

European Commission urged to support dedicated PPDR spectrum

Oct 16, 2014 by Toby Youell

An EC-organised workshop on the use of commercial networks for PPDR (public protection and disaster relief) was dominated by discussions about whether dedicated spectrum is needed.

The European Commission held the workshop this week to present the final report from a study of the use of commercial networks for PPDR, but the subject of dedicated spectrum was repeatedly raised.

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Many comments were provoked by a discussion of how mobile network operators (MNOs) can become trusted to provide resilient networks for mission-critical and business-critical services.

If regulators can find a way to change MNO behaviour, then mission-critical services can be provided over commercial networks, said Simon Forge of SCF Associates, the organisation leading the consortium that carried out the study. He told the workshop that there are conditions that operators would have to fulfil in order to be given PPDR contracts.

Firstly, operating or spectrum licences would have to be modified to oblige MNOs to provide these services. Secondly, regulators' obligations and resources would have to be bolstered to provide assurance that provision was being made. Thirdly, MNOs would have to be obliged to prioritise mission-critical traffic. Fourthly, MNOs would have to base their prices on costs, which could be checked through open balance sheets. Finally, governments would need to clarify the meaning of "mission-critical" services to include utilities and transport management.

Forge said these conditions would change the role of the MNO in society, but added that this was a part of a general global trend towards making MNOs act like public services, with social commitments.

"MNOs will have to progressively change as they move centre stage in our economy and become a foundation of how people interact," Forge told *PolicyTracker*. "I think a key part of that change in their social position will be control of the conditions attached to the use of spectrum." He said the role of MNOs was already moving in this direction in other parts of the world, and that it was related to the growing importance of the mobile sector in comparison to fixed line services.

Half empty or half full?

Many of those at the workshop argued that MNOs could not be trusted with mission-critical services.

Hans Borgonjen, who works for the Dutch police and the Tetra and Critical Communications Association (TCCA), proposed that the conclusions of the study should be reversed to say that commercial networks cannot support mission-critical services unless the conditions articulated by Forge are met.

Andreas Geiss, the head of spectrum at the European Commission who was chairing the workshop, joked that this was a question of whether the glass was half full or empty. Nevertheless, many stakeholders agreed with Borgonjen that the conclusion of the study should be turned upside down.

Nina Myren, deputy director general for strategy at Norway's Directorate for Emergency Communication, said she doubted that mobile operators could prioritise their obligations to society over their obligations to their shareholders.

Dedicated spectrum for PPDR

Many made the case for dedicated spectrum. For example, a representative of the Belgian regulator BIPT said that although he was in favour of using commercial networks for some mission-critical services, he was also in favour of dedicated spectrum for PPDR.

Barbara Held of Germany's Federal Agency for Public Safety Digital Radio pointed out that by assigning spectrum to an operator, a regulator loses the ability to use that spectrum for a PPDR network if the commercial venture fails.

“It is about having control,” said Jeppe Jepsen, who works for Motorola and the TCCA. He argued that an operator could use a 2 x 10 MHz block of dedicated spectrum with its own commercial spectrum to make a 2 x 20 MHz block that it uses for mission-critical services.

However, if this arrangement does not deliver the desired outcome, and “if the spectrum belongs to the operator, then removing the spectrum is painful,” he said. He pointed out that allocating spectrum for PPDR is one of the agenda items (1.3) at next year's World Radiocommunication Conference (WRC-15) and that such an opportunity would not come again for many years.

Europe's PPDR spectrum community are hoping for an ITU-R allocation for 2 x 10 MHz, preferably in the 700 MHz band. Adrian Grilli, who works for UK spectrum management agency the Joint Radio Company, argued that the allocation would be reasonable, as it would account for just two per cent of sub-1 GHz spectrum.

An endorsement from the European Commission would greatly bolster the chances of a European Common Position (ECP) in favour of this allocation, and potentially a change in the Radio Regulations to secure the spectrum, he said. *PolicyTracker* understands that a draft ECP may be discussed by a sub-committee of CEPT's Conference Preparatory Group in January.

Geiss would not be drawn into providing such an endorsement at the workshop.

A hybrid model

The consultants involved in the study presented several options for how commercial networks could provide mission-critical services. They concluded that the most affordable scenario would be commercial mobile networks using "hardened" commercial LTE equipment.

They estimated that the capital expenditure from this option would be 70 per cent of the status quo (dedicated TETRA networks), and the operating expenditure would be 44 per cent. However, most of those at the workshop favoured a “hybrid solution”, which would combine existing PPDR networks with a phased move to a common LTE mix of dedicated and commercial networks.

The consultants identified this as a substantially more expensive option – possibly as much as 290 per cent of current capex and 400 per cent of current opex. However, many stakeholders questioned the cost estimates that were provided. The report's co-author Robert Horvitz said that he anticipated that the calculations would be challenged, as they were based on incomplete data.

Geiss clarified that the European Commission was not planning to mandate anything following the completion of the study, and that it would be up to EU member states to make their own decisions about critical communications. •

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