



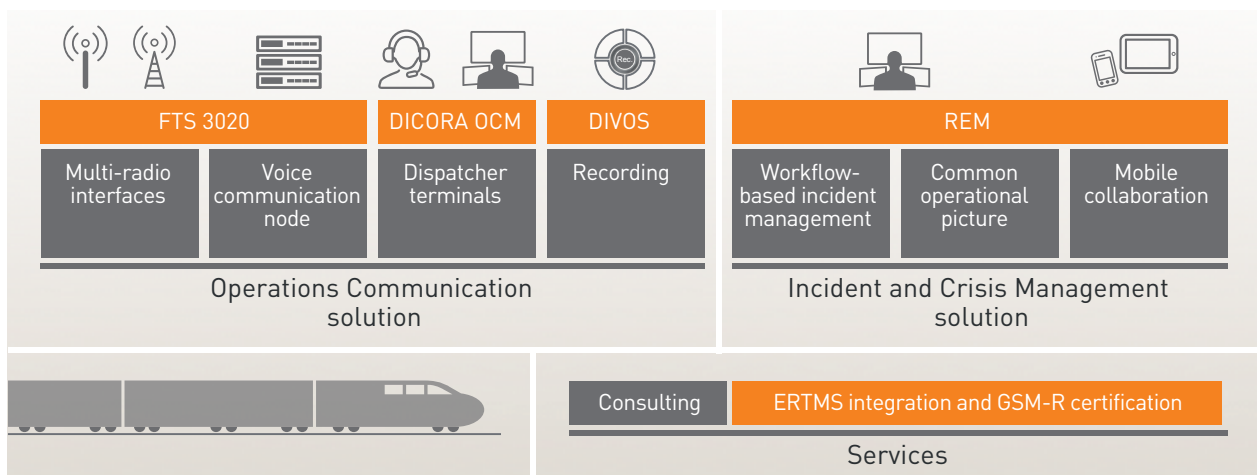
# Public Transport

Communication and information  
solutions for railways

# Tailored solutions for dispatchers in command and control centres

Public Transport solutions leverage more than seventy years of experience focusing on safety-critical communications and applications. Cross-industry expertise gained supporting control centre communication sets the foundation for industry-leading railway and urban transport solutions, where the company proudly holds a strong position in operations communication, as well as incident and crisis management.

## Solution portfolio overview



## Operations Communication

To excel in today's world, rail controllers need to be able to communicate with numerous stakeholders across different mobile and fixed networks, and make well-informed decisions effortlessly. Frequentis provides a state-of-the-art Fixed Terminal System with its end-to-end portfolio of dispatcher terminals, voice recording, and management tools for all the needs of a modern control centre.

The unified dispatcher optimises communication between command and control centres, train drivers, shunting personnel, maintenance staff, neighbourhood dispatchers and local train stations. It provides a migration path for the integration of existing communication systems and analogue infrastructures into a unified communication solution.

## Incident and Crisis Management

The ongoing shift towards centralised operations requires a holistic solution that connects all relevant stakeholders both in the control room and on site, streamlining their incident management workflow. Based on a comprehensive product suite, this solution leads the operator through planned events, operational and technical incidents, as well as emergency and crisis situations. It uses a resolution workflow based on the time, location and classification of the occurrence to instantly identify and connect internal and external stakeholders, while also logging every activity to satisfy legal requirements. It is a cost-effective tool that can be deployed within a short timeframe.

# Migration to modernisation

From boosting operational efficiency to enabling faster resolution of incidents and crisis situations, the Public Transport organisation contributes expertise to modernising railway organisations by implementing communication and information solutions that are ready for the challenges of tomorrow.

## Strategic drivers

Customer satisfaction
High-density railway traffic
Capability evolution
Reduced TCO

## Trends

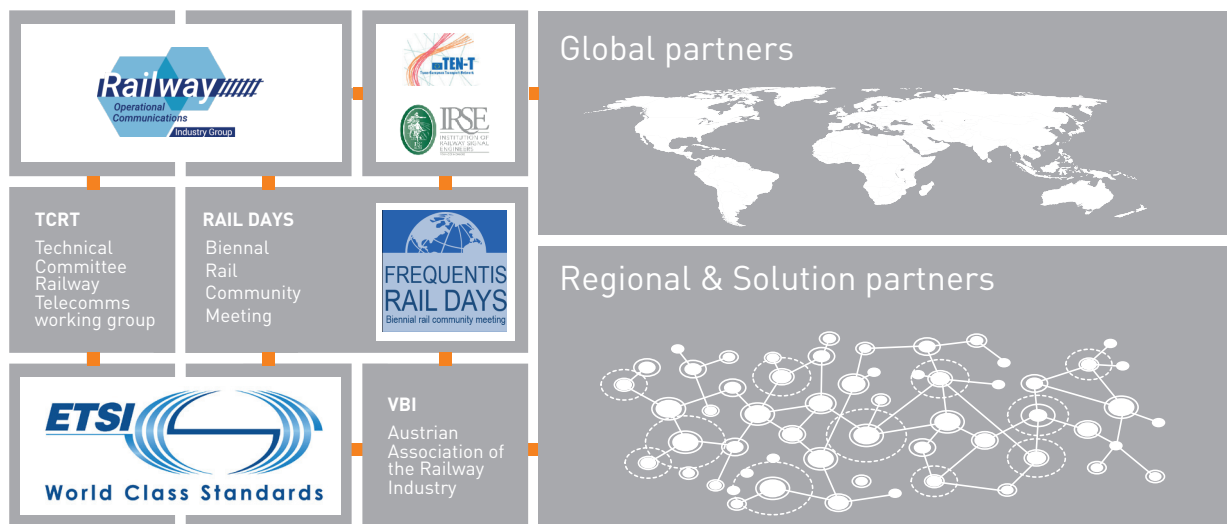
Safety and incident management
Centralisation in control centres
Geographic redundancy
Bearer-independent solutions
Full IP, COTS hardware, service virtualisation

## Shaping the future

An active player in shaping the Future Railway Mobile Communication System, Frequentis is a key participant in setting industry standards and

a leading member of research organisations that will help definite next-generation rail solutions.

## Developing standards for building innovative solutions



## Bearer-independence has arrived

As different regions evolve their public mobile communications infrastructure, railways need to determine the best way to support communications to/from moving trains. As a result, the future could evolve in many different ways. Frequentis is ready with bearer-independent communications that in

addition to the traditional GSM-R will also support TETRA, 3G, LTE and analogue radio technologies. With the ability to support railway communication systems regardless of the underlying technology, the company is leading the way toward safer, connected trains.

# Trusted solutions that span the globe

From Deutsche Bahn to Network Rail, ÖBB to SBB, Public Transport serves the most demanding railways worldwide. With presence on four continents, the organisation has equipped more than 6,000 positions at control centres in 25 countries and continues to bring innovation to customers all over the world.

## Highlight references

### ÖBB, Austria

As part of ÖBB's strategic program to centralise 57 operational locations into five regional and one central control centre, Frequentis delivered a solution that streamlines roles, responsibilities and communication within a larger control area, processes changes to the operational incident management procedure, while also taking into account local characteristics and know-how. Staffed by over 1,500 users, the solution addresses the needs of crisis situations and operational, infrastructure and security incidents, while satisfying reporting requirements to the ERA. It is fully integrated with control centre communication and legacy systems.

### Liikennevirasto, Finland

Liikennevirasto (Finnish Transport Agency) selected Frequentis to implement the first bearer-independent communication platform for railway communication in Europe called URCA (Unified Railway Communication and Application). The end-to-end solution uses the Finnish authorities' telecommunications network VIRVE based on TETRA, as well as public mobile networks. As a result of this implementation, Finnish railway staff can use TETRA and public mobile networks for all railway-specific communication functionalities.

### Sydney Trains, Australia

Sydney Trains – a major suburban passenger rail network – was looking to establish a state-of-art rail operations centre and centralise operations by aligning functional roles, systems and processes. The Frequentis Incident and Crisis Management solution supports faster communication of accurate, consistent and timely information to all relevant parties, including updates on service disruptions and restoration. Beyond implementing optimised business processes for incident management, the solution supports access to notification sources, as well as an incident reporting application for mobile devices.

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