

# BlackDiamond® 8800 Series



*The BlackDiamond 8800 series simplifies the enterprise network.*

## Features

- High availability to maximize network uptime
- Scalable, high-density PoE to meet growing demand of converged networks
- Policy-based routing to customize traffic flow
- Comprehensive security using defense-in-depth to maximize protection
- Ease of management to reduce the complexity of network operation

## Target Applications

- Edge switch for integrated wired, wireless and IP Telephony deployments
- Interconnect switch providing low-latency connections for High Performance Cluster Computing (HPCC)
- Single switch network solution for medium-sized networks
- Traditional gigabit or 10 Gigabit Ethernet aggregation switch

Enterprise IT managers don't have the time or resources to deal with overly complex, specialized network infrastructure solutions. BlackDiamond 8800 series switches redefine the architecture of the enterprise network—replacing the traditional three-tier structure with a streamlined two-tier network that reduces management overhead, operational complexity and costs.

BlackDiamond 8800 series switches deliver voice-class availability, high-density Power over Ethernet (PoE), Gigabit Ethernet, and 10 Gigabit Ethernet wherever it is needed. The switches fit well at the edge of the most demanding enterprise, switching Voice-over-IP (VoIP), video, wireless and data traffic. BlackDiamond 8800 series switches' non-blocking ports interconnect thousands of servers for HPCC. With comprehensive security features, BlackDiamond 8800 series switches are ideal for mid-sized enterprises. BlackDiamond 8800 series switches' full range of Layers 2 – 4 features allow the aggregation of high-speed connections to eliminate bottlenecks between the network edge and core.

Multifaceted BlackDiamond 8800 series switches support IPv6 today and help enterprises handle future IPv6 traffic as it comes into the network.

## High Availability

BlackDiamond 8800 series switches achieve voice-class availability by combining highly resilient software and redundant hardware. ExtremeXOS™, a fully modular operating system, keeps running even if several processes have failed. Additional functionalities can be added to the switch without taking the unit out of service, eliminating scheduled outages.

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 calculations and processes moving along unimpeded.

BlackDiamond 8800 series switches' hardware design contributes equally to voice-class availability, with redundant management switch modules supporting hitless failover, controller cards, power supplies and fans as well as a passive backplane and isolated control and data planes. All modules, power supplies and fan trays are hot-swappable, further increasing reliability.

### Scalable, High-density PoE for Converged Applications

BlackDiamond 8800 series switches PoE on every port. Their extensibility support large-scale IP Telephony

deployments and scale seamlessly as non-computing devices, like surveillance cameras and Personal Digital Assistants (PDAs), and are accommodated at the edge. Extreme Networks' tradition of building products with low latency and jitter continues with BlackDiamond 8800 series switches, providing voice-quality connections.

BlackDiamond 8800 series switches incorporate Link Layer Discovery Protocol (LLDP) to simplify troubleshooting of enterprise networks and enhance the ability of network 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.

### Policy-based Routing\*

Policy-based routing on BlackDiamond 8800 switches 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. Certain packets are given preferential treatment, making BlackDiamond 8800 switches ideal in accommodating high-priority applications over converged networks.

### Comprehensive Security Providing Defense-in-Depth

BlackDiamond 8800 switches, when combined with Extreme Networks' SentiTran™ 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 re-configure the switches to close vulnerabilities, hardening the network without shutting down network operation.

By providing security at both the perimeter and core, this layered approach is essential in maximizing network protection.

### Ease of Management

Extreme Networks' has developed tools that save you time and resources in managing your network. EPICenter provides all fault configuration, accounting, performance and security functions, allowing effective management of Extreme Networks' multi-layer switching equipment in a converged network.

\* Policy-based routing is supported on G48Xa, G48Pe, G48Ta and G48Xa modules. Please refer to BlackDiamond 8800 Series Data Sheet for details at <http://www.extremenetworks.com/products/blackdiamond/BD8800.asp>

Ports	BlackDiamond 8810	BlackDiamond 8806
Max auto-negotiating 10/100/1000BASE-T ports	432	240
Max auto-negotiating 10/100/1000BASE-T PoE ports	432	240
Max Gigabit Ethernet ports (Mini-GBIC)	440	244
Max 10 Gigabit Ethernet ports (XENPAK)	36	20
I/O Modules	BlackDiamond 8810	BlackDiamond 8806
48-port 10/100/1000BASE PoE	✓	✓
48-port 10/100/1000BASE-T	✓	✓
48-port 1000BASE-X (Mini-GBIC)	✓	✓
24-port 10/100/1000BASE-X (Mini GBIC)	✓	✓
4-port 10GBASE-X (XENPAK)	✓	✓



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