



Police Federation of Australia

The National Voice of Policing

SUMMARY OF 800 MHZ SPECTRUM COMPARED TO 700 MHZ

Public safety has a requirement for dedicated broadband spectrum to enable their rapidly growing demand for access to next generation wireless broadband technology to compliment their existing mission critical narrow band voice and data networks.

On the 10th May 2011, Attorney-General Robert McClelland and Minister for Broadband, Communications and the Digital Economy Stephen Conroy announced the possible 'earmarking' of spectrum from the 800 MHz band for potential use by public safety agencies to build their mobile broadband capability.

Many Australian public safety agencies and suppliers have responded and expressed concerns that allocating the 800 MHz spectrum for public safety Broadband would not be as viable as an allocation from the 700 MHz digital dividend for the following main reasons:

- The 800 band is narrowband, not broadband and narrow and broadband communications cannot be carried by the same spectrum
- 88% of the 800/900 bands are already occupied by the three major telecommunications companies – Telstra, Optus and Vodafone Hutchison. A number of police and emergency services also occupy the 800 band for narrowband voice communications and they will continue to need this spectrum for that purpose
- There are more than 1,000 licensees in the 800 band and 20,000-30,000 users in the 820-825/865-870 MHz band. Clearing that spectrum to provide 20 MHz for PSA broadband would be a long difficult job, taking decades, and that it appears that the same 800 band is being held out to four or more different interests at the same time
- A spectrum allocation in the 800 MHz bands for public safety would isolate Australia from the Asia Pacific Region, and the rest of the world. We understand that the International Telecommunications Union (ITU) Public Safety and Disaster Relief (PPDR) spectrum in 800 MHz is intended for narrow band (less than 25 kHz) applications, and spectrum in the region is mostly occupied.
- Industry suppliers are advising that there will be limited supply of public safety broadband devices in the 800 MHz band. All development of public safety is currently planned for the 700 MHz bands, and so can more easily be adapted to harmonise with the Region 3 Digital Dividend
- Any chipsets and devices coincidentally developed that could potentially cover the 800 MHz PPDR bands would most likely not roam onto the other public networks in Australia. This is because the market for the limited selection of chipsets developed

for commercial operators will be for other regions, with different spectrum bands and technologies deployed to that of Australia.

- The implementation schedule for 800 MHz public safety broadband will be extended significantly. This is due to the uncertain future plans for the 800 MHz band, the time required for clearance of sufficient spectrum and to minimise disruption to potentially thousands of other users displaced by such a plan.

Alternatively, an allocation from the 700 MHz digital dividend will provide key benefits over the 800 MHz as follows.

- The broadband 700 MHz Digital Dividend is harmonised with our Asia Pacific spectrum plan and will coexist with the 800 MHz PPDR and other narrow band networks deployed extensively in Australia and the rest of our region.
- Industry suppliers are already developing public safety broadband products in the 700 MHz band which they have advised can more easily be adapted to the Asia Pacific Digital Dividend spectrum plan. The larger market and wider availability of chipsets will provide a rich ecosystem of competitively priced devices and solutions developed for public safety applications. The performance and features of these devices will keep pace with the rapid evolution of technology.
- Because the 700 MHz chipsets will be developed for our local regions digital dividend spectrum plan, these will be compatible with other commercial networks deployed in the region allowing roaming onto the other networks.
- 700 MHz digital dividend spectrum will be released in a defined time frame, allowing public safety to commence planning and schedule deployment.

The decisions to be made regarding choice of spectrum for public safety Broadband are critical to the operations of Emergency Services Organisations for many decades to come.