

NETWORK MANAGEMENT



SOLARWINDS **ORION NPM** & MERU **E(z)RF™ NETWORK MANAGER**

Enterprise-Class Wired-Wireless Network Management from SolarWinds and Meru Networks.



PRODUCT OVERVIEW

Your network is highly distributed and ever-evolving. It needs to service a wide variety of distributed users, whether these are mobile devices, desktops, telemetry devices or kiosks. These users demand service assurance and performance that burdens your entire IT operations from help desk operators to network field engineers. More than ever before, you need a centralized visibility to all your network infrastructure, wired and wireless, to resolve all service disruptions as quickly as possible. You need a solution that enables you to provide multi-vendor, user-centric network management and proactive service assurance.

SolarWinds and Meru Networks have joined hands to provide a very powerful and comprehensive network management solution for your all network infrastructure, wired and wireless. Combined, SolarWinds Orion Network Performance Monitor (NPM) and Meru Networks E(z)RF Network Manager not only delivers a complete, single console visibility to all network resources from routers, switches, servers, wireless controllers and access points, but also provide detailed wireless performance dashboards, RF visualization and fault correlation and reporting for the entire enterprise network.

SolarWinds Orion NPM is a powerful, easy-to-use, end-to-end network availability and performance management system that delivers the critical network information to IT operators in real-time. It enables them to quickly detect, diagnose, and resolve network performance problems and outages.

Meru Networks® E(z)RF™ Network Manager 2.x is an intelligent and comprehensive network management system for 802.11 Meru networks. It provides network administrators with powerful wireless performance dashboards, RF visualization, centralized monitoring, proactive troubleshooting, fault management and reporting for wireless networks of all sizes. It runs on an extensible Meru Service Appliance (SA1000/SA200) platform along with an embedded relational database, enabling it to manage large-scale WLANs with hundreds of controllers and thousands of APs. With advanced correlation and diagnostic inference techniques, the system can even detect and analyze anomalies before they are perceived by the end-user allowing for rapid troubleshooting of network events.



The Orion Network Performance Monitor (NPM) provides single console visibility to all network resources.



The E(z)RF Network Manager provides many dashboards to monitor your Meru wireless network.

NETWORK MANAGEMENT

KEY SOLUTION HIGHLIGHTS

- Real-time and historical monitoring of network performance statistics for routers, switches, wireless controllers, wireless access points, servers & any other SNMP-enabled devices
- Periodic scans of the network for changes and automatic displays of new devices and connections between them
- Advanced Alerting for correlated events, sustained conditions, & complex combinations of device states
- Real-time dashboards and historical trends for all WLAN statistics, including over-the-air metrics and wireless controller specific metrics
- Rapid resolution of wireless device issues, real-time and historical, from E(z)RF station dashboard
- Powerful RF Visualization of state of all access points and stations, indicating throughput, RF loss, channel utilization and associated stations
- Enhanced Rogue access point detection capability that can be visualized and located from a central location
- Enterprise scalability to accommodate growth up to tens of thousands of network resources, wired and wireless; and management needs with multiple polling engines, additional web servers and enterprise operations console
- Flexible NPM framework that can extend management capabilities to NetFlow traffic analysis, IP SLA & VoIP monitoring, IP Address management, network configuration management, & application and server performance.
- Extensible E(z)RF Application suite that can be leveraged for location and security management, and end-to-end service assurance

SOLUTION FEATURES / ORION NPM

NETWORK AVAILABILITY & PERFORMANCE MANAGEMENT

Orion NPM makes it easy to quickly detect, diagnose, and resolve performance issues with your dynamic network. It delivers real-time views and dashboards that enable you to visually track network performance at a glance. Plus, with our new auto-updating network topology maps and automated network discovery features, you can keep up with your evolving network without breaking a sweat. And Orion NPM is the easiest product of its kind to use and maintain, meaning you will spend more time actually managing networks, not supporting Orion NPM.

NETWORK TOPOLOGY WITH INTUITIVE POINT-AND-CLICK WEB INTERFACE

Orion NPM's Network Atlas™ automatically maps the wired and wireless network, allowing you to view it pictorially and logically. You can choose from several built-in geographical map templates or import your own image for your network based on topology, building, department or geography. The highly intuitive, fully customizable web-based interface offers point-and-click simplicity and allows you to remotely view fault, availability and performance information through detailed graphs, tables and lists. The most popular Top 10 view gives you at-a-glance visibility into the nodes and interfaces experiencing the highest amounts of network traffic, capacity utilization, response time, memory usage, CPU load, disk space volume, and more.

ADVANCED ALERTING AND PERFORMANCE STATISTICS

Orion NPM and E(z)RF NM enables you to quickly and easily configure powerful network alert engines to respond to hundreds of different network scenarios, including multiple condition checks.

These network alerts help you recognize and correct issues before your users experience performance degradation or availability issues. With alerting support for correlated events and sustained conditions, this solution ensures that you don't get paged at 3am unless there is a critical issue. Network alerts are also escalated automatically until the problem is resolved.

ORION NPM SCALABLE CONFIGURATION

Model	Manages
SL100	Up to 100 elements
SL250	Up to 250 elements
SL500	Up to 500 elements
SL2000	Up to 2000 elements
SLX	Unlimited elements

SYSTEM REQUIREMENTS

CPU Speed	Dual processor, 3.0 GHz
Hard Drive Space	20 GB
Memory	3 GB
Operating System	Windows 2003 and 2008 Server (32 bit or 64 bit) including R2, with IIS installed, running in 32-bit mode; .NET 3.5 Framework;
Database	SQL Server 2005 SP1 / 2008 (Express, Standard or Enterprise)

SOLUTION FEATURES / MERU E(z)RF NETWORK MANAGER

REAL-TIME RF VISUALIZATION

Critical to WLAN management is the ability to visualize the RF environment in real time. Meru Controllers maintain a real-time database containing RF data for all access points and wireless stations in the network, and the E(z)RF Network Manager communicates with the controllers to access this data. The data includes Wireless Throughput, RF Loss, Channel Utilization and Associated Stations. E(z)RF Network Manager also maintains historical data for the above metrics that lets operators visualize physical areas with wireless capacity issues quickly. Network operators no longer have to manually survey the environment for this information by making on-site visits, thereby increasing efficiency and simplicity.

CONTEXT-AWARE SEARCH NAVIGATION AND ADVANCED EVENT FILTERS

The Meru E(z)RF Network Manager GUI provides a powerful search mechanism where search results have contextual links for navigating to the appropriate functions. Search mechanism includes partial key word search with various filters. Advanced Event filters enable quick drill-down to the specific information for faster analysis.

ENHANCED SECURITY WITH ROGUE AP DETECTION

Rather than searching for rogue APs by sending someone to the building with a survey tool, network managers can use Meru E(z) RF Network Manager to remotely locate rogue APs, which can then be physically removed. All of these tasks are performed in real time from a central E(z)RF Network Manager console. IT Administrators have access to the E(z)RF Network Manager from anywhere in the enterprise via standard browsers to view the GUI.

ENTERPRISE SCALABILITY

The SolarWinds Orion NPM and Meru E(z)RF Network Manager is scalable for managing networks with hundreds of controllers and tens of thousands access points. The Meru E(z)RF Application server utilizes a three-tiered architecture—that enables easy scaling and migration as WLAN requirements grow. Ultimately, the system is scalable to 25,000 access points and associated Meru Controllers across multiple geographic regions.

E(z)RF NETWORK MANAGER SCALABLE CONFIGURATION

Model	Manages
E(z)RF BASE-100	Up to 100 access points
E(z)RF BASE-250	Up to 250 access points
E(z)RF BASE-500	Up to 500 access points
E(z)RF BASE-1000	Up to 1000 access points
E(z)RF BASE-2000	Up to 2000 access points
E(z)RF BASE-5000	Up to 5000 access points

SYSTEM REQUIREMENTS

Hardware	Meru Service Appliance (SA1000 / SA200)
Supported Browsers	Firefox 3.x Internet Explorer 7.x
Supported Controllers	MC1000 and higher

Support Information

The Orion NPM is directly supported by SolarWinds. SolarWinds Support can be reached at 866-530-8040 or <http://www.solarwinds.com/support>.

The E(z)RF NM is directly supported by Meru Networks. Meru Networks Support can be reached at support@merunetworks.com or 888-637-8952 (in North America). For international toll-free support numbers please refer to <http://www.merunetworks.com/customerservice/support.php>.

