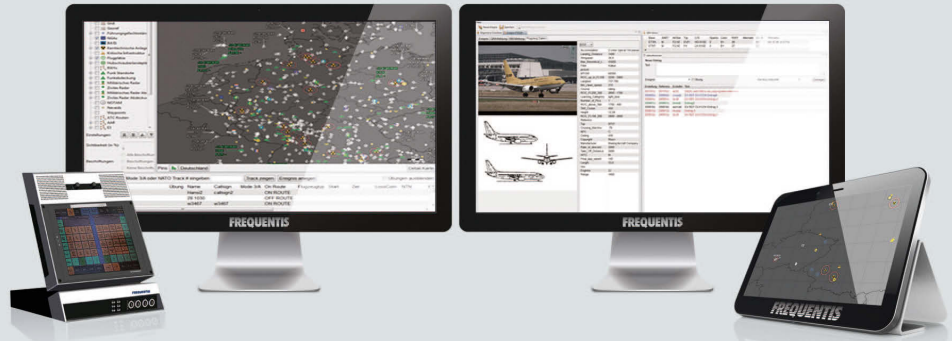




Dear Reader,

It's my pleasure to welcome you to the latest edition of our Defence newsletter. After more than 10 years at Frequentis holding different positions, I assumed leadership of the Defence strategic business unit as of April 2015 and I'm looking forward to this new area of responsibility with great anticipation. Our strategic focus for the future lies in the two core markets military air traffic management and air defence with both being extended by a software-centric approach in mission-critical communication and information solutions. With one of our latest military projects we were able to prove our strong solution business know-how for the rollout of an IT system at the National Air Policing Centre of the German Armed Forces. This project convincingly demonstrates our capability to offer holistic and highly reliable IP-based solutions to full customer satisfaction. Excellent customer relationships are an important success factor for this new software-centric solution design approach. To demonstrate our technological leadership, we showcased our latest technologies and innovations required to meet the increasing demands of military markets at this year's AFCEA. I truly hope you enjoy this new issue while gaining insights into major global projects where proven technologies and strong customer orientation assure a leading market position.

Peter Skiczuk
Director Frequentis Defence



FREQUENTIS PROVIDES THE ROLLOUT OF THE IT SYSTEM AT THE NATIONAL AIR POLICING CENTRE OF THE GERMAN ARMED FORCES

At the end of March Frequentis signed a contract authorising the realisation of an IT system for the German Armed Forces. The goal is the complete rollout of an innovative command and control system that will provide even greater safety in German airspace with regard to the cross-divisional collaboration between the German Armed Forces, the German Federal Police and the German Air Navigation Service Provider.

The contract includes the rollout of a command and control system for the entire National Air Policing Centre (NAPC) with more than 60 stationary and mobile operator positions, as well as the expansion of the current voice communication system KOFA as a core element of the National Operations Centre for Airspace Security (NLFZ SiLuRa).

All information that is necessary for the evaluation of the situation in the sky over the Federal Republic of Germany converges at the NAPC. In 2011 Frequentis developed a demonstrator program based on the Frequentis Component Framework that depicts the operational procedures for air surveillance and defence in a process-oriented command and control system. Based on the demonstrated solution the German Armed Forces has now authorised Frequentis to carry out the rollout of the system for the NAPC.

iSecCOM – IP BASED VCS FEATURING SECURITY LEVEL NATO SECRET

Photos: Frequentis AG, istock



PRODUCTS AND SOLUTIONS

iSecCOM is a highly available distributed IP voice communication system which supports integration of voice encryption devices and provides domain separation via a secure audio switch.

Due to its integration, interoperability and safety development standards it can be used in military and civil air traffic control as well as in command and control centres. The solution is based on mission-proofed components, which for example have been in service in Control and Reporting Centres (CRC) of the German Air Force for years. However these components are set up in a new decentralized, service-oriented architecture. Due to its very small footprint iSecCOM can be employed in stationary, deployable and mobile configurations.

Most importantly iSecCOM is a full IP-based voice communication system addressing major requirements of civil as well as military customers in the areas: interoperability, integration, security and cost-efficiency. The solution seamlessly connects towers and air traffic control centres as well as command and control centres with nationwide remote radio sites in IP-based wide area networks. iSecCOM enables using Communication Security (COMSEC) by integration of VINSON compatible crypto devices and state of the art IP encryption and supporting the usage of tactical radios with waveforms for Transmission Security (TRANSEC) like HAVE QUICK and SATURN. The operator position itself allows simultaneous monitoring of both security domains using a

single headset and a touch entry device. The headset is connected to a unique certified secure audio switch (iSAS), which has been evaluated under Common Criteria EAL 4+, and guarantees call separation from and to two different security domains (red/black separation).

iSecCOM is characterised by the following four core-features:

- 1. Safety and Security:** The field proven, highly resilient iSecCOM fulfils both the tough safety requirements of ATC (e.g. no single point of failure) and the requirements of information security (e.g. red/black system, CC EAL 4+ certified components).
- 2. Modularly Scalable and Deployable:** iSecCOM features a decentralised, COTS-based, scalable system architecture for mission tailoring with a small footprint especially for deployable systems.
- 3. Open System Integration and Standards Conform Interoperability:** iSecCOM integrates into your existing IT environment thanks to its open design for network, device and application integration. iSecCOM has been developed according to interoperability standards ED-136, ED-137 to ensure a maximum compatibility to other systems.
- 4. Easy to Operate and Simply to Maintain:** iSecCOM provides a clear and intuitive HMI integrating the presentation of radios, phones and red/black domains at a single position to support the operator. The system management has been designed to maximise maintainability and system health.

COLOMBIA IMPLEMENTS FREQUENTIS PRODUCTS

Ranked at third place with respect to economic strength in Latin America, Colombia plays an important role for Frequentis.

The fight against national and international terrorism requires a trusted partner for military networked communication and fast access to the latest technologies from a leading company like Frequentis. Besides military growth, Colombia has, in recent years, experienced some of the highest growth rates in civil air traffic in the world. Its geographical location profits from a large yearly increase of overflights. This fact combined with a stable economy led to a sudden rise in air cargo traffic and the creation of big air traffic hubs in Colombia.

Aeronáutica Civil became a customer of Frequentis and now operates several airports with VCS systems, which provide the highest possible quality and the best support available. Both, Colombia's military and civil entities decided to implement networked communication and data solutions for air traffic management.

The corresponding Frequentis products are well known to the Latin-American market for being compliant with the latest standards and offering a wide range of features. Investing in the emerging key account Colombia is an on-going process for Frequentis, achieved by highly skilled and trusted partners together with a strong and motivated team and, of course, future-oriented customers.



MEET THE TEAM



Michael Delueg is the new Defence Product Manager. He joined the team in November 2014 and is responsible for new and existing Frequentis Defence Products. With his

technical expertise and market know-how in embedded systems design and machine vision for industrial applications he makes an ideal addition to the Frequentis defence team of experts. As a certified software product manager Michael is now focussing on exciting new defence products!



Johannes Schmallegger joined Frequentis in 1999 as project manager. Starting in 2005, he built up the Bundeswehr project management team and

developed the installed base business. In 2008 he moved to Germany to build up the Defence Germany project management team. In 2015, as Head of Project Management Germany, he took over the Key Account Bundeswehr and has full profit and loss as well as business strategy responsibility.

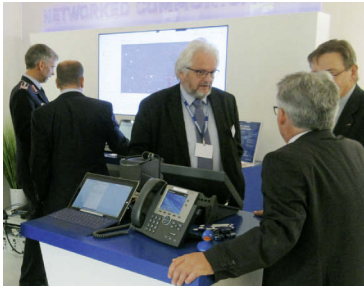


Armin Krotky joined Frequentis in 2011 as rollout project manager for the Nødnett Project in Norway. From July 1, 2015 he will be responsible as head of projects for execu-

tion of all Defence projects and programs, as well as handling operational responsibility for coordination and management of international projects. Before joining Frequentis he worked for several years in the international area of telecommunication and IT, with focus on rollout projects and optimizing service processes.

Frequentis has endeavoured to ensure that the information in this document is to the best of its knowledge correct, but does not accept any liability whatsoever for any error or omission.

FREQUENTIS AT AFCEA 2015



Frequentis participates in various international trade shows throughout the year in order to showcase its newest technological developments and innovations, which allow it to fulfil the ever-increasing demands of military markets. The AFCEA – as one of the most important IT trade shows of the German security and defence industry – plays a crucial role for Frequentis. This year the AFCEA opened its doors for the 29th time on May 6, 2015 at 9:00 AM, with roughly 1,500 visitors attending.

As an international provider of individual solutions for network-enabled operations, Frequentis participated once again in the event and presented its solutions. In line with its slogan, "Tailored Solutions for Networked Communication", Frequentis highlighted its penchant for innovation, which for many years has made the company stand out among the competition.

The Frequentis booth proved to be extremely popular with the event's attendees, who kept visiting well into the late hours of the second day. Many of them were long-time customers who were quick to show how excited they were by the versatile capabilities and solutions that were being presented for the defence and security markets. Within this context, Frequentis exhibited two solutions as a proof of concept, using fully functional system demos for this purpose. One was its Hybrid Control Centre Solution, an expansion for the iSecCOM[®] red/black communication system that enables it to use off-the-shelf IP components in a scalable system architecture and paves the way for the integral and service-based communication of the future. The other was its National Air Policing Centre demo, which addresses the needs involved in cross-



departmental air traffic control cooperation between the German Air Force, police, and ANSPs when it comes to guaranteeing German airspace safety and security. Frequentis staff demonstrated these solutions extensively, thoroughly discussed them with visitors, and went over the added value that they can contribute to users.

These exchanges continued in a casual and relaxed atmosphere at the event's traditional happy hour on the first day. True to the motto "Frequentis as ambassador of Austrian joie de vivre", visitors enjoyed extraordinary wines, cheese, bread, and typical Austrian cured meat known as speck, whilst talking about the products and solutions of the future, for which Frequentis can provide support as a strong and reliable partner.

We would like to take this opportunity to once again thank you for your interest and for visiting us at this year's AFCEA trade show. [We look forward to seeing you once again at our K2 booth next year!](#)

SAVE THE DATE

DSEI
 15-18 September 2015
 The World Leading
 Defence & Security Event
 ExCeL, London www.DSEI.co.uk

Booth: S9-167
Date: 15-18 September 2015
Place: ExCeL London

**FREQUENTIS @
 DSEI
 London 2015**

Photos: Frequentis AG, istock

