> Fast Layer 3 voice grade roaming
> Supports up to 200 Access Points per switch

## Sentriant™

**Ideal for mitigating rapidly propagating virus/worm-based attacks from inside the network.**

> Integrated deployment mode with BlackDiamond 10808 and CLEAR-Flow to cover the entire network
> Standalone deployment mode with any switch to cover parts of a network
> Works off-line with no impact on business continuity even while under attack
> 2,000 end-points and 1 gigabit throughput

## ExtremeWorks® Maintenance and Support

Extreme Networks offers comprehensive service solutions that help you optimize your network 24x7. ExtremeWorks maintenance programs give you the support you need to operate and manage your network on a day-to-day basis, as well as provide you the safety net you need when the unexpected occurs.

Our full service support options include:
> 24x7 global Technical Assistance Centers (TAC)
> Software release updates
> Flexible hardware replacement options – from factory return and replace to four (4) hour advanced hardware replacement
> Onsite technical assistance options
> Privileged web access for:
  – Case logging
  – RMA requests
  – Knowledge database

## Two-Tier Network Architecture

**Our products will allow you to implement a two-tier network. By condensing the traditional three tiers into two tiers, you'll use fewer switches and have improved connections as well as simplified network security.**
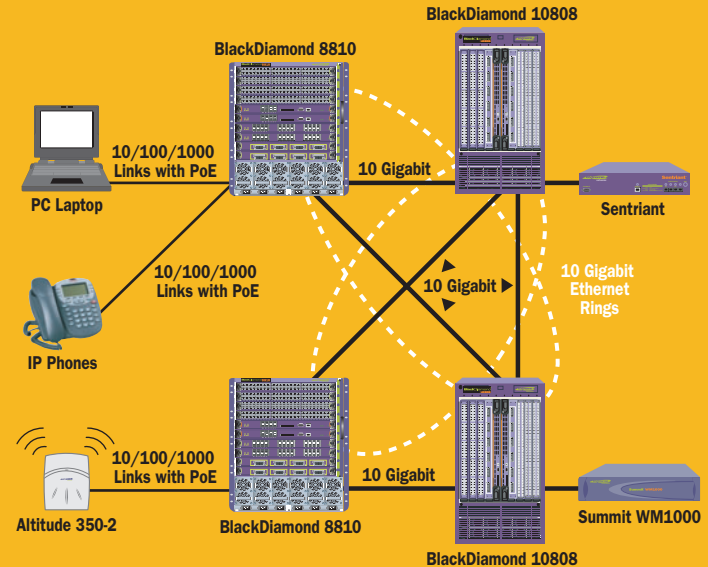


## Management Tools

Extreme Networks family of network management tools automates the management of Layers 2-7 application infrastructures allowing for an overall improved end-user experience.

> EPICenter® – provides all fault configuration, accounting, performance, and security functions to manage Extreme's multi-layer switching equipment in a converged network
> EPICenter Policy Manager – provides layer-independent policy enforcement for Layers 1-4
> ServiceWatch® – delivers powerful, Layers 4-7 monitoring and management for mission-critical network services

| FEATURES | BlackDiamond 10808 | BlackDiamond 8810 | BlackDiamond 8806 | BlackDiamond 6816 | BlackDiamond 6808 | BlackDiamond 6804 | Alpine 3808 |
|---|---|---|---|---|---|---|---|
| Max Auto-Negotiating 10/100 BASE-TX Ports | N/A | N/A | N/A | 1440 | 672 | 384 | 256 |
| Max Auto-Negotiating 10/100/1000 BASE-T Ports | 480 | 432 | 240 | 360 | 168 | 96 | 128 |
| Max Gigabit Ethernet Ports (GBIC or Mini-GBIC) | 480 | 224 | 128 | 256 | 128 | 64 | 128 |
| Max 10 Gigabit Ethernet Ports (XENPAK) | 48 | 36 | 20 | 16 | 8 | 4 | 0 |
| Form Factor/Footprint | Chassis/ 24RU | Chassis/ 14RU | Chassis/ 10RU | Chassis/ 35RU | Chassis/ 15RU | Chassis/ 11RU | Chassis/ 12RU |
| Total Switching Capacity | 1.28 Tbps | 4.016 Tbps | 384 Gbps | 768 Gbps | 384 Gbps | 256 Gbps | 64 Gbps |
| Programmable ASICs | Yes | No | No | No | No | No | No |
| Redundant Power | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Power over Ethernet (802.3af) | No | Yes | Yes | No | No | No | Yes |
| Wire-Speed Layer 2/Layer 3 Switching | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Routing | BGP4, OSPF, RIP v1/v2, PIM | BGP4, OSPF, RIP v1/v2, PIM | BGP4, OSPF, RIP v1/v2, PIM | BGP4, DVMRP, OSPF, RIP v1/v2, PIM | BGP4, DVMRP, OSPF, RIP v1/v2, PIM | BGP4, DVMRP, OSPF, RIP v1/v2, PIM | BGP4, DVMRP, OSPF, RIP v1/v2, PIM |
| Policy-Based Routing | Yes | No | No | Yes | Yes | Yes | Yes |
| Policy-Based Quality of Service (QoS) | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Network Login | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Access Control Lists | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Layer 3 Virtual Switching | Yes | No | No | No | No | No | No |
| CLEAR-Flow | Yes | No | No | No | No | No | No |
| sFlow | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| EAPS | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 802.1s Rapid Spanning Tree | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Link Aggregation | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Integrated Server Load Balancing | No | No | No | Yes | Yes | Yes | Yes |
| 802.11 WLAN (802.11a/b/g) | No | No | No | No | No | No | Yes |
| AES, WPA/TKIP, WEP | No | No | No | No | No | No | Yes |
| Switch Management Capabilities | SNMP, CLI, 4 RMON groups | SNMP, CLI, 4 RMON groups | SNMP, Web, CLI, 4 RMON groups | SNMP, Web, CLI, 4 RMON groups | SNMP, Web, CLI, 4 RMON groups | SNMP, Web, CLI, 4 RMON groups | SNMP, Web, CLI, 4 RMON groups |

| Alpine 3804 | Alpine 3802 | Summit1i Summit5i Summit7i | Summit48si | Summit 200-24 | Summit 200-48 | Summit 300-24 | Summit 300-48 | Summit 400 | Summit X450 |
|---|---|---|---|---|---|---|---|---|---|
| 128 | 64 | N/A | 48 | 24 | 48 | 24 | 48 | N/A | N/A |
| 64 | 20 | 6 to 28 | 0 | 2 | 2 | 2 | 4 | 24-48 plus PoE | 24 |
| 64 | 20 | 2 to 4, plus 6 to 28 Fixed | 2 | 2 | 2 | 2 | 4 | 4 | 24 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Chassis/ 6RU | Chassis/ 4RU | Fixed/ 2RU | Fixed/ 1RU | Stackable/ 1RU | Stackable/ 1RU | Stackable/ 1RU | Stackable/ 2RU | Stackable/ 1RU | Fixed 1RU |
| 32 Gbps | 16 Gbps | 17.5 Gbps to 64 Gbps | 17.5 Gbps | 8.8 Gbps | 13.6 Gbps | 8.8 Gbps | 24 Gbps | 80-160 Gbps | 160 Gbps |
| No | No | No | No | No | No | No | No | No | No |
| Yes | Yes | Yes | Yes | No | No | Yes/External | Yes | Yes/External | Yes/External |
| Yes | Yes | No | No | No | No | Yes | Yes | Yes | No |
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| BGP4, DVMRP, OSPF, RIP v1/v2, PIM | BGP4, DVMRP, OSPF, RIP v1/v2, PIM | BGP4, DVMRP, OSPF, RIP v1/v2, PIM | BGP4, DVMRP, OSPF, RIP v1/v2, PIM | OSPF, RIP v1/v2, PIM | OSPF, RIP v1/v2, PIM | OSPF, RIP v1/v2, PIM | OSPF, RIP v1/v2, PIM | OSPF, RIP v1/v2, PIM | BGP4, OSPF, RIP v1/v2, PIM |
| Yes | Yes | Yes | Yes | No | No | No | No | No | No |
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| No | No | No | No | No | No | No | No | No | No |
| No | No | No | No | No | No | No | No | No | No |
| Yes | Yes | Yes | Yes | No | No | No | No | No | Yes |
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Yes | Yes | Yes | Yes | No | No | No | No | No | No |
| Yes | Yes | No | No | No | No | Yes | Yes | Yes | No |
| Yes | Yes | No | No | No | No | Yes | Yes | No | No |
| SNMP, Web, CLI, 4 RMON groups | SNMP, Web, CLI, 4 RMON groups | SNMP, Web, CLI, 4 RMON groups | SNMP, Web, CLI, 4 RMON groups | SNMP, Web, CLI, 4 RMON groups | SNMP, Web, CLI, 4 RMON groups | SNMP, Web, CLI, 4 RMON groups | SNMP, Web CLI, 4 RMON groups | SNMP, Web CLI, 4 RMON groups | SNMP, Web CLI, 4 RMON groups |

**For more information on the Summit WM series go to:  http://www.extremenetworks.com/products/summit/**
**For more information on Sentriant go to:  http://www.extremenetworks.com/products/securityappliances/**

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