

# BlackDiamond 20808



*The BlackDiamond® 20808 switch is purpose-built to enable service providers to deliver new residential and business service offerings and wireless backhaul services.*

## Benefits

- Get ahead of your customers' ever-growing bandwidth demands
- Increase revenue with scalable switch resources that maximize service capacity
- Drive profitability with unmatched price/performance

## Target Applications

- Aggregating residential triple-play services, business services and wireless backhaul services on a common platform
- Prioritized VPN, Internet access, Voice over IP (VoIP) and other applications over E-Line or multi-point E-LAN connections to business subscribers
- High-bandwidth wireless backhaul with the scale to support bandwidth and roaming for thousands of simultaneous customer connections

As the disparity between carriers' revenue streams and the amount of bandwidth consumed by each new service continues to grow, service providers are seeking a more cost-effective option through a Carrier Ethernet transport infrastructure. Designed from the ground up for the new carrier landscape, the Extreme Networks® BlackDiamond 20808 switch gives service providers the tools they need to compete effectively while satisfying their customers' needs and expectations.

Business subscribers are deploying increasingly complex and bandwidth-intensive applications to maximize business productivity. In the residential market, the demand for triple- and quad-play services as well as growth in telecommuting and home-based businesses spurs the need for ever more bandwidth. And wireless providers must accommodate growing subscriber bases as well as a surge in voice and data service usage. BlackDiamond 20808 switches allow a single Carrier Ethernet network to deliver residential services, business services and wireless backhaul services.

BlackDiamond 20808 switches meet the stringent demands of a service provider's core metro Ethernet environment through a combination of superior bandwidth capacity, scalable switch resources, and unmatched price/performance ratio.

## Industry's Highest System Capacity

With 64 line-rate 10 GbE ports available in a single chassis, BlackDiamond 20808 switches offer the highest system capacity in the market both in terms of performance and port count. With the BlackDiamond 20808, service providers can easily scale to support additional subscribers and service instances while reducing the number of network elements to install and maintain as they expand their networks.

BlackDiamond 20808 switches provide a future-proof design, with 120 Gbps per slot capacity that enables future upgrades to 40 GbE and 100 GbE I/O modules, to support today's bandwidth and service demands as well as future needs.

The BlackDiamond 20808 switch has been designed to ensure a straightforward path to upgrade the switch fabric from 2 Tbps to a future 5 Tbps fabric to support continuous growth of revenue-generating services. In addition, the BlackDiamond 20808 design includes backward compatibility of existing modules to further assure investment protection for carriers.

## Switch Resources That Scale

With scalable, rich resources, service providers can achieve revenue growth by delivering compelling new services such as streaming video, business E-LAN and E-Line, and mobile backhaul services to both consumers and business subscribers across a large geographical base, all on a single platform.

BlackDiamond 20808 switches deliver outstanding multicast performance with dedicated priority queues to support tens of thousands of multicast streams simultaneously. Multicast traffic is replicated using multiple references to a packet's memory, which avoids multiple packet copies to provide financial data or video streams, for example.

The extraordinary performance and bandwidth capacity of the BlackDiamond 20808 switch is also backed

by a powerful hardware-based Hierarchical Quality of Service (H-QoS) engine. The H-QoS engine allows service providers to run hundreds of thousands of applications with varying service requirements on the same system. Bandwidth is controlled on a per-service, per-subscriber, and per-port basis.

End-to-end QoS provisioning is important in providing quality services to business enterprise customers whose workgroups are located across multiple carrier boundaries. Network-to-Network Interfaces (NNIs) and Ethernet cross-connect capabilities combined with Hierarchical QoS on BlackDiamond 20808 switches allow provider and application peering, so service providers can extend their Service Level Agreements outside their geographic footprint.

## Unmatched Price Performance

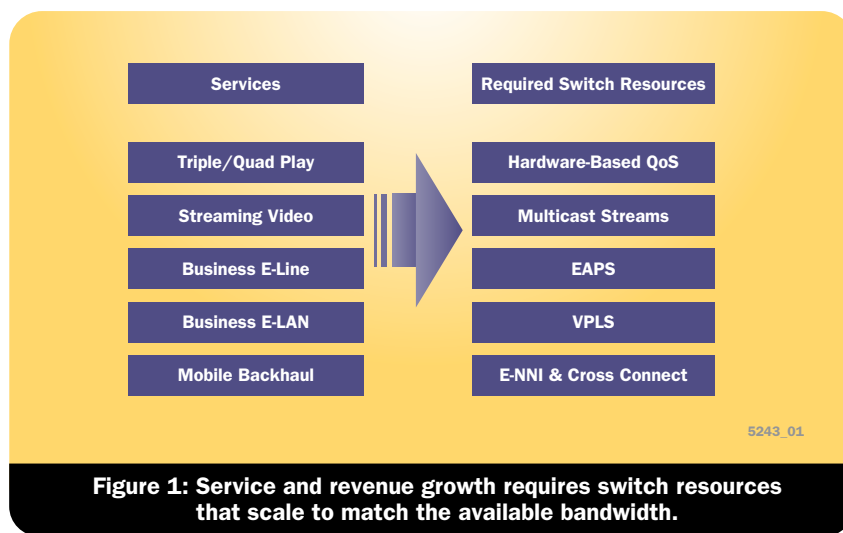
The BlackDiamond 20808 switch packs economy, operational simplicity, and scale to allow service providers to offer more services while significantly lowering both CAPEX and OPEX.

With the highest port density in the industry, BlackDiamond 20808 switches support the largest subscriber count

per system and offers a great per-port cost. With BlackDiamond 20808 switches, service providers can increase profitability by minimizing incremental hardware costs associated with subscriber additions.

By utilizing vMAN technologies, service providers can easily scale their networks to support a high density of subscribers without the need to operate and maintain complex Layer 3 equipment. Ethernet Automatic Protection Switching (EAPS) provides the resiliency required for latency-sensitive voice and video services.

ExtremeXOS® modular operating system, available in Extreme Networks products from the edge to the core, allows carriers to reduce costs and simplify maintenance, operations and upgrades. With hitless upgrades, new software features can be added without disruption to existing services, which is crucial in enhancing subscriber satisfaction, retaining customer loyalty and reducing churn.



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