



# Inquiry into co- investment in multi-carrier regional mobile infrastructure



Response from  
First Nations Media Australia



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## Contact Details

Professor Shane Hearn, CEO  
Level 2/70 Elder Street, Alice Springs NT 0870  
PO Box 2731. Alice Springs NT 0871  
Ph: 08 8952 6465  
E: [ceo@firstnationsmedia.org.au](mailto:ceo@firstnationsmedia.org.au)  
W: [www.firstnationsmedia.org.au](http://www.firstnationsmedia.org.au)

FNMA acknowledges the traditional custodians of the lands on which we work. We pay respect to Elders past, present and emerging.

This submission is made by First Nations Media Australia. Some members may make individual submissions in which case the First Nations Media Australia submission should not be taken to replace those

[First Nations Media Australia](#) (FNMA) is the peak body for the First Nations media and communications industry. Our purpose is empowering Australia's First Nations people through our culturally connected media industry. As of January 2023, FNMA's membership includes 36 organisations and 40 individuals who work in or alongside the community-controlled media industry as broadcasters, freelance journalists, photographers, filmmakers and allies. First Nations Media Australia supports and amplifies the First Nations media sector and its objectives. Our activities include resource and policy development, skills development, networking events and meetings, content-sharing, promotion, regular communications, annual awards, research activities and representation.

As part of its industry leadership role, FNMA seeks to ensure First Nations communities have access to information required to make informed decisions, including access to public resources such as broadcast spectrum necessary to provide timely and relevant information to First Nations communities.

The crossover of infrastructure, digital literacy and access to information between telecommunications and media is significant. Therefore, First Nations Media Australia advocates for the digital inclusion and connectivity needs of all Aboriginal and Torres Strait Islander people.

[The scope of the First Nations media sector includes:](#)

- **Television:** National free-to-air (NITV); satellite delivered narrowcast (ICTV) TV services; local narrowcast TV services (Goolarri TV at Broome, ICTV in Alice Springs and Broome and Larrakia TV at Darwin). The ICTV satellite TV service reaches 371,846 smartcards nation-wide, not including terrestrial services in Alice Springs and Broome.
- **Video & film production:** Production of culture and language-based content for broadcast & online distribution.
- **Print and Online:** A national newspaper (Koori Mail) alongside a strong web presence of journalistic sites such as IndigenousX, National Indigenous Times.
- First Nations media organisations have a strong **social media** following and publish content online daily.
- **Radio:** Over 230 radio broadcast sites coordinated by 35 licensed, community-owned, not-for-profit organisations. These radio services reach around 320,000 First Nations people, including around 100,000 very hard to reach people in remote Indigenous communities, or approximately 48% of the First Nations population. Radio services are prevented from providing a primary radio service to all Aboriginal and Torres Strait Islander peoples due to a lack of funding and spectrum availability. Established stations broadcast live shows, plus interviews, radio documentaries, news, emergency information, community events, government and other messaging within community broadcasting guidelines through these platforms:

- 157 stations broadcasting on FM.
- 4 stations broadcasting on AM.
- 13 broadcasting via VAST satellite, in addition to FM services.
- 5 metropolitan services broadcasting via DAB+, in addition to FM services in Sydney, Melbourne, Perth, Brisbane and Darwin.
- Almost all offer online streaming via a dedicated station website.
- Many offer on-demand content either through the station’s own website, or Soundcloud or podcast sites.
- 26 stations can be streamed via the indigiTUBE website and app. Some stations also have their own application or use the TuneIn or iHeartRadio apps to reach audiences.
  - These channels offer a wide range of programming, including news and current affairs reporting from a First Nations perspective, in over 25 Indigenous languages nationally, including the first language of many people in remote communities.

The sector reaches significant audience share with 91% of people in remote First Nations communities being regular listeners to radio services and watching ICTV at least once per month.<sup>i</sup> In the remote context, First Nations media is the most reliable and ubiquitous radio and media service available to audiences. First Nations broadcasting returns an average \$2.87 in social outcomes for every \$1 invested, with many organisations returning a rate much higher than this nearly 3:1 average ratio.<sup>ii</sup> The communications sector provides enabling services to support opportunities and outcomes in service sectors, such as health and education, and promotes inclusiveness and participation.<sup>iii</sup>



### About this submission

First Nations Media Australia has based the responses provided in this submission on consultation with first media organisation members and inDigiMOB staff through research into Aboriginal and Torres Strait Islander people’s experiences of digital inclusion and through participation in the Indigenous Digital Leadership Forum and Indigenous Focus Day sessions over the few years. FNMA gratefully acknowledge the contribution of views and ideas from representatives who attended these events during 2019 – 22. This submission does not represent the views or concerns of all Aboriginal and Torres Strait Islander people; nor should it be taken to replace any specific community-based submission. It was prepared by FMNA Senior Policy Officer, Dr Eleanor Hogan.



## Inquiry Terms of Reference

On 12 September 2022 the Minister for Communications, the Hon Michelle Rowland MP, asked the Standing Committee on Communications and the Arts to inquire into and report on the experience, opportunities and challenges for co-investment in multi-carrier regional mobile infrastructure.

First Nations Media Australia thanks the Standing Committee on Communications and the Arts for the opportunity to provide a written response to the Inquiry into Co-Investment in Multi-Carrier Regional Mobile Infrastructure. This submission does not address every aspect of the Inquiry's terms or reference, but the key themes relevant to addressing the digital divide between Indigenous and non-Indigenous Australians – that is, **access, affordability, potential benefits of co-location and sharing of mobile infrastructure, and digital inclusion.**

Digital inclusion is a key social justice challenges facing policy makers and communities worldwide which involves using technology to drive education and health outcomes, provide employment opportunities and promote social and economic wellbeing.<sup>iv</sup> Inclusion is a process that evolves alongside technological change and the uses to which technologies are applied, especially through the increasing reliance on digital devices and internet access to perform everyday activities such as shopping, banking and accessing government services.<sup>v</sup> Digital inclusion equates to social inclusion, and a significant proportion of Australians still do not have access to telecommunications services that the majority take for granted with substantial drawbacks for their equitable social, economic and cultural participation. A 'digital gap' remains between Aboriginal and Torres Strait Islander people and mainstream Australians, with Indigenous Australians assessed as being at 7.9 points behind the national average for digital inclusion in 2020.<sup>vi</sup>

The National Agreement on Closing the Gap commits governments to ensuring Aboriginal and Torres Strait Islander people have access to information and services enabling participation in informed decision-making regarding their own lives (Outcome 17).<sup>vii</sup> In 2018, the Regional Telecommunications Review recommended a 'targeted Indigenous Digital Inclusion program with a focus on access, affordability and digital ability to be developed in partnership with Indigenous communities.' FNMA commends the government's investment in the October 2022 Budget of \$2.5 million over 5 years to establish a First Nations Digital Advisory Group, of which our Chair is a member, to lead consultation with First Nations people on the design and delivery of digital inclusion initiatives.

In view of these developments, FNMA supports the Committee's investigation of the potential for co-location and co-investment models hosting multiple mobile carriers to

address affordability and accessibility challenges for regional and remote Australians, especially for Aboriginal and Torres Strait Islander peoples. Affordable access is key to reducing the digital divide and to closing the gap on First Nations disparity, and digital inclusion for First Nations peoples diminishes with remoteness.<sup>viii</sup> Despite federal and state/territory government's increased investment in infrastructure and technological solutions such as the Mobile Black Spot Program (MBSP) to addressing this digital gap, issues of reliable access and affordability continue to loom large for remote-living First Nations people.

There is significant work to be done in addressing this digital gap. Within the context of the Inquiry into Co-Investment in Multi-Carrier Regional Mobile Infrastructure, FNMA recommends that consideration be given to the following:

- Achieving affordable and accessible internet access for First Nations people in Australia, especially in regional and remote areas;
- The high use of mobile data and infrastructure by First Nations people, especially in remote areas where mobile telephony is often the primary or the only available form of internet access;
- The potential for co-location models to defray costs and contribute to environmental amenity through sharing existing and future infrastructure in remote and regional Australia;
- The potential for co-location and co-investment models to stimulate competition between Mobile Network Operators, fostering more affordable access arrangements for regional and remote consumers.

First Nations Media Australia encourages the federal government to investigate the employment of appropriate co-location models for regional mobile infrastructure that support multiple carriers to extend the provision of affordable and reliable internet access with greater capacity to Australians living in remote and very remote areas. We request that the Committee reviews the sharing of mobile infrastructure by multiple carriers in light of the benefits for ameliorating the historically high levels of socio-economic disadvantage and marginalisation experienced by First Nations people in isolated, sparsely remote areas.

First Nations Media Australia works closely with the Australian Communications Consumer Action Network (ACCAN) and with RMIT's Mapping the Digital Gap project team, and supports the recommendations in their submissions for government programs to expand coverage to fund location appropriate models of co-location, especially to local communities in areas where available mobile coverage continues to be a concern.

### [Access](#)

Across Australia, internet availability of all types generally diminishes with remoteness, especially in the towns, communities and settlements such as outstations on traditional

homelands where Aboriginal and Torres Strait Islander people comprise a greater proportion of the population. In 2020 FNMA conducted research supported by ACCAN into First Nations people's experiences of digital inclusion across urban, regional and remote locations, the findings of which were published in *Indigenous community perspectives and experiences of digital inclusion* (2021). This report found that urban areas demonstrated an even spread of internet access types, with 100 % of urban respondents having access to NBN fixed line services, and mobile and public WiFi access widely available, almost one third (30 %) of remote Aboriginal and Torres Strait Islander people lack access to basic home telephony and/or internet.<sup>ix</sup> Over one third of Aboriginal and Torres Strait Islander people have mobile-only service access (34.7%), compared to a national rate of one in five (20.4%).<sup>x</sup>

The types of connectivity available in towns and larger communities in regional and remote areas differ significantly to smaller settlements, which often have limited access to different types of internet access. With less than a third of remote First Nations communities connected by fibre optic cable, there is heavy reliance on satellite and microwave backhaul solutions, especially in minor communities and settlements. While 3G or 4G mobile services have been installed in most large Indigenous remote communities (with a population of at least 250-300 people) across Australia, primarily by Telstra through infrastructure co-investment via a range of federal and state government programs, internet connectivity is limited or non-existent in many smaller remote communities and settlements, which rely on public phones and WiFi services, where available. In 2020, the FNMA report found the main type of internet access used by remote respondents was mobile data (72.5%), followed by public WiFi (60 %) often facilitated by service providers such as Centrelink, libraries, local councils and arts centres, and NBN fixed line (42 %).<sup>xi</sup> One respondent in a larger community observed: 'In my community all these technologies are available. But most of the 32 homelands around us do not have an internet connection. Two have an NBN satellite connection set up on one or two of the houses. Three have public WiFi set up on the Telstra payphone.'<sup>xii</sup>

The type of internet connectivity and devices that people can access or use shapes the type of services and social and economic activities available to them. Government services are increasingly operating at a distance from place and people. Many services, such as educational and training providers, assume that users will use a computer to connect through a broadband service. Meanwhile, responsibility for equitable access to services that are transitioning to an online-only model rests with communities and the service providers that have an onsite presence, without limited funding or remote support available for digital access or awareness.

While the transition to online government services supports mobile phone access, access to and facility in using a mobile phone are essential for interacting with government services such as the ATO, Centrelink and Medicare via myGov. This transition also brings a suite of new dependencies and risks. From power supplies, to weather, to system faults or cyber-

attacks, to pandemics and health orders, a breakdown in one element of these interdependencies can have significant consequences for individuals and communities.<sup>xiii</sup>

Despite the expansion of 3G and 4G mobile coverage in regional and remote Australia over the past decade, many remote sites report patchy or unreliable mobile services with heavy congestion at peak use times due to limited backhaul capacity. Mobile towers typically run off solar power and have at least 24-hour battery back-up, but this may be challenged with extended weather events or where the mobile tower relies on local mains power. Service outages, lasting anything from an hour to several days, are quite common in remote communities, affecting everything from phones to online banking. For example, heat, rain and fire events caused lengthy outages across East Arnhem Land and the Utopia Homelands in the summer of 2020, preventing residents from accessing money, purchasing food or contacting services, and technicians from accessing the communities to resolve the issues.<sup>xiv</sup> Reliable telecommunications can also save lives by providing Telehealth services and through emergency messaging.

### Affordability

The affordability as well as the type of data and connectivity available to people influences their choice of device. The FNMA report found that personal mobile phones were the digital device which First Nations people most commonly use, because of their relative cost and convenience. Mobile services are also advantageous, because they provide access to both voice and data, including options for both prepaid and post-paid services. But although most people in urban areas have access to a personal laptop, or computer or a personal tablet, in remote areas First Nations people's access to a personal laptop or tablet is extremely low.<sup>xv</sup> Accessing the internet via personal mobile phones (that may also be shared with family) and via public WiFi, rather than through 'at home' or 'at work' on one's own device, is also more prevalent in rural and remote areas.<sup>xvi</sup>

The FNMA report observes:

The difference in device access by Aboriginal and Torres Strait Islander people in remote areas compared to urban areas is suggestive of the difference in socio-economic opportunities experienced by those who reside in remote communities and towns and those in cities. It also highlights that affordability includes not just the cost of connectivity but also the cost of devices.<sup>xvii</sup>

Likewise, prepaid mobile is the primary form of data used in most remote communities, in response to affordability issues because of community members' low and unreliable income. While prepaid mobile plans may reduce financial vulnerability in the short term by enabling consumers with more direct management of expenses than post-paid contracts, prepaid data is more expensive per GB than billed services over the long term.<sup>xviii</sup> According to the FNMA report, the affordability issues most often experienced by community residents are signing up to contracts they cannot afford (56%); using a lot of data and running out of

credit (86%), as well as the cost of regularly replacing phones and numbers (84%) which are often shared among family members. The costs associated with accessing data intensive online services are also prohibitive, particularly if access is mobile only.<sup>xix</sup>

This reduces communications affordability, with prepaid mobile data offering poor value for money.<sup>xx</sup> The Australian Digital Inclusion Index 2020 notes: 'Indigenous Australians receive less data for each dollar of expenditure, as indicated by their Value of Expenditure component score (54.3), which is a notable 12.7 points lower than the national average (67.0). Mobile data costs substantially more per gigabyte than fixed broadband.'<sup>xxi</sup> Co-location models for sharing mobile infrastructure that reduce costs for telecommunications installation could potentially alleviate this situation through co-investment arrangements that result in more affordable mobile plans for remote consumers.

### Benefits of co-location and sharing of mobile infrastructure

FNMA supports further investigation of appropriate co-location models for sharing mobile infrastructure by multiple mobile carriers to extend mobile coverage throughout regional and remote Australia to increase the digital participation and social inclusion of First Nations peoples living in these areas. Co-location refers to when mobile carriers share elements of their passive infrastructure, such as towers and their facilities including power, access tracks and cabinets, with other carriers rather than multiple providers installing their own separate equipment in similar locations. The use of pre-existing passive infrastructure has the potential to defray the cost of installing telecommunications and to alleviate the environmental impacts associated with the duplication of unnecessary infrastructure and the disposal of legacy infrastructure.

Co-location models that foster sharing between multiple mobile carriers have the capacity to benefit remote-living consumers by improving internet access through greater use of backhaul arrangements and potentially by facilitating more affordable internet access through co-investment. FNMA recommends that the government explore the use of legacy and existing and future passive infrastructure to support co-location models as a way of generating maximum public value from new mobile infrastructure rollouts, especially for First Nations people in highly isolated and sparsely populated areas. The high cost of infrastructure for a mobile tower and exchange (> \$1 million) requires a sufficient population to provide a business case to install and operate the service. However, the use of existing towers to support microwave backhaul could provide a more affordable way of extending mobile coverage to smaller remote communities and settlements where it has previously been too costly to provide internet access.

Telecommunications and broadcasting legacy infrastructure, such as the towers from Telstra's decommissioned High Capacity Radio Concentrator (HCRC) network, could be utilised to host co-location arrangements for multiple carriers. The HCRC network was installed during the early 2000s and has reached end of life. HCRC towers are up to 50–80m

high to enable line of sight and located every 30–60km, depending on terrain, and require solar power to amplify and transmit signals. Legacy HCRC towers would provide an economical means of facilitating microwave backhaul arrangements, especially for small Indigenous communities and settlements in highly remote areas.

Another advantage of using pre-existing and legacy telecommunications infrastructure is to facilitate high-speed microwave backhaul arrangements, as mobile carriers transition their networks from 3G radio access to 4G access technologies. Until recently, mobile services have utilised fibre optic backhaul, which resulted in the installation of 3G and/or 4G mobile services mainly in large remote communities across Australia. However, small cell mobile services with satellite backhaul have been implemented in smaller remote communities during more recent rounds of the Mobile Black Spot Program (MBSP). Microwave radio systems provide a cost-effective way of delivering greater capacity, which is increasing with requirements for more bandwidth to support more complex applications.

Mobile towers installed through the Mobile Black Spot Program could also be repurposed to support multiple carriers. While the MBSP provides for co-location of network infrastructure, to date less than a tenth of funded sites have more than one Mobile Network Operator (MNO) located on them. The Mobile Blackspot Program primarily supports larger remote communities, popular tourist and transport routes due to the high cost of base stations and the need for a demonstrated business model for a telco to maintain a service for a minimum of 10 years. New towers funded through programs such as the Mobile Black Spot Program should prioritise appropriate models based on location specific factors and encourage flexible sharing arrangements to extend microwave backhaul to increase internet access by smaller communities.

Greater sharing of mobile infrastructure by carriers will result in improved economies of scale and, by alleviating the expenses associated with extending mobile coverage throughout remote Australia, potentially foster competition between providers and enhance investment prospects (for MNOs). Historically, mobile coverage only been available from one telecommunications provider, Telstra, in many remote areas because of the high costs associated with deploying infrastructure. Consequently, there has been a lack of commercial incentives for telecommunication companies to expand their networks in sparsely populated areas where many remote communities are located, because incentives for MNOs decrease where there are fewer customers. Government should encourage greater incentives for sharing mobile infrastructure by MNOs through public policies that drive further co-investment to improve coverage of affordable access for remote consumers. Following recommendation 10 of the 2021 RTIRC review, preference should be given to government-funded mobile infrastructure that provides shared network access.<sup>xxii</sup> Government policy should create incentives for successful multi-carrier sharing of infrastructure within the grant funding guidelines for mobile infrastructure grants.

Fostering competition through co-location models for mobile infrastructure that encourage co-investment by MNOs will potentially yield positive outcomes for regional and remote consumer. This is particularly the case for remote-living First Nations people, given that mobile telephony is their primary form of internet access and the affordability concerns associated with mobile data usage, especially through the widespread use of prepaid plans.

## Summary

First Nations Media Australia supports con of appropriate co-location models that facilitate sharing mobile infrastructure by multiple mobile carriers – whether legacy, current or future passive infrastructure – that promote the extension of more affordable, reliable, high-speed internet access to regional and remote First Nations individuals and communities. In addition to addressing access and affordability challenges for remote-living First Nations peoples, efficiencies are to be gained from the use of shared mast and tower facilities between media and telecommunication providers in remote Australia, as well as benefits for environmental sustainability from sharing rather than duplicating existing and future infrastructure. FNMA further encourages governments to provide incentives within grant guidelines and the regulatory environment to encourage multi-carrier sharing and co-investment in mobile infrastructure.

In considering proposals for telecommunications infrastructure and expansion such as multi-carrier co-location and co-investment, FNMA requests that the Australian government affirm its commitment to digital inclusion as a human right and to ensuring effective telecommunications for remote-living First Nations peoples from an equity perspective. Telecommunication infrastructure and access development has often focused on tourism and transport routes rather than on the resident populations in remote and regional Australia, and FNMA cautions against an over-focus on economic development in the future provision of telecommunications services. Affordable internet access is essential to the ongoing viability, economic and social participation of First Nations communities in regional and remote Australia, without which it is increasingly difficult for Aboriginal and Torres Strait Islander people to live, learn, work, establish businesses and access essential services, including government social services. Effective telecommunications enable dispersed families to remain connected, and support the maintenance, development and preservation of Australia’s unique First Nations culture and languages. In a telecommunications landscape that prioritises commercial expediency and incentives, FNMA urges the Australia government in considering models for sharing mobile infrastructure to uphold its commitment to Target 17 of the National Agreement on Closing the Gap: that by 2026, Aboriginal and Torres Strait Islander people have equal levels of digital inclusion.<sup>xxiii</sup>

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<sup>i</sup> McNair yellowSquares, Indigenous Communications and Media Survey, 2016.

<sup>ii</sup> Social Ventures Australia, More Than Radio – a community asset: Social Return on Investment Analyses of Indigenous Broadcasting Services, 2017.

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