

AMTA Submission to the ACMA:

29 November 2017

Draft spectrum reallocation recommendation for the 3.6 GHz band, Oct 2017



Introduction

The Australian Mobile Telecommunications Association (AMTA) welcomes the opportunity to provide feedback to the ACMA regarding the reallocation of the 3.6 GHz band.

The 3.6 GHz band has been identified as an important option for early use by 5G mobile networks as it is suitable for providing a ‘coverage layer’ due to its propagation characteristics. AMTA believes that in Australia, 3.6 GHz is likely to be deployed in both urban and regional areas to deliver 5G services.

In our previous submission, we therefore supported the progression of the 3.6 GHz band to the *re-farming* stage. And we agreed with the ACMA’s conclusion in its ‘Highest value use assessment: Quantitative Analysis’ (HVV paper) that MBB is unequivocally the highest value use of the 3.6 GHz band.

More specifically, AMTA supported re-allocation of the entire 3.6 GHz band in metro and regional areas for MBB, through the issuing of spectrum licences, in line with the ACMA’s preferred Option 3c. We also supported the earliest commencement of spectrum licences for the band following the auction process.

AMTA has provided comments on the four elements from Table 2¹ as well as on some of the elements related to the price-based allocation below.

Licence Type

AMTA agrees that the licence type should be spectrum licences.

Parts of the Spectrum

AMTA agrees that the band should include 3575–3700 MHz in both metropolitan and regional Australia.

¹ Page 9 of consultation paper

Reallocation Periods

AMTA members have differing views on the re-allocation period(s) that have been suggested by the ACMA and will put forward their views separately.

Reallocation Deadline

Similarly, AMTA members have differing views on the re-allocation deadline as suggested by the ACMA.

Matters relevant to a price- based allocation

AMTA supports the ACMA proposal for a licence term that would coincide with the expiry of licences in 3400-3575 MHz band, that is, until 13 December 2030.

AMTA members have differing views on the auction methodology, which they will convey in their own individual submissions.

Similarly, AMTA members have differing view on the lot configuration (including Minimum Bandwidth Requirements - MBR) which they will also outline in their own individual submissions.

In terms of the geographic licence areas, for the six metropolitan areas (Area A plus Area B), AMTA recommends alignment of the 3.6 GHz boundaries with the 3.4 GHz licence boundaries.

AMTA members have differing views on other geographic aspects, such as the number of regional geographies, which they will put forward in their individual submissions.

Spectrum requirements for 5G

In addition to progression of the reallocation of the 3.6GHz band for 5G, it is also important that other bands, such as 26 GHz and 1.5 GHz, are progressed by the ACMA in a timely manner so that mobile network operators have a holistic view of what spectrum will be made available for 5G and when.

AMTA notes that in its recently published Direction Paper, the Department of Communications and the Arts has recognised the need to make spectrum available in a timely manner to enable innovation and productivity across industry sectors and that the Government is focussed on enabling the early deployment of this new generation of mobile networks in Australia.²

We strongly believe this is needed to ensure ongoing demand for mobile broadband (MBB) can be met and Australia remains at the forefront of rolling out the next generation of mobile technologies to enable transformative social and economic benefits across industries such as transport and logistics, health, education and the automotive industry.³

5G is the next generation of mobile technology and is anticipated to enable a fully and seamlessly connected society and economy. 5G will be an evolution that builds on 4G/LTE mobile networks. It will deliver substantial improvements in the speed, latency and reliability of mobile networks in order to meet the ever increasing demand for MBB.

² Department of Communications and the Arts, [5G-Enabling the future economy](#), Directions paper, Oct 2017.

³ AMTA Mobile Minute – '[5G A connected future for Australia](#)' June 2017

The mobile industry is already preparing for 5G and conducting trials⁴. A recent report by Deloitte Access Economics estimated that annual network spend by mobile network providers in Australia could be worth \$5.7 billion in FY 2017-18.⁵ It is imperative that industry has certainty around the timing of the future availability of spectrum for 5G as this is a critical regulatory input to investment decision-making processes.

Benefits of 5G and MBB

MBB continues to play a key role in stimulating Australia's economic growth and productivity. It is a driving force in connecting people and businesses, stimulating innovation and technological progress, and transforming industries in both densely populated and remote regions. Future development of mobile technologies, such as 5G, the Internet of Things (IoT) and Machine to Machine (M2M) applications will re-shape the Australian economy and drive productivity improvements.

Recent research by Deloitte Access Economics⁶ found that mobile telecommunications creates significant benefits in terms of productivity and workforce participation. Specifically, the research showed that Australia's economy was \$42.9 billion (2.6% of GDP) bigger in 2015 than it would otherwise have been because of the benefits generated by mobile technology take-up with an increase in:

- long term productivity of \$34 billion or 2% of GDP; and
- workforce participation of \$8.9 billion, or 0.6% of GDP.⁷

The research also found that 65 000 full-time equivalent jobs were supported by the increased GDP attributable to workforce participation (equivalent to 1% of total employment in the Australian economy).⁸

In another report on 5G released this year⁹, Deloitte Access Economics found that 5G will add to these economic benefits:

"Mobile is an integral part of how Australian businesses and society function. 5G will continue this trajectory and with the digital economy to grow to \$139 billion by 2020, it is important to take action to harness the potential of 5G."

Further indication of what the path to 5G will entail is provided by Ericsson's Mobility Report (June 2017)¹⁰ which forecast (globally):

- 5G subscriptions will exceed half a billion by the end of 2022;
- 5 billion LTE subscriptions by the end of 2022;

⁴ [Telstra 5G trial](#); [Vodafone Hutchison Australia 5G trial](#); [Optus 5G trial](#); Optus [4.5 G trial](#).

⁵ Deloitte Access Economics, [5G-enabling businesses and economic growth](#), 2017.

⁶ Deloitte Access Economics, [Mobile Nation: Driving workforce participation and productivity](#), 2016.

⁷ Ibid

⁸ Ibid

⁹ Deloitte Access Economics, [5G-enabling businesses and economic growth](#), 2017

¹⁰ [Ericsson Mobility Report, June 2017](#)

- In 2022 there will be 9 billion mobile subscriptions and mobile broadband will account for more than 90% of all subscriptions;
- Mobile video traffic is forecast to grow by around 50% annually to 2022, when video will account for around 75% of mobile data traffic;
- More than 90% of mobile data traffic will come from smartphones in 2022;
- Asia- Pacific, as the most populous regions, has the largest share of mobile data traffic and total mobile data traffic for the regions is expected to exceed 30 Exabytes in 2022;
- There will be 1.5 billion IoT devices with cellular connection by 2022; and
- In 2022, around 15% of the world's population will be covered by 5G.

The global demand for MBB continues to grow and the evolution of 5G and IoT services will place even greater pressure on the capability of industry to deploy networks to meet growing demand without timely and sufficient spectrum allocations.

Conclusion

AMTA recognises and appreciates the efforts of the ACMA in planning for and progressing spectrum bands for 5G and looks forward to continued engagement in the planning and re-farming processes.

For any questions in relation to this submission please contact Lisa Brown, Policy Manager, AMTA at lisa.brown@amta.org.au or (02) 8920 3555.