



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.

Performance

Supports up to 20K network elements
 Current and historical performance views
 Collection of G.826, Ethernet, ACM, and Analog data

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

Automatic network element & topology discovery
 Hierarchical tree and map views
 Topological links view
 IPv6 support

Operating system

Solaris 10, 11
 Windows 2016
 Database: Oracle 11g R2 64-bit, 12c; or PostgreSQL 9.4.x

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)

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

Configuration

Connection templates defining communication between network elements and PTP 820 NMS
 Element hardware, software, and transmission inventory
 Ping, traceroute, and CLI script broadcast

Security

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

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

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

Alarm reports

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

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

Split Mount:

- PTP 820G, PTP 820F
- RFU-A, RFU-C, RFU-D, RFU-E, RFU-S

Supported Link Configurations

| | <i>PTP 820G</i> | <i>PTP 820F</i> | <i>PTP 820C</i> | <i>PTP 820C HP</i> | <i>PTP 820S/E</i> |
|---|-----------------|-----------------|-----------------|--------------------|-------------------|
| <i>1+0 Radio link</i> | √ | √ | √ | √ | √ |
| <i>1+1 HSB Radio Protection Groups</i> | √ | | | | |
| <i>2+0 Radio LAG groups</i> | √ | | √ | √ | |
| <i>2+0 Radio LAG groups with XPIC</i> | √ | | √ | √ | |
| <i>2+0 XPIC groups</i> | √ | | √ | √ | |
| <i>Multi-Carrier ABC (Multi-Radio) N+0 groups, where N can be 1 through 8</i> | √ | | | | |
| <i>Multi-Carrier 2+0</i> | | √ | √ | √ | |
| <i>Multi-Carrier 2+0 with XPIC</i> | | √ | √ | √ | |
| <i>MIMO 2*2 w/wo LAG or XPIC or LAG+XPIC</i> | | | √ | | |
| <i>MIMO 4*4 w/wo LAG or XPIC or LAG+XPIC</i> | | | √ | | |
| <i>1+0 Radio link space diversity w/wo LAG or XPIC or LAG+XPIC</i> | | | √ | | |