

Hetnet Software

Solution Components for Managing Wireless Networks

KEY FUNCTIONS

- Firmware/OS Management & Deployment
- Free-Form Configuration - Adaptive CLI
- Deep Discovery, Inventory, CMDB
- End-to-End Performance Management
- Configuration File Management
- Advanced Event & Fault Management
- System Self-Management
- Inventory Maintenance
- Change/Compliance Management
- Multi-User Views and Segmentation
- Audit Trail, Extensive Reporting, User Management, Group Management, Advanced Scheduling
- Automated Network Topology
- End-to-End Orchestration

FIRMWARE/OS MANAGEMENT & DEPLOYMENT

- Deploy systems or firmware upgrades to devices, or groups of devices.
- Schedule or immediately backup and restore OS/FW versions.
- Troubleshoot with historical comparison features.

FREE-FORM CONFIGURATION - ADAPTIVE CLI

- Configure and archive the results of scripts sent to devices, or use the device's own basic script language, and then output Perl scripts to manage repetitive or conditional communication.

DEEP DISCOVERY, INVENTORY, CMDB

- Automated, multi-protocol with centralized credentials management.
- Maintains associations between the managed equipment to show the interdependencies and interconnections within your network infrastructure
- Periodically resynchronizes with the network environment to ensure accuracy over time.
- Provides physical device discovery at the PIC/card and port-level, as well as logical discovery of sub-interfaces and links.

END-TO-END PERFORMANCE MANAGEMENT

- Proactive monitoring of availability and performance.
- Immediately identify issues with your network, devices, and services by regularly polling critical health characteristics from multiple sources.
- Pre-installed monitors for key network and application services, in addition to performance monitors for key network device attributes (tracking packet loss, uptime, or any number of service-related KPI's).
- Easily create monitors to customize to your environment.
- Use collected data to create threshold-based alarms
- Graphical dashboards with device key performance indicators and service performance metrics commitments to consistently ensure you are meeting or receiving proper SLAs.
- Near-real-time view and a historical analysis to wireless network performance metrics in a web-based user interface.
- Supports legacy 2G and 3G networks using sophisticated data collectors and storage mechanisms to collect performance data from network element operational measurement reports and call detail record (CDR).
- Complete view of the network's perspective of performance and the user's experience.
- Traditional traffic measurement and analysis capabilities including Erlang and mathematic operators necessary to compile reports.
- Complete control over what reports are needed and how they are viewed.
- Powerful performance management for 4G/LTE networks and the IP environment utilized to connect them with the core application servers and the internet.
- Foundation for Hetnet SON capabilities in both the non-standards based legacy environment and also in the standards based (3GPP) SON environment



SOLUTION FEATURES

CONFIGURATION FILE MANAGEMENT

Template-based configuration file creation, back-up and restoration on an automated, scheduled or ad hoc basis. Visual, color-coded configuration file comparison features to quickly identify changes and change history.

ADVANCED EVENT & FAULT MANAGEMENT

Provides keen insight into the health of network and services. Identify real device and interface issues faster by filtering out event white noise, improve root cause analysis, and RTTR. Correlate events so that the correct action is taken. Easily set-up advanced correlations, external notifications, and auto generated scripts with powerful event processing rules. Take immediate actions when issues occur to reduce or eliminate the impact to your customers. Alarms are updated graphically, on the element presentation applications and logical topology icons change color with the corresponding alarm severity to provide a visual indication of events and alarms.

SYSTEM SELF-MANAGEMENT

Automate data-archiving of data-like audit trails, alarms, and performance records to avoid overwhelming your database with unnecessary data. System self-monitors its performance and displays the results in dashboards. Use default archiving configurations, or create your own, to discard obsolete information or archive it in files.

INVENTORY MAINTENANCE

Maintenance and suspension states let you reduce distractions while a known device is offline. Track service calls on devices (date, type, technician, comments), and maintain those records in database. Entity Pooling ensures efficient utilization of network resources.

CHANGE/COMPLIANCE MANAGEMENT

Quickly detect and report on changes through event driven or proactive change monitoring. Event-based configuration change detection via SNMP trap, Syslog. Policy-based compliance detection via pro-active configuration file scanning. Compliance scan policies produce audit trails for better troubleshooting. Provides comprehensive reporting of configuration changes: meaningful reports on what changed, who made the change, when the change was made, authorization status.

USER/GROUP MANAGEMENT

Manage user/user group security settings and their functional permissions within the applications. Use seeded groups or create static or dynamic groups to manage one-to-many management actions.

MULTI-USER VIEWS AND SEGMENTATION

Customers or work groups can administer their own network, within the bounds that you set. Administrators create and customize multiple user segmentation sites that do not interfere with each other, while the master site views all user network segments maintaining ultimate control.

AUDIT TRAIL

Retains a historical view of all transactions with devices to easily revisit transactions and make troubleshooting easier. Export audit logs in PDF or CSV.

EXTENSIVE REPORTING

Reporting and exporting capabilities can be filtered and customized to accommodate different users. Generate groups of reports, optionally with a table of contents, and trend reports displaying multiple assets. Create reports using dozens of templates (asset tracking, device sub components, network and device performance, etc.) or easily generate custom reports. Execute reports immediately or on a schedule and save output in .pdf, .html, .xls, .csv, and other standard formats, or email them to concerned parties.

ADVANCED SCHEDULING

Provides an easy-to-use scheduling system to automate task execution in a lights-out environment - you don't have to be near the system. Detailed audit records are kept for scheduled task executions.

AUTOMATED NETWORK TOPOLOGY

Easily view large environments in a dynamic and highly customizable, flash-enabled topology called Visualize My Network. Model networks logically to see conditions as and where they occur. Map devices' geographical locations with multiple zoom levels from continents to neighborhoods. Physical topology provides a map view of the device locations. View service topology with Hetnet Software Service Center. Logical topology views let you monitor network devices, drill down in any view with a mouse click to subcomponents and logical connections.

END-TO-END ORCHESTRATION

Work order management
Automated healing / scaling process
BSS/OSS Integration

