Multiprotocol Label Switching Module (MPLS)

Product Description

The BlackDiamond 6800 series platform equipped with the MPLS module offers an advanced carrier-class Multiprotocol Label Switching (MPLS) solution. Extreme's MPLS-enabled BlackDiamond switching platforms enable metro service providers to deliver a variety of business-critical and revenue-intensive services that are highly scalable, simple, resilient and policy-based, both within and across optical metro-area and wide-area networks. Bidirectional rate-shaped point-to-point and point-to-multipoint MPLS transparent LAN services can be delivered in a flexible and highly scalable manner over partial-mesh, full-mesh, and ring-based optical metro network topologies.

Key Features

- Operate as both edge (LER) or core (LSR) MPLS router
- Support for Ethernet and PoS interfaces
- Label Distribution Protocol (LDP)
- Transparent LAN Services (TLS) (Full Internet Draft-Martini Compliance)
- Support for up to 256K IP prefixes with 6 equal-cost routes for each
- 4 Gbps of throughput. Scalable to 16Gbps (4 MPLS modules/BD chassis)
- Support for up to 4 MPLS modules per BlackDiamond
- Targeted LDP Sessions
- Support for LDP advertisement of TLS VLAN label mappings
- High-performance routing of IP traffic over MPLS LSPs and traditional IP networks
- MPLS Quality of Service (QoS) support for 802.1p to MPLS experimental bit field mapping
- ESRP support for MPLS enabled VLANs
- Dynamic VLAN to MPLS label mapping.
- IP route lookup based on Longest Prefix Match (LPM) algorithm
    - Support for up to 256K IP prefixes with 6 equal-cost routes for each
- Destination Sensitive Accounting Capability
    - Enables billing based on destination of IP unicast traffic
    - Up to 8 billing rates per customer
    - Accounting statistics retrieval via SNMP or Command Line Interface (CLI)
- Supported MIB variables as specified in Internet-Drafts (works in progress)
    - *draft-ietf-mpls-ldp-mib-07*
    - *draft-ietf-mpls-lsr-mib-07*

Specifications

ExtremeWare Requirement

- 6.1.8b12 IP_TECH_RELEASE 2.1.x or most recent version

Physical Specifications

- Occupies one slot in a BlackDiamond 6800 Series chassis
- Module dimensions (H x W x D): 1.6 x 15.1 x 16.0 in.
(4.1 x 38.4 x 40.6 cm)
- Module weight: 5.25 lbs (2.38 Kg)
- Shipping box dimensions (H x W x D): 3.25 x 21 x 20.25 in.
(8.3 x 53.3 x 51.4 cm)
- Module weight with shipping box: 7.75 lbs (3.52 Kg)
- UPC: 53041: 644728530410

Environmental Conditions

- Operating temperature: 0˚ to 40˚ C
- Storage temperature: -40˚ to 70˚ C
- Operating relative humidity: 10% to 95%, noncondensing
- Operating altitude: -200 to 15,000ft (-60 to 4600m)
- Storage altitude: 35,000ft (11,000m)
- Mean Time Between Failure (MTBF): 208,579 hours
- Power consumption: 83W

Safety Compliance

- UL 1950 3rd Edition, Listed
- EN60950:1992/A1-4:1997+ZB/ZC Deviations
- IEC 950CB
- Low Voltage Directive (LVD)
- CSA 22.2#950-95
- AS/NZS 3260

EMI/EMC Compliance

- FCC CFR 47 part 15 Class A
- ICES-003A/C108.8-M1983 Class A
- VCCI Class A
- AS/NZS 3548
- EN 55022 Class A
- CISPR 22 Class A
- EN 50082-1:1997 includes ENV 50204
- EN 55024:1998 includes IEC 61000-4-2, 3, 4, 5, 6, 8, 11
- Low Voltage Directive (LVD)

LED Indicators

Module:
- Status: green blinking (normal operation); amber blinking (error); off (no power)
- Diag: amber blinking (diagnostics in progress); solid amber (diagnostic failure); off (no diagnostics in progress)

Ordering Information

Product Number	Description
53041	Multiprotocol Label Switching Module for the BlackDiamond 6800 Series Chassis Switch

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