



WISPAU

Wireless Internet
Service Provider
Association of Australia



Wireless Internet Service Providers Association of Australia Response

Future use of the upper 6Ghz band

Options Paper

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ABOUT WISPAU

WISPAU (Wireless Internet Service Providers Association of Australia) Members offer broadband services into remote, regional and underserved markets in Australia. We offer local services that deliver many economic benefits including affordable broadband, skilled local employment, training, technology provision and support for the communities we operate in.

For over 10 years WISPAU has supported Wireless Internet Service Providers in Australia, combining the experience and talent of those dedicated business owners who are striving to deliver improved coverage and service in areas whilst also providing economic benefits and support to the local community.

Together, these businesses through collaboration of this organisation are not necessarily competing against the national carrier but complimenting the vision for better connectivity outcomes for all Australians.

THE IMPORTANCE OF THE 6GHZ BAND FOR WISP's

It cannot be understated the importance of allowing WISPs access to the 6Ghz spectrum to deliver improved network services and drive market competition for fixed wireless broadband services across all areas of Australia.

The 6 GHz frequency band holds significant potential for wireless service providers in enhancing fixed wireless broadband services. The increased spectrum capacity made available via the 6Ghz band allows WISP operators to implement and deliver higher broadband packages to customers and improve connections in remote, regional and urban areas.

In many instances these increased speeds allow faster implementation and installation to the customer at often a cheaper cost alternative to fibre, cable, or other means, making WISPs a vital part of ensuring a competitive market for the delivery of fast, reliable and essential internet services to Australian consumers, most of which are in most cases can be in areas that are under serviced with higher speed broadband options.



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QUESTIONS FOR COMMENT – RESPONSES FROM WISPAU

- **What are your views on the 4 broad planning options identified for the upper 6Ghz band?**

WISPAU strongly supports Option 2 to introduce arrangements to enable RLAN access to all the upper 6Ghz band.

WISPAU does not believe that Option 1 of maintaining existing arrangements is possible and will leave areas of Australia under serviced by the lack of implementing the full potential of the spectrum and new fixed wireless equipment either available now or soon becoming commercially on the market by vendors.

Options 3 and 4 are problematic in that they create issues with band segmentation, and penalise the full potential of RLAN usage in the 6Ghz spectrum and introduce complexity in managing the spectrum in areas should a hybrid option be pursued.

We note that the ACMA options paper notes that models for enabling higher power devices than the current low power indoor devices is currently still under discussion.

WISPAU believes that whilst the implementation of higher power RLAN devices is a significant body of work for the ACMA, the implementation of this should be treated as a priority and in conjunction with the options being looked at for the usage of the upper 6GHz spectrum. Putting off this work will simply result in the unnecessary delay in most regional and remote areas that would most benefit from improved Internet services and increase the digital divide between those that can access improved services, and those that cannot.

WISPAU supports either option put forward by the ACMA in its discussion for models enabling higher-power RLAN use, and WISPAU would work with the ACMA in developing and implementing either a co-ordination and licencing requirements (as per current working models) or an AFC option as outlined in Appendix A of the Options paper.

WISPAU strongly prefers an AFC system like that in current operation in Canada and AFC solutions (such as Qualcomm) already exist today and could be trialled in Australia (between WISPAU members and the ACMA) in a relatively short time frame.



- **If we decide to divide the band into different RLAN and WA WBB segments, should the WA WBB segment:**
 - **be a multiple of 100 MHz?** This would align with the largest 3GPP channel size (noting that the ability for WA WBB operators to deploy one or more 100 MHz channels will depend on the outcome of the assignment process)
 - **align with the 160/320 MHz wi-fi channel raster?** This would maximise the number of the larger wi-fi channels available (by avoiding options that would split these channels).

WISPAU supports the alignment of the 160/320MHz wifi channel raster as this makes the most efficient usage of the available spectrum and will deliver the best outcomes for current and future wifi improvements both with indoor and outdoor wifi equipment and align closer with the USA and Canada (and multiple European countries considering) approaches in the 6GHz spectrum usage.

- **Is it appropriate to limit our consideration of hybrid options for accommodating multiple services to frequency segmentation only? For example, should geographic segmentation or less traditional sharing models be considered when determining models for enabling access to the upper 6 GHz band by both WA WBB and RLAN services**

WISPAU suggests the use of frequency segmentation should a hybrid option be considered.

There are a number of issues with other sharing mechanisms in regards to WISP operation in the spectrum along with WA WBB.

- **Indoor/outdoor separation** – the ACMA options paper suggests that there is a natural indoor / outdoor split with RLANs indoors and WA WBB base stations. This is not the case for WISP's looking to operate at higher power RLANs and delivering fixed wireless broadband to residential, business and industry. WISP's are also delivering high speed outdoor wifi services for sporting organisations, not-for-profits, schools and other public areas, so the assumption that there is a natural split does not always play true.
- **Reduced WA WBB Base Station Power** – the effectiveness of reducing the power for WA WBB base stations may also result in the effectiveness of the spectrum for mobile to be questioned – which then in turn also raises the question as to why a hybrid option would be considered at all if the overall effect is to null the improvements that 6Ghz would have delivered. In this instance it would be more effective and beneficial to end customers to allow all available spectrum to be for RLAN.
- **Database-assisted co-ordination** – whilst a database co-ordination approach could be implemented (similar to an AFC model) it raises issues as to which service is provided a priority (WA WBB or RLAN) in areas and the issues that may occur where a service may not be present, only to have a service enter an area at a later stage (ie. Secondary service such as existing RLAN builds network and is then forced out by new WA WBB priority service).



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- Spectrum sensing – as stated by the options paper, in some instances this approach can result in interference with each others services and is not a practical approach and can result in delays from vendors supplying equipment that could meet the requirements, as opposed to equipment that is already capable of operating reliably in the 6Ghz range with options available today to avoid interference with licenced links.

ADDITIONAL

WISPAU looks forward to continuing to work with the ACMA and WISPAU is keen to assist with any trial implementation of utilising 6Ghz higher powered devices for fixed wireless broadband services.