



# WISPAU

Wireless Internet  
Service Provider  
Association of Australia

## Challenges and Opportunities for WISPs

How WISPs are part of the Telecommunications  
Connectivity Fabric for Australians

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President, WISPAU





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## About WISPAU



### WISPAU represents and supports the Wireless Internet Service Providers of Australia.

- Main focus is on ensuring its objectives promote and support the wireless ISP's in Australia
- Provides support and assistance to WISP's members of Australia
- Improving relationships with vendors that have an association with services and products related to the wireless internet services provided by members
- Advocating on matters of relevance to members and the wireless internet service provider industry
- Establishing links with organisations of similar interests in improving the delivery of services to Australia via wireless internet
- Educating on the importance of WISP's in delivering broadband services and improving connectivity to persons in Australia
- WISPAU continues to grow – Over 85+ members & 45+ vendors. [www.wispau.au](http://www.wispau.au)





**WISPAU**

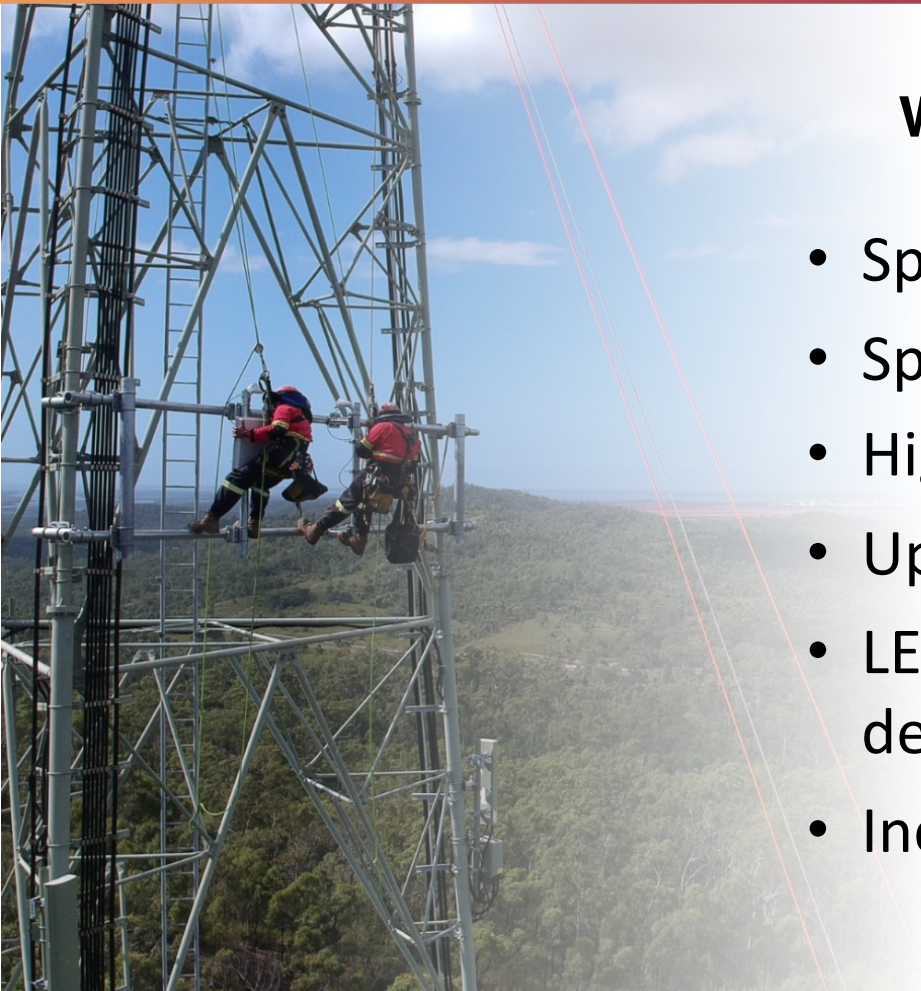
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# Challenges



## WISPs facing further challenges in 2026 .....

- Speed Based Marketing Challenges
- Spectrum Limitations
- Higher Traffic constraints
- Upgraded Network Technology Investments
- LEO broadband competition in low and medium density subscriber areas
- Increased regulation burden on smaller WISPs



## How WISPAU and WISPs are meeting the challenges

- Varied packages to suit the local area – not always just about ‘speed and price’
- Focus on the commitment to local areas, quality of service and reliability – lower complaints to TIO
- ***Automatic Frequency Co-ordination trials*** to open up ‘unused’ spectrum in 6Ghz to deliver improved services, better QoS
- Investing in network upgrades, fiber backhauls into regional areas more accessible
- Utilising Area Wide Licences for 3.4Ghz and 26/28Ghz
- Technology advancements in radio equipment
- ***WISPAU not only assisting WISPs with regulation, but improving business principles and lifting standards***



## Local Network, Local Support

- WISPs can tailor packages on the local community requirements
- Respond to local outages quickly and fast restoration
- Investment into the local network for reliability and resilience – part of the community
- Add value by looking into providing local ‘in person’ support for customers with IT issues
- Supporting sporting groups, not-for-profit and community organisations and events
- Sometimes sacrificing specific tower location based OpEx to ensure connectivity to lower subscriber density area (overall OpEx for the WISP vs tower subscriber revenue) - commitment to the area customers





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# Radio Equipment



## Advancements in Radio Equipment

- Higher speeds, interference mitigation, distance improvements, higher modulations all adding to improved service options
- 60Ghz in subscriber dense areas over shorter distances (1km)
- 26/28Ghz radio PTMP delivering up to **2Gb** downloads today to customers up to 10km (using AWL's)
- 3.4Ghz equipment delivering improved speeds in rural / remote areas and nLoS situations (using AWL's)
- Backhaul radio multiband combinations utilised with mmWave increasing capacity and improving reliability
- Vendor competition driving tech improvements and cost improvements
- Automatic Frequency Co-ordination (AFC) equipment available now that can deliver **vastly improved services** in 5Ghz and **6Ghz spectrum**



## Automatic Frequency Co-ordination Trial

- **AFC** (Automatic Frequency Coordination) in the 6 GHz frequency band is used to manage and prevent interference between unlicensed devices and licensed incumbents (such as fixed microwave links) operating in the same band.
- AFC *automatically determines* which 6 GHz frequencies an unlicensed device can use, based on its location (GPS) and a database of licensed users (from the ACMA database) to avoid interference.
- This is particularly important in the **5.925–6.585 GHz** range, where **standard-power** unlicensed devices must use AFC before transmitting outdoors or at higher power levels.
- WISPAU initiated first of its kind AFC Scientific trial in Australia with assistance from Cambium Networks and Qualcomm



## Automatic Frequency Co-ordination Trial

- AFC is established and working in places like America and Canada
- **ACMA are currently reviewing AFC operation in Australia.**
- WISPAU are providing results of the AFC trial to the ACMA as part of the Scientific trial
- If approved and put in place, AFC can change the delivery of services to regional, rural and remote areas of Australia by ***opening up unused parts of the 6Ghz spectrum in these areas.***
- Access to this spectrum means WISPs can deliver a range of services (low speed cost effective to high speed tier needs) to suit all requirements from the same radio equipment.





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# AFC Trial



## Automatic Frequency Co-ordination Trial

- Restricting AFC implementation in Australia will significantly disadvantage WISPs and remove a critical tool to allow them to be competitive and commercially viable in some areas (LEO aggressive pricing and speeds)
- AFC Radio equipment today ***can deliver speeds up to 1Gb across multiple component carriers*** – and vendors are still improving radio equipment
- Ability to **increase the spectrum** available using AFC– ***6585Mhz to 7100Mhz*** could also be made available in regional, rural and remote settings. Additional spectrum improves delivery of services, reduces likelihood of interference and multiple operators can be supported (increased competition)
- WISPAU recently responded to the ACMA AFC discussion paper in January this year.



## Compliance Standards

- Significant changes in the telecommunications regulation and standards for Carriers and CSP's in last 12-18 months
- Changes include –
  - Telecommunications Consumer Protections Code (TCP)
  - Security of Critical Infrastructure Act Requirements and deadlines – including Cybersecurity, Resilience and Risk Assessments
  - Financial Hardship
  - Domestic, Family and Sexual Violence Policies and Procedures
  - Communication of Outages, Compensation Policies
  - Complaints Handling and TIO requirements
  - Training of staff requirements (consumer vulnerability, financial hardship, DFSV specific)



## Compliance Standards

- WISPAU has partnered with Internet Association of Australia on issues like SOCI requirements and DFSV requirements – making sure that we align with similar industry organisations that are here to deliver better internet services
- WISPAU members have access to templates, training documents, online videos which can assist them meeting their compliance obligations for small to medium WISP businesses who may not have the resources to meet the heavily regulated telecommunications industry
- WISPAU has been working to assist WISP's not only in accessing new opportunities for improving services but also in improving compliance.
- **This way WISPs can meet requirements – *and* deliver better connectivity and broadband services for those in Australia.**



# Thank You!

**Thank You to Commsday for invitation to this event.**

**WISPAU is excited with the opportunity to discuss with all on ways to improve the WISP industry on connecting Australia.**



## **Slide 1 – About WISPAU**

Hello everyone.

First off, I'd like to say thank you to Commsday for having this great event in Canberra and allowing WISPAU to present again and be invited back from last years event.

My name is Adrian Robertson and I am the Director of the regional WISP called Dreamtilt in Central Queensland. Our WISP services just over 1500 customers primarily on fixed wireless internet connections and we service residential, business and large industry.

I have seen many changes in the fixed wireless industry over the last 20 years.

From the start of 2024 I have been the Wireless Internet Service Providers Association of Australia president

For those that are not aware, WISPAU was established in 2016 and is the representative voice of independent

and community-driven fixed wireless broadband providers across this country.

We are a not-for-profit organisation formed by the industry, for the industry.

Our mission is simple — to ensure that wireless internet service providers, or WISPs, are supported, recognised, and empowered to deliver reliable, high-performance broadband to Australians everywhere

We help our members navigate the regulatory, and commercial landscape of telecommunications.

We strengthen relationships between WISPs and vendors, foster collaboration with regulators, and provide the resources our members need to stay compliant, competitive, and resilient.

Today, WISPAU represents more than eighty-five members and over forty-five vendor partners across Australia — a community that continues to grow.

WISPAU believes that wireless connectivity isn't just a technical service — it's an enabler of opportunity,

economic growth, and digital equity. Every WISP plays a role in bridging the digital divide, ensuring that small towns, remote communities, and regional businesses have the same access to modern connectivity as our major cities.

## **SLIDE 2 - WISP Challenges**

As we head into 2026, there are challenges ahead for the WISP industry, as no doubt there are for all players in the telecommunications industry.

For WISPs, some of these challenges involve –

Speed Based Marketing Challenges – where the cost of newer players in the market and different technologies are marketing specifically on lower prices and speed makes it challenging for WISPs that are requiring to service lower population density areas and may have a higher operational expenditure and require a higher average revenue per user (or ARPU).

Spectrum limitations – where access to additional spectrum with lower interference issues that will allow higher bandwidth is confining the services able to be delivered by WISPs in areas, thereby restricting the WISP to compete on speeds.

Higher traffic constraints – where access to lower cost fibre backhauled or PTP backhaul connectivity between towers, where rental costs can be high, in order to deliver higher speed services can be an issue in some areas, leading to again higher OpEx costs to be considered by the WISP

Upgraded network technology investments – including improvements to resilience and reduction in identified hazards to the network, or the upgrading of network radio equipment can result in high CapEx costs, that due to lower ARPU could result in longer recovery of costs or simply be uneconomical for the WISP to complete.

LEO Broadband competition – aggressive pricing and marketing from LEO has seen not only rural and remote, but also regional and main suburban customers in areas

change to this technology. The impact of LEO providers on WISPs does mean that it will force WISPs to have an honest assessment to see if they will be a price leader (cheaper than LEO services), a Performance leader (offering speeds as good or better than LEO services) or a Service leader (offering specialized services with great local service).

And lastly, everyone's favourite discussion point, increased regulation – in the last 12-18 months there has been a number of changes to the requirements placed on telecommunications Carriers and CSPs that affect all WISPs. Whilst larger organisations may have the departments and capability to deal with the changes implemented (and in some instances can still have issues), small and medium WISP players do not always have the ability to keep pace or have access to the required training to meet the implemented changes.

## **SLIDE 3 - WISP Opportunities**

But with any challenge there is always opportunities.

There are markets and needs that WISPs can tailor specifically to.

WISPs are able to focus on local areas that they cover, and WISPs that are needing to be profitable businesses are doing exactly that.

Automatic Frequency Co-ordination trials (which I will detail a little later on), which utilizes unused and unlicensed spectrum in the 6Ghz band will prove to be a game changer in Australia.

There has also been investment in pushing fiber backhauls further and deeper into regional and rural Australia, opening opportunities for access to lower cost backhaul options, and improving operational costs for WISPs

The implementation of Area Wide Licences in 3.4Ghz and 26/28Ghz by the ACMA has also been a great move for the WISP industry. These allow smaller licenced frequency areas and allow operators to cover targeted specific areas without paying high spectrum costs for a larger area that would normally be uneconomical for WISPs. This allows deployment of equipment in these areas that will allow better coverage in the case of 3.4Ghz or much higher speeds in the case of 26/28Ghz and is significantly more economical for WISPs.

WISPAU expects the take-up of 26/28Ghz AWL's will increase with the advancements now being seen in available point to multipoint radio equipment in this frequency.

WISPAU is playing our part to assist WISPs with online sessions with Vendors allowing them to

review current and potential technologies that will improve their networks.

And we are also developing standards, policies and procedures as well as training for WISPs to not only meet telecommunication regulations but also improve in areas of network performance, customer service and business improvements.

## **Slide 4 – Local Network, Local Support**

As most WISP owners have control over their own networks, this allows them to tailor packages specifically for their local requirements and local customer needs.

They can offer reduced cost lower priced plans for those customers who just use the internet every now

and then. This was reflected in ACCAN's Cost of Connectivity report in 2025, that reflected not all users are going to be high speed, high download customers and that lower cost plans are just as important in this current economic climate.

WISP owners also will focus with a genuine interest in delivering connectivity and coverage in their area, investing back into the local network to improve quality, reliability and resilience. Often WISP owners will put in the extra effort to restore services as quickly as possible and keep in contact with the local customers during such outages.

And when weather events or disasters strike, often the local WISP is out restoring connectivity to customers in very short time frames, knowing that it is not just their business reputation, but also again that desire to restore connectivity to local

businesses and customers, because they know the importance of being connected in their area.

WISPs have to be, after all ... there is always that Starlink kit available in Bunnings .. isn't there ...

You will find that WISPs are also part of their community, providing sponsorship and free services to local community events and groups, not-for-profits and sporting groups.

They also provide IT support in their area, often becoming the source of information in regional and remote areas to fix not only Internet issues, but an array of IT related issues, including such problems like –

‘Why wont my wifi work in the shed 20m away from my house’

‘I think my kids pressed the reset button on the router’

‘I got this new printer and turned I on but it doesn’t print – what’s wrong with the internet?’

‘How do I block my kids using parts of the internet?’

In some areas, WISPs will ensure customers have coverage in areas where subscriber density is low, and have an overall lower return for a particular tower location , but keep those customers online via more profitable towers, a sort of ‘semi quasi Regional Broadband Scheme run internally by the WISP’ if you were to give it a name..... It is this commitment to local areas that WISP owners will go to, to ensure connectivity.

## **Slide 5 – Radio Equipment**

The WISP industry is seeing some exciting developments with radio equipment from vendors.

Newer 60Ghz equipment can deliver over gigabit speeds, with less issues from rain, over short distances, perfect for delivering higher speed services to subscriber dense areas, with faster deployment and installation than some other technologies available.

New point to multipoint radios in 26 and 28Ghz are delivering up to 2Gb downloads and distnaces up to 10km away from towers, ensuring high speed connections for businesses, without any concern of interference on the licensed AWL.

Radios with dual 3.4 and 5/6Ghz equipment is available today for WISPs, providing exciting non-line-of-sight solutions for customers in those hard to reach places.

And licensed backhaul point to point radio equipment can be combined with mmWave (80Ghz) on multiband dishes providing much higher capacity links with lower rental costs on towers, ensuring

both high capacity and reliability of the connectivity links supplying customers.

Competition between radio vendors is seeing exciting developments, driving tech improvements and cost improvements in the WISP industry.

## **Slide 6 – AFC Trial 1**

One of the most exciting developments for the WISP sector is the progress of **Automatic Frequency Coordination**, or **AFC**, in the 6 GHz spectrum band.

AFC in 6Ghz represents a major leap forward in how we manage radio frequencies in shared spectrum environments.

In simple terms, AFC is the system that allows outdoor standard power unlicensed radio devices to operate in the same 6 GHz band as licensed incumbents — such as point-to-point microwave links — without causing interference.

It achieves this by using geolocation and database coordination to automatically determine which specific channels and power levels a device can use at a given location.

The outcome is both protection and efficiency: incumbents are not interfered, and new operators can access much-needed spectrum capacity.

The significance of AFC for fixed wireless broadband providers cannot be overstated.

It opens the door to wider channels, faster throughput, and improved reliability — all while maintaining the integrity of existing services that rely on this band. For WISPs, AFC can mean the difference between incremental improvement and transformative performance.

WISPAU, Cambium Networks and Qualcomm have been working for over a year discussing what a potential trial would look like in Australia with the ACMA.

And I am pleased to state that an AFC trial has been approved by the ACMA under a Scientific Licence with the trial to last 12 months.

The trial will of AFC will be in the lower 6Ghz band.

Further details on the trial including locations are available on the WISPAU website at [wispau.au](http://wispau.au)

I'd also like to quickly thank all those involved from Cambium Networks and Qualcomm in getting the trial to this stage. There has been quite a bit of work behind the scenes to get to a point where a trial can be approved by the ACMA.

## **Slide 7 – AFC Trial 2**

In countries like the United States and Canada, AFC systems are already in operation and proving effective.

They have shown that the combination of coordination and spectrum management can enable both innovation and protection.

The ACMA is currently reviewing AFC operation in Australia and WISPAU are providing data from the AFC trial underway.

The great thing AFC does is give WISPs a path to use that unused 6Ghz spectrum responsibly — balancing innovation with protection.

It ensures that WISPs can expand access to bandwidth without compromising the systems already in place.

It will allow WISPs the ability to deliver a full range of services to areas utilising the same radio access point equipment

## **Slide 8 – AFC Trial 3**

It can (and hopefully will be), a model of how technology and regulation can work hand-in-hand to create better outcomes for everyone.

At WISPAU, we see AFC not as a distant possibility but as an immediate opportunity. Restriction of AFC in Australia will significantly disadvantage WISPs and remove a critical technology that allows WISPs to be competitive and commercially viable in Australia.

The technology is proven, the policy groundwork is being laid, and our industry is keen to demonstrate that fixed wireless providers can use this spectrum safely, efficiently, and for the public good.

AFC radio equipment from vendors is available today and can deliver up to 1Gb across multiple component carriers in the spectrum – and the technology is improving.

And, there is the ability to review the upper 6Ghz spectrum utilising AFC also, opening up 6585 to 7100Mhz in remote, rural and regional areas.

Whilst there is no guarantee that AFC will be implemented by the ACMA in the future, we are hopeful that the results of this AFC trial will show that an AFC can be successfully run in Australia benefiting WISPs and protecting incumbent licenced operators.

Its an exciting opportunity to be involved in developing new ways to deliver better connectivity and fixed wireless broadband services to Australians

## **SLIDE 9 – Compliance 1**

As previously stated, WISPs, and the sector as a whole, have seen some rapid changes in the telecommunications regulation and standards landscape for Carriers and CSP's.

WISPs must also comply with the

- Telecommunications Act
- Telecommunications Consumer Protections Code,
- the Financial Hardship Industry Standard,
- the Domestic, Family and Sexual Violence Standard,
- the Telecommunications Consumer Protection and Service Standards

- the Telecommunications Consumer Complaints Handling Industry Standard
- the Telecommunications Customer Communications for Outages Industry Standard
- the Telecommunications Interception and Access Act

Just to name a few ....

Should all be pretty easy – right?

Especially for a WISP with a carrier licence with a few hundred customers in a regional or remote area and say 2 or 3 employees? No problem!

These frameworks are designed to ensure fairness, transparency, and accountability in the way telecommunications services are delivered.

But they can also be daunting for small to medium providers, and even larger players have trouble abiding to all the requirements.

Now, no WISP provider goes directly out of their way to be a bad provider to the customers – indeed a WISP relies heavily on making sure their customer satisfaction

and local service is excellent otherwise they would be out of business in their areas.

But many WISPs need assistance in determining and meeting the requirements in the standards and codes.

This can be anything from having the right policy procedures in place for issues such as –

- Complaints Handling
- Financial Hardship
- Domestic Family and Sexual Violence
- Privacy Protections
- Authorised Representative and Advocates
- Customer Relationship Agreements and Standard Form of Agreements
- Credit Management
- Critical Information Summaries
- Communication of Outages

And training for staff for not just technical issues but also for responsible selling of services, domestic and family violence training, complaints handling, determining vulnerable customers and credit management.

Many WISPs operate as lean, technical businesses with limited administrative capacity.

Sometime, despite the best efforts of WISPs, they may not meet the compliance obligations and requirements as set out in industry legislation, standards and codes.

## **SLIDE 10 – Compliance 2**

WISPAU recognises this reality and we have been proactive in helping our members navigate these requirements.

That's why our support extends beyond advocacy — we provide templates, training materials, and online resources to help members meet their obligations efficiently.

We have regular online meetings where members can share information and collaborate constructively.

Our goal is not just compliance for compliance's sake, but a culture of professionalism that builds trust with

regulators, customers, and partners alike with the WISP industry.

Taken together, technology improvements like AFC , and the recent legislation and code changes (and likely more to come) highlight the dual nature of our industry's evolution — innovation on one hand, and governance on the other.

We cannot have sustainable progress without both.

Innovations such as AFC gives us the spectrum agility and efficiency we need to keep delivering faster, more reliable broadband.

Regulations and legislative framework's ensure that as we expand, we do so responsibly — protecting the integrity of our telecommunication networks and the digital inclusivity for all.

WISPAU's role is to help WISPs navigate this balance — to turn complexity into clarity, and regulation into opportunity.

By working together, we are proving that the fixed wireless industry in Australia is mature, capable, and forward-looking.

We are showing that small and regional operators can innovate at the same level of sophistication as major carriers — and, in many cases, do so with greater agility and community focus.

Every WISP that can improve its compliance posture, strengthens its cybersecurity defences, and invests in next-generation spectrum technologies contributes to a stronger, more connected Australia.

That's the vision we pursue at WISPAU — an industry that isn't defined by its size, but by its capability, integrity, and commitment to serving communities.

Our message is simple:

Australia's digital future depends on diversity, inclusion, and resilience in its telecommunications ecosystem.

WISPs are a vital part of that story —

and WISPAU is here to make sure that story continues to grow.

## **SLIDE 11 – Thank you**

Thank you and thanks again to Commsday for allowing WISPAU to present today.

And happy to discuss with anyone here about WISPAU and ways WISPs can improve connecting Australians.