FIRST NATIONS DIGITAL INCLUSION ADVISORY GROUP

INITIAL REPORT

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Letter to the Minister from the Chair

Dear Minister,

I would like to thank you for your commitment to the Advisory Group's work and support for addressing the digital divide. The Advisory Group has valued your input at our meetings and we look forward to continuing to work with you and the Government on supporting digital inclusion and Target 17 of the National Agreement on Closing the Gap. We welcome the release of the First Nations Digital Inclusion Plan 2023-2026, and endorse the Plan's strategic framework.

As you are aware, digital inclusion is a deeply complex issue, with access, affordability and digital ability all playing a role in the extent to which First Nations people and communities are digitally included. Digital inclusion is a critical enabler for a vast array of other benefits, including health, education and social connectedness, as well as making sure First Nations people have access to the information they need to make decisions for themselves and their families.

This initial report draws on our engagement with First Nations people and communities, the best available research and data on First Nations digital inclusion across Australia, and the expertise and knowledge of our members, as well as the Digital Inclusion Expert Panel which we have established to support our work.

The latest Australian Digital Inclusion Index 2022 shows a national gap of 7.5 across access, affordability and digital ability for First Nations Australians. To meet Target 17 will require significant and new investment by governments in partnership with industry and those communities where the digital gap is most pronounced. The most effective approaches will be those which reflect local priorities and are based on direct engagement with communities.

We have heard from stakeholders that investments in connectivity must be based on the needs of First Nations communities, rather than the commercial interest of telecommunications carriers. Grants programs can focus too much on the latter, meaning that investment doesn't flow to where it is needed most.

Currently, grant programs such as the Regional Connectivity Program can only be accessed by telecommunications providers, which means closely engaging with communities is even more critical. Some grant process can also be overly complex, impacting on the ability of First Nations communities to be successful in funding rounds. We recognise that telecommunications carriers must be guided by more than their commercial interests And must consider the economic, cultural and social value of connectivity investment to the community.

We have also heard that digital inclusion will not be solved just by investments in connectivity. Affordability is critical, particularly in terms of the relative cost of data on prepaid plans. Digital ability is also critical, not only in people understanding and navigating online services, but also ensuring First Nations people and communities understand their connectivity needs and the options available to them. Ability encompasses digital literacy, meaning that there must be support for people to navigate digital spaces in a safe and appropriate way.

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Outcome 17 states that Aboriginal and Torres Strait Islander people should hav
and services enabling participation in informed decision-making regarding
importance of the First Nations media and broadcasting sector in achieving thi
understated, which has reinforced our engagement with relevant stakeholder
sector strengthened across remote, regional, and urban Australia, noting that
capital cities without a licenced First Nations radio service.

This report provides you with advice on measures which could be delivered in the short term to support improved digital inclusion across the telecommunications, media and broadcasting sectors. These recommendations focus on engagement and partnership with First Nations people and communities, targeted measures to support improved access, affordability and digital ability for First Nations people, and improving the national collection and use of data.

These measures provide a strong foundation for achieving Target 17. The next phase of our work will be in developing a long term roadmap for First Nations digital inclusion to identify further measures for your consideration. In our view, a key part of progressing these measures will be by working with states, territories and industry to identify opportunities for co-investment and to support First Nations people and communities to more effectively access mainstream grants funding, including earmarking a proportion of funding for projects which will benefit those communities.

Regards

Ms Dot West OAM

Executive Summary

The First Nations Digital Inclusion Advisory Group has been established to focus on Outcome 17 of the National Agreement on Closing the Gap. Outcome 17 is about ensuring First Nations people are able to access information and services to make informed decisions about their own lives. The Advisory Group has been and will continue to work in partnership with First Nations people and communities.

We have been asked to provide advice on options to address barriers to digital inclusion, as part of the Australian Government's commitment to Target 17 of the National Agreement on Closing the Gap, which aims for equal levels of digital inclusion for First Nations people by 2026.

This report provides initial recommendations for consideration by the Minister for Communications, focused on practical measures to improve access, affordability and digital ability. At a practical level, this means:

- investing in infrastructure so that all communities have equitable access
- ensuring that First Nations people are able to afford reliable internet services whether fixed line, satellite or mobile
- supporting all First Nations people to have the skills to access the internet safely and effectively.

The imperative for action is clear. Digital exclusion affects the ability of First Nations people to participate in the online economy; access government services (which are increasingly moving online); access other services, such as education and employment; enjoy entertainment and leisure activities available to other Australians; and remain connected to their communities and culture. In some communities we have heard that there is a lack of basic telephony, which presents a significant threat to public health and safety.

Addressing these challenges must be led by First Nations people and communities in the design of measures and their delivery. Engaging at the community level will support measures that reflect local priorities and which are most likely to be effective. It will also require government, industry and the not-for-profit sector to ensure that their investments and efforts are better aligned and coordinated.

There is a clear role for the Australian Government to lead this coordinated effort. However, it is also important to note the role that states and territories have in terms of service delivery and the expertise of First Nations people in understanding their local needs and priorities. Industry also has a clear role, through its access to funding using, for example, the Commonwealth's Regional Connectivity Program and Mobile Black Spots Program.

Our advice is informed by the international recognition of the importance of digital connectivity and its relationship with human rights. In 2021, the United Nations Human Rights Council adopted the resolution on 'the promotion, protection and enjoyment of human rights on the Internet.'[1] Underpinning this is the need for affordable and accessible internet connectivity to support the capacity of individuals to enjoy their right to freedom of opinion and expression and also boosts opportunities for economic, social and political progress.[2]

In developing our advice, we have focused on the outcomes of our engagement with First Nations people and stakeholders, particularly in terms of the lived experience of those in remote communities. In addition, we have also been guided by the goals and priorities set out in the National Agreement,

[1] The promotion, protection and enjoyment of human rights on the Internet: (un.org)
[2] United Nations Special Rapporteur in 2011

particularly Priority Reform One (Formal Partnerships and Shared Decision Making) and Priority Reform Four (Shared Access to Data and Information at a Regional Level). The priorities for future work identified in the First Nations Digital Inclusion Plan 2023-2026 (the Plan), released on 23 July 2023,[3] have also informed our work.

Given the current gap in all three elements of digital inclusion, the ambition of Target 17 as a national goal should not be underestimated.[4] It is made more complex because different First Nations communities and people will have different conceptions of what meaningful digital inclusion looks like to them. For example, while improving access in remote communities is a priority, it is unlikely to have a significant impact on digital inclusion for the one third of First Nations people who live in urban areas, for whom affordability and digital ability may be more of a priority.

Digital inclusion is not only affected by access, affordability and digital ability, it is also affected by issues in other sectors, such as broadcasting, which affect the way communities access and use the internet. For example, poor access to free-to-air television in communities can mean that people are reliant on mobile data to access information and entertainment, which leads to higher costs and contributes to congestion over the mobile network. Improving digital inclusion must acknowledge and consider the link between internet usage patterns and the consumption of other types of media.

Overall, adopting a place-based approach and developing partnerships between governments and First Nations people, as well as industry and the not-for-profit sector, is vital to improving digital inclusion. The design and delivery of digital inclusion measures will be most effective when led by First Nations people and communities. We also need to make sure that different stakeholder groups, including the different levels of government, are working together so that efforts are aligned, coordinated and complementary. This process needs to include identifying areas of shared priority and opportunities for co-investment.

Noting the above, our recommendations relate to three key areas:

- delivering targeted or tailored measures to improve access to connectivity across a wide range of communities, ensuring access is affordable and fit for purpose and that First Nations people are aware of connectivity options and have digital skills to access the internet safely
- improving the national collection and use of data so that we can better assess the impact of measures delivered in community, as well as broader progress towards Target 17
- ensuring genuine engagement and collaboration with First Nations people and communities and supporting their access to government programs and opportunities.

We have identified a number of issues that require longer term consideration and which we will explore further in the context of developing a roadmap for First Nations digital inclusion following this initial report. This includes questions around the adequacy of the consumer safeguards and the Universal Service Obligation (USO) for First Nations people; the complementary use of new technologies such as Low Earth Orbiting satellites; and options to replace/improve access to media and broadcasting in remote communities.

We understand that some of these issues are being explored through other government processes, such as the Future of Broadcasting Working Group and the review of the Telecommunications Consumer Protection (TCP) Code, and the Australian Communications and Media Authority (ACMA)

[3] First Nations Digital Inclusion Plan (2023-26) | National Indigenous Australians Agency (niaa.gov.au)
[4] First Nations Dashboard, 2023 ADII https://www.digitalinclusionindex.org.au/dashboard/firstnations.aspx

development of an enforceable industry standard on financial hardship. We will consider the outcomes of these processes as and when they are available.

This includes our plan to further collaborate with industry to make sure that digital literacy support continues to expand and is available for communities of need regardless of their location (i.e. metropolitan, regional or remote), as well as identifying efficient ways to manage repair and maintenance of local infrastructure.

We have establised a working group with the Northern Territory Government (NTG), NBN Co and Telstra on identifying a small number of communities in the Northern Territory to potentially trial a harmonised approach to investment in digital inclusion measures, including alternative broadcasting options. A plan for engagement with these communities is being developed by the working group. We will provide further advice to the Minister on these matters by the end of the year.

Our engagement with stakeholders

What we have heard so far

During our first six months since our establishment, the Advisory Group has considered the most meaningful and effective ways to engage with First Nations people and stakeholders to ensure its policy recommendations reflect the needs and priorities of communities. This includes confirming with the Coalition of Peaks its preferred role, which was to defer to First Nations Media Australia (FNMA), the peak body in the media and broadcasting sectors. FNMA is represented on the Advisory Group by its co-chair, Ms Naomi Moran.

Initial engagement by the Advisory Group has been conducted through:

- a First Nations digital inclusion roundtable in December 2022, which was hosted by Minister Rowland and attended by members of the Advisory Group, along with a range of First Nations stakeholders and businesses, telecommunications providers, media organisations and broadcasters and representatives from other Commonwealth agencies, including National Indigenous Australians Agency (NIAA)
- meetings with First Nations groups, including the Central Land Council, Northern Land Council, FNMA, Northern Australia Indigenous Reference Group, Top End Aboriginal Bush Broadcasting Association (TEABBA), Pilbara and Kimberley Aboriginal Media (PAKAM)
- meetings with state and territory government officials, and with representatives from other stakeholder groups, including the Australian Communication Consumer Action Network (ACCAN), the Australia Council for the Arts and the Northern Australia Indigenous Reference Group
- multilateral forums with stakeholders, including the Central Australia Forum, organised by the department and NIAA
- a workshop with representatives of the telecommunications and First Nations technology sectors to identify barriers to First Nations digital inclusion and opportunities to work together to address them
- bilateral meetings with telecommunications stakeholders, including meetings with the CEOs of Telstra and NBN Co.

The outcomes of this engagement are consistent with previous discussions with First Nations people and communities, including the extensive engagement undertaken by NIAA to develop the First Nations Digital Inclusion Plan 2023-2026.

The Chair and Deputy Chair are also engaging with government and industry through NBN Co's Low Income and Digital Inclusion Forum, Low Earth Orbit Satellite (LEOSat) Working Group, and various ministerial forums and workshops with states and territories, including the Regional Digital Connectivity Meeting in June.

Plans for future engagement

The Advisory Group's future engagement will focus on:

- direct engagement with community organisations and land councils seeking their interest to work with the Advisory Group on digital inclusion priorities at the local level
- workshops targeting different stakeholder groups, including telecommunications providers, states and territories, First Nations broadcasters, land councils and local government

- bilateral meetings with community organisations, including the Central Australia Youth Link Up Service (CAYLUS), and with peak bodies, including the Australian Local Government Association, Coalition of Peaks, ACCAN, FNMA and the Australian Digital Inclusion Alliance
- engaging with First Nations businesses to run workshops with a specific focus on digital inclusion and economic development
- jointly hosting the inaugural First Nations Digital Inclusion Forum (with NIAA), one of the key actions agreed through the First Nations Digital Inclusion Plan
- leveraging the members' networks and state/territory stakeholder channels where possible
- leveraging engagement with First Nations communities via other channels (such as the Regional Connectivity Program and the NIAA regional network)
- engagement through the Advisory Group's website and social media channels
- visits to communities identified by NBN Co, Telstra and NTG for a potential pilot.

Current State of Play

First Nations people and communities

As at 30 June 2021 there were 984,000 First Nations Australians, representing 3.8 per cent of the total Australian population (ABS 2021 census). In the same year, 37.1 per cent of First Nations people lived in capital city areas, while the remaining 62.9 per cent lived outside of capital cities. Based on the Australian Government Indigenous Programs and Policy Locations (AGIL) dataset, there are 1,545 First Nations communities in Australia, however quantifying the exact number is complicated due to varying definitions of remoteness (and classifications for communities) across the states and territories.

While this dataset indicates the number of communities, it doesn't tell us what digital inclusion looks like in these communities. In relation to access, for example, the National Broadband Network (NBN) is available (via Sky Muster largely in remote communities) but take up may be low due to perceptions of poor service or cost (including limited choice of prepaid NBN plans – there are currently 2, Activ8me and Launtel). The gaps in data on users in metropolitan and regional areas also pose a significant challenge to achieving Target 17.

Measures which may support digital inclusion and accessibily in the 1,545 First Nations communities identified in Australian Government Indigenous Programs & Policy Locations (AGIL) data set, may not deliver improvements for the approximately 364,000 First Nations people who live in metropolitan or the 204,000 in inner regional areas[5]. While accessibility and connectivity is a priority for regional and remote areas, (i.e. the availability of access technologies such as fixed line, satellite and 5G service), it is possible that the key barriers for First Nations people in metropolitan areas will require a stronger focus on the other elements of digital inclusion (i.e. affordability and ability).

Connectivity, Community and Culture

For initiatives to be successful in improving digital inclusion, it is essential to understand the unique, rich and culturally specific ways in which digital technologies are currently being used among First Nations people and communities. While acknowledging the connectivity challenges for communities is important, it is equally important to understand how digital technologies are being used positively and creatively in communities, and how these strengths can be drawn upon to help in closing the digital inclusion gap. The role of media and broadcasting in this context is critical, particularly the role of First Nations media organisations and broadcasters in providing access to stories and information relevant to First Nations people.

There are a number of examples of communities adopting digital technologies across a range of purposes that are aligned with their cultural values. This includes the use of digital information systems for cultural maintenance, such as using multimedia archives to electronically store data, stories, artworks and photos. Museums & Galleries of NSW, in partnership with the Australian Film, Radio and Television School (AFTRS) has been working with First Nations communities in Dubbo and Armidale to digitally preserve languages, spiritual stories and life experiences.[6]

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[5] ABS Census 2021 https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/census-population-and-housing-counts-aboriginal-and-torres-strait-islander-australians/2021#remoteness-areas

[6] Museums & Galleries of NSW, *'Technology assists Aboriginal cultural revival'* 24 June 2015, Technology assists Aboriginal cultural revival - MGNSW

Digital tools are also being used for language preservation and revitalisation, including the Living First Language platforms and apps developed by the Australian Literacy and Numeracy Foundation and used by First Nations communities and language centres[7]. This is not only important for cultural revival, but also helps to promote the uptake of new digital skills and knowledge in a way that is culturally relevant, and shows how digital inclusion and the use of technology for First Nations people may look different to digital inclusion in other communities more generally.

Digital inclusion and the uptake of digital technology in First Nations communities can be driven by different cultural understandings of inclusion, and the cultural meaning ascribed to the use of digital technologies in community. The *Evaluation of inDigiMOB Year 3 Final Report* notes the importance of having digital inclusion initiatives that are built on cultural foundations such as storytelling to improve engagement in communities.[8] In this sense, developing policy in this space will require an appreciation for different cultural understandings of digital inclusion, not just between First Nations people and non-First Nations people, but between First Nations communities.

Even though communities may be well aware of what they need in terms of infrastructure and resources, the commercial business model / drivers of the large telecommunications providers mean that First Nations people living remotely do not have access to the essential services that would improve their overall well-being. Part of improving digital inclusion for First Nations Australians will include encouraging providers to be aware of their corporate social responsibility and to look beyond purely economic understandings to assess their return on investment.

These examples demonstrate both the importance of digital inclusion initiatives being community-specific and culturally relevant, and also show how the needs of communities can often be at odds with the commercial business model / drivers of the providers. Government should consider the best ways to engage with communities to ensure that integrating digital technologies in First Nations communities is done in an appropriate way that respects and is in line with cultural values and protocols.

While many of the recommendations in this report are focussed on First Nations people living remotely, government and industry must keep in mind the experiences of First Nations people living in metropolitan and regional areas. Some research suggests that Aboriginal and Torres Strait Islander people use social media at rates higher than non-Indigenous Australians,[9] with those in remote communities also being high users of social media.

Even in circumstances where individuals do not have internet connection or mobile coverage at home, they still usually have social media accounts and devices which they use when they are in town. Improving digital inclusion in urban and regional communities will, at times, require a different approach to the measures we are recommending for remote communities. This emphasises the need for effective engagement with First Nations people and communities in finding place-based connectivity solutions, along with measures to address affordability and digital skills.

Digital inclusion and Target 17 are integral components of the overall Closing the Gap framework. Digital Inclusion and the ability of First Nations people to access information and services underpins, supports and has a relationship to other targets, such as Target 8 (strong economic participation), Target 16 (cultures and languages are strong, supported and flourishing), Target 13 (reducing family violence) and health and education targets now heavily relied on First Nations people to be digitally included.

[7] See: https://alnf.org/program/firstlanguages/

[8] John Guenther, inDigiMOB and the Batchelor Institute. Evaluation of inDigiMOB Year 3 Final Report, August 2020

[9] Carlson, B & Frazer, R 2018. *Social Media Mob: Being Indigenous Online,* Macquarie University, Sydney.

An example of the intersection between digital inclusion and supporting the economy and the arts is the Darwin Art Festival's incorporation of digital art and online art fairs for First Nations artists. The Darwin Art Festival engaged with remote and regional art centres to help artists get online and showcase their art. This improved the representation of remote and regional First Nations artists in the art fair, allowing them to sell their art and share their culture in a more inclusive format that enabled them to participate from their communities.

We know that digital inclusion is important for improving access to information and essential services, but we must not overlook its relationship to supporting other Closing the Gap targets and priority reforms. We enourage the Minister for Communications to work with other agencies overseeing Closing the Gap targets to better align policy and understand how improved digital inclusion can support improved outcomes in other sectors for First Nations people and communities.

Access, affordability and ability

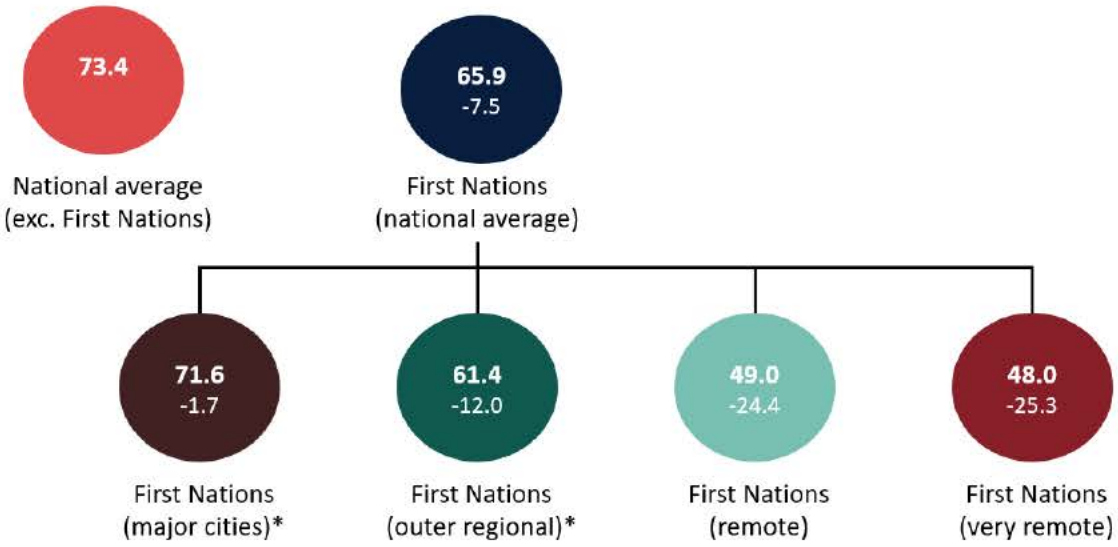
Our analysis of digital inclusion draws upon the Australian Digital Inclusion Index (ADII) methodology in measuring and understanding digital inclusion. Within this methodology, the three components of digital inclusion are defined as follows:

- access – a dimension concerning the types of digital connections and devices available, and how frequently they are used to get online. This is measured via four components: speed and data allowance, intensity and frequency of access, connection type, and device
- affordability – this dimension considers the financial means needed for a household to get online. This measure focusses on the percentage of household income required to purchase an 'internet package' that reflects quality and uninterrupted internet
- digital ability – this dimension concerns the digital skills, knowledge and confidence needed to use the internet safely.

At a practical level, we understand that these three components intersect in complex ways. For example, difficulties accessing fixed line services and computers leads to a heavy reliance on mobile-only services which can be much more expensive in terms of data. There can also be a strong preference for mobile connectivty due to the benefits it offers, such as allowing access to the internet whether inside the community, in transit, or elsewhere. Not having the appropriate device for education and work can also restrict opportunities in other areas of life, and can impede the development of more advanced digital skills, limiting employment options and exacerbating affordability challenges.

A lack of connectivity literacy (i.e. awareness of the available options) can mean some communities are unable to identify the best solution for their local priorities, and are left with solutions and devices that are not fit-for-purpose. For example, while the rollouts of community Wi-Fi mesh and LEOSats are viewed positively by many communities and stakeholders, it may not significantly improve digital inclusion unless associated costs (such as network management systems and household repeaters) are subsidised in communities that are unable to purchase the additional equipment they need.

National Snapshot



*Note: Inner Regional results have been excluded due to low samples. No special First Nations collection was undertaken for urban and regional areas this year and results obtained based on national sampling methods of First Nations people should be treated with caution due to very small sample sizes

The latest Australian Digital Inclusion Index (2023), released in July 2023, provides a means of measuring the scale and nature of the digital gap for the first time. As the diagram above shows, there was an overall Index Score of 73.4 for non-First Nations Australians and 65.9 for First Nations Australians, reflecting a national gap of 7.5 for First Nations people.

The gap progressively widens in regional, remote and very remote areas. First Nations people living in remote (49.0) and very remote (48.0) areas had particularly low levels of digital inclusion, respectively 24.4 and 25.3 points below the national non-First Nations average. Across all three dimensions of digital inclusion at the national level – access, affordability and ability – First Nations people had lower scores. The table below shows how the scale of the gap changes with remoteness across these three dimensions.

2023 ADII scores and dimensions by remoteness and First Nations status[10]

Remoteness Category		2023 Index score	2023 Access score	2023 Affordability score	2023 Digital Ability score
Total	First Nations	65.9	64.0	89.0	60.7
	Non-First Nations	73.4	72.1	95.1	65.0
	National Gap	7.5	8.2	6.1	4.3

[10] Australian Digital Inclusion Index 2023

Major Cities of Australia*	First Nations	**71.6**	69.2	89.0	69.6
	Non-First Nations	**74.7**	73.4	95.3	66.9
	Relative Gap (National Gap)^	**3.1 (1.8)**	4.2 (3.0)	6.3 (6.1)	-2.7 (-4.6)
Outer Regional Australia*	First Nations	**61.4**	70.4	85.0	48.3
	Non-First Nations	**66.7**	66.2	94.3	55.0
	Relative Gap (National Gap)^	**5.3 (12.0)**	-4.2 (1.7)	9.3 (10.1)	6.7 (16.7)
Remote Australia	First Nations	**49.0**	34.6	94.7	42.2
	Non-First Nations	**70.6**	67.9	95.3	62.0
	Relative Gap (National Gap)^	**21.6 (24.4)**	33.3 (37.6)	0.6 (0.4)	19.8 (22.7)
Very Remote Australia	First Nations	**48.0**	34.1	88.7	46.1
	Non-First Nations	**71.5**	67.9	97.0	63.0
	Relative Gap (National Gap)^	**23.5 (25.3)**	33.9 (38.1)	8.3 (6.4)	16.9 (18.9)

* Note: Inner Regional results have been excluded due to low samples. No special First Nations collection was undertaken for urban and regional areas this year and results obtained based on national sampling methods of First Nations people should be treated with caution due to very small sample sizes

^ Relative Gaps show the gap between First Nations and non-First Nations people living within the same remoteness category. National Gaps show the gap between First Nations people living within a remoteness category, and the national average for non-First Nations people

These figures show that digital inclusion decreases with remoteness for both First Nations and non-First Nations, however First Nations people in remote and very remote areas are highly excluded compared to non-First Nations living in the same remoteness category.

It should be noted that the Affordability score is measured based on households with large shared household income artificially improving results, with 18.6 per cent of First Nations respondents reporting cost as a reason for limiting internet use, compared to 5.7 per cent of other Australians. This issue will be explored further in the upcoming Mapping the Digital Gap annual report.

Access

In 2023, First Nations people recorded a total access score of 64. This was 8.2 points below the national average (72.1). The access score is not only about the speed, type and quality of connectivity but also the access to appropriate devices. Previous ADII research found that the digital gap between First Nations people and the national average widened between 2018 and 2020 (from 5.2 points in 2018

to 7.8 points in 2020). The scale of the access gap was exacerbated by COVID-19 lockdowns, with many First Nations households unable to access online schooling, work and services from home.

Access is limited in remote communities by a range of factors: limited digital infrastructure and services in many communities, limited mobile coverage and service quality issues, and higher cost for internet access relative to income.[11] The Mapping the Digital Gap reports note that the primary means of phone and internet access in remote communities is through prepaid mobile services.[12] Other key findings of the reports include:

- mobile coverage is often patchy and unreliable, with low signal penetration inside homes
- network outages can have a significant impact on remote communities where there is a lack of backup communications services
- 4G small cell phone services are not always available in communities, with some still in the process of being rolled out[13]
- free public Wi-Fi is valued by community and in many communities is available from the community office, library or other agency
- there is an essential need for improved access and connectivity for services such as health, education, Shire, police and Centrelink, which all provide critical community services for well-being
- access to TV services is often limited due to direct-to-home satellite equipment failure; local radio provides an important service but is not available in all communities and often not available in homes; social media is a key communications mode and source of news and entertainment
- in instances where people have limited access to free-to-air TV, they are accessing news and entertainment via online services using mobile devices, which can be expensive and can cause congestion on the 4G network.

Given the importance of working in partnership with communities, the issue of improving access needs to be addressed sensitively to ensure connectivity solutions reflect local needs and priorities. It is also important that government and industry improve their approach to sharing data back to communities to support informed decision-making at the local level. Engagement needs to be ongoing to ensure communities are empowered to manage the ongoing impact of connectivity in a constructive and positive way.

To date, the approach to improving access for First Nations people, particularly in remote communities, has been a combination of grants-based funding programs, such as the Regional Connectivity Program (which allow for telecommunication providers to partner with First Nations communities to seek funding for a project) and the roll out of national infrastructure such as the NBN (and its ongoing network upgrades). In remote areas, NBN access is primarily through Sky Muster satellite services. Sky Muster has increasingly been used as backhaul for delivery of an increasing

[11] Thomas et al (2019) Measuring Australia's digital divide: the Australian digital inclusion index 2019 (apo.org.au)

[12] Mapping the Digital Gap (2023) apo-nid322107.pdf

[13] An estimated 700 small communities and homelands are without mobile services. Some have Wi-Fi services, however many homelands are reliant on a single public phone and some have no communications services at all.

number of community Wi-Fi services in remote communities[14], where internet services are distributed from a single point and people access the service using their own device.

There are now a range of Wi-Fi and small cell mobile solutions being delivered in remote communities, including the following:

- the NT government is installing 20 satellite small cell mobile hubs in communities in the Barkly, Big Rivers, Central Australia, East Arnhem and Top End regions. Each site will transmit over a one-to-1.5km radius using satellite signals and have a back-up power source. These are expected to be installed by the end of 2023
- NBN Co provides Wi-Fi hotspots in 109 remote communities. This program has shown there has been consistent usage at the central point where the service is installed with an average of 117,000 Wi-Fi sessions consuming a total of 27 terabytes of data per month. NBN Co is also running a pilot of community-wide Wi-Fi services in four remote First Nations communities, experiencing 11,000 Wi-Fi sessions consuming a total of 8b terabytes of data per month
- the NIAA administers a program which maintains a network of up to 301 Wi-Fi satellite telephones, 229 community payphones and 10 Wi-Fi Hubs in around 460 small remote First Nations communities
- WiFi mesh networks in four remote WA communities, with household repeaters and VoIP phones, funded through Regional Connectivity Program (RCP) funding
- the Department of Social Services (DSS) is delivering a Digital Connectivity Program in 25 communities in the NT, including the rollout of community Wi-Fi and development of a digital literacy framework.

While these initiatives support improved access in specific communities, if the goal is improved connectivity across all First Nations communities, consideration will need to be given to how these programs can be scaled up, potentially to include the 670 (out of the 1,545) First Nations communities who do not fall within areas of mobile coverage.[15] As a starting point, we recommend the Australian Government explore the cost and feasibility of providing grants for community Wi-Fi in additional communities, potentially in partnership with NBN Co, LEOSat services and other telco providers.

In terms of consumer protections, the USO and its successor the Universal Service Guarantee (USG) ensure that all Australian homes and businesses have access to both broadband and voice services. Crucially, the USO does not include mobile services. With remote First Nations people favouring mobile services over other options, they are disproportionately affected by this exclusion from the USO. There is a need to review the effectiveness of the USG for ensuring universal access to affordable and reliable data services.

Affordability

In 2023, First Nations people recorded an affordability score of 89.0. This was 6.1 points below the national average (95.1). The prevalence of mobile-only and prepaid service use, which carries higher

[14] It should be noted that improving Access at a community level does not necessarily increase Access at a household level. While community Wi-Fi and computers at libraries/community centres can provide a safety net to ensure users can access the internet, they also raise issues such privacy/security, congestion, restrictions on usage/content/data, availability (e.g. only operating during business hours) and distance.

[15] BCARR

costs per gigabyte than fixed connections, contributed to poor levels of affordability amongst First Nations people.

Although the gap for affordability may appear lower than the gap for access and digital ability, caution should be advised when interpreting these results. For example, affordability is calculated based on household income[16]. Therefore, with large households that have a higher numbers of mobile-only users (including people in very remote areas and those on low incomes) there is a tendency to pay for internet connectivity as individual subscriptions, rather than as shared home fixed broadband.

The Mapping the Digital Gap data indicates that about 90 per cent of mobile users in remote First Nations people communities are using prepaid services.[17] For example, in the NT community of Galiwin'ku, 86 per cent of people with mobile phones used Telstra prepaid service, while 96 per cent of First Nations people in Yeulumu NT[18] with mobile phones used Telstra prepaid service. Data is not available for non-remote areas, which indicates another gap in the current evidence base.

The 2022 Mapping the Digital Gap Djarindjin/ Lombadina, Kimberleys, WA report found that from recent surveys, 42 per cent of First Nations people who live in remote areas said that they sometimes need to reduce essential household costs (and 21 per cent noted this was always or often) in order to afford personal or household internet within the past six months.[19] The cost of internet was the most common reason given by regular internet users surveyed across all 10 sites for not using the internet more often (42 per cent). Essentially, affordability of internet access continues to be a key issue due to low incomes and high prepaid data costs. Other key findings of the report include:

- there can be a wariness from communities about post-paid plans following people experiencing negative mis-selling practices with some retail service providers
- affordability of household power impacts on food security and communications, and there are cases where houses in communities have smart meters which require prepaid power cards to provide household power. Additionally, the reliability of household power also has significant impacts on communications, and power surges associated with generator use can damage devices such as set top boxes
- in some cases when residents do not have funds for power cards, this leaves the house without power to run essential services.

We are of the view that prepaid affordability is likely to worsen with the implementation of Telstra's decision to increase prepaid pricing by up to 20 per cent from July 2023.[20] While data allowances will also increase (there is an improvement of 25 to 30 per cent on the smallest plans and around three per cent for the largest plans), the cost of data on prepaid plans will still remain significantly higher than for other Telstra products.

We have heard from stakeholders that this increase will exacerbate existing financial pressures on First Nations Australians, with some being forced to make a choice between having mobile data or

[16] The ADII measures affordability as the percentage of household income required to gain a good quality service (bundle of fixed line broadband and 5G mobile services) with uninterrupted connectivity.

[17] Featherstone, D, Ormond-Parker, L, Holcombe-James, I, Hawkins, L, Bukulatjpi, Y, Bukulatjpi, C, Thomas, J & Kennedy, J (2022) Mapping the Digital Gap: Galiwin'ku, East Arnhem Land NT Community Outcomes report 2022. ARC Centre of Excellence for Automated Decision Making and Society: RMIT University, Melbourne. DOI: 10.25916/vjtt-mb25

[18] Featherstone, D, Ormond-Parker, L, Holcombe-James, I, Hawkins, L, Charles, D, Thomas, J & Kennedy, J (2022) Mapping the Digital Gap: Yuelamu, NT Community Outcomes report 2022. ARC Centre of Excellence for Automated Decision Making and Society: RMIT University, Melbourne. DOI: 10.25916/h8yh-f780

[19] Featherstone, D, Thomas, J, Ormond-Parker, L, Holcombe-James, I, Hawkins, L, & Kennedy, J (2023) Mapping the Digital Gap: Djarindjin/ Lombadina, Kimberleys, WA, Community Outcomes report 2022. ARC Centre of Excellence for Automated Decision Making and Society: RMIT University, Melbourne.apo-nid322107.pdf

[20] Latest prepaid plans - Telstra

paying for groceries. Although post-paid plans may provide better value for money, we understand that the fundamental constraints of low and periodic income for many First Nations people, especially those in remote communities, means such plans are not a viable option.

Critically, there is the possibility for adverse consequences of improving the affordability of mobile data in terms of adding congestion to the network, largely due to the limited capacity of the network in some remote areas. This only emphasises the need for both improved affordability of mobile data alongside improved access and affordability of satellite, Wi-Fi and other means of connecting to the internet.

We appreciate Telstra's advice that it will, as part of its new pricing arrangements, be providing prepaid plans that are better value per gigabyte. We will continue to monitor its impact on First Nations Australians, including engaging regularly with Telstra on its data and analysis of its prepaid options. We are also working with Telstra on a range of data issues which will assist us in considering options for prepaid pricing reform over the longer term.

Current measures addressing affordability have not kept up with the costs associated with getting and staying connected in 2023. The Telephone Allowance, administered by DSS a standard rate of $33.40 per quarter to eligible welfare recipients – significantly less than the expenditure of $450 per quarter paid by some customers in remote First Nations communities. Critically, we note that affordability assistance is a key gap in current efforts to support digital inclusion, with no direct measures in place at the state and territory level. Industry assistance tends to focus on financial hardship support for existing customers. We recommend that the Australian Government considers increasing the Telephone Allowance prior to the next budget to reflect the contemporary costs of connecting to telecommunications services.[21]

We would note, however, that, government subsidies will not necessarily address the structural issues affecting affordability, including the disparity between prepaid and postpaid data costs, or the cost of devices. Regarding devices, there are a number of organisations currently providing access to computers and tablets in communities, such as the CAYLUS, but there are limitations in terms of the opening hours of these organisations, meaning people cannot access them whenever they need. In the UK, device access is being addressed via a National Device Bank, which aims to provide 2 million households with refurbished donated devices free of charge. These devices are donated by businesses nationwide and then distributed via local community organisations. We recommend the Australian Government consider a similar measure here, targeted to First Nations people, in partnership with industry and the not-for-profit sector.[22]

While retail telecommunications providers are currently subject to some regulation regarding financial hardship assistance under the TCP Code, we recommend the Australian Government introduce regulatory reforms to strengthen consumer safeguards as they relate to First Nations customers, particularly those using prepaid services. For example, in the context of the of the TCP Code, we have identified the following issues which we think need to be addressed:

- building awareness within First Nations communities of consumer protections is very important in ensuring they are effective in addressing the needs of First Nations consumers
- the lack of competition in rural and remote areas can have an impact on the experience of First Nations consumers, in terms of service quality, reliability and affordability

[21] Economic Inclusion Advisory Committee | Department of Social Services, Australian Government (dss.gov.au)
[22] National Device Bank - Good Things Foundation

- there is a need for stronger mechanisms to ensure First Nations people are better protected as consumers, particularly in terms of navigating payment plans etc. This could include a more robust and equitable system to assess a consumer's financial ability to engage in a contract for service
- service providers using current guidelines to address domestic and family violence may find that language barriers and differences in terminology among First Nations people create an obstacle to providing appropriate assistance to victims.

We recognise that while regulatory reform may have a positive impact on some First Nations consumers (particularly those who already have services in place and are experiencing hardship), it is unlikely to address affordability issues more generally. As discussed earlier, community Wi-Fi is an access option which also delivers affordability benefits, however, it does have limitations. Unless the community has a small population, a single service is unlikely to provide sufficient broadband speed for simultaneous use by multiple consumers, which can lead to congestion and slower speeds.

There can be privacy and security concerns accessing services and information on a public Wi-Fi network, and there are also limitations regarding distance from the access point and physical obstacles that may affect coverage. Community Wi-Fi can sometimes have a lack of reach and penetration across the community area, which can force vulnerable members of the community to move to a public/known location to access the internet. This is particularly problematic in situations involving family violence. These issues are largely addressed with a community-wide Wi-Fi network.

Subsidies for routers and in-house repeaters would help address this issue, however it should be up to communities as to whether they want to opt-in to this community-level service. Also, as noted earlier, community Wi-Fi assumes individuals can afford suitable devices (generally smartphones) to access the service, which can create additional affordability issues. It also does not assist with connectivity as people move outside communities or are in transit to another location.

Digital Ability

Digital ability refers to a person's capacity to engage safely and effectively with the online world. Done well, it equips First Nations people with the digital skills required to participate in the digital economy and to connect socially online. However, there is a lack of basic digital literacy training targeted to First Nations people, as well as a lack of good practice principles to guide development and delivery of effective programs.

In 2023, First Nations peoples recorded a digital ability score of 60.7. This was 4.3 points lower than the national average (65.0). First Nations people scored lower for all the components that make up this score. The relative digital ability gap widens with remoteness. For example, First Nations people living in very remote Australia scored 46.1 compared to non-First Nations people in remote areas, who scored 63, a relative gap of 16.9.

The results reflects that, although digital ability broadly decreases with remoteness, First Nations people in remote and very remote areas have a far lower digital ability score even when compared with First Nations people in metropolitan areas and non-First Nations people living in the same remoteness category. This could be due to limited digital training or support (including culturally appropriate training offered in First Nations languages) high level of mobile-only use and lower levels of formal education.

Key elements that could be addressed in effective programs are identified in the latest report from the Mapping the Digital Gap project, including the benefits that come from mentors supporting communities with government and online services; the existing demand for basic digital skills training;

and the continuing concerns about cyber security issues, especially scams/fraud, cyber-bullying; and misinformation on social media.[23] Other key findings of the report include:

- more training and support is needed, especially for the elderly, people with disabilities, and community members with low English literacy
- digital literacy enables personal agency and capability to access online information and services independently
- online access facilities are needed to develop digital skills required for many workplaces, governance and leadership roles, and to access some services. There are low numbers of computers in community households
- digital programs run through either schools or community centres can create opportunities for skill development and creative or cultural content production
- social media plays an important role in communities and could be harnessed for increased awareness of programs and sharing of information, however regulation is required to reduce racism, misinformation and other potential harms spread via social media.

While not measured as part of the ADII, stakeholders have also indicated that connectivity literacy is a critical element in addressing digital inclusion barriers. This relates to supporting communities to understand their connectivity needs and the options available to them, and to access funding (including through grants programs) to address those needs.

Our view is that, at times, the process of applying for grants can seem overly complex and time-consuming, particularly for individuals and communities with low levels of connectivity literacy. The grant application process can also be an issue where communities have limited resources and experience to draft, cost and submit applications. More specifically:

- local communities can struggle with language and cultural barriers, and may have difficulty accessing GrantConnect
- there is a heavy administrative burden to acquire relevant paper work within the timeframes – this can be further hindered by the lack of IT equipment and stable internet in many communities.
- communities can be time-poor and have limited time to dedicate to undertaking grant applications
- there is a lack of consultative and feedback mechanisms to allow participating communities to have a say in the process, or to receive advice on how to improve their applications for consideration in future rounds
- most grants programs are currently for infrastructure, rather than digital ability.

We have observed that this can result in a process which seems weighted against applications by First Nations people and communities, and which favours large organisations (such as telecommunication providers) which tend to be more familiar with government processes and have the resourcing to ensure submissions reflect eligibility requirements and broader policy priorities.

To address these issues, we recommend that the Australian Government consider the development of a First Nations support hub to provide information on the connectivity options available (similar to the 'Discover my internet options' function on the Regional Tech Hub[24]), how-to information on applying for grants and assist in the drafting/reviewing of applications. It would also be useful to consider how the Australian Government can bring together First Nations communities with a relevant

[23] Mapping the Digital Gap (2023) apo-nid322107.pdf
[24] Find the best internet option for your property (regionaltechhub.org.au)

telecommunications provider to cost/assess the feasibility of the proposed project and to progress an application jointly, where possible.

On a broader level, we would encourage the Australian Government to consider how grants guidelines can be reformed to ensure critical, non-commercial issues, such as digital inclusion, are prioritised, rather than a business case model. It is also important to raise awareness of grants opportunities in First Nations communities (including through the translation of guidelines and support materials into First Nations languages and/or easily understood English, and advertising on First Nations radio) and to invite community feedback on the process.

In contrast to affordability, there are a number of measures in place – delivered by the Commonwealth, states and territories, and industry – to support digital ability for First Nations Australians, including inDigiMOB (delivered by First Nations Media Australia with Telstra funding support); Deadly Digital Communities, which is delivered by Queensland Libraries; and NBN Co's Online Skills Check and Resources. Mainstream programs such as Be Connected and the Regional Tech Hub also provide a useful model for how similar support programs could be established for First Nations people and communities specifically.

Following feedback from stakeholders, we recommend the Australian Government partners with industry and telecommunications providers, as well as philanthropic and/or First Nations businesses and organisations, to develop a 'digital mentoring network'. This network would provide digital ability development for vulnerable members in remote parts of Australia, as well as other communities of need. We understand there are existing digital ability programs such as inDigiMOB,which is delivered in collaboration with local First Nations organisations. Independent reviews have found the program to be highly effective in improving digital literacy at the community level.

The digital mentoring network would build on the successes and lessons leart from programs like inDigiMOB, and look to collaborate with a range of partners to create a support system whereby digital abilities would be able to reach First Nations people and communities of need, no matter their location (urban, regional and remote).

Media and Broadcasting

We understand remote broadcasting and satellite-delivered television has also been identified as a work stream for the Future of Broadcasting Working Group, a forum for government and industry to work through issues relating to broadcasting technologies and related television reforms. A key consultative stakeholder of the Advisory Group, FNMA, is represented on this Working Group.

The Indigenous Broadcasting and Media Sector report, commissioned by NIAA in 2021, identified a range of issues associated with the sustainability of First Nations broadcasters and the access and availability of broadcasting in First Nations communities. The Department is working with NIAA on the next steps for the implementation of the report's recommendations. There is an opportunity for the First Nations Media Sector to be a significant provider of employment for Indigenous and First Nations people in place-based employment. This would allow the industry to better respond to technical issues and ensure a more robust and resilient industry that is better equipped to respond to maintenance and repair issues as they arise.

The First Nations broadcasting and media sector contributes directly to a range of outcomes under Closing the Gap, including Outcome 16 (to achieve a sustained increase in the number and strength of First Nations languages being spoken by 2031) and Outcome 17 (which includes measures relating to number and location of community broadcasting services, content diversity, audience growth and employment in the media sector). It is also a key enabler of additional outcomes relating to health, education and employment.

A strong First Nations broadcasting sector contributes to Priority Reform Two of the National Agreement, which seeks to build the community-controlled sector, whereby there is a strong and sustainable Aboriginal and Torres Strait Islander community-controlled sector delivering high quality services to meet the needs of Aboriginal and Torres Strait Islander people across the country.

First Nations broadcasting is a distinct sector with unique characteristics and challenges. Conflating the First Nations broadcasting sector into the category of general community broadcasting may obscure the specific areas within the sector that need support. The Advisory Group recognises this, and we will look to engage with the First Nations broadcasting sector in developing targeted measures to support the broadcasting aspect of Outcome 17.

The following table outlines the Advisory Group's observations of the First Nations broadcasting sector, which highlight the need for timely action and have subsequently informed some of the later recommendations in this report.

Summary of current issues in First Nations broadcasting

Funding and sustainability	Current funding levels are considered inadequate by the sector, with many organisations under significant financial stress. The sector is seeking increased and streamlined funding. The Department and NIAA will evaluate both programs during 2023 as part of the community broadcasting review to determine better outcomes for the First Nations sector. As part of its digital inclusion roadmap and following the conclusion of other government processes such as the review of community broadcasting, the Advisory Group will consider the need to increase funding across the First Nations broadcasting sector as a whole.
Licensing	Reviews have recommended a separate First Nations broadcasting licence to better reflect the nature of First Nations media as a primary service. The Department will consult on proposed regulatory reform for the community broadcasting sector, including on a First Nations licence.
Infrastructure	Broadcast and VAST direct-to-home satellite infrastructure in First Nations and remote communities is ageing or inoperable. There are ongoing concerns relating to technical expertise to fix or maintain equipment. As part of its workstream on Remote Broadcasting and Satellite-Delivered Television, the Future of Broadcasting Working Group agreed to work with the Department to design an audit program to assess the distribution and status of television (TV) transmission and reception equipment across regional and remote Australia, with a focus on First Nations communities as well as determine on the-ground needs and estimate costs. Initial funding for this project was provided as part of the 2023-24 Budget. There is also a shortage of skilled technical repair personnel which, coupled with the remoteness of many First Nations communities, adds significantly to delays and costs of service and repair.

Recommendations

1. Deliver targeted measures to support the three elements of digital inclusion

1.1 Improve program design and delivery to support First Nations needs and priorities

Stakeholders have indicated that the current process for applying for grant funding through programs, such the RCP, seems to favour applications from larger organisations (which tend to be more familiar with government processes) and that as a result, applications by remote First Nations communities and other communities of need, are less likely to win funding.

While we welcome the recent changes to the RCP guidelines which addressed some of our concerns around the accessibility of the program for First Nations communities, we believe that more needs to be done to ensure the needs and priorities of First Nations people are central to the design and delivery of future rounds. This should include consideration of the specific challenges facing those communities in terms of language, resourcing or connectivity to lodge applications online.

The Australian Government should also consider how to ensure policy and regulatory frameworks can better enable partnerships between First Nations communities of need and telcos with experience in delivering projects in similar communities. While there is engagement already happening, we have heard from stakeholders that guidance on how to engage effectively and in a culturally apropriate way would be valuable.

We believe that the earmarking of funding in the current combined grants opportunity for round three of RCP and round seven of the Mobile Black Spot Program (MBSP) is a positive step. We would strongly encourage the Australian Government to embed this approach in future rounds of these programs, with a target that at least 10 per cent of available funding be provided to projects which benefit First Nations people and communities. In addition to this earmarking of mainstream funding, we also recommend the Australian Government consider a specific allocation from RCP to adress connectivity needs in the 670 remote First Nations homelands currently without any kind of coverage.

We recommend that the Business Grants Hub is not used to deliver connectivity solutions in this context, given the need for programs to be delivered in close engagement with First Nations communities.

More detail can be found at Appendix 3.

1.2 Strengthen and raise awareness of consumer protections for First Nations Australians

As part of achieving digital inclusion, it is vital to ensure First Nations people and communities are aware of their rights as consumers, including as they relate to financial hardship and the Universal Service Obligation (USO).[25] At present, we have heard that many First Nations Australians aren't aware of their rights (including requirements on telcos around financial hardship) and the main framework for these rights, the TCP Code, is not underpinned by effective enforcement or compliance arrangements. There is also low awareness of the Telecommunications Industry Ombudsman.

Consumer protections

There is a need for stronger mechanisms to ensure First Nations people are better protected as consumers, particularly in terms of navigating payment plans. This could include a more robust system

[25] See Statutory Infrastructure Provider regime | ACMA

to assess a consumer's financial ability to engage in a contract for service, and encouraging telcos to increase current discounts/vouchers for vulnerable customers.

As noted by ACCAN in its submission on the TCP Code Review, a directly regulated Telecommunications Consumer Protections Framework would help address the issues with the current framework, and would improve regulation on issues around competition, access to services and fairness. We would also support ACCAN's observations that the Code is inadequate for consumers experiencing vulnerability, including that:

- the current provisions do not require providers to proactively identify consumers that could be at risk of entering into financial hardship
- providers are enabled to disconnect consumers partaking in a financial hardship arrangement without their notice.

We welcome the Minister's recent decision to direct ACMA to make an enforceable industry standard in relation to customers experiencing financial hardship. We understand that this will primarily provide support for people who are already in contract with telcos, however it does not provide support or guidance for people who are not.

In designing regulatory reform in this policy area, we recommend the Australian Government work with ACMA to ensure the new industry standard provides equal protections and relief for customers who use prepaid services, as well as ensuring that it provides effective support for consumers experiencing family violence, in alignment with the National Plan to End Violence against Women and Children 2022-2023. It is also important to ensure consumer protections apply to users of LEOSats and other emerging technologies.

USO/USG reform

The lack of competition in rural and remote areas can have an impact on the experience of First Nations consumers in terms of service quality, reliability and affordability.[26] While the USO provides a framework for service delivery, we have heard from stakeholders that it is not well-suited to the current telecommunications market and, as a result, the protection it offers in practice can be limited.

We recommend that the Australian Government conduct a review of the USO/USG framework and its effectiveness in improving connectivity for First Nations people and communities. The current USO framework includes the Customer Service Guarantee (CSG) which sets connection and repair timeframes; the Network Reliability Framework, which monitors service availability and faults and mandates remediation of poorly performing services; and priority assistance for people with life-threatening medical conditions. The suitability of the CSG must be assessed, including its relevance for low-income earners. This review should include an audit of service quality at present, particularly in remote and very remote areas.

As part of its development of a longer term roadmap for First Nations digital inclusion, the Advisory Group will also assess the need for an enforceable universal service guarantee model for affordable services, which could help ensure that First Nations people and communities have a quality of connectivity comparable with other Australians. Currently, in areas where only post-paid options are available, there is no safety net for low-income earners. An enforceable guarantee could provide support for those experiencing financial hardship in areas with poor connectivity to access affordable broadband with a quality that matches what other Australians are able to access. Additionally, we strongly encourage the Australian Government to examine the issues associated with a lack of competition in remote areas more closely and explore how emerging technologies could help alleviate this issue.

[26] Bureau of Communications and Arts Research (2020) Affordability of communications services for low income households, Working paper, Commonwealth of Australia.

1.3 Explore alternative technologies beyond traditional terrestrial solutions

Where it is not feasible for telecommunications providers to build new towers, new technologies should be considered as an alternative for providing reliable internet and phone connections in rural and remote communities. We note the establishment of the LEOSat Working Group, which is examining the future role of satellite technology in delivering telecommunications services, as well as recent announcements from NBN Co[27],Telstra[28] and Optus[29] of their interest in the potential of LEOSats.

One of the key issues that the Working Group is considering is how satellites can be used to help close the digital inclusion gap for First Nations people. This issue has also been flagged by industry groups and consumer advocacy groups. For example, Communications Alliance CEO, John Stanton, has recently noted the role that LEOSats could provide in improving connectivity to rural and regional parts of Australia.[30] This work may include promoting the uptake of direct-to-satellite mobile devices in remote areas where connection via terrestrial towers is not available.

We understand that while LEOSats might be a key part of remote connectivity moving forward, their commercial and technical viability over the medium term needs to be explored further. As such, we recommend the Australian Government partner with a LEOSats provider to deliver on a LEOSats pilot project in 8 to 10 communities, focusing on service providers (such as health clinics) in those communities.

In parallel to this pilot, we recommend the Australian Government consider how current regulatory frameworks (particularly for consumers) relate to LEOSats and identify any required reforms to ensure LEOSat consumers have the same protections as other consumers. For example, this should include directing LEOSat providers to offer prepaid services. This should be done in addition to considering a subsidy model for First Nations customers needing to buy LEOSat dishes.

Additionally, we note the importance of balancing the need for improved connectivity in remote communities with sensitivity towards First Nations cultures. Different First Nations communities will have different views on the cultural suitability of LEOSats, given that satellites can sometimes cause interference with First Nations astronomical observations. Satellites can interfere with constellations in the night sky, which can impact on their cultural knowledges and kindship with the environment. We encourage the Government and industry to take a place-based approach in deploying LEOSats, taking individual community needs and cultural understandings into account.

Although the RCP and MBSP may be appropriate for other small-scale communications infrastructure pilots, we have heard from some stakeholders that they may not be as suitable for funding LEOSat trials since they are geared towards high-capex, long-term investments in well-developed markets like mobile and fixed wireless. In line with recommendation 1.1, this issue could be addressed in the design of future rounds of RCP.

We note that while we are recommending that emerging communications technologies be considered beyond traditional terrestrial solutions, we are not undermining the importance of rolling out fibre and fixed wireless across Australia. It is our view that the Australian Government must continue to prioritise the rollout of fibre and fixed wireless to reduce the satellite-only footprint, particularly in monsoon-affected northern Australian sites where rain fade impacts reliability of satellite services. Multiple connectivity options provide redundancy options in case of outages, greater choice and flexibility for the consumer, and helps to drive down prices in areas where there is a monopoly on the satellite services available.

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[27] NBN Co to formally assess LEO satellite services - Telco/ISP - iTnews

[28] Telstra signs OneWeb to upgrade remote base station backhaul - Telco/ISP - iTnews https://www.smh.com.au/technology/telstra-partners-with-elon-musk-s-starlink-for-regional-satellite-services-20230703-p5dlab.html

[29] https://www.afr.com/companies/telecommunications/optus-inks-deal-with-starlink-circumventing-nbn-in-regions-20230712-p5dnoy

[30] Communications and the Arts Committee_2023_06_21.pdf;fileType=application/pdf (aph.gov.au)

More detail can be found at Appendix 4.

1.4 Work with NBN Co to assist and encourage retailers to deliver prepaid broadband services

The prevalence of mobile-only and prepaid service use among First Nations Australians, which carries higher costs per gigabyte than fixed connections, contributes to lower levels of affordability in comparison to the Australian average. Given that post-paid options are not always an option, due to low- and unpredictable income levels and the negative historic association with entering contracts, it is essential that the Australian Government and telcos consider options that target affordability in terms of prepaid services. More specifically, we recommend that NBN Co assists and encourages Retail Service Providers in offering prepaid broadband services, particularly in remote communities where prepaid mobile plans are most popular.

Noting that prepaid services over the NBN are available today through retail providers such as Launtel and Activ8me (and that it is a decision for retail service providers as to whether they supply prepaid services to households and businesses), the Advisory Group is engaging with NBN Co on alternative options for delivering prepaid broadband over the NBN.

We will also continue to engage with telecommunications providers to consider how other barriers to uptake of postpaid services could be addressed. We will explore this issue further over coming months and will provide further advice to you by the end of the year.

1.5 Increase the Telephone Allowance to reflect contemporary use on telecommunications services

Currently, the only direct government subsidy for telephone payment support is the Telephone Allowance, administered by the DSS. This is a payment available to those receiving welfare support, and is automatically paid quarterly to customers. The current amount of $33.40 per quarter is outdated and insufficient and fails to account for the contemporary costs associated with a mobile plan or prepaid recharge amount, or the preference for prepaid mobile in remote communities. Given that mobile plan and prepaid costs are already increasing with Consumer Price Index, more needs to be done to support prepaid mobile users.

We recommend that the Australian Government increases the Telephone Allowance to $35 per month, which reflects the price of a prepaid recharge. Alternatively, we recommend that the Government provide a universal data subsidy of 15GB to all Centrelink recipients. Stronger regulatory action could include imposing a requirement on Telstra through its Carrier License Conditions to provide prepaid data at the same cost per gigabyte as postpaid data. This would be a low cost to government, though is likely to be opposed by Telstra on the basis that it could affect their competitiveness.

1.6 Partner with industry to support a network of digital mentors in communities of need

Increasingly, Australians are expected to use technology to access health, government, utility and education services. To support First Nations people to access these services effectively and safely, the Australian Government should seek to work with industry partners to deliver a digital mentoring program, initially focusing on delivery in remote communities. This program would be centred on the need for First Nations mentors, living in community, providing support to members of that community.

Following an assessment of existing initiatives aimed at supporting digital literacy, the First Nations Digital Inclusion Advisory Group recommends the delivery of a digital mentoring network that can operate nationally, through the expansion of either existing digital mentoring programs and/or pilots

that industry are planning to run. As a next step, the Advisory Group would like to engage with industry to further this potential area of collaboration.

Telstra have expressed an interest in contributing funding to support digital mentoring, including the costs related to the national coordination hub. However, these details would need to be further clarified with Telstra given the scope of this project has grown and pivoted since they were first consulted by the Advisory Group. NBN Co has also put forward a proposal that includes establishing digital mentors in First Nations communities, subject to receiving support from government.

Building a digital mentoring network is likely to be viewed positively by First Nations people and communities, and with the support of FNMA and the Advisory Group, will help ensure local expertise and networks can be leveraged to support the delivery of digital mentors in communities of need.

More detail can be found at Appendix 2.

1.7 Improve alignment across Government on First Nations digital inclusion policy and the delivery of relevant programs

We recommend that the Australian Government commits to aligning agencies in their work on First Nations digital inclusion policy. Through the Advisory Group's initial period of engagement this year, it has become clear that there is significant overlap across agencies in the First Nations digital inclusion space, particularly in how digital inclusion relates to other outcomes across health, education and welfare. There is value in avoiding the duplication of efforts and programs addressing First Nations digital inclusion, and this will help to reduce the burden communities have in navigating requests to meet with agencies.

There is overlap between the Department, NIAA, the Department of Education, DSS, and numerous other state and territory government agencies. Some jurisdictions have their own digital inclusion plans, aligning digital inclusion efforts across their various departments. For example, the WA Government has established the implementation program for their Digital Inclusion in WA Blueprint, which outlines how work targetting digital connectivity, affordability and skills can be aligned across WA departments and agencies. [31] Aligning national efforts in a similar way will be vital in reducing the duplication of policies and programs and will help ensure that effort and funding is allocated efficiently.

We recommend that the Australian Government commits to establishing a multilateral forum with states and territories (potentially through the Data and Digital Ministers Meeting (DDMM)), and establish a cross-government steering committee, including representatives from the above agencies. This committee should be resourced appropriately, including participation by First Nations staff, where possible. This alignment should also include improved data sharing between agencies and between the Commonwealth and states and territories. We acknowledge that the DDMM has agreed to re-establish the Digital Inclusion Working Group which will be chaired by the NT Government, and we welcome this method of interjurisdictional collaboration in the digital inclusion space.

The Advisory Group recommends that government investigate the possibility of transferring the responsibility of First Nations broadcasting sector from NIAA to the Communications portfolio. This would include the recognition of First Nations broadcasting as a separate category of broadcasting under the Broadcasting Services Act 1992, in line with FNMA's Call for Action 1[32].

By removing First Nations broadcasting from the category of community broadcasting, this would improve access to spectrum and co-regulatory processes for First Nations broadcasters, including the opportunity for greater broadcast coverage. The Communications portfolio is more aligned with the

[31] Digital Inclusion in WA Blueprint – Implementation Program (2023) Digital Inclusion in WA Blueprint - Implementation Program (www.wa.gov.au)

[32] First Nations Media Australia (2018). *Renewing Australian Government Policy for First Nations Broadcasting and Media: Introducing the 9 Calls for Action*.

business needs of First Nations broadcasting, particularly given that NIAA only recognises the radio aspect of First Nations media, as opposed to the entire range of broadcasting services within the sector. The communications portfolio would better enable the expansion and updating of the First Nations broadcasting sector to a multi-platform environment.

1.8 Work with telcos to provide unmetered access to government websites and First Nations free-to-air television services

An option raised by stakeholders has been providing unmetered access to government websites for First Nations prepaid mobile users with limited data allowances. This option has some support from stakeholders, including states and territories. This option was identified by the DDMM as a priority previously, however initial engagement with the telco sector by the DDMM Digital Inclusion Working Group was not positive. In terms of its effectiveness, users would also need unmetered access to search engines (so they can find the specific government service once their data cap has been reached).

The Australian Government should engage with telcos to develop an unmetered access initiative, similar to the Zero Data initiative in New Zealand, which provides free government web data for mobile phone customers who are connected through six of the main telcos in New Zealand. All mobile data charges for accessing these websites are charged to the relevant participating government agencies, instead of the consumer.

We also recommend that the Government works with telcos to get them to provide unmetered access to streaming content from First Nations television providers such as ICTV and NITV.

1.9 Establish an upgrade and maintenance program for VAST DTH in small First Nations communities and homelands

At a recent public hearing in Alice Springs as part of the Inquiry into co-investment in multi-carrier regional mobile infrastructure, stakeholders discussed the use of Viewer Access Satellite Television (VAST) direct to home (DTH) services in remote communities. Stakeholders reported several issues with VAST, including expensive repair costs for set top boxes and difficult to navigate activation processes.

On top of this, power surges in remote communities (which are common due to the reliance on generators) can ruin VAST set top boxes and render them useless, due to a lack of power surge protection. Many houses have issues with misaligned or damaged sateliite dishes and/or cabling due to storms, rust and other environmental events over the past decade since their installation, requiring extensive maintenance.

Many households cannot afford replacement set-top boxes or technical services, which can be very expensive due to their remoteness. The cost of replacing a set top box can be up to $600, meaning many people living remotely are unable to afford replacing their equipment and therefore cannot stay connected through the VAST system. The maintenance of VAST is a household responsibility and there is currently very little support for coordinated maintenance programs in remote communities.

There is little support for customers who need to reset/activate their smart cards, since this process requires an active phone or Internet connection. Consequently, most remote First Nations households are going without access to free-to-air television, and are instead relying on online streaming services via the mobile network.

Informed by the outcomes of an audit into VAST, we recommend that the Australian Government establishes a coordinated upgrade program to review and repair all faulty VAST DTH equipment for all remote First Nations households that want a working television service. This would include:

- installing VAST equipment for households that have never had it installed previously

- supplying a more robust set-top box (satellite receiver) with built-in power surge protection, an enclosed smart card holder (to prevent the card from being removed) and a software change to reduce the need for smart card re-activation upon reset
- requesting Optus simplify the process for activating smart cards so that they can be activated in sites without phone or Internet access
- establishing an ongoing monitoring and maintenance program to ensure that communities have timely and affordable access to technical services and replacement equipment in case of service failure.

More generally, we also recommend that the Australian Government raise the issue of stable power supply to communities with state and territory Ministers as a factor that is hindering progress towards achieving Target 17.

A maintanence program should be supported by a technical support program provided through a First Nations specific support hub – see Appendix 3 for more details.

1.10 Fund a trial for rebroadcasting technology in remote First Nations communities as an alternative to VAST

In addition to an upgrade and maintenance program, we recommend that the Australian Government fund a pilot for rebroadcasting technology in remote communities that participate in the Remote Indigenous Broadcasting Scheme (RIBS). Specifically, we are recommending that the Government fund this pilot in Galiwin'ku and Wadeye in the Northern Territory.

In Galiwin'ku, it was identified that VAST services were not working for 80 per cent of respondents surveyed through the Mapping the Digital Gap project, due to issues with the set top box and/or damange to the satellite dish and cabling. Local agency staff in Galiwin'ku estimate that VAST failure could be even higher across the community, potentially around 90 per cent of households.

Similarly, in Wadeye, 66 per cent of respondants surveyed through Mapping the Digital Gap said that their VAST TV was not working or set up at their house. Given that VAST is the only means of accessing free-to-air TV in Wadeye, this has considerable implications for the community's ability to access news, information and entertainment, with access via mobile services increasing household expenditure at prepaid data rates and increasing stress on the already limited 4G mobile service. Given the urgent need for improved access to information and services in these communtiies, they would be well suited for trialling a return to rebroadcasting services.

Rebroadcasting would require a broadcast tower, which most communities have in place already for radio and other services. Many communities already have an airconditioned broadcast facility which can provide a secure space for rebroadcasting infrastructure. The only additional equipment required would be either a standard aerial on each house or 'rabbit ears' on top of each household television. This would alleviate the need for a reliable internet connection to set up television services in households, unlike the current set up process for VAST set top boxes.

There are currently a number of companies that provide rebroadcasting services, so we anticipate that rolling out rebroadcasting in Galiwin'ku and Wadeye would be able to happen rather quickly. Importantly, this trial must coincide with maintaining the VAST network. Strengthening both VAST and rebroadcasting services will have the best outcome for remote communities with poor access to free-to-air television services. If the trial proves cost-effective with improved reliability of television services, we recommend costing of a rollout program to all large remote communities with high VAST failure rates nationally[33].

[33] The size of community would be determined by a cost-benefit analysis but a starting point may be communities with more than 30 households.

1.11 Upgrade broadcasting and digital infrastructure to meet current industry standards and work health and safety requirements

Community radio is vital for many remote First Nations communities, providing access to information, education and entertainment in a way that is culturally relevant and accessible. This is particularly relevant for communities that have limited access to the internet or television.

Stakeholders have indicated that the infrastructure and broadcasting facilities in many remote communities are not currently up to industry standard. This has hindered the ability for First Nations broadcasters to transition to more modern IT based technologies, which allow for more cost-effective network management and monitoring. In addition to infrastructure challenges, there are a number of Remote Indigenous Broadcasting Services (RIBS) which are currently unable to meet workplace health and safety requirements. This is affecting employment retention for these RIBS, which threatens the overall long-term sustainability of the sector.

We recommend the Australian Government consider funding a broadcasting and digital infrastructure and equipment upgrade program for RIBS, alongside a funding program for facilities upgrades. Strengthening the First Nations broadcasting sector will be an integral aspect of achieving Outcome 17, allowing greater opportunities for people to access the information they need.

1.12 Fund a First Nations support hub to support connectivity literacy

Connectivity literacy is a key barrier to First Nations digital inclusion. It can be difficult for customers to navigate the complex suite of telecommunications and broadcasting services available to them, in addition to understanding what solutions are most suitable and cost-effective for their individual needs and circumstances.

Stakeholders have indicated that First Nations communities of need are not always able to identify their connectivity needs or the solutions which would best suit them. The Australian Government should consider how to best support connectivity literacy, particularly given its intersections with digital ability and affordability.

We propose that the Australian Government provides funding for a First Nations Digital Tech Hub, modelled on the Regional Tech Hub, to assist First Nations consumers in identifying the best telecommunications solutions available to them. We also propose that this Hub should provide help for troubleshooting common service problems, help communicate consumer rights to users and support improved connectivity literacy in First Nations communities. In providing connectivity literacy support for communities, we recommend that the Hub should also provide scam awareness and support for consumers experiencing negative experiences online. It could also potentially assist VAST users to trouble shoot issues with their set-top boxes.

This support hub should ideally be delivered by a First Nations provider and could be funded in partnership with states and territories. In the short term, information on getting connected and choosing a plan should be provided on our website, with hard copies being provided to key stakeholders at the community level.

1.13 Establish a National Device Bank to provide households with refurbished devices

Within the ADII framework for digital inclusion, access is about more than just proximity to telecommunications infrastructure, but also about access to devices. Without a funcitonal mobile, laptop or home computer, households are at risk of being digitally excluded, even if they are within range of mobile and broadband services.

We recommend that the Australian Government consider developing a National Device Bank to help provide low-income earners in First Nations communities with refurbished donated devices free of

charge. This would be based on the UK National Device Bank model which aims to provide 2 million households with refurbished devices.

This could be delivered in partnership with the Australian Mobile Telecommunications Association (AMTA), who manages MobileMuster, a free recycling program which educates consumers on where to recycle their old mobile phones. For this program, AMTA oversees a collection network with over 3500 public drop off points through major mobile phone retails stores.[34] The Government should explore the feasibility of using this existing network to provide remote First Nations community members with donated devices.

The Australian Government should also consider working with DV Safe Phone, a not-for-profit charitable organisation that collects and donates mobile phones to victims of domestic violence; supporting this recommendation would be a positive opportunity to address aspects of both Target 17 and Target 13 (reducing the rate of all forms of family violence and abuse against Aboriginal and Torres Strait Islander women and children).

This would help address barriers to access and affordability of digital devices in remote communities, and would also provide a solution for reducing e-waste. The Government could also consider working with telcos to load these devices with prepaid credit, to ensure they can be used out of the box and do not end up unused.

1.14 Partner with telcos to provide grants for community Wi-Fi

There are currently 670 First Nations communities and homelands that do not fall within areas of mobile coverage. Community Wi-Fi, accessible from central community locations such as a community office or store, can help alleviate issues associated with accessing and affording an internet connection in the home. We encourage the Australian Government to partner with telcos and local communities to rollout community Wi-Fi in communities that do not have it, with options for unmetered access to certain websites, and possible prepaid options for customers who want to opt in to use the Wi-Fi service on a flexible basis.

As noted before, while community Wi-Fi provides a useful means of accessing the internet from town centres and enables a level of community control, it is a 'second tier' solution when compared to home internet. For community Wi-Fi to be a viable option, it is vital that communities are 'opting in' for the service, rather than having it imposed on them by government and industry when it may not be appropriate for their unique digital inclusion needs. Therefore, we recommend that the Government explore partnering with telcos to provide grants for community Wi-Fi while simultaneously exploring alternative options for community connectivity, such as data subsidies and emerging technologies.

2. Address the lack of data on digital inclusion levels for First Nations Australians

Shared access to data and information, particularly at the regional level, has been a focus of Closing the Gap, particularly Priority Reform 4: Aboriginal and Torres Strait Islander people having access to locally-relevant data and information to drive their own priorities. The lack of First Nations data on digital inclusion makes it more difficult for communities to identify their needs and provides a barrier to First Nations communities, organisations and businesses in advocating for better outcomes. Without this data, there is a risk that First Nations communities that need the most help, miss out.

It also means there is a lack of clarity on the different experiences of First Nations people in metropolitan, regional and remote areas, and the relative impact of other factors on digital inclusion levels. The lack of data is partly addressed by the 2023 ADII report, which disaggregates First Nations data by geographic location for the first time. However, data continues to be an ongoing challenge in

[34] AMTA Mobile Muster Mobile phone recycling - AMTA | The Voice of the Australian Mobile Telecommunications Industry

terms of connectivity and service gaps and evaluating the impact of specific measures and assessing progress towards Target 17 more generally.

The ADM+S Mapping the Digital Gap project aims to measure digital inclusion across 10-12 remote First Nations communities over a 3-year period (2022-24)[35]. Although the sample size is small (530 surveys in 2022), it reflects the unique and individual experiences, needs and possible solutions to address digital inclusion and highlights the importance of local place-based solutions. It does not, however, provide insights on First Nations digital inclusion at the national level.

Similarly, we understand that some jurisdictions, including New South Wales, Queensland and Victoria, are considering their own digital inclusion data collections, and Queensland is currently undertaking an audit of the digital inclusion initiatives they oversee. This also carries the risk that data sets will not be comparable at the national level.[36] Given DDMM's interest in data relating to Target 9b of Closing the Gap, it might provide a useful mechanism to progress a multilateral partnership on Target 17 data requirements, including sharing the costs associated with current data collections across each jurisdiction.

The Advisory Group has identified improving the national collection and use of data as one of its early policy priorities. This is a priority both in terms of gaining a better understanding of digital inclusion challenges for First Nations people and communities to inform policy, but also to track progress towards achieving Target 17. This includes supporting ACCAN's proposal to re-introduce and refine a census question on household internet use.

2.1 Expansion of the ADII

The Advisory Group has identified improving the national collection and use of data as one of its early policy priorities. Accurate measurement of the current First Nations digital inclusion gap is essential to understanding the current scale of the gap and measure progress towards, and achievement of, Closing the Gap Target 17. Although it is clear that this is something that needs to be measured, there is currently a lack of data to measure the scale and changing nature of the digital inclusion gap over time for First Nations people.

Accurately measuring digital inclusion in First Nations communities requires approaches tailored for diverse urban, regional, rural and remote communities. A combination of data collection methods within the Australian Digital Inclusion Index (ADII) would help provide a more accurate comparative framework for understanding aggregate levels of digital inclusion for First Nations digital inclusion, which could also be benchmarked against the national ADII to track progress towards Target 17.

The Australian Government should consider partnering with Telstra and RMIT University to expand the ADII, which would align with Priority Reform Four of Closing the Gap (shared access to data and information at a regional level). This expansion would draw upon RMIT's existing research partners in First Nations communities.

The improvement of data collection in First Nations communities must be guided by the principles of data sovereignty and Indigenous self-determination. This would include making the data analysis publicly available and providing annual written summary reports compiling the findings of the research. We understand that Joint Council on Closing the Gap would need to endorse using the

[35] Telstra recently announced that they will fund the continuation of the Mapping the Digital Gap project for an additional 3 years (2025-27).

[36] The Department is working with NIAA, the ABS and the Productivity Commission on refining this proposal and to explore other options, including identifying relevant information in existing ABS datasets, such as Household, Income and Labour Dynamics in Australia (HILDA).

expanded ADII as part of the data dashboard for Target 17, and will provide further advice to you on this by the end of the year.

More detail can be found at Appendix 1.

2.2 Formalise arrangements for data sharing with telcos, particularly NBN Co and Telstra

The Advisory Group has commenced its engagement with industry partners, such as NBN Co and Telstra, to identify any data they hold which can provide further insight into First Nations digital inclusion, particularly in remote communities.

In the longer term, the Australian Government should consider formalising data sharing arrangements with industry to support ongoing analysis and mapping of connectivity across Australia. The Government will want to consider how to promote ongoing participation from industry in this data sharing, as access to data over the long term will be important for policy design and measuring progress in the digital inclusion space. We will provide further advice to you on this in the context of the First Nations digital inclusion roadmap.

2.3 Reinstate and refine the internet use question in Census 2026

The Advisory Group supports ACCAN's 2026 Census Submission which recommends the ABS collect information on household digital inclusion. More specifically, ACCAN recommends:

- reinstating the 2016 Census question on household internet use
- establishing a question on the types of internet connectivity used within households
- introducing a question on how households use the internet.

The data collected from these questions will provide a better understanding of the types of digital inclusion opportunities and barriers facing Australian households, including among First Nations people. Without a comprehensive national data set on household internet use, it will be difficult to develop policy to improve digital inclusion that is evidence-based and reflective of lived experiences.

2.4 Develop a national map of connectivity data in collaboration with states and territories

Complementing our recommendation to align First Nations digital inclusion initiatives across jurisdictions, we are recommending that the Australian Government funds a national map of connectivity data, including on media and broadcasting. We recommend this be done in collaboration with states and territories not only to ensure that the most up to date and granular data is included in the map, but also to encourage ongoing data sharing between the jurisdictions. We recommend that this mapping exercise be funded on an ongoing basis, to support regular updates over time.

2.5 Co-fund a data collection program on First Nations digital inclusion in regional and metro areas

While the ADII and the Mapping the Digital Gap project provide valuable data on digital inclusion for First Nations Australians in remote and very remote areas, it does not provide data on the experiences of First Nations people in regional and metro areas.

We know that regional and metro areas are sometimes overlooked in discussions around First Nations digital inclusion, largely due to the more well-documented digital inclusion gap between Australia on average and First Nations people living remotely. It is vital that the data collected on First Nations digital inclusion in regional and metro areas is made a priority for government to better inform digital inclusion policy in these areas to improve progress towards Target 17.

3. Genuine engagement and collaboration with First Nations Australians in addressing the digital divide

3.1 Encourage telcos to increase First Nations recruitment, including at senior levels

While Priority Reform One of Closing the Gap only pertains to the Australian Government's formal partnerships with Aboriginal and Torres Strait Islander peoples, it is imperative that telcos strengthen their collaboration and partnerships with First Nations people in working to achieve Target 17. This could be done in a variety of ways, including through representation of First Nations people on boards and committees, or through strengthening internal processes around collaboration and engagement.

Many shared structures already exist that have been developed by First Nations people. Any new partnership models should build on these arrangements and should emphasise elevating First Nations perspectives. Genuine collaboration should support self-determination of First Nations people and organisations in achieving digital inclusion in a way that is culturally appropriate and relevant, and should go beyond simple consultation.

It should be noted that having First Nations representation on boards and committees is not a substitute for genuine engagement with First Nations customers and communities, and that telcos should do so in addition to their recruitment practices and targets for First Nations staffing levels.

3.2 Active recruitment of First Nations Australians across government

Government agencies must commit to improving and sustaining employment outcomes for First Nations people. Addressing Target 17, and the other Targets within the National Agreement, will require a workforce that reflects the communities the Government is serving. This will include engaging with Aboriginal and Torres Strait Islander Employment Advisors in the design and delivery of First Nations recruitment processes, in addition to connecting with First Nations public service employees on their experiences.

This is not just about improving the presence of First Nations Australians across government workspaces and third parties who deliver services on behalf of government, but also amplifying their knowledge and experiences. The Government should consider how improved recruitment of First Nations people could be linked up to a talent pipeline in government and industry to support upskilling First Nations people to work in the media and tech sector. Linking the recruitment processes between government, industry and peak bodies would help with the growth and sustainability of the First Nations media, broadcasting and tech sectors overall. This would be in line with FNMA's Call for Action 2.[37]

Although First Nations employees will not be able to speak on behalf of all First Nations communities and people groups across Australia, they will bring a level of cultural knowledge and understanding to First Nations policy that non-Indigenous employees cannot.

3.3 Embed local engagement requirements in program guidelines/criteria

Engagement and collaboration with First Nations communities should be formalised in program guidelines and criteria, particularly to ensure that engagement is rich, thorough and culturally appropriate. This could include an assessment framework for programs that includes benchmarks for First Nations participation and engagement.

Such frameworks must be designed in collaboration with First Nations people and communities. Criteria can include the types of engagement expected from program leads, who the program needs to engage with, the cultural protocols the program must adhere to and commitments to ongoing

[37] Ibid.

engagement throughout the lifetime of a program. We are currently developing a set of principles which we believe will help industry and government to better embed First Nations priorities and interests in how they work and will provide further advice to you by the end of the year. We also recommend that telcos should include Target 17 in their key corporate documents such as their corporate plans and reconciliation action plans.

Appendix 1: Improving data collection and analysis

Context

Accurate measurement of the current First Nations digital inclusion gap is essential to understanding the current scale of the gap and measuring progress towards, and achievement of, Closing the Gap Target 17. While the Mapping the Digital Gap research has provided improved data for remote First Nations people and the ADII now includes a dedicated First Nations dashboard, there is still limited data to measure the scale and changing nature of the digital gap over time for urban and regional First Nations people. This is largely because First Nations digital inclusion is difficult to capture accurately in national survey approaches. Measuring digital inclusion both within and across First Nations communities requires close engagement with the communities themselves, their organisations and leaders. It also requires different approaches tailored for urban, regional, rural and remote communities.

To address this challenge this proposal outlines a comprehensive data collection model in 2024, 2025 and 2026, building upon the Mapping the Digital Gap research project. The combined research data will generate an overall picture of First Nations digital inclusion across Australia, from urban to remote locations. In combination with the ADII, which provides Australia-wide digital inclusion data, this will provide a robust measure of the levels of digital inclusion experienced by First Nations Australians.

In parallel to this proposal, we also recommend the inclusion of a digital inclusion question/s in the 2026 Census, and will engage with the ABS on this matter as part of the next phase of consultations.

Opportunity

This proposal is to provide funding to RMIT's ARC Centre of Excellence for Automated Decision-Making and Society (ADM+S) to generate an Index of First Nations digital inclusion, which can be benchmarked against the Australian Digital Inclusion Index to track progress towards Target 17. Data collection will take place through four streams:

- up to 1,000 online surveys collected by Ipsos will enable cost-effective data-collection for connected First Nations people
- up to 1,000 offline (face-to-face) surveys conducted by Ipsos will ensure inclusion of low or non-internet users
- up to 800 additional face-to-face surveys collected by ADM+S in up to 10 target sites, ensuring the desired demographic spread is achieved.

The proposal will leverage the culturally-appropriate research expertise of the Mapping the Digital Gap project to collect data on digital inclusion for First Nations Australians living in regional and urban areas. This data collection will be conducted in 2024, 2025 and 2026 and combined with data collected by the Mapping the Digital Gap project in remote sites to track changes First Nations digital inclusion across Australia up to the 2026 Closing the Gap target date.

In combination with the ADII, which provides Australia-wide digital inclusion data, this will provide a robust measure of the digital inclusion gap experienced by First Nations Australians, and of progress towards closing the gap. To ensure comparability with the ADII, data will be collected using the Australian Internet Usage Survey (AIUS). Data collection will follow a mixed-methods model, using those techniques considered most appropriate for reaching various target populations. For example, over time it is expected that the Government would encourage the ADII to include more demographic data on how different groups use the internet, and to be more inclusive of the diverse online experiences of First Nations people, the elderly, LGBTQIA+ people, and people with disability.

Proposed approach

An iterative sampling approach will be applied to ensure the collected sample matches a representative demographic spread. Following an initial survey launch, ADM+S will assess the distribution of responses with reference to ABS distribution and any desired data collection targets, and then re-launch targeting specific areas or demographic groups. Quotas will be applied to ensure no group is oversampled, unless oversampling of a key demographic is desired, in which case weighting will be applied to ensure results enable an indication of overall digital inclusion for First Nations people, as well as comparisons to the Australian population as a whole.

In order to meet the challenges of a reliable, cost-effective and comprehensive data collection for this project, four components of data collection are proposed. These four components are intended to reach First Nations people in diverse circumstances and locations across Australia. Taken together, they are designed to generate up to 3,600 responses. The four components are as follows:

- an online data collection, conducted by Ipsos' Aboriginal and Torres Strait Islander Research Unit. Ipsos is currently expanding their online iMOB First Nations panel, enabling a cost-effective means of surveying a large sample of First Nations people across urban and regional Australia. This component will reach a sample of First Nations peoples who are already online. Ipsos will conduct up to 1,000 online surveys. Participants will be paid appropriately for their time.
- a face-to-face data collection, also conducted by Ipsos' Aboriginal and Torres Strait Islander Research Unit and undertaken by their network of community-based First Nations researchers. This component of the sample will generate responses from non- or low-internet users, with participants recruited through Ipsos's community partners. Ipsos will conduct up to 1,000 face-to-face interviews. Participants will be paid appropriately for their time.
- a geographically-focussed regional data collection, conducted by ADM+S researchers. Noting that Ipsos does not have an Australia-wide network, ADM+S will conduct further face-to-face sampling in up to 10 selected locations. Sites will be selected based on First Nations population centres and will ensure a wide distribution of sampling to complement the IPSOS iMOB sample. This will enable collection of a further 500-800 surveys in regional Australia and ensure a wide demographic mix (age, gender, socio- economic status) as well as a range of usage of digital tools and services.
- ADM+S will draw upon the community relationships developed through the Mapping the Digital Gap project and will follow the Mapping the Digital Gap model of partnering with local community organisations and employing community co-researchers, including appropriate payment.
- incorporation of data collected in remote communities through the established ADM+S Mapping the Digital Gap project (funding by Telstra has been extended to 2027). Data collected through this project will be merged with survey responses collected through the Mapping the Digital Gap project (n=700) to create a full picture of First Nations digital inclusion across urban, inner regional, outer regional, remote and very remote experiences.

Data Analysis

Data from all sources will be collected using a standardised approach, and will be merged and weighted by analysts at the Social Research Centre (SRC), enabling analysis and reporting both on First Nations data, and on gaps identified through comparison with the ADII. Consistent with the national Index, blended weighting will be applied for the whole population with a separate weight for the First Nations community. This will take account of oversampling for First Nations people relative to the Australian population distribution, enabling effective comparison with the National ADII.

Index creation and analysis will be conducted by ADM+S. De-identified, cleaned and weighted data will be shared securely with DITRDCA to enable further analysis. Data will also be shared with First Nations

communities and organisations as well as to NIAA and other State and Federal agencies for their own analysis, subject to data protection provisions detailed below.

Data governance and First Nations Data Sovereignty

The project will follow the methodology of the Mapping the Digital Gap project. It will be guided by the core values and principles outlined in:

- NHMRC Guidelines for 'Ethical Conduct in Research with Aboriginal and Torres Strait Islander Peoples and Communities' (2018)
- AIATSIS (2021) Code of Ethics for Aboriginal and Torres Strait Islander Research, which is structured around four key principles with the core ethical value of integrity and acting in the right spirit:
    - Indigenous self-determination
    - Indigenous leadership
    - impact and value
    - sustainability and accountability.
- Principles of Indigenous Data Sovereignty (e.g., Kukutai and Taylor 2016); Walter et al. 2021, in accordance with the United Nations Declaration on the Rights of Indigenous Peoples (2007). In particular, the project embeds responsible governance of Indigenous data and reciprocal benefit into the project by:
    - making the survey data analysis publicly available in a user-friendly form on the ADII dashboard for use by First Nations communities, organisations, peak bodies and individuals (see Appendix 3 for an indication of how this might look)
    - de-identified, cleaned and weighted data will be made available to First Nations communities and organisations upon request, as well as to NIAA and other State and Federal agencies to support planning for improved services to address Closing the Gap target 17. However, to ensure that participant confidentiality is maintained in areas where participants may be identifiable despite standard de-identification procedures, some aggregation of data may be required
    - providing annual written summary reports compiling the findings of the research.
- ADM+S will submit this project through the RMIT University Ethics approval process (which uses the NHMRC guidelines), expanding on the existing Ethics approval for the ADII and Mapping the Digital Gap projects.

Mapping the Digital Gap Expansion

The Mapping the Digital Gap project was funded by Telstra up until 2024 in order to undertake the current final data collection. However, to ensure that a representative sample across Australia is collected for the full duration of interest (i.e. the 2026 Closing the Gap target date), a 3 year extension of that project has recently been approved by Telstra.

Deliverables

- First Nations digital inclusion dataset – de-identified, stratified and weighted using methodology aligned to that used in producing ADII data and presented in a format that allows ongoing use and cross-analysis to be conducted by Commonwealth Government officers. To be delivered annually in 2024, 2025 and 2026.
- Annual report for 2024, 2025, and 2026, including methodology and approach taken to deliver the required response rate, and analysis of the survey findings, benchmarked against ADII data.

- Expanded ADII dashboard for displaying and analysing the First Nations results (up to two new dashboard pages and four explanatory webpages), as well as comparison to national survey results throughout the dashboard by remoteness categories (i.e. - Capital Cities, Inner Regional, Outer Regional, Remote and Very Remote).

Appendix 2 – Building a digital mentoring network

Context

Digital ability refers to a person's capacity to engage safely and effectively with the online world. Done well, it equips First Nations people with the digital skills required to participate in the digital economy and to connect socially online. However, there is a lack of culturally appropriate basic digital literacy training for First Nations people, as well as a lack of good practice principles to guide development and delivery of effective programs.

While digital ability scores for First Nations people in the Australian Digital Inclusion Index have generally been lower than the national score, studies of digital inclusion in some remote communities have indicated a higher level of digital ability than average Australians.[38] This may reflect the greater reliance of people in these communities on the internet for social connection and accessing information and services or the impact of current measures such as inDigiMOB (Northern Territory, Western Australia and South Australia), Deadly Digital Communities (Queensland), BAI's pilot to support digital skills, as well as the NBN Co's digital champions initiative.

Increasingly, Australians are expected to use technology to access health, government, utility, and education services. To support First Nations people to access these services effectively and safely, as well as lift the overall digital ability for First Nations people, it is proposed that the Australian Government work with industry partners to build a 'digital mentoring network' that supports remote, regional and more urban areas, particularly for those 'communities in need' no matter their location.

Opportunity

Following an assessment of existing initiatives aimed at supporting digital literacy, the First Nations Digital Inclusion Advisory Group recommends the delivery of a digital mentoring network that can operate nationally through the expansion of either existing digital mentoring programs and/or pilots that industry are planning to run. As a next step, the Advisory Group would like to engage with industry to further this potential area of collaboration.

The Advisory Group acknowledges that inDigiMOB is a highly effective digital inclusion program, which is funded by Telstra and delivered by First Nations Media Australia, the national peak body for the Aboriginal and Torres Strait Islander media industry, in collaboration with local organisations.

The Advisory Group would also like to learn from inDigiMOB, as we see this program as an important element of progressing digital ability for First Nations people. However, the Advisory Group understands that avoiding duplication is important and would rather build a 'digital mentoring network' so the greatest amount of First Nations people, no matter their location, are able to have the opportunities to receive support in developing their digital ability.

There are a range of potential partners that could be engaged to support and develop this 'digital mentoring network' with the Australian Government, including Telstra, BAI, NBN Co, First Nations Media Australia and other selected philanthropic and business organisations. Building the 'digital mentoring network' is likely to be viewed positively by First Nations people and communities, and with the support of FNMA and the Advisory Group, will help ensure local expertise and networks can be leveraged to support the delivery of digital mentors in communities.

We note the Department of Social Services are also partnering with inDigiMOB to deliver digital literacy support in targeted communities in the Northern Territory and recommend exploring how this could be leveraged for a broader investment, including the potential areas of collaboration with industry and other telco providers.

Role of the digital mentors

A digital mentor supports their community to learn more about the digital world, trouble shoot digital problems and engage with digital opportunities. By tapping into local networks and recruiting the right people in the community, digital mentors are in a strong position to be a source of support and advice for their communities. Digital mentors also help build trust in learning about the digital world, which is increasingly offering and transitioning essential services to the online space.

Digital mentors provide a range of activities within the community depending on the specific needs or location of their role:

- support with completing online services forms
- helping people to activate SIM or smart cards
- identifying the most appropriate phones and internet plans
- helping people use computers, tablets or mobile phones
- showing where online resources, information and services are available
- producing multimedia content, for example, local language maintenance and community identity.

Depending on community size and context, one to four digital mentors may be required to ensure there is appropriate support for communities.

The role may work best where it supplements (with top-up funding) an existing role and workplace where digital tools are used with a digital mentor element added to their existing role (e.g. Centrelink officer, library worker, broadcaster, aged care support worker, shop worker, arts worker, youth worker etc.). Alternatively, it could be a part-time or permanent dedicated role depending on the need, and the ability to leverage salary contribution through a community employment program.

Approach

The approach could be a demand-driven, where a community or First Nations organisation apply for funding to be part of delivering the digital mentoring network, according to their own local needs, priorities, and capacity. Mentors would be required to live in community to build local skills and expertise, and to ensure a deep understanding of the local context.

To facilitate a better uptake of the demand-driven approach, a comprehensive engagement with 'roadshow'-type community events could be held. This would ensure community/stakeholder feedback can be incorporated into the program to maximise program uptake in the first instance, and suitability and success in local areas. It may be the case that more than one organisation within a community in need could be eligible to apply for a mentor to supplement their existing activities.

- **Local community members** to be trained as digital mentors: this comprises two people (male and female, and/or open to all genders) from each of the selected communities. These roles could be embedded into existing programs for cost effectiveness and sustainability (e.g., community office, Centrelink, IKC, Library, media/art centre, youth program).
- **Regional coordinators**: funding a coordinator to support digital mentors within a community organisation across a number of communities. These people have direct access to the First Nations Media helpdesk and support (i.e. the National Coordination Hub)
    - The number of mentors supported by each regional coordinator would partly be dependent on the region/area being covered and language cultural protocols. For example, the Ngaanyatjarra Lands in the Western Gibson desert (WA) has 12 remote communities that make up its Lands, with Warburton being the 'hub' centre.

- **National Coordination Hub** to provide back-of-house support and will manage the allocated funding for this support role. This includes tech support, helpdesk, project manager, coordinator; and on-the ground support located in regional coordination and support hubs.
    - The national hub could have a dispersed workforce across key regional centres. The national coordination hub could also take a larger role in providing digital inclusion support to communities of need nationally, as well as undertaking research, data collection and coordinating national forums to support First Nations Digital Inclusion (building on existing Indigenous Digital Leadership Forum).
    - Project managers/coordinators ideally will be employed by same organisation; however, they could also be supported/supervised by a senior project manager from one of the funding bodies, where they have the required expertise.
    - Organisational support provides employment and supervision of digital mentors; coordinator/support officer role to provide training and support; IT access / facility for use by digital mentor and community members; and optional digital activities (e.g., newsletter, website, or social media content, learning resource production, multi-media production, archiving, music development, language/cultural content creation etc.)

For communities where digital mentors are a new concept, an organisation such as FNMA could work with community-based groups to identify how best to deliver the program to meet local needs, while effectively working to support digital mentors. Also, FNMA could provide advice and support to the funded community groups who employ the mentors and coordinators, as they will have some responsibility for reporting on milestones and accountability processes via their governance structures.

Funding considerations

- Funding should support capacity building of First Nations organisations, including media and cultural organisations, and would involve an expansion of existing digital mentoring programs and initiatives, including pilots from industry looking to be part of the network of support.
- Co-funding for the digital mentors could be sought from states and territories, industry, as well as from the Australian Government. However, it can be difficult to align different entities regarding agreements and funding decisions; therefore, an arrangement would have to be made so that the implementation of the expanded network (via the chosen leading funded organisation) can occur without onerous administrative issues arising.
- The expected budget for this program needs to include staffing and operations of the national coordination hub, vehicles, workshop delivery, resource development, helpdesk.
- Funding for the digital mentors and coordinator roles would benefit from the allocated positions to not fulfil additional work in communities outside of their digital skills/knowledge remit; this will ensure that time is guaranteed for this project and is not stretched between organisational competing priorities.
- Funding is needed for a local support person or regional support for digital mentors to provide their ongoing employment management and professional development.
- Given that there is a large amount of risk involved in delivering a national program of this size, one option is to start the initiative via an initial pilot and/or that the implementation process is staged over several years.

Risks and Sensitivities

- **Project management:** There may be other providers who would be in a position to support the initiative; this would need to be considered in terms of the justification for either an open or closed round of funding in regards to who would be the main project provider for the initiative.

- **Longer term employment:** The plan needs to support the digital mentor roles over the longer term. For example, an evaluation to measure the continued success would help the case for a continuation of digital mentoring across communities of need, whether these be in urban, rural and remote areas.
- **Infrastructure issues might impede progress:** It is important to consider how access and infrastructure issues could impede the effectiveness of the 'digital mentoring network' and how this proposal could take these issues into account. This might involve careful selection of the sites/communities where the initiative will be delivered.
- **Staffing:** The process of bringing on board mentors may be difficult as the availability of community members with this skill set can vary, and are often already employed/overstretched. Also, the skills that will be transferred by the mentors should be consistent with and reflect the Australian Digital Capability Framework.
- **Conflict of Interest:** Commercial operators funding the program must not limit the support and information provided, ie to address connectivity literacy and digital ability the conversation needs to be holistic and broader than mobile communications.

Appendix 3 – Establishing a First Nations Support Hub

Context

Connectivity literacy is a key barrier to First Nations digital inclusion. While digital ability focuses on the skills that individuals have to use online services safely and effectively, it is the view of the Advisory Group that connectivity literacy targets the ability of vulnerable individuals and communities of need (which may be located in metropolitan, regional or remote areas). Improving connectivity literacy will help First Nations consumers and communities of need gain a better understanding of their connectivity priorities, identifying the options available to address those priorities, and engaging with telecommunications providers to deploy a preferred connectivity solution.

A key part of this is also raising awareness of opportunities to apply for grants from government (such as the Regional Connectivity Program) and assisting communities to successfully apply for these opportunities.

At present, there is very little support to assist First Nations communities in applying for grants and, more generally, grants guidelines can seem to prioritise business models/return on investment over social benefits such as digital inclusion. For instance, First Nations Media Australia (FNMA) has strongly advocated for a future round of the Mobile Black Spots Program to target remote communities who have previously been ineligible for funding due to lack of commercial interest and co-investment limitations.

Stakeholders have indicated that the current process for applying for grant funding also seems to favour applications from larger organisations (which tend to be more familiar with government processes) and that as a result, applications by smaller First Nations communities are less likely to obtain funding. There is also a lack of robust feedback for those which are unsuccessful on how they could improve their application for future consideration.

Opportunity

This proposal is for a phased approach to supporting connectivity literacy for First Nations people and communities. In the short term, this involves:

- developing a series of fact sheets on different connectivity options available and the benefits / risks of each (including cost)
- translation of the fact sheets into easily understood English, along with audio files of the fact sheet content in Kriole and Yumplatok, which could be uploaded via social media and played by local radio stations
- publication of the fact sheets on the Regional Tech Hub and Advisory Group website
- provision of PDFs to key stakeholder groups for printing/distribution to communities
- developing a First Nations engagement strategy to raise visibility and awareness of government funding opportunities, including the Regional Connectivity Program
- developing and providing troubleshooting/tech advice for VAST users (where required)

In the medium term, we propose Australian Government provides funding for a First Nations Digital Tech Hub (modelled on the Regional Tech Hub) to assist First Nations consumers identify the best plan for them, troubleshoot common problems with their service, and understand their rights as consumers, as well as to support improved connectivity literacy for First Nations communities.

The Regional Tech Hub provides independent information about available technologies and direct assistance via a website, phone support line, and social media pages. There is no offline alternative for

accessing the support of the Regional Tech Hub, and it does not include culturally specific/appropriate materials for First Nations communities.

Similarly, Telstra's First Nations Connect contact centre also assists with enquiries and the reporting of faults from First Nations communities around Australia. However, this is only relevant for communities that have some level of connectivity and that use Telstra, so would not be able to fulfil the same role as a proposed First Nations Digital Hub.

The functions of the First Nations Digital Tech Hub would include:

- provide an application review service, which could support communities of need, in developing an application for a government grants opportunity
- provide phone and web support for troubleshooting and other consumer issues
- provide a community-level 'Discover my Internet options' function (similar to this function on the Regional Tech Hub: Find the best internet option for your property (regionaltechhub.org.au))
- assist communities in engaging with relevant telecommunications providers (for example, one which has experience in delivering projects in the area or in communities with local needs)
- advocate for First Nations Australians within government on issues where some flexibility might be required (for example, non-online options to submit applications)
- provide 'how to' guides to assist First Nations communities of need to understand government grants processes.

More broadly, a First Nations Digital Tech Hub could provide guidance to government on ensuring grants processes and guidelines are effectively designed to ensure First Nations communities of need are supported and able to success through those processes, as well as helping to make sure First Nations perspectives are centred as much as possible in the assessment of grants or the briefing of the decision maker.

Without improved support mechanisms from the Department or the telecommunications sector, there is the risk that First Nations communities may face ongoing issues in successfully bidding for funding under grants programs. A First Nations Digital Tech Hub would provide a focused and customised mechanism to address one of the gaps in current efforts to support digital inclusion, and would also complement the delivery of digital mentoring in remote communities.

Funding considerations

As it would be a comprehensive support hub, it is expected budget for this measure needs to include additional staffing for the Department to build and operate the First Nations Digital Tech Hub. Lastly, another area that would need to be further explored is that funding could be sought from states and territories (noting their strong interest in First Nations digital inclusion).

Sensitivities

There may be some sensitivities around the Department providing support for some grant applicants and not others. The need for the Hub may be reduced if grant programs are tailored to be more responsive to First Nations requirements and perspectives. Improvements are being made, and there's expected to be more in the future with regards to what the Regional Tech Hub has to offer First Nations communities.

For instance, through the October 2022-23 Budget there has been additional funding committed, which will expand the Hub by creating an expanded information library with resources for business, health and education, Indigenous connectivity, and natural disasters and emergencies resources.

Appendix 4 – LEOSats pilot in remote communities

Context

Consultations with First Nations communities, including those surveyed as part of the Mapping the Digital Gap report, indicate that current internet infrastructure is not able to meet the needs of the community due to either congestion such as in Wujal Wujal QLD, and the unreliability of Sky Muster during cloudy weather on Erub (Darney Island) and across Zenadth Kes (Torres Strait) QLD.

Though NBN has expanded their Sky Muster service offering to include faster speeds and more unmetered data, stakeholders report that drop outs can still be particularly problematic for commercial, community and health services. The 2021 Regional Telecommunications Review noted that many contributors suggested that LEOSat services have the potential to significantly transform the regional telecommunications landscape. Compared to Sky Muster, the stated performance metrics for LEOSats offer improved user experience for data-intensive and real-time applications like videoconferencing, cloud applications, and VPN.

In recognition of the considerable interest in LEOSats, the Australian Government has established a LEOSat Working Group, which will consider and provide advice to Government on the following key issues:

- how satellites can help close the digital inclusion gap, particularly in relation to First Nations peoples consistent with Closing the Gap Target 17
- the role of satellites in supporting greater resilience and redundancy in emergency circumstances
- the use of satellites to deliver universal telecommunications services
- the economic benefit that could come from greater LEOSat usage, including by facilitating the Internet of Things.

The Working Group includes representatives from across industry and government. The Chair and Deputy Chair of the First Nations Digital Inclusion Advisory Group are members of the working group. The Working Group is expected to report to the Minister for Communications by the end of 2023.

We also note NBN Co has recently announced a Request for Information on the potential for LEOSats to be incorporated in its network, and both Telstra and Optus have also announced a partnership with Starlink for delivering mobile and data services in remote communities. Vocus has also expressed interest in progressing LEOSats rollout in areas with poor coverage currently, including remote communities.

Opportunity

The proposal is for a trial of LEOSats technology in First Nations communities to gauge their effectiveness in addressing connectivity challenges in those communities and, in particular, how connectivity can enable improved service delivery, such as health and education.

The pilot will be delivered in collaboration with community representatives and organisations in line with Priority Reform 1 for Closing the Gap: Formal Partnerships and Shared Decision Making. It is proposed that the pilot is delivered in eight to ten remote communities, selected on the basis on need, potential for robust evaluation, ability for future review and community participation.

A final list of potential communities can be provided to the Minister for approval. The pilot will run for two years and an evaluation of it will be undertaken in the final year to inform the longer-term digital inclusion roadmap which will be developed by the Advisory Group, as well as help inform broader assessment of the feasibility of LEOSats in these communities more generally. In the medium term, the pilot could be extended to LEOSat direct-to-device (D2D) options, however, this will depend on how this part of the market develops over the next two to three years.

Although in Australia there are no commercial D2D deals in operation, on the international stage, there are a range of trials underway and commercial agreements in place to make use of this potentially game-changing technology. The Department's Bureau of Communications, Arts and Regional Research (BCARR) is finalising a report on the D2D market, which is expected to be available by mid-2023.

Possible approach

The initial LEOSat connections will be based within a major community service provider, for example, a school, health care centre, or other Aboriginal Community Controlled Organisation. The location would be identified by the community's representatives and, pending the outcome, could support progress against other Closing the Gap targets, such as:

- LEOSat based at a school/Aboriginal Language centre would support Target 5: Aboriginal and Torres Strait Islander students achieve their full learning potential
- LEOSat based at a health care facility would support Target 1: Aboriginal and Torres Strait Islander people enjoy long and healthy lives.
- LEOSat based at a service delivery provider or employer would support Target 7: Aboriginal and Torres Strait Islander youth are engaged in employment or education and Target 8: Strong economic participation and development of people and their communities.

Given the pilot would provide a LEOSat connection to a community facility, it will not trial residential-level use of LEOSats, however, could provide backhaul for community Wi-Fi. We note that while this may not be consistent with the standard commercial offerings of the LEOSat providers, we expect that providers would be keen to participate in the pilot program, given their feedback at the Working Group and subsequent engagement on the issue.

Depending on the locations selected, there is also scope for the pilot to leverage work underway by RMIT on the Mapping the Digital Gap project. The project provides robust baseline data across a number of communities which could be considered for inclusion in the pilot, including Wilcannia, Galiwin'ku, Erub (Darnley Island) or Wujal Wujal. The project expects to collect data on these communities in 2024, which would enable the impact of the pilot (pending delivery timeframes) to be effectively tracked.

Funding considerations

- Funding will be based on the number of First Nation communities that participate in the pilot. It is important to note that there is no one size fits all approach to these communities, so costs will also need to be informed by local conditions and priorities. Community-level engagement will be a critical first step.
- The Department can also look at potential co-funding arrangements with states and territories, as well as with industry. Initial engagement with industry has indicated they can provide the technical solution but need government funding to support delivery.
- Some stakeholders have indicated that existing programs, such as the Regional Connectivity Program (RCP), may not be the best fit for piloting LEOSat connectivity in remote communities, as the program guidelines favour established infrastructure deployments over innovative new technologies like LEOSats. For example, the requirement for funded projects to deliver connectivity for a minimum period of 7 years is incompatible with the nascent LEO market
- Some providers resell Starlink services, which are made up of the antenna and the connectivity over a contracted period but also provides additional costs that Starlink basic does not offer, including: installation, fault rectification, maintenance, network management, etc. These are part of the SLAs, the pricing of which is variable depending on the users' individual requirements.

- In considering funding options, we encourage the Government to direct LEOSats providers to provide prepaid options to customers, in line with the preferred model of payment among remote First Nations customers. This should be done in addition to considering a subsidy model for First Nations customers needing to buy LEOSat dishes.

Risks and sensitivities

- Due to the LEOSat industry being relatively new, there is currently only a couple of providers (Starlink and OneWeb) capable of delivering the pilot. Amazon would also likely be interested but are unlikely to have their services operational in time.
- While LEOSats appear to provide improved service (latency, speed etc) than traditional stationary satellites, they are more expensive for end users than NBN Co's Sky Muster which means current affordability issues may be worsened, depending on how they are implemented. The piloting of LEOSats, if successful, could also undermine NBN Co's customer base for Sky Muster.
- Given the small population of most remote communities which would be in scope for this pilot, the overall impact could be minor in terms of accelerating progress towards Target 17. Scaling out the pilot, which would increase its impact, would come with increased costs.
- There is a need to balance the need for connectivity with sensitivity towards First Nations people and their cultures. As more satellites are launched, there is a need to understand how different First Nations communities will view LEOSats. Satellites can often cause interference with First Nations people's astronomical observations.
- For example, the Emu in the Sky is an example of a dark constellation, which means it is characterised by particularly dark patches in the sky, rather than stars like traditional western constellations. As more satellites travel across the sky, scattering the Sun's light, dark constellations become even fainter — further impacting First Nations knowledge and kinship with the environment.
- The next seven years will see substantial changes to the LEOSat market, which does present some uncertainty. In addition to Starlink, OneWeb, Amazon Kuiper, and others will launch commercial services in the next two to three years, which will affect pricing, technology, and service quality.
- Geostationary satellites (e.g. Sky Muster) are being dismissed potentially prematurely. An option could be to consider a monitored trial consistent with the LEOSats pilot.
- Consideration of Security, Data Sovereignty and consumer protections with this emerging technology is critical.

Background

- Low Earth Orbit Satellites or LEOSat provide an alternative and complementary technology to existing networks targeted at delivering high speed internet in rural and remote areas.
- LEOSat orbit much closer to earth than traditional geostationary satellites like NBN Skymuster 1 and 2 (160 - 2,000km versus about 36,000km). Because LEOSat are not geostationary, a different type of satellite dish is used for broadband internet. It electronically tracks LEOSats as they cross the segment of sky it can see.
- LEOSat broadband internet speeds (about 100-300 megabytes per second (Mbps) down and 30Mbps up) are comparable to 4G LTE (about 150Mbps down and 50Mbps up) and fixed wireless, although these typically have greater plan diversity. Typical latency (approx. 60 milliseconds (ms)) is much better than traditional satellite (approx. 660ms) and slightly worse than fixed wireless (approx. 20-60ms). As uptake of Starlink has risen in the US the median download speeds available have been declining.

- Starlink is currently the market leader for retail connectivity, with about 120k connections in Australia (which are currently unmetered). Amazon's Project Kuiper plans to offer a similar service in coming years.
- Operators like OneWeb intend to offer commercial wholesale connectivity to providers like Telstra. Operators like Lynk Global and EchoStar intend to use LEOSats to expand mobile networks. It is currently unclear when and how these developments will affect retail consumers.
- Starlink's lowest consumer price point is about $140/month (providing slightly lower peak speeds to equivalent fixed wireless plans) and has announced plans to increase prices to areas with limited capacity. It also requires purchase of a user terminal which costs about $200 - $1000 and needs to be set up by the user. Its business offerings require a terminal costing $3,740 and plans from $374 per month.