

# RANGER NMS

## NETWORK MANAGEMENT SYSTEM



MONITORING, SUPERVISOR AND LOGGING SOLUTION

- Centralized Structure, Client-Server
- Advanced Instruments for data analysis
- Multi-Level Autentication
- SMNP Compatible
- Alarm Notification (SMS, EMAIL, GPIO)
- Advanced Logs

# RANGER NMS

RANGER is a network management system designed for Broadcasters, to certify the network's quality and efficiency.

RANGER's mission is to reduce costs and time to manage and control the network, always allowing technical intervention from anywhere and successful action on-site.

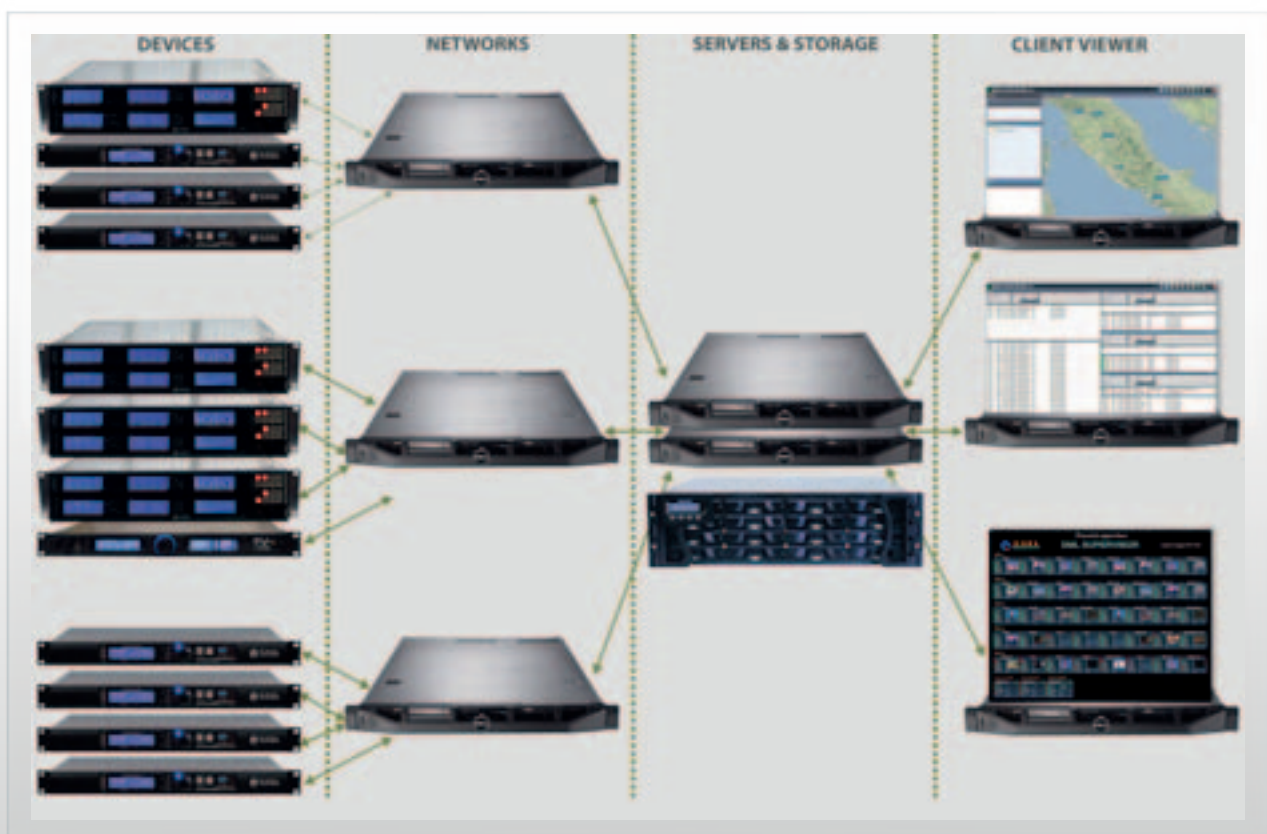
RANGER is a software based environment collecting data in real-time from multiple devices, from any vendors, into one single centralized database and providing: Monitoring, Historical log & report, Alarm notifications via e-mail & SMS and Event Automation.



# RANGER

## SYSTEM ARCHITECTURE

Ranger system's architecture is fully modular allowing any kind of implementation to the existing configuration .



SYSTEM ARCHITECTURE

## MAIN FEATURES

**RANGER** shows and summarizes global view and status of the network together with details of a single equipment.

**RANGER** allows 24/7 remote control from the headquarter, to perform successful on-site technical intervention, knowing the exact nature of the problem in advance.

**RANGER** offers to the technical manager a powerful environment for a complete real time overview, access to any single device, changeover control, force switching, make measure, etc... Everything from his desktop.

**RANGER** collects incoming data from a huge quantity of sites and variety of equipment, distinguishing type of data (parsing process) and linking priority level and related alarm.

All the data are archived into a storage.

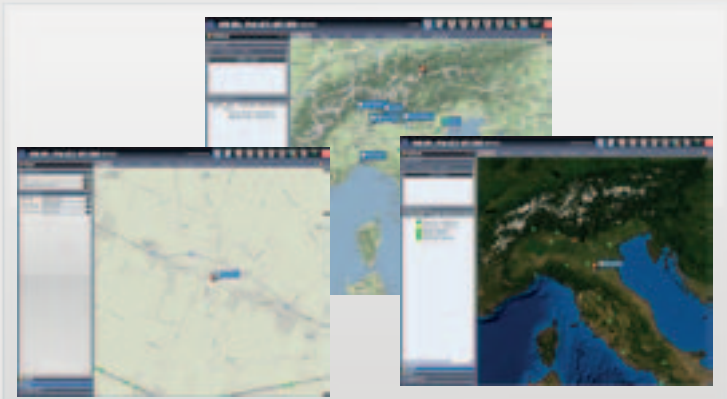
**RANGER's "Time Machine"** allows instant access to the data of specific date/time.

## TECHNICAL INFORMATIONS

- Data are collected through TCP/IP and other type of connections.
- Various types of devices are supported, especially those implementing SNMP protocol.
- Devices can be managed according to several criteria: geographical, category, hierarchical, groups.
- Data is displayed in graphical format using charts, diagrams and measurement indicators and is also stored in perpetual database for historical analysis and playback.
- Alarms generated by remote controlled devices are analyzed and filtered according to hierarchical structure and relevance/priority.
- Alarms generate instant notification via email, SMS, voice, fax or can generate complex actions via GPI/TCP/IP/ RS232-422 or can backfire to SNMP remote alarm triggering.
- Alarms can also be generated even if not supported by SNMP devices, by setting thresholds on incoming data.
- Collected data can be analyzed on a comparison basis between several devices providing a powerful manager for alert policies.
- Certification logs are extremely accurate and customizable to provide network's reports and statistics.

## RANGER SERVER

- Windows Server 2008
- Multiprocessor and multi core hardware
- SQL database
- Storage disk array up to unlimited TB capacity with RAID 0,1,5,6
- Redundant configuration for high availability and disaster recovery
- Alarm manager
- User rights management
- Automatic reports and stats
- Multiple Display: Google maps integration for geographical displacement.
- Real time measurement display with graphs and histograms



NETWORK MAPS



MEASUREMENT SYSTEM



STORAGE DISK ARRAY



# DEVICES

**RANGER** controls any SNMP device and provides dedicated template for specific equipment already tested and certified.

It also features a customizable generic template to configure all parameters regarding communication, protocol, MIB and Trap tables, display mode, thresholds and alarm.

Every device managed by Ranger can be related to:

- Technician
- Network
- Site
- Country
- Geographical area

Relating the devices allows to filter the log for fast and easy search and retrieval of the errors/alarms.

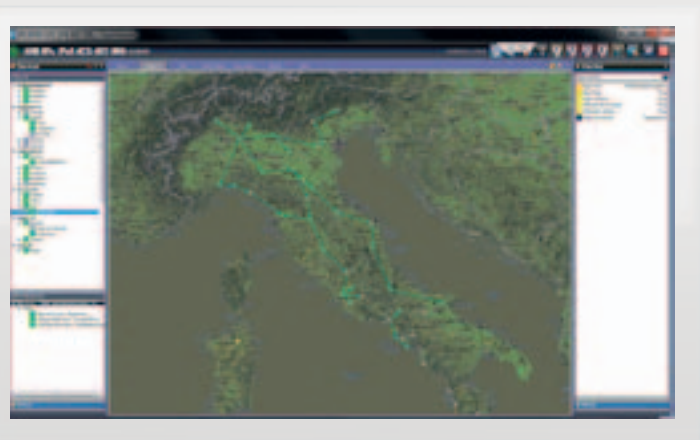
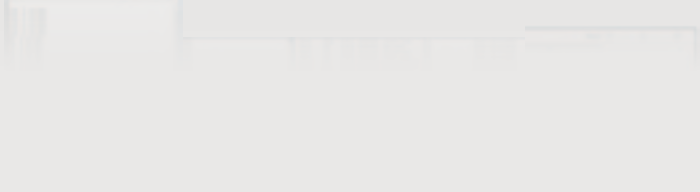
Furthermore, statistics about the reliability of the network are simple and available at any level, from the complete system to a specific parameter of a single device.

According to the network architecture, each alarm can activate automatic events:

- Visual notification (Standard)
- Audio/GPIO/SNMP
- email/SMS
- Custom



NETWORK MAPS



DEVICES



## RANGER NMS TECHNICAL SPECIFICATIONS

### RANGER SERVER: Minimum System Requirement

Processor:	Intel I5 or DualXeon Processor
RAM:	4GB DDR3
HD1:	50GB for Operative System
HD2:	1TB for Data Storage
System Operative:	Windows Server 2008 R2
Software:	Framework DotNet 3.5 Sp1, MySQL 5.1.52 or SQL Server

### RANGER CLIENT/VIEWER: Minimum System Requirement

Processor:	QuadCore (Intel preferred)
RAM:	2GB DDR3
HD1:	250GB for Operative System
Video Card:	VGA Video Card
System Operative:	Windows Xp Sp3
Software:	Framework DotNet 3.5 Sp1

Pictures and technical specs in this leaflet are provided for information purpose only and are subject to change without further notification (Ver. 2.0)