

# **2021 Regional Telecommunications Review**

Submission by the  
Northern Territory Government  
to the  
Regional Telecommunications Independent Review Committee

September 2021

## Introduction

In its response to the 2018 Regional Telecommunications Independent Committee report the Australian Government acknowledged the importance of telecommunications for rural, regional and remote areas noting the clear economic advantage provided by telecommunications.

The impact of COVID-19 and natural disasters Australia-wide have highlighted and increased the significance of telecommunications services, as referenced in the Regional Telecommunications Review 2021 Issues Paper. For people living in remote areas this is even more important with telecommunications enabling access to other essential services such as health, education and safety that are often taken for granted in urban areas.

The impact of not having telecommunications in remote communities is acute, leading to social disruption, isolation, food shortages and occasionally unrest.

The Northern Territory's telecommunications have improved incrementally since the previous Regional Telecommunications Review mostly due to additional coverage in remote locations through telecommunications co-investment programs. The telecommunications challenges faced by Territorians and businesses remain largely as advised to previous reviews, with some gaining greater prominence and an overall increased focus on need and commensurate sense of urgency to address.

The Territory's core telecommunication requirements continue to be:

- Service coverage – ensuring people across the Territory can access modern, mobile telecommunications services.
- Service reliability – reducing the frequency, duration and impact of service outages, noting the more pronounced impacts in regional and remote locations, related to low network resilience outside urban communities.
- Service quality – providing sufficient capacity (bandwidth) to deliver the standard of voice and data services expected by Australians (i.e. no drop-outs or extended delays and allowing use of streaming services).
- Service suitability – having telecommunications products and services that suit people living in remote areas, including cultural alignment and affordability. Designing products and services to meet the needs and usage patterns of remote residents, rather than requiring these customers to change and adopt products created for metropolitan consumers.

Mobile phones are the product of choice in remote communities in the Northern Territory, and probably across Australia. Where connectivity is present, mobile phones uptake is rapid and sustained.

While NBN Sky Muster and other satellite services are available throughout Australia, the uptake is low in Northern Territory remote communities.

The nature and suitability of telecommunications products plays a significant role in determining uptake by the community.

To fill the growing gap between needs and service delivery, the Northern Territory Government has invested heavily in telecommunications infrastructure. Since 2009 the Northern Territory has invested over \$54 million in co-investment programs with major service providers to deliver nearly \$130 million in telecommunications infrastructure.

The Northern Territory co-investment programs have delivered positive outcomes for some 40,000 Territorians and served as a model for co-investment programs elsewhere.

The extent to which the Australian Government, with its responsibility for telecommunications, and service providers have invested in NT telecommunications over this period (outside of the co-investment programs) is unknown, although coverage maps do not suggest appreciable service expansion. Images 1 and 2 show the coverage difference five years apart, with appreciable service expansion difficult to discern despite \$130 million of NT co-investment programs and contribution of Australian Government programs.

Approximately 6000 Territorians in many remote communities remain without any form of telecommunications service.

## Adequacy

### *Telecommunications in the Northern Territory*

The Northern Territory is well served by telecommunications services in major urban centres with Darwin, Katherine and Nhulunbuy receiving NBN via fibre to the premises, and Tennant Creek and most of Alice Springs receiving fibre to the node. All five centres have a choice of more than one mobile phones service provider.

However, the story for remote Northern Territory communities is very different.

Of the more than 750 Northern Territory communities and residential areas:

- 55 have mobile phone services;
- 43 have fixed broadband services; and
- 40 are connected to the national network by optic fibre.

Where mobile phone coverage exists it is almost always provided by one service provider, due to network infrastructure requirements and investments made. A total of nearly 70 000 residents, the vast majority of which are Aboriginal people, have access to broadband services and often voice services via a satellite provided service. If a voice service exists, it is often provided via outdated technology that is proving unreliable or via a satellite service.

The 40 Northern Territory remote communities connected to the national network via optic fibre at the exchange should be part of an NBN Co upgrade program to transition customers from satellite services to more reliable and affordable alternatives. Provisioning communities with fixed wireless services utilising existing infrastructure is technically easy and will provide reliable communications for better service delivery, along with economic opportunity for remote residents and businesses.

It is challenging for remote communities to understand the provision of a second tier service in a fibre connected community, when other Australian communities with similar circumstances were provisioned with fixed wireless in the original build of the NBN.

#### **Recommendation:**

1. Investigate options to transition customers from satellite services to more reliable and affordable NBN services where appropriate infrastructure exists.

### *Changing Demand*

For a number of years the reliance on telecommunications has been growing. Governments worldwide are moving to digital delivery; banks have moved online removing local branches, entertainment is more often online now, and critical safety and social information is received less through radio and more online.

COVID-19 has taught that every Australian must have access to reliable and appropriate telecommunications to ensure the safety of our citizens. Restrictions, lockdowns and the need to work from home have rapidly accelerated the need for telecommunications.

Access to reliable telecommunications through a service on par with urban counterparts is, rightly, a growing demand from remote Northern Territory communities.

It is no longer acceptable to be on the end of a dysfunctional HCRC circuit that cannot be adequately maintained due to lack of parts or to try and run a business over satellite voice services.

Access to appropriate telecommunications is essential.

The level of disadvantage for remote residents is exacerbated where telecommunications is poor. People are increasingly aware of the disparity and impacted by the lack of service availability. Community tolerance of disruptions and poor services is understandably dissipating, with growing criticism and public attention.

#### *Aboriginal Territorians in remote communities*

The *Regional Telecommunications Review 2021 Issues Paper* identifies the low uptake of NBN Sky Muster satellite services. It is true that consumer preference is for the pre-paid / pay-as-you-go 3G and 4G services, but this is an incomplete picture.

Mobility is an important criteria in remote Aboriginal communities where overcrowding of housing can be a factor. Lack of access to personal space can limit ability to effectively use standard broadband services. Account-based broadband services usually have low uptake due to the financial commitment required, along with inability to control usage in a household and therefore manage costs.

Despite the higher costs of mobile broadband, advice and feedback is that mobile services remain the 'product of choice' for consumers in remote communities.

As identified in the *Issues Paper*, the costs of delivering terrestrial services (mobiles and broadband) in remote locations are high, in part 'due to distance from existing infrastructure' and contributed to by mobilisation costs and the harsh environment. This is putting standard mobile services out of reach for the majority of Aboriginal communities in the Northern Territory.

The Australian Government noted in its response to the *2018 Regional Telecommunications Independent Committee report* that 'A one-size-fits-all approach is not always appropriate, and specific action needs to be tailored to community needs.' The Northern Territory Government agrees with this statement and would support work being progressed to provide appropriately tailored solutions

In this regard, the Northern Territory is investigating the use of NBN satellite services and other technologies to meet the technical requirements for service delivery in remote communities with an approach that puts end-user needs first rather than the technology requirements.

A service standard suited for remote communities will require new Northern Territory installations to be:

- **Wireless** - Services must use access devices that are portable to meet expectations of always having access, convenience and ease of use. This solves issues of unapproved access to the service resulting in unexpected cost or data use.

- **Pre-paid** – Plans that allow users to be in control and easily manage usage. This resolves debt issues where costs can be incurred that cannot be repaid. The lack of pre-paid services for telecommunications products (e.g. internet) is a barrier for uptake.
- **Data and Voice capable** - Broadband service that is also capable of delivering voice (voice over IP). Dual requirements to be delivered from single solution.
- **Transportable** - Access devices must also be functional in other communities. The use of additional devices compromises the user experience and creates additional cost. Ease of use is fundamental to the uptake of services as demonstrated with mobile handsets.
- **Price equivalency or better** - Mobile services are nationally priced and voice services in remote areas need to meet the benchmark customer pricing.
- **Commercial viability** – Services provided at no cost to the user may be subject to cost savings measures and ultimately diminish the product value. Commercially viable services must be delivered on a long term basis.
- **Resiliency** - Reliability must be built into the service and repair and maintenance programs and be costed within the commercial viability of the product.

The standard is an aggregation of elements proven to work. NBN Co delivered a service to Aboriginal Town Camps in Alice Springs during the early part of the COVID-19 pandemic that connected these communities and helped keep them safe during an uncertain time. The Northern Territory is appreciative of NBN Co’s assistance.

The Northern Territory also acknowledges and appreciates Telstra’s response to the COVID-19 pandemic in making payphones in remote Aboriginal communities free. This was a significant assistance to these communities and the precursor to Telstra’s recent announcement in making all payphones free of charge.

**Recommendation:**

2. Use existing optic fibre infrastructure to provide NBN services in remote Northern Territory communities
3. Recast the business model to focus telecommunications service delivery on ‘appropriate telecommunications products’ aimed at customer needs.

*Reliability*

Resilience must be built into telecommunications services.

The impact of losing telecommunications in remote communities is more critical than for regional and urban areas.

When a remote community loses telecommunications, the residents are often unable to buy food, petrol or power because the mobile service providing EFTPOS or connection to the authorising server used to replenish these essential services is unavailable. For people that rely on a visit to the local store on a daily basis to buy food, loss of telecommunications can be devastating. And a trip to the next community is often not possible, because of lack of fuel or because the road for the 200 km trip is flooded or not trafficable.

When an outage occurs the time to repair can be extensive. This would not be acceptable in urban areas and should not be considered acceptable for remote areas. Plans, equipment and resources should be in place to respond and enable prompt service restoration.

Since July 2020 there have been over 100 outages in NT remote communities, over 80% lasted 5 days or less, with up to 4% lasting more than 10 days and one outage over 30 days.

Telecommunications reliability is critical for all Australians, even more so for those living remotely.

**Recommendation:**

4. Reliability and resilience needs to be a requirement for telecommunications infrastructure and services in remote Australia.
5. Assess the Universal Service Guarantee for currency and appropriateness in the present-day digital environment and ability to meet the needs of Australians who depend on it the most.

## Opportunity

### *Regional Development and Maximising Outcomes*

Regional and remote development is expensive. Telecommunications infrastructure often lags behind mining, agriculture and community development.

Maximising outcomes will need more than co-investment and subsidy programs. A coordinated approach across all sectors of government, across jurisdictions and with telecommunications infrastructure providers will be critical to deliver the required services to remote and regional areas within the timeframes expected.

The development of a strategic rollout of telecommunications across vast regional and remote areas requires understanding available infrastructure, constraints with existing infrastructure and the costs of further development.

Sharing government and provider data held under the bounds of commerciality, with appropriate non-disclosure agreements, will allow deeper insights and collaborative investment that will benefit remote residents where market failure will otherwise limit investment for the foreseeable future.

**Recommendation:**

6. Establish a cross-jurisdictional Regional Telecommunications Senior Officers' Group to improve collaboration in program and policy design and implementation, reporting to the National Cabinet's Regional and Rural Reform Committee.
7. Establish an independently monitored 'Australian Connectivity Index' to transparently measure and report on access to essential affordable telecommunications services.
8. Develop a national telecommunications map, depicting mobile, broadband and trunk coverage, including network capacity using available data sets.

The new Regional Connectivity Program provides the opportunity to engage with industry to develop innovative solutions tailored to the requirements of the end user and is supported.

The flexibility offered under the Regional Connectivity Program can deliver significant economic and social benefits, arguably beyond the results of the Mobile Black Spots Program, which has delivered 1270 base stations Australia-wide.

Targeted investment through the Mobile Black Spots Program will remain a requirement. The Northern Territory would encourage the Australian Government to invest in highway coverage in remote Australia, either through the Mobile Black Spots Program or some other investment instrument.

The Northern Territory has the least highway coverage of any jurisdiction, representing a significant safety issue for tourists, transport operators and Territorians alike. Image 3 illustrates this point.

Maximising outcomes will require efficiencies through strategic planning, collaboration, cooperation and competition. The cost of delivering telecommunications infrastructure to remote areas grows with distance. The small income stream and high costs eliminate any possibility for infrastructure overbuild and locks in a non-competitive environment.

The Northern Territory is very appreciative and grateful to Telstra for its extensive work and investment over many years.

Competition was one of the basic tenets for the National Broadband Network. In urban areas the NBN has delivered on this promise. In remote areas the lack of NBN delivered voice services and inappropriate broadband products means the environment remains unchanged.

At some point it will be necessary to progress a competitive environment for remote areas enabling parity and fairness for residents. Infrastructure sharing on a basis that does not disadvantage the infrastructure owner needs investigation.

Enabling competition in remote areas will realise benefits for Territorians and Territory businesses.

Roaming arrangements targeted to areas of natural disasters should be mandated.

**Recommendation:**

9. Investigate cross-carrier roaming arrangements for basic text, voice and data in areas with natural disaster declarations.
10. Investigate potential incentives and barriers to new telecommunications infrastructure sharing models for remote locations.
11. Australian Government to invest in mobile coverage on national highways.

*Note*

*The Northern Territory Government would like to acknowledge our telecommunications delivery partners of many years. In an environment that is commercially constrained, Telstra and Vocus have steadfastly provided services to Territorians in remote areas. We look forward to continuing these partnerships in what is likely to be a very different and challenging digital environment.*

Image 1: Northern Territory Telstra coverage - circa 2015

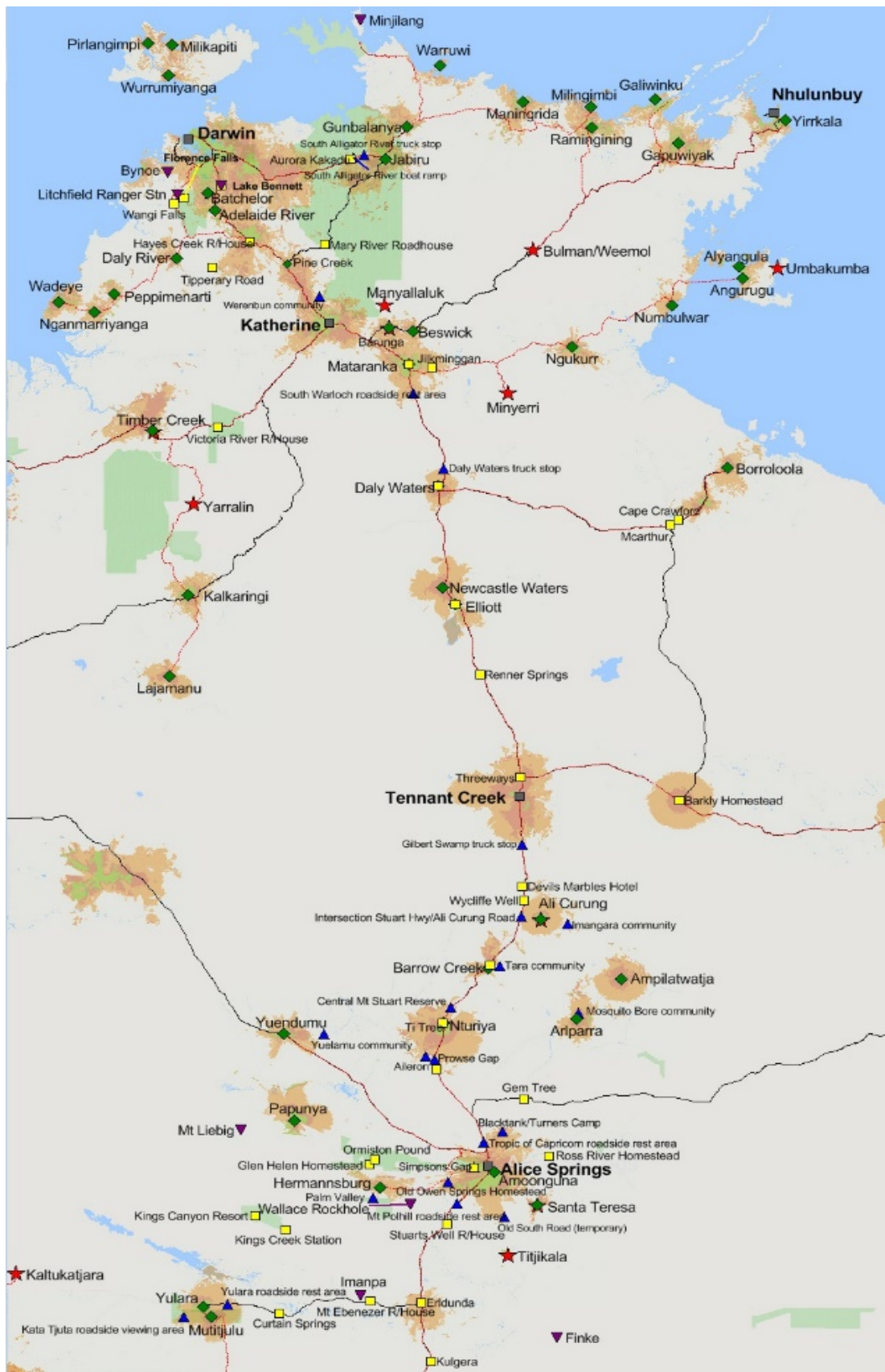
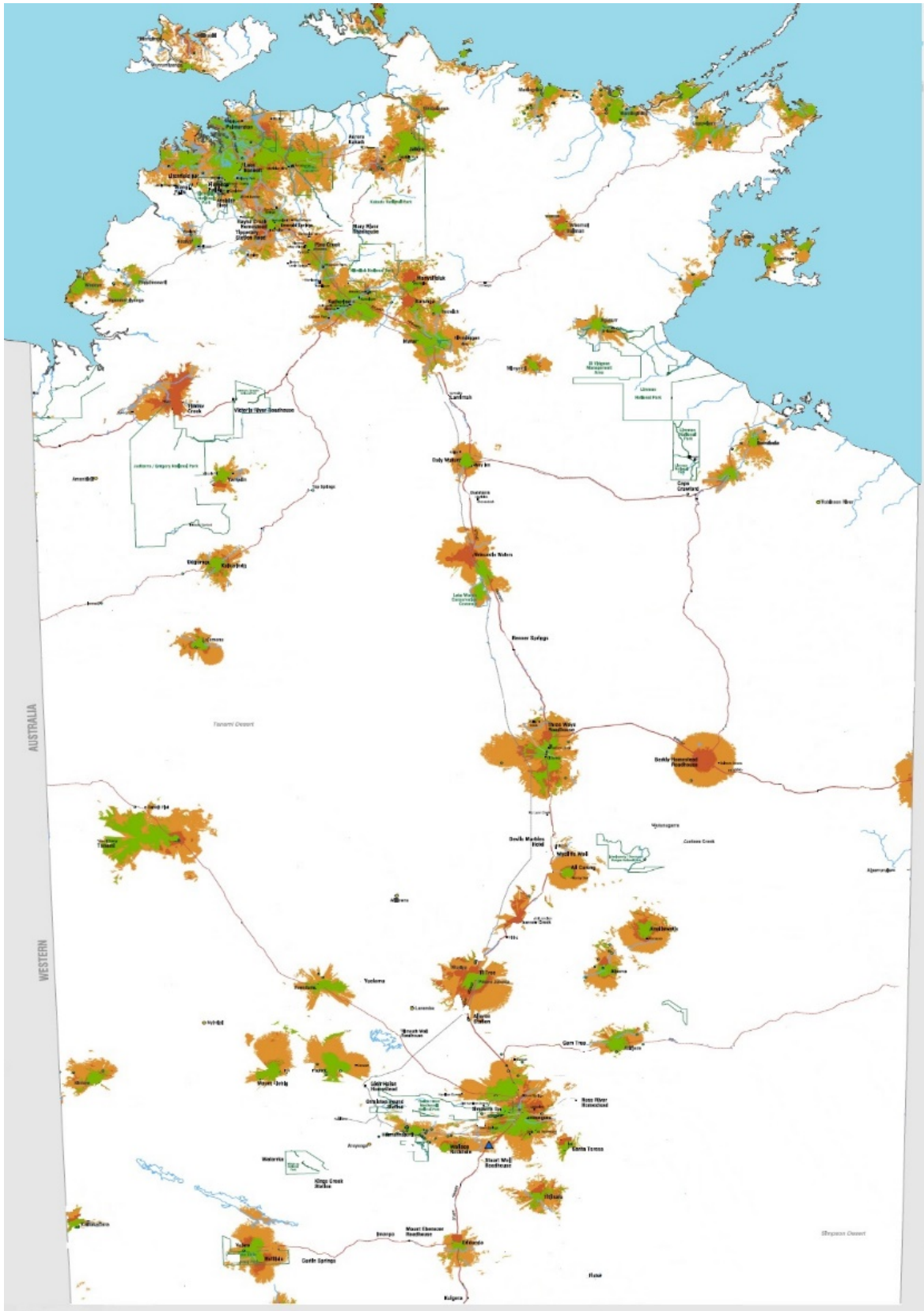




Image 2: Northern Territory Telstra coverage 2020 - after ~\$130 million of telecommunications infrastructure investment since 2009.



Little noticeable difference in the coverage, evidencing the high cost in delivering services and the scale of the problem.

Image 3: Telstra coverage Australia - Northern Territory comparison

