



# Wireless Internet Service Providers Association NZ Incorporated

Planning for WLAN Use in the 6GHz Band  
Discussion paper June 2021

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WISPAN



## CONTENTS

1	Executive Summary.....	3
2	Introduction.....	4
3	Response to Questions Specific to Options presented. ....	5



WISPA.NZ



## 1 EXECUTIVE SUMMARY

WISPA.NZ, representing wireless Internet service providers all over New Zealand, appreciates the opportunity to submit a response to the *Discussion document, Planning for WLAN use in the 6 GHz band*.

Wireless Internet service providers provide internet and phone services mainly to rural New Zealand. We make extensive use of the 5/6 GHz bands for both fixed wireless access and PTP backhaul and it is extremely important to us so we are very keen to ensure that the future use of this band does not affect our ability to continue doing this and allow us to expand as customer usage grows.

We welcome the use of 5925-6425 MHz for WLAN use.

Our response is based on the combined knowledge and experience of 28 WISPS throughout New Zealand who have been providing wireless services for up to 20 years. We have a well-deserved reputation of innovation and thinking 'outside the square' to provide unique and effective solutions for our customers.



## 2 INTRODUCTION

### 2.1 INTRODUCTION TO WISPA.NZ

WISPs – or wireless Internet service providers – are the key to broadband in rural New Zealand.

They provide Internet connectivity by fixed wireless, mostly in regional or rural areas where mainstream telecommunications companies don't bother going. WISPs connect to a fibre optic link at a central point (this is known as "backhaul"), install a series of fixed wireless receivers and transmitters on hilltops or high buildings, and bounce the wireless signal across a series of these sites to a cluster of end users in a rural area.

Here in New Zealand there are about 30 WISPs. Most of them operate in a single region. Nearly all are privately owned businesses run by an owner operator who is active in the business day by day. This makes them very accessible and responsive in terms of their customer service. There are no interminable waits for a call centre to answer in Asia; your local WISP is just down the road. The services, speeds and prices WISPs offer are highly competitive with urban suppliers.

Often the service quality is indistinguishable from the fibre-to-the-premises offered in big cities. And WISPs are as good as anyone for reliability – for example, during the Kaikoura earthquake in 2016 the local WISP, Amurinet, stayed on line uninterrupted, keeping the community connected during the recovery phase while every other fixed and mobile service provider went off line.

WISPA-NZ – or more fully the Wireless Internet Service Providers Association of New Zealand Inc – was established in January 2017. Our purpose is to be a unifying point for the WISPs, liaise with central and local government, provide a collective voice for members, negotiate collectively (eg for joint purchase or leasing of wireless spectrum) and do whatever else the members collectively decide.

For example, we have made representations to Radio Spectrum Management about future spectrum policy, submitted to the Commerce Commission's review of backhaul pricing, and entered negotiations with several parties about commercial arrangements that will advantage members' businesses and customers.

Issues continue to arise. Examples include collective liaison with various Retail Service Providers, the impact of the new legislation enabling lines companies to run fibre across existing power corridors, and the business model of the future for WISP businesses.

WISPA-NZ has 28 member companies. Details of these can be found on our Members page.



### 3 RESPONSE TO QUESTIONS SPECIFIC TO OPTIONS PRESENTED.

Q1. Do you agree with RSM's proposal on making the 5925 - 6425 MHz available for WLAN use?

Yes, but we would like to see indoor and outdoor power at 14dBm for non-AFC and 30dBm like USA and Canada for indoor AFC devices and outdoor AFC devices at up to 36dBm. We would also like to see a higher power limit for fixed PTP links within the band. We agree that there is a high demand for indoor WiFi and more spectrum would be very useful for New Zealand for that purpose but there is also a very high demand for outdoor wireless links in rural areas to provide the internet behind the WiFi so it is very important that the RSM also consider that use case.

Q2. What are your views on the potential future use of 6425 - 7125 MHz for new applications (e.g. Wi-Fi or IMT)?

The USA has opened this whole band for unlicensed and 6GHz use. This has allowed wireless ISPs to have more spectrum to deliver point-to-multipoint fixed wireless services as well as point-to-point backhaul services. We would not like to see this allocated for IMT use as we believe that there is enough spectrum available for that use on other bands.

Q3. Do you agree that RSM should include 5925 - 6425 MHz in the GURL-SRD for WLAN low power indoor and very low power use?

Yes

Q4. Do you agree that RSM should mandate ETSI EN 303 687 as the radio standard for WLAN use in the 6 GHz band? Is there any other regulatory compliance standard we should consider?

Yes, but we are keen to look at the 6425-7125GHz range included in this which is not currently used in Europe.

Q5. What are your views on using a licensing approach to support 30 dBm EIRP WLAN devices?

We would prefer an AFC system to a licensing system. The licensing approach will add further cost that would be a barrier to its use.

Q6. What are your views on supporting 36 dBm EIRP standard power devices using Automatic Frequency Coordination (AFC) system? Do you have any proposals to provide AFC systems to New Zealand?



We support this. WISPA.NZ could be interested in providing an AFC System as our members are very interested in this.

Q7. Any other comments?

The 5725 to 5850 frequency range is currently available for fixed radio links with 23 dBW EIRP. We would like to see the ITS band 5875-5925 being made available for this as well. There is a growing demand for rural wireless spectrum in New Zealand fuelled by people working from home, growing internet use through streaming entertainment and also the government is continuing to fund rural broadband upgrades and expansion through CIP's RBI and RCU programmes.



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