

PORTFOLIO REPORTS - STATE COUNCIL

COMMUNICATIONS REPORT

Sally Brindal – Portfolio Holder, March 2023

There were no communication motions presented at the 2022 Annual State Conference.

REGIONAL TELECOMMUNICATIONS INDEPENDENT REVIEW COMMITTEE (RTIRC)

The Australian Government formally responded to the 2021 Regional Telecommunications Independent Review Committee (RTIRC) report: A step change in demand, to which ICPA (WA) made a submission. The full response is available at: www.rtirc.gov.au, along with the report.

The response has five key elements:

- A new \$811.8 million initiative, Connecting Regional Australia, to further invest in digital infrastructure, services and skills, particularly mobile.
- \$450 million to toward a major expansion and upgrade of the nbn fixed wireless network with flow-on benefits to Sky Muster users.
- \$5 million in funding to expand and continue the Regional Tech Hub to provide consumer support.
- Further work on key regulatory and policy issues, and
- A new, more co-ordinated and strategic approach to regional communications investment,

As identified in the 2022-23 Budget, the Australian Government has committed \$1.3 billion in direct investment in regional telecommunications.

TELSTRA

Telstra looks forward to discussing the details of the RTIRC recommendations with their customers, stakeholders and the Federal Government to best support the aims of the review. This includes deciding how they invest the additional \$75 million of funding they have specifically set aside to further enhance connectivity in regional Australia, as well as their \$200 million co-investment fund that aims to improve regional connectivity over the four years ending FY25.

Telstra has also committed \$150 million to improve the regional mobile network customer experience. This includes addressing areas of network congestion by upgrading over 180 3G sites, augmenting capacity at selected 4G sites with high traffic, and further 4G site optimisations to better balance 3G/4G traffic and address localised customer demand.

At the beginning of 2022, Telstra announced a 10-year arrangement that would allow TPG Telecom to acquire mobile network services from Telstra that would deliver faster mobile service speeds in more regional locations around Australia. The arrangement would provide access to some of TPG Telecom's spectrum across 4G and 5G. This additional spectrum would significantly reduce the increased congestion in busy times that has been caused by more people moving to regional areas during COVID. It would also enable Telstra to continue upgrading their network to provide even better coverage for their customers, while maintaining their network advantage of around one million square kilometres. Telstra would also obtain access to, and deploy infrastructure on, up to 169 additional TPG Telecom mobile sites also improving coverage for all customers in the zone.

Telstra and TPG Telecom (TPGT) asked for ACCC authorisation to share their separately owned spectrum for the delivery of mobile services in a regional coverage zone. Australian Communications Consumer Action Network (ACCAN) submitted that these proposed arrangements could benefit people living in the regional

coverage zone by improving the quality of existing Telstra mobile services and increasing the choice of mobile providers. However, ACCAN also questioned aspects of the arrangements and urge the ACCC to closely examine the longer-term implications for consumers.

The ACCC decided to block the \$1.8 billion regional network sharing deal, arguing it would entrench Telstra's already dominant market position and discourage innovation and investment by competitors. TPG said it would take the matter to the competition tribunal and described the decision as *"a missed opportunity to deliver greater competition and choice for the people of regional Australia"*.

CONNECTED COMMUNITIES PROGRAM

Telstra has announced a boost in the support it offers customers in rural, regional and remote Australia.

As part of the Telstra Connected Communities program, Telstra will triple its annual investment in community engagement activities and support organisations such as chambers of commerce and other local groups. They will also collaborate closely with nbn Local to improve digital inclusion and community technology solutions, as well as partner on emergency response and preparedness.

- 100% of stores were back in Telstra ownership by September 2022. Telstra welcome feedback from customers' visits and hopes the ownership will be able to better align systems and processes to give customers a better-integrated experience in-store and online.
- 100% of all call centres were back on shore by July 2022.
- Telstra will double the number of locally based Regional Engagement Managers to work with communities to improve customer experience, provide information about coverage, performance and management of outages and build connectivity literacy and digital capability.
- Telstra will triple the number of highly experienced Regional Network Advisors to work with customers to address complex network issues and, for the first time, appoint a Remote Community Advocate. The Remote Community Advocate will monitor the performance of the network and communicate recovery times to affected communities as part of responding to the needs of these communities. The Remote Community Advocate will be part of a new Telstra Customer Advocate Council reporting directly to the Telstra CEO.
- The Telstra Customer Advocate Council will ensure regional, rural and remote customers have an even louder voice at the table. The Council members also include the Chief Customer Advocate, Chief First Nations Advocate and the Chief Regional Advocate.
- Telstra is looking to connect teams internally, e.g. retail teams with field technicians to create better communications within Telstra to help address customer concerns/issues.
- Regional Business Centres will be operational for business-based queries, although customers can approach retail shops the Business Centre will have more expertise in business-based solutions.

The Connected Communities Program also involves visiting communities to connect with customers and help resolve customer issues. In 2022 Boyd Brown, Regional General Manager, Telstra and Eva Colic, Regional Engagement Manager, along with a Telstra Team, visited a number of areas including Roebourne, Marble Bar, Nullagine, Meekatharra, Wiluna, Laverton, Leonora, Kambalda amongst others. They covered thousands of kilometres offering service and support to communities and reviewed outstanding debts to Telstra from prior operations, mostly now cleared.

Similar visits to other areas are to be co-ordinated in the future. Please contact me if you think your community would benefit from such a visit.

ONE WEB PARTNERSHIP

In early March, Telstra partnered with the low earth orbit (LEO) satellite communications company, OneWeb, to explore new solutions for improved digital connectivity across Australia and the Asia Pacific region.

The non-exclusive agreement brings together Telstra’s telecommunications expertise in Australia, and OneWeb’s satellite capability to deliver innovative connectivity in the future. The partnership complements Telstra’s T25 ambition to grow and extend its network leadership position and boost mobile coverage across the country, in addition to being another key milestone for OneWeb’s path to global coverage.

The partnership reinforces Telstra’s ongoing commitment to providing world-class communications for regional Australia at a time when investment in expanding digital infrastructure remains a top priority for the country’s economic recovery and development post-pandemic.

Telstra envisages many opportunities for their consumer, small business and enterprise customers using LEO satellite connectivity, including additional resiliency for emergency services and agritech.

CONNECTING RURAL, REGIONAL AND REMOTE AUSTRALIA FROM SPACE

Telstra’s new partnership with the global leader in satellite communications, ViaSat, will help connect rural, regional and remote Australia from space.

Telstra will use their InfraCo assets to enable the final part of ViaSat-3 – a three-part global satellite ‘constellation’ covering the Americas, Europe and Asia-Pacific

The first ViaSat-3 will be launched this year over the Americas, with the other two satellites expected to launch at later dates. When complete, the constellation will cover 4.1 billion people in 48 countries – more than half the world’s population.

A satellite is basically a self-contained communications system in space that uses radio waves to send and receive signals to antennas on earth.

Satellites offer cost-effective coverage to hard-to-reach places and huge capacity, which is important as data-rich technologies like Internet of Things (IoT), edge computing and new 5G uses become more in demand.

For a satellite to deliver communications it needs to interact with infrastructure on the ground. That is where Telstra comes in.

ViaSat will build and launch the satellites and Telstra will build the on-ground infrastructure that will enable the project to deliver over 1Tbps of total network capacity and provide data and video streaming at a speed of more than 150Mbps.

The 16.5-year deal is a first-of-its-kind infrastructure build for Telstra and makes ViaSat one of Telstra Enterprise’s largest customers. This project will help Telstra keep up with the increasing demand for data so more people in rural, regional and remote Australia can participate in the growing digital economy.

STAND-ALONE POWER SUPPLY IN WESTERN AUSTRALIA

Earlier in 2022 Telstra partnered with Horizon Power to launch their first mobile base station in Western Australia that is connected by a Stand-alone Power Supply (SPS).

The move helps bolster the resilience of regional telecommunications in the Mt Ney area east of Esperance as well as reduce carbon emissions and improve community safety. The SPS initiative effectively takes the site off the mains power grid, with the power supply now via solar power, backed up with battery banks and a genset. The SPS unit is powered by eight kilowatt (kW) solar panels, a 16.8kW hour battery and a 26kW backup generator, which together can deliver 12kW of continuous power.

This will enable the tower to continue operating during natural disasters and emergencies; which may impact a traditional network of poles and wires, keeping the local community connected and informed at crucial times. The system was delivered by Horizon Power and its joint venture partner, Boundary Power, and is an example of one of the many commercial opportunities that can be leveraged by off-grid technology.

TELSTRA DAY

Telstra resurfaced Telstra Day in 2022. You could score smartphones, tablets, speakers, smartwatches and accessories for a discounted price. Telstra Day comes around sporadically, and there is also a caveat – each deal is only valid for the day.

SCAMS

Telstra announced the activation of a new SMS scam filter tool to protect consumers from scam text messages. The new SMS scam filter is part of their Cleaner Pipes initiative.

The number of scam text messages is on the rise – in 2021 there were more than 11,000 reports of malicious texts on Android devices compared to 50 reports in 2020. The new SMS scam filter feature blocks scam text messages at the network level before they reach mobile devices. Telstra undertook a 3-month internal pilot of the SMS scam blocking filter, with two and a half thousand employees taking part. Telstra is now rolling this technology out to every customer on the Telstra network. The SMS scam filter is automatically activated and there is no action required by customers.

The SMS filter works by using automatic machine scanning to pick out suspicious content such as malicious links and combines this with other patterns and characteristics like time, sender, the number of messages sent and the recipient. There are protections in place to ensure legitimate messages still get through, so commercial messages from banks and other large businesses, government departments, emergency alerts and Telstra applications like MessageBank will not be blocked. Fast-forward a few months and Telstra have blocked a staggering number of scam texts. In the past three months alone, their system has blocked just over 185 million malicious texts. That is around 1,500 malicious texts blocked every minute.

Telstra takes its privacy obligations seriously. They know there is a fine balance between protecting customers and ensuring their privacy. While the technology is learning, it might flag a potentially suspicious message asking if it is a scam. To avoid blocking something legitimate, the new message format may be reviewed by their specialists to identify if the message is a scam, but the details of the recipients will remain masked. You can find further detail on Telstra's approach to privacy, including their privacy statement at <https://www.telstra.com.au/privacy>.

Telstra has a lot of tips on how to stay safe on www.telstra.com. If you receive something you think is a scam, you should report it to Telstra. It helps them track scams in the wild and teaches their system what to look out for next. To report a scam, you can email Telstra at scams@telstra.com and they can investigate.

You can also report a scam to Telstra using their website or call them on 13 22 00. If you want to learn more, they also have more cyber safety advice on our website.

eSMART

Telstra Foundation is a supporter of eSmart libraries.

What is eSmart?

eSmart, an initiative of the Alanna & Madeline Foundation, helps schools maintain a supportive and connected community to reduce online and offline bullying and increase well-being. eSmart offers a set of educational tools.

- For Principals – a how-to guide on tackling bullying and cyberbullying.
- For teachers – lesson plans and training.
- For students – classroom activities and active learning.
- For parents – how to see the signs and help.

Over 2,200 schools are implementing the eSmart Schools framework to help their school manage online safety, more than 80% of libraries are teaching their community to be safe online and over 200,000 students have registered for the eSmart Digital Licence. An online resource teaching smart online behaviour.

FREE WI-FI

On 25 August 2022, Telstra announced free Wi-Fi would be available to all Australians on approximately 3,000 of their payphones, with plans to upgrade their entire network of almost 12,000 payphones over the coming years. What this means is that Wi-Fi from select payphones will be free for all Australians – whether they are a Telstra customer or not. Giving more Australians access to free internet will help more people stay connected - whether they are in a vulnerable situation and need access to help, or just want to connect with friends or family.

A recent survey by the Australian Communications Consumer Action Network (ACCAN) found that 60 percent of respondents agree that free public Wi-Fi is important to them, however, only 36 percent are using free public Wi-Fi near where they live, and a further 31 percent do not even know where they can access it.

TELSTRA'S 3G NETWORK CLOSING ON 30 JUNE 2024

Why are they making this change?

- Demand for mobile data is growing at around 30 per cent per annum.
- To help customers benefit from new technology – from making a simple voice call to using HD video and remote sensors to manage livestock – the 3G network needs to upgrade to 4G and 5G.
- 4G and 5G networks are much more efficient than 3G – they can connect more devices, provide higher speeds, and have lower latency. They also use the same towers and spectrum frequencies as 3G.
- To bring customers across Australia the benefits of 4G and 5G the 3G network will be closing on 30 June 2024.

How can you prepare?

The 3G network closure is a little over a year away. Telstra are sending out letters and other communication to inform customers who may still have active 3G devices about the change. This may include mobile phones, tablets, dongles, monitoring devices and EFTPOS machines.

For devices that can receive SMS messages, Telstra has also sent a message directly to the service that is actively using the 3G network advising of the need to upgrade the device.

To be prepared, you will need to upgrade your device(s) to the 4G or 5G network prior to June 30th 2024.

Telstra's commitment:

- Telstra will continue to work with customers to help them move to 4G and 5G devices.
- The entire 3G network will remain open until 30th June 2024.
- Impacted customers include those using 3G mobile and IoT devices, such as EFTPOS machines, which operate on the 3G network only. These customers will be able to continue using their device until 30 June 2024, but after this date, if the device has not been updated to be 4G or 5G compatible, it will no longer be able to get a 3G signal.
- Telstra understands the impact this upgrade has on customers and is committed to supporting their move to a 4G or 5G capable device before the closure date through regular and proactive engagement. Telstra is also putting a strong focus on assisting vulnerable customers.
- Before Telstra closes the 3G network, they will expand their 4G network, so it provides equivalent coverage to 3G today. Simply put, if you currently only receive 3G coverage, you should receive 4G coverage following 3G closure.
- Telstra are conducting detailed checks to ensure their 4G coverage (as they upgrade sites) is equivalent to 3G coverage.

- Telstra is also using re-purposed 3G spectrum (850 MHz) to support their 5G rollout, so they can expand their 5G coverage in regional Australia earlier and more extensively than would otherwise be possible.

BLUE TICK PHONES

Connectivity is becoming more crucial than ever – and in regional and remote areas it can mean complete isolation. This is why, for the last 15 years, Telstra has been putting phones to the test to see if they deserve a Blue Tick.

The Telstra Blue Tick is the mark they give phones that their technicians and engineers have thoroughly tested to ensure they deliver superior voice coverage in regional and remote areas.

Regional coverage tips for Blue Tick

If you want to get every bit of coverage you can and the most out of your Telstra Blue Tick phone, here are a few tips to follow, straight out of the Telstra lab:

- Hold your phone as light as possible – how you hold your phone matters a lot. So next time you are trying to make a call on the edge of coverage, try not to squeeze the life out of your phone.
- Turn on Wi-Fi calling and SMS – if you get coverage outside, but not inside your home, you can turn Wi-Fi calling and SMS on to make phone calls or send texts like normal using your home internet, even without any mobile coverage.
- Use a headset or headphones for calls – do not need to worry about how you are holding your phone if you are not holding it, right?
- Take a look at repeaters or antennas – an external antenna or repeater is much larger than the antenna in your phone and can pick up coverage your phone cannot. It then repeats that signal short distances for your phone to connect to.

AUSTRALIAN DIGITAL INCLUSION INDEX (ADII)

The Index uses survey data to measure progress on digital inclusion across three dimensions including access, affordability and digital ability. It explores how these dimensions vary across both the country and different social groups.

In September this year, Telstra decided to undertake additional research to widen the data informing the Index. This means that they expect to release the next ADII report in 2023.

The additional research being undertaken includes:

- Additional First Nations data is being collected through the [Mapping the Digital Gap](#) project.
- A deep dive into Queenslanders' experiences of digital inclusion through a collaboration with the Queensland Government and the ADII research team at RMIT and Swinburne University of Technology.
- Additional ADII survey data to provide more in-depth insights into digital inclusion in the Northern Territory and Tasmania.

After the 2023 report, Telstra will publish the ADII every second year to allow more time for consideration of trends and collection of data.

GET ONLINE WEEK

Telstra was the Principal Supporting Partner of 'Get Online Week' which ran from 17-23 October. Through this partnership with the Good Things Foundation, Telstra supported Australians to build their digital skills. This is another way Telstra is helping to close the digital divide and build a connected future, so everyone can thrive.

TELSTRA SUBMISSION

Telstra recently made a submission to the House of Representatives Inquiry into Co-investment in Multi-carrier Regional Mobile Infrastructure.

To ensure lasting and positive outcomes for those living and working in regional communities, Telstra believes that government policy and funding programs, concerning co-investment in regional infrastructure should be designed with five key considerations in mind.

- Continued recognition of the importance of government co-funding, ensuring that this is focussed on areas where investment would be otherwise uneconomic.
- A co-ordinated and place-based approach by government at all levels.
- Program rules should not be overly restrictive or prescriptive but should generally support commercially agreed sharing.
- Funding for more than just outdoor black spots, and
- Using the best technology for the job (and ensuring people know about it).

You can read more about these five key considerations at: [Submissions – Parliament of Australia \(aph.gov.au\)](https://aph.gov.au)

3G CONCERNS/CONNECTIVITY ISSUES

Telstra has been in discussions with ICPA regarding members' issues particularly around 3G concerns. Telstra are developing a template that can be distributed to members for completion to give them a detailed and precise location of the problem areas. It is hoped the template will be released soon.

E-WASTE DEVICE

If you are upgrading your devices, a great way to minimise your footprint is to recycle or trade in unused devices to stop them from going into landfill. As part of [Telstra's sustainability commitment](#), they are aiming to reuse or recycle 500,000 mobile phones, modems and other devices each year to 2025.

But they need your help.

Bring your e-waste device into a Telstra store and claim bonus Telstra Plus points.

Find out what devices are eligible and where you can recycle them on their website under climate and sustainability – Bring back Bonus with Telstra.

REGIONAL TECH HUB

Established in 2020, the Regional Tech Hub (RTH) is a centralised resource providing regional, rural, and remote residents with the critical support needed to navigate the complex world of connectivity and technology options. The Regional Tech Hub provides independent and free information about digital technologies, services available, equipment solutions, setup, and installation.

In November 2022 the Regional Tech Hub, alongside the Minister for Communications, the Hon. Michelle Rowland MP and the National Farmers' Federation, launched 'Connectivity Month' - a campaign designed to jumpstart awareness of the options available to help people get connected and stay connected to mobile and internet services.

Connectivity Month aimed to address the gap in digital inclusion between regional and metropolitan communities, by simplifying the noise, confusion, and frustration around phone and internet connectivity. If you answer yes, to any of the following questions, then the Regional Tech Hub can help you.

- Do you need to get connected?
- Are you wanting to stay connected?
- Would you like to improve your connection?

- Would you like to be able to better use your connection?

People living in rural, regional and remote Australia are encouraged to reach out to the Regional Tech Hub for independent support to address these four questions.

Two-thirds of Australia's landmass currently has no mobile coverage, despite a third of Australia's population living outside metro cities. Evolving internet and mobile solutions are helping our regions overcome the digital divide; however, they can be confusing.

Since December 2020, the Regional Tech Hub (RTH) has received close to 100,000 requests for help, including more than 70,000 website enquiries and helped close to 10,000 people with their mobile and internet connectivity options.

Of the queries received, maximising coverage through the nbn Skymuster Satellite service was the most common advice sought, followed by requests for information on mobile broadband, mobile phone, nbn fixed wireless and nbn fixed line.

RTH Manager Jennifer Medway said many queries are from people living with an unreliable service that is too expensive or does not meet data needs. In most cases, there are options available, of which the RTH is looking to raise awareness during Connectivity Month and ultimately help more people to find the best solution suited to their needs.

Activities across the month shone a light on connectivity gaps in the bush and featured a suite of new resources, debunked old myths, and connected people with personalised connectivity options.

The Minister for Communications, the Hon. Michelle Rowland MP, acknowledged the difference in the connectivity experience of people living in regional Australia, where digital inclusion is considerably lower than the national average.

"Prosperous regional communities are central to the economic success of Australia, and yet there remain significant connectivity gaps in rural and remote areas of the country."

The Regional Tech Hub offers support via its website, a phone support line 1300 081 029 and social media pages [Facebook](#) and [Twitter](#).

SCAMS

Nearly 48 million scam texts have been blocked since new rules were introduced by the Australian Communications and Media Authority (ACMA) in July 2022 to combat the growing scourge of scams.

The new rules, which require telcos to identify, trace and block SMS scams were developed in December 2020 in response to evidence that SMS scams are increasing in prevalence and impact. By the end of September 2022, telcos had stopped more than 800 million scam calls reaching Australia.

Combatting SMS scams was recently announced by ACMA as one of seven priority areas for compliance in 2022-23 due to the potential financial and social harm they can cause to the Australian community.

According to Scamwatch data, SMS scams reported to Scamwatch have already cost Australians in excess of \$17 million in 2022.

Under the rules, telcos must also publish information to assist their customers to proactively manage and report SMS scams, share information about scam messages with other telcos and report identified scams to authorities.

As part of national Scams Awareness Week, (7-11 November 2022) ACMA revealed the top 5 reported phone scams to the agency.

Top 5 scam calls:

- Amazon impersonation: Scam calls about an issue with your Amazon account. They claim funds will be taken from your account if you do not act immediately by providing personal information.
- Banking/finance impersonation: Scam calls, emails and SMS claiming suspicious activity, unauthorised debits, or that your account has been suspended. They request personal details to verify your identity.
- Nbn impersonation: Scam callers posing as someone from technical support. They claim there is a fault with your internet to get access to your computer and personal information.
- Telstra impersonation: Similar to the nbn scam. Callers pose as Telstra technical support and claim you have issues with your service or internet to access your computer and personal information.
- eBay impersonation: Scammers use a recorded message to claim you have made a purchase that requires a charge to your account. This is to get you to provide personal information.

All five of the top reported scams impersonate trusted and well-known businesses, with scammers often displaying a fake number or sender information on your phone to make the contact look legitimate.

Many businesses clearly state they will not contact you out of the blue or send messages with links seeking financial information or personal details, so always treat these calls with caution.

LOST PHONE/NEW NUMBER SCAMS

Scamwatch is urging the public to be wary of text or WhatsApp messages appearing to be from a family member, relative or friend using an unknown number, claiming they need help, asking for money or that you delete/block their old number following a significant rise in “Hi Mum” scams in recent months. More than 1,150 Australians fell victim to the so-called “Hi Mum” scam in the first seven months of this year, with total reported losses of \$2.6 million. The vast majority of these scams were reported in June and July 2022.

The ACMA (Australian Communications and Media Authority) is aware of reports of scammers impersonating family members claiming to have changed their number and asking you to save a new number on your phone. These messages often begin with ‘Hi Mum’ and could provide several varied reasons for why they are using a different phone number, including switching providers or having a lost or broken phone.

TOLL ROAD OPERATOR SCAMS

Scammers are sending messages pretending to be toll road operators, including Linkt. If you’ve been sent a text claiming you have an overdue toll road account or insufficient funds, it could be a scam.

Linkt, operated by Transurban, provides accounts for toll road payments across Australia. Scam messages may come from an unknown number or have the word ‘Linkt’ in the sender display details to make them appear genuine.

These phishing scams are trying to trick you into clicking on a link that leads to a convincing, but fake website designed to steal your personal or financial details.

If you are in any doubt about whether a message you have received about your toll road account is genuine, do not click on any links or rely on the information in the message. Instead, go to the Linkt website or app to log in to your account and check your recent activity.

This also applies to toll road messages from other companies – if in doubt, log in to your account or use a verified app from the company.

Linkt has more information about how to identify a legitimate message on its website, including examples of scam messages.

myGOV

Be wary of emails and SMS claiming to be from myGov suggesting you are owed a refund. It may be a scam!

The ACMA is aware of increasing reports of myGov impersonation email and SMS scams. These scams try to get you to click on a malicious link or visit a fake website in order to receive a repayment or refund, such as a tax refund. Other examples may ask you to update your personal details via a link or attachment.

These messages often reference other government agencies or services, such as the Australian Taxation Office (ATO) or programs like Medicare. They may also use government logos to make the message look legitimate.

Do not click on any links or open any attachments in these messages. They are phishing scams designed to steal your personal or financial details.

myGov will never send you an email or SMS with a link. If in doubt, type my.gov.au into your browser and sign into your myGov account or contact Services Australia directly. Do not rely on the contact information in the email or SMS if you think it's a scam.

You can find more information about how to identify and avoid these scams via the myGov website. Services Australia also provides advice to consumers on these and other similar scams on its website.

If you are concerned that you may have given your myGov and other personal information to a scammer, contact the Services Australia Scams and Identity Helpdesk on 1800 941 126.

If you are a victim of a scam, contact your financial institution and phone provider to let them know what has happened as quickly as possible. Scammers target everyone. Learn more about how to protect yourself from phone scams on the ACMA website and make a report.

BIRRR

[Discussion on BIRRR Facebook page regarding Starlink – 17 Nov 2022 - Credit to Better Internet for Regional Rural and Remote Australia \(BIRRR\).](#)

SPACEX SATELLITE INTERNET SERVICE

Starlink is a satellite internet constellation operated by SpaceX, providing satellite internet access coverage to 36 countries.

Starlink is a low orbit satellite 350 miles above Earth, 60 times closer than traditional satellites. Starlink claims the latency should be between 25ms and 35ms. Download speeds should range between 100Mbps and 200Mbps. Upload speeds have averaged 138.12Mbps.

As of May 2022, SpaceX has over 2300 functioning Starlink satellites in orbit. Currently, Starlink is only available to fixed internet services to a home or business. The map below shows current coverage for Australia (light blue) and those areas waiting in dark blue.

Starlink plans cost \$139 per month, unlimited data, plus \$924 in hardware fees and \$115 in shipping. Availability is limited, and orders are filled on a first-come, first-serve basis.



Starlink internet orders include a Starlink dish, mounting tripod for ground level use, and Wi-Fi router.

STARLINK OPPORTUNITIES & OBSTACLES

As [#Starlink](#) moves from the geeks to the masses, BIRRR is seeing a big uptick in requests for support (issues with ordering, setup and technology comparisons). The following information has been developed to help Australian consumers be aware and informed of regional technology offerings.

When signing up for any connection please ensure you are aware of the terms and conditions of the service. Also, ensure you have checked out all of your connectivity options. The Regional Tech Hub can produce a free connectivity report that outlines all your connectivity options, so you can match technology to your needs and budget.

BIRRR is a technology agnostic, independent volunteer support, advisory, information and advocacy group and is in no way affiliated with Starlink or SpaceX.

Keep updated on their website <https://birraus.com/starlink-in-australia/>

BIRRR
BETTER INTERNET FOR RURAL, REGIONAL & REMOTE AUSTRALIA

STARLINK SATELLITE

BIRRR CONNECTIVITY LITERACY 101

OPPORTUNITIES

SPEED
Fast download speeds

PLANS
Easy to order, one plan, one provider. There are currently no Australian resellers of residential connections.

DATA
Unlimited data (currently)

LATENCY
Lower latency than other satellite technologies as it is a Low Earth Orbit Satellite (LEO)

PORTABILITY
Can be made portable if not installed at a fixed address, at an additional cost. Can be relocated if you move addresses (as long as the cell isn't full).

INSTALL
Self-install#. professional installation using a registered cabler is recommended by BIRRR for permanent installations - at your own expense.

AVAILABILITY
currently available across Australia & Lord Howe Island, equipment is currently on sale in Australia until 31/12/22

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BIRRR
BETTER INTERNET FOR RURAL, REGIONAL & REMOTE AUSTRALIA

STARLINK SATELLITE

BIRRR CONNECTIVITY LITERACY 101

OBSTACLES

ACCESS
Connection numbers are limited, some cells in Australia are already full. Raining SL is affected in these areas. If you cease a SL account, reconnection is not guaranteed, if the cell is full.

DISCONNECT
Dishy cannot be disconnected from the network for long periods, even if monthly payments are maintained, as the software can become out of date, rendering re-connection impossible. Transferring to a new owner can be a tricky process.

SUPPORT
SpaceX are an international company with support based in the United States of America. Support can be raised by the smartphone app or by accessing your account at www.support.starlink.com

PLANS
Plan offerings may change without notice, costs may increase, data limits may be introduced, or speeds may be limited. T & C's may change.

EQUIPMENT
THE SL equipment is not rated above 50°C, it is recommended to bring dishy inside in extreme weather.

IP ADDRESS
No static IP address on non-business plans

WARRANTY
Equipment has a 12 mth warranty. Things such as storm, lawnmower or animal damage are not covered, with all replacement equipment being at your own cost.

PERFORMANCE
Speeds are fast but variable over time. Occasional short drop-outs may be noticeable on video conferencing & voice calls.

RESSELLERS
There are currently no Australian resellers of Starlink residential services.

COST

- Equipment* & professional installation costs are high.
- Credit card charges can attract additional international fees with some banks, for equipment & monthly plan costs.
- If you wish to use your existing home wi-fi network & router an ethernet cable kit must be ordered, this needs to be ordered AFTER the Starlink kit is ordered.
- BIRRR recommend a professional installation by a registered cabler for permanent installs, this is at your expense.
- Starlink equipment is currently on sale in Australia until 31/12/22

BIRRR is a technology agnostic, independent volunteer support, advisory, information & advocacy group. We are in no way affiliated with Starlink or SpaceX. This information has been developed to help Australian consumers be aware and informed of regional technology offerings.

There are Radio Telescopes and restricted Radio Frequency zones in WA, so Starlink will not be available in those areas.

NBN CO

Nbn welcomed a \$2.4 billion investment from the Federal Government to roll out more fibre to communities across Australia. This investment will contribute to the fibre upgrade program already underway, helping them stay on track to enable around 10 million premises across Australia to access nbn's higher wholesale speed plans by the end of 2025.

There will be further announcements, but the government has already [revealed a small selection of towns and suburbs](#) where premises will become eligible to upgrade, if they order a suitable plan from their preferred Retail Service Provider, including parts of Yass (NSW), Albany (WA), Bowen (QLD), Bendigo (VIC), Mount Gambia (SA), Burnie (TAS) and Monash (ACT).

Meanwhile, upgrades in their fixed wireless network and deploying 5G wireless technology is helping to better serve remote, regional and peri-urban areas.

MAJOR INVESTMENT TO DELIVER FASTER SPEEDS TO NBN® FIXED WIRELESS AND NBN® SKY MUSTER CUSTOMERS

Thousands of homes and businesses across regional Australia are set to benefit from faster internet connectivity thanks to a \$750 million investment in the nbn® Fixed Wireless network, which includes \$480 million from the Australian Government and \$270 million from nbn.

Over the past few months, nbn has been focused on doing the initial work needed to deliver the Regional Upgrade program, including consulting with their Retail Service Providers and securing the innovative technology required to enable the upgrades, from long-time partners such as Nokia and Ericsson.

It is a great step to boost connectivity in the bush and will help to meet the growing needs of thousands of homes and businesses across regional Australia that are set to benefit from the program.

This investment aims to deliver four major benefits, including:

- Extended Fixed Wireless - Enhanced coverage and extended maximum range limit for some nbn fixed wireless towers resulting in expansion of the fixed wireless footprint coverage by up to 50 percent, enabling approximately 120,000 formerly satellite-only eligible premises to access fixed wireless services.
- Faster Fixed Wireless wholesale speeds - Following consultation and launch, nbn proposes that homes and businesses in the expanded nbn Fixed Wireless footprint will be able to order retail services via their service provider over nbn's wholesale tiers proposed to offer potential maximum wholesale download speeds of up to 100 Mbps. nbn is aiming to an anticipated 85 percent of the expanded footprint will also be able to order services with potential maximum wholesale download speeds of up to 250 Mbps, which is up to three times faster than the highest wholesale speeds available today.
- Improve Fixed Wireless typical wholesale busy hour speeds - Fixed Wireless network improvements are expected to allow nbn to implement a new measure to indicate the network's capability to achieve 'typical wholesale busy period speeds' of at least 50 Mbps (download).
- Enhanced data limits and network performance on nbn™ Sky Muster - For the homes and businesses that remain on nbn Satellite, nbn is proposing to unmeter nbn® Sky Muster Plus data for the majority of the day with the off-peak period for unmetered data increasing to 16 hours (12am - 4pm) per day, from the current six-hour window (1am - 7am). This is to be applied from 1st July 2022. In addition, for regular Sky Muster, nbn is aiming to increase average monthly data allowances to 55 Gigabytes (GB), increasing to 90 GB once the fixed wireless upgrade is complete in around two and a half years' time.

One of the advantages with SM+ is that YouTube is now all unmetered during school hours.

REGIONAL CONNECTIVITY PROGRAM ROUND 2

The Federal Government's Regional Connectivity Program (RCP) is a competitive grant offering up to \$112 million of funding for the delivery of telecommunications infrastructure projects to improve digital connectivity across regional, rural and remote Australia.

The nbn team submitted 30 applications for 41 locations totalling \$224 million worth of build activity, with nbn to co-contribute up to \$62 million of its own funds for these projects.

If successful, nbn will work with more than 40 external partners to deliver these projects for local communities and help ensure they can continue to participate in the digital economy.

OSCAR

Want to improve your online skills?

With more of our lives and daily activities happening online, knowing how to navigate the digital world is more important than ever.

That is where OSCAR comes in. nbn created the Online Skills Check and Resources (OSCAR) to help measure our skills and find resources to help us on our digital journey.

OSCAR takes us through four essential competencies:

- Online knowledge
- Device usage
- Sharing data and e-safety
- Online communication

Want to learn more? You can check your online skills and find relevant resources.

Since the launch of nbn[®] OSCAR, more than 8,500 Australians have completed the survey, of which over 6,000 respondents are from regional areas.

New resources are reviewed and added all the time, so you are encouraged to take the test and see how you fare!

INNOVATE WITH NBN[®]

Nbn developed the Innovate with nbn[®] Grants Program in partnership with the Regional Australia Institute (RAI) and is now in its third year. The program aims to encourage businesses from regional or remote areas to build on technology-led ideas to drive productivity using innovation, connectivity and networking. The third round of the Innovate with nbn program is about to open, and anyone with a good idea is encouraged to apply.

The grant program awards one grant of \$15000 to an organisation or business project aligned with the following categories:

- Health
- Arts
- Education
- Agriculture
- Tourism
- Women in Regional Business
- Indigenous Business

Additionally, one regional/remote business will be recognised and awarded with the Innovate with nbn[®] Champion award worth an additional \$20,000.

2021 Health category winner: Kylie Toynton, Speech Pathologist at Language for Life

Kylie Toynton from Gunnedah, NSW, has been a speech pathologist for more than 20 years. Due to limited availability in the bush, Kylie has seen some parents wait months for an assessment or travel up to 300 kilometres for a session. Not only does this place stress on the family, but it also means the child is not receiving the help they need when they need it.

Kylie is building a platform that provides evidence-based information on child development and strategies that parents can use. The packages come in video, audio and written format so all parents can feel capable and competent to help their child.

Kylie will use the Innovate with nbn™ grant to progress the next stage of Language for Life’s project. This will include adding other allied health and medical professionals from across regional Australia and offering synchronous online therapy and training packages for parents, teachers and schools.

2021 Education and overall Innovate with nbn™ Champion: Bitlink

Taking out the Education category and also declared the overall Innovate with nbn™ Champion, Bitlink is an education technology company based in Launceston, Tasmania, passionate about digital literacy. The business, run by co-directors James Riggall and Troy Merritt, has spent two years co-designing an Internet of Things (IoT) education kit with teachers in its local area, which enables them to teach young people about IoT, including coding, electronics, design thinking and how to use sensors.

Bitlink will use the grants to get its kits into regional and remote areas, with an initial focus on Flinders, King and Cape Barren Islands, as well as donate classroom sets to schools on these islands to make sure Bitlink’s visits have a lasting impact.

BEING PREPARED FOR EMERGENCY SEASON

Recent steps taken by nbn to help keep communities and emergency services connected during emergencies include:

- Road-testing a Point of Interconnect on Wheels, an Australian-first innovative addition to their suite of mobile Temporary Network Infrastructure, designed to keep up to 500,000 customer services for as long as required during an emergency.
- Continuing the installation of nbn Disaster Satellite Services at local nominated emergency management sites and evacuation centres across Australia, funded through the Australian Government’s Strengthening Telecommunications Against Natural Disasters (STAND) program.

Nbn are urging communities to do what they can to prepare and understand how the nbn network may be impacted during an emergency event, and to test residential evacuation and business continuity plans. This link to their website has [some simple but effective tips to keep in mind.](#)

LINKEDIN NEWSLETTER

The following information was sourced from a newsletter on LinkedIn – makes for interesting reading if nothing else!

OPTIONS FOR FARMERS TO STAY CONNECTED

If you understand the difference between 5G low and high band, fixed wireless, repeaters and extenders then you don’t have to read this.

While the tech-savvy knows their way around digital connectivity, the vast majority of us are staggering around in the dark when it comes to getting information on how to get a couple of extra signal bars on our mobile phones or stop the download lag on our broadband.

Most of the available information put out by the likes of Telstra, Optus, nbn, DPIRD or the myriad of resellers is more marketing spin and glossy pictures than listing the simple step by step options of how to speed things up or get a better signal.

Even the recently released federally funded ‘On Farm Connectivity Guide’ is largely useless unless you want to read four pages of definitions.

So, I thought I might have a crack at summarising what is available.

Cel-FiGo

First things first, if you are still operating in the dark ages without a booster jammed under the seat of your car, ute, or header then, as Molly on Countdown used to say, ‘do yourself a favour’.

You cannot complain about Telstra, Optus or Vodafone and their networks if you don’t use a booster.

At \$900 they are cheaper than half the latest iPhones and when connected to the right antenna do add a bar or two to your signal strength (not that the bars are a good reflection of signal strength).

3G, 4G, 5G

3G is being progressively shut down and will be all gone within two years, 4G is being expanded to fill some of the gaps which is good as it is 3 – 6 times faster, but the new 5G low band is also being rolled out to take over the 3G 800 MHz frequency.

5G low band is not the superfast 5G high band that they are rolling out in the CBD (and only goes 500m), rather it is a thing called inter-band, non-contiguous, sub-6GHz carrier aggregation, which reuses the 850Mhz to get greater coverage and bandwidth but in reality, it is not much different to 4G maybe 20% on speed but with potentially 3G range of 80km in ideal conditions.

The good old 3G worked a treat because it is primarily a voice network that travels easily through walls and travelled up to 80km from the tower, but it is slow to carry data, and today connectivity is all about data.

By repurposing the 3G to 5G low band and expanding 4G most of us will be better off, just be aware if you have any special farm monitors that tap the mobile network make sure they can pick up 5G.

What the shutdown of 3G means for coverage on your farm is the luck of the draw, but then we have all complained about the shutdown of CDMA and we survived.

One thing to bear in mind is utilising both the Optus and Telstra networks. Optus is continuing to build more towers in the bush, if part of your farm gets better Optus reception, then buy a dual sim card phone and put in two Cel-FiGos and work off both networks.

FEDERAL GOVERNMENT MOBILE BLACK SPOTS

Telstra is not Telecom and there is no universal obligation to provide coverage across your whole farm, but they do have to provide you with a fixed phone which may be a satellite phone for your station if you really are out in the sticks.

If you have a booster and you still can’t get a signal, then send all your complaints to the State and Federal governments, it is their responsibility to find the money to build more towers to fill black spots not Telstra’s, Optus’s or Vodafone.

To date rounds 1 to 5A have delivered 1270 towers for \$875 million of federal funding with another \$400 million committed by the Albanese government for improved coverage along regional highways.

That is under \$1 billion from the \$4000 billion the Feds have spent in the last decade on all government outlays. I will leave you to work out if you agree with me that it is probably one of the best value for money infrastructure programs this country has ever rolled out, and maybe we need to keep it going with the aim of doubling the number of regional towers by 2030 to 3000. Note to Federal Liberals and Nationals, here is a policy election idea for you.

The next \$400 million is good news for those who live near a major regional highway as they might luck in with a new tower in the next four years, but be aware, there are a lot of highways around Australia in hilly areas which need a lot of towers to make a difference. Not so good for those who live on the empty flat lands far from a major highway.

Also, as fast as they build new towers, farm data usage plus the kids on TikTok and Netflix hoovers up new capacity as fast as it is built. So we probably need to be doubling the number of towers just to maintain current speeds.

STATE GOVERNMENT REGIONAL DIGITAL CONNECTIVITY PROGRAM

There is no great news on the mobile front as far as the State Government kicking in, as the recently retired WA Minister for Regional Development did not like the big corporate carriers, preferring to back small start-ups that promise the world but lack the capital and technology to make a big difference.

This has seen a disastrous misallocation of State Government funds, with limited connectivity for the dollars spent over the past three rounds of grants.

The latest grant is \$43 million, of which around \$30 million is yet to be allocated; \$30 million would build another 60 towers across the bush or run fibre underground through country towns or build a fixed wireless tower which would also benefit the surrounding farms.

The new Minister needs to review this project and start again.

MOBILE BROADBAND

If you are lucky to have a couple of bars on your phone when wandering around the farmhouse and don't mind paying extra for a big data contract, then stick up a 5-10 metre pole and antenna and plug in the various boxes that will allow you to live stream Netflix.

Start with a new tuned to site Yagi antenna \$200, new cables \$50, a stationary repeater \$800, a dongle data box \$100 month, an indoor-outdoor signal booster/extender for the house \$100, a repeater antenna \$200 and a second indoor outdoor booster for the sheds \$100. Or package Telstra GO G41 Yagi and Panel Antenna bundle \$2232.

Then you will be maximising what you can get out of mobile broadband be it to surf the net, watch Netflix or make calls via a Wi-Fi link.

HIGH ON THE HILL FARM ANTENNA

You do not have mobile coverage at the house, but you pick up 2-4 bars up on the high point of the farm, then head up there and put up a 1-10 metre tower, with an antenna (max 10m the cables won't carry signal much further) and then plug in a stationary receiver plus a second antenna to repeat the signal down to the house (maximum 3km away) and pick up the signal that way.

To the set-up you will need to add a battery and solar system to power the repeater. Talk to this clever mob call Zetifi in Wagga Wagga who can build mini Wi-Fi cells with smart beam antennas ZetiRover and ZetiCell for the last mile links to and from the back paddock.

NBN FIXED WIRELESS

If you are lucky and live within 14km of town and have line of site (or close enough to it) to a nbn fixed mobile tower then you may be one of the growing number of regional Shires that can get onto the fixed wireless network.

Fixed wireless is basically a direct digital signal feed sending data from an nbn tower (or other provider) usually located in town across the airwaves, rather than via optic fibre to your house, all at broadband data pricing.

From the house or an antenna on a high point on the property, you can rebroadcast the signal via a microwave, kilometres to a second location then via a third antenna, radiate the signal across a smaller 500m radius.

Farmers use this to give broadband coverage to the sheds or around the field bin when working in the paddock, house, shed etc.

It can even be used to make and receive calls on your mobile, but you have to tap into the Wi-Fi calling setting on your phone, but again you have to be in that 500m radius. It offers fast broadband but is limited in distance to that 14km from the main tower, but that will hopefully double to 28km in 2025, but remember it still must be line of site to the towns tower.

Earlier this year nbn™ and the Federal Government announced a \$750 million program of work to upgrade the fixed wireless network adding nearly every Australian town. The upgrade will extend the range, deliver high speed tiers and increase the busy hour speed from 6mb to 50mb.

It, along with Starlink, is the next big thing in connectivity.

NBN SATELLITE SKYMUSTER

SkyMuster Plus is the latest upgrade to the old satellite system. It now has uncapped data 16 hours per day for video streaming which fixes a major complaint.

Cost is around \$100 per month with a dish included, but speeds are limited to 512MB which is vastly slower than what is on offer using land based mobile, fibre or fixed wireless or Starlink.

Once again, you can use satellite to push a signal around your farm just like you can with fixed wireless.

STARLINK

You can help Elon Musk pay off Twitter by signing up to join his Starlink satellite network. The service has been being taken up by over half a million people across 44 countries, with hundreds of Australian farmers signing on this year.

The satellites, which are 60 times closer to earth than the big two nbn™ ones sitting stationary 44,000 miles up, which means no latency.

They don't work with your mobile unless it is through a Wi-Fi application, even though it should be possible to send emergency data calls directly via the satellite. But they are a non-starter for replacing earth-based towers.

Again, voice over internet fed through your modem via Wi-Fi to your mobile phone is a simple workaround option out to 500m from the dish.

You could put one in the header and run around the paddock, and it will work. Have a read of Tucks Truck, a blog by a couple of British travellers (great read for those who want to go exploring the world in their bongo van) who installed a dish on top of their 4WD.

Musk has worked out there is demand for portability in motion, so there are new flat dishes coming that can sit on the roof of a truck/ute/header/tractor for on-the-go connectivity, but seems it already works with the current small round dish as proven by Tucks Truck.

No doubt Musk is talking to John Deere, CNH etc. and it is likely to be an option on your next tractor/header.

Cost for the kit \$924 (was discounted to \$450 until Xmas), \$139 per month plus the repeater extender \$500 to radiate the signal out 500m. My guess is most farmers will end up with one that they will bolt to the header or tractor or set up on the high point of the farm, as they are a good back up when mobile coverage fails.

BUILD YOUR OWN MOBILE TOWER

If you are really frustrated with Optus or Telstra, there is no reason that you can't write a cheque for \$500k - \$1m and get them to build you a tower on your farm. The miners do this all the time, your neighbours will love you.

There is also a good business opportunity for someone to put together a deal, sub leasing mobile base stations to groups of farmers. Only problem is I don't know how you lock out the free riders who are all for you paying while they get the advantage of extra bars on their phones.

The development commissions working with the councils are the obvious coordinators. Councils can rate the cost onto all their rate payers, but those sitting near existing towers won't be too impressed with the new tower levy on their rates.

The added problem is Optus and Telstra will be selective on where they can be set up so as not to end up messing with existing towers. Optus should be more interested as they have big gaps in their network.

No doubt growers with large farms in the eastern wheatbelt who are unlikely to even see a new tower in their area will eventually decide to sort the problem themselves, 20 growers, 20 years, \$1 million and the cost benefit will soon stack up. Even more so for the neighbours who don't contribute.

For those who are thinking about doing this then use the State Governments Agricultural Produce Commission (APC) fundraising mechanism, it is a simple, cheap way to administer the funding of industry good projects involving a group of growers.

ADVICE

Now, this took me a day to put together, so no doubt I have missed parts of the equation or got it wrong.

But at the very least it should help point you in the right direction. For independent advice on farm and regional connectivity talk to the Regional Tech Hub 1300 081 029, Boyd Brown, Regional General Manager WA, Telstra boyd.m.brown@team.telstra.com, Naomi Evans Head of Regional Community Affairs (WA), nbn naomievans@nbnco.com.au and Dan Winson from Zetifi hello@zetifi.com for last mile solutions around the house, sheds and field bin.

If it is simply to complain about black spots then pick up the phone and call the State and Federal Labor Ministers for Regional Development, it is they who are standing on the blackspot hose.

Last word and first bit of advice for the new Minister, instruct DPIRD to commission an independent \$20,000 review of their Regional Connectivity Program and call for submissions from nbn, Optus and Telstra and Zetiti to find out what they can do with \$30 million to boost on farm connectivity.