

# EVOIA Assure

## Passive Monitoring Solutions

Process and analyze true end-to-end ERTMS transactions

Enabling operators and equipment vendors to test and measure ERTMS, rail telecoms and interlocking networks for true end-to-end signalling performance.

### The ERTMS Environment

Signalling networks need to be monitored, managed and maintained.

ERTMS networks are complex environments that present many monitoring challenges and issues, including:

- GSM-R and rail telecoms coverage needs to be available everywhere and at all times
- Network supervision must be 24x7
- The monitoring system needs to be able to evaluate complex systems interactions (GSM-R/ETCS/IXL)
- The monitoring system must also identify root-causes, when anomalies occur
- The data collected needs to be retained for a sufficient period of time to:
  - ensure that network upgrades can be properly tracked
  - perform appropriate rollbacks, in the case of malfunction
  - score performances and identify trends The provision of the appropriate performance
- Provide statistics to third parties (such as Rolling Stock operators), so they can measure their own KPIs

### Passive Monitoring

A range of services and technology to enable customers to collect, compile, analyze and investigate telecom and signalling statuses and issues.

Using scanners, responder units and other monitoring hardware, EVOIA Assure enables signalling data streams from the trackside and on-board units to be collected in real-time from a wide variety of network and train equipment.

### EVOIA Assure delivers:

- probes, responder units and other monitoring hardware to test and measure the quality of the communication network systems
- powerful software tools to compile, collate and analyze the data
- maintenance equipment, consultancy and services

## Solution Features

EVOIA Assure provides state-of-the-art technology and services.

Performance Dashboard
Top level information portal for network implementation and maintenance workflow management
Analytical and Reporting Platform
Telecom/train traffic analysis, network performance analysis, real-time troubleshooting and centralized post-processing and repository platform
Monitoring Systems
Data collection platforms for GSM-R, OMC, ETCS/ERTMS and IXL data

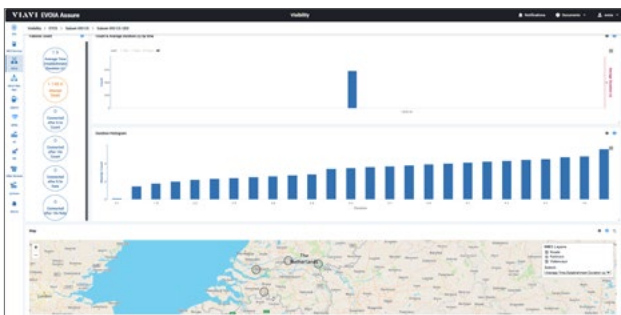
Hardware and software features include:

- Dedicated rail telecoms/ERTMS asset management platform
- Access network, core network and signalling subsystems data collection and analysis 24x7 supervision
- Tracing and signaling data storage for many years
- Customizable analytical tools
- Wide range of configuration support, from light portables to heavy-duty rack-mounted clusters  
Software compatible with GSM, GSM-R, GPRS, WCDMA, LTE, ETCS and A-ABIS Protocols.

## Reporting Tools

The powerful EVOIA Assure reporting tools can be configured to deliver a variety of reports.

They can be customized on request.



## Benefits of Working with VIAVI

Based on proven deployments in several countries, VIAVI delivers solutions to provide a uniquely powerful and comprehensive service, by aggregating multiple data sources.

EVOIA Assure offers:

- must-have technology to monitor and troubleshoot GSM-R/ETCS networks
- the ability to process and analyze true end-to-end ERTMS transactions, from GSM-R, ERTMS and Interlocking (IXL) networks
- a high focus on interoperability
- capability to be scalable, flexible, reliable and extremely easy to maintain
- true real-time support for a wide variety of urgent issues
- data correlation and embedded full protocol layout and decoding, to automate time-consuming procedures
- an extremely efficient database to ensure extensive data retention (for many years), thus allowing long-term performance evaluation.
- a centralized view that combines the best features for operators of any size
- all the features peculiar to GSM-R and rail telecoms/ETCS technology requirements, such as GSM-R mobile support, UIC testing methodologies, geo-location measurements in tunnels and more



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