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**Pivotel Response to ACMA - 'Draft allocation and technical instruments
for the 3.4/3.7 GHz bands auction'**

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Pivotel welcomes the opportunity to comment on the ACMA's consultation paper 'Draft allocation and technical instruments for the 3.4/3.7 GHz bands auction'.

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 that the ACMA is releasing spectrum and AWL licenses across Australia in 3.4 GHz band in metro and regional areas.

Pivotal Response

Pivotal generally agrees with the draft marketing plan incorporating licence commencement and duration, licence renewal, frequency lots, geographic lots and product naming.

Pivotal generally agrees with the proposed allocation determination of the spectrum auction and sequencing. However, regarding allocation limits, Pivotal considers it very **important to apply a cross 3.4-4.0 GHz band spectrum licence limit of 100 MHz per operator until nil-limit period is lifted** to promote equal opportunity. As we have seen in the past auction, entities having deep pockets and established revenue streams will discourage competition.

Furthermore, after 3.4/3.7 spectrum auction, Pivotal considers it important that the duration of the proposed **nil-limit window** to issue 3.8 GHz AWLs be increased from **6 months to a minimum period of 12 months** providing some time to AWL operators to understand opportunity, available solutions, and align their business plans accordingly.

Regarding 3.8 AWLs, putting in place a hard nil-limit timeline of 6 or 12 months does not safeguard spectrum availability for potential new entrants or new technology adaptations at some point in the future. As such it is recommended that the ACMA put in place 'use it or lose it' provisions that ensure this spectrum is efficiently utilised.

Regarding the technical framework, Pivotal agrees with the proposed licensing instruments: RAGs, AWL LCD and RALI MS47 for 3.4 GHz band. In line with our previous response to ACMA's consultations on the subject, Pivotal would like to see flexibility in the specification of DBC applicable to AWLs outlined in Section 4.1.2 of RALI MS47.

	Standard DBC	Stringent DBC
Calculation Radial	100 km	200km
Level of Protection (LOP)	-98 dBm/MHz or -90 dBm/MHz with AAS	-115 dBm/MHz
Receiver gain	0 dBi	24dBi
Receiver height	5m	30m

Table-1: Comparison of Standard and Stringent DBC

The extra stringent DBC is a barrier for new entrants to service SL border areas and results in a competitive disadvantage due to the necessary isolation between AWL and SL operators. AWL operators who have **3GPP compliant equipment** and are willing to synchronise with neighbouring SL operator's frame structure are the same as SL-SL operators when it comes to border interference management, and hence should be **exempted from stringent DBC requirement**. Under this scenario, only the notification of frame synchronisation format is required from an SL operator when requested by an AWL operator. This notification should not be seen as essential if AWL operator can alternatively decode the frame synchronisation format via scanning equipment.

Regarding questions on coexistence of radio altimeters and WBB (in Appendix A), Pivotal' s view is aligned with AMTA submission.

For any questions in relation to this response please contact:

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