REMOTE SUPERVISION SYSTEM FOR OPTICAL FIBRE NETWORKS

MetraNet

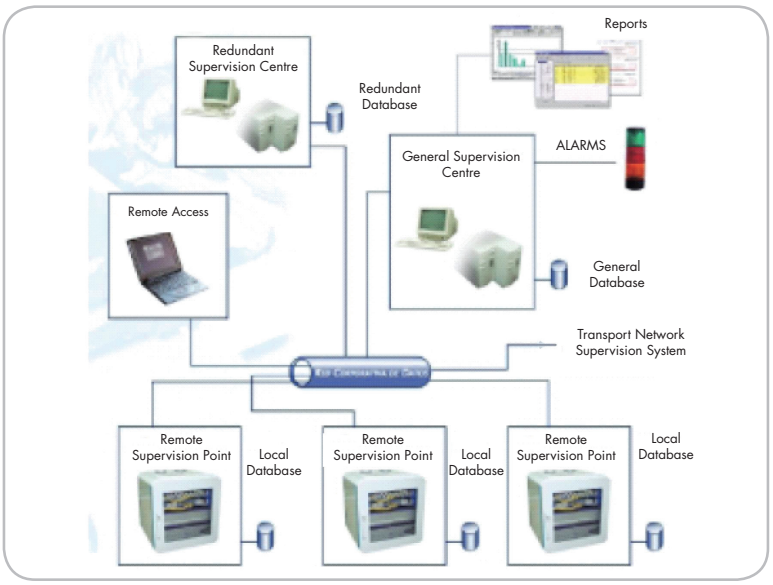


Diagram 01. General System Architecture.

Introduction

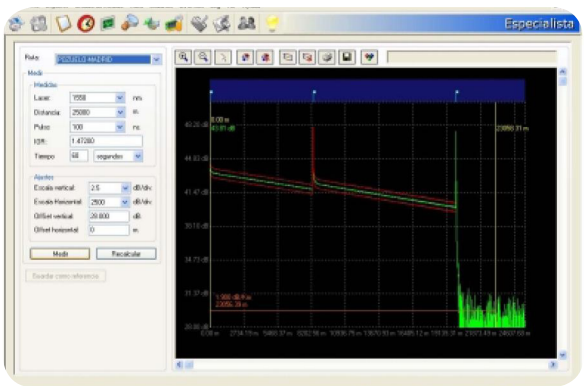
SISTEM offers its customers full implementation of the remote supervision system for optical fibre network MetraNet in a turnkey project with personalised support which includes training and System maintenance.

The remote supervision system for optical fibre MetraNet is the best way to control the physical layer of optical networks. Through various units of measurement (UMs) deployed strategically throughout the network, and from a Supervision Centre (SC) located in the Control Centre, MetraNet permanently monitors the state of your optical network, automatically generating warnings if there are any degradations or problems.

This provides continuous monitoring of the network throughout its useful life cycle, conducting preventive maintenance tasks automatically and streamlining corrective maintenance tasks efficiently and accurately, thus making the network more reliable with higher service quality.

The MetraNet supervision system results from collaboration with various operators. Given its technical characteristics, it minimises the cost of implementation and maintenance. It is an economical and flexible system, adapted to the technical and operational needs and peculiarities of the operator or owner of each specific network.

MetraNet is a system compatible with multiple software, equipment and components available in the market, not restricted to any specific manufacturers.



Advantages of the MetraNet System

The main advantages of using the Remote Supervision System for Optical Fibre Networks MetraNet are:

- Supervision of active fibres and of dark fibres with OTDR technology, for wavelengths 1310nm, 1550nm and 1625nm.
- Monitoring of cable degradation and its elements.
- Location of exact point of optical fibre problem.
- Diagnosis of probable cause of network problems.
- Integration with transport network control systems.

All of these advantages provide customers with financial benefits during operation and maintenance of their optical fibre networks.

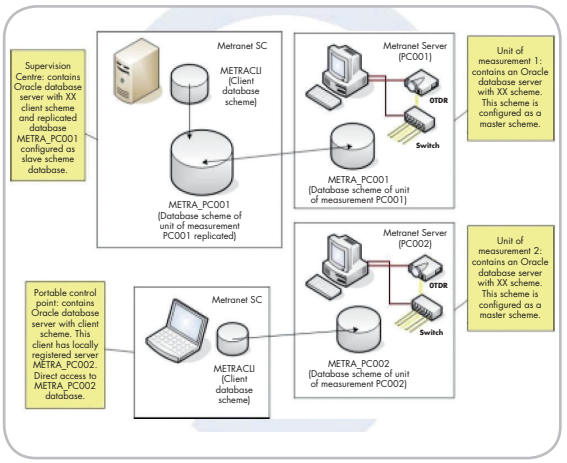
Architecture of the MetraNet System

MetraNet operates in a client/server architecture, using the existing LAN/WAN corporate data network for intercommunication between its supervision modules (UMs and SC), through the TCP/IP protocol stacks.

MetraNet maintains a distributed database, thus guaranteeing total reliability of the system even if communications are interrupted between UM and SC. Its configuration is easily scalable, allowing expansion of the system structure with no restrictions.

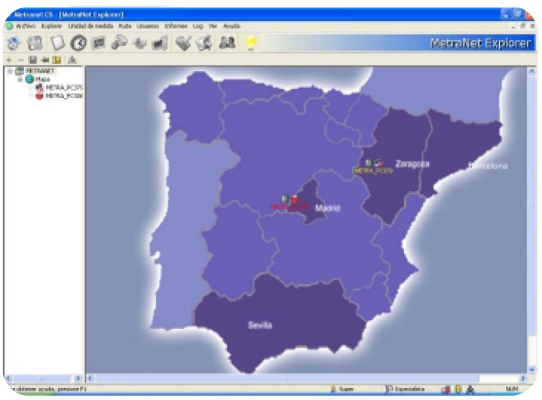
The system allows including redundant supervision and can be completely operated remotely through a telephone line.

To access the system there are various user permit levels, controlled by access codes.



Technical characteristics

MetraNet System	
Nominal Supervision Wavelength:	1310nm – 1550nm – 1625 nm
Dynamic range:	Up to 42 dB
Number of switch channels:	Up to 75 channels, with no cascade limit
Possibility of remote switches:	Yes
Operating system:	Windows XP or higher
SC computer:	Pentium IV or higher
Size:	Customised, standard 19"– 8U



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