Lynx | CONNECTIVITY SOLUTIONS

- "Online" monitoring of all the train signals.
- Saved log downloading.
- Automatic sending of critical alarms from train to land.


## DESCRIPTION

The LYNX system provides the onboard **Ethernet** network with wireless interfaces providing remote access to the various items connected to said network. This equipment consists of various modules, with are scaleable and highly available.

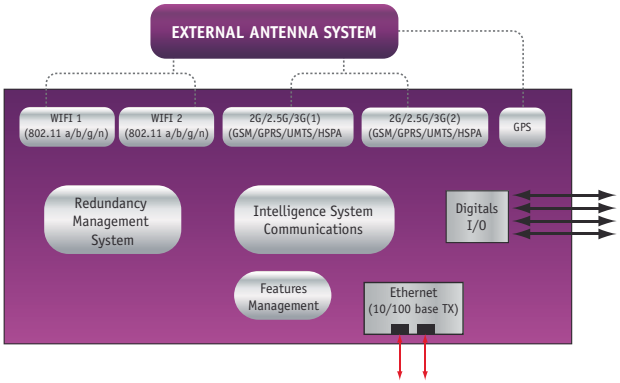
In view of the travelling character of the train and of the requirement of **remote connection** with the same when it is in motion, an onboard remote wireless communication system must be fitted.

The communications system covers **train-land connectivity**, independently of the technology to be used, including technologies such as GSM, GPRS, UMTS, HSPA, and local area Wifi (IEEE 802.11 a/b/g/n), with scalability to greater capacity future technologies.

Therefore, in addition to the advantages of a wireless connection (speed and ease of installation, freedom of movements and maintenance cost reduction), there is the added advantage of the use of one technology or another according to the signal at each point of the unit's route (roaming & handover between technologies transparently).

In addition, an optimum redundancy management provides better reliability to the communication channel.

The LYNX system can incorporate a GPS module for train positioning within an established route, so it is possible to display the position on the cartography, track route diagrams, passenger information, etc.




CONNECTIVITY SOLUTIONS

# FUNCTIONALITY

This equipment controls communications to and from the train, providing the possibility of executing remote diagnosis.

It performs the following main functions:

- **Remote diagnosis**: transmission of log to a base station, with information regarding any equipment connected to the TCN network.
- **Real time display** of a set of **variables** chosen by the used for monitoring correct system operation. This data transmission can be automatic (interrupted data transmission) or at request, either from the train itself or from land.
- **Autonomous transmission** of the **alarms**, using state of the art communication technologies: GSM, GPRS, UMTS, HDSPA, Wifi (IEEE 802.11 a/b/g/n), etc.

Also, the LYNX system provided by TRAINTIC, together with the analysis-diagnosis tools, is capable of offering a service for variable analysis, event and alarm display, etc.

Likewise, in cooperation with the company NEM SOLUTIONS, it is possible to offer a predictive maintenance service facilitating train maintenance tasks. This integration of the various TRAINTIC products and services and NEM SOLUTIONS makes the most of a train's maintenance and control.

** See www.nemsolutions.es web*
** See Services datasheet*

TRAINTIC provides ground equipment to integrate the information downloaded from onboard units into the ground station applications. This infrastructure is designed on the basis of safety and optimization of resources and scalability, adapting to the needs of each scenario.