



Australian Government

Department of Defence

Chief Information Officer Group

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ACMA IFC 25-2019

The Manager
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SPECTRUM SHARING OVERVIEW AND NEW APPROACHES

References:

- A. IFC 25/2019 Discussion Paper, Spectrum Sharing, Overview and New Approaches, Aug 2019
- B. Enabling Wireless Innovation Through Local Licensing, Shared Access to Spectrum Supporting Technology, Ofcom, UK, July 2019

1. Defence appreciates the opportunity to provide a submission in response to the public consultation in Reference A and the invitation to present at the Spectrum Tune Up.
2. Defence understands that the main objective of this initiative is to provide spectrum to Wireless Internet Service Providers (WISPs) who are currently using Class Licenced frequency bands. Defence also understands that WISPs generally provide broadband access to populations that are not currently served by Mobile Network Operators (MNO) or the National Broadband Network (NBN).
3. The high value placed on spectrum by MNOs is in part due to certainty provided by exclusive spectrum access. Current Australian legislation promotes certainty through the Spectrum Licensing framework. By design, Spectrum Licensing is perhaps the greatest barrier to sharing suitable spectrum for broadband wireless access applications.
4. In the same way that the investments of MNOs benefit from certainty in spectrum access, government investments in Defence capability benefit from long term certainty in spectrum access.
5. Defence requirements for maritime and land based radar deployments, and their associated support systems, are increasing. Emerging requirements for capabilities such as radars for the detection of small Unmanned Aerial Vehicle (UAV) near airports, population centres and high value economic assets is an example of the increasing spectrum demand for “always-on” safety critical applications.
6. The US Citizens Band Radio System (CBRS) sharing model puts the burden of sharing on Tier 2/3 (secondary) users. In contrast, the simplified sharing framework proposed by the ACMA, which employs notifications in lieu of sensing, imposes resourcing obligations on the Tier 1 (primary) user. There are numerous practical, technical and security issues with such an approach that make it problematic. Defence does not support such a model.
7. The current discussion does not pay much attention to security aspects of spectrum sharing systems. This is a critical concern to Defence, one that has been studied in the US and is addressed to some extent in the CBRS model.

8. Ofcom in the UK has already implemented a sharing solution as given in Reference B. Australia might consider similar regulatory measures to address spectrum requirements of WISPs with greater certainty of spectrum access.

9. My point of contact for this is Dr Tharaka Dissanayake on (02) 6144 5035 or via email tharaka.dissanayake@defence.gov.au

Yours sincerely



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