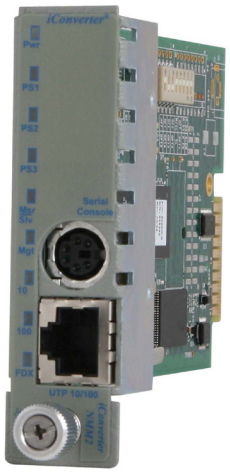
iConverter NMM2
Network Management Module



The *iConverter* NMM2 provides comprehensive remote monitoring, configuration and alarm notification functions for all *iConverter* managed media converters and Network Interface Devices (NIDs). Installed in any slot of an *iConverter* chassis, the NMM2 manages all other modules and power supplies installed in the chassis through a high-speed management backplane. Additionally, all remote NIDs linked to the managed *iConverter* chassis may be managed by the installed NMM2 through a secure IP-less management channel.

Through the 10/100 RJ-45 Ethernet port, the NMM2 can be remotely accessed by IP-based management protocols, including SNMPv1/2c/3, TELNET and FTP. The serial console port provides local access and initial configuration from an RS-232 terminal. Management is accessed either via *NetOutlook*®, Omnitron's SNMP Management Software, or by any third party SNMP management software. An intuitive Command Line Interface (CLI) can be accessed either via the serial port or TELNET.

The NMM2 provides real-time management, continuously collecting system status and module information. It reports the collected status to the network management applications and displays LED alarms for chassis power supplies. The NMM2 also provides comprehensive provisioning support for all local and remote *iConverter* modules, including port settings, VLANs and rate limiting. Network alarms are forwarded as traps to multiple trap hosts and recorded in a persistent system log.

In the event of a power outage, the NMM2 also supports dying gasp SNMP trap notification.

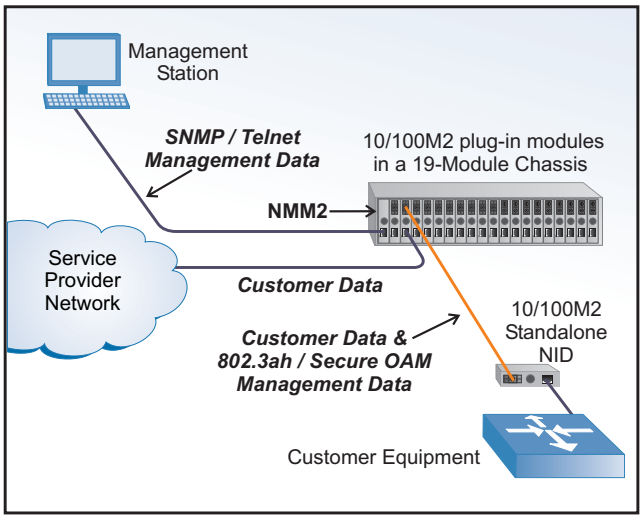
The NMM2 manages remote NIDs connected to the managed chassis via an IP-less management channel. Utilizing IEEE 802.3ah extensions, an NMM2 in a chassis at the network core can use a single IP address to manage up to 18 *iConverter* Network Interface Devices (NIDs) at different edge locations. This capability simplifies IP address management, improves network security and conserves the use of IP addresses.

KEY FEATURES

- Provides real-time management, trap notification and remote configuration
- Supports SNMPv1, SNMPv2c, SNMPv3 and Telnet protocols
- SNMP management via Omnitron's *NetOutlook*® management software, or third-party SNMP management software
- Password protected to prevent unauthorized access
- Utilizes IEEE 802.3ah OAM extensions and Omnitron's Secure OAM for IP-Less management
- Managed via the front-plane RJ-45 Ethernet port, the front-plane serial port or the Ethernet interface of an adjacent module connected across the backplane
- 10/100Mbps RJ-45 port supports auto or manual negotiation
- LED displays for immediate visual status of each port
- Hot-swappable in 19-Module, 5-Module, or 2-Module chassis
- Lifetime Warranty and free 24/7 Technical Support

APPLICATION EXAMPLE

IP-less management requires an NMM2 in the core chassis, and a media converter with integrated management installed at each remote end of the IP-less managed link. In this application example, an *iConverter* 10/100M2 plug-in module is installed in the 19-Module chassis, and connected via the fiber link to a standalone 10/100M2 Network Interface Device (NID). This configuration enables the 19-Module master chassis to establish an IP-less management channel between the 10/100M2 link partners. The IP address resides only at the network core, and does not exist on the customer network.



SPECIFICATIONS

Model Type	*iConverter* NMM2
Protocols	IP, UDP, SNMPv1, SNMPv2c, SNMPv3, Telnet, TCP, FTP, ARP, ICMP, 802.3ah
Connectors	RJ-45
Controls	Pause Enable/Disable, Master/Slave, Auto/Manual Negotiation, FDX/HDX, 10/100, Backplane Enable/Disable
LED Displays	Power, Power Supply (3), Master/Slave, Mgt Poll, UTP 100 Link, UTP 10 Link, Duplex
Supported MIBs	RFC1155, RFC1156, RFC1157, RFC1212, RFC1213, OST MIB
Dimensions	W: 0.85" x D: 4.5" x H: 2.8"
Weight	8 oz.
Compliances	UL, CE, FCC Class A, NEBS 3
Power Requirements	0.9A @ 3.3VDC
Temperature	Standard: 0 to 50° C Wide: -40 to 60° C Storage: -40 to 80° C
Humidity	5 to 95% (non-condensing)
Altitude	-100m to 4,000m
MTBF (hrs)	600,000

MANAGEMENT

Active Controls

- Link Propagate/Link Segment
- Remote Fault Detection
- Module Name
- Chassis Name and Number
- IP Address
- 802.3ah OAM Enable
- Secure IP-less OAM Enable
- Subnet Mask
- Gateway
- Management Port Disable
- Alarm Threshold Setting
- Software updates via FTP
- Reset Chassis
- Telnet
- Trap IPs
- FTP Enable
- Password Selection
- Soft Switch Reload

Alarms / Traps

- Warm Start
- Link Up/Down
- Chassis Insertion/Removal
- Authentication Failure
- DIP-Switch Configuration Change
- Software Configuration Change
- Temperature Out-of-Range
- Power Supply Out-of-Range
- Power Supply Insertion/Removal
- Chassis Reset
- Module Reset
- Module Insertion/Removal
- Port Link State Change
- Redundancy Primary Up/Down
- Redundancy Secondary Up/Down
- FTP Session Open/Close
- Telnet Session Open/Close
- Dying Gasp (Power Loss Trap)

Chassis Information

- Part Number
- Serial Number
- Revision
- Description

Chassis Status

- Power Status
- Power Output Voltage
- Chassis Temperature

Module Status

- Module Power
- Link Status
- Active Port
- Diagnostic Status
- Management

Module Information

- Module Type
- Slot Occupied
- Part Number
- Serial Number
- Configuration
- Revision
- Ports on Module
- User-defined Identifier

ORDERING INFORMATION

Model	Description
8000N-0	*iConverter* NMM2 Module
8081-3	NMM2 Serial Cable (DB-9 Male to Female - 3ft.)
8082-0	NMM2 DIN-6 to DB-9 Female Adapter Cable
8100-0	*NetOutlook* SNMP Software

091-8000N-001B 9/10

Omnitron Systems Technology, Inc.

800-675-8410 • 949-250-6510 • www.omnitron-systems.com • info@omnitron-systems.com • 140 Technology Dr. Irvine, CA 92618