Cambium Networks™

PTP 820 Network Management System (NMS)

About

PTP 820 NMS is a comprehensive scalable Network Management System for managing large-scale wireless backhaul networks. It enables cost-effectively managing thousands of network elements and increasing your operational efficiency.

Scalability

Supports up to 20K network elements

E2E Service Management

Automatic discovery of E2E services on elements
E2E Ethernet and TDM service provisioning
Service alarms
Alarm-to-Service correlation
Service creation wizards

Network Topology & Discovery

Connection templates allow flexible configuration for communication between network elements and NMS
Automatic network element & topology discovery
Hierarchical display of domains and devices
Topological links
IPv6 support

Operating system

NMS Server:
- Solaris 10, 11
- Windows Server: 2012 64 bit, 2012 R2 64 bit, 2016 64 bit

NMS Client:
- Windows 7 64 bit, Windows 10 64 bit
- Windows Server: 2012 64 bit, 2012 R2 64 bit, 2016 64 bit

NMS Database:
- Oracle 11g R2 64-bit, 12c
- PostgreSQL 11.5

Operational

Element SW download and upload
Element configuration backup and restore
Northbound Interface
Open SNMP support

Auto configure trap managers, NTP
Scheduled auto-discovery and configuration (backup)
Ping, traceroute and CLI script broadcast

Fault Management (Alarms)

Full life cycle and customization
Alarms template for PTP 820 NMS alarms
Alarm forwarding to Northbound OSS
Fault severities
Active and historical alarms
Acknowledging/Unacknowledging alarms
Up to 1000 traps per minute

Security

User and Group account administration
Resource Permissions, Action permissions
Audit logging
Import of user profiles
RADIUS client support
TACACS+ client support
Network element secure access (HTTPS, SFTP, SNMPv3)
User password rules and expiration

Redundancy

Server high availability
Database high availability
Supports Windows and PostgreSQL
Supports both 1+1 and 2+2 HA configurations

GUI

Hierarchical tree views
Hierarchical map views
Table views
Configuration views
Filtering, sorting, drill-down
Alarm visualization
Table exporting
Predefined & customizable perspectives
- Alarm
- Discovery
- Topology
- Ethernet services
- TDM services

- Security audit
- User management

Web UI for administrative tasks
- Database administration wizards
- License administration wizards
- Task log, server log
- High availability monitoring

Reports

Performance monitoring reports
- Interface performance reports: Ethernet radio, E1/DS1, STM1/OC3
- Radio
- Radio Ethernet
- RMON
- TDM trails
- SFP optical power
- Traffic queue
- Input voltage
- Performance overview, performance details
- IF combining report
- Ethernet Utilization report

Alarm reports
- Alarm log
- Current alarms
- Alarmed elements
- Alarm frequency

Inventory reports
- Frequency Change Report
- Full Link Report
- Network Element Report

- Radio Report
- Licensing Report
- Versions Report
- SFP Inventory Report
- Serial Numbers Report
- HW, SW, Transmission inventory

Report scheduling

Standards

General
- TMF608 MTNM information agreement

Fault Management
- ITU-T X.733 alarm reporting function
- ITU-T X.734 event report management function
- ITU-T X.735 log control function

Performance Management
- ITU-T G.826 end-to-end error performance
- ITU-T G.784 SDH management

Network Elements Support

All Outdoor:
- PTP 820C, PTP 820C-HP, PTP 820S, PTP 820E, PTP 850E

Split Mount:
- PTP 820G, PTP 820F
- RFU-A, RFU-C, RFU-D, RFU-E, RFU-S, RFU-D-HP

Supported Link Configuration

PTP 820C, PTP 820C-HP, PTP 820S, PTP 820E, PTP 850E

	PTP 820C	PTP 820C-HP	PTP 820S	PTP 820E	PTP 850E
1+0 Radio link	X	X	X	X	X
1+0 SD (BBC)	X				
2+0 Multi-Carrier ABC w/wo XPIC	X	X			
2+0 Radio LAG	X	X			
2+0 Radio LAG with XPIC	X	X			
1+1 HSB Protection	X	X	X		
2+2 HSB Protection	X	X			
2+2 HSB Protection with XPIC	X	X			
2+2 HSB Protection with BBC Space Diversity	X	X			
MIMO 2x2 w/wo LAG or XPIC or LAG+XPIC	X	X			
MIMO 4x4 w/wo LAG or XPIC or LAG+XPIC	X	X			
ASD 2+0 (XPIC)	X	X			
AFR 1+0	X	X			
Multiband*	X	X	X	X	X

PTP 820G, PTP 820F

	PTP 820G	PTP 820F
1+0 Radio link	X	X
2+0 Multi-Carrier ABC w/wo XPIC	X	X
2+0 Multi-Carrier ABC with Dual Polarization (XPIC)	X	X
2+0 Radio LAG	X	X
2+0 Radio LAG with XPIC	X	X
1+1 HSB Protection	X	
1+1 HSB Protection with BBS Space Diversity	X	