Grid Solutions

MDS PulseNET

Network Management Software

Monitoring and managing the health of your network is a critical consideration when designing, purchasing, and deploying equipment for your communications system. Equally important is ensuring that you maximize your network's return on investment by increasing system throughput and uptime, improving the utilization of networked devices, and finally, supporting the deployment of maintenance resources when problems surface.

MDS PulseNET Network Management Software is designed for multi-vendor radio environments that may include radios from: GE Vernova MDS, 4RF, Freewave, Radwin, Cambrium, and Sierra Wireless. In addition to monitoring the jeath of the network, MDS PulseNET can remotely make changes to many of the radios from these vendors; all from the keyboard at your desk! This application is unique, as it requires no customization to get started – offering true, out-of-the-box functionality.

MDS PulseNET (Standard) is provided at no charge with all purchases of GE Vernova MDS devices.

Key Benefits – Return on Network Investment

- Driving Resource Efficiency
- Notify and deploy maintenance resources with the intelligent data required to quickly resolve equipment and radio issues
- Improving Network Performance
- Access historical network and equipment performance trends to optimize availability through predictive maintenance
- Leveraging MDS Expertise
- Purpose-built and pre-loaded with recommended performance thresholds, eliminating guesswork
- Single "Pane of Glass" for managing MDS and 3rd party devices
- Support for SNMP (MIB-II) compliant devices and a growing list of external vendor device support of monitoring and management
- Low Cost of Ownership
- Per device licensing with no additional server licenses required

Purpose-Built

- Designed to provide out-of-the-box functionality for GE Vernova MDS devices as well as other radio vendors' devices
- Pre-loaded device performance rules and thresholds eliminate guesswork
- High Availability configuration supports application redundancy and geo-redundancy

Rapid Deployment

- Intuitive installation and admin set-up
- Automatic device discovery
- Out-of-box, pre-defined and manageable number of alerts
- Integrated with MDS LaunchNET for "Zero-touch" device provisioning (optional)
- Optimized for Virtual and Cloud based servers

Robust Monitoring

Provides historical performance data and trending of:

- Received Signal Strength Indicator (RSSI)
- Signal Noise Ratio (SNR)
- Error rate
- Data throughput
- Round-trip delay time
- Transmitter power
- Changes in modulation scheme
- GPS connectivity and coordinate tracking

Easy to Use

- Management by exception
- Pre-built, intuitive work flows
- User-configurable navigation
- Multiple pre-defined report options
- "Complimentary" database for 3rd party application integrations

GE VERNOVA

SYSTEM	PulseNET STANDARD	PulseNET ENTERPRISE
Web-based platform for easy user access	•	•
Windows & Linux installations supported	•	•
Single graphical user interface installation program	•	•
Downloadable software and updates	•	•
Automated discovery of IP based devices	•	•
Automated network topology maps	•	•
Purpose-built workflows for mission-critical networks	•	•
Supports SNMP versions 1, 2c and 3	•	•
Integrated database supplied with installation	•	•
Predefined best practices management for MDS devices	•	•
Data Collection – Scalable to thousands of nodes via multiple systems/distributed polling	Up to 500 Devices	•
Monitoring and management of third party devices[1]		•
Support for third-party SNMP MIB-11 compliant devices		•
High-availability server installation capable		•
GPS aware mapping – automatic or manually located on GPS aware maps		•
LAN Monitoring – basic fault/performance monitoring of network devices		•
Custom rules, dashboards, and collections capable		•
FAULT	**STANDARD**	**ENTERPRISE**
Real-time color coded textual alarms and status icons	•	•
Device availability reports	•	•
Alarm filtering and notification	•	•
Syslog server	•	•
Built-in RF health alerting for industrial wireless networks	•	•
Root cause correlation based on network dependencies	•	•

FAULT MANAGEMENT	PulseNET STANDARD	PulseNET ENTERPRISE
Alert integration with third-party network management software		•
Notifications to 3'''-party manager of managers via SNMP trap forwarding		•
Fully integrated graphical interface for SNMP trap receiving[2]		•
CONFIGURATION	**STANDARD**	**ENTERPRISE**
Configuration Push to multiple devices immediately & scheduled (Orbit, SD, other non-GE Vernova via PulsePAKs)		•
Scheduled configuration collections separate from performance polling – Extremely important in low bandwidth remotes	•	•
Provisioning of selected configuration parameters (on demand & scheduled)		•
Firmware push (Orbit, SD, Mercury, iNET·I/11, other non-GE Vernova via PulsePAKs)[1]		•
Radio configuration change diary		•
PERFORMANCE	**STANDARD**	**ENTERPRISE**
Performance dashboard with purpose-built prescriptive diagnostic workflows	•	•
Inherited performance collections based on vendor/model/configuration	•	•
Performance collections for diagnostics (i.e. RSSI, SNR, bandwidth, etc.)	•	•
Retains collections for comparison year-over-year	45 Day Limit	•
Performance dashboards for third parties[1]		•
Self-monitoring of PulseNET Enterprise system (memory, CPU, etc)		•
SYSTEM	**STANDARD**	**ENTERPRISE**
Tracking of configuration and firmware for MDS devices	•	•
User forced out when inactive for extended periods	•	•
Remote access shortcuts to devices for Telnet, SSH and HTTP(s)	•	•
Centralized to streamline security and control	•	•
User level accounting	•	•
Role based security (admin vs. operator)	•	•
Limit operator device groups based on ad min assignment		•
LDAP and Radius support		•

[1] Out-of-the-box capability for monitoring third-party devices is enhanced in each release. Please contact a GE Vernova MDS Sales Represenative to determine if a specific third-party devices is supported by the current version of PulseNET Enterprise.

[2] Feature planned for a future release of PulseNET and PulseNET Enterprise.

PulseNET System Requirements

Recommended System

- Quad Core CPU at 2 GHZ+
- 16 GB of RAM available
- 120 GB+ of available disk storage

Supported Operating Systems (64-bit)*

- Windows 10 Pro, Windows 11
- Windows Server 2016 w/current updates, 2019
- Red Hat Linux 7 or greater
- SuSe Linux Enterprise Server 11 or greater
- Virtualized environments supported

Software

- Java 8 or newer (for the installer)

* English only OS installations supported

PulseNET Enterprise System Requirements

Recommended System

- Quad Core CPU at 2 GHz+
- 16 GB of RAM available
- 240 GB of available disk storage

Supported Operating Systems (64-bit)*

- Windows Server 2016 w/current updates, 2019
- Red Hat Linux 7 or greater
- SuSe Linux Enterprise Server 11 or greater
- Virtualized environments supported

Software

- Java 8 or newer (for the installer)

Supported Web Browsers

- Microsoft Internet Explorer 11+
- Microsoft Edge 41.16299.402+
- Mozilla Firefox 52+
- Google Chrome 55+

(others may also be functional but are not supported)

For more information, visit
gevernova.com/grid-solutions

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