





# **WavioNet – Network Management System**

WavioNet is an advanced SNMP based Network Management System (NMS) application.

It allows service providers to manage and monitor networks with the Wavion broadband wireless solution - Base Stations, CPE's and point-to-point radios.

WavioNet offers a rich toolbox of network management and monitoring features.

It offers flexible viewing options advanced and customizable fault management, performance monitoring as well as configuration and user management. to focus on details as necessary.

### Large scale management

WavioNet can support large scale networks with up to 2,500 base stations working in a flexible pay-as-you-grow model. The application provides intuitive "birds-eye" view of the entire network as well as the ability to focus on details as necessary.

WavioNet provides a selection of network views including: GeographicalTopology presented on a map, LogicalTopology depicting the links, interdependencies, and relationships among network devices. It also provides an explorer view, which drills down to the subnets, clusters, and further down to network element details.

### **Fault management**

WavioNet has a powerful fault management module enabling service providers to quickly detect, isolate and resolve faults.

Service providers can define localized thresholds in order to detect deviations and respond quickly to ensure accurate network performance.

The faults are represented in the network views as well as in a dedicated event alarm module, which utilizes alarm color coding according to fault severity.







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## **Performance monitoring**

WavioNetincludes a comprehensive performance monitoring module, providing the network operator the ability to collect data from several base stations and generate reports.

This is a powerful tool for problem resolution and network utilization analysis, helping service providers identify bottlenecks, optimize resource usage and plan expansions.

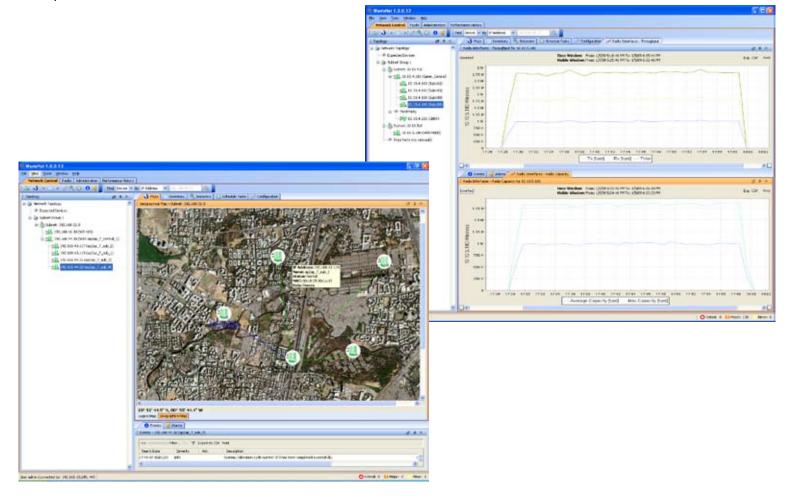
## **Security**

WavioNet provides flexible multi-level access authorization, allowing operators to define user groups with different access level permission and thereby prevent misuse of the application.

In addition, service providers can centralize user management by connecting WavioNet to their existing, LDAP directory. The audit trail, which logs user actions, completes the security suite and provides full visibility on network management and operation.

### **Benefits**

- Effective fault management, enabling quick detection, isolation, and resolution
- Enables efficient management of large and expanding wireless networks
- Simplifies network deployment and maintenance
- Extensive network visualization with geographical, logical and explorer views
- Online monitoring and statistics collection of traffic and performance
- Enhanced user security management









Specifications for Netwo	ork Management System:
Fault Management	Event logging
	Fault presentation on the map
	Color-codes according to fault severity
	Fault filtering engine
	Event forwarding to northbound managers
	Alarms acknowledgement
	Automatic email and SMS sending upon fault detection
Configuration Management	Licenses per BST
	File configuration distribution
	Inventory management
Software Download management	Efficient software upgrade management for multiple network elements
	Scheduled upgrade tasks
Network view	Geographical Topology view
	Logical topology
	Physical topology
	Explorer view per IP subnet
	Graphical association of devices to locations
Performance Management	On line performance monitoring
	Wireless link performance monitoring and logging
	Over-the-air traffic monitoring
Security Management	Multi-level access authorization
	Users and user groups management
	Functional permition and authorization per user group
	Full audit trail per user per action
Architecture	Distributed client-server architecture.
	Multiple clients can access WavioNet server
Operating Systems	Windows, Linux
Database	MySQL
Order Information	16001113 – WavioNet NMS SW basic license (Up to 10 Base stations)
	16002113 – WavioNet Expansion license for 50 additional base stations
	16002123 - WavioNet Expansion license for 100 additional base stations
	16002133 - WavioNet Expansion license for 500 additional base stations
	16002142 Wayio Not Even a license for 1000 additional base stations



16002143 - WavioNet Expansion license for 1000 additional base stations