

FREQUENTIS harnesses the potential of security research

The European DRIVER+ research project drives innovation in security-critical data communication

International security research forms an important part of Frequentis' exhibit at the PMRExpo, starting Nov 27 in Cologne. The "Common Information Space" (CIS) is to be demonstrated as a so-called data hub, which will ensure a secure, interoperable exchange of information between authorities and organisations with security functions in European crisis and disaster management.

CIS, was successfully tested in the EPISECC (Establish a Pan-European Information Space to Enhance SeCurity of Citizens) research project between 2014-2017, and is being used again in the DRIVER+ (Driving Innovation in Crisis Management for European Resilience) project. DRIVER+ will now be used to test numerous systems in joint trials as part of European security research by 2020.

At EPISECC, Frequentis and its partners, led by the Austrian Institute of Technology (AIT), developed the CIS, a secure virtual information space, as reference architecture. The purpose of the research was to enable and standardise the generic exchange of information and the cooperation between public safety organisations in crisis and disaster management in large-scale damage situations.

CIS - data hub for standardised information exchange

The CIS offers the reference architecture for secure data exchange. The information systems used in the public safety control centres, e.g. command and control, staff management and communication systems of different makes, can be connected to the data hub, the "CIS core", via an interface, the "CIS adapter", which contains all the necessary functions for sending and receiving information. The CIS core enables the exchange of information in case of syntactic and semantic incompatibility between the different systems to be translated into a standardised format and meaning. It is possible to initiate any number of closed user groups through the control centres logged in to the CIS and to exchange information (data, images) with selected control centres which are also logged in to the CIS. The streaming platform integrated in the CIS core, the "CIS distributor", ensures that the information is transmitted to the control

centres on the basis of standardised protocols, such as the Emergency Data Exchange Language (EDXL family), with almost real-time security.

Standardised information allows a uniform picture of the situation to be created.

The special aspect of the CIS is its ability to understand information from different public safety and critical infrastructure operators (KRITIS) in the same way, despite the use of different languages, terminology or codes. Therefore, the CIS facilitates semantic and syntactic interoperability between the participating organisations in situation management and, ultimately, a standardised and shared picture of the situation in real time.

User-oriented CIS communication concept

The CIS communication concept is very practical, with closed user groups able to be set up at the touch of a button, e.g. in the input mask of the staff management system, as can selective invitations to exchange information from control centres logged into the CIS. Data can be fed in or transmitted on a manual, partially automatic or fully automatic basis. In addition to the secure, encrypted exchange of relevant information among public safety organisations and between public safety and KRITIS, the CIS also supports the receipt of ad hoc messages such as RSS feeds from warning services or other specialist institutes.

"Boosting efficiency and effectiveness through communication between domains and between organisations are the key contemporary issues in a connected world. We feel very sure that we can optimally adapt the research results from DRIVER+ and EPISECC to reflect the needs of public safety in Germany, providing prompt future-led solutions based on standards for security-critical communication.", says Volker Hartwein, Director Business Development Frequentis Public Safety Germany

About FREQUENTIS

Frequentis is an international supplier of communication and information systems for control centres with safety-critical tasks. These control centre solutions are developed and distributed by Frequentis in the business segments Air Traffic Management (civil and military air traffic control, and air defence) and Public Safety & Transport (police, fire and rescue services, emergency medical services, vessel traffic and railways). Frequentis maintains a worldwide network of subsidiaries and local representatives in more than fifty countries. The company's products and solutions are behind more than 25,000 operator positions in almost 140 countries. With this extensive portfolio, Frequentis is the leading provider of voice communication systems... all making our world a safer place every day!

For more information, please visit www.frequentis.com or the EU's EPISECC research project <https://www.episecc.eu/>

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