BlackDiamond 10808

BlackDiamond® 10808—Redefining the Intelligent Core.

As today's enterprise networks continue to converge, there is an increasing need for application-level awareness within the core of the network. As the leader in open converged networks, Extreme Networks® provides a new level of intelligence for Ethernet core networking with the BlackDiamond 10808 switch.

The revolutionary BlackDiamond 10808 is the industry's most advanced switch that redefines the intelligent core within the enterprise network—creating a highly available, open converged network that is both cost-effective and simple to operate.

The BlackDiamond 10808 switch delivers security that scales to 10 gigabit rates, voice-class availability and predictable performance, independent of application. Located in the core of some of the most demanding IPv4 and IPv6 networks, the BlackDiamond 10808 switch's CLEAR-Flow Security Rules Engine and Layer 3 Virtual Switching capability has set the bar for core security. With its redundant hardware design, ExtremXOS® modular operating system and network resiliency protocol support, the BlackDiamond 10808 switch provides the network uptime users expect of traditional circuit-based voice networks.

Features

- Voice-class availability to prevent network outages

- Comprehensive security to guard your network

- Scalability to help meet both immediate and future requirements

- Ease of management to reduce the complexity of operating your network

Target Applications

- Enterprise backbone switch for converged networks

- Enterprise data center switch providing server interconnection for mission-critical applications

- Metro core and distribution switch delivering triple play services

- Interconnect switch for Internet exchanges delivering high bandwidth connections

- Interconnect switch for High Performance Cluster Computing (HPCC) delivering low latency connectivity

Voice-Class Availability

The BlackDiamond 10808 switch incorporates a redundant hardware design and Extreme Networks modular operating system—ExtremeXOS. Unlike its monolithic software counterparts, ExtremeXOS continues operating even if several processes fail. ExtremeXOS modular operating system dramatically increases network availability by monitoring the independent operating system processes in real time. If any of them become unresponsive or redundant, they are automatically restarted.

Ethernet Automatic Protection Switching (EAPS) allows the IP network to provide the level of resiliency required by Voice-over-IP (VoIP). EAPS offers less than 50 milliseconds recovery and delivers consistent failover regardless of the number of VLANs, number of network nodes or the network topology. In most situations, even VoIP calls do not drop.

The BlackDiamond 10808 switch's advanced chassis design, with no single point of failover, plays a role in availability. The design includes a passive backplane, redundant management switch modules with failover, isolated control and data planes, redundant control boards and redundant load sharing power supplies. This allows the BlackDiamond 10808 switch to minimize unexpected outages and scheduled downtime, increasing productivity and return on investment while lowering Total Cost of Ownership.

Comprehensive Security

The BlackDiamond 10808 switch delivers a new level of security to Ethernet core networking. The BlackDiamond 10808 switch complements perimeter firewalls by protecting the "soft interior" of the network that currently is unprotected. Utilizing the industry's most advanced CLEAR-Flow Security Rules Engine, the BlackDiamond 10808 switch can be programmed to automatically detect and mitigate security threats in seconds.

The BlackDiamond 10808 switch is equally effective against Denial of Service attacks directed at the switch itself. It spots this type of attack and discards all packets associated with the attack, while continuing to forward acceptable traffic at full wire-speed.

The BlackDiamond 10808 switch also supports Layer 3 Virtual Switching. Multiple virtual router instances provide a logical segregation of the network into multiple domains (e.g. the DMZ, Intranet, and extranet), each maintaining its own routing table and processes. Traffic between multiple domains can further be redirected through a third-party firewall or other security device, enabling secure and cost-effective topologies for your intelligent core network.

Scalability

The BlackDiamond 10808 switch scales to help meet both the immediate and future requirements of very demanding IPv4 and IPv6 environments. Switch capacity is a critical concern within many organizations. The end-user population may be relatively stable, but the number of applications and access methods is skyrocketing. VoIP and wireless LANs are two examples, with many more to follow as truly converged networks are implemented. The BlackDiamond 10808 switch has more than enough processing power for the most heavily loaded networks—pre- or post-convergence. Equally important, its wide array of switching modules lets the BlackDiamond 10808 switch scale seamlessly.

Ease of Management

Extreme Networks has developed tools that save you time and resources in managing your network. EPICenter® management software provides all fault configuration, accounting, performance and security functions to manage Extreme Networks' multi-layer switching equipment in a converged network.
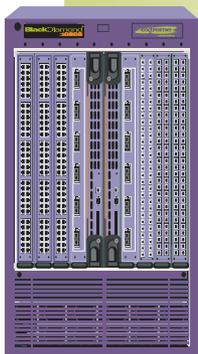
I/O Modules	Port Capacity
60-port 10/100/1000BASE-T (RJ-45)	48 – 10GBASE-X (XENPAK) ports
60-port 1000BASE-X (SFP)	480 – 10/100/1000BASE-T ports
20-port 1000BASE-X (SFP)	480 – 1000BASE-X SFP ports
6-port 10GBASE-X (XENPAK)	
2-port 10GBASE-X (XENPAK)	
Hybrid module with:	
2-port 10GBASE-X (XENPAK)	
20-port 1000BASE-X (SFP)	
20-port 10/100/1000BASE-T (RJ-45)	