Australian Government

Department of Communications and the Arts

Commonwealth Held Spectrum

Review

February 2018

Commonwealth Held Spectrum Review

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   Establish an advisory committee comprising relevant Commonwealth government agencies to provide advice to the Minister for Communications on issues of spectrum policy and identify and implement whole-of-government efficiency improvements that will deliver and enhance the management of Commonwealth spectrum holdings.

2. **Improving transparency**
   The Government should publish a consolidated report outlining the value and use of Commonwealth spectrum holdings every two years. To facilitate this portfolio agencies should provide information on the their spectrum holdings by value (price paid) and number of licences; the utilisation-over-time and purposes for which spectrum holdings are used; and future spectrum requirements including the timing of new spectrum allocations.

3. **Retaining benefits through sharing and trading of spectrum**
   The Government should explore the implementation of a whole-of-government approach to the identification of sharing and trading mechanisms, including the examination of foreign government approaches and emerging technologies and processes to determine if there are opportunities for the Government to engage in sharing and trading of Commonwealth held spectrum.

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The Government's role in spectrum

As the regulator

The Commonwealth Government is the largest holder of spectrum in Australia. The Government is also the regulator of spectrum in Australia through the Australian Communications and Media Authority (the ACMA). Spectrum is regulated under the *Radiocommunications Act 1992* (the Act) and the ACMA's spectrum management functions are set out in the *Australian Communications and Media Authority Act 2005*. Unlike a number of overseas jurisdictions, responsibility for all spectrum regulation resides solely with the ACMA rather than split across a number of agencies.

International spectrum harmonisation standards inform planning of Australia's radiofrequency spectrum, as derived through the International Telecommunication Union (ITU) Radio Regulations[1]. Australia, as a member state of the ITU, plays an active part in the development of the Radio Regulations through the quadrennial, treaty-level, World Radiocommunication Conference (WRC) meetings. Australia's obligations under the Radio Regulations are reflected in the Australian Radiofrequency Spectrum Plan (ARSP), which is prepared by the ACMA. In addition to international harmonization through the ITU, there are some frequency bands covered by bi-lateral or multi-lateral treaty arrangements. These include bands used by NASA and European Space Agency projects in Australia under Australia-US or Australia-Europe agreements.

Specific sectors are also subject to regulatory oversight from other United Nations' bodies such as the International Civil Aviation Organisation and the International Maritime Organisation. Compliance with these standards and arrangements facilitates safe, efficient and cost-effective transport providing trade benefits and growth opportunities for Australian businesses and travel and a wider range of consumer options for Australian citizens.

As a policy advisor

The Minister for Communications is responsible for managing spectrum policy on behalf of the Commonwealth. The Department of the Communications and the Arts (the Department) and the ACMA provide advice to the Minister on spectrum policy and regulatory matters. Spectrum policy must take account of broader government policies for which spectrum is a major input (e.g. The Smart Cities Plan). Currently there is no coordinated approach to forecasting future public sector demand or systematic consideration of the policy issues and potential trade-offs that Government may need to make as both user and regulator.

Australian policy interests must have representation at the international forum of the ITU Radiocommunication Sector (ITU-R). This forum meets every three to four years at the World Radiocommunication Conference (WRC) to revise radio regulations, the international treaty governing radiofrequency spectrum use and satellite orbits. The WRC handles technical and policy issues, with competing domestic and international policy issues[2] arising during WRC negotiations. Increasingly these issues are cross-portfolio and require considered policy oversight to ensure Australia's negotiating position reflects the Government's broader interests. The recent Review of the Australian Communications and Media Authority recommended that head of delegation roles in key international forums, including the WRC, should be transferred to the Department, and that it take responsibility for

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[1] Harmonisation arrangements ensure that safe and efficient worldwide operation of critical services and infrastructure is not impeded by differing international standards while also providing the economies of scale required to allow device manufacturers to bring products to market.

[2] *Review of the Australian Communications and Media Authority Draft Report, May 2016,* page 38

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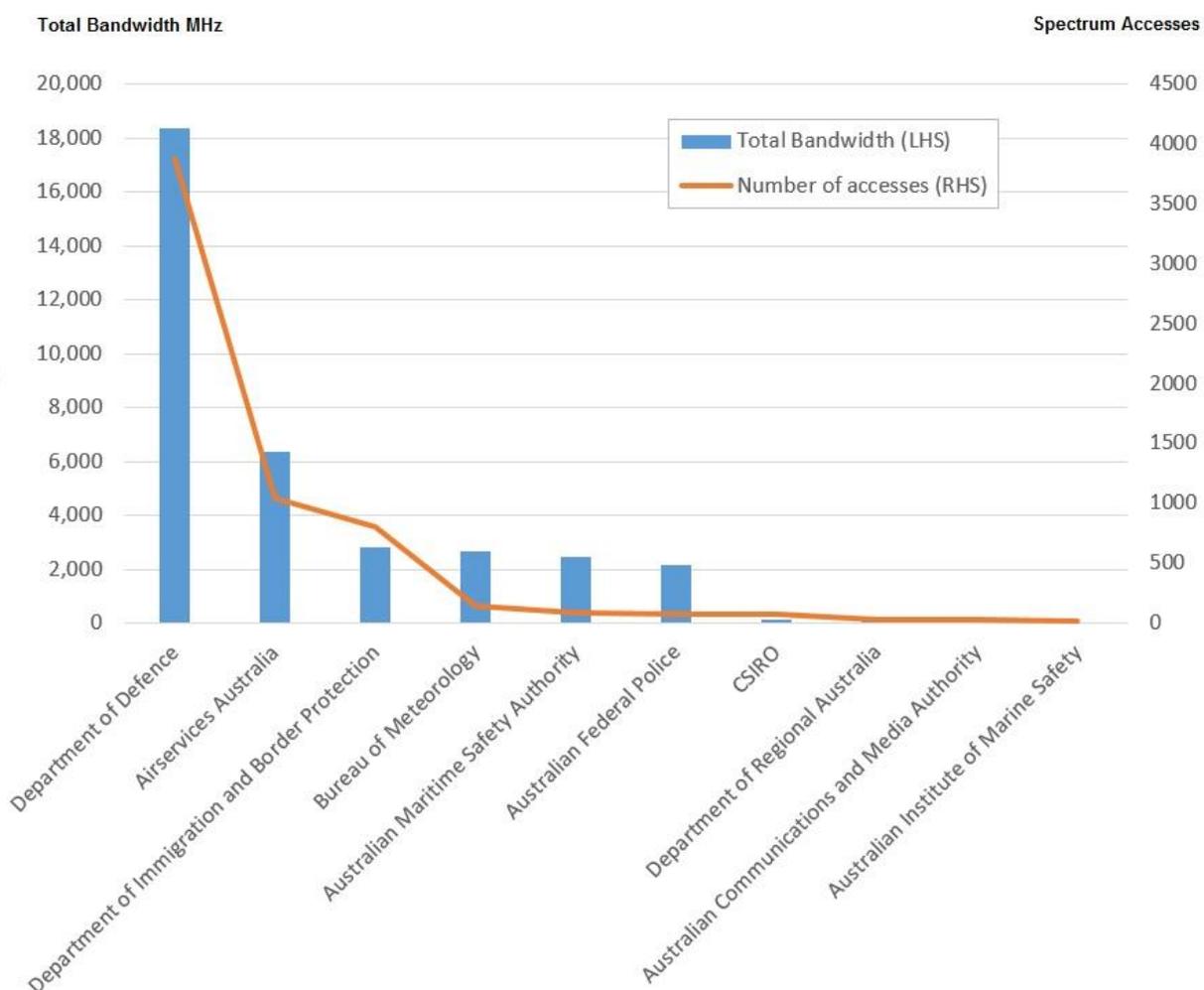www.classification.gov.au

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developing policy positions and signing the final acts. It further recommended the Department provide clear guidance and negotiating parameters to heads of delegation.

As a user

Data from the ACMA Radiocommunications Register shows that in February 2017 36 Commonwealth Government agencies were licenced to access spectrum across Australia.

The following chart shows the top 10 Commonwealth holders of spectrum by number of accesses and total megahertz licenced bandwidth. It is worth noting that the chart does not provide any measure of utilisation, rather it is the summation of bandwidth and number of accesses. As not all bandwidth is in the same area, this provides a rough guide only.

Figure 1: Commonwealth Government spectrum – 10 largest users by bandwidth and spectrum accesses (21 February 2017).

Noting the extensive spectrum holdings within the Defence portfolio, the Department of Defence has a Defence Spectrum Office (DSO) to coordinate spectrum management across the armed forces and the Department more broadly. The DSO has its own spectrum management strategies that operate within the broader radiocommunications regulatory framework, which is administered by the ACMA.

Regarding non-Defence government spectrum holders, many agencies may only hold a small number of licences and do not require the formal governance arrangements in place in Defence. However, all

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agencies – irrespective of the size of their holdings – need to demonstrate efficient spectrum use and consider opportunities to improve efficiency of their spectrum.

To this end, under current arrangements, there is no consolidated reporting or other external accountability measures to provide Government with an indication of the efficiency with which these holdings are managed.

While it is recognised that these jurisdictions have differing institutional and regulatory arrangements and operating contexts there is much still that can be learnt from these international experiences and applied in an Australian context.

Recommendations

Given increasing demand for spectrum, the importance of the services and capabilities provided by the Commonwealth through spectrum and the broader economic trade-offs the government makes when holding spectrum, there is an obligation on the Commonwealth to ensure that processes are in place to continually identify and implement efficiency improvements to the management and use of spectrum holdings.

The reforms proposed below incorporate the findings of the review and lessons from international experiences in Government spectrum reform. International experience highlights that any reform to the management of Commonwealth spectrum holdings will require staged implementation.

The implementation should initially focus on creating appropriate governance arrangements and developing robust data collection processes. Once these frameworks are established, the identification and implementation of longer-term improvements can be explored.

A staged approach will also allow for the broader spectrum reforms (such as the new radiocommunications legislation and pricing reforms) to be fully implemented.

A strong governance framework

Recommendation 1
Establish an advisory committee comprising relevant Commonwealth government agencies to provide advice to the Minister for Communications on issues of spectrum policy and identify and implement whole-of-government efficiency improvements that will enhance the management of Commonwealth spectrum holdings.

An overarching governance body, a 'Government Spectrum Steering Committee' (the committee), will facilitate a whole-of-government approach to spectrum policy and management. A whole-of-government approach to issues on spectrum policy and management will improve the management of Commonwealth spectrum holdings and contribute to spectrum efficiencies.

Stakeholders support establishing a whole-of-government committee to consider issues on spectrum policy and management.

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Improving transparency

> **Recommendation 2**
>
> The Government should publish a consolidated report outlining the value and use of the Commonwealth's spectrum holdings every two years.
>
> To facilitate this portfolio agencies should provide information on the their spectrum holdings by value (price paid) and number of licences; the utilisation-over-time and purposes for which spectrum holdings are used; and future spectrum requirements including the timing of new spectrum allocations.

Increased transparency around Commonwealth spectrum use will contribute to the efficient use and management of spectrum. Transparency will enable agencies to identify opportunities to coordinate spectrum use and identify opportunities for secondary trading and sharing. It may also assist in developing a secondary market by informing potential purchasers or sharers of the opportunities that are available.

There was broad support from stakeholders to publish a report, every two years, on Commonwealth spectrum holdings.

Retaining benefits through sharing and trading of spectrum

> **Recommendation 3**
>
> The Government should explore the implementation of a whole-of-government approach to the identification of sharing and trading mechanisms, including the examination of foreign government approaches and emerging technologies and processes to determine if there are opportunities for the Government to engage in sharing and trading of Commonwealth held spectrum.

In the face of increasing demand for spectrum from public and private users, spectrum sharing and trading is essential to the efficient use of spectrum. The Committee will consider if there are opportunities and mechanisms for Commonwealth users to share and trade spectrum.

Stakeholders support the Committee commencing further work to identify opportunities and mechanisms for spectrum sharing and trading.

Conclusion and next steps

The importance of Commonwealth held spectrum is evident through its provision of public goods, services and operation of national capabilities. Improving spectrum management cohesion at the Commonwealth level will allow opportunities for improving allocation and productive efficiencies to be identified and implemented. It will also allow the Government to form more robust and considered positions on issues of spectrum policy.

Given the increasing importance spectrum plays in the growth of the economy and the daily lives of Australians, the Commonwealth should ensure its spectrum management processes are consistent with world best practices by setting up frameworks that focus on continual improvement in spectrum efficiency over the long-term.

A cohesive, transparent and robust framework to identify and implement improvements to Commonwealth management of its spectrum holdings will allow the Government to position itself as a leader in spectrum management and respond proactively to changing demands and applications of spectrum in a considered way for the benefit of Australia.

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Appendix A: Commonwealth government spectrum holders (within scope of this review)

- Australian Antarctic Division
- Airservices Australia
- Australian Communications and Media Authority
- Australian Crime Commission
- Australian Federal Police
- Australian Institute of Marine Science
- Australian Maritime Safety Authority
- Australian Nuclear Science and Technology Organisation
- Australian Radiation Protection and Nuclear Safety Agency
- Australian Securities & Investments Commission
- Australian Sports Commission
- Australian War Memorial
- Bureau of Meteorology
- CSIRO (and CSIRO Marine Research)
- Department of Agriculture
- Department of Defence
- Department of Environment
- Department of Health
- Department of Immigration and Border Protection
- Department of Infrastructure and Regional Development
- Department of Industry, Innovation and Science
- Department of Parliamentary Services
- Department of Social Services
- Director of National Parks
- Family Court of Australia
- Geoscience Australia
- Great Barrier Reef Marine Park Authority
- High Court of Australia
- Indigenous Land Corporation
- National Gallery of Australia
- National Library of Australia
- National Museum of Australia
- National Portrait Gallery of Australia
- National Science & Technology Centre
- Office of the Official Secretary to the Governor-General
- Old Parliament House

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