PSCE Conference Report

Madrid, 28-29 November 2017

Public Safety Communication Europe (PSCE) Forum held its 17th conference on **28-29 November 2017** in Madrid. The conference was preceded on the 27th by a workshop organized as part of the H2020 EMYNOS project, which deals with next-generation emergency services.

Around 90 delegates from more than 30 organisations attended across the 3 days to discuss the future of public safety communications.

Participants were provided with the latest updates related to the transition to broadband from various national perspectives. The conference namely featured presentations from FirstNET, the independent authority mandated to develop, build and operate a nationwide, broadband network in the United States. The UK, French, Belgian and European-wide perspectives to broadband transition were further presented. The conference also covered hot topics in the area of public safety communications including the General Data Protection Regulation, the use of video in a public safety environment and the internet of public safety things.

Overall, the PSCE conference provided a platform to get informed on PSCE activities, also fostering effective interactions between public safety actors and the user, industrial and research communities.

The conference in Madrid focused on the following questions:

- **Broadband Transition**: What is the current status of broadband transition from different perspectives? What are the associated challenges and opportunities?
- **General Data Protection Regulation:** What is the GDPR? What are its implications for PPDR?
- **Use of video in a public safety environment**: What are the possibilities? What to take into account?
- **Internet of Public Safety Things:** How does IoT drives innovation towards future integrated command & control solutions? Why does Broadband need narrowband in PPDR?

The conference also featured two presentations from Spanish Law Enforcement Authorities, a presentation on the G20 summit in Hamburg and a presentation of the H2020 EMYNOS project. This diverse programme led to interesting debates, roundtable discussions, and networking possibilities.

Presentation stands and start-up corner

A presentation and start-up corner was set up and lasted throughout the conference. TELTRONIC held a presentation stand to raise awareness about their critical communication solutions while NEMERGENT, a public safety start-up, presented their MCPTT solutions through a live demonstration and the possibility to test the product on the spot. Finally, promotional items for the H2020 DRIVER+, EMYNOS and E2MC projects were distributed.

The conference was kicked-off by a short word and a warm welcome from Mr Blaha, PSCE President and Mr Ramos Prada from the Spanish National Police.

Presentations from Spanish Law Enforcement Authorities

Mr Javier Coso (Spanish National Police) presented a project developed by the Spanish Ministry of Interior called "Future Car". The Police Future Patrol Car is a technological state-of-the-art solution for assisting Spanish police officers in their daily tasks and duties. Mr Coso discussed the current status of the project, the technical problems encountered and the means developed to solve them.

Thereafter, Lieutenant-Colonel Conrado Avila Alexandre (Guardia Civil) provided a description of the scope of responsibilities assigned to Guardia Civil as state security body including: rural scope, maritime surveillance, border protection, etc. He further discussed current use of narrow band radio communications (SIRDEE service) in these actions as well as the expected evolution of services linked to the next generation of radio communication technologies.

Focus 1. Broadband Transition (6 perspectives)

US

Chief Technology Officer Jeff Bratcher and Chief Customer Officer Richard Reed (FirstNET) provided an overview of the US FirstNet program, sharing updates on the programs status and roadmap ahead. Mr. Bratcher focused on the technology of the FirstNet network, discussing some of the challenges faced and overcome and key lessons learned to date. Mr. Reed discussed the significant nationwide outreach efforts to Public Safety, state and federal leaders for the collection of critical user information, needs and insights that has shaped the network and emphasised that FirstNet is being built for Public Safety by Public Safety.

UK

Steve Whatson (ESMCP) gave an update on the progress of delivering the new UK Emergency Services Mobile Communications Programme on a commercial 4G LTE network. This included the drivers for the move from a TETRA based system to a 4G LTE solution and an explanation of challenges the team has faced delivering this innovative programme, which is the first deployment of its kind in the world.

Belgium

In addition to addressing Belgium's strategy regarding the upgrade of the current narrowband TETRA, Mr Jo Dewaele (ASTRID) addressed the MVNO Solution Blue Light Mobile as well as ASTRID's long term 3GPP technology based services.

France

GerardCarmona's (French Ministry of Interior) presentation dealt with the present PPDR networks in France and introduced future developments including tactical networks (PC STORM project) and the mid-term roadmap for a LTE PPDR network 5G ready with a main feature. The main question raised by Mr Carmona was linked to the establishment of a mission critical network above non critical network infrastructures, mixing on a cost-effective way multi-MNO access, opportunistic backhaul and several sizes of tactical networks.

Norway

Hans Petter Naper (DSB) presented NØdnett, the tetra system for PPDR operating in Norway. It was emphasized that NØdnett is one of the most up-to-date TETRA PPDR networks in Europe. Mr Naper discussed the development of NGN (next generation NØdnett), which will be based on standardized technology and support completely new services for PPDR users as they become available. Mr Naper further emphasized that, when choosing a solution for NGN, there must be at the same time an intention on how the solution shall be realized financially, in order to satisfy the needs for coverage, functionality, robustness and security.

BroadMap and BroadWay

David Lund (PSCE) punctuated these presentations by addressing the challenges related to the deployment of a public safety network in Europe. He discussed the specific approach and characteristics of the H2020 BroadMap Project which ended in April 2017, and mentioned the BroadWay project, which would constitute the next step towards an interoperable PPDR Broadband Communication Network in Europe and would procure innovative solutions for a large group of practitioners, ensure that the innovative solutions fit their needs and complement their national plans for transition to broadband for public safety.

Future standards and validation

The Broadband transition topic was complemented by two presentations on future standards and validation. Mr Fidel Liberal (UPV/EHU) provided an update on MCPTT plugtests while Emmanuel Dotaro (5G association) discussed 5G innovations. Mr Dotaro (5G IA) namely emphasized that standardization is essential for realizing 5G promises, adding that the spectrum availability is key for future 5G deployments. He further stated that cost-efficient deployment strategies are needed and that new business opportunities are expected to emerge from 5g, enabled by 5PPP innovations.

Focus 2. The General Data Protection Regulation

Mr Andrés Calvo (Spanish Data Protection Agency) provided the background to the development of the GDPR. He emphasised that the EU General Data Protection Regulation (GDPR) replaced the Data Protection Directive 95/46/EC and was designed to harmonize data privacy laws across Europe, to protect and empower all EU citizens' data privacy and to reshape the way organizations across the region approach data privacy. Of course, this would have consequences for the public safety sector, as the data conveyed in emergency missions is sensitive in nature.

Focus 3. Use of Video in Public Safety Environment

Mr Jeppe Jepsen (Motorola Solutions) discussed the use of video in Public Safety situations. Based on the findings of a survey conducted by Motorola solutions which reflects the input of almost 200 public safety professionals in 46 countries across EMEA, it resulted that the use of video in a public safety environment has considerably risen in the last two years, especially with regards to responders' body-worn devices. The main barrier to video adoption remains administrative overhead and cost along with concerns over privacy. Mr Jepsen proceeded to discuss video in relation with cloud-based applications for Public Safety, Public Safety video requirements, Parameters in use cases, Forensic video analytics and video-related standardization aspects.

Focus 4. Internet of Public Safety Things

Ms Raquel Frisa (TELTRONIC) highlighted that the Internet of Things has been usually conceived as a wireless technology enabling connectivity for traditional wired and pipe utilities. However, first responders' desire to increase information availability across their staff indicates a strong interest in new enhanced solutions. In addition, the evolution towards smart cities and always connected citizens, broadens new use cases for integrated next generation command and control centres. This trend will continue to develop and drive the Command & Control market in the future.

Mr Dietmar Gollnick (e*message) emphasized that the wireless architecture of Broadband and Narrowband are even more relevant today than they were in the past. Indeed, the Internet of Things, public warning, all require top quality, highly available in larger amount Narrowband wireless services. Mr Gollnick further mentioned that hybrid solutions can economically provide the excellent coverage and reliability to satisfy such high performance in radio networks, not only in public safety but in commercial networks as well.

Other presentations

The H2020 EMYNOS project: next generation emergency services

Yacine Rebahi (FOKUS), coordinator of EMYOS, gave an overview of the EMYNOS project which main objective is the design and implementation of a Next Generation platform capable of accommodating rich-media emergency calls that combine voice, text, and video, thus constituting a powerful tool for coordinating communication among citizens, call centers and first responders. The EMYNOS system is now currently being tested in the course of several

pilots taking place in Poland and Turkey. The next pilot will take place end of December in Graz while the final demonstration will take place end of January 2018 in Bucharest.

G20 Summit from a public safety digital radio point of view

This presentation, carried out by Ms Chouhbi-Kupke (BDBOS) gave insight in the complex procedures of a large scale event. What are the different challenges of this major operation the Federal Agency for Public Safety Digital Radio (BDBOS) had to face? The presentation gave an overview on possibilities, different measures but also difficulties to maintain a functioning Public Safety Digital Radio network, on which all PPDR task forces strongly depend. Also, it focused on preparatory measures taken prior to the operation and lessons learned from the G20 summit and on-site support by the BDBOS.

Social Event: 112 Madrid visit and networking diner

The conference was marked by a guided tour of the 112 emergency centre of Madrid with the assistance and support of Mr Fernando Conde, Head of Madrid 112 R&D. Delegates were not only fascinated by its peculiar architecture but also by its mode of operation. The centre allows the operational integration of all emergency agencies in a single common space and defines the procedures that determine when each service must be activated. The visit was followed by a networking diner in a typical Spanish restaurant in the heart of the city.