

# extreme extreme networks networks

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## products at a glance



# The Leader In Open Converged Networks

Over the past 10 years, innovations from Extreme Networks have redefined networking. Ethernet has become the foundation for global communications. And new expectations for rich infrastructure capabilities, high security, and flawless operations are testing network professionals like never before. Extreme Networks is responding with solutions that deliver secure, robust connectivity for voice, video, and data to a discerning and highly mobile user community. In today's world, your infrastructure partner matters. We can help you solve your toughest networking challenges.

With operations in the United States and 25 other countries, you can be confident that we have the global reach and knowledge to serve you. Our worldwide 24x7 Technical Assistance Centers (TACs) and professional service resources in the Americas, Europe, Japan and Asia provide you with the assistance you need to keep your network up and running.



## About ExtremeXOS™

ExtremeXOS is an open network operating system that delivers meaningful insight and unprecedented control for mission-critical applications. ExtremeXOS stands out as a real alternative to closed, proprietary products that limit choice and compromise performance.

A number of powerful capabilities combine to make ExtremeXOS an ideal operating system for solving your toughest networking challenges. Modularity enhances availability, limiting the impact of changes, attacks, or instabilities. Our open interfaces allow applications to effectively control the network without unnecessary tight integration that can limit flexibility and force system-wide upgrade cycles. Wire-rate instrumentation provides deep insight into critical network activities to build sophisticated security and voice applications.



## BlackDiamond® 10808

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

- ExtremeXOS modular high availability and extensible operating system
- Hardware support for IPv6, MPLS, and NAT
- CLEAR-Flow Security Rules Engine
- Redundant, hot-swappable management and switching modules, power supplies and I/O modules



## BlackDiamond 12804R

**Ideal for metro aggregation where high service density with carrier-class scalability and availability are required.**

- ExtremeXOS modular high availability and extensible operating system
- Ingress and egress hierarchical Quality of Service (QoS) on gigabit and 10 gigabit ports to handle thousands of subscribers
- High-performance multicast, MAC-in-MAC and MPLS for network scaling
- Advanced vMAN service multiplexing, cross-connect and network-peering features for carrier Ethernet deployments
- Redundant, hot-swappable management and switching modules, power supplies and I/O modules





## BlackDiamond 12804C

Ideal for small to medium network core where availability and security are crucial.

- ExtremeXOS modular high availability and extensible operating system
- Hardware support for IPv6 and NAT
- CLEAR-Flow Security Rules Engine
- Redundant, hot-swappable management and switching modules, power supplies and I/O modules



## BlackDiamond 6808

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

- ExtremeWare® hardened real-time operating system
- Advanced Policy-based QoS and routing capability
- Redundant, hot-swappable management and switching modules, power supplies and I/O modules



## BlackDiamond 8800 Series

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

- ExtremeXOS modular high availability and extensible operating system
- Policy-based QoS and routing
- Advanced protocols for gigabit and 10 Gigabit Ethernet deployments
- Redundant, hot-swappable management and switching modules, power supplies and I/O modules
- High density 10/100/1000 Power over Ethernet (PoE)

## Alpine® 3800 Series

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



- ExtremeWare hardened real-time operating system
- Policy-based QoS and routing capability in a modular switch
- Redundant, hot-swappable management modules, power supplies and I/O modules



## Summit® X450 Series

Ideal for Gigabit Ethernet aggregation, small network cores and Gigabit PoE edge where high availability is crucial.



- ExtremeXOS modular high availability and extensible operating system
- Policy-based QoS and routing
- Advanced protocols for small core deployment in a small form factor
- Optional dual 10 Gigabit Ethernet uplink modules
- External redundant power supplies
- Flexible 10/100/1000 PoE



## Summit 400 Series

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

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



## 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



## Summit 300 Series

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

- ExtremeWare hardened real-time operating system
- Full Layer 2 and Layer 3 feature sets



## Summit48si

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

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



## 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 types of users and devices
- Dynamic RF management
- Fast Layer 3 voice-grade roaming
- Supports up to 200 access points per switch



## Sentriant™

**Ideal for detecting and mitigating rapidly propagating security threats from inside the network.**

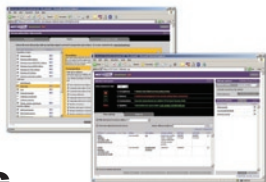
- Defends against security threats without interfering with network traffic
- Unique behavioral defense mechanism complements traditional signature-based IPS systems
- Extreme Networks switch integration for network-wide coverage
- Standalone mode for broad network compatibility



## Sentriant CE150

**Ideal for protecting data in motion over high speed IP networks.**

- Full-duplex, gigabit speed AES and 3DES encryption
- Microsecond range latency provides encryption of all types of data, including voice and video
- Meets regulatory compliance requirements for encryption
- Provides policy-based, selective data encryption



## Sentriant AG

**Ideal for fast, agent-less network access control and management.**

- Agent-less operation does not require client software
- Purpose-built engine provides fast endpoint testing
- Flexible deployment options (802.1X, DHCP, in-line, NAC, NAP) provides broad network compatibility
- Provides non-compliant endpoint quarantine and remediation

# Why Choose Extreme Networks?

Infrastructure solutions from Extreme Networks deliver powerful capabilities to solve complex networking challenges. Convergence and security dominate today's networking agenda—but how will you prepare for the future? Networks will continue to play a pivotal role in the effective delivery of advanced, secure, and mobile communications. We believe our open networks are the best strategy for capturing the value of future technologies, applications, and defenses.

For many network equipment providers, an open network is simply a standards-compliant network. At Extreme Networks, we go beyond standards by providing the industry's first open interfaces that can offer core network functionality as services to third-party solutions. We continue to develop new industry partnerships to help ensure our customers can enjoy more choice and higher performance now and in the future.

We are dedicated to your success.

## Management Tools

**Network management tools from Extreme Networks automate Layers 2 – 7 application infrastructure management.**

- 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

## 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, and provide you the safety net you need when the unexpected occurs.

<b>FEATURES</b>	<b>BlackDiamond 10808</b>	<b>BlackDiamond 12804R</b>	<b>BlackDiamond 12804C</b>	<b>BlackDiamond 8810</b>	<b>BlackDiamond 8806</b>	<b>BlackDiamond 6808</b>	<b>Alpine 3808</b>
<b>Max Auto-Negotiating 10/100BASE-TX Ports</b>	—	—	—	—	—	672	256
<b>Max Auto-Negotiating 10/100/1000BASE-T Ports</b>	480	80	80	432	240	168	128
<b>Max Gigabit Ethernet Ports (GBIC or Mini-GBIC)</b>	480	80	80	440	248	128	128
<b>Max 10 Gigabit Ethernet Ports (XENPAK)</b>	48	8	8	36	20	8	0
<b>Form Factor/Footprint</b>	Chassis/22RU	Chassis/10RU	Chassis/10RU	Chassis/14RU	Chassis/10RU	Chassis/15RU	Chassis/12RU
<b>Stacking Support</b>	—	—	—	—	—	—	—
<b>Total Switching Capacity</b>	1.28 Tbps	160 Gbps	160 Gbps	4.016 Tbps	2.48 Tbps	384 Gbps	64 Gbps
<b>Programmable ASICs</b>	Yes	Yes	Yes	No	No	No	No
<b>Redundant Power</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Power over Ethernet (802.3af)</b>	No	No	No	Yes	Yes	No	Yes
<b>Wire-Speed Layer 2/Layer 3 Switching</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Routing</b>	BGP4, OSPF, RIP v1/v2, PIM	BGP4, OSPF, RIP v1/v2, PIM	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
<b>Policy-Based Routing</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Policy-Based Quality of Service (QoS)</b>	Yes	Yes/Three Tier	Yes	Yes	Yes	Yes	Yes
<b>Network Login</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Access Control Lists</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Layer 3 Virtual Switching</b>	Yes	Yes	Yes	No	No	No	No
<b>vMANs (802.1ad)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>MAC-in-MAC (802.1ah)</b>	Yes	Yes	Yes	No	No	No	No
<b>CLEAR-Flow</b>	Yes	Yes	Yes	No	No	No	No
<b>sFlow</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>EAPS</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Advanced Spanning Tree (802.1w, 802.1s, PVST+)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Link Aggregation</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Integrated Server Load Balancing</b>	No	No	No	No	No	Yes	Yes
<b>802.11 WLAN (802.11a/b/g)</b>	No	No	No	No	No	No	Yes
<b>AES, WPA/TKIP, WEP</b>	No	No	No	No	No	No	Yes
<b>Switch Management Capabilities</b>	SNMP, CLI, 4 RMON groups	SNMP, CLI, 4 RMON groups	SNMP, CLI, 4 RMON groups	SNMP, CLI, 4 RMON groups	SNMP, CLI, 4 RMON groups	SNMP, Web, CLI, 4 RMON groups	SNMP, Web, CLI, 4 RMON groups

For more information on the Sentriant security appliance and the Summit WM wireless switches go to: <http://www.extremenetworks.com/products>

Alpine 3804	Summit48si	Summit 200-24	Summit 200-48	Summit 300-24	Summit 300-48	Summit 400	Summit X450	Summit X450e	Summit X450a
128	48	24 (100 FX available)	48	24	48	—	—	—	—
64	0	2	2	2	4	24 (with PoE option) - 48	24	24	24 (for 450a-24t); 48 (for 450a-48)
64	2	2	2	2	4	4	24	4	4
0	0	0	0	0	0	2	2	2	2
Chassis/6RU	Fixed/1RU	Fixed/1RU	Fixed/1RU	Fixed/1RU	Fixed/2RU	Fixed/1RU	Fixed/1RU	Fixed/1RU	Fixed/1RU
—	No	Yes	Yes	Yes	No	Yes	Future	Future	Future
32 Gbps	17.5 Gbps	8.8 Gbps	13.6 Gbps	8.8 Gbps	24 Gbps	80-160 Gbps	176 Gbps	128 Gbps	128-256 Gbps
No	No	No	No	No	No	No	No	No	No
Yes	Yes	No	No	Yes/External	Yes	Yes/External	Yes/External	Yes/External	Yes/External
Yes	No	No	No	Yes	Yes	Summit 400-24p	No	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	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	OSPF, RIP v1/v2, PIM	BGP4, OSPF, RIP v1/v2, PIM
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
No	No	No	No	No	No	No	No	No	No
Yes	Yes	No	No	No	No	No	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	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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	No	No	No	No	No	No	No	No
Yes	No	No	No	Yes	Yes	Summit 400-24p	No	No	No
Yes	No	No	No	Yes	Yes	Summit 400-24p	No	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, CLI, 4 RMON groups	SNMP,CLI, 4 RMON groups	SNMP,CLI, 4 RMON groups

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