



WISPAU Annual General Meeting  
28th of October 2020

## **AGM Agenda**

- Present & Apologies
- Confirm the minutes of the last AGM and of any special general meeting held since that meeting
- Receive committee reports on activities of the association during the previous financial year
  - Presidents Report
  - Treasurer's Report
- Positions declared vacant
- Nominations received
- Elect or appoint office bearers and ordinary committee members
- Declaration of Elected Office bearers
- Receive, consider and approve the association's financial statements or reports required to be submitted to members under the Act
- Close Meeting

Commencement of Ordinary Meeting of WISPAU 28 October 2020

## **General Meeting Agenda**

- Minutes from previous meeting
- Matters arising
- General Business
- Meeting Closed

# WISPAU AGM Minutes 2019

- Notes on correspondence with ACMA and consultation outcomes
- ACMA draft spectrum reallocation recommendation for the 26 GHz band
- Proposed new associate membership class - \$5
- Submit required NSW Association forms
- Membership outreach drive
- Discussion on approach to policy and politicians
- Future value of WISPS in an LEO world
- Impact of NBN on WISPS
- Further engagement with Federal Government, Ministers & Departments
- Radio communications reform - Spectrum Licensing structural review
- **PIRG** - Low impact stuff - abandoned equipment - ownership / operations / on hold



# President's Report - Activities since last AGM

- General Meetings - Jan / April / May / July / Sep
- Meeting(s) with ACMA - Aug 2019 / April 2020
- Attended and presented at the ACMA Tune-Up Event on Spectrum Sharing
- Presentation on WISPS in Australia to NZ Association at their conference
- Spectrum Replanning Activities
  - Discussion Papers ( DSLM Trial , AWL , 2 GHz , 3.3 - 3.4 GHz, 3.4 - 3.575 GHz , 3.7 - 4.2 GHz , 5.6 GHz , 26 GHz , 28 GHz )
- Radio Comms Legislation Amendment Bill
- Area-wide Apparatus License (AWL) - Discussion Papers and Implementation in 26 & 28 GHz Bands
- Spectrum Sharing Response Papers
- Industry Recognition - ACMA Policy Papers - FYSO - Comms Day
- Five Year Spectrum Outlook (FYSO)
- Available Spectrum for WISPS

# FYSO - ACMA Program of works

Monitoring	Initial Investigation	Preliminary Planning	Replanning
<p>1900–1920 MHz</p> <p><b>3.3 GHz (3300–3400 MHz)</b></p> <p>4.5 GHz (4400–4500 MHz)</p> <p>4.8 GHz (4800–4990 MHz)</p>	<p>'Extended MSS L-band' (1518–1525 MHz and 1668–1675 MHz)</p> <p>2300–2302 MHz</p>	<p>1.5 GHz</p> <p><b>2 GHz (1980–2010 MHz and 2170–2200 MHz)</b></p> <p><b>3700–4200 MHz</b></p>	<p>850 MHz expansion band (809–824 MHz and 854–869 MHz)</p> <p>900 MHz (890–915 MHz and 935–960 MHz)</p> <p><b>3400–3575 MHz</b></p> <p><b>5.6 GHz</b></p> <p><b>26 GHz (24.25–27.5 GHz)</b></p> <p><b>28 GHz (27.5–29.5 GHz)</b></p>

# ACMA update - 27th May 2020

  Australian Communications and Media Authority

## ACMA update




27 May 2020

### Spectrum options optimised for local area wireless broadband services

The ACMA has published an [information paper](#) detailing spectrum options for local area wireless broadband services.

The paper includes information for existing and prospective providers of local wireless broadband networks to identify spectrum bands and regulatory arrangements suitable for their services.

It also identifies all of the frequency bands suitable for use by services, and other relevant information needed to licence them.

   [acma.gov.au](https://acma.gov.au)

Australian Communications and Media Authority

Table 1: Summary of bands with apparatus licensing arrangements

Band	Apparatus licence type <sup>1</sup>	Applicable areas <sup>2</sup>
1710–1785/ 1805–1880 MHz	PTS	Remote (part band only)
1900–1920 MHz	PMP	Regional and remote
1920–1980 MHz/ 2110–2170 MHz	PTS	Regional (part band only) and remote (entire band)
3400–3575 MHz	PMP	Arrangements being developed for regional (part band only) and remote areas (entire band)
3575–3700 MHz	PMP	Remote
5600–5620 MHz and 5630–5650 MHz	PMP	Regional
24.7–25.1 GHz and 27.5–29.5 GHz	AWL	Arrangements being developed for Australia-wide use
25.1–27.5 GHz	AWL	Arrangements being developed for regional and remote use

*Note 1: PTS = public telecommunications service, PMP = point-to-multipoint, AWL = area-wide licence.*

*Note 2: Refer to relevant RALIs—as detailed in the next part of this paper—for a detailed definition of an area’s arrangements.*

<https://theacma.cmail19.com/t/d-l-mttbkd-tljrjldtui-t/>

Frequency band (MHz)	Description
472.0125–472.1125	Telecommand or telemetry transmitters (max power 100 mW EIRP)
0.07–0.119	Telecommand or telemetry transmitters (max power 10 mW EIRP)
0.135–0.160	Telecommand or telemetry transmitters (max power 10 mW EIRP)
0.119–0.135	Telecommand or telemetry transmitters (max power 1.5 W EIRP)
0.160–0.190	Telecommand or telemetry transmitters (see details for limitations)
2400–2450	Telecommand or telemetry transmitters (max power 1 W EIRP)
5725–5795	Telecommand or telemetry transmitters (max power 1 W EIRP)
5815–5875	Telecommand or telemetry transmitters (max power 1 W EIRP)
5795–5815	Telecommand or telemetry transmitters (max power 2 W EIRP)
915–928	Frequency hopping transmitters (max power 1 W EIRP)
2400–2483.5	Frequency hopping transmitters (max power 500 mW EIRP)
2400–2483.5	Frequency hopping transmitters (max power 4 W EIRP)
5725–5850	Frequency hopping transmitters (max power 4 W EIRP)
915–928	Digital modulation transmitters (max power 1 W EIRP)
2400–2483.5	Digital modulation transmitters (max power 4 W EIRP)
5725–5850	Digital modulation transmitters (max power 4 W EIRP)
5150–5250	Radio local area network transmitters (max power 200 mW EIRP)
5250–5350	Radio local area network transmitters (max power 200 mW EIRP)
5470–5600	Radio local area network transmitters (max power 1 W EIRP)
5650–5725	Radio local area network transmitters (max power 1 W EIRP)
59000–63000	Data communication transmitters outdoors (max power 150 W EIRP)
57000–71000	Data communication transmitters indoors (max power 20 W EIRP)

# Elections

- Positions declared vacant
- Nominations received
  - President -
  - Vice President -
  - Treasurer -
  - Secretary -
  - Industry Representative -
- Elect or appoint office bearers and ordinary committee members
- Declaration of Elected Office bearers
  - President -
  - Vice President -
  - Treasurer -
  - Secretary -
  - Industry Representative -



# Treasurer's Report

During FY 18-19 the aim was to establish financial facilities for the Association.

The following are some key points.

- Obtained an ABN
- Opened a general bank account - two to approve payments
- Opened a Direct Debit Visa account for online payments, minimum balance kept for Xero fees
- Opened a Not For Profit account with Xero to manage the Membership and accounting requirements @ \$37.50 per month
- Billed \$100 to five members of the Committee for membership as a trial

# Profit and Loss

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## Wireless Internet Service Provider Association of Australia Inc. 1 July 2019 to 30 June 2020

30 Jun 20

### Income

Membership Fees	6,485
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<b>Total Income</b>	<b>6,485</b>
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### Gross Profit

6,485

### Less Operating Expenses

Consulting & Accounting	450
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Legal expenses	47
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<b>Total Operating Expenses</b>	<b>497</b>
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### Net Profit

5,987

# Balance Sheet

Wireless Internet Service Provider Association of Australia Inc.

As at 30 June 2020

30 JUN 2020

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## Assets

### Bank

Trading Account	1,284.00
VISA Debit Account	190.31
<b>Total Bank</b>	<b>1,474.31</b>

### Current Assets

Accounts Receivable	4,900.50
<b>Total Current Assets</b>	<b>4,900.50</b>

### Total Assets

**6,374.81**

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## Net Assets

**6,374.81**

## Equity

Current Year Earnings	5,987.31
Retained Earnings	387.50
<b>Total Equity</b>	<b>6,374.81</b>

Resolution required to write off unpaid subscription fees of \$4900.50.

Resolution required to set 2021 subscription fees, \$99 Member & \$500 Sponsor

## General Meeting Agenda

- Minutes from previous meeting
- Matters arising
- General Business
  - Cambium cnWave Trial
- Meeting Closed

# Minutes from previous meeting

- In depth discussion on the Regional Connect Grant Program
  - Group walkthrough of the application
  - Clarification on sections within the application
  - Discussion on Leo earth stations and local bandwidth supply
  - Concern over privacy with submissions similar to NBN creation story
  - Emphasise local economic activity and employment opportunities in applications.
  - Projects that can be immediately commenced “Shovel Ready”.
  - Due to the departments response to our invitation they may respect us OR fishing for their own legitimacy.
  - Discussed technical aspects of the deployment process
  - Ideas for combining many small projects into one larger one and how to present this
  - Many WISP owners are great at practical activities and poor at bureaucratic paperwork.
  - Use Safety and Environmental concerns as project justification, speak their language.
  - The burden of maintaining OPEX for 7 - 10 Years
  - Emphasise social benefits
  - Department ideally wanted 30% contribution with State and Provider picking up the remainder.
  - Discussion on what constitutes eligible costs for inclusion in the grant application.
- Matters arising - Open for general discussion

# Cambium cnWave 60Ghz - Point to Point Trial

CN - Client Node	Link	DN - Distribution Node
GPS -28.111148, 153.461767 Elevation 8 Meters	Distance - 504 Meters	GPS -28.109614, 153.466458 Elevation 65 Meters

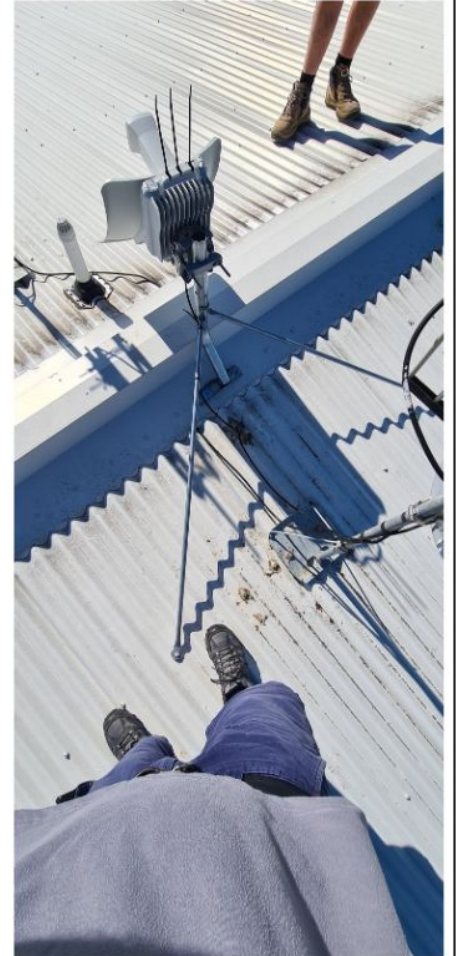


**DN - Installation Photos**  
Device installed on existing  
mount, no 60Ghz colocation



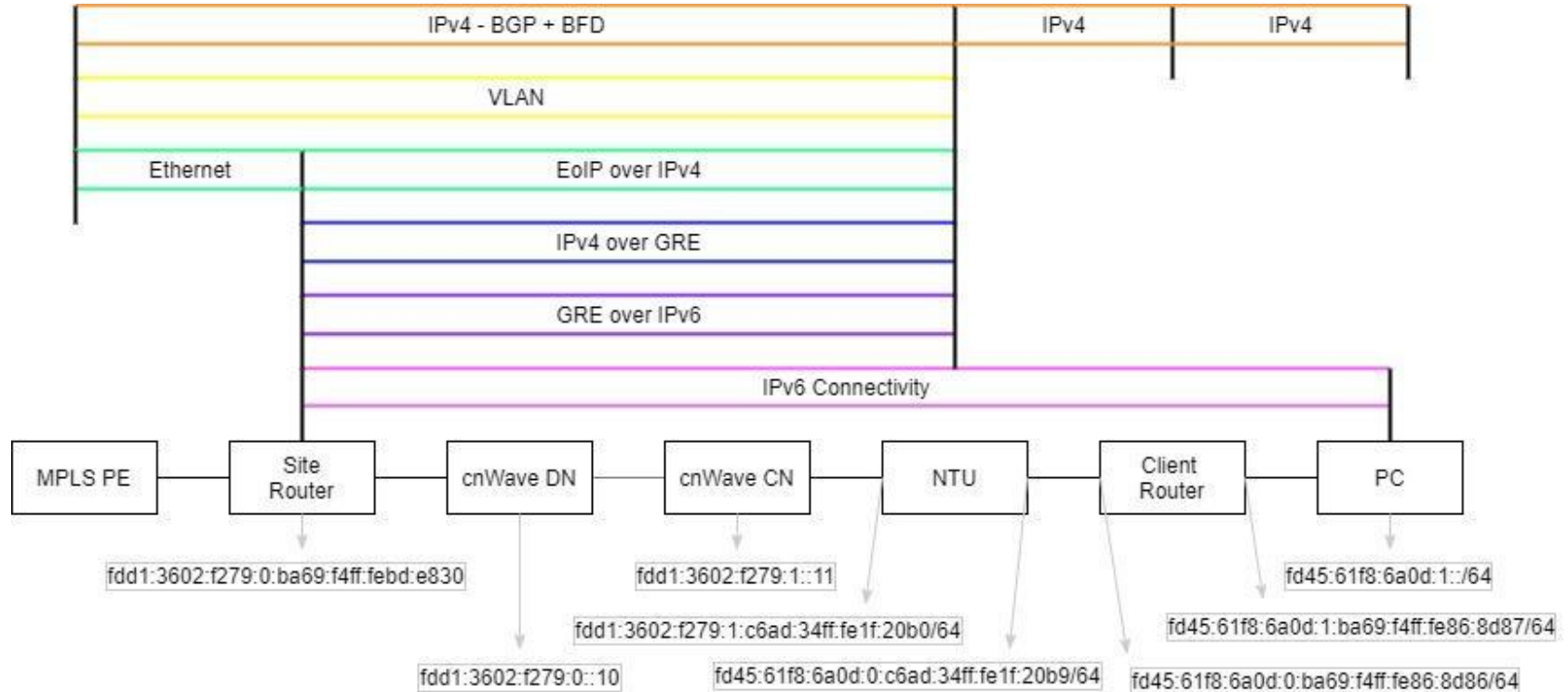
### CN - Installation Photos

Device installed on new satellite mount, zip ties are to prevent birds using the handle as a perch and messing up the radio.

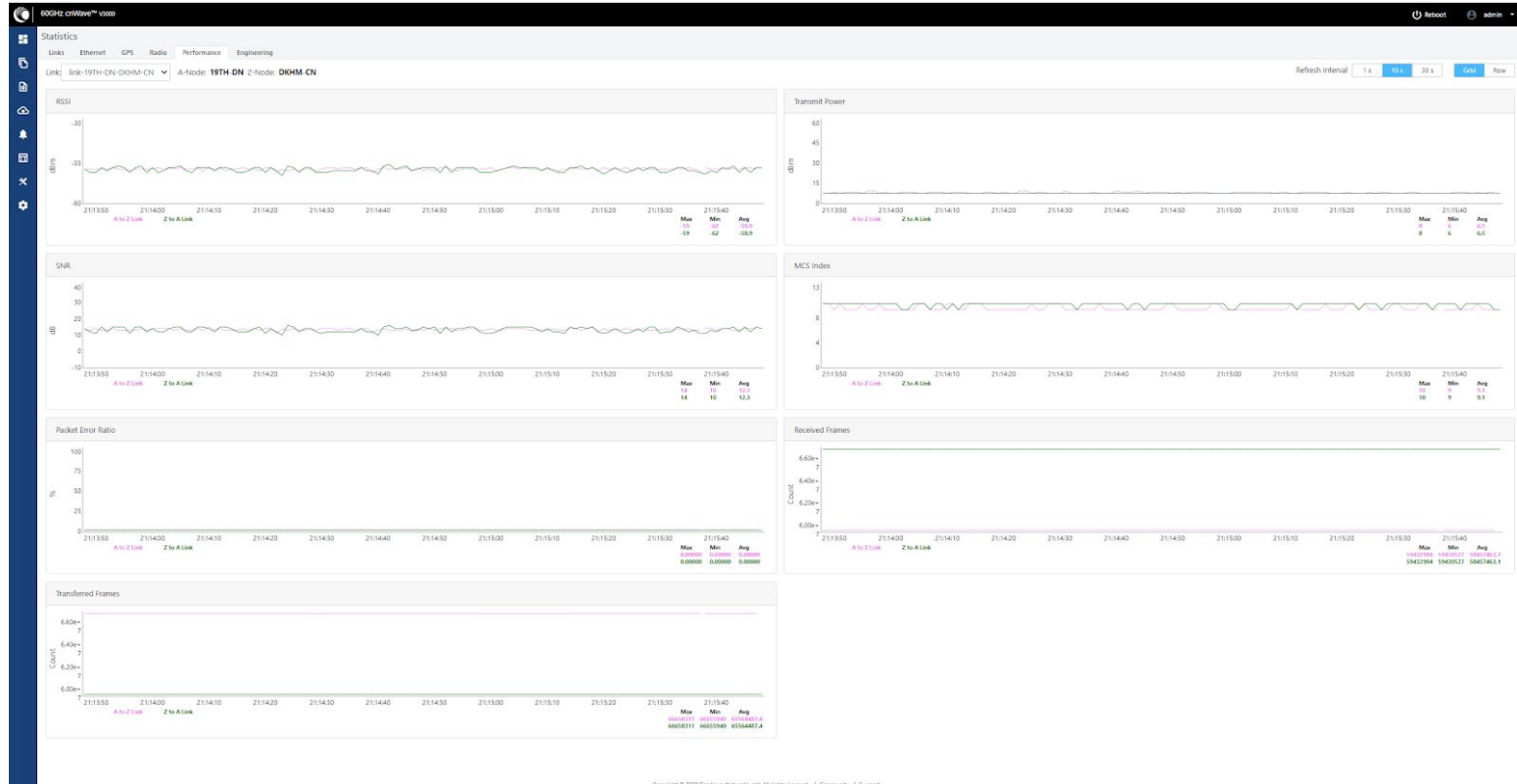




# Protocol stack required to connect NTU to MPLS PE L2



# RF Statistics



# Throughput Testing - using 1 Gbps Copper

The screenshot displays the Mikrotik WinBox interface for a Mikrotik RB4011 router. The main window shows the configuration for the 'ether2' interface, including IP address, netmask, and gateway. The 'Advanced' tab is active, showing the 'ARP Ping' test configuration. The test is running, and the results are displayed in a table and a graph.

**Interface Configuration:**

Field	Value
Address	192.168.1.1
Netmask	255.255.255.0
Gateway	192.168.1.1

**Throughput Test Results:**

Step #	Host	Loss	Sent	Recv	Avg	Best	Worst	Std. Dev.	History	Status
1	192.168.1.1	0.0%	6.0	3.0	0.0	0.2	1.7	1.4		
2	192.168.1.1	0.0%	35.1	17.0	1.2	0.7	7.3	1.0		
3	192.168.1.1	1.2%	85.1	17.0	1.7	1.0	10.5	1.7		

**Throughput Test Summary:**

Metric	Value
Tx/Rx Rate	992.1 Mbps / 496.0 Mbps
Tx/Rx Packet Rate	82.330 p/s / 41.165 p/s
PP Tx/Rx Rate	945.6 Mbps / 472.8 Mbps
PP Tx/Rx Packet Rate	78.433 p/s / 39.216 p/s
Tx/Rx Rate	16.9 Gbps / 8.45 Gbps
Tx/Rx Packets	12.449 MB/s / 6.224 MB/s
Tx/Rx Drops	0 / 0
Tx/Rx Errors	0 / 0

The interface also shows a graph of the test results, with a red line representing the Tx rate and a blue line representing the Rx rate. The graph shows a steady increase in throughput over time, reaching a peak of approximately 1 Gbps.



Thank you !