Selected references

Public Transport communication and information solutions

Public Transport

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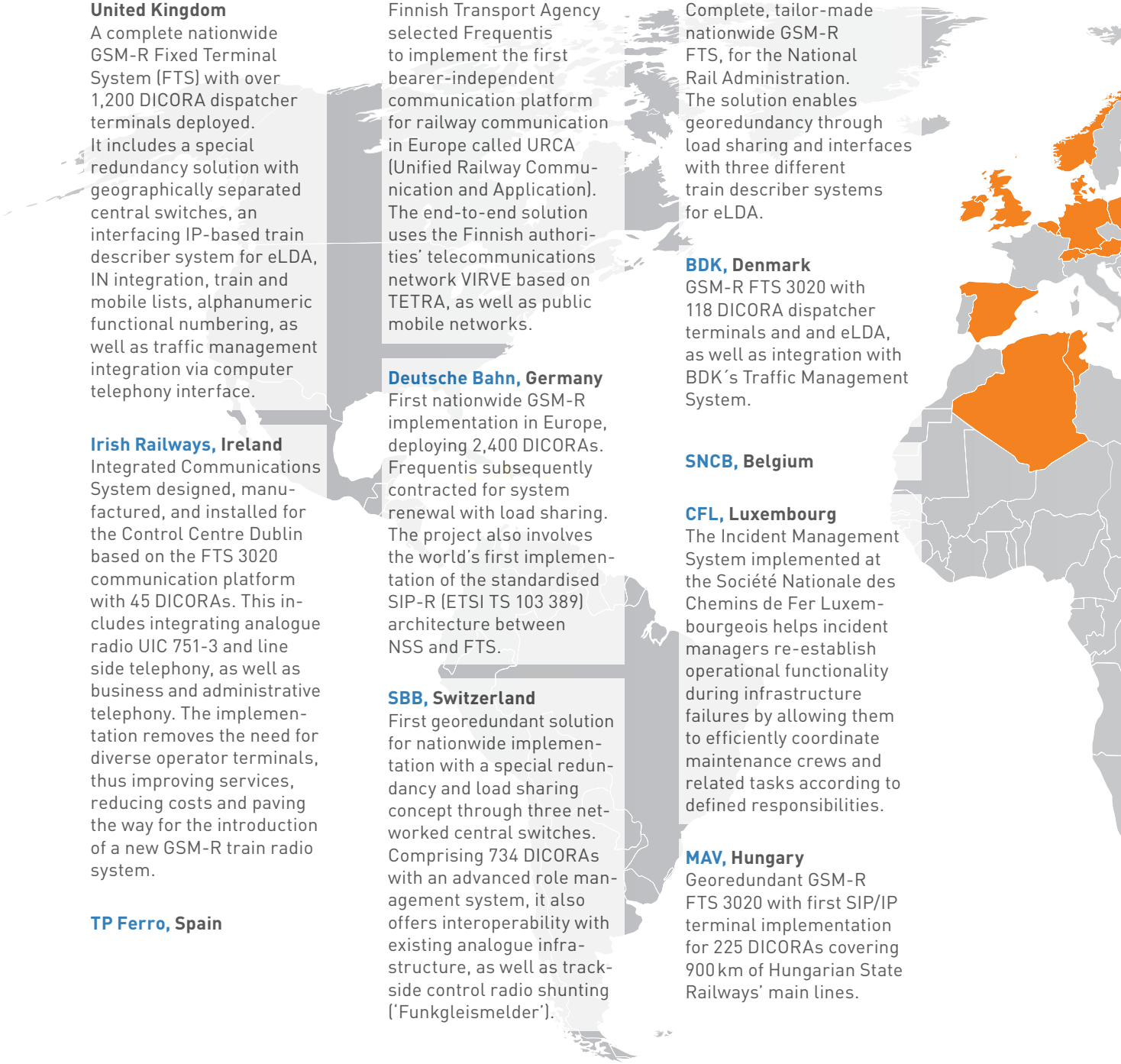
FOR A SAFER WORLD

Public Transport selected references

Frequentis Public Transport solutions leverage more than seventy years of experience focusing on safety-critical communications and applications. Cross-industry expertise gained from supporting control centre communication sets the foundation for industry-leading railway and urban transport solutions. With its strong position in operations communication, as well as incident and crisis management, the company also holds the number one market share in GSM-R dispatcher terminal positions; more than 10,000 units have been delivered to customer control centres in 25 countries.



Network Rail, United Kingdom
A complete nationwide GSM-R Fixed Terminal System (FTS) with over 1,200 DICORA dispatcher terminals deployed. It includes a special redundancy solution with geographically separated central switches, an interfacing IP-based train describer system for eLDA, IN integration, train and mobile lists, alphanumeric functional numbering, as well as traffic management integration via computer telephony interface.

Irish Railways, Ireland
Integrated Communications System designed, manufactured, and installed for the Control Centre Dublin based on the FTS 3020 communication platform with 45 DICORAs. This includes integrating analogue radio UIC 751-3 and line side telephony, as well as business and administrative telephony. The implementation removes the need for diverse operator terminals, thus improving services, reducing costs and paving the way for the introduction of a new GSM-R train radio system.

TP Ferro, Spain

Liikennevirasto, Finland
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.

Deutsche Bahn, Germany
First nationwide GSM-R implementation in Europe, deploying 2,400 DICORAs. Frequentis subsequently contracted for system renewal with load sharing. The project also involves the world's first implementation of the standardised SIP-R (ETSI TS 103 389) architecture between NSS and FTS.

SBB, Switzerland
First georedundant solution for nationwide implementation with a special redundancy and load sharing concept through three networked central switches. Comprising 734 DICORAs with an advanced role management system, it also offers interoperability with existing analogue infrastructure, as well as trackside control radio shunting ('Funkgleismelder').

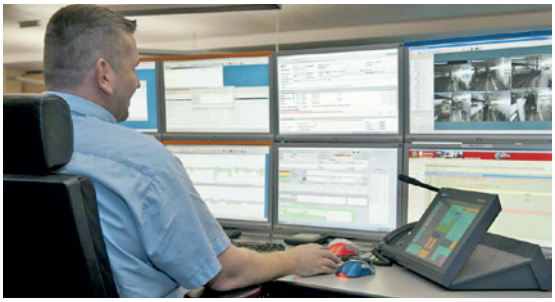
Bane NOR, Norway
Complete, tailor-made nationwide GSM-R FTS, for the National Rail Administration. The solution enables georedundancy through load sharing and interfaces with three different train describer systems for eLDA.

BDK, Denmark
GSM-R FTS 3020 with 118 DICORA dispatcher terminals and and eLDA, as well as integration with BDK´s Traffic Management System.

SNCB, Belgium

CFL, Luxembourg
The Incident Management System implemented at the Société Nationale des Chemins de Fer Luxembourgeois helps incident managers re-establish operational functionality during infrastructure failures by allowing them to efficiently coordinate maintenance crews and related tasks according to defined responsibilities.

MAV, Hungary
Georedundant GSM-R FTS 3020 with first SIP/IP terminal implementation for 225 DICORAs covering 900 km of Hungarian State Railways' main lines.



ÖBB, Austria
As part of ÖBB´s strategic program to centralise their traffic management into five regional and one central control centre, Frequentis delivered an Incident & Crisis Management System that streamlines roles, responsibilities and communication within a larger control area. It also processes changes to the operational incident management procedure, while also taking into account local characteristics and knowhow. Used by over 1,500 staff, the solution addresses the needs of crisis situations and operational, infrastructure and security incidents, while satisfying reporting requirements to the ERA.

Wiener Linien, Austria
Serving more than two million passengers daily, Wiener Linien wanted to integrate many 'organically grown' interfaces and guarantee outage-free service and maintainability to its 63 radio workplaces that coordinate up to 3,000 enquiries and assignments for automatic routing each day. Frequentis equipped its operations control centres with the VCS 3020, which provides fully duplicated and multiple redundancies for outage-free, radio-based voice and data communication.

LitRail, Lithuania
Complete nationwide geo-redundant GSM-R FTS 3020 solution with 294 DICORAs and integration of analogue radio via SIP.

PLK, Poland
A leap forward as Frequentis moves towards software-centric solutions, this national GSM-R rollout with over 1500 working positions sees all core software of the geo-redundant FTS 3020 and DIVOS recording of all calls and data in the network distributed on a common IT platform, with the AudioHubs for the DICORA terminals being the only hardware delivered by Frequentis.

NRIC, Bulgaria

TCDD, Turkey

TDÝ, Turkmenistan

RŽD, Russia
As part of a major infrastructure overhaul, Frequentis delivered two georedundant GSM-R FTS to Rossijskije Schelesnyje Dorogi in Hot Standby configuration in time for the Sochi Olympics in 2014 and to the St. Petersburg-Buslovskaya line in 2015. In total 126 DICORA terminals are serving both lines. Each terminal is equipped with two audio units for parallel handling of two active calls and 8W MRM for back-up radio connection.

SAR, Saudi Arabia

Major suburban passenger rail network, Asia-Pacific
A customer was looking to establish a state-of-the-art rail operations centre and centralise operations by aligning functional roles, systems and processes. The Incident Management System supports faster communication of accurate, consistent and timely information to all relevant parties, including updates on service disruptions and restoration. The solution also supports access to notification sources, as well as an incident reporting application for mobile devices.

Queensland Rail, Australia
Fully redundant DIVOS legal recording in 3 locations in Queensland with recording interface for digital PABX and VoIP subscriber and radio, as well as centralised secures archiving over WAN to the headquarters.

Sydney Trains, Australia
Geo-redundant GSM-R FTS 3020 for the digital train radio for Australia´s largest passenger rail network.

SNTF, Algeria

SNCFT, Tunisia

Zambia Railways, Zambia

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