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**Response to 'Proposed spectrum re-allocation declaration for  
the 3.4 GHz and 3.7 GHz bands'**

**3<sup>rd</sup> May 2022**

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Pivotel welcomes the opportunity to comment on the ACMA's consultation paper 'Proposed spectrum re-allocation declaration for the 3.4 GHz and 3.7 GHz bands'.

## CONTEXTUAL STATEMENT

- Spectrum in the 3.4-4.0 GHz mid band is crucially important for the delivery of 4G/5G/6G services for both mobile coverage and especially in relation to wireless broadband (WBB) usage, alongside low band spectrum for coverage and mmWave spectrum for very high-speed low latency applications.
- Providers such as Pivotel are well placed to play a unique and relevant role in improving coverage and bringing innovation to parts of regional and remote Australia. This is however predicated on access to suitable spectrum at a cost that enables a reasonable return on investment.
- A flexible spectrum management approach consisting of Spectrum Licences covering large geographic and even national regions combined with Area Wide Licences that enable place based networks will encourage a larger and more diverse range of network operators. Licence fees also need careful consideration with place based networks typically targeting very specific populations, often with very low density and high natural operating costs that reduce the potential for operators to receive a commercial return on investment.
- As such, Pivotel has consistently advocated for a combination of spectrum licence for more populous and high traffic areas, combined with Area Wide Licences (AWLs) or Apparatus Licences (ALs), for regional and remote parts of Australia, as opposed to a blanket national spectrum licence approach. However, the creation of a competitive, innovative marketplace for the delivery of 5G services in metropolitan areas also requires that AWLs be available in metro areas, sitting beside wide area spectrum licences.
- As a mobile operator already delivering 4G/5G services to regional and remote parts of Australia, and with plans to deliver 5G place based services to campuses, ports, utilities, and manufacturing facilities in metro areas, Pivotel is keen to see appropriate spectrum allocation methodologies that enable these markets to be served in new and innovative ways, now and into the future.
- It is pleasing to see the ACMA is planning to release additional spectrum licences across Australia. It is also heartening to see ACMA's intent of defragmenting the spectrum through the options presented in their consultation.

In the 3.4 – 4.0 GHz space, **Pivotel recommends ACMA's Option-3** proposal which aims to defragment and provide both spectrum licenced and AWL allocations across all regions. We also believe that spectrum allocation limits are an essential component of the licencing of the 3.4 – 4.0 GHz band and Pivotel has made its views known to the ACCC as part of their separate review into the 3.4 – 4.0 GHz band.

## Responses to Questions

### Urban Excise

#### **Q1. Do you have comments on our preferred approach to:**

- **issue spectrum licences in the 3400–3475 MHz frequency range in urban excise areas in accordance with Option A?**
- **allocate spectrum in the 3800–4000 MHz band for LA WBB use using the segmentation approach?**

We note that surrounding areas outside Urban Excise are already spectrum licenced. Pivotal is aligned with AMTA's view (and ACMA preferred option) that 3.4 GHz and 3.7 GHz bands should be spectrum licenced for consistency. We also see a risk of coordination of R.Cells if allocated at 3.4 GHz with the surrounding spectrum licenced incumbents. Therefore, Pivotal prefers Option-A in Urban Excise.

Within Option-A, Pivotal would prefer segmentation in the 3.8 GHz band, having LA-WBB macros cells allocated with 160 MHz, and R.Cells allocated with 40 MHz. The R.Cell partition can be placed at the upper end of the band. Pivotal believes that there will be a good demand of the AWL allocations in Urban Excise and thus would like to see maximum opportunity for new entrants to access the spectrum. The proposed segmentation could potentially accommodate more AWL operators in the same geographic area e.g.,:

- 4 x LA WBB operators @ 40 MHz allocation each,
- plus, 1x R.Cell operator @ 40 MHz allocation.

With the proposed segmentation, we recommend that fixed (and maximum) allocation of 40 MHz per operator be made available in Urban Excise. Pivotal considers it essential to have synchronisation fallback rule applied between AWL operators to manage any potential interference.

Furthermore, we propose that ACMA consider removal of FSS and PTP within Urban Excise to ease coordination with reduced pressure from mixed services in high population density areas.

### **The ACMA's preferred planning approach: 3400–3575 MHz and 3700–3800 MHz**

#### **Q2. Do you have comments on our preferred planning option (Option 3), which updates the previous preliminary planning decisions (Option 1)?**

Overall, Pivotal prefers Option-3 due to the benefits flowing from defragmenting the spectrum as well as the provision of an additional 50MHz of spectrum in regional areas to facilitate the reallocation of existing licences in the 3400 - 3575 band.

### **The ACMA's proposal: licence type**

#### **Q3. If the ACMA makes a re-allocation declaration, do you have comments on our proposal to issue spectrum licences in the 3.4 GHz (including in regional areas and in urban excise areas) and 3.7 GHz bands?**

Pivotal agrees with ACMA's approach to issue spectrum licences in 3.4 and 3.7 GHz bands across all regions including Urban Excise areas described in all three ACMA proposals viz., Option-1,2,3. We believe that the demand in populated regional areas and Urban Excise will exceed AWL allocation proposed in Option-3.

**The ACMA's proposal: parts of the spectrum**

***Q4. If the ACMA makes a re-allocation declaration, do you have comments on our proposal to declare for re-allocation the parts of the spectrum in accordance with our proposed planning option (Option 3, 'Planning options', above)?***

Pivotal concurs with ACMA's approach to defragment the spectrum as per Option-3 whilst creating space for all use cases: WA-WBB, LA-WBB, PTP and FSS through spectrum and AWL licences.

**The ACMA's view: licence term and commencement**

***Q5. We seek stakeholder views on the appropriate spectrum licence duration.***

***Our preliminary view is that licences should commence shortly after an auction.***

Regarding spectrum licences, Pivotal understands that the MNOs are seeking as much defragmentation and geographical consistency as possible, therefore, the minimum period of the spectrum licence should be set to facilitate the high level spectrum defragmentation objectives.

Pivotal recommends a minimum of 5 years for AWLs, with the right to renew for another 5 years.

**The ACMA's preferred view: lot configuration (frequency)**

***Q6. If the 3.4 GHz band in regional areas is re-allocated, our preliminary view is to divide the spectrum into 10 MHz lots, with one or more leftover lots of 2.5 MHz, 5 MHz or 7.5 MHz, depending on the region. Alternatively, we may consider 5 MHz lots with 7.5 MHz leftover lots. If the 3.4 GHz band in urban excise areas is re-allocated, our preliminary view is to divide the spectrum into 10 MHz lots, with a leftover lot of 15 MHz at 3460–3475 MHz. If the 3.7 GHz band is re-allocated, our preliminary view is to divide the spectrum into 10 MHz lots. We invite comments from stakeholders on bandwidth configuration options***

Pivotal concurs with ACMA's proposal on 10 MHz lot configuration for spectrum licences.

**The ACMA's view: lot configuration (geography)**

***Q7. We welcome submissions from stakeholders on the most appropriate geographic area configuration for the spectrum.***

Pivotal would like to see maximum alignment (consistency) in geography for the spectrum licences relevant to 3.4 GHz and 3.7 GHz bands.

**The ACMA's proposal: re-allocation period and deadline**

***Q8. If the ACMA makes a re-allocation declaration, do you have comments on our proposal for a re-allocation period of 5 years from the commencement of the re-allocation declaration, and a re-allocation deadline of 12 months before the end of the re-allocation period?***

***Please provide evidence in support of your comments***

***Note: The re-allocation period sets the timeframe during which incumbent apparatus licensees may continue to operate radiocommunications devices under their licences.***

Pivotal prefers to see a shorter re-allocation period than 5 years to promote faster adoption of 5G technology but recognises the difficulties that may pose for incumbent users of the band.

**The ACMA's preferred view: allocation methodology**

**Q9. Do you have comments on the proposal to use the 2-stage generic lots clock auction format for this allocation?**

**Please provide evidence in support of your comments.**

Pivotel agrees with ACMA proposal to have a two-stage clock auction with generic lots and with MSR provision for Spectrum Licensing.

**The ACMA's preferred view: minimum spectrum requirement**

**Q10. Do you have comments on our preliminary view to offer bidders at auction an MSR of 2 lots, particularly if the 2-stage clock auction with generic lots is used?**

**Please provide evidence in support of your comments**

Pivotel recommends that the minimum value of MSR could be set as 2 lots, however, we have assumed that the actual MSR value can be specified higher by the bidder at the start of the auction.

For any questions in relation to this response please contact:

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