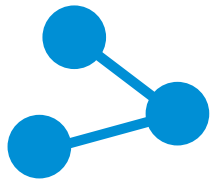




Software for railway track dispatcher



Implementing a railway track monitoring GSM-R system for Frequentis Austria

Early in 2002 one of our key partners FREQUENTIS started implementation of the GSM-R system. GSM-R is an international standard for railway communication and applications. The system is based on GSM and EIRENE – MORANE specifications which guarantees performance at speeds up to 500 km/h without any communication loss.

The task

The task of CERTICON was to develop SW for the dispatcher terminal for train controllers, satisfying the specific needs of the working environment and the user. The terminal has to be capable of functional addressing, multi level priority and preemption and other GSM-R features compliant to the EIRENE – MORANE specification.

One of the biggest challenges was to develop and maintain the SW for different railway projects all over the world.

Additionally the SW shall support the whole family of DICORA dispatcher terminals with different displays and navigation approaches.

Solution

Only due to the sophisticated SW architecture and SW quality it is possible to reuse existing SW components for the different HW platforms and customer specific solutions. The DICORA architecture enables easy splitting of common and customer specific SW components. Thanks to this fact CERTICON is capable to provide SW maintenance and deliver changes and new features within minimum time.

Initially the terminals were operated by ISDN. Currently the terminals support ISDN and VoIP interfaces. The advantage of VoIP is the possibility of using an already existing TCP/IP network infrastructure.

As the terminals are operating in safety-relevant environment the focus is put on stability and defined functionality in all the situations. The GUI was designed and optimised in cooperation with rail controller experts resulting in an intuitive and easy to use human machine interface. The development of GSM-R and its rollout is still ongoing and new features and functionalities are being developed.

Benefits

The DICORA terminal SW for the FTS 3020 Fixed Terminal System is compatible with GSM-R systems of all major vendors and provides open interfaces to be integrated in various environments.

Nowadays over 4.500 terminals in 24/7 operation throughout the world are the testament to the value and success of the cooperation between FREQUENTIS and CERTICON ■

“Frequentis perceives Certicon as a very reliable partner for SW development as well as System Engineering. Flexibility, competence and professional treatment are the key values that makes our partnership a success.”

Herbert Laffer, Technical Partnermanager at Frequentis for Certicon.

About CERTICON

For more than 14 years, CERTICON has been improving the competitiveness of our clients around the world. CERTICON's solutions comprise the full spectrum of services and solutions in software development and quality-assurance verification testing. Our experience in the fields of medical and mission-critical applications and high-tech industrial applications enables us to harness the best practices and solutions for the clients. CERTICON designs, develops, rapid-prototypes and deploys sophisticated software solutions. Our projects and solutions cross medical and industrial domains by leveraging state-of-the-art methodologies and technologies

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