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Pivotel Response to ACMA - 'Apparatus licences in the 3.4–4.0 GHz band in remote Australia'

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Pivotel welcomes the opportunity to comment on the ACMA's consultation paper 'Apparatus licences in the 3.4–4.0 GHz band in remote Australia.

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 has planned to release additional 600 MHz AWL licences across remote Australia.

Responses to Questions

Q1. Do you have any comments, and supporting additional information, on the proposed technical framework, including the revised AWL LCD, draft RALI MS 47, and updated RALI FX3 and FX19?

Pivotel considers it essential to have fallback synchronisation rule applied between co-channel AWL operators (as with Spectrum Licence (SL) operators) as a last resort mitigation solution to manage potential interference and request that ACMA amend RALI MS47 accordingly. The same recommendation was made by AMTA during TLG consultation.

Inline with ACMA recommendation, Pivotel supports a single frame structure for synchronisation fallback for both AWL-SL and AWL-AWL operators.

We note that RALI MS 47's requirement on '*Coordination at the boundary of a spectrum licensed area*' is not reciprocal (i.e., it is favouring spectrum licensees) and has been specified with the assumption that AWL operators may pose as a technical risk to spectrum licensees. ACMA have specified a far more stringent Device Boundary Criteria (DBC) for AWL operators. The extra stringency has a potential to become a barrier for new entrants to serve SL border areas and would result in a more than necessary isolation between AWL and SL operators, thus posing as significant material disadvantage to the former. Therefore, Pivotel proposes that the RALI MS47 be amended such that any licenced MNO when operating under an AWL and using 3GPP compliant equipment (as per spectrum licensee holders) is exempted from the extra DBC stringency. With the exemption rule, the standard s.145 DBC would take effect as is the case for spectrum licensees. The use of 3GPP compliant equipment from a reputed supplier would eliminate the risks perceived by spectrum licensees and the ACMA. Without the sought exemption, Pivotel would consider that the more stringent DBC is unfair and an anti-competitive measure.

Our further comments on associated technical framework documents are aligned with AMTA's response.

Q2. Do you have any comments on the other issues referred to in the technical framework that have not been resolved in the TLG, such as WBB coexistence with radio altimeters?

As per Pivotel's previous comment during TLG consultation, many airstrips are located close to a regional or remote town, therefore, the minimum exclusion distance rule to protect altimeters should be removed unless absolutely deemed necessary, otherwise an AWL allocation may not be productive to serve the target population. For example, refer to the airstrip map at: https://ourairports.com/countries/AU/

Inline with AMTA's recommendation, Pivotel supports the elimination of geographic exclusion zones near airstrips. We believe that the 200 MHz separation between AWL 3.8-4.0 GHz band and 4.2-4.4 GHz altimeter band should be sufficient mitigation unless the aviation industry is able to prove the necessity to apply extra mitigation measures through proven real case examples.

Q3. Do you have any comments on our proposal to use a multi-stage administrative allocation for apparatus licences in the 3.4–4.0 GHz band in remote Australia? Please provide any additional information in support of your views.

Pivotel welcomes ACMA's multi-stage administrative allocation approach of using allocation window and allocation principles with the objective of allocating the spectrum in a fair and considered manner.

Q4. Do you have any views on the appropriateness of an allocation quantum policy? If an allocation quantum policy is adopted, do you have any views on whether that quantum should be 100 MHz or 150 MHz or some other quantum per single HCIS level 0 cell?

We have considered 2 potential options for a maximum aggregate of spectrum within a HCIS level 0 cell in the 3.4–4.0 GHz band in remote areas:

- ***100 MHz – facilitates a minimum of 6 licensees***
- ***150 MHz – facilitates a minimum of 4 licensees.***

While 600 MHz will generally be made available across the remote area, there may some areas where a smaller quantum is available due to incumbent services or coordination with incumbent services. As such, a lower maximum may apply to some locations. This also applies to the minimum number of licensees possible under other options.

Pivotel recommends that the maximum quantum of 100 MHz per HCIS Level-1 can be used as a starting point as this aligns with the 3GPP maximum channel size of 100 MHz in the band. Where the demand is lower than supply (at the end of the allocation window), the unused spectrum could be allocated to an applicant needing more spectrum with a justified and committed deployment plan.

Q5. Do you have any comments on our licence tenure and renewal policy for AWLs in the 3.4–4.0 GHz band in remote areas?

Pivotel recommends that AWLs be initially granted for 5 years with the right to renew for another 5 years i.e., 10-year guarantee.

Q6. We are proposing $/MHz/pop tax arrangements for AWLs in this band, similar to AWLs in the 26/28 GHz band, and similar to other area-based licences such as PMTS B apparatus licences, because we believe it to be a simple pricing arrangement well-suited to area-based licences no matter the size of the licence or where it is located. Do you have any other pricing alternatives, or suggestions that may improve upon our proposal?

Pivotel supports the proposed pricing model.

For any questions in relation to this response please contact:

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