



CARPENTARIA SHIRE
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Regional Telecommunications Review Submission

August 2021

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Carpentaria Shire Council would like to respectfully acknowledge the Gkuthaarn, Kukatj and Kurtijar peoples as the traditional owners of the lands and waters that form the Region. Council pays its respect to elders’ past, present and emerging and welcomes the ongoing role that indigenous people play within the Carpentaria community.



Introduction

Carpentaria Shire is located on the Savannah Way in North Western Queensland in the south eastern region of the Gulf of Carpentaria. The region is uniquely placed to offer residents and visitors opportunities and experiences in lifestyle, holidays, employment and investment opportunities. Carpentaria Shire has a friendly, laid-back lifestyle and is a place where children still ride their bikes down to the river to go fishing after school without parents having to worry as they would in larger towns and cities.

Carpentaria Shire is the traditional country of many Indigenous groups and the townships of Normanton and Karumba are the traditional land of the Gkuthaarn, Kukatj and Kurtijar people.

The Shire covers an area of approximately 65,000 square kilometres and has a population of 1,974. The countryside ranges from vast inland plains to mangrove forests, deltas and salt pans along the coastal areas of the Gulf.

Carpentaria Shire has a diverse industry base with agriculture, fishing, mining, tourism and government administration providing the majority of the Shire's income. Normanton is the region's government and administrative centre.

Much of the Shire's commercial activity comes through Karumba, which has an active port based around export of zinc and lead and live cattle to Asia. It also has a substantial fishing industry that targets prawns, barramundi, Spanish mackerel, salmon and mud crabs.

The region offers good infrastructure and facilities, with sealed access roads, well-serviced airports, developed freight routes, primary and secondary schools, medical services, recreational and sporting facilities and the standard infrastructure expected in a modern community.



Executive Summary

Telecommunications is vital in everything we do in everyday life, we experience a far better service when we visit larger populated areas than we do here, at home, in the Southern Gulf and in rural and remote Australia.

We thank the Federal Government for their continued commitment to undertaking a review of Regional Telecommunications every three years and the benefits that are coming from the recommendations after each review, however it does not address the growing divide between the people living in the heavily populated areas and those working, living and playing in rural and remote Australia when it comes to reliable digital connectivity for conducting everyday business and the occasional sit down to watch your favourite show or latest movie streamed across Stan, Netflix, Disney+ or even ABC iview.

Doing business in 2021 is near impossible without reliable high-speed internet: - schooling, rural telehealth, socialising and just doing business from the farm and for Council as a local government trying to stay connected with the State and Federal Government for important virtual meetings and updates on the impacts of the COVID-19 Virus, hi-speed internet is a must have.

We often hear of the services that are becoming available using satellite technology, but get a cloudy day and connection is diminished or even lost. This makes doing business relying solely on satellite as very risky, especially if you're relying on it to send information or to pay accounts, let alone checking on water points or stock across a large pastoral holding through the Internet of Things (IOT).

Council representatives have attended a few telecommunications sessions recently where we have heard stories from our graziers who have described the lack of connection with the outside world as having a significant impact on their business. There are many IOT devices now available to make doing business and checking on facilities across larger properties in remote Australian, but without connectivity these are only a dream for most.

Graziers are starting to work on their own solutions to solve this dilemma, largely at their own expense due to the lack of available connectivity in the rural and remote parts of the Country.

This is fast becoming an equity issue for people living in rural and remote Australia. Why should people living in rural and remote Australia not have access to the same services that are available to citizens living in the larger populated areas at the same pricing, speed and reliability of connectivity



Telecommunications Issues impacting Council – some of our own experiences

Fibre Optic Cable

In November 2017 the Carpentaria Shire Council lodged an application for funding under the Building Better Regions Fund (BBRF - an Australian Government program) Round Two for funding to install Fibre Optic cable from Normanton to Karumba, we received a letter of support from Telstra to support the application on 30 November 2017.

In the correspondence provided by Telstra they advised that “Telstra is delighted to be part of the current proposal for the implementation of high capacity, high speed optic fibre that will enable Council, businesses and residents to enjoy the same connectivity enjoyed by Australians everywhere”

Council signed an Enterprise Works Agreement in October of 2018 to secure the project. We secured BOR funding from the State Government for a portion of the build costs and missed out on the funding from the Australian Government under the BBRF Round 2 but Council was able to secure additional LGGs funding from the State again to fund the remaining portion. Because both BOR and LGGs funding was matched, some \$900,000.00 of Ratepayers Funds went towards infrastructure that it (the community) will never own and continue to receive a less than similar “connectivity enjoyed by Australians elsewhere”.

The works were completed in October of 2020. Council is holding a portion of the final payment to Telstra for the completed works until the Karumba Community is satisfied with the service connectivity upgrade (after all, as ratepayers, it is their money we need to release to pay Telstra). Council has been receiving complaints about the lack of improvement to the services in Karumba following the laying of the optic fibre. In January and early February of 2021 Council started to collate the complaints (in accordance with the information required by Telstra) from the Karumba Residents, 30 complaints and associated details were provided to Telstra and one of their staff attended Karumba and spoke directly with residents and businesses, some were on the wrong plans and some had the wrong handsets. However, what was discovered in April was that there was an antenna issue on the Mobile Base Station caused by damage from Tropical Cyclone Imogen on 4 January 2021 and fixed on 10/05/2021 and issues with remedial works that needed to be carried out on the copper network, which was done on 07/06/2021. It has been unfortunate that the Council has had to hold onto a payment for a capital project to get results from the telco provider to undertake maintenance. We do appreciate that Telstra are working to resolve issues in Karumba, but would they be as proactive if we didn't owe them money.

Because of Tropical Cyclone Imogen, towns in North-West Queensland suffered sporadic phone or internet coverage for a fortnight in January 2021, leaving residents and businesses feeling stranded and concerned about their safety in emergencies. Telstra blamed the phone and internet outages in Cloncurry, Karumba, and Normanton on severe weather damage from ex-Tropical Cyclone Imogen and its associated low. However, residents reported that the connectivity problems were abnormal for a regular storm season and they had been left helpless as repairs were made. In Karumba, residents reported that calls to emergency services had failed to get through the base station in Karumba when the fixed line was affected by the storm. Locals were left stranded without emergency or 13-hundred phone calls unless they had access to wi-fi.



Speed tests, using the Speedtest App from Ookla (an app recommended by Telstra people), continue to show that the speeds in Karumba from the mobile service following the upgrade are not “the same connectivity enjoyed by Australians everywhere”.

Digital Connectivity – Zoom/Teams on a Laptop or iPad

With the impacts of COVID on business we have found that we have needed to attend and conduct business in a technological way more so now than in the past and to attend meetings we have utilised Zoom and Microsoft Teams on many occasions. It has been frustrating to say the least due to the availability, or unavailability, of a high-speed bandwidth to stay connected.

Council has for many years had video conferencing devices (Polycom) provided from Telstra. We were advised that these were no longer serviced by Telstra and we started to discuss alternatives in 2019 (before the pandemic). We advised Telstra that we wished to no longer pay for the serviced devices and could they remove these from the monthly accounts. 18months later we still have the devices appearing on our accounts and we are making do with joining meetings on the laptop or via an iPad. It is likely that we will receive a credit on the August account for the error in the continued billing for a service no longer being provided.

Council has issued a Purchase Order to purchase video conferencing units from a supplier other than Telstra as they appeared to not wish to provide the service to Council. As a small Remote Council, we often have a preference to limit the number of suppliers we deal with due to serviceability in Remote areas, however on this occasion it appears that trying to connect with the large Telco was not to our advantage.

Microsoft Team, the preferred choice of the State Government, is very difficult to participate due to the available bandwidth, Zoom has been our preferred system of choice due to its performance over the network available. Council is looking into increasing our own bandwidth in-house to assist with doing business digitally.

Knowledge Space

Often the smaller Council do not have the technical knowledge to be best placed to be making applications for funding for telecommunications infrastructure and rely on the supplier (Telstra) for advice on solutions. The optic fibre cable into Karumba being a case in point. If there are other better options out there why would the Council have committed \$900,000.00 of ratepayer’s funds to upgrade a Telco’s network.

Councils and their communities should have a clear idea of what they need now and into the future before committing funds to match a grant application to upgrade telecommunication networks, ensuring the best possible outcome for the Council and the communities they serve.



Issues Paper Response

1. What telecommunications services are required in regional Australia to meet current and future needs? Are there any things regional communities and businesses need to do, but can't, on their existing services?

People have invested in rural and remote Australia and are genuinely committed to the area and continuing with their business, however connectivity and doing business in a digital age is becoming more difficult for them.

We understand that the ADSL and ADSL2 copper services currently in Normanton and Karumba are to be phased out in the coming years, what are the alternatives? Satellite is currently available through the nbn Sky Muster service, but this isn't always reliable.

Reliable connection to be able to simply do business, we have examples of people not being able to pay for a coffee with EFTPOS as the machine often does not connect to the mobile network, this is still being experienced since the upgrade to the Mobile Tower.

Mobile phone coverage when travelling between towns in rural and remote areas is extremely limited with most losing connection when you get between 20 and 30kms from town. Most community members and businesspeople work on the premise that you are without service and connection until you get to the next community and come back into a service area, this is a problem as most people have become used to an immediate response or reply and some could be losing business because they have lost connectivity with their client base or potential new customer.

2. What changes in demand, barriers or challenges need to be addressed when it comes to telecommunications services in regional, rural and remote Australia?

The widening gap in the digital telecommunications divide between citizens living in larger populated areas and those living in regional, rural and remote Australia, especially rural and remote.

The Australian Digital Inclusion Index rates the access, affordability and digital ability of Australian communities. This is not just the availability of high-speed internet but people's ability to use it – equipment, training and experience in how to engage in an increasingly digital world.

Older Australians, low-income households and remote communities continue to be rated lower in their use of available resources and services obtained via the internet, with Northwest Queensland (52.6) (our Region) and Queensland Indigenous communities (48.8) being ranked as having some of the most significant barriers to accessing digital services in Australia.

This is the issue, first and foremost, that needs to be addressed through changes in Government Policy and grant allocations. Telecommunications companies are not investing significantly in new infrastructure in rural and remote Australia due to the limited customer base.

If governments were to prioritise funding (and we appreciate that governments are providing funding) allocations into the areas in rural and remote Australia, we should be able to address the growing digital divide. Investment in infrastructure in the larger populated areas should be the responsibility of the telecommunication service providers, like Telstra, as this is where their largest customer base is located.



3. How have the Government's policies and programs affected telecommunications service outcomes in regional, rural and remote Australia? How can these be improved?

The introduction of the Mobile Black Spot funding and more recently the Regional Connectivity Program is delivering for citizens in some areas, larger pockets of regional, rural and remote Australia are still in need of a reliable telecommunications network.

Council would like to acknowledge the efforts of the Commonwealth Government through the Regional Connectivity Program, which is currently delivering 132 'place-based' telecommunications infrastructure projects across regional, rural and remote Australia. This would largely be based on submissions received from telecommunications providers and local government, not on an assessment of the needs to address digital divide. Most rural and remote Councils do not have the technical knowledge to compile an application to submit for funding, nor the technical knowledge to know what to ask for.

This should be addressed through Government Policy. If we could work out the telecommunication gaps in regional, rural and remote Australia and start to address this with structured Government Policy and encouraging telecommunications companies to deliver services through Commonwealth funding in those areas of greatest need.

4. How do service reliability issues impact on regional communities and businesses? How do outages, including in natural disasters, impact on communities and businesses?

We mentioned previously the issues experienced during Tropical Cyclone Imogen in January 2021. The service providers do not handle these very well. Often when we have a decent wet season the road between Normanton and Karumba can be closed for up to two – three weeks, making it difficult for technicians to get to the problem.

Staying connected during natural disasters can be traumatic for some. We have an aging population in Karumba and loved ones no longer living in the Region often lose touch with family and friends for long periods and are not able to ascertain if they are safe and well.

All too often it is difficult and somewhat frustrating to call a call centre to complain about a service being provided (or not provided) by the telecommunications provider. All too often when we speak personally with Telstra representatives at conferences and meetings, we find that they are unaware of a problem with the network due to the limited number of complaints. This can be largely explained because people become frustrated with waiting to complain or are often given the run-around that they simply hang up and suffer with the limited service provided, but they do let the Council know, and we suffer similar issues with our provider.

5. How might such impacts be addressed to ensure greater reliability? How can the network resilience be addressed in regional areas?

If the services installed and available in regional Australia were similar in reliability and capacity to those provided in the larger more populated areas, we should have greater reliability.

The service provided in Karumba may suit the local community most of the time, however it always fails miserably when the tourist season starts and our population grows significantly for seven (7) months of the year. Local businesses find it difficult to process eftpos payments for a simple thing like a cup of coffee when the mobile network connection to their eftpos machine is lost due to poor connection.



6. How did the use of digital services change for regional consumers and businesses during the response to the COVID-19 pandemic? What insights for future service delivery does this provide?

On many occasions when connected virtually the screen kept freezing, through poor connection or weak connection, this was both over the wireless connection in-house and on the mobile devices connected via Telstra's 4G.

There are many residents in rural and remote Australia that do not have a computer let alone a connection to the internet at home and during a lockdown they are not always getting the latest information.

7. What can be done to improve the access and affordability of telecommunications services in regional, rural and remote Indigenous communities?

Carpentaria Shire Council has a resident indigenous population of approx. 41.3% who have identified as Aboriginal and Torres Strait Islander when asked at the last census. We believe that this figure might be higher due to the take up of forms completed during the 2016 census.

Census data from 2016 indicated that only 60.6% of the Carpentaria Shire population have connection to the internet.

(Internet access has been derived from the 2016 Census of Population and Housing question *'Does any member of this household access the internet from this dwelling?'*.)

Maybe programs within the education system which allows indigenous children without access to the internet at home to receive a service as part of their education to assist with internet access at home.

8. How can investment in telecommunications infrastructure work with other programs and policies to encourage economic development in regional Australia?

The Issues paper mentions Ag2030, an Australian Government paper released in May of 2021 which includes a section on Innovation and Research (Theme 6) and the investment of the Government to further support Australia's agriculture innovation. This will be lost in regional, rural and remote Australia due to the lack of digital connectivity. Some farmers in regional, rural and remote Australia are investing their own money and resource into connectivity out of necessity where in other more populated areas it is readily available to their competitors.

Economic development and investment in regional, rural and remote Australia is limited and restrained due to the lack of reliable telecommunications.

Council has heard from people in business in Karumba that they are frustrated with trying to do their digital business on the services currently available to them.

9. What role could innovation, including new models, alternative investors or new ways of doing business, play to encourage investment in regional telecommunications infrastructure? What are the barriers?

The key to doing business in the future will depend on ways to innovate, we find it difficult to see where private investment is going to be attracted to regional, rural and remote Australia and wish to highlight that this will be an area where the State and Commonwealth Government will need to invest. The barriers we identify are the lack of access to high-speed business-grade connectivity in regional, rural and remote Australia.



10. To what extent will new technologies enable significant change to the delivery of telecommunications services in regional Australia over the next 5-10 years? Are there any barriers to accessing these technologies?

The IOT requires mobile coverage (including wireless, long-range low-powered, satellite, fixed wired) and very little bandwidth but the volume of devices likely to be using local digital infrastructure needs to be planned for.

Real-time health data, personal security, communications and household connectivity will soon be part of every household. The IOT will have a massive impact on the way we water crops, track stock, monitor water supply, operate mines, receive data to and from security systems, monitor environmental factors and monitor chronic health conditions in real time.

Priority by the Commonwealth Government to forward planning for the use of 5G services in regional, rural and remote areas and the impact of the Internet of Things (IOT) for regional, rural and remote communities. Infrastructure needs to be designed to support long distance coverage for regional agriculture to enhance interconnectivity between farmers, livestock and machinery to enhance modern farming and make best use of emergent technologies. Regional communities will also benefit from access to real-time health monitoring for off-site health care, as well hazard management and emergency services coordination.

11. How can Government better support the rapid rollout of and investment in new telecommunications solutions in regional areas?

As mentioned in the response to previous questions, the support from the Government is needed in identifying the areas which have the greatest digital divide and allocating Government funding to these areas so those people living in regional, rural and remote Australia (likely to be the areas in greatest need) have similar access in relation to price, connectivity speeds and reliability to people living in the more populated areas of Australia.

12. How can different levels of Government, the telecommunications industry and regional communities better co-ordinate their efforts to improve telecommunications in regional Australia?

Forget votes, sites requiring upgrades should have a higher priority than the next best application received as part of a grant round.

Local government is often approached by telecommunications companies to co-invest in some infrastructure that will provide the next best benefit to the community. Local government is not a telecommunications provider and should not be expected to use ratepayers' funds to improve telecommunications in the community.

The three levels of Government should be working together to address the telecommunications needs of the Nation, Better planning in relation to the digital divide needs to be addressed in the first instance so we address the equity issue between most of the population and those in rural and remote Australia being left way behind.

We have often heard stories of two separate Government Departments spending funds on providing similar services into the same community and the buildings are literally hundreds of metres apart. Better coordination across government departments when planning digital and telecommunications upgrades should be achieved to make best use of funding and by aligning projects a better result may be achieved for the community.



13. What changes to Government investment programs are required to ensure they continue to be effective in delivering improved telecommunications?

A more coordinated approach across and between Government departments in relation to telecommunications upgrades planned into areas within regional, rural and remote Australia might just lead to a better result for those communities that are struggling with the digital divide. Making services, or the ability to connect to services, available to other members of the community would also assist.

We can remember during the days of modems and “dial-up” that high-speed optic fibre ran along the railway line 500 metres from the Council office. Would have been nice to be able to connect to those speeds back in the 90’s.

14. How can regional consumers be better supported to identify, choose and use the best connectivity options for their circumstances, as well as to understand and use their consumer rights?

Most businesspeople are generally busy in their business to be able to shop around for a better service or the right service from their telecommunications provider. Most are not aware of all the options available and without the option of being able to walk into a telecommunications provider’s front door, businesspeople are having to resort to trying to work out the best option for their businesses on-line.

It’s probably more about current providers being more focused on service delivery rather than just sending the next monthly bill. If the Telecommunications companies were to contact their customers and advise of alternatives that would best suit their needs in a quick changing technology environment we may be able to assist in closing the digital divide in this manner.

15. To what extent is public information on connectivity options, including predictive coverage data and speeds, sufficient to help regional customers make informed decisions? What other information is needed?

As part of the discussions Council was having with Telstra following the complaints about connections in Karumba was around the fact that those Telstra Customers were not connected to the right account for what they were trying to do in their business, also some had the wrong handsets. These are things that

Not many people were aware that the Regional Tech Hubs were being opened.

16. What other matters should the Committee consider in its review and why are they important?

See television and radio re-broadcasting service provision below. All too often these days Councils in regional, rural and remote Australia are the service providers of last resort.

Not Quite relevant to the Regional Telecommunications Review – But Television Rebroadcasting is a further concern for CSC

This might be for another review, but we have included as part of this submission.

Small rural and remote Councils are fast becoming the providers of last resort within the communities they serve. What is not commercially viable for the private industry is being left to local government to fund and provide so people working, living and playing in the Remote Regions can enjoy a somewhat similar lifestyle to those in larger populated areas in Australia.



Like many Remote Councils the Carpentaria Shire Council provides rebroadcasting for the Communities in relation to Radio and Television channels

Council owns and maintains satellite infrastructure for the distribution of television and radio services (excluding ABC) in Normanton and Karumba. The current network receives the feed through a satellite service which is then re-broadcasted from the Normanton and Karumba Water Towers throughout the townships. From the complaints received and research undertaken by Council officers it has been identified that 2 main issues currently exist.

- 1) Network interruptions received due to weather events (cloud coverage) as the signal is received via a satellite; and
- 2) The current amplification of the service through the townships is experience interference which is resulting in residents unable to connect to certain channels.

As a preliminary exercise, Council approached 2 suppliers regarding the upgrade of the television and radio services. Council's existing service provided offered a stages approach for which 4 key upgrades can occur:

- 1) Extension of existing Remote-Control System and upgrade of Rebel FM equipment - the current Remote Control System allows us to log into the site and monitor both TV and FM transmitters, receive alarms, monitor mains power, room temperature and door's closure, reboot of processing equipment (satellite receivers and multiplexers). The proposed extension will allow us to access remotely to every single unit currently installed, we would be able to reprogram them if needed and monitor their status. Physical presence on site would be reduced to only cases of hardware failure, but only after assessing the system remotely. Regarding Rebel FM, both the computer and FM transmitter are very old units and they need to be replaced with new more efficient equipment, which would provide wider coverage as well.
- 2) Upgrade of offset satellite dishes - The current dishes have been working properly since their installation: however, due to their size, they do not provide optimal signal during storm activity. As result, the TV channels can be affected by pixilation or cut outs during rain; this is particularly evident with SBS service (its satellite transmission was upgraded in 2016 to a newer standard which requires higher receiving signal). It is recommendation to upgrade those dishes to bigger ones (4.3m size) which would provide sufficient signal all year round.
- 3) Upgrade of satellite receivers (excluding SBS TV one) - All the receivers have been working properly since installation; however, they are reaching the end of their life span which causes minor issues like freezing or not reading decryption cards properly. Usually a reboot fixes them; however, we recommend a programmed phase out of those units in favour of newer and more reliable models.
- 4) 50W UHF DVB-T Transmitters for TV services – This will increase the signal distributed from Council's Water towers throughout the townships.

These upgrades have been estimated to cost \$215,000.

Council also approached another supplier who has provided a proposal for the complete rebuild of the Normanton and Karumba sites. This proposal has multiple options Council can select from and the pricing to upgrade both the Normanton and Karumba sites range from \$345,000 up to \$460,000.



Ongoing maintenance of each option ranges between \$5,000 - \$10,000 annually. Additional costs for Council would be the requirement to replace hardware and wages for Council staff to attend the site if the remote support cannot resolve the issue.

Due to the high costs involved with both proposals, alternative options were explored as an option for Council. Services provided by surrounding Shire's vary, Burke Shire and Richmond Shire have both advised that they currently operate television and radio huts similar to Carpentaria Shire. Whereas McKinlay Shire, Croydon Shire and Etheridge Shire have all advised that they do not operate a television service and residents access television through a Vast satellite box system.

Council also explored the option of providing a one-off subsidy to residents for the installation of a vast box if Council were to cease providing a television service. It is estimated that the cost to supply and install 1 satellite and vast box would be \$750. It is estimated that if Council were to provide 1 system per household, Council would incur a one-off expense of \$750,000. This option would however have some negative impacts to the community as households wishing to watch television in multiple bedrooms would require multiple vast boxes, services such as the hospital, motels etc. would also be required to purchase a vast box per room, the traveling public would require a satellite and vast box for television services, which mean many tourists may not have access to television or radio when visiting the region.

Council is considering its options but is finding it hard to reconcile why a small remote Council needs to invest in a service that is provided by the private industry in the larger populated areas and not the local government.



