BlackDiamond 8800 Series Switches
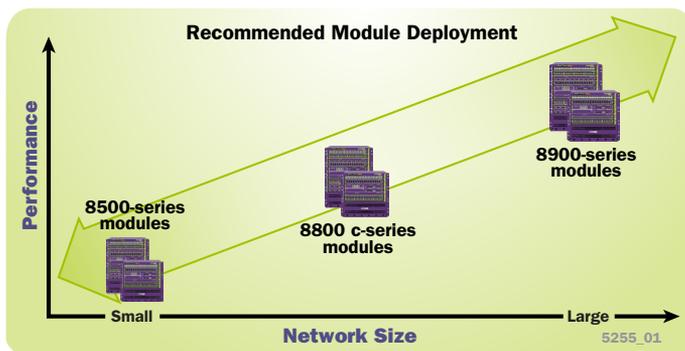
with 8500/8800/8900 Series Modules

BlackDiamond® 8800 series switches simplify the Enterprise network.

Features

- High-density gigabit and 10 Gigabit Ethernet switch
- High availability to maximize network uptime
- High performance connectivity for converged networks
- Comprehensive security to maximize protection
- Ease of management to reduce the complexity of network operation

Target Applications

- High-performance core switch for medium to large Enterprise networks
- High-density switch providing low-latency connections at low power for data centers and High Performance Cluster Computing (HPCC)
- Cost-effective edge switch for wiring closet

Recommended Module Deployment

Performance

8900-series modules

8500-series modules

8800 c-series modules

Small — Network Size — Large

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Enterprise IT managers have limited time and resources to deal with overly complex, specialized network infrastructure solutions. BlackDiamond 8800 series switches from Extreme Networks® simplify the architecture. Purpose-built core, aggregation, edge and data center modules can meet your chassis needs across the network. Traditional three-tier architectures can be replaced with a streamlined two-tier network that reduces management overhead, operational complexity and capital expenditures.

BlackDiamond 8800 series switches deliver voice-class availability, high-density Power over Ethernet (PoE), Gigabit Ethernet, and 10 Gigabit Ethernet wherever it is needed. With three families of modules to choose from, the BlackDiamond 8800 series switches can support a wide variety of applications. It serves well as a high-performance Enterprise core and data center switch. The non-blocking ports interconnect thousands of servers for High Performance Cluster Computing (HPCC). A full range of Layers 2 - 4 features for IPv4 and IPv6 allow the aggregation of high-speed connections, minimizing bottlenecks between edge and core. BlackDiamond 8800 series fits well at the edge of the most demanding enterprises switching Voice-over-IP (VoIP), video, wireless and data traffic.

High Availability

BlackDiamond 8800 series switches achieve voice-class availability by combining highly resilient software and redundant hardware. ExtremeXOS® dramatically increases network availability by monitoring independent operating system processes in real time. If any of these processes become unresponsive, or stop running, they are automatically restarted. The modular design of ExtremeXOS allows the extension of switch functionality. New functionality can easily be added to the switch.

BlackDiamond 8800 series switches run a contingent of high availability protocols, including Ethernet Automatic Protection Switching (EAPS), allowing the IP network to provide the level of resiliency and uptime that users expect from their traditional voice networks. In most situations, VoIP calls don't drop and digital video feeds don't freeze or pixelize because EAPS allows the network to recover almost transparently from link failure (in less than 50 milliseconds). Fast failover aids HPCC by keeping

The BlackDiamond 8800 series of switches provides unparalleled investment protection. Past and current generations of modules are compatible with any BlackDiamond 8800 series chassis.

extreme networks™

calculations and processes moving along unimpeded.

BlackDiamond 8800 series switches include a passive backplane complemented by high availability design elements such as isolated control and data planes, redundant controller boards for power distribution, and fan control and environmental monitoring to identify anomalies before they affect network availability.

High-Performance Connectivity

BlackDiamond 8800 series switches support up to 2,352 gigabit ports or up to

BlackDiamond 8800 Series of Switches Modules	
(All modules are supported in both BlackDiamond 8806/8810)	
Management Module Options	
BlackDiamond 8900-series	
8900-MSM128	Management Switch Module, optional I/O port
BlackDiamond 8800 c-series	
MSM-48c	Management Switch Module, optional I/O port
BlackDiamond 8500-series	
8500-MSM24	Management Switch Module, optional I/O port
I/O Module Options	
BlackDiamond 8900-series	
8900-10G24X-c	24-port 10GBASE-X SFP+
8900-10G8X-xl	8-port 10GBASE-X XFP
8900-G48T-xl	48- port 10/100/1000BASE-T, RJ45, optional PoE
8900-G48X-xl	48-port 10GBASE-X SFP
8900-G96T-c	96-port 10/100/1000BASE-T MRJ-21
BlackDiamond 8800 c-series	
10G4Xc	4-port 10GBASE-SFP
10G8Xc	8-port 10GBASE-XFP
G24Xc	24-port 1000BASE-X SFP
G48Tc	48-port 10/100/1000BASE-T RJ-45, optional PoE card
G48Xc	48-port 1000BASE-X SFP
BlackDiamond 8500-series	
8500-G24X-e	24-port 1000BASE-X SFP
8500-G48T-e	48-port 10/100/1000BASE-T, RJ45, optional PoE card
Pluggable Options	
S-10G1Xc	1-port 10G XFP card
S-G8Xc	8-port 1G SFP card
S-PoE	PoE card

582 10 Gigabit Ethernet ports in a single seven foot rack, allowing these switches to deliver very cost-effective connectivity for a range of edge, aggregation, core and data center needs.

Extreme Networks tradition of building products with low latency and jitter continues with BlackDiamond 8800 series switches, providing voice-quality connections. BlackDiamond 8800 switches can offer PoE on every port. Their extensibility supports large IP Telephony deployments and scales seamlessly as non-computing devices, such as surveillance cameras and Personal Digital Assistants (PDAs), are accommodated at the edge.

BlackDiamond 8800 series switches incorporate Link Layer Discovery Protocol (LLDP) to simplify trouble-shooting of Enterprise networks and enhance the ability of management tools to discover and maintain accurate network topologies. By reducing the complexity and expense that arise from convergence-driven network changes, BlackDiamond 8800 switches allow enterprises to add new access devices in a non-disruptive, plug-and-play fashion.

Comprehensive Security Providing Defense-in-Depth

BlackDiamond 8800 switches, when combined with Extreme Networks Sentriant® security solutions and EPICenter® management tool, allow you to adopt a defense-in-depth strategy in safeguarding your network on multiple levels.

User authentication and host integrity checking enforce admission and usage policies on dedicated and shared ports at the edge of the network. The powerful sFlow® technology provides threat detection and response by offering continuous and simultaneous monitoring of application-level traffic flows on all interfaces. In the event of an attack, network managers can dynamically reconfigure the switches to close vulnerabilities, hardening the network

without shutting down network operation. BlackDiamond 8800 switches' policy-based routing provides a flexible mechanism for network administrators to customize the flow of traffic. Access Control Lists (ACLs) configured on the switch can redirect packets away from their normal path to another physical switch port. Packets are selected according to their ACL match conditions such as class of service, VLAN, IP addresses, protocol, port number or other criteria.

BlackDiamond 8800 switches complement perimeter firewalls by protecting the "soft interior" of the network. Utilizing the industry's most advanced CLEAR-Flow Security Rules Engine, the switches can be programmed to automatically detect and mitigate security threats in seconds.

Ease of Management

Extreme Networks has developed tools that save you time and resources in managing your network. The Universal Port capability allows auto-configuration of VoIP phones, for example, providing simplicity in managing network changes. EPICenter provides fault, configuration, accounting, performance and security functions, allowing effective management of Extreme Networks multi-layer switching equipment in a converged network.

Investment Protection

With a wide range of available I/O and management modules, the BlackDiamond 8800 series switches provide unparalleled investment protection over the product lifetime. For example, the BlackDiamond 8500-series modules can support wiring closet or small enterprise edge applications; at a later date, BlackDiamond 8800 c-series modules can be implemented to support aggregation or medium-sized enterprise core deployment. And the BlackDiamond 8900-series modules, with their high performance and high density, can support interconnection for data centers and HPCC applications. The chassis provides unparalleled investment protection. Past and current generations of modules are compatible with any BlackDiamond 8800 series chassis.