

## Pioneering mission-critical mobile services over LTE

### **Mission Critical Push-To-Talk (MCPTT) fosters a faster response and enhanced situational awareness in the event of a disaster**

**Frequentis and its technology partners, Austrian mobile radio provider A1, Italian LTE mobile core network provider Athonet and Spanish MCPTT application provider Nemergent, united to demonstrate the rapid establishment of safety-critical LTE communication infrastructure “at the network edge” during a serious incident. It was a breakthrough demonstration in mission-critical mobile services as it pioneered services based on the latest 3GPP standards such as MC-PTT.**

In the event of a crisis, every second counts. Being able to quickly and cost-effectively build up a communication network, and get a picture of the deployment situation, brings significant advantages to safety-critical communication. Mobile communications standards offer new possibilities in safety-critical broadband communication, the LTE mobile radio standard enables this in the form of MCPTT.

During the demo in Austria last week a crisis flood scenario was set up in a power plant. Different terminals and LTE networks made up the solution, consisting of an LTE network from A1, and a 5G-ready complete LTE mobile core network including IMS (IP Multimedia Subsystem) from Athonet, winners of the 2016 GSMA Global Mobile Awards. In addition, Nemergent provided a core element, the MCPTT client and server components, while Frequentis provided the control room solution with their Multimedia-Collaboration Platform 3020 LifeX, enabling cross-coupling (LTE, TETRA, Emergency Telephone Calls) and mixing media as well as tacking the resources on the embedded geographical information system (GIS).

During the demo, mobile broadband network coverage was combined with a deployable micro system, allowing private and group calls to be established between professional field units and the dispatcher, providing tracking and location information. Emergency teams wearing helmet mounted cameras were able to stream live HD video to the control room that allowed the command teams to direct personnel and resources more effectively and efficiently in response to events on the ground. Command personnel and on-the-ground teams could communicate as a group using the built-in standards-based on Push-To-Talk functionality. The demo also allowed video streaming from an operating power plant in a second location in Carinthia, showing the resilience of the solution to support network communications for critical national infrastructure during a crisis.

"The LTE technology is currently being implemented worldwide in the safety-critical domain. Preliminary work and the roll-out are already in progress in various countries. With our 3020 LifeX public safety platform, we are well prepared for current and future public safety demands. New technologies such as broadband, apps or smart devices will further accelerate the development of high-performance applications in the field of safety-critical applications", said Frequentis technology board member Hermann Mattanovich."

"Since we deployed the world's first LTE network for public safety in a real disaster situation in 2012, Athonet has continued to innovate and lead the industry in bringing digital solutions to the public safety market comprising the most advanced network features. This new multi-vendor effort to pioneer standards based Mission Critical Push-To-Talk deployments over LTE networks was made possible by combining Frequentis' 3020 LifeX, Nemergent's highly flexible PTT functions and Athonet's virtualized EPC and IMS.", said Gianluca Verin, CTO of Athonet.

"The new wave of 3GPP-specified mission-critical communications opens a new world of opportunities to end users and interoperable solutions providers. Yet, the industry needs to adapt the technology to different deployment models, including public mobile broadband networks and private LTE networks. This exercise allowed us to better understand the insights of hybrid deployment models, showing how the Nemergent virtualized MCPTT solution enables agile deployments and inter-domain interoperability", added Jose Oscar Fajardo, CEO of Nemergent Solutions SL.



Caption: Great interest and interaction at the MCPTT demo at Frequentis Headquarters in Vienna

### 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 over 130 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](http://www.frequentis.com)

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### About ATHONET

Athonet's cloud and fog-native mobile core network software makes it dramatically simple and highly affordable for network operators, public safety organisations, enterprises and other non-telco users to deploy and manage 5G ready wireless networks enabling vast new markets such as the Industrial Internet, Public Safety, Connected and Autonomous Cars, Smart Grids and Cities as well as other demanding vertical markets. Athonet's software has been used successfully and is running live with mobile operators, enterprises and governments worldwide for a range of scenarios comprising secure communications, rural area Internet connectivity, critical infrastructure and Industry4.0. Athonet's innovative and disruptive distributed software platform is a winner of the 2016 GSMA Global Mobile Awards.

For more information, please visit [www.athonet.com](http://www.athonet.com)

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### About Nemergent

Nemergent Solutions SL integrates a founding team with large experience in designing and prototyping novel Public Safety solutions over mobile broadband technologies, with an agile development team with vast experience in Internet technologies. The company core business areas are new generation mission critical systems, with a portfolio that includes MCPTT clients, MCPTT AS and MCPTT management servers. The server-side components are designed as NFV components, fostering agile and flexible deployments. The innovation-driven nature of the company promotes the establishment of research links with different UE, IMS and EPC leading companies. The overall solution is expected to serve different vertical sectors related to mission critical systems, such as public safety, public transport and logistics.

For more information, please visit [www.nemergent-solutions.com](http://www.nemergent-solutions.com).

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