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30 October 2015

Public Safety Mobile Broadband
Productivity Commission
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Dear Commissioner Coppel

**POLICE FEDERATION OF AUSTRALIA: SUBMISSION ON PRODUCTIVITY COMMISSION DRAFT REPORT ON PUBLIC SAFETY MOBILE BROADBAND**

Thank you for the opportunity to comment on the PC draft report following our discussions since the release of the draft.

As you know the PFA represents Australia's 60,000 police officers across all jurisdictions. Therefore we have a vital interest in ensuring that the nation's police have 21st century communications namely, mobile broadband communications and interoperability nation-wide in the interests of public safety.

The PFA is seriously disappointed with the Commission's Draft Report on a number of grounds which we set out below. In summary, we think the Commission has missed a once-in-a-lifetime opportunity to propose to the Federal Government a ground-breaking inter-operable public safety communications system that would avoid all of the miss-steps of the past, not set up another telecommunications carrier 20-year monopoly arrangement, but instead result in seamless 21st century communications for the benefit of the whole Australia community in terms of public safety.

The commercial option, which the Productivity Commission clearly prefers, is privatization at its most extreme. It would put police and emergency services communications in the hands of a monopoly commercial carrier, a public policy outcome which we believe is irresponsible, shortsighted and foolhardy.

It would leave rural and regional Australia with a second-rate, non-public safety grade service, including along the nation's major highways wherever mobile coverage is less than adequate.

We, and the Productivity Commission, should not beat around the bush any longer. Telstra is likely to be the only viable service provider under the commercial provider model that you advocate because it has the largest geographic coverage for mobile broadband services. Your preferred option would likely give Telstra a 20-year monopoly over the provision of public safety mobile broadband communications to add to its 20-year, $3 billion (in real terms) monopoly over the Universal Service Obligation (USO) which almost all commentators agree is no longer serving its vital purpose of ensuring emergency communications for the general public.

The cost/benefit analysis that you were tasked to undertake is not a cost/benefit analysis at all. You have not seriously considered the benefits to the Australian public, and their police and emergency services, over the 20-year period that you have used, even though at least one of the State agencies presented substantial material, generated at significant cost to it, on the benefits side. What you present instead is a costs-only view, leaving readers, including governments, to think that provision of mobile broadband for public safety purposes is a hugely expensive exercise with unknown benefits.

Other international studies to which you have been directed have been able to estimate the benefits side of the equation, the results being cost/benefit positive in such cases. A number of PSAs advise us that they consider the draft report's modelling to be defective and that your preferred commercial option was found to be the most expensive.

Furthermore, in comparing the costs of the options you investigate, you have failed to include the commercial carriers' (e.g. Telstra's) costs of providing the communications service, passed on to each public safety agency for 20 years. Instead you have focused on the widgets - towers and wires, etc. We are advised that based on past experience a full accounting of costs is likely to add on-costs of at least 20% per annum to the bill which public safety agencies (i.e. governments/tax payers) will be presented with. We, and others were astonished that you would put these substantial costs in the "costs excluded" category in your draft report. Needless to say this totally changes the relative costs of the commercial/privatized option, compared with the dedicated public safety agency option, or the mixed/hybrid option. Your preferred privatized option will of course be very much more expensive given those additional, unavoidable costs and they should be included in your final report.

We note that you say that a national, rather than State-by-State, approach to developing the PSAs mobile broadband network would be 20% cheaper, and yet you go on to favor a State-by-State approach. This appears to be contradictory and some clarification would be appropriate. In addition, COAG has determined that the national network must provide for interoperable communications. It is not at all clear how networks developed incrementally State-by-State will be interoperable,

given the experience with voice networks which seem to be the opposite of interoperable.

For all of the reasons cited above, the PFA considers that your final report will require further significant analysis and reworking to insure a credible report to the Federal Government in which the public can have a high degree of confidence, even if this means that your final report must be delayed.

We detail below other specific aspects of the draft report that are of particular concern.

**SPECTRUM**

We are convinced that dedicated spectrum for public safety mobile broadband communications is absolutely fundamental to any successful national system controlled by those public safety agencies which will use the system. For public safety agencies, effective communications are not just another business input. It is a critical input and, for police officers, more important to them than their firearms when the chips are down. The *Radiocommunications Act 1992* recognises that when it says that adequate spectrum must be provided for defence, law enforcement and emergency services. Allocation and ongoing control of the spectrum gives police the mission-critical standards they need, the access and priority they determine, and the robustness, security and reliability that is essential to their responsibilities to the Australian public, unlike any commercial carrier.

It beggars belief that the Commission would favour a commercial carrier/privatised option which you acknowledge has not been able to demonstrate that it can provide PSAs with guaranteed network access and priority over other traffic without dedicated spectrum being held by PSAs.

Only options founded on public safety agencies having a minimum of 20 MHz of dedicated spectrum will be acceptable to the PFA and the nation's public safety agencies. The views of PSAs on this critical matter should be paramount.

**INNOVATION**

Given the Turnbull Government's stated priority for innovation and productivity, a number of innovative possibilities need to be considered more fully in your final report.

You deal briefly with the Rivada Networks proposal including at page 147 of the draft report. This involves providing 30 MHz of dedicated spectrum to PSAs to which they would have exclusive access when and where they need it for every kind of emergency – terrorist incident, flood or other natural disaster, and serious criminal incident. When their spectrum is not being used, or not used to full capacity, it would be generating revenue from commercial carrier users like Vodafone, Optus, and other enterprises like Google or Facebook in an open access market at market prices. 30 MHz of spectrum means that "spare" spectrum would be available for commercial users much of the time.

We understand that Rivada Networks is likely to be one of two participants in the USA FirstNet request for proposals in December 2015, and in opt-out State tenders. We are not necessarily advocating this approach for Australia given that it remains to be proven in practice, but it is worthy of consideration.

Your final report should highlight the fact that this option means that the dedicated network for PSAs (with their own spectrum) could be privately financed at NO cost to governments (saving the $6.1 billion you estimate), see the mission-critical network further extended into rural and regional Australia, and would generate an on-going revenue stream that could be ploughed back into public safety and other Federal Government priorities. In short, the Commonwealth's spectrum would continue to earn significant money over the 20 years of the arrangement. This truly would be an innovative use of spectrum, an important investment in public safety, and a revenue stream for the government. This makes effective use of spectrum also a long-term investment vehicle for the Federal Government.

A variation on this innovative approach would see public safety allocated 20 MHz of spectrum in the 700 band adjacent to a commercial carrier's spectrum and adjacent to the remaining 10 MHz in that band, such that the latter would be a more valuable commodity. This would not only create greater competition in the market, it would also be good operationally by allowing for public safety overflow when additional mobile broadband capacity is needed. It would achieve three things – the capability PSAs need, more competition in the 700 MHz band, and savings for governments.

**MISSION-CRITICAL GRADE NETWORKS**

The mission-critical grade that PSAs require of their communications network is not likely to be delivered by your preferred commercial carrier option. We, and more importantly the PSAs, are convinced that the commercial carriers do not have, and are unlikely to develop the standard of network that PSAs must have. For perfectly understandable commercial reasons they do not have the design, reliability, resilience, redundancy and security required for public safety purposes. A commercial carrier losing just a few sites where a disaster is occurring could have tragic consequences for police or emergency services and the public, a point which seems to be overlooked in your analysis.

We understand that the architecture of the carriers' systems is remarkably different from that of the PSAs distributed networks that are essential for greater reliability and capacity. The PSAs views on this matter need to be seriously considered because their motivation is public safety, not shareholder interests.

One recent example described to us highlights just why this is so important. In some areas of Australia Telstra has moved to replace its 3G network with the more advanced 4G technology. If you happen to be driving along a major highway in regional Australia with a 3G mobile phone and have a serious accident, where 4G is the operating system you will only have data access. You will not have voice access for emergency phone calls.

In a similar vein, Members of Parliament from northern Queensland report that the Triple Zero system run by Telstra is regularly inoperable, particularly during cyclones and floods.

Vital considerations including guaranteed access, freedom from congestion, reliability, security, sufficient capacity and real-time priority from commercial carriers' systems have not been demonstrated and are unlikely to be assured.

The draft report seems to have no regard for the serious down-time of carrier systems reported in Annual Reports of the Telecommunications Industry Ombudsman. These are failures that public safety cannot tolerate because they are likely to occur when public safety agencies need to rely on those systems most in critical emergencies.

The various system risks that are rightly identified in the Draft Report are not adequately confronted or mitigated by the suggested solutions (such as hardening) that we think could reasonably be described as "limp" and likely to be ineffective. It is difficult to imagine Telstra hardening its network in Far North Queensland for example simply because of the cost of doing so. The cost/benefit analysis for the European Commission seems to deal more effectively with the mitigation of risks and issues such as 'hardening' of commercial systems.

**COMPARABLE COUNTRIES**

We are concerned about the countries that you have chosen to compare with the Australian situation. We have a huge landmass in no way comparable to Belgium. The comparison with the United Kingdom is particularly problematic. The UK is best described as a "basket case". They lost control of their spectrum licensing some time ago and AirWave had a longstanding monopoly over their emergency communications. The UK is now trying unsuccessfully to regain some competition in their market. They have failed again in that there is only one carrier left in the tender for their mobile broadband network.

The better comparisons would be with the USA and Canada that have geographic and federal system similarities, and Mexico, which incidentally is allocating 90 MHz of spectrum under the kind of system that Rivada Network is proposing. As you know, the USA and Canada are each dedicating 20 MHz of spectrum for their networks with PSAs in control.

**RURAL AND REGIONAL AUSTRALIA**

The Commission's approach to public safety communications in rural and regional areas is alarming. Rural and regional Australia would be left high and dry with sub-standard, non-mission critical communications for fire services, ambulance, SES and police because, in your view, it is allegedly too expensive to have public safety agencies using mobile broadband in these parts of the nation. It looks like any area which now has poor, or no, mobile broadband coverage will also have none for emergency services. This is outrageous. Our public safety agencies deliver a universal service to Australians, including in rural and regional parts of the country, and they

are not about to change their remit on account of an economists' view of the world where only profitable services should be supported by government investments in public safety. The preferred solution proposed in your draft report would set back rural and regional Australia and divide the country into areas deserving of 21st century communications, and the rest.

**END-TO-END SYSTEM**

An end-to-end communications system is critical in emergency communications which means that PSAs must be in control. In addition they can't have a situation where the general publics' capacity to communicate with police, fire, ambulance and SES has to be cut off in order to prioritise communications access for public safety agencies. This means that they cannot operate on the same system that the general public has access to. A separate system is necessary.

**MONOPOLY SERVICE PROVIDER RISKS**

While your draft report recognises the risk of limited or zero competition amongst commercial carriers that might supply mobile broadband to public safety agencies, and the risk of "lock in", the measures you propose to address those matters are themselves problematic. The PFA's view is that those very real problems would be best avoided altogether. We believe it is inappropriate to have a telco in the driver's seat for public safety mobile broadband for all the reasons we have outlined above.

**CONCLUSION**

The PFA, along with two bipartisan and unanimous Parliamentary Committees, is convinced that Australia's public safety agencies must have dedicated spectrum and arrangements under which they determine the best mobile broadband communications in the interests of the whole Australia community. We suggest that the final report of the Productivity Commission should be recommending to the Federal Government a dedicated spectrum allocation and measures to make a national network a reality by the 2020 target date.

Yours sincerely

Mark Burgess
Chief Executive Officer