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6 September 2024

The Manager, Wireless Broadband
Spectrum Planning and Engineering Branch
Australian Communications and Media Authority
PO Box 78
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Comments on 1800 MHz and 2 GHz bands outside of spectrum licensed areas – review of arrangements

DB Telecommunications Pty Ltd is pleased to be able to offer some comments on the various issues raised in the ACMA's consultation paper.

Question 1

The ACMA invites comments on the analysis of spectrum utilisation in the bands.

DB Telecommunications believe that the ACMA's analysis of spectrum utilization may not reflect the true extent of unsatisfied demand in the 1800 MHz and 2 GHz bands.

DB Telecommunications has been involved in several pLTE studies where the project has never progressed beyond the initial feasibility study, due to the lack of available spectrum for the proposed network rollout.

An example of the results from one such study accompanies this submission.

While the ACMA regards the 1800 MHz and 2 GHz bands as essentially substitutable, DB Telecommunications has observed that demand for 1800 MHz spectrum has always exceeded demand for 2 GHz spectrum, due to the wider range of terminal equipment that has traditionally been available for the 1800 MHz band.

This is reflected in the slightly higher availability of 2 GHz spectrum shown in the network study results accompanying this submission.

DB Telecommunications also believes that the inefficient spectrum use issues identified in the consultation paper are a significant contributing factor to spectrum shortages for the implementation of pLTE type networks in the 1800 MHz and 2 GHz bands.

Question 2

The ACMA invites comments on these and any other spectrum supply issues.

While the use of the 3400 – 4000 MHz band may be a viable option for some types of private networks, use of this band is more focused on 5G networks.

There is likely to be ongoing demand for 1800 MHz and 2 GHz spectrum from potential licensees looking to implement 4G/pLTE networks where lower cost equipment is generally available.

DB Telecommunications recognizes that there is often significant lead times associated with the implementation of private network infrastructure. However, DB Telecommunications would suggest that a period of 2 years from the granting of a licence would be a reasonable timeframe for licensees to commence the rollout of network infrastructure. If at the end of the two-year period the rollout of network infrastructure has not commenced, licensees could be asked to provide more detailed information on their network implementation plans in order to justify the granting of the licence for further periods.

Question 3

The ACMA invites comments on the case for action conclusion and the desirable planning outcomes.

DB Telecommunications would be supportive of the proposal to increase the amount of spectrum for some use cases to 20 MHz, particularly where this need was established through an FAC Policy Exemption application.

DB Telecommunications would also be potentially supportive of a reduction of the frequency re-use distance from 45 km to 20-30 km, with synchronization of transmitters being one possible means of achieving this.

Question 4

The ACMA invites comments on the identified policy elements and factors, or others that could be considered.

DB Telecommunications was broadly supportive of the proposed policy elements being considered.

DB Telecommunications believes that more stringent spectrum limits need to apply in areas of high demand, compared to areas of lower demand.

DB Telecommunications believes that the ACMA needs to adopt more definitive measures to minimise the risk of opportunistic licence applications and unused spectrum holdings.

Question 5

The ACMA invites comments on the analysis and preliminary views on the policy elements.

DB Telecommunications considers that the current definition of a high demand area may be a little too subjective and require quite a bit of analysis by prospective licensees to establish

whether a particular site is in a high demand area. Based on historical licensing data, it should be possible for the ACMA to determine the high demand areas for these bands.

DB Telecommunications is not sure how necessary the 20 MHz cross band limit would be for non-MNO licensees in the 1800 MHz and 2 GHz bands. DB telecommunications experience suggests that non-MNO licensees will either implement an 1800 MHz network or a 2 GHz network in a particular area, but not both.

On balance DB Telecommunications is supportive of the proposed preferred assignment arrangements for the 1800 MHz and 2 GHz bands.

DB Telecommunications has strong reservations about the proposed ‘over the top’ licensing arrangements that will be discussed in a later section of this response.

DB Telecommunications believes that all new licences in a high demand area should initially be limited to two one-year renewal periods. If at the end of two years the licensee has rolled out their network, or demonstrated a clear plan for doing so, then consideration could be given to allowing longer licence renewal periods for the licence.

Question 6

The ACMA invites comments on whether and how an associates test could be used when applying spectrum limits.

DB Telecommunications believes that the application of an associates test would be appropriate for applications for spectrum in the 1800 MHz and 2 GHz bands in high demand areas.

The type of associates test that was used for AWL applications in the 3400 – 4000 MHz band in metropolitan and regional areas could be an appropriate starting point.

Question 7

The ACMA invites comments on the proposed options, their assessment and our conclusions.

On balance DB Telecommunications believes that the proposed changes to assignment priority and allocation quantum policy contained in Option 2 are workable but believes that elements from Option 4 are also needed to address the highlighted spectrum inefficiency issues.

DB Telecommunications initially had concerns about the ACMA’s proposal to reduce the amount of designated spectrum for non-MNO licensees in the 1800 MHz band from 30 MHz of paired spectrum to 15 MHz of paired spectrum, could create spectrum shortages for non-MNO licensees in high demand areas. However, the proposal to allow non-MNO licensees access to non-exclusive MNO segments probably provides enough flexibility in this regard.

DB Telecommunications has strong concerns about the proposed NI/NP conditions associated with the possible use of ‘over the top’ licensing to address spectrum inefficiency issues.

A potential licensee such as a mining company implementing a private network under an ‘over the top’ licence, could have the operational integrity of its network compromised by

potential interference, or the value of its network investment undermined, by the decision by an incumbent licensee implementing its own network down the track. If the ACMA had sufficient evidence that spectrum under an incumbent licence was not being used, that it would consider offering an ‘over the top’ licence to another licensee, then DB Telecommunications believes that it has sufficient evidence to warrant cancelling the incumbent licence.

DB Telecommunications believes that some changes to the pricing model for 1800 MHz and 2 GHz spectrum may be appropriate as an additional means of addressing spectrum inefficiency issues. In particular, consideration should be given to increasing the minimum licence tax that applies to licences for 1800 MHz and 2 GHz spectrum.

With 10 MHz of paired spectrum in the 1.8 GHz and 2 GHz bands costing as little as \$42/pa to license in some remote parts of Australia, there is not a strong economic incentive for incumbent licensees to surrender their redundant licences. It allows them to keep their future options open with the consequence of locking out potential competitors due to spectrum scarcity.

Question 8

We seek views on means to manage an expected initial high demand.

Use of an initial application window similar to what has been used for the AWL applications in the 3400 – 4000 MHz band might be a way of regulating any initial high demand for additional spectrum in the 1.8 GHz and 2 GHz bands.

However, the ACMA would need to make sure that is able to provide sufficient resources to the assessment of these initial applications, in order to avoid the kinds of delays that are currently being experienced with the initial assessment of applications for spectrum in the 3400 – 4000 MHz band.

Question 8

The ACMA invites comments on the other aspects of the technical frameworks.

DB Telecommunications generally supports the proposed amendments to the technical frameworks.

DB Telecommunications wishes to thank the ACMA for the opportunity to respond to this consultation paper and looks forward to being able to elaborate on the comments made in this submission, if required.

If you would like additional information or wish to discuss any aspect of my submission, please do not hesitate to contact me on 0412 991 474 or by email dbritt@dbtelecomm.com.au.

Yours sincerely,



Director