

OnTrack FREQUENTIS

Public Transport News
October 2017



Innovating in the UK

Frequentis leads the path to greater integration of the UK market at Railtex.

From GSM-R to FRMCS

Frequentis connects the dots by sharing its migration scenarios.

Save the date

RailDays – the unique peer event comes to Vienna.

Public safety focus

Next-generation control room at Critical Communications World



Dear reader,

Welcome to the October 2017 issue of On Track, the Frequentis newsletter for the rail industry. As the market faces up to FRMCS and mobility 4.0, we continue to develop solutions that help you cut costs today while preparing for the future. In this issue, we review recent industry events, take a closer look at a successful deployment in the Nordics, and invite you to our upcoming RailDays conference.

We hope you enjoy the newsletter, and we thank you for your ongoing support!

All the best,

Thomas Karl

Director

Frequentis Public Transport

Public Transport

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FOR A SAFER WORLD

Broad capabilities at Railtex

May 2017 saw our first attendance as exhibitors at the UK Railtex conference at the NEC in Birmingham. As the UK rail industry continues along the track to greater integration, Frequentis was pleased to present its portfolio of open and highly integrated solutions.

As first-time exhibitors, our aim at Railtex was to provide an overview of our broad capabilities, our 70-year history, and our philosophy of open solutions. We showcased our Bearer Agnostic / Independent Communication solution, which enables operators to make savings while preparing for the as-yet-undefined requirements of Future Railway Mobile Communication System (FRMCS). By doing so, it answers the European Union Agency for Railways'



call for a flexible solution that offers the broadest possibility to evolve operational rail communications over time. We also demonstrated our DICORA X20 future dispatcher terminal, as well as our Incident and Crisis Management system, designed to cut costs and speed up rail service resumption. Also on display was the 3020 LifeX™ communication and collaboration platform for a next-generation control room and its dispatchers. Designed to act as a single control centre for public safety providers, it enables them to bring information from multiple sources into a coherent view. Also, for light rail organisations, this provides a highly effective solution. As we continue to develop our UK business, we look forward to bringing to rail the benefits of our experience in industries such as ATC and public safety.

All change in the rail industry

Also in May, Frequentis attended the 3rd World Conference on Rail Transport Telecoms at the Paris headquarters of the International Union of Railways (UIC), run in cooperation with the Railway Operational Communications Industry Group (ROC IG, formerly GSM-R IG).

The conference looked at GSM-R, its evolution towards FRMCS, and the possible migration scenarios between the two. As speaker of the ROC IG, Wolfgang Wenzel of Frequentis was part of the Organising Committee. Thomas Karl, Director of Public Transport division presented in the name of ROC IG a keynote speech looking at how communication providers and rail companies will need to work together to achieve a smooth transition to FRMCS. As Thomas pointed out, both sides need to make ongoing investments during a time of evolving standards, so the communication providers must offer solutions that can adapt to whatever the future may hold. This includes a commitment from ROC IG to support GSM-R until 2030.

As head of Public Transport solutions at Frequentis, Markus Myslivec looked at how modern control centres across different industries are increasingly similar,



and at how the adoption of all-IP, open standards and bearer-agnostic communication is helping reduce costs and improve cooperation. Naturally, challenges remain, but working with a solution provider that has inter-domain experience can help rail companies embrace a converged future.

Summer in Stockholm

Well, May was certainly a busy month for rail conferences! We attended the Scandinavian Rail Development event in Stockholm for the first time to showcase our offerings and our strong installed footprint in Norway, Finland, Denmark and the Baltics. Frequentis is committed to developing its business in Sweden, and it was great to be able to show attendees our success stories in their neighbouring countries.



Hitting new heights in system availability

One of the major rail networks in the Nordics has recently gone live with an important update to its GSM-R rail communication network: creating a geo-redundant solution for added resiliency. The customer engaged Nokia to upgrade its radio technology, and we at Frequentis deployed our FTS (fixed terminal solution) 3020 Release 4.1 solution across two data centres 100 kilometres apart.

The solution runs in active-active mode, offering maximum resilience at all times and minimising the need for scheduled downtime even during maintenance and upgrades. This was a complex migration that needed to be performed without interruption to existing services. Frequentis worked closely with both the customer and Nokia throughout the extensive preparatory stages, creating contingency plans for all eventualities in order to minimise risk. Thanks to this close attention to detail, Frequentis successfully delivered our portion of the solution within the

expected timeframe and without service disruption. The customer project lead commented that the deep expertise and strong project management provided by Frequentis to help keep this major migration on track left the project team extremely impressed. The new FTS went into operation in mid-2017, and there are currently over a hundred live dispatcher terminals. The rail network is now working to integrate a geo-redundant dispatcher solution based on Frequentis fixed terminals integrated with its Traffic Management Systems (TMS).

Mission-critical mobile services

Together with our technology partners A1, Athonet and Nemergent, Frequentis recently demonstrated the rapid establishment of a safety-critical LTE communication infrastructure “at the network edge” during a serious incident, based on the latest 3GPP standards, including MCPTT.

For the demo, we combined mobile broadband network coverage with a deployable micro-system to enable private and group calls between professional field units and dispatchers, with tracking and location information. Emergency teams wearing helmet-mounted cameras were able to stream live HD video

back to the control room, enabling command teams to direct personnel and resources more effectively and efficiently as events unfolded on the ground. Built-in standards-based push-to-talk functionality allowed response teams to communicate with the command centre.

RailDays 2017

Our 7th biennial rail community meeting is attracting rail professionals and influencers from Europe and beyond once again. Taking place on October 24th and 25th at the Sofitel Vienna, RailDays will focus on the topics of Digital Railway / Mobility 4.0 (including potential solutions for this environment), FRMCS, and the latest offerings from Frequentis.

The meeting will be a great opportunity to discuss issues with your peers, to hear from thought leaders at major European railway companies, and to find out how Frequentis and partners are addressing the biggest challenges facing the rail industry. The digital railway will manifest itself in different ways across Europe, but common themes are likely to be greater integration and interconnectivity, requiring supporting technologies that are open and highly flexible. But as companies seem to be gradually phasing out GSM-R, and before FRMCS is defined, the industry remains in something of a limbo state. How can you invest in replacing ageing systems precisely at a point when the future is unknown?

We'll be running a number of sessions around digital railway, including a panel discussion with leading experts, and we'll showcase the bearer-independent technology we delivered to the Finnish national railways as a future-proof, cost-saving step towards FRMCS. We'll also introduce our guests to our future dispatcher technologies and our state-of-the-art incident management system.

If you are interested in joining us at RailDays, please speak to your Frequentis contact. We look forward to welcoming you in Vienna for an enjoyable and productive meeting!

Critical Communications World



Also in May, the 19th annual Critical Communications World conference in Hong Kong opened its doors to more than 3,000 international professionals. As one of 119 exhibitors, we at Frequentis both ran our own booth and also presented our control room expertise at the Huawei booth. We had some interesting discussions with attendees about their vision of the next-generation control room in our "gobeyond" lounge, and we showcased the capabilities of our LifeX™ solution. As public safety organisations throughout Asia continue to build out Tetra and LTE solutions for critical communications, Frequentis expects to maintain a high profile as an innovative provider of value-add solutions.

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