

RE: IFC 37/2021- “Proposed updates to the LIPD Class Licence for 6 GHz RLANs” Consultation paper

TPG Telecom Response– 1st December 2021

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TPG Telecom welcome the opportunity to comment on the ACMA spectrum planning in the 5 925-6 425 MHz (Lower 6GHz band) and 6 425-7 125 MHz (Upper 6GHz band). These are considered important bands for wireless broadband service delivery into the future.

TPG Telecom support the comments outlined in the Australian Mobile Telecommunications Association (AMTA) submission to this same consultation and in addition provide the following remarks.

Upper 6 GHz band/higher power RLAN devices

With both fixed and mobile traffic levels increasing year on year, any discussion about future 6GHz spectrum licensing warrants a balanced response.

While RLANs provide a practical, affordable, short- range access technology, their technical development has progressed at a comparatively pedestrian pace. In contrast, IMT networks such as 5G are capable of delivering reliable, ultra low-latency services; enabling emerging technologies. The recent Coleago Consulting Ltd report¹ echoed our internal analysis concluding a shortfall in mid-band band spectrum. Specifically, Coleago found that Sydney, Melbourne, and Brisbane require between 387-827 MHz of *additional* mid-band spectrum by 2030, compared to the current 703MHz. We note that the Coleago report reused assumptions predominantly European context and we have noted that their calculations were very conservative on several important points. In our own calculations the required volume of additional mid-band spectrum is at the very upper end of the range found by Coleago.

Weighing the respective requirements of both fixed and mobile TPG Telecom would support an allocation of an additional 500MHz from the lower 6GHz band to RLANs. Noting that this would result in almost twice the spectrum that is in use today by Wi-Fi technology today.

¹ Coleago Consulting Ltd “*IMT spectrum demand: Estimating the mid-band spectrum needs in the 2025-2030 time frame in Australia*” 2021

As for the upper 700MHz of the 6GHz band, it has been suggested that RLANs, Wide-area networks (or similar) and IMT services can co-exist. There would appear to be an absence of research to support this assertion. Furthermore, any discussion on accommodating multiple services would require a coordinated approach to managing interference. While geographical or transmitter power limitations on IMT services may be considerations, both have the potential to impact the end-user experience and as consequence overall spectrum value.

For the reasons described TPG Telecom does not support RLAN services in any part of the upper 6Ghz band and we are strongly of the view that the upper 700MHz (6,425 – 7,125 MHz) be considered exclusively for IMT services.