

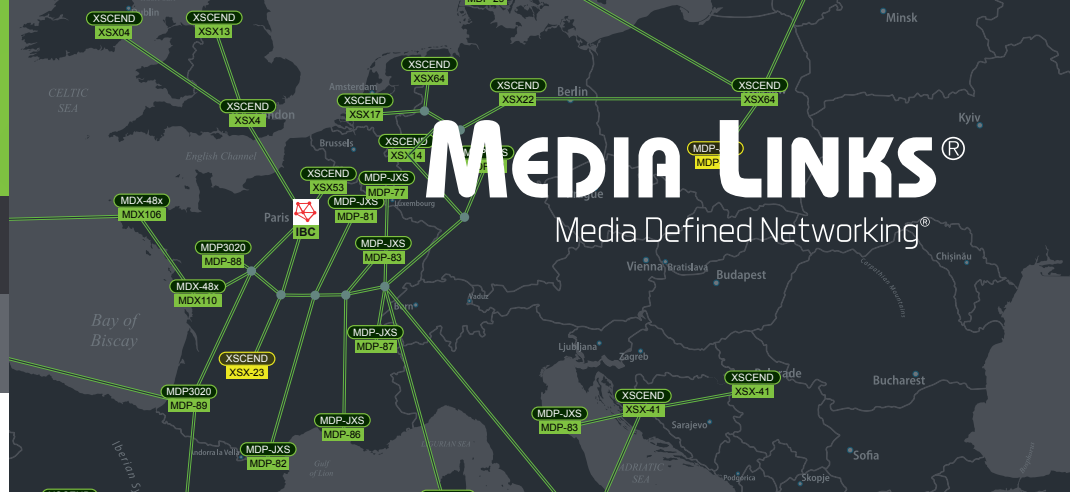
PART OF THE
**Media Links Everything,
Everywhere IP Ecosystem™**

Network Management Software

Control Plane Orchestration

DATASHEET

Version 3.1



MEDIA LINKS®
Media Defined Networking®

Description

Designed to manage all types of media networks, Media Links' newly enhanced ProMD-EMS software delivers faster, smarter, and more flexible media service assurance and activation.

ProMD-EMS makes the management of media services simple and easy by quickly setting up circuit connections, detecting and responding to network problems, and optimizing overall operation and performance.

Features & Benefits

- Media network monitoring
- Topology Visualization
- Network Fault Isolation
- Rapid service provisioning
- Parameter recording & event correlation
- User Rights / Access Management
- Customizable & Linkable Workspaces
- Enhanced parameter Filtering
- XY Routing Switcher Panel
- Centralized Client/Server design w/ redundancy
- Trap & Log Management
- Theme-able screens, configurable GUI
- Manage/Track Users and their activities
- Vendor independent
- Widespread Protocol Support
- Customizable GUI
- Northbound API

Example Applications & Use Cases

- Regional Carrier Class Media Delivery Networks
- Metropolitan Contribution/Distribution Networks
- Mission Critical Contribution Video Transport
- Studio Interconnects
- End-to-End Service Assurance & Provisioning

Related Products

Xscend®, MDP3020 MAX, MD8000
MDX Switches

DATASHEET

ProMD-EMS (Enhanced Management System)

ProMD-EMS enables you to monitor and manage complex environments more effectively than ever before, providing the most enhanced end-to-end network monitoring, provisioning and management system for broadcasters and service providers.

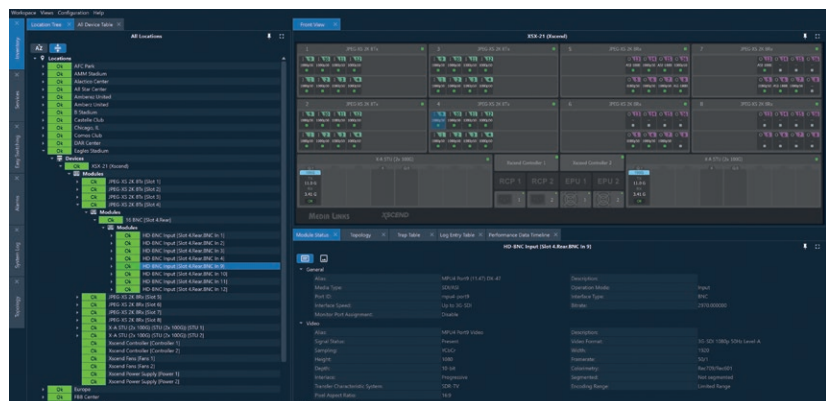
The software application provides a graphical overview of all elements and their associated status, presenting network operators with an easy to understand, intuitive visual display.

Network elements from different manufacturers can be grouped together or segmented as required, allowing device monitoring, service booking & scheduling, configuration control/setup, as well as performance and alarm management.

Designed to minimize user interactions, typically a small number of ProMD-EMS keystrokes are required to understand what's going on in the network and determine appropriate actions.

ProMD-EMS is scalable with the ability to drive multiple screens of different parameter views. It consists of a server (ComModule) and an easy to use GUI client component called NetManager.

The server component manages and stores all network information as well as system setups, and queues all tasks initiated by the clients. This guarantees that all administrators and operators have synchronized and updated information at all times from any location while ensuring tasks do not collide.



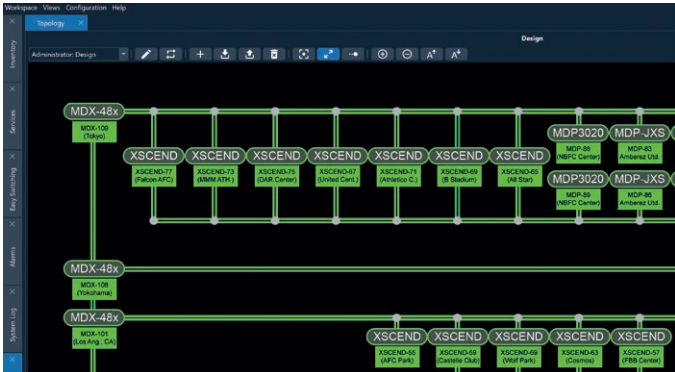
Dividing the network management software into server and client components, the control network and transmission network are separated from each other, completely securing the broadcast network environment. The server/client architecture provides for robust and secure element management in complex corporate environments. Any number of clients can be connected to the server giving full flexibility and scalability.

With ProMD-EMS every type of media service connection can be easily set up, scheduled, monitored and managed across networks large and small, supporting point-to-point as well as point-to-multipoint configurations.

This makes ProMD-EMS software ideal for the varied, dynamic nature of today's media-centric applications.

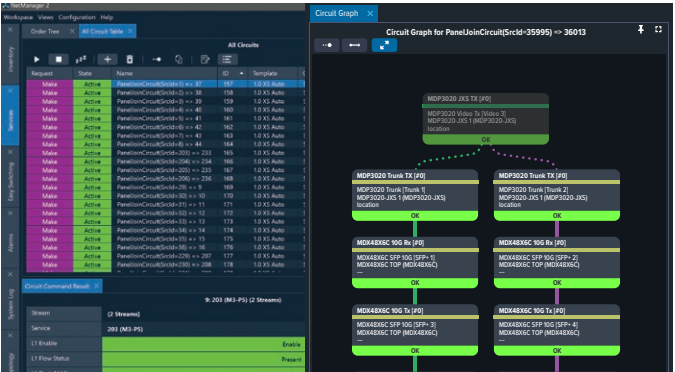
Rich graphical interfaces intuitively expose network service, event and status information, allowing operators to immediately and efficiently interact across the entire network workflow of services, chassis and line cards. Start at a high level of visualization and then drill down to specific signal parameters to isolate and resolve issues fast.

A brief description of key functionality follows along with sample screen shots:



Topology View

- Geographical or logical depiction of locations and interconnections
- Device Grouping (by location, model #, etc)
- Trunk status monitoring & capacity management
- Color coding of network status/available capacity
- Configurable icons for individual devices and groups
- Support for locally hosted individual maps and OpenStreetMaps



Circuit/Service View

- Listing of all configured circuits/services
- Create & modify services and circuit templates
- Quickly find routes, provision, and switch services
- Group by customer/event, etc
- Actively monitor
- Directly view circuit paths
- Associate with incoming trap messages

Device View

- Displays status of all network deployed equipment
- Simple graphical device view w/ relevant indicators
- Related service(s) status
- Device configuration interface
- Resource availability overview
- Device grouping by location
- Inventory search by type, name, service, specification(s)



Log/Trap Views ▶

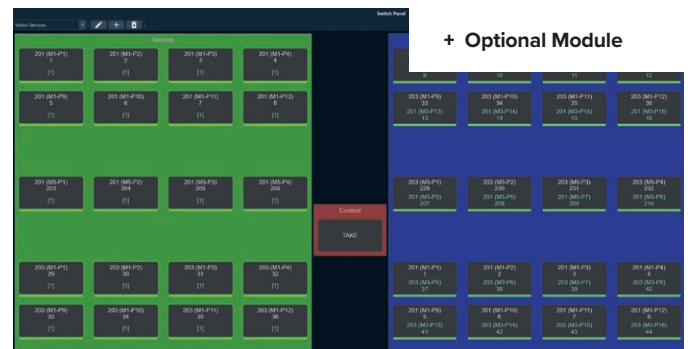
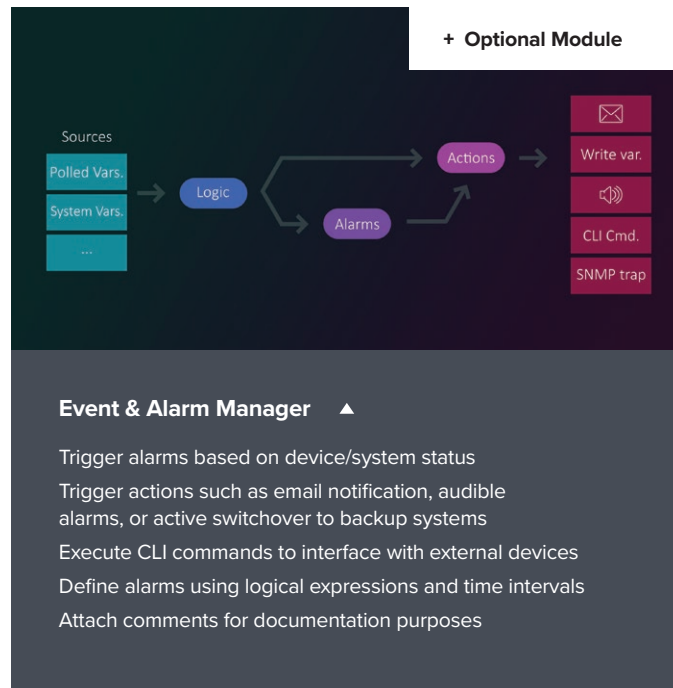
Shows incoming traps with key information
Visual indication of Trap Severity
Basic and advanced filtering capabilities
Logging of system and user activity
Export capable for external reporting
Support for individual trap inspection
Link traps to services

The screenshot shows the NetManager 2 interface with two main tables: 'All Log Entries' and 'All Traps'.

Time	Level	Domain	Target Id	Target Alias	Event Text	Additional Info
2024-08-05 23:42:52	Warning	Module	2357	Slot10	Module changed to Warning	
2024-08-05 23:46:40	Info	Module	2357	Slot5	Module changed to OK	
2024-08-05 23:46:52	Major	Module	2357	Slot5	Module changed to Major Error	
2024-08-05 23:46:11	Critical	System			Syslog	CMxSqlDatabase:Query was: REPLACE
2024-08-05 23:46:11	Critical	System			Syslog	CMxSqlDatabase:Query error:1366: In
2024-08-05 23:45:47	Info	Circuit	1940	8:05 OBTW 1	Circuit changed to OK	
2024-08-05 23:45:36	Critical	Circuit	1940	8:05 OBTW 1	Circuit changed to Critical Error	
2024-08-05 23:45:44	Info	Circuit	1971	12:15 Out MBr 3	Circuit changed to OK	
2024-08-05 23:43:33	Critical	Circuit	1971	12:15 Out MBr 3	Circuit changed to Critical Error	

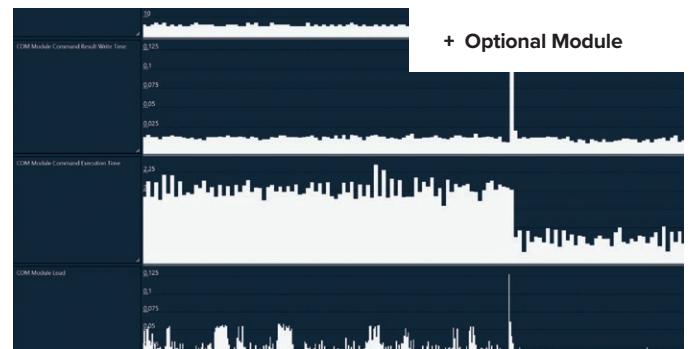
Time	Severity	Name	Trap Event	Trap Value
2024-08-06 03:40:14.107	OK	Unit Alarm Recovery	Unit Alarm	Unit has no active alarms
2024-08-06 03:40:14.103	OK	Ingress Tx Rate Over Error Recovery	Ingress Tx Rate Over Error	Recovery from the Tx Rate Over error of ingress service detected in the indicated
2024-08-06 03:40:12.772	Minor	Unit Alarm Detect	Unit Alarm	Unit has one or more active alarms
2024-08-06 03:40:12.247	OK	Ingress Tx Rate Over Error Detect	Ingress Tx Rate Over Error	A Tx Rate Over error of ingress service detected in the indicated Service
2024-08-06 03:40:11.585	OK	Receive buffer error recovered	Receive Buffer	Receive buffer errors have recovered
2024-08-06 03:40:11.552	OK	Rx RTP continuity error recovered	Rx RTP	Rx RTP continuity error recovered
2024-08-06 03:40:10.572	OK	Hittess switching enabled	Hittess	Hittess protection enabled by the user and delay adjustment between lines 1 and
2024-08-06 03:40:10.179	Warning	Single line error detected	Hittess	Hittess switching has failed due to errors on the backup line
2024-08-06 03:40:10.176	Major	Receive buffer error detected	Receive Buffer	The receive buffer has errors: overflow, underflow, or packet header errors det
2024-08-06 03:40:10.173	Major	Rx RTP continuity error detected	Rx RTP	Packets have been lost or received out of sequence
2024-08-06 03:40:09.484	OK	Unit Alarm Recovery	Unit Alarm	Unit has no active alarms

Turbo-charge your software your way with a rich library of Optional Modules



Software XY Routing ▶

Software based, configurable/scalable XY routing switcher
Rapid end-to-end media service switching (video, audio and/or data)
Source/Destination/Take operation (or reverse)



Performance Monitoring ▶

Collect & monitor specified parameters over time
Record, visualize and correlate data
Display utilization of various system components
Export data for post-processing (e.g. SLA reporting)

+ Optional Module



Redundancy-Failover Protection ▲

(Software option only. Server hardware sold separately)

Run core modules on multiple parallel synchronized servers w/ automatic failover protection switchover

Monitor redundancy state of individual modules

+ Optional Module



API ▲

Northbound Interface to 3rd party OSS, orchestration, billing or scheduling software

Reading/writing of parameters & configuration

3rd party service scheduling and provisioning

Optional Modules Sold separately. For information about this product visit www.medialinks.com for latest feature updates, enhancements, and system requirements.

Value of ProMD-EMS

Optimized especially for Media Service Delivery & Performance over IP Networks

One common, comprehensive & secure platform (for Media Links and other 3rd party gear)

Service-Oriented design for faster setup, fault finding, and provisioning

Customizable/configurable to specific use cases

Visit the Media Links website for additional resource and a demo. www.medialinks.com

+ Optional Module

Access Rights			
Module STU (10Gx4 + 100G)			
User/Company	View	Write/Configure	Manage in System
guest	×	×	×
Device Xscend-E (Xscend)			
operator	✓	×	×
Media Links	✓	✓	✓

Advanced User Access ▲

Define Access rights for users, groups, locations, devices, circuits and orders

Differentiate between View, Write/Configure, System manage

Multiple definable access levels; allow or deny certain actions

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