



## Multiplexer Uplink Module 2000

MUM2000-2

### Gigabit Ethernet Uplink Support and Enhanced Functionality for the IPD12000 and IPD4000 Ethernet-based IP DSLAM chassis

#### Overview

Net to Net Technologies' Multiplexer Uplink Module 2000 provides Gigabit Ethernet uplink support capability and enhanced management functionality for Net to Net's IPD Ethernet based DSL Access Multiplexers.

The MUM2000 supports two modular connectivity interfaces allowing the IP DSLAM to integrate easily into a variety of network designs. New with the MUM2000 is Gigabit Ethernet support, including 1000BaseT and fiber (both single- and multi-mode via small form factor pluggable (SFP) modules). Additionally, the MUM2000 is backward compatible with all of Net to Net's existing modular uplinks such as T1/E1, DS3/E3 or 10/100 Ethernet interfaces. In the IPD12000, two MUM2000-2 Uplink Modules can be used for even greater redundancy and configuration flexibility.

The MUM2000 also provides advanced features to the DSLAM, such as an embedded web management system, allowing quick configuration of 802.1Q VLANs, 802.1p prioritization and other DSLAM controls. The MUM2000 also supports a COM port for serial connectivity to the Command Line Interface (CLI), Telnet, as well as full SNMP MIBII and Enterprise MIBs for enhanced management functionality.

A key new feature on the MUM2000 is IP Multicast support that allows the IPD12000 or IPD4000 to deliver broadcast television over high speed access lines (typically 10+Mbps ADSL). This IP Multicast support (known as IGMP snooping) ensures that video traffic is intelligently forwarded only to those modules and ports that are requesting the particular video stream and protects other modules and ports from receiving unwanted traffic.

#### Features

- DSL the Easy Way™ compliant, providing plug and play operation and Ethernet-based connectivity
- AutoConfig & AutoRestore make system configuration easy and reliable with automatic backup and recovery
- Chassis upgrades the easy way, allowing for fast, concurrent, run-time FLASH upgrades within the DSLAM
- 2 flexible interfaces support Uplink Interface Modules (UIM's) in Gigabit Ethernet (copper and MMF/SMF fiber) T1, E1, DS3, E3, and 10/100 Ethernet varieties
- Includes an embedded web-based management system, accessible via the network or via an out-of-band management port
- Full SNMP MIBII and Enterprise MIB support
- CLI, accessible via COM port or Telnet
- Hot swappable including support for configuration information with a redundant MUM-2000 and with access modules in the IPD chassis



## Specifications

### Dimensions

12.75" (32.4cm) High x 1.15" (2.9cm) Wide x 16.75" (42.5cm) Deep

### Weight

5.6 lbs (2.5 kg)

### Power

-48V DC 0.5A supplied by host chassis (not including UIMs)

### Interfaces

2 Uplink Interface slots:

- Gigabit Ethernet
  - UIM-1000T (Copper)
  - UIM-1000F (Fiber); SFPs ordered separately
- T1 (UIM-T1)
- E1 (UIM-E1)
- DS3 (UIM-DS3)
- E3 (UIM-E3)
- 10/100 Ethernet (UIM-10/100)
- 2 IP DSLAM Backplane Interfaces

1 RS-232 COM port for Management access; RJ-45

1 Ethernet port for Management access; RJ-45

### Standards Support

IEEE 802.2 Ethernet

IEEE 802.1p

IEEE 802.1Q

IGMP Snooping - supports IGMPv1 and IGMPv2

### Protocol Support

IGMP snooping

### Regulatory Compliance

NEBS: GR-63-CORE, GR-1089-CORE

EMC: FCC Part 15, CSA C108.8, EN55022, CE Marking

Safety: UL1950, CSA C22.2 No. 950, EN60950, IEC950, CE Marking

### Operating Requirements

Temperature: 32°F to 122°F (0°C to 50°C)

Non-operating temperature: -40°F to 158°F (-40°C to 70°C)

Humidity: 5% to 95%, non-condensing

Altitude: -200ft to 16,500ft (-60m to 5,000m)

## Ordering Information

MUM2000-2 Multiplexer Uplink Module 2000 (supports 2 UIMs, sold separately)

