July 2025

MAPPING THE DIGITAL GAP

Measuring Digital Inclusion and Media Use in Remote Aboriginal and Torres Strait Islander Communities

Yuelamu, NT

2024 Community Update Report

Acknowledgement of Country

We respectfully acknowledge the Anmatyerr people, the traditional owners for Yuelamu, and pay our respect to their Ancestors and Elders, past and present. We also acknowledge the Traditional Custodians and their Ancestors of the lands and waters across Australia where we work, live and undertake our research.

About the Mapping the Digital Gap Research Project

Mapping the Digital Gap is a 4-year research project working in partnership with local organisations in 12 remote First Nations communities, to generate a detailed account of digital inclusion and uses of digital services including news and media, track changes over time, and inform appropriate local strategies and services enabling informed decision making by remote Aboriginal and Torres Strait Islander people. It is a supplementary project to the Australian Digital inclusion Index, coordinated within the RMIT University node of the Centre of Excellence for Automated Decision Making and Society in partnership with Telstra.

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The 'Mapping the Digital Gap' project received funding support from Telstra and the Australian Research Council Centre of Excellence for Automated Decision-Making and Society (CE200100005).

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Suggested citation: Featherstone, D, Ormond-Parker, L, Hawkins, L, Thomas, J, Parkinson, S, Hegarty, K, Kennedy, J, Bawden, S, Barton, A, Langdon, M (2025) *Mapping the Digital Gap: Yuelamu NT Community Update Report 2024*. ARC Centre of Excellence for Automated Decision Making and Society: RMIT University, Melbourne. DOI: 10.60836/9vve-5m62

Acknowledgements

We would like to thank the following key contributors to this research:

Community Research Partner
Pintubi Anmatjere Warlpiri Media and Communications (PAW Media)
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Former General Manager: Chris Tait
Former Operations Manager: Tess Foxworthy

Community Co-Researcher
Mel Langdon

Research Participants and Stakeholders
Thank you to all the community residents and local agency staff who generously participated in the surveys and interviews, providing the personal experience to make this research meaningful. We conducted 48 surveys with First Nations community residents in 2024 (55 in 2023, 37 in 2022). During the three research visits in 2022-24 we undertook 28 interviews with community leaders, residents and these stakeholder agencies:

- Central Desert Regional Council
- Yuelamu Community Development Program
- Yuelamu Sport and Recreation (CDRC)
- Alpirakina Store
- Central Land Council
- PAW Media and Communications
- Yuendumu School
- Yuendumu Community Health Centre
- Yuendumu Women's Centre
- Child and Family Centre Yuendumu
- Central Australian Youth Link-up Service (CAYLUS)
- First Nations Media Australia/inDigiMOB

Yuelamu research trips dates
21–24 May 2025; 15–20 May 2023; 5–10 May 2022

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Cover photo: Aerial photo of Yuelamu community with new mobile tower in background

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Figure 1: Research team in Yuelamu - Daniel Featherstone and co-researcher Mel Langdon with iPads

01. EXECUTIVE SUMMARY

This report outlines updated findings from our third research visit to Yuelamu community, a small community located in the Central Desert region of the Northern Territory (NT), about 43km west of the major community of Yuendumu, and 300km north-west of the regional centre of Alice Springs.

The traditional owners of Yuelamu are the Anmatyerr (Anmatjere) people. According to the 2021 Australian Bureau of Statistics (ABS) Census, the population of Yuelamu is 149 with 95% identifying as Aboriginal people (Yapa). Of these, 99% speak an Aboriginal language, primarily Anmatyerr (92%) and Warlpiri (3%). There are approximately 35 residential dwellings.

Our third research visit to Yuelamu was undertaken from 21–24 May 2024. The RMIT University team worked with community research partner Pintubi Anmatjere Warlpiri Media and Communications (PAW Media) and co-researcher Mel Langdon, with support from local Central Desert Regional Council and Community Development Program staff. We had a very productive week, undertaking 48 surveys with residents and conducting 7 interviews with agencies and community leaders. We thank all residents and agency staff who participated in the research and made us feel very welcome.

This 2024 Update Report seeks to reflect the lived experience and views of Yuelamu residents. Building on the previous 2022 and 2023 outcomes reports, it presents three-year research findings, comparing 2024 survey results to 2022 findings, outlining changes in communications and media services and usage, and renewing the analysis section with 2024 findings and quotes. The full survey results from 2022-24 are included in Appendix 1.

The report is part of our commitment to Indigenous data sovereignty, providing data and research findings to the participating communities to use for their own analysis, planning and advocacy. It is intended to assist local and regional agencies, leaders and residents to better understand the barriers to digital inclusion, develop place-based strategies to address these barriers, and support planning and partnerships with government and industry stakeholders. The proposed Digital Inclusion Plan has been updated based on community input and progress to date, as well as identifying planned activities.

The report also provides 2023 Australian Digital Inclusion Index (ADII) scores for Yuelamu relative to national averages based on our 2022 surveys in 10 remote towns, communities, and homelands (p.7). Updated ADII scores and community-specific results from our 2024 surveys will be available on the ADII First Nations Dashboard in late 2025.

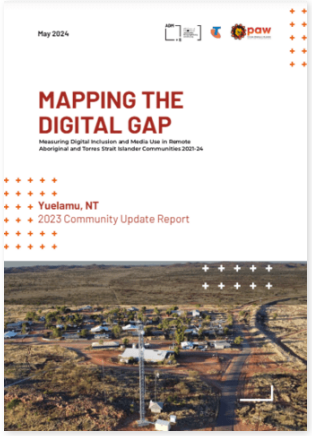
300km
Nearest major regional centre (Alice Springs)

149
Population (ABS 2021)

94%
Aboriginal and/or Torres Strait Islanders

48
surveys conducted in 2024 (55 in 2023; 37 in 2022)

7
interviews conducted 2024 (8 in 2023; 13 in 2022)



Yuelamu at a Glance

Distance	**1,585 km**	to nearest capital city (Darwin)
Dwellings	**35**	occupied dwellings
	4.8	people per ATSI household
Language	**99%**	ATSI people who speak an Aboriginal language
Income	**$254**	median ATSI personal income

Figure 2: Aerial photo showing the new 4G tower on the ridge in the centre of Yuelamu

Key Survey Findings

The figure below provides a summary of 2024 survey results.

ACCESS

97% ⌃⌃ own or share a mobile phone (55% in 2022)

100% of mobile phone users have pre-paid services (same in 2022)

88% ⌃⌃ have no fixed home internet (70% in 2022)

44% ⌃ use public Wi-Fi for internet access (39% in 2022)

5% ⌄⌄ Have a NBN Sky Muster service (24% in 2022)

AFFORDABILITY

$253 ⌃⌃ avg monthly household expenditure for pre-paid mobile ($138 in 2022)

$258 ⌃⌃ avg monthly household expenditure on phone & broadband ($198/month in 2022)

76% ⌃⌃ compromise on internet speed or quality due to affordability (22% in 2022)

13% ⌃ often or always cut back on essential household costs to afford internet (7% in 2022)

DIGITAL ABILITY

81% ⌃⌃ used Internet in the past 6 months (regular users) (63% in 2022)

19% ⌄⌄ never use the internet (33% in 2022)

77% ⌄⌄ of regular users use online banking (94% in 2022)

68% ⌄⌄ of regular users use social media to connect with family/ friends (87% in 2022)

56% ⌄ of regular users do online shopping (64% in 2022)

MEDIA USE

79% ⌃⌃ Listen to 8PAW Radio daily or weekly; 28% occasionally (41%/11% 2022)

38% ⌄⌄ access TV via VAST satellite (60% in 2022)

80% ⌃⌃ watch YouTube daily; 51% streaming (25%/21% in 2022)

99% ⌃⌃ get daily news direct and in-person; 28% via PAW Radio (50%/39% in 2022)

97% get emergency information in-person, 88% via PAW Radio (48%/44% in 2022)

Full 2022-24 weighted survey results are available in Appendix 1. An updated audit of demographics and communications and media services available in Yuelamu is provided in Appendix 2.

What is Digital Inclusion? How is it measured?

Digital inclusion refers to equitable and reliable access to and use of information and communication technologies for participation in social and economic life.

The Australian Digital Inclusion Index (ADII) is an annual national survey that measures three dimensions of digital inclusion – Access, Affordability and Digital Ability. ADII scores range from 0 to 100. The higher the score, the greater level of digital inclusion. ADII scores are relative, enabling comparisons across demographic groups and geographic areas over time.

The Mapping the Digital Gap project uses an amended version of the ADII survey to collect digital inclusion data. This enables us to compare results for the participating remote communities, towns and homelands with the national results collected by the ADII, and track changes in digital inclusion between and within these sites.

In 2021, Closing the Gap Outcome 17 was introduced for *access to information and services enabling participation in informed decision making regarding their own lives*. Target 17 includes a target of equal levels of digital inclusion for Aboriginal and Torres Strait Islander people by 2026.

Combined with ADII data collection, the Mapping the Digital Gap project is helping to track progress against Target 17 for remote, regional and urban First Nations people for the first time.

DIGITAL INCLUSION

ACCESS

- Reliable access to phone and internet
- Access to IT devices and/or facilities
- Access to trusted media, news and information

AFFORDABILITY

- Affordable phone and internet services
- Affordable devices

DIGITAL ABILITY

- Ability to use digital devices, software and online services
- Awareness of cybersafety, scams, and viruses

ADII First Nations Data Dashboard

The First Nations dashboard on the ADII website provides interactive charts and community-specific results for the ten research sites in 2022. The Mapping the Digital Gap 2023 Outcomes Report provides summary findings across all sites.

View dashboard using the QR code below:

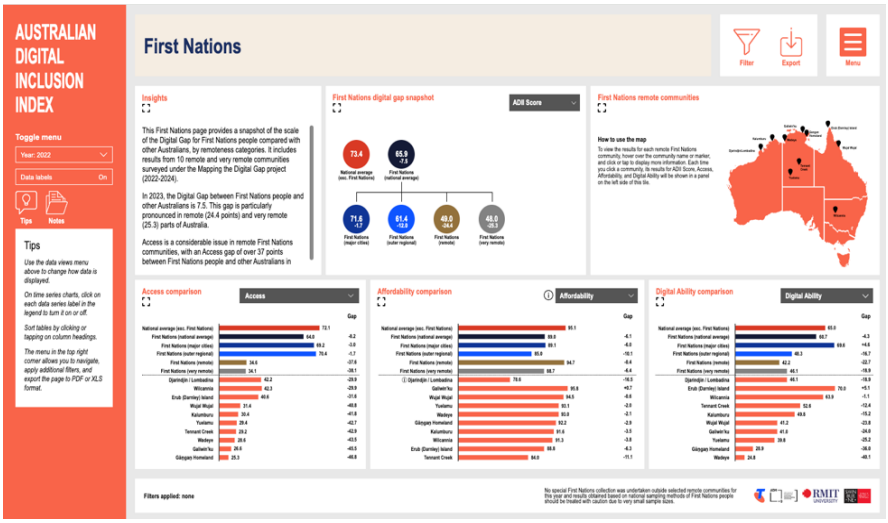


Figure 3: First Nations dashboard on ADII website: digitalinclusionindex.org.au/dashboard/firstnations.aspx

ADII 2023 Report Findings

The 2023 ADII found a digital gap of 7.5 points for First Nations people compared with other Australians. This gap widened substantially for people living in remote (24.4) and very remote Australia (25.3), where contributing factors include limited access to digital infrastructure and services, high internet costs relative to income, climate, geography and cultural context.

Based on our 2022 survey results, the average Australian Digital Inclusion Index (ADII) score for Yuelamu was 45.2, a gap of 28.0 points below the national average for non-First Nations Australians.

The key element of this gap was in the Access dimension score of 29.4, which was 42.6 points below the non-First Nations average, owing primarily to lack of mobile coverage in Yuelamu, limited household internet access, and high reliance on mobile devices. The Index scores (see Figure 4) show a small gap for Affordability (-1.9) and a larger gap for Digital Ability (-25.1). However these gaps vary widely for different demographic groups as detailed below.

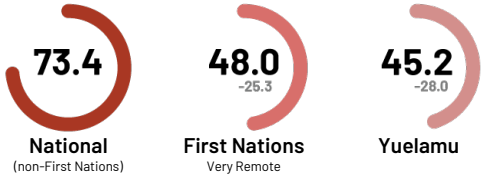


Figure 4: Yuleamu ADII scores compared to National Average (non-First Nations) and Very Remote First Nations scores, based on 2022 surveys

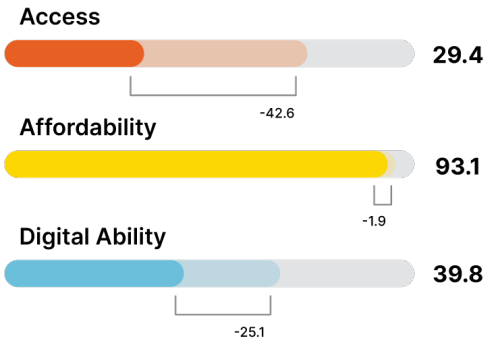


Figure 5: 2023 ADII scores for Yuelamu, with gap against national non-First Nations averages

Demographic gaps in Yuelamu:

The 2023 ADII found significant variations in digital inclusion between certain demographic groups. These results demonstrate that targeted digital support activities would benefit these demographic groups in Yuelamu.

Gender gap

6.8

Women had higher average digital inclusion scores than men (49.9 compared with 43.1). The gap was primarily in the areas of Access (35.7 compared with 26.6) and Digital Ability (49.9 compared with 43.1).

Disability gap

31.6

People with disability had average digital inclusion scores of 18.2 compared to 49.8 for those without disability. The gap was primarily in the areas of Digital Ability (0.0 compared with 46.6) and Access (5.7 compared with 33.4).

Employment gap

14.3

The average digital inclusion score for people engaged in Community Development Program (CDP) activities was 40.7 compared to 55.0 for those employed (full-time or part-time). The gap was greatest in the areas of Digital Ability (31.5 compared with 51.8) and Access (26.7 compared with 40.2).

Education gap

33.2

Those who did not complete secondary school had an average digital inclusion score of 17.4 compared to those who completed secondary school (Year 12), who averaged 50.6. There was a zero Digital Ability score for those who did not complete secondary school (compared with 48.3) and very low Access score (2.6 compared with 33.8)*.

Age gap

36.0

Those aged 55–64 had an average digital inclusion score of 20.4, compared with a score of 56.4 for those aged 35–44 years (36.0 gap). The gap was even greater for 65–74 age group (41.4 gap) and 75+ (38.1). Digital Ability scores were 0.0 and Access scores were 2.5 for all over 55s.

A demographic gap also exists for people living in large shared housing, with those living in multi-generational family households scoring lower than households with a couple with no children (44.9 compared to 63.0).

- Note that low sample sizes may play a significant factor in some of these results.

02. INTRODUCTION

The Mapping the Digital Gap project tracks changes in digital inclusion and media and communications use in each research site over three years. This report provides an update from our third and final visit to Yuelamu in May 2024, comparing the survey and interview results to our 2022 and 2023 findings.

Survey data has been updated with weighted results throughout the report to ensure findings are representative of the whole population, with some variation from previous raw data. The report also tracks progress on suggested strategies in the local Digital Inclusion Plan (chapter 5) and includes newly identified strategies or activities.

2022 Findings

With no mobile service yet, there were uneven levels of broadband and phone access in Yuelamu, with most broadband services in community agencies and staff houses. After years of advocacy, at the time of our visit a mobile tower had been funded but installation was still a year away. Due to limited household connectivity, residents had found creative solutions for phone, internet and online service access.

Figure 6:Telephony was delivered to Yuelamu via a regional HCRC microwave repeater network

There were a number of public internet access solutions in place — including Wi-Fi at the Centrelink office, store and recreation hall, and the CfAT mobile hotspot[1] — to enable basic access to online services. Along with a relatively high take-up of Sky Muster satellite services by about a third of *Yapa* (Warlpiri word for Aboriginal people) households, Yuelamu residents were surprisingly well-connected and digitally literate. Consequently, we found that mobile phone ownership, expenditure and use of online services were marginally lower than results in similarly sized communities with mobile coverage.

Public Wi-Fi services were available at the Centrelink office, sport and recreation hall (via a voucher system), and an Activ8me Wi-Fi service at the Alpirakina community store. However, the Activ8me pre-paid vouchers were very costly at $10 for 500 MB of data. Phone access was primarily via two working public phones (one in store), the CfAT mobile hotspot, the Centrelink agency phone or using a mobile phone to call via Wi-Fi from a household Sky Muster service. Some people described driving towards Yuendumu community (43 km away) to access mobile signal from high points on the road.

There were efforts for many years to have mobile installed in Yuelamu, one of two major communities in the region without a service. With macro-cell mobile services requiring high-capacity backhaul, the lack of fibre optic cable to Yuelamu had constrained progress. To improve backhaul capacity in the region, Telstra upgraded the optic fibre link between Alice Springs and Yuendumu in May 2021.[2] Telstra was in the process of completing a microwave repeater network to enable 4G macro cell services at Yuelamu and Willowra (switched on in October 2022), however the Yuelamu connection was delayed by land-use negotiations. The community was looking forward to having mobile, however we heard concerns about

[1] Designed and installed by Centre for Appropriate Technology (CfAT) HotSpot, the mobile hotspot is a passive signal concentrator dish which enables limited access to the 4G service from nearby Yuendumu for calls and basic data use.
[2] The fibre upgrade increased backhaul capacity on the line from 2.5 GB to 10 GB, and sought to improve broadband and mobile services to in Yuendumu and across the Tanami region while providing increased capacity for new mobile services in Laramba, Willowra and Yuelamu. Source: Email correspondence with NT Government 28/11/22.

the potential impacts on the community, including cyber-safety issues, scams, affordability issues and excess use by youth, especially at night.

> "They've been fighting for years for this 4G mobile coverage. They're still waiting on it … Everyone has a phone [that they use in] Yuendumu and Alice Springs [or] Ti Tree. [When] the 4G coverage comes [everything is] going to change, a big change."
>
> — Dennis Charles, Broadcaster/Archive worker, Yuelamu, 2022

During the COVID-19 pandemic travel restrictions in 2020–21, Yuelamu's limited on-site services were further restricted by a lack of reliable and accessible communications or videoconferencing facilities to enable online delivery. Service providers in health, education, training and disability struggled to support Yuelamu residents, leaving the community highly excluded during this period. A case study in the 2022 report outlines how the lack of mobile communications continues to limit the ability of National Disability Insurance Scheme (NDIS) providers to arrange on-site visits with clients.

This demand for online services has been exacerbated by limited free-to-air TV access, due to VAST direct-to-home satellite services not working in 40% of households surveyed. Consequently, there is greater reliance on online entertainment services via Wi-Fi, adding to the cost burden on households. There is only one radio service, 8PAW Radio, broadcasting locally in Yuelamu, with ABC available only as a weak AM signal from Alice Springs. Despite low home radio ownership, 40% of survey respondents listened to PAW Radio daily or weekly, mostly via car radio. PAW Radio is a primary source of emergency information and news and information, second only to face-to-face communications, delivering in-language health messages and updates throughout the pandemic.

Our surveys found a relatively high level of basic IT skills among the people surveyed, with 67% of survey respondents having used the internet in the previous three months. However, we heard demand for community access facilities and support to develop digital skills, particularly for the Elderly, people with disability and those limited English literacy, as well as for workplace readiness skills. While some digital support is provided by CDRC staff at the Centrelink and CDP offices, there were calls for a funded digital mentor role to provide more general training and support, including setting up and using online services, activating phone SIM, creating documents such as CVs and downloading and using mobile applications. Without a dedicated space for people to seek assistance, there is demand on all service agencies to provide this support.

Beyond limited access to communications services, affordability was a further barrier with personal incomes averaging only $254 per week (ABS 2021) amid high costs of food, fuel and other services. While the 4G service will provide much needed access, it will likely increase household expenses for data and devices, with ongoing need for free public Wi-Fi services and other measures to alleviate 'digital poverty'.

> "Connectivity is increasingly crucial for access to education [and] services as more and more services go online. [So it] should be a service model, not a business model. It's not about the bottom line, it's about providing a basic essential service. [We estimate that] 50% of Aboriginal people in this region, between 16 and 64, have no income because they can't navigate Centrelink, or [have been] breached by Centrelink. [So half] of the population [can't] afford to buy connectivity. When you've got to make a choice between getting mobile phone data or [feeding] your kids, it's a bit of a sad situation."
>
> — Jennifer McFarland, CAYLUS/DotCom Mob, 2022

2023 Findings

During our May 2023 visit, we found that little had changed in Yuelamu since 2022. While a new mobile tower had been constructed at the top of the hill after numerous delays, the community was still waiting for it to be activated. A range of concerns were raised about the potential impact of the 4G when it is switched on, including increased social media use leading to conflict, disengagement and late-night usage by young people, and general disruption to the peaceful community. While Telstra had commissioned the Centre for Appropriate Technology (CfAT) to deliver consumer awareness training in Yuelamu prior to the mobile switch-on, there were calls for more training and support in navigating scams, cyber safety issues and selection of products and plans.

The range of media and communications services available remained much the same, however there had been some recent uptake of Starlink satellite services on several agency buildings including the CDRC office. The number of Yapa households with Sky Muster services had reduced from 27% to 14% of those surveyed. While this may be due to anticipation of having mobile coverage, it may also be a result of affordability issues. With high household demand for data, combined with shared use of the Wi-Fi by family and neighbours from other houses, we heard of high monthly bills up to $200 per month including excess data costs.

Community access options remained limited. There was still regular use of the one working public phone and the CfAT mobile hotspot, and reports of an intermittent mobile signal from Yuendumu enabling some access. There were several Wi-Fi options available, including access at the Centrelink office, CDP office and school library (limited access) and the sport and recreation hall, although this was awaiting repairs. We heard that young people were accessing the CDRC office Wi-Fi after hours, with this being switched off each night as a result. The high price of Activ8me pre-paid Wi-Fi vouchers remained unchanged, despite recommendations for this to be reviewed, with most use by visiting agency staff who had very limited connectivity options. This led to calls for more free Wi-Fi options on the south side of Yuelamu.

Figure 7: The public phone was still a primary means of voice calls in 2023

We found that most Yuelamu residents had a mobile phone for use via Wi-Fi or CfAT hotspot and when visiting Yuendumu, Alice Springs or other communities. However, there were very few computers or laptops in homes, with community access computers limited to the Centrelink agency and CDP. The CDP office has a training room and one laptop and printer, making it the main space for computer access and digital support.

There was low use of traditional media modes for several reasons. Household access to VAST satellite television services had reduced since our 2022 visit, with only 56% of those surveyed having VAST TV services working in their home (60% in 2022). This was primarily due to VAST set-top boxes or satellite dishes not working, with a high cost to replace set-top boxes and significant challenges in activating the smart cards. A digital broadcast solution was proposed as an option for Yuelamu to improve free-to-air TV access and to access reliable news and information sources. The PAW Media radio service was working, with RIBS broadcaster Judith Dixon doing occasional radio shows over the network. 32% of respondents reported listening to PAW Media daily or weekly but only 7% listened to the weak ABC AM service. People mostly sourced news and information face-to-face or via television, social media and noticeboards.

With cost-of-living pressure increasing with high costs for food, fuel and power cards, affordability was a key barrier to digital inclusion. 52% of regular internet users surveyed reported cost as a key reason for

not using the internet more often (up from 41% in 2022). Household expenditure for pre-paid mobile services was $143/month in 2023, but we expect this to have increased substantially with the mobile service now active. The store in Yuelamu was only set up to sell low-priced recharge vouchers ($20 and $30), limiting the option of higher priced but better value vouchers for heavy data users. The high cost of devices and regular turnover due to damage or transfer is a further affordability issue.

Our 2023 survey found a lower level of internet use than in 2022, with 61% of those surveyed having used the internet in the last three months, down from 67% in 2022. This was largely due to a broader survey sample including more older residents,[3] however access and affordability factors may have contributed. As outlined on page 7, our survey found stark differences in digital ability between demographic groups, particularly according to age, education levels and disability, as well as between women, and men doing CDP or labouring roles. Despite limited connectivity options, young people were highly digitally engaged, though primarily using social media, games, and content streaming.

Among regular internet users, there was a reasonable level of capability with basic online services such as banking and myGov applications as well as online searching, social media use and apps. However, there was low use of more complex applications due to limited household access to computers or laptops. The 2023 ADII found that the overall digital ability level in Yuelamu was lower than other very remote communities average (39.8 compared to 46.1), indicating a clear link between communications access and digital ability.

With the upcoming activation of the mobile service, there was increased demand for digital training and support, including awareness about scams and cyber-safety risks, especially for Elders. We suggest the employment of local digital mentors to provide on-demand peer support, ideally located in the sites where computers are available such as the CDP office or Centrelink agency. Other workplace skills training could be done on the job using the specific tools or applications needed for the role.

2024 Findings

We returned to Yuelamu for our final visit in 2024 to see big improvements in communications access following the activation of the Telstra 4G mobile tower on 30th June 2023. We heard very positive feedback from residents and agencies about finally having mobile coverage after many years of community effort, as reflected in the survey comments on page 60.

> "It actually makes life easy out here ... When the mobile service wasn't up people used to just go to the payphones and the [Wi-Fi or CfAT] hotspots to make important calls lie calling the doctor or police, all that stuff, emergency services. [Or they would] come into the main office to make some important calls. Well now everything's changed. [People can make] important calls while they're in the comfort of their own home rather than walking to the payphones or the hotspot."
>
> — Mel Langdon, Support Worker/Co-researcher, 2024

Figure 8: The new 40m 4G tower in Yuelamu was activated in June 2023. The other towers are the HCRC microwave link (left) and radio broadcasting (right)

[3] The average (mean) age of survey respondents in 2023 was 43 compared with 37 in 2022.

Residents no longer had to rely on public phones or line up at the mobile hotspot to make a call. Agencies reported improved efficiency and communication with clients and staff working around the community.

Another improvement was that the Activ8me Wi-Fi hotspot at the store had been upgraded to Sky Muster Plus Premium, making it faster and enabling free access, removing the need for pre-paid vouchers. Wi-Fi usage had increased, with our survey finding that 44% of residents used Wi-Fi for internet access, up from 39% in 2022.

While residents could finally access a high-quality mobile service, the downside was that affordability issues had increased significantly for low-income Yuelamu households, with increased mobile and home internet costs adding to growing cost of living pressures. We found average household pre-paid mobile expenditure had risen dramatically, up from $138/month in 2022 to $253/month in 2024. Total household expenditure on mobile and home broadband had gone up from $198/month in 2022 to $258/month in 2024. 13% of respondents often or always cut back on essential household costs to afford internet in the past six months, up from 7% in 2022. 76% had compromised on internet speed and/or quality to prioritise affordability, up from 22% in 2022.

An outcome of having mobile access was that some households that previously had Sky Muster satellite services let go of these. The percentage of residents with Sky Muster at home dropped from 24% in 2022 to 5% in 2024. This was likely done to reduce household expenditure and to reduce demand from neighbours and visitors to share the Wi-Fi password, adding to excess data costs (most were still on legacy Sky Muster plans). There was no awareness of new Sky Muster Plus Premium plans with unlimited data. As with all communities visited, there was a lack of information or advice available about connectivity options and ways to reduce costs as data use increased. There were also few options to reduce mobile data costs, with no low-cost Telstra Community Pre-paid plan or Boost vouchers available.

A significant development in Yuelamu's communications infrastructure was the rapid adoption of Starlink by agencies and staff, mostly replacing NBN Sky Muster services. Building on Starlink services on the community office and meeting room, CDRC had now installed Starlink services on the CDP office, aged care and childcare facilities. Several staff houses now had Starlink as well as the Alpirakina store and Yuelamu school, although the school still reported ongoing network issues. Service providers reported significant improvement in speed, smooth use of cloud-based applications, and reliability, reducing issues of network outages and failing EFTPOS transactions at the store. We only heard of one Yapa household with Starlink at the time of our visit, with the $139/month being a challenge for most households.

Figure 9: The local Alpirakina store is one of several agencies that have changed from Sky Muster to Starlink, improving reliability for sales

Our 2024 survey found that the number of internet users in the previous six months had increased from 54% in 2022 to 81% in 2024. While we expected to see increased digital ability since the activation of the mobile service, we found that average digital ability levels across all regular users had decreased. For example, only 48% could confidently open a new internet browser tab, down from 94% in 2022, and online banking use was now 77%, down from 94% in 2022. This drop was due in part to the increased number of users, with new users having only basic digital skills beyond streaming and social media, but also to changes in our survey method since 2022, with reduced self-completion to ensure more consistency between communities.

The results pointed to the ongoing need for more digital training and mentor support, particularly for Elders, people with disability and those with lower levels of education. While CDRC is providing basic

computer access and digital support at the Centrelink agency and CDP, there remains a lack of workplace digital training or support options for Elders and other low user groups. There is also demand for more cyber-safety information and regular radio and social media updates about scams and online risks.

While media services are limited in Yuelamu, with PAW Radio the only FM service, radio listenership remains high in Yuelamu. Our 2024 survey found that 79% of people listen to PAW radio daily or weekly, up from 45% in 2022, and 71% get their news via PAW Radio daily or weekly. However, there are fewer households with working VAST satellite TV services in the community, with 65% of households without a working TV service in 2024 (up from 40% in 2022). This is due to a lack of maintenance options, high costs of replacement set top boxes at the store ($449) and challenges with activating smart cards. Lack of free-to-air TV has increased reliance on online entertainment and content streaming, with high data use increasing household costs.

Updates to Proposed Digital Inclusion Plan

The 2022 and 2023 reports included a proposed digital inclusion plan, outlining a list of potential strategies to improve digital inclusion based on input from research participants. An updated Digital Inclusion Plan is provided in Section 5, which includes new suggestions and a summary of progress or planned activities for each item listed.

There have been significant improvements in communications access in Yuelamu, with local advocacy and initiatives leading to much-needed mobile coverage, expanded Starlink uptake and free Wi-Fi services. This has helped to improve communications, digital engagement and service delivery in Yuelamu. However, next-level challenges have arisen with increased difficulty with affordability and digital ability, and reduced access to television service, with ongoing work needed to be done to address these.

We recognise the complexity in trying to implement a local digital inclusion plan, with multiple agencies involved in delivering media, communications and digital support programs. However, the Yuelamu community, with support from CDRC, Central Land Council and NT Government, has a history of actively advocating for improved communications and community needs for computer access and online safety. We hope that this draft plan can assist in planning and advocacy for future digital inclusion activities to meet the emerging needs Yuelamu residents and service providers.

While the Mapping the Digital Gap team has now completed research visits to Yuelamu, we are happy to continue to assist with development of this plan and options for implementation of strategies.

Figure 10: An array of satellite dishes on the CDRC office shows changes in communications technology over time

03. MEDIA & COMMUNICATIONS IN YUELAMU

Existing Telecommunications Services

Mobile coverage

The Telstra 4G macro-cell was activated on 30 June 2023, with coverage reaching about 10–20 km around the community (see Figure 11). Backhaul for the mobile service is via a high-capacity microwave repeater network, which also services nearby Willowra (Figure 12).

Figure 11: Telstra coverage map for Yuelamu. Source: https://www.telstra.com.au/coverage-networks/our-coverage

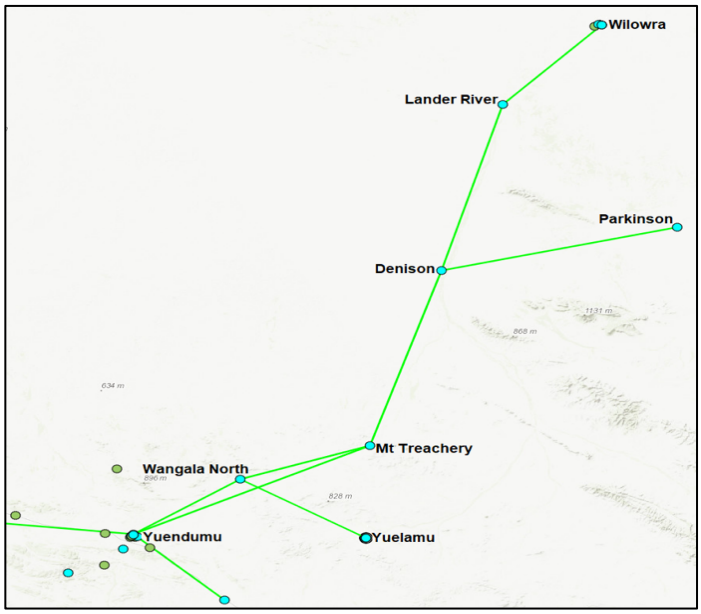


Figure 12: Microwave repeater network providing backhaul for mobile services in Yuelamu Willowra and stations in the region (Source: NT Government)

Backhaul to community

Backhaul for mobile and telephony is now via the new microwave repeater from Yuendumu (which has fibre optic backhaul), replacing the HCRC microwave telephony network. All internet backhaul is via satellite, with the mobile backhaul outlined above.

Landlines

The copper network provides phone services to most agencies and staff houses in the community, with 10% of residents surveyed using a fixed line telephone at least some calls.

Mobile phones and recharge sales
A basic range of smartphones and flip phones (calls only), and Telstra recharge vouchers, are available from the Alpirakina store.

Public Phones
There is a Telstra public phone opposite the community office as well as a free public phone in the Alpirakina store foyer, with both getting regular use. There are also two Telstra phone boxes in the northern residential area, however one of these was not working during our 2024 visit.

Wi-Fi services
There is an Activ8me Wi-Fi hotspot available full-time at the Alpirakina community store using a voucher system.[4] Free CDRC-run public Wi-Fi is provided via vouchers to youth at the recreation hall at set times. The Centrelink office has 24/7 free Wi-Fi for government and online services.

Figure 13: Activ8me Wi-Fi hub at the Alpirakina store

nbn services
Kalumburu is designated as a satellite delivery zone under nbn planning. An estimated 14% of residents surveyed had household nbn Sky Muster in 2023, alongside most agencies and staff houses.

Starlink services
Two CDRC-run agencies had installed Starlink services in 2023, including the main CDRC office and meeting room (shared via microwave link to CDP office and aged care facility), and the Kwermap Day Care Centre.

Telemetry
PowerWater is the NT Government agency responsible for transmission and distribution of electricity as well as water and sewerage services in NT communities. PowerWater use System Control telemetry for monitoring, operation, and control of regulated power systems,[5] supported by on-site personnel.

HF/UHF Radio
The CDRC and municipal services staff use UHF radio for staff communications. The Rangers use UHF radio when undertaking land management work on country. Police, emergency services and aircraft also use VHF radio.

[4] The cost of data is relatively high using the vouchers – $5 for 200 MB; $10 for 500 MB; $20 for 3 GB
[5] Source: PowerWater Corporation https://www.powerwater.com.au/market-operator/system-control

Media Services

Radio services

PAW Media's 8PAW Radio (102.5FM) is the popular regional First Nations radio service, broadcasting from Yuendumu, with FM retransmission at Yuelamu. There is a local Remote Indigenous Broadcasting Service (RIBS) studio in Yuelamu, with a local broadcaster doing occasional shows over the network. An ABC radio service can be picked up as a weak AM signal from Alice Springs.

TV services

All houses in Kalumburu require Viewer Access Satellite Television (VAST) direct-to-home satellite for free-to-air TV services. However, our 2024 survey found that 65% of households did not have TV services working, mostly due to set top boxes not working or dish/cabling requiring maintenance.

Newspaper

There is no regular newspaper access. However, the Land Rights News, produced by Central Land Council three times a year, is distributed to Yuelamu.

Local and regional news

Local news is primarily shared via word of mouth and noticeboards at the CDRC office and store. This includes upcoming events, meetings, health updates and training and jobs information. Regional news is shared via 8PAW radio, PAW Media's Facebook page, Central Desert Regional Council and Central Land Council website and Facebook pages.

Access and Support Facilities

Community Access facilities

There are two community access computers in the Centrelink office for using Centrelink and banking services, with a laptop computer also available in the CDP office on the north side. The former computer room at the sport and recreation hall was no longer in operation.

IT Support

Support in accessing and using online government services is available from CDRC staff at the Centrelink office, with basic digital support also provided at the CDP office.

04. KEY FINDINGS FROM DATA ANALYSIS

This section provides key findings from the 28 interviews conducted from 2022 to 2024 with community leaders and stakeholders, as well as observational data and survey results. The analysis builds upon the findings in the 2023 Community Update Report, with new topics labelled '2024' after the heading.

See Appendix 1 for the full set of comparative survey results for 2022, 2023 and 2024, following data cleaning and weighting against ABS data. The survey results in this report differ slightly from the 2022 and 2023 reports which provided raw survey results prior to weighting.

Communications Access

Communications in Yuelamu have changed from traditional modes to HF radio to digital modes

A range of communication modes were used by Anmatjere people prior to colonisation. As well as verbal communication, these included hand signs, iconography or symbols drawn in ochre or engraved on rock or wooden message sticks, song, dance and smoke signals, among others. Even in contemporary times, smoke signals are used to indicate if someone is broken down in the bush.

> "I used to learn with the old people. When the old people were coming [from another place] we used to know the smoke or the bush fire is burning north, west or south ... we knew the signs. When someone stuck up there, the bush fire goes up, then we know the smoke, 'Oh, someone's stuck up there' ... That's the signal."
>
> — David Japanangka McCormack, Traditional Owner/leader, 2023

Prior to Yuelamu community being established in 1980, the primary mode of long-range communications for the Mt Allan cattle station was HF radio, initially set up by the Royal Flying Doctor Service. While VHF radio use is still used by RFDS, aircraft and police and emergency services, UHF radio is more commonly used for closer range communications.

- "When it was a station, [before] we start the community, we had [HF] radio systems [to] contact someone out there at Yuendumu or anywhere in the trucks driving across ... They were just picking up on the radio. [Now] the Toyotas they use them [UHF] radios." (David Japanangka McCormack, as above, 2023)
- "[When I was young] my father was working in Coniston [Station] and we lived on rations [and] bush tucker. That's long time ago. [Then] we moved back [here, to] Mount Allan station. [There was] no shop [back then. We had] no walkie-talkie, nothing ... We just walk around the bush [or] ride a horse [or] donkey. [If we were sick] we go to Yuendumu [on a truck to] see Flying Doctors and all that ... Yuendumu was [just] a little settlement. [Then] I started working [as a] stockman and make a family ... All the family grow up and school start off then and everything comes in, radio, public band [HF], all that start off." (David Stafford, Elder/Council Worker, 2024)

The Digital Radio Concentrator System (DRCS) microwave repeater system was rolled out by Telecom Australia in the 1980s to provide basic telephony across remote and rural Australia. Local exchanges and copper networks were installed in remote communities. The DRCS system was later upgraded to Higher Capacity Radio Concentrator (HCRC) in about 2002, with speeds of up to 19.2kbps enabling use for voice, fax and basic data connections. This has remained the primary means of backhaul for telephony in many remote communities to date, with fibre optic rolled out to larger communities such as Yuendumu in the

late 1990s to 2000s, enabling delivery of ADSL and mobile services. Satellite technology has provided the primary means of internet access since the 1990s. 4G mobile connectivity is the next wave of communications technology now available in Yuelamu.

- "[Then they were] bringing in the phones here, the Telstra started, [about] 1990 it started. [Now] the kids today, the technologies now, they know what to do [to use mobile and internet]." (David Japanangka McCormack, as above, 2023)

The Telstra mobile service was finally switched on in 2023 (2024)

Yuelamu community members have been actively seeking to establish mobile coverage for nearly 10 years. Following a proposal from Telstra to install small cell mobile technology with a community co-contribution towards infrastructure and installation costs, Yuelamu's GMAAAC committee[6] agreed in 2019 to contribute using royalty funding. However, Telstra subsequently advised that it would install a macro-cell as part of the NT Government/Telstra Remote Telecommunications Co-investment Program in 2021.

Figure 14: The 4G mobile tower awaited activation for 8 months

However, the project was initially delayed due to COVID travel restrictions. There were further delays in in negotiating land-use agreements with station owners to install the microwave towers needed for the backhaul from Yuendumu. Previously Yuelamu and Willowra were the only two communities in the Central Desert region without 4G coverage, but both are now connected via the new microwave network.

Telstra installed the 4G mobile tower on Yuelamu's central hill in Yuelamu in October 2022, with the tower finally activated on 30 June 2023[7].

- "Long time we've been waiting. [We agreed to install] it a couple of years back but then we had to wait another couple more years. But now it's working there so it's really good for the community." (Cliffy Tommy, CDP Supervisor, 2024)

Most people are now using mobile phones for communication instead of being reliant on the public phones, CfAT hotspot (see below) or driving out of town to access a signal from Yuendumu's 4G service. As shown in the survey comments on page 60, Yuelamu residents were pleased to finally have a mobile service. Interviewees told us that the community appreciated finally being able to make calls from home, including for emergency services.

"It's better now, we're really happy. [Before] we used to just go to the office [or] wait in line [for] this little hotspot. [Now] we can just ring up from home [to the] clinic and make appointment in Alice [or] ring up to the Centrelink. [It's] easier [to] order stuff [online] from anywhere in Australia, outside of Australia, everywhere. This [mobile is] pretty good."

— Cliffy Tommy, CDP Supervisor, 2024

[6] The Granites Mine Affected Area Aboriginal Corporation (GMAAAC) has been set up to distribute the compensation payments (royalties) from the Granites gold mine for us on locally decided projects. Central Land Council (CLC) supports the elected Granites Mine Affected Area Aboriginal Corporation (GMAAAC) committees in Yuelamu and Yuendumu with planning, decision-making and management of the projects they support.

[7] https://www.miragenews.com/telecom-partnership-expands-to-3-additional-1225517/

- "Everything's pretty much changed. We now have Telstra on top of the hill and people are happy that they are using Telstra to connect or to communicate to their families outside of the community and other communities around Alice Springs area." (Norman Hagan, CDRC Council Services Coordinator, 2024)

We found the 4G service to be reasonably consistent, with average speed tests of about 60 Mbps download/50Mbps upload during the day and 40/30Mbps during peak use in the evening. Telstra's coverage map shows about 20km range around Yuelamu, with residents reporting even greater reach.

- "It works pretty good especially when you're outside of community on high area … You can now get thirty k's out of town, because last time I went hunting and I had to check my phone and there was a second bar showing on my phone. So that's good." (Norman Hagan, CDRC Council Services Coordinator, 2024)
- "Mostly when you're driving out here you got like a ten-kilometre radius of service [but] it can go further if you're on top of a ridge, [maybe] 25 or 30ks I reckon." (Mel Langdon, Support Worker/Co-researcher, 2024)

Interviewees described how the 4G service had improved emergency communications, including when hunting or travelling outside of Yuelamu. Accessing emergency health support is outlined on page 28.

- "[If] car breaks down, you can call someone [to] help you, especially when you are out of community hunting." (Norman Hagan, as above, 2024)

Despite prior concerns about negative impact of the mobile service, the impact appeared low (2024)

As reported in 2023, Telstra had arranged initial consumer awareness training in Yuelamu prior to the mobile service switch-on.

- "Two people from … Centre for Appropriate Technology [came to] educate people [on] how to use phones and how to activate phones. So once the Telstra tower goes online, they'll come and educate people [more], both on the computer and on the phone as well." (Norman Hagan, CDRC Council Services Coordinator, Yuelamu, 2023)

Another training session was to be delivered by CfAT prior to the mobile service being activated. In addition, as part of the introduction of the mobile service, the Telstra truck had come to Yuelamu and offered residents some initial pre-paid data.

- "A [Telstra] truck come here, start of last year. [They] put our name down [for] free data … they tell us you've got data coming in." (Cliffy Tommy, CDP Supervisor, 2024)

While residents and agencies were eagerly anticipating the mobile service, there had been concerns about potential impacts on affordability and cyber-safety issues, with calls for training and awareness.

- "Once the tower goes online, [we need to] have a community meeting with Telstra and talk about the problems it's going to cause in the future [and work out ways to address these. We need] the Elders talking to the community, especially the young people [so] we don't have problems with people fighting [or] talking to strangers online, [to] make sure they use it wisely." (Norman Hagan, as above, 2023)

In 2024, we only heard mild concern about the potential impact on young people.

- "[Mobile is mostly a] good thing … We need a phone [to] ring up family, emergency, something like that. [But for] young people, [it's] not good." (David Stafford, Elder/Shire Council Worker, 2024)

Potential cyber-safety issues are outlined in the Digital Ability section starting on page 42. There were also calls for strategies to support authority of Elders to help reduce online safety potential impacts.

Mobile switch-on has reduced reliance on the public phone and CAT hotspot for calls (2024)

Since the activation of the mobile service, there was a dramatic increase in mobile use for making calls with a drop in reliance on other options. Our survey found that calls via mobile phone had increased from 55% in 2022 to 97% in 2024. Meanwhile, regular use of the public phone for making calls had reduced from 55% in 2022 to 30% in 2024, however only 5% said they never use the public phone. Use of fixed line home telephone had reduced from 13% in 2022 to 1% in 2024. Use of a community office or workplace phone also reduced, down from 35% to 28%. The number of people without any phone access reduced from 2% to 0%.

Figure 15: Co-researcher Mel Langdon using the CfAT mobile hotspot while waiting for the new 4G tower in background to be switched on.

Previously, the only means of mobile access in Yuelamu was via the CfAT mobile hotspot located near the store, which enabled limited 4G access from Yuendumu (43km west). Prior to the mobile switch-on, the CfAT hotspot was regularly used for making calls and texts, with reports of a line of people waiting to use it at times.

- "[At the hotspot] sometimes there's a line there, you have to wait [your turn]. You have to set one phone [at the right] spot [to get a signal]." (Mark Gray Night Patrol and Youth Sport & Recreation, Yuelamu, 2023)

However, the CfAT hotspot was hardly being used in 2024, with its only use during outages in Yuelamu. Public Wi-Fi hotspots and household Sky Muster services are still used for Wi-Fi calling on apps such as WhatsApp or Messenger (more detail about Wi-Fi services on page 23).

While mostly reliable, there had been a mobile outage (2024)

With the backhaul for the mobile tower via a series of microwave links connecting to the fibre optic at Yuendumu, there are a number of potential points of failure that could lead to outages. These include signal interference by heavy rain or dust cloud between the microwave links, equipment failure at any of the retransmission stages, and extended power outages at Yuendumu, Yuelamu or any of the retransmission points.

While mostly reliable since its activation, we heard of an extended outage in early 2024.

- "We had one [mobile outage early this year]. We had a bit of a storm during the time and some lightning strikes and some rain, [so] must have been [the] rain [or lightning strike] caused the outage … The signal went down and, maybe five days later, someone came and turned it on." (Norman Hagan, CDRC Council Services Coordinator, 2024)

Telstra have installed long-life batteries in Yuelamu (minimum 12-hour battery life under funding requirements), reducing the impact of local power outages.

- "[Another time] we had a power outage and the mobile was still going. [I saw] some contractors charging the batteries too. They had to put the generator on top of the hill and connected to the tower." (Norman Hagan, as above, 2024)

Yapa household broadband had decreased since mobile switch-on (2024)

In 2024, 95% of survey respondents reported not having any form of fixed home internet, a 25% increase since 2022 (70% in 2022 and 88% in 2023). This dramatic drop in household internet is most likely due to the availability of mobile services, enabling a more reliable, versatile and pre-paid internet option.

Our 2024 survey found the primary form of household internet was Sky Muster satellite (5%), however this had reduced from 24% in 2024. We heard of one Yapa household having Starlink, with a few others considering it.

Previously there had been quite a high use of Sky Muster on houses, but several households have stopped the service since 4G was switched on.

- "Some [households] still have Sky Musters. It's just pretty much a back-up plan for [mobile now]." (Mel Langdon, Support Worker/Co-researcher, 2024)

In 2023, Mel had said that he would keep the Sky Muster service once the mobile was activated due to high data needs in his household.

- "I will [keep my Sky Muster service] because if I rely on the mobile network, it costs more money and [I'll have to] walk down to the shop and get more prepaid recharges … I'll probably exceed it a lot then I'll have to pay more as well." (Mel Langdon, Resident/Co-researcher, Yuelamu, 2023)

Figure 16: Mel Langdon at his home with Sky Muster (white) and VAST satellite (grey) dishes on the roof

However in 2024 Mel had recently stopped his Sky Muster service, primarily to prevent his children staying up late at night.

- "I don't like how our children stay up late because of the Sky Muster. [When] I wake them up in the morning they still feel tired. As soon as I found out that was the reason, I just shut it down for now." (Mel Langdon, as above, 2024)

While a Sky Muster service should be more affordable than pre-paid mobile for heavy data users, our 2023 survey found that households were paying up to $200 per month for legacy Sky Muster plans that charged for additional data use. Mel Langdon indicated that having a Sky Muster service had led to visitors wanting to use his Wi-Fi and adding to his monthly costs.

- "People that come and stay with me, they'll usually ask, can I borrow your Wi-Fi. [So] when I have visitors, afterwards I usually have an extra bill to pay or something, like a top up." (Mel Langdon, Support Worker/Co-researcher, 2024)

This was another factor in his decision to cancel the Sky Muster service. While there is now a Sky Muster Plus Premium service,[8] which provides unlimited data and a more sustainable option for large households with high data use, we did not hear of any awareness or uptake of this plan in Yuelamu. A lack of information from retail service providers about this option is likely a key factor.

There is increased uptake of Starlink services by agencies and staff houses

Starlink low-earth orbit (LEO) satellite services have been available in central Australia since 2022, providing high-speed, low latency internet access with unlimited data usage, with rapid take-up by central Australian health services, schools and regional councils.

[8] This plan provides unlimited data allowance and options of speeds up to 100/5Mbps, costing about $99/month.

In 2023, CDRC had installed Starlink on the Yuelamu CDRC office and meeting room, shared via links to other facilities. In 2024, there were two Starlink services on the CDRC office, with separate services on the aged care facility, Kwermap daycare centre and the CDP office, as well as the store, school and several staff houses.

> "The council is now on Starlink [in all its facilities] in the community, in the council office, the childcare, age care, CDP... It made it faster [than Sky Muster]. When you log in, you just go straight into the app and [get going]."
>
> — Norman Hagan, CDRC Council Services Coordinator, 2024

The shop had also recently installed Starlink, reportedly improving reliability. Previously we had heard that regular dropouts of the Sky Muster service due to rain or heavy cloud had impacted store operations.

- "The internet could drop out [in the store when its cloudy or raining]. If you have no internet here, you've got no ATM, no EFTPOS, all you can do is cash only. [With most people on] the basics card, you can't do anything. [We] close the shop because most [people] use some sort of card. [It happens] probably ten times a year, [mostly] just short periods." (Debra Teese, Manager, Alpirakina Store Yuelamu, 2023)

We found that several staff houses had Starlink by 2024, replacing previous Sky Muster services.

- "One of our staff have Starlink in his house. [With unlimited data] he said it's more cheaper than Activ8me." (Norman Hagan, CDRC Council Services Coordinator, 2024)

However, we heard of only one Yapa household with Starlink. The fixed monthly cost of $139/month, and upfront equipment cost of $399 at the time[9], made the Starlink service relatively unaffordable for most Yapa households. Telstra also offer a Starlink product, which costs $125/month plus upfront equipment costs of $549. While slightly cheaper than the domestic Starlink product and offering technical support, this product has slower broadband speed (50Mbps download/10 Mbps upload) and the monthly rate would still be a challenge for most low-income households.[10]

Despite lack of mobile coverage, smartphones are the primary means of internet access

Internet use among residents is almost entirely via a mobile phone, with very few households having a computer or laptop. Of the 81% of respondents who had used the internet in the last six months, 96% said they use their smartphone as a primary means of internet access. Only 9% used a desktop computer, primarily in the Centrelink or CDP office, with 4% having a laptop at home and 1% having a tablet.

As we heard in previous years, mobile devices are often shared among family members and have limited lifespan due to damage. Some people referred to having multiple phones within a year, adding to costs.

> "If [a person does] have a mobile phone ... everyone in the family wants it so [the] phone is quickly passed around [and then] their data's running out, kids have got their phones, phones are dropped or broken. And so you're then in this cycle of poverty, begets more people who are information poor and are more in poverty."
>
> — Fiona Jolley, Coordinator, Yuendumu Child and Family Centre, 2022

[9] Starlink equipment is now free if the monthly plan is paid for 12 months, otherwise the full rate of $549 is charged.
[10] See: https://www.telstra.com.au/internet/starlink

With a high turnover of mobile phones, phone numbers also change regularly with people typically getting a new SIM rather than transferring their existing number. The replacement of SIMs is effectively incentivised by providers by offering additional data with a new SIM (e.g. 45GB offered for first three months with a new Telstra $39 pre-paid account). However, changing numbers creates issues in accessing online accounts, which use a mobile number for two-factor authentication, and ability of service providers to contact clients.

Figure 17: CDRC provide free Wi-Fi access for youth via vouchers at the sport and recreation hall

- "It's not so easy ringing people on mobile phones because they just get a new [number or a] child [is] playing games on grandma's or mum's phone. So I keep saying to them, just get simple ones, don't buy the real fancy expensive ones, the kids will take them straight away." (Cheryl North, Yuendumu Women's Centre, 2022)

To reduce demand on their phone, some people opt to get non-smart phones.

- "I've seen more and more people, even in their 50s, like people who are quite able to use internet on their phone choosing to have a phone that [is non-smart] because their phones aren't stolen, their phones aren't broken and they can keep them for longer." (Fiona Jolley, as above, 2022)

The store did not supply rubber cases for mobile phones or offer rugged models which come with a rubber case. This would help to extend the life of mobile phones and reduce cost of replacement.

Community Wi-Fi provides public internet access, but needs management

Central Australian Youth Link-up Service (CAYLUS) have long argued that communications is an essential service and that free Wi-Fi should be provided in communities to enable affordable access to online services by people on very low incomes.

Prior to the arrival of 4G coverage in Yuelamu in June 2023, public Wi-Fi services provided a primary means of internet access for households without home internet. However, there were limited free Wi-Fi options, with access at the CDP office during office hours, in the school library during school hours and in the recreation hall via a voucher system managed by youth workers (provided by CAYLUS, outlined below). There is also 24/7 Wi-Fi available outside the Centrelink agency, but use was limited to government and online services. There is an Activ8me Wi-Fi hotspot at the Alpirakina store, although access was only available via costly pre-paid vouchers in 2023[11].

Our 2023 survey found that 55% of regular internet users reported using a public space with free Wi-Fi for internet access, up from 39% in 2022. While the introduction of 4G mobile provided a reliable means of internet access for Yuelamu residents, there was ongoing demand for free Wi-Fi services in 2024 to reduce data costs, with public Wi-Fi use by regular internet users still high at 44%.

By our 2024 visit, free public Wi-Fi options had improved. The Activ8me Wi-Fi at the Alpirakina Store upgraded to Sky Muster Plus Premium and made free to use in March 2024, with the voucher system abolished. This welcome move addresses one of the affordability measures included Digital Inclusion Plan (see section 5).

[11] Until March 2024, Activ8Me vouchers cost $5 for 200MB of data, $10 for 500MB, $20 for 3GB.

- "We still got the [Wi-Fi] hotspot [at the store]. They made it free now. [It] used to be paid one [with vouchers for] $12, $20, $35. Now it's free." (Cliffy Tommy, CDP Supervisor, 2024)

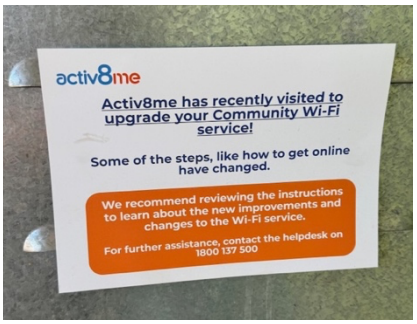


Figure 18: The Activ8me Wi-Fi hotspot is now free to use

CAYLUS have supported the installation of Wi-Fi hotspots in a number of central Australian communities including Yuelamu for many years. These are primarily co-located with youth services to provide diversionary activities for youth. Once the Wi-Fi is established, CAYLUS transfers management to local agencies to determine hours of operation and content filtering decisions. In Yuelamu, CDRC youth workers manage the Yuelamu sport and recreation hall on the north side of the community, with Wi-Fi access available via free vouchers during youth program hours in the early evening.

In 2023, CAYLUS received funding to to upgrade its five Central Australian community Wi-Fi hotspots, as well as some previously managed by NT Library and WYDAC. While they had hoped to upgrade to Starlink backhaul, they found that Regional Connectivity Program preferenced Sky Muster over Starlink for Wi-Fi backhaul. However, the provision of free Wi-Fi at the store had reduced the demand on this as the only free service in Yuelamu.

Service Delivery and Use of Online Services

The mobile service has improved efficiency for local service providers (2024)

The CDRC Council Services team provide municipal services in Yuelamu including rubbish and waste collection and managing parks, roads and the landfill site. Previously, with the lack of mobile coverage, communication with staff working around the community was unreliable and time consuming, involving UHF radio or driving around to find effective locations.

- "Because of no mobile coverage in the community, I drive in and check on the fellas, what they're up to, or otherwise we use two-way radio to communicate with the fellas." (Norman Hagan, CDRC Council Services Coordinator, Yuelamu, 2023)

In 2023, agency staff had been keenly awaiting the mobile service to improve the efficiency and effectiveness of contacting clients or staff.

- "[The mobile service will] make [my job] a lot easier because [I'll] be able to ring them and say, 'Look, we need to do this report or something. Can we meet up?' [It will save a lot of time] if you've got ten staff members under you, you have to do them all … it's going to make life easier." (Mark Gray, Night Patrol and Youth Sport & Recreation, Yuelamu, 2023)

Since the introduction of mobile, communication with staff is much easier.

- "[Now I can] keep in touch with the work crew, make sure they're working especially outside of community such as landfill or cemetery. [Also I can now take a call] when I'm outdoors working. [Before I had] to run back to the office and call from landline. Now, I can call from anywhere to head office or to my manager." (Norman Hagan, CDRC Council Services Coordinator, 2024)

- "Now [we can] can just ring [up]. My boss [calls or texts] and I ring him back and I explain to him oh he's not here or he's here … with the phone [now, it's] pretty good." (Cliffy Tommy, CDP Supervisor, 2024)

Agencies reported being able to contact clients more easily.

- "[It's made] a big difference with being able to contact people. And especially with employment, [it] opens opportunities to get things done a bit quicker." (Adam Yates, CDP Supervisor, 2024)
- "It's been a lot easier to contact our presenters [in Yuelamu]. Normally we'd have to wait until they came into the radio room and use the landline to contact us. [Now it's] easier to schedule shows for staff members [and check] if they are available." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)
- "[We] check our vehicle once a week [and] submit [the report by phone] back to Alice Springs … That's more easy [now that we have mobile here]. Before we used to [have to] fill out paperwork and [fax] it off." (Cliffy Tommy, CDP Supervisor, 2024)

Challenges with use of online banking and other online services

The weighted results of our 2024 survey found that 62% of regular internet users had used banking websites or apps in the previous six months (up from 54% in 2022). This was confirmed by interviewees telling us of increased online banking and government services use.

- "It does take a while [to learn to use] myGov and online banking [but] people are starting to use online banking a lot more rather than call the bank. And there's a lot of people here now that have myGov that would not necessarily have been using that before." (Adam Yates, CDP Supervisor, Yuelamu, 2024)

While there is growing familiarity with online banking, Yapa often face a range of challenges in accessing other bank services remotely. This was more difficult prior to having the mobile service.

> **"Most of them do know how to log in, log off [but] the big problem [is trying] to order a new card or open internet banking … A lot of them don't have ID card, licensing or birth certificates [or] an email address or [consistent] mobile number. And we don't have a mobile [service yet so] when the bank sends a code number to your phone to log into your internet banking [we don't get it]. We have to ring up the bank, but the best way is to do a 300-kilometre drive [to] the Alice Springs main branch and sort that out."**
>
> **— Norman Hagan, Support Administration Officer, CDRC 2022**

Even since the mobile service was introduced, the requirement for two-factor authentication to log in to online services remains an obstacle for many Yapa, with regularly changing phone numbers due to lost or broken phones and low use of email. The inability to authenticate restricts access to critical online services and exacerbates dependency on face-to-face services or helplines. There is often an assumption by banks and government services that clients have access to IT facilities and digital support.

- "[Banks make a] whole set of technology assumptions that people have access to internet, scanners, [a mobile] phone [and email account. People need support] to do really basic functions like banking, it's [all] part of the digital divide. [So] people are opening up three bank accounts because they don't know how to close the other bank account or change the password." (Fiona Jolley, Coordinator, Yuendumu Child and Family Centre, 2022)

With no bank branches in Yuelamu or Yuendumu and challenges in accessing online services, many Yapa rely on phone-based services. However, there are often lengthy delays in getting to speak to someone and messages directing people to online services.

- "[The long] wait times [are] a strategy to push people away from person-to-person service. For those people who don't have internet access [or] 4G and where very few homes have an internet connection, like Yuelamu, [people rely on] government agencies [for help]." (Jeff Bruer, former General Manager, PAW Media, 2022)

There were calls for more support from agencies such as Centrelink to assist residents to to use myGov and Centrelink apps, as well as provide support with taxation and superannuation. In nearby Yuendumu, where most agencies are based, we heard reports of insufficient support.

- "[Often a] person's walking in [to Centrelink] with no [documents and staff] don't have the time or means to get them any of that ID or their super[annuation] numbers or their tax file numbers … During tax time last year, [I] was surprised that there wasn't someone here working with Centrelink to help people. [Also to help families] around wills as well [and] where your Super goes if you do pass away." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)
- "To have someone based at Centrelink to do this sort of stuff would be amazing. There's some rules around what you are now not allowed to help people with, especially around finances or super and tax. [I] used to work for the tax department and they're meant to send people out to community to assist with taxes [but] they've never come here [to Yuendumu]." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

Lack of identification documents is a key barrier but Digital ID may not be the solution (2024)

A key requirement in setting up most accounts for government or banking services is to provide at least 100 points of identification, such as a birth certificate or passport (70 points), driver's license or Medicare card (40 points) or other identifying documents. For Yapa, this is a significant barrier as they typically do not have sufficient documents and there is no local service set up to source or retain these records.

- "Identification is a massive problem. Being able to identify yourself in this new digital world for people to live out here, it's not realistic the way it operates. [There should be a] group [that goes] around to all of the communities [to help people get what] they need for identification." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)
- "100 points of ID don't exist for Aboriginal people. It's hard to get a copy of your birth certificate. Some people don't have [a] birth certificate because they were never created because they were born in the bush." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)
- "If someone's having trouble with their key card, banks are notorious for saying 'give us all your ID' on the phone. [If there are language or verbal communication issues] there's not a match of that data, there's this long laborious process [of emailing documents to print, sign, scan, email back] so they can access their account again." (Fiona Jolley, Coordinator, Yuendumu Child and Family Centre, 2022)

The need for identification has even extended to setting up a pre-paid mobile service.

- "Even setting up a new pre-paid telephone number, you [need] a driver's license or a passport or a birth certificate [but] you can't do it with a proof of age card which is much more attainable for people … I'm sure there's a lot of reasons [but it's another barrier. They should] accept other forms of identification for people that is actually accessible." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

The Australian Parliament passed a Digital ID Bill in 2024[12] to establish a single secure form of ID and reduce privacy issues with multiple agencies storing clients' ID records. In theory, this would reduce the time and effort that Yapa and support agencies spend sourcing identification to set up multiple online accounts. However, we heard that this is still likely to have challenges in a remote community context.

- "I think the problem with things like that is they start creating things like the 2-factor authentication and then people here lose their phone. Realistically, a digital thing that is on a phone, it just will not work. [It will only work] if people can identify without showing a physical card or a physical app on a phone because that's just not how life works out here." (Tess Foxworth, as above, 2024)

There were suggestions of alternate means of identification that utilise Centrelink reference Number (CRN) and allow positive identification by a local authority.

> "If they can do this digital identity through Centrelink and actually have a staff member from Centrelink [or] the local police [or nurse] identify the person. [We need] pathways to supporting people here [because] trying to fit them into this white structure doesn't work."
>
> — Tess Foxworth, as above, 2024

CDP providers require connectivity to use cloud-based services and access to computers

The Community Development Program (CDP) office, operated by CDRC and located near the clinic on the north side of the community, had 91 clients at the time of our 2023 visit. CDP runs a range of community work activities and training for men and women, including community gardening and maintenance activities, an art and culture program, and weekly cooking groups in a commercial kitchen.

Figure 19: Yuelamu CDP Activity Centre has free Wi-Fi and an access laptop

CDP Supervisor Adam Yates described the need for reliable internet to connect with the Centrelink cloud-based reporting system, with telephony needed for client communications and to call prospective employers. To addess reliability and speed limitations with Sky Muster, the CDP office had upgrade to a Starlink service by 2024. This has made day-to-day CDP operations smoother, as well as providing sufficient bandwidth to provide free Wi-Fi and connectivity for community access computers in the CDP training room. CDP staff support to clients and community members to use the computer to write up CVs and job application letters and access online services (outlined further in the Digital Ability section).

- "We've got the laptops in the conference room which job seekers use to look up jobs or [do] online banking and stuff like that. [People ask] me if they want a hand and I come out and show them the way through the computer." (Adam Yates, CDP Supervisor, Yuelamu, 2024)

The introduction of the mobile service had significantly improved client communications, reducing the need to drive around the community to find people.

- "[Having mobile now has made] a big difference with being able to contact people, and especially with employment, and sort of opens opportunities to get things done a bit quicker [and] keep in touch with people that are a long, long way away." (Adam Yates, CDP Supervisor, Yuelamu, 2024)

[12] https://www.aph.gov.au/Parliamentary_Business/Bills_LEGislation/Bills_Search_Results/Result?bId=s1404

Limited connectivity in Yuelamu impacts on health services

The Yuelamu clinic is operated by staff from Yuendumu clinic as outreach support, with regular visits previously scheduled for one day per week. However, in 2024 this had reduced to visits only occurring on request. According to CDRC staff, if there is an emergency, they have to ring Yuendumu clinic. However, the travel policy is to only travel during daylight hours.

- For the last six years now I think the clinic hasn't been operating. They say short of staff. [The Yuendumu clinic used to] operate the clinic on Wednesdays weekly … So, if people want to see the nurse, they have to be there on Wednesday morning to afternoon, otherwise drive to Yuendumu for emergencies." (Norman Hagan, CDRC Council Services Coordinator, 2024)

The lack of a local health service was described as a critical safety risk, exacerbated by the lack of a reliable communications service in and around Yuelamu.

- "Already there's been lives lost in this community, especially without a nurse." (Norman Hagan, as above, 2024)

The introduction of the mobile service has now enabled residents to make emergency calls.

> **"If there's an accident outside of community on the road, there's a mobile [service now so] you can call straight away for the nurse to come."**
>
> — Norman Hagan, as above, 2024

In visits prior to the mobile activation, we heard that it was difficult for health service providers to confirm appointments before traveling from Yuendumu or Alice Springs, resulting in some bookings being cancelled and health services not delivered. NDIS providers told us they were unable to arrange on-site delivery of disability services if they could not contact clients to arrange appointments (see Case Study, section 5 of 2022 report). While we did not get to speak to health services in 2024, residents told us that having mobile now made it easier to contact the clinic and arrange a booking or emergency support.

- "I had to rush someone to Yuendumu earlier this year [with] chest pain. [At the] same time I was on the phone with the nurse and the nurse had to meet me half-way on the road. So, it was urgent." (Norman Hagan, as above, 2024)

Yuelamu School struggles with connectivity issues (2024)

While we were unable to speak to school staff in Yuelamu, we heard that the communications network at the school was slow and unreliable, resulting in the school being unable to do NAPLAN test online in 2024. It was unclear what the cause was, whether backhaul, issues with the local area network or the need for all online activity to go via the Education Department cloud-based system.

Figure 20: Yuelamu school

Like other NT schools, Yuelamu school previously used the STARS satellite service. This was upgraded to Starlink in 2023, there were still issues with broadband speed and reliability in the classrooms. The poor connectivity was impacting on use of digital technologies and application by students, limiting their digital skills development.

Access to media and news services

Most households no longer have working TV services in Yuelamu

The VAST satellite service, required for free-to-air TV access, was no longer working or not installed in about 65% of households of those surveyed in 2024, a significant increase from 40% in 2022. This was primarily due to set-top box failure (93% of those with VAST not working) or damage to satellite equipment or cabling (60%). This has resulted in most households paying data costs to watch online content and streaming services rather than having free-to-air TV services available.

- "Right now I got no TV, only on my phone. I'll just watch TV on the little screen but I've got no movie." (Anthony Briscoe, Resident, 2023)

The VAST direct-to-home satellite TV service was originally installed on all premises in remote communities by the Australian Government in about 2013, replacing local television broadcasting, with replacement of set top boxes and ongoing maintenance was deemed a householder responsibility. VAST set-top boxes are prone to damage by surges in the community electricity grid, as well as theft and smart card removal, rendering them useless. Replacement set top boxes cost $449 at the Yuelamu store, which is unaffordable for most residents.

- "I have the VAST satellite setup [at home but] it's all up to you to look after [the set top box]. You break it, it's going to cost you, because those things cost [over] $400 around here." (Mel Langdon, Resident/Co-researcher, Yuelamu, 2023)

Rooftop satellite equipment can be impacted by storm damage or deterioration of cabling, however there is no planning or funding allocation for maintenance of VAST equipment in most remote communities.

- "[Since the VAST rollout] there's been no ongoing support. [So] if a satellite dish gets knocked off alignment by wind or kids with rocks [or the LNB on the satellite dish] fails or the cable gets eaten by birds, any number of things, there's no way of easily getting a repair crew out, without paying thousands of dollars for someone to come out from Alice Springs. If you were more remote, it's so expensive you just can't do it." (Jeff Bruer, former General Manager, PAW Media, 2022)

In nearby Yuendumu community, PAW Media staff estimated that over 60% of households no longer have VAST TV services working, with a similar failure rate in other communities in the region.

- "[There is an urgent] need for support for communities that are reliant on the VAST network for television [services]. The failure rate of satellite dishes and satellite set-top boxes is really high, and there's nothing local people [can] afford to do about it. It's a real scandal, given how important those national communications are." (Jeff Bruer, as above, 2022)

This increases household expenses, with mobile data typically used to access news and entertainment.

- "[Most] set top boxes have stopped working [so] people are accessing their entertainment on 4G, which they're paying through the nose for pre-paid plans. [So] the most poor and vulnerable people in Australia [are] having to pay for services that are basically free to [everyone] else in Australia." (Jennifer McFarland, CAYLUS, Alice Springs, 2023)

The cost of satellite technicians, including travel, is prohibitive for individual households. With the nearest technical support being in Alice Springs 300km away, Yuendumu residents regularly ask PAW Media for assistance to fix their TV services.

- "[Unfortunately] we have very limited ability to go out and fix those problems. [It would be] a full-time job going around communities as a TV technician [but] we don't have the funding to employ someone to do that. We would love to train [local people] up [so a few] people knew how to do it, had working at heights certificates, and were able to fix their own or offer that service to their own community or other communities. Would be a thriving little business, huge demand." (Jeff Bruer, former General Manager, PAW Media, 2022)

The storekeepers suggested a government subsidy is needed to reduce cost, as with some whitegoods.

- "[Set top boxes are] quite expensive for us to buy, to supply. [They should be subsidised], like the washing machines. They [Government] do all these different incentives, why not do something like that, because [households] need that for communication." (Debra Teese, Manager, Alpirakina Store Yuelamu, 2023)

Prior to the mobile service, activating the smart card was challenging without phone and internet access.

- "You need a mobile, you need internet [to get Optus to activate] the card. [It is] difficult." (Fiona Jolley, Coordinator, Yuendumu Child and Family Centre, 2022)
- "[People have] problems activating the VAST TV box. [They need Wi-Fi] to activate their VAST TV box." (Norman Hagan, CDRC Council Services Coordinator, Yuelamu, 2023)

Demand for local TV broadcasting (2024)

While streaming services have become popular, we heard of ongoing demand for free-to-air TV services.

- "Not everyone has access to streaming services. [Yapa like watching] the football [on] ICTV [and] Channel 7. AFL's huge in these communities. So that's something people would watch on free to air. The Olympics is coming up, how are people going to be able to watch the Olympics?" (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)
- "[If] you don't know what's happening … you switch on your TV and you see what's [happening in other parts of the country or overseas]. I turn to ICTV and see the local people maybe doing a corroboree or local news … That's the one that most people watch, the ICTV and the NITV, [the Indigenous] channels." (Norman Hagan, Support Administration Officer, CDRC 2022)
- "[For news] I just jump onto Channel 7 or ABC news pretty much, because those two cover the whole Australia, [or] SBS News because that covers the whole world." (Mel Langdon, Support Worker, Coresearcher, Yuelamu, 2024)

However, in Yuelamu the reduction in VAST services has seen a corresponding reduction in TV viewing. The regularity of watching commercial TV services has dropped from 45% daily to 21% daily since 2022, while viewing of ABC, NITV and ICTV have all reduced from 30% daily to 1% daily. We heard frustration at the lack of TV services.

> **"Nowadays, you can't even watch Channel 7 [or] Channel 9 [or] ICTV…nothing at all! [With VAST] it's all gone backwards … instead of going forward."**
>
> — **Noel Heenan, resident, 2024**

- "[We want] television working." (David Stafford, Elder, Shire Council Worker, Yuelamu, 2024)

Streaming services such as Netflix, Binge and Kayo have become more popular since the mobile service was activated. Our 2024 survey found that 51% of residents used a paid streaming service daily and 23% weekly, up from 22% daily and 6% weekly in 2022. However, subscription services add to household costs on top of the cost of increased data use (see Affordability section).

- "Not everyone can afford to pay for subscriptions. People don't have internet in their homes. If you're watching a streaming service, then you're using a hotspot and that's going to chew through your data quite quickly." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)

With a review of remote television service delivery underway, we heard interest in a return to a broadcasting model in Yuelamu.

- "[Having] the old broadcasting, it was fantastic. [It] was really good for the community." (Noel Heenan, as above, 2024)

Local information sources are critical for new sharing and addressing misinformation

Local news and information sources in Yuelamu include:

- PAW Radio
- CDRC and CLC websites and Facebook pages
- Noticeboards and distribution of flyers
- Face to face communications.

These sources provide relevant information about meetings and events, service provider visits, news and weather or emergency situations. Our 2024 survey found that the most common means of accessing news and information was direct and in-person (99% daily).

Figure 21: Community noticeboards are still a primary means of sharing information

- "Bush Telegraph, I call it. Yeah. They just have to go and see each other over the hill or back over this way [to share the news]." (Mark Gray, Night Patrol and Youth, Sport & Recreation, Yuelamu, 2023)

The next most popular sources of news and information in 2024 were PAW Radio (28% daily, 43% weekly), commercial television (13% daily, 39% weekly), Facebook (11% daily, 14% weekly) and community noticeboards (9% daily, 6% weekly). These results were similar to 2021 survey findings in Yuendumu.

- "In remote Aboriginal communities, people get the information through word-of-mouth, [mostly through] their family groups … Around half [of the 50 households we surveyed] referred to radio as one of the sources of information … A lot of people still look at Facebook and also Instagram as their source of information [but for others it's mostly] radio and word-of-mouth." (Fiona Jolley, Coordinator, Yuendumu Child and Family Centre, 2022)

Interestingly, the use of Facebook for accessing news and information had decreased from 15% daily in 2022 to 11% daily in 2024, whereas other social media (TikTok, Instagram etc.) had increased from 11% to 17% daily. Social media sources were below PAW Radio and commercial TV (21% daily, 46% weekly), although this had dropped in use since 2022 (45% daily, 11% weekly).

There was previously a high reliance on social media for news and information which has previously resulted in misinformation spreading rapidly with limited ability to check accuracy. This occurred during the COVID-19 pandemic (see 2023 report) and the referendum on the Voice to Parliament.

- "[During the COVID-19 pandemic] the mob didn't have access to accurate news … There was so much misinformation being spread around remote communities through social media." (Chris Tait, General Manager, PAW Media, Yuendumu, 2024)

However, social media use has reduced due to the high levels of misinformation and racist commentary spread via social media during the COVID-19 pandemic and the Referendum on the Voice to Parliament, as well as following the tragic death of Kumanjayi Walker and other local events.

- "The information and news that you're getting [on social media] is not always off credible sources, depending on what your algorithm does or what other people around you are sharing. So, you end up getting some really skewed views of stuff." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

> **"[During the pandemic] it was really only through radio that they were getting accurate information in their language through the remote Indigenous media organisations that are working on the lands and translating and recording."**
>
> — Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024

The most common sources of emergency information in 2024 (e.g. storm warnings) were direct and in-person (97%), PAW Radio (88%), ABC TV (59%), commercial television (59%), Facebook (33%) online news services (33%) and weather apps (30%).

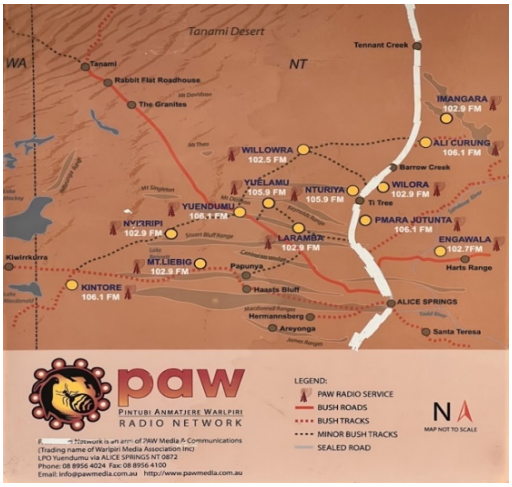


Figure 22: PAW Media supports 12 RIBS communities across the central desert region.

Listening to First Nations radio station 8PAW has increased in Yuelamu (2024)

Pintubi Anmatyerr Warlpiri (PAW) Media (formerly Warlpiri Media) is the regional media organisation that has provided radio and other media services across the region since its origin in 1984. The regional First Nations radio service is 8PAW Radio, which broadcasts programming in three languages — Warlpiri, Anmatyerr and Pintubi — with programs contributed from up to 12 Remote Indigenous Broadcasting Service (RIBS communities), including occasional shows from Yuelamu.

- "Our charter is to service and protect the media interests and promote the identity of Warlpiri, Anmatyerr and Pintubi people. We started in TV [and] then migrated into radio [and now] online and print media to a lesser degree. [We distribute] the 8PAW radio network [across] the Greater Tanami [region]." (Jeff Bruer, former General Manager, PAW Media, 2022)

8PAW is popular in Yuelamu with 79% of survey respondents listening to it daily or weekly in 2024 (up from 45% in 2022). The only other radio service in Yuelamu is a weak ABC AM service from Alice Springs, however no respondents listened daily or weekly in 2024, down from 24% in 2022.

- "Every day, as soon as we jump on a truck [we turn on 8PAW for] a little bit of music from the radio to keep you going." (Mel Langdon, Support Worker, Coresearcher, Yuelamu, 2024)

- "We do [listen to PAW Radio], especially on workdays. When we're driving around doing work, our radio is always switched on. [ABC Radio is] blurry because it's away from our signal area." (Norman Hagan, Support Administration Officer, CDRC 2022)

8PAW Radio is a full-time regional radio service providing locally relevant news and information in different formats. This includes information about upcoming events, doctor or dentist visits, community meetings, sports or church events, and sponsored government and health campaigns.

- "We broadcast in language live shows between 9:00 and 5:00 Monday to Friday. Then in the evenings, we play music and prerecorded content which would be in a mix of our languages, songs sung in language and prerecorded content in language and some songs in English." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)

PAW Media provides an hourly news bulletin, alternating between national and regional news.

- "We play [national news and] then on the second hour, we play updated bulletins specific to the Northern Territory and South Australia. So that gives more in-depth stories rather than just a countrywide view." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)
- "We get a little newsbreak [so] anything that's important comes up on our local radio station." (Mel Langdon, Support Worker/Co-researcher, 2024)

PAW does not have a regular news service but does broadcast local stories and produces podcasts.

- "We don't have a news service here. We do take news from CAAMA if [they have stories] relevant to our community [such as] the Kumanjayi Walker coronial inquest in town. [We also broadcast] local stories [that] are topical to our communities. We'll go out and do like an outside broadcast or interviews [and] create podcasts. We've created a bilingual education podcast [and another] about local footballing." (Grace Marshall, as above, 2024)

PAW Media received Community Broadcasting Foundation funding to upgrade the Yuelamu RIBS studio.

- "[This will] include [upgrading the broadcast desk and] installing Starlink at Yuelamu and [a] Tieline which connects [to] Yuendumu. [Now] the radio room can access the Wi-Fi [so] staff members [can] download new music [or] check the weather and do weather updates, news updates, community messaging. So, it keeps them connected with us as well." (Grace Marshall, as above, 2024)

PAW Media had installed Starlink at the Yuendumu hub and in some RIBS sites (2024)

After years of struggling with connectivity issues, PAW Media had a fibre optic connection installed to its Yuendumu hub in 2023 to improve broadband speed for uploading and streaming large media files.

- "When I first started, [PAW Media] just had dial up internet, it was terrible. So, we've kind of progressed, we've got fibre now [to our centre in Yuendumu. We] got it run from the [nearby] node to PAW a year ago." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

PAW Media reported a high cost to install a fibre optic connection.

- "You get [NBN fibre connections] free in the rest of Australia [but it cost us] $87,000." (Tess Foxworth, as above, 2024)

However, the capacity and reliability of the fibre optic service was still insufficient, leading PAW Media to install a Starlink service in 2024.

- "[The fibre connection] doesn't even work well. [It] hasn't been very reliable [so] we just rely on the Starlink [now]. In my opinion, the Starlink is better." (Tess Foxworth, as above, 2024)
- "For general streaming and browsing [the fibre connection is OK, but] trying to upload content [to Vimeo was] so slow. Trying [to] transfer information [from] our video department [or] access our music library and our radio department [was too] slow." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)

PAW Media has relied on Sky Muster services in the 12 RIBS sites but found that regular dropouts and latency issues affected the regional radio network.

- "[We have] to connect to other communities through the tie lines so people can do radio [shows. But Sky Muster was] dropping in and out. [We need to] share information through the internet, which should be quite straight forward, [but] it just lags [and] becomes frustrating." (Grace Marshall, as above, 2024)

As a result, PAW Media is transitioning from Sky Muster to Starlink in the RIBS facilities.

- "The reason we installed the Starlink is so we can have a remote monitoring set up [in] Nyirripi. [If] the Starlink is the best method rather than NBN, we'll get further funding hopefully next year [to upgrade Yuelamu and other RIBS sites]." (Grace Marshall, as above, 2024)

ABC radio services are no longer available in most Central Desert communities

ABC radio is considered a self-help retransmission service in remote First Nations communities nationally, meaning the community is responsible for the cost of maintaining the transmission equipment. However, since the amalgamation of communities under regional councils in the NT in the late 2000s and transfer of apparatus licenses, ABC services have typically not been seen as a local government responsibility. Further, with no funding available for equipment or technician costs to maintain these services, Remote Indigenous Media Organisations (RIMOs) do not have the capacity to maintain these services.

- "Financial support [is needed] to ensure that the ABC is [being] broadcast in these remote communities. [PAW Media can't maintain ABC] equipment [with] no budget. As a result, ABC radio services to most of our communities have failed … it's not a service we can replicate." (Jeff Bruer, former General Manager, PAW Media, 2022)

Given ABC's critical role in broadcasting news and emergency information, dedicated funding is needed to maintain ABC radio services in remote communities.

Journalists have social media posts and images to create news stories (2024)

The Warlpiri region has had several tragic events in recent years which have made national news. There is a concern that mainstream media journalists are seeking information from social media rather than speaking to people in the community to seek reliable information or permission to post images.

- "When there's a tragedy in the community, [mainstream journalists search] through all the Facebook posts and just create their own narrative based on information that might not be correct or that people have consented to." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)

This occurred following a recent tragic accident involving a Lajamanu family, leading to family disputes.

> "[Journalists took] photos [of the family] from Facebook [and] posted them [on] international news services. It went to the States [and] UK, and family thought that other family had given those photos [which led to fighting]. That's something that needs to be constantly explained in language [so Yapa are] aware how information is shared and accessed through the world." (Grace Marshall, as above, 2024)

Affordability

There are very low household incomes and high cost of living in Yuelamu

According to ABS, the average First Nations weekly household income in Yuelamu is $833 and the average personal income is $254, with most residents living well below the poverty line. On top of this, there is a high cost of living in Central Australian communities due to freight costs to deliver supplies and lack of bulk buying power by the store.

> "In remote communities around here, the decile on the index of socioeconomic disadvantage is one ... Alice Springs is eight, probably because we have a reasonably high Aboriginal population [and] in Darwin, it's nine ... Aboriginal people pay more for everything, not just connectivity. The lack of connectivity options means that people are actually excluded from participation [and] accessing essential services."
>
> — Jennifer McFarland, CAYLUS, Alice Springs, 2023

Affordability of mobile data and devices is a significant concern

Our 2024 survey found that 73% of respondents have had to cut back on essential household costs in order to afford personal or household internet within the past six months, up from 26% in 2022. 75% of respondents said they compromised on connection speed or quality due to affordability concerns, up from 22% in 2022.

In 2023 we heard concerns that affordability pressures would increase once the mobile service was activated, adding to existing high living costs.

- "[Affordability will be a big] problem, people spending money on buying prepaid data instead of spending money on food; now they'll be spending it on [mobile credit. And the kids will] be humbugging parents to buy them new phones, and paying them prepaid data, so that's going to cause a bit of problem with the family." (Norman Hagan, CDRC Council Services Coordinator, Yuelamu, 2023)
- "There'll be a lot [more] data usage in this community. Because mostly when these people get into a place where it's got mobile services [they use their phone a lot, but] right now they [have] no internet access whatsoever." (Mel Langdon, Resident/Co-researcher, Yuelamu, 2023)

Since the introduction of the 4G mobile service in Yuelamu, pre-paid mobile expenditure has risen significantly. Our 2024 survey found that average household mobile expenditure had increased to $253/fortnight, a significant increase from $138/month in 2022. There was an average of 3.5 mobile phone services per household, with 100% of mobile users being on pre-paid plans.

Most residents told us they were spending a lot more on pre-paid data, with increased household data use for streaming seen as a major contributor to the cost burden.

> "[People] are buying more data than they used to purchase or to put more credit into their phone so that the kids can use the phone to play games or to look onto YouTube ... it's costing [over] $50 monthly [for each phone]."
>
> — Norman Hagan, as above, 2024

- "Some of the people [have to] recharge it all the time … they use too much data all the time." (Cliffy Tommy, CDP Supervisor, 2024)
- "[Most kids, even] the tiny ones [are] just stuck on phones. [My daughter] watches a lot of cartoon[s] on my phone, [which] cost me a fortune to buy some prepaid recharge. [For all families now] it'll cost them more. It's better [to] put a little limit [on kids' online] time." (Mel Langdon, as above, 2024)
- "[People pay] a lot of money [for] credit. [And] children, grandchildren. Too much." (David Stafford, Elder/Shire Council Worker, 2024)

The cost of mobile devices is also challenging with high turnover and sharing or transferring of devices within households. In nearby Yuendumu, a 2021 household survey found that regular purchase of mobile devices is a significant cost burden on low-income households.

- "People who worked had more resources to buy things [like] mobile phones. [For households with] less income … there might be a mobile phone in the house that has internet, but the children might be the ones accessing it, not so much the parents. Or the whole family would use that as a resource." (Fiona Jolley, Coordinator, Yuendumu Child and Family Centre, 2022)

The high turnover of devices is often due to screen damage, with the closest repair service in Alice Springs 300km away. There were no protective phone cases available for sale in the local store.

To reduce device cost and demand from family members, some Elders prefer to use non-smart phones.

- "That's why I use this little phone … that's all we need, [just] for phone calls. [There's no games on it, so kids] don't humbug." (David Stafford, as above, 2024)

Reliance on pre-paid mobile for internet use has increased as home broadband use has reduced

Despite pre-paid data being much higher cost per gigabyte than post-paid rates, 100% of Yuelamu residents are using pre-paid services for mobile phone use. This enables people to pay what they can afford, rather than committing to a monthly billed service which they may not be able to pay when due.

> **"Prepaid is just so much easier to manage. … It's the most expensive way of buying data that you can get, but people know where they're at with it … It just gets used up very, very rapidly."**
>
> — **Jennifer McFarland, former CAYLUS Coordinator, 2022**

The reluctance to take up billed services is largely due to unreliable incomes and prior experience with excess bills, especially with large households sharing data. While mobile plans have now changed to month-to-month contracts and excess data charges replaced by shaped plans, there is currently limited information available on plan options. Also, post-paid sales are only available at Alice Springs or online.

With 4G now in Yuelamu, there is a need for consumer awareness about options including pre-paid and post-paid plans, types of phones, satellite services and providers, and strategies to manage data costs.[13]

[13] Telstra contracted CfAT to visit Yuelamu to provide awareness about mobile phones and plan options, with a visit on 19th May 2023.

- [Pre-paid data is] a high cost … I'm on an $80 plan for internet and I get 400 gigs [but] people don't know how to access those other plans … we talk about the digital divide and that [cost] divides people further. Because people don't have regular incomes or their money's more uncertain, they're caught into needing to use the pre-paid which is a safer way, but they get less access." (Fiona Jolley, Coordinator, Yuendumu Child and Family Centre, 2022)

Having household internet should be a way of reducing the cost for increasing data use for content streaming. However the previously high uptake of NBN Sky Muster services had dropped in Yuelamu since the introduction of the mobile service, down from 24% in 2022 to 5% in 2024. Survey comments (page) suggest this decision was based on the high cost of Sky Muster services. Our 2023 survey found that 88% of those with Sky Muster were on standard 25/5Mbps plans which had data caps and excess data fees. As a result, some households were paying up to $200/month in 2023 due to excess data costs.

While NBN had introduced the Sky Muster Plus Premium option in 2022, a faster service with unlimited data use for about $99/month. While this would have provided significant savings for households using Sky Muster services, we found a lack of awareness of this option in Yuelamu. However, one household had set up Starlink due to providing unlimited data and high speed.

An awareness campaign for First Nations households about plan options would help reduce affordability impacts. While there had been some basic digital awareness training arranged by Telstra prior to the tower being switched on, there was no independent agency providing financial literacy support to help manage data costs by purchasing better value recharge vouchers, managing data use or setting up household broadband services. Residents are having to work out strategies to manage these costs.

- "[Mobile costs make it a] bit hard but it's pretty much just a learning phase. You've got to control [the] amount of money you'll have to spend for you to go online. So, it's just that bit that people need to try and figure out." (Mel Langdon, as above, 2024)

Digital Ability

While the number of internet users has increased, average digital ability levels has decreased

Our 2024 survey found that 81% of respondents had used the internet in the previous six months, a significant increase from 54% in 2022. This is a direct result of increased internet access since the mobile service was introduced. However, our survey results show an overall decrease in digital skills among regular users, with limited use of online tools and services beyond streaming and social media among the new users. We have also refined our survey method since 2022, with reduced self-completion to ensure more consistency between communities, resulting in lower digital ability scores.

This reduction is seen most starkly in basic digital skills. Of the 81% of regular users in 2024, only 48% could open a new internet browser tab (responded 'very true' or 'mostly true', down from 94% in 2022), 26% were able to send and receive emails (67% in 2022), 66% could find and install apps/software (85% in 2022), and 38% could complete online forms (down from 85% in 2022).

The increased usage rate had also reduced average online services use in 2024. Among regular users, 77% reported using online banking in the last six months (down from 94% in 2022), 70% accessed government services (81% in 2022), 32% did online shopping (61% in 2022) and 70% did some form of online learning or study (81% in 2022).

We expect these levels will increase as new internet users become more familiar with using online services on their devices. Digital literacy is increasingly a necessary life skill for accessing online information and services independently, undertaking online learning and using digital technologies at home and in the workplace. It also helps to build people's world view and opportunities to learn.

- "So when people have IT, that opens up more of a world for people's knowledge and skills … but when you don't have access you don't have that larger world view. And that really does affect people's ability to participate, learn, engage, train." (Fiona Jolley, Coordinator, Yuendumu Child and Family Centre, 2022)

Previously, we have heard how remote First Nations people selectively engage with digital technologies in line with their needs and interests.

> "[People have] become very savvy about using technologies in ways that suit them. There are cultural specificities to the way people use their data. There are also areas where their expertise is off the scale, they are so clever with it, but there are other areas where they don't venture into at all."
>
> — Jennifer McFarland, former CAYLUS Coordinator, 2022

Digital literacy tended to be lowest among people over 50 years of age, people with disability, and those with limited English literacy. In Yuelamu, 99% of people surveyed spoke an Aboriginal language at home, with 76% indicating that they understand written English very or quite well.

> "One of the obstacles is [the lack of] support [for] people who've grown up without English as a first language, older people particularly, who aren't digital natives. The challenges they face in logging on [to] the internet, getting onto a bank account, getting onto government services online, is just impossible!"
>
> — Jeff Bruer, former General Manager, PAW Media, 2022

- "If English is your third or fourth language, then navigating some of those websites, particularly the government ones, is a mission … People need help with that kind of thing. [If apps are well designed, people can] extend the skills that they've developed on Facebook, or TikTok [or] multimedia [applications] to interacting with [online services]." (Jennifer McFarland, former CAYLUS Coordinator, 2022)

Of the 19% of 2024 respondents who never or rarely used the internet, the most common reason for not using the internet was not having confidence in using it (100%), with 81% also citing the lack of online content in their language.

Need for ICT access facilities in Yuelamu

Computer access is critical to developing keyboard skills and learning to use a range of applications. However, our 2024 survey found very low household use of computers or laptops (9% of respondents used a computer and 3% used a laptop). This points to the need for community access computers.

- "[People need] basic computer skills, even really simple keyboard shortcuts to copy and paste, mouse function, how to connect to Wi-Fi on a computer…just being taught how to correctly save a file." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)

Figure 23: Computers in the Centrelink agency

There are two community access computers in the Centrelink office (adjacent to the community office) for community use for Centrelink, myGov, banking, licensing and other online services, as well as free Wi-Fi. CDRC staff support residents to use online services, both on the Centrelink computers or their own devices connected to the Wi-Fi. Administration Officer Norman Hagan helps people address problems with banking or Centrelink, including translation support when speaking to customer services.

> **"If [people] need help, I go and help them out, make sure they have the right email address, password and [identification needs]. A lot of them go to the CDP [Coordinator for help to get] access to the bank or do their Centrelink reporting."**
>
> — Norman Hagan, CDRC Council Services Coordinator, 2024

However, Norman noted that demand had reduced since the introduction of the mobile service.

- "[Not as many people are] coming in to use the Wi-Fi computers here at the Centrelink [now]. They've been using their own phones probably at home doing their reporting at Centrelink and internet banking. [The] only time they come to use is when they [run out of] data on their phone." (Norman Hagan, as above, 2024)

The CDP training room is the only space in Yuelamu other than the Centrelink office with a community access computer for adults, and for informal digital skills support as needed.

- "We've got the laptop in the conference room which job seekers use, to look up jobs or do tasks like online banking and stuff like that. [We also] get people coming in here often to use the laptop and the phone, [likely] due to affordability. [They] come and grab me if they want a hand [with] myGov, online banking, anything they want help with on the computers." (Adam Yates, CDP Supervisor, 2024)

A computer room was previously set up by CAYLUS at the sport and recreation hall for youth, but was no longer in use due to missing equipment, lack of capacity of CDRC youth workers to supervise the facility, and the building being inadequately sealed.[14] There are hopes to re-establish a youth facility in the future.

There were calls for more digital training and support, including workplace training

Limited digital skills are increasingly a barrier for job seekers in finding employment options. With internet access now readily available, we heard calls for more digital training and support, with structured workplace training increasingly needed for computer skills for sales, administration and governance roles.

- "We haven't had any [specific workplace] training so far, but it would probably be something that the community would benefit from. [Nowadays] a lot of jobs [require] admin skills and computer skills … those skills are important." (Adam Yates, CDP Supervisor, 2024)
- "I think mainly there needs to be [more phone and] computer training … That's why there's people hanging out for jobs like admin jobs because they don't know how to use the computer properly. Maybe if they get trained to do that and then they get a certificate in literacy and numeracy [they could] get a job." (Norman Hagan, CDRC Council Services Coordinator, 2024)

With limited training opportunities in both Yuelamu and Yuendumu to learn workplace applications, on-the-job training is often required.

[14] Email correspondence Jennifer McFarland, CAYLUS 17/11/22.

- "[People can do] online shopping [and banking and other basics] but it certainly doesn't prepare them for [using] a computer and the larger programs [used in workplaces] like Outlook and calendars and emails … You end up doing a lot of peer mentoring with people in the workplace [to] show people how [to] do a basic email or to do a Word document or try to do an Excel, the basic skill level is quite low." (Fiona Jolley, Coordinator, Yuendumu Child and Family Centre, 2022)

We also heard suggestions of workshops designed for Elders or other target groups.

- "I think, especially the oldies are having difficulty in using the phones because I've seen one of the oldies using the old phones, not the one that...not the smartphone but the old phones mainly. So, I don't think they know much about them, but I think their granddaughter's been helping them or grandsons helping them doing internet banking and Centrelink makeup accounts." (Norman Hagan, CDRC Council Services Coordinator, 2024)
- "We [older people] need to learn … for phone, everything, banking and all. Everything like that." (David Stafford, Elder/Shire Council Worker, 2024)

Community access facilities and digital support has reduced in the region in recent years

In nearby Yuendumu, the Warlpiri Youth Development Aboriginal Corporation (WYDAC) previously operated a learning centre with community access computers and training facilities. However, the centre closed in November 2021, with funding since withdrawn by Warlpiri Education and Training Trust (WETT). Batchelor Institute also previously ran a learning centre in Yuendumu and several other larger communities in the Central Desert region, with a coordinator available to provide some digital support. However, the Batchelor learning centre in Yuendumu also closed in 2023. In Yuelamu, there was also a lack of training options.

- "Maybe 10 years ago, I used to see someone from TAFE used to come to do computer trainings in business. And after that, people used to get certificates, but it was paid training as well through Abstudy." (Norman Hagan, CDRC Council Services Coordinator, 2024)

Previously the WYDAC learning centre assisted people to safely store their identification documents and log-in details. With WYDAC closed, this important service was no longer available in Yuendumu.

- "So WYDAC [learning centre] kept people's information safe for them, hard copies, like Super or birth certificate copies, tax file number information, death certificates, marriage certificates …there's such a strong need for [that service]. How are people going to keep things safe? People move around, it's transient, housings overcrowded. There needs to be a way for people to keep their personal information safe, and that was the service that the learning centre oversaw." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)

PAW Media previously delivered digital skills support through the inDigiMOB Digital Mentors program.

- "[inDigiMOB] was a tremendous initiative [to support the] community [with] digital mentors, Warlpiri people [helping] others to learn the basic skills and be able to pass them on, and to be able to help their families and friends. [People found it] great [to have] someone who you knew and trusted [to] help get you online and show you the ropes with solving those problems. That's what inDigiMOB was set up [for]." (Jeff Bruer, former General Manager, PAW Media, 2022)

However, with the learning centres in Yuendumu closed and the inDigiMOB contract concluded, there is increased demand on local agencies for help with online banking, mobile phones and other IT needs.

> "[There is] demand for all the service providers to help people with online passwords and accessing key cards ... because there's no one else doing it for them ... People come in all the time asking us to help do it, recharge, or even transfer money so they can buy a recharge. [Most] service providers [here] help people."
>
> — Fiona Jolley, Coordinator, Yuendumu Child and Family Centre, 2022

As a result, PAW Media was in the process of re-establishing a computer access centre in 2024.

- "In the past, PAW was an access point but over the years our computers became a bit obsolete and older, so we [applied to] GMAAC to get funding for that community room. [In] the next financial year, we'll have six new computers [for] community access." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

However, there was no operational funding for the access facility. PAW Media Manager Chris Tait described the role of the Irrunytju Community Resource Centre[15] provided by Ngaanyatjarra Media in WA.

- "[Ngaanyatjarra] Media were funded [to run a] Community Resource Centre [at] Wingellina. There was [a coordinator] there [to support] people [to use computers], do their banking, have access to the internet, and it was just a very good program. [But] that doesn't exist here [in] Yuendumu and other communities, there's nowhere to go. [That] means that PAW is getting people just coming in and asking for that [support]. So, we've had to set that service up [here] pretty much on our own." (Chris Tait, General Manager, PAW Media, Yuendumu, 2024)

Demand for digital mentors to support people with daily digital needs

Family and peer support is currently the primary means of digital skills development in Yuelamu.

- "Some family members may be able to help [you learn] how to open up your phone, or searching, [or online] banking on the phone." (Norman Hagan, Support Administration Officer, CDRC, 2022)

> "We need someone [to help us learn to use] the phone ... the young people [who are] clever [with] technology [help] some of the old people who don't know about it."
>
> — David Japanangka McCormack, traditional owner/leader, Yuelamu, 2023

While Yuelamu has some digital support at the Centrelink and CDP centres, a funded digital mentor position would help to improve digital ability and use of online services. This would also reduce demand on local agency staff, enabling them to focus on core business.

We heard of high-demand tasks that a digital mentor could support residents with, including helping to activate mobile phone SIMs, sourcing identification documents, setting up an email address and online accounts, file management and search, and raising awareness of online safety and security.

- "If there was to be a digital mentor, that [security awareness] would be a part of what they do but supporting people in getting their identification sorted would be number one really for the needs here, and showing people how to use myGov, all the different services that are online now. How to do their taxes, how to do Super." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

[15] Community Resource Centres are dispersed across regional WA to provide community access IT facilities. WA Government provide funding support to cover a part-time role, equipment and basic operational costs.

Digital mentor support would ideally be delivered from an access facility with free computers and Wi-Fi.

- "[To support Yapa to become digitally] independent [they] need mentoring and training. [Those with digital] skills and knowledge [need] access to [a] computer and Wi-Fi [to support others to] become more independent in doing it themselves down the track. [They need] public facilities because people can't be [expected to use] their private facilities to do these things." (Fiona Jolley, as above, 2022)

Appropriate applications and content are the key to digital engagement

CAYLUS have set up computer rooms across Central Australia, including Yuelamu, and have found that the 'winning' applications for engaging people in using digital technologies are social media and creative software, such as Garageband for music recording, video production, photo manipulation and design.

- "Facebook's [popular] because you can communicate with your network … TikTok is the current craze [for young people]. Young fellas really like Garageband, because they all want to be rock stars, and [they] stream community football … Anything multimedia is really engaging, and it's easier for the older people … visual [media] is where they get their info." (Jennifer McFarland, former CAYLUS Coordinator, 2022)

Due to limited connectivity in many sites, CAYLUS use computer-based offline applications rather than cloud-based systems, including loading archive collections onto the computers.

- "[We use software] that's accessible offline where we can. For instance [we gave] computers to the Purple House with the Pintupi Luritja photo archive on it because people, while they were getting dialysis, they're sitting in a bed for five hours with a tube in their arm and they would flick through the photos … It's a really good resource." (Jennifer McFarland, as above, 2022)

PAW Media's former General Manager said that there is demand for First Nations and local content online.

- "IndigiTUBE, ICTV Play … Any platform that has an Indigenous-branded, focused content preference tends to be very popular." (Jeff Bruer, former General Manager, PAW Media, 2022)

Facetime and videoconferencing applications are also particularly suited to Yapa modes of communication, enabling use of language, body language and facial gestures as part of communication. Media pioneer and former CLC Chairperson Francis Jupurrurla Kelly described how videoconferencing is popular among Yapa for meetings, as people can talk freely in language and 'kardiya' [non-Indigenous people) are less likely to interfere.

- "Kardiya might be using the email and writing the words in English [but] they can't communicate in language so Yapa still have control in the videoconference." (Francis Jupurrurla Kelly, media pioneer/former CLC Chairperson, 2022)

With mobile phones used for most online access, training is needed in use of mobile applications.

- "[We need] education around [setting up] Gmail so they can download apps through Google Play [and learn about] the Google suite. On their phone, they can access documents, they can access their Gmail [and] upload to their G-drive. It's free with a certain amount of storage … they can use their phone for all of that." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)

Despite prior concerns, mobile access had not increased cyber-safety issues in Yuelamu (2024)

Yuelamu community is made up of primarily of Anmatyerr people, with strong social and cultural cohesion. While there is overwhelming support for 4G to come into the community there is concern about

the impact it will have, based on experiences from other communities in the region experiencing social media incited conflict as well as scams.

Previously we heard concerns from community leaders about potential increase in cyber-safety issues when mobile was switched on, based on what they had observed from Yuendumu (see 2023 report).

- "There'll be a big problem especially with Facebooking and TikToking. Probably kids not attending school, playing games all night on the phone. [Facebook can] cause jealousy, fights, people swearing at one another, texting. So I reckon maybe stay off Facebook [and] look for news or what's around the world [or] look at [local archives to] learn things [and see] bush trips and old photos of family members." (Norman Hagan, Support Administration Officer, CDRC 2022)

The community had actively promoted cyber-safety awareness in preparation for the mobile service.

- "We have to be prepared for all the cyber bullying [and] stuff that goes with having connections [once the 4G is switched on]. Because there's a bit of that going on now. [When kids] go into Alice they bring back all these messages from other people and it causes a few problems. [I'm] just letting the kids know about it's a powerful tool [but] it can do a lot of damage … If they just send some text about some girl or some boy and that then it goes to someone else, [then] someone else … it can snowball big time." (Mark Gray, Night Patrol and Youth, Sport & Recreation, Yuelamu, 2023)

We found relatively high awareness of online risks from mobile use in Yuelamu. In 2024, Mark Gray told us he had put up posters about online bullying and talked to young people about how to behave online.

- "There's antagonistic posts that go up [occasionally] and it blows up situations that might have been resolved within the community. People are much more likely to say something when they're hiding behind a phone through a post, or a message than maybe face to face … that does cause issues." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

Apart from minor altercations, we heard little evidence of increased cyber-safety incidents or scams in 2024 following the activation of the mobile service. It appears that existing familiarity with online use helped to limit the impact, as well as the local efforts to prepare for the new service.

- "It's happening [in] some other communities, they like talk on phone and threaten each other over phone [but] I haven't seen happening here in this community. Things like that happen now and then but not really a big deal." (Cliffy Tommy, CDP Supervisor, 2024)
- "I haven't heard [of any] bullying, or online or Facebooking trouble … Life is normal here in the community." (Norman Hagan, CDRC Council Services Coordinator, 2024)
- "Not really [fighting], just plain old jealousing been going on in social media but other than that everything's all good." (Mel Langdon, Support Worker/Co-researcher, 2024)

Scams remain a significant concern with training and awareness required

With some recent incidents of scams, we heard calls for greater scam awareness training.

- "[We] need to learn … about all these [scams]. They're pretty tricky [especially] for romance one … I heard story of [someone here getting scammed and] sending money. [Another person paid $250 to get a $10,000 payout. So she] put the money in, and the next one they said, 'you've got to put another $500 and then you'll get the $10,000' … So she done it a couple of times." (Cliffy Tommy, CDP Supervisor, 2024)

- "[Scams are] a bit of problem [here. If someone] says, give us your bank details, we're going to give you money, there's probably a lot of people in community that might fall for that because [of limited awareness] about scams and modern age internet." (Adam Yates, CDP Supervisor, 2024)

Another scam that has impacted residents is fake sales of vehicles and other desirable items.

> **"A couple of families [lost money] from buying cars [online]. The scammers send a picture of that car [on Facebook], then they say 'oh I like this car', [and they pay and get told] go pick this car up at this address but it's all [been] made up. So that's the scam now, there's all different kind of scams."**
>
> — **Cliffy Tommy, as above, 2024**

Some scammers impersonate family members to request money.

- "There's a lot of scams [where] they'll be using family's name [and] they'll be acting like them … One time my 'nephew' rang me up and I answered the phone. [But] I heard his voice, 'no you not him, you sound different'. And he turned around and say 'you could win a money', [and] I said, 'are you using my nephew's profile?'" (Cliffy Tommy, CDP Supervisor, 2024)

With an increase in scam calls, texts and online messages, there is generally a need for more cyber-safety awareness and resources to inform people how to discern and avoid them. CDRC staff, GMAAAC Committee and Yuelamu Elders have discussed the potential impact of cyber-safety issues and the need for more awareness around scams and cyberbullying particularly, with more support for young people.

- "[There] should be a bit more education [and resources] like posters, [and] schools should have a meeting about the damages that social media can do mentally. [There's a high number] of suicides in teenagers and kids because of social media bullying and it's just snowballing. [We have] to help the kids just to make sure they've got the tools to know what they're doing [and] understand it." (Mark Gray, as above, 2023)

There are also reports of financial fraud occurring within families.

- "Young people are [digitally savvy but that's leading to] a level of fraud within families too, people taking money from their grandparents' bank accounts, changing passwords on people's accounts. So in this realm of ability within a community, there's people who are knowing really well to make it work for themselves and others that are getting quite powerless." (Fiona Jolley, Coordinator, Yuendumu Child and Family Centre, 2022)

The Office of e-Safety staff visited Yuendumu in 2023 to discuss local challenges and identify targeted resources and support needed. They now provide online resources for First Nations people in several First Nations languages (www.esafety.gov.au/first-nations).

Need for increased awareness about managing social media content and settings

In a conversation with PAW Media staff in Yuendumu, they raised the need for awareness around social media use to improve online safety and wellbeing. This included information about how the platforms store and use personal information and content.

> "[People need to understand] how Facebook and social media services access information and store information and can use that information. And that when things are uploaded, they're permanently there forever."
>
> — Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024

They raised the difficulty in removing an online profile, especially after someone passes away.

- "Profiles and stuff is out of our hands. If someone [passes] away, [the family are] not able to get in there [to remove a Facebook profile or images] without that password." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

There was also concerns about people not being aware of privacy settings or the implications of sharing content publicly.

- "If someone asks to take a photo of you and then they put that on their Facebook [page], you need to be aware of how many friends they might have or if their profile is private or things like that. I feel like a lot of Yapa upload [content but are] unaware that there might be consequences. [Yapa] get hacked all the time, they get scammed all the time." (Grace Marshall, as above, 2024)

With recent experience of racist comments on social media posts, Grace raised the need to learn to switch off or moderate comments.

- "[I] see racist comments on people's TikTok and things do go viral. [On platforms like] TikTok, Instagram, Facebook [you] can make your profile private, [to] stop people commenting. The same as YouTube. A lot of Yapa put music videos on YouTube that people can comment on, so you can turn off those comments. [Also] you can delete comments [so] you're not having to read those horrible things that people might be saying." (Grace Marshall, as above, 2024)

Local Digital Media Content Production, Archiving and Sharing

Local music production and sharing

There is interest in having more training and support for music production in Yuelamu. There is a small music recording studio on the school grounds but this has limited access for adults, including after-hours.

- "They've got a little studio here right now. It's a good little setup but it's too small [so they are getting another room] renovated. [The bands] haven't been [doing much music] lately because I think all the equipment's gone missing, or broken or whatever." (Mel Langdon, Resident/Co-researcher, Yuelamu, 2023)
- "We're still waiting for music [studio] because there's nothing happening … That's why all the young fellas, they're just wandering around … We love music so [we want] help from PAW just for recording and all them things. [We're] waiting for that studio but they'll take a long time." (Anthony Briscoe, Resident, 2023)

PAW Media is the lead agency for contemporary music development and recording in the region, with a music recording studio at its hub in Yuendumu. Following a scope study by PAW Media, GMAAAC have funded construction of a new music studio in Yuelamu, with PAW Media supporting fitout and equipment.

- "We [helped GMAAC] to plan the fit out and to purchase the equipment for [Yuelamu] and to assist with installing it into the space." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

However, due to lack of staff accommodation in Yuelamu, PAW Media is unable to position a staff member in Yuelamu. They were considering an outreach support model instead.

- "[PAW Media staff] could maybe do one [Yuelamu visit] a month. [But] there's no accommodation [in Yuelamu so] we can't hire somebody to live there full time." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

Demand for digital production for language and cultural maintenance

PAW Media, formerly Warlpiri Media, has a 40-year history of media production, broadcast and archiving to help maintain the region's language and cultural heritage. PAW Media has a video production arm which produces community videos, such as meetings, sports matches, cultural events, as well as commissioned projects such as health awareness, financial literacy, education and so on. PAW Media also has a history of producing high quality animation films of cultural and community stories using claymation techniques. PAW has also produced television series, including the well-known 'Bush Mechanics' series, and documentaries including the 2016 production 'Coniston' about the 1928 Coniston massacre, co-produced with Rebel Films and made with the Yuelamu community.

Dennis Charles grew up in Yuelamu and has worked as broadcaster, video producer and translator with PAW Media. During the COVID-19 pandemic, he translated health messages to Anmatyerr language for radio and social media. He has also made radio documentaries to showcase local history.

- "So [I record stories from] old people … just amazing stories and thinking that what [stockmen did] in their long life, working or whatever they did was amazing … [walking hundreds of kilometres with] their horses. [I also] do research on myself … on the internet and try to find out where I'm from, but mostly with PAW and on the Anmatyerr side … everything might change in the future [but I really want to] keep running our media." (Dennis Charles, Broadcaster/ Archive Worker, 2022)

Figure 24: Lyndon Ormond-Parker with Dennis Charles during 2022 research visit

Elders called for more recording and documentation of oral histories and cultural stories.

- "Some of [us got] stories from the old grandfathers … I know the songs, song lines and everything [for] this place. [I pass] the stories [to] next generations. [Some stories can be told], some don't, [so the] TO's got to come first and record them." (David Japanangka McCormack, Traditional Owner/leader, Yuelamu, 2023)

The rangers are also documenting local sites, animals and plant species around Yuelamu.

- "[We] go out bush, seeing different animals, taking photos [of] the kangaroo or anything [and put it on iTracker on the iPad. Rangers] from Kiwirrkurra and Kintore, they're taking the photos of all the little animals." (Anthony Briscoe, Resident, 2023)

There were calls for more training in digital media production to create local language content.

- "We need a more training [to make] video [using] the mobile phone, [and to show people how to tell their] own stories [in] language … We need PAW to come to Yuelamu to teach young people [and] interview [people about] what we do [here]. We need more talking, we need more voices." (Anthony Briscoe, Resident, 2023)

Audio-visual archiving and community access

PAW Media has an extensive archive of locally produced audio-visual recordings since 1983, including photos, community records, video and audio recordings at its hub in Yuendumu. It also holds many older Warlpiri films and documents produced by others, including items from 1933. PAW Media has digitised much of this collection and has a dedicated room for community access to the digital collection, with cultural management to ensure appropriate access to sensitive and cultural materials.

- "[The collection includes] photos, videos, pictures of artefacts. Then we've got hard copies in our physical archive as well. For films and stuff, we've just been working with First Nations Media to digitise everything off the old tapes [so] that it's safe." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

PAW Media received GMAAC funding in 2023 to re-establish its archive collection on the Keeping Culture platform,[16] reinstating thousands of historic photographs and audio-visual items that had previously been archived on the system. The Keeping Culture platform is a cloud-based cultural archive management system designed specifically for Australian First Nations community collections and cultural management, originating as the Ara Irititja archive project in the APY lands of South Australia.

- "[Keeping Culture is going] good, we're uploading to it. We've got an archive coordinator that uploads to it with her stuff." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)

While Keeping Culture is an excellent system, the subscription is costly at $6000 per annum, making funding sustainability a challenge.

- "[GMAAC] funded half of it and PAW pays for the other half. We only got funded for it in this financial year, so we've only had it up and running for the last six or seven months. [Our team is] adding new stuff daily [and] we've put some time into training." (Tess Foxworth, as above, 2024)

With strong community demand to access the collection, PAW Media has set up a dedicated archive and computer room, with digital support provided by the Archives and Digital Literacy Coordinator.

- "People are coming in more and more [to look at the archive.] Our language and culture room [will provide] community support for digital literacy rather than just the archives." (Tess Foxworth, as above, 2024)

There is also strong community interest in Yuelamu in having access to the PAW Media archive. While the Keeping Culture system is cloud-based, remote access was yet to be rolled out regionally.

> "[People here] like old stories [and videos], especially when the old people are telling the stories ... They hold it at the PAW office at the archives department [so] we don't have to lose anything. [They even hold items] that aren't [recorded by] PAW Media."
>
> — Mel Langdon, Resident/Co-researcher, Yuelamu, 2023

First Nations Media Australia (FNMA) and AIATSIS are supporting many First Nations media and community organisations in central Australia to digitise their vast audio-visual collections.

Yuelamu resident Dennis Charles has worked as an Archive Officer with FNMA and AIATSIS. He described the importance of this work.

[16] Keeping Culture Pty Ltd https://www.keepingculture.com

- "[I] digitise [about] four videos a day … While I digitise, I just write down what's going on about the video [for the catalogue]. Some were from Congress back in the nineties [or] PY Media back in the eighties … I'm so happy [to be] digitising all of [the old videos] at First Nations Media. And coming across one of my family when I was a child that I saw all those years ago came back to life on a video [and see old people back] when they were young. I'm so happy [to keep those videos alive for the next generations] of Anmatyerr and Warlpiri … I love it." (Dennis Charles, Broadcaster/ Archive Worker, 2022)
- "[Dennis has] digitised a lot of PAW's old videos and cassettes, along with our local staff here as well that have gone into town and had training with First Nations Media. And he's come out here and trained them in digitising as well." (Grace Marshall, as above, 2024)
- "they're putting up a lot of photos of [the] countryside's or how to cook traditionally." (Mel Langdon, as above, 2024)

With funding being sought to build a new art centre in Yuelamu, this could be an appropriate location to provide a community access archive computer and possibly a digital media production space.

Challenge of storage of personal photo storage and removal from social media profiles

IN accordance with Warlpiri cultural protocols, PAW Media can restrict access to images of deceased people in the digital archive. While this was relatively manageable within a centralised collection, the extensive use of social media by Yapa for sharing photos makes it much more difficult to remove deceased content.

- "People have asked for things to be removed [from the PAW Media archive]. We've [also helped people go] through Facebook and we've removed stuff. But it's really difficult to know that [an image is] definitely gone because of who might have shared it or where else it might have ended up, or people screenshotting them." (Tess Foxworth, Operations Manager, PAW Media, Yuendumu, 2024)

Increasingly mobile phones are used by Yapa for taking and storing photos. However, content stored on the phone is often lost when the phone is damaged or lost.

- "If you lose your phone, you lose everything." (Tess Foxworth, as above, 2024)

There is a lack of awareness of storage options for personal photos created on mobile phones beyond posting on social media.

- "Most people … are using Android [so] they wouldn't be using the iCloud [to store photos or videos]. A lot of people do have Gmail, but I don't know if they're uploading to their G-drive or anything like that. I think it's just [stored] on their phone and when they upload to Facebook." (Grace Marshall, Radio Co-ordinator, PAW Media, Yuendumu, 2024)

This points to another role for community access facilities and digital mentors to support people to download and safely store their photographs for future access and use.

04. CONSIDERATIONS FOR LOCAL DIGITAL INCLUSION PLAN

Developing a local Digital Inclusion Plan enables a coordinated place-based approach to address some of the challenges outlined in this report. It also provides a useful tool for advocacy to government, industry, and for fundraising efforts. The strategies below are based on input from community stakeholders and are possible options for local planning to improve communications services and digital inclusion in Yuelamu. These are not intended to be prescriptive, nor are they listed in order of priority.

Based on our 2024 interviews and discussions, the proposed Digital Inclusion Plan has been updated with new strategies and a column for Progress/Next Steps, to track progress on the actions over time.

Legend	
Issue resolved	
Issue partly resolved/underway:	
Yet to be addressed:	

Identified Issue	Possible Actions	Potential Stakeholders	Progress/ Next Steps
Access			
4G mobile service: Awaiting activation in 2023	Mobile service to be activated by Telstra once backhaul and power supply completed	Telstra	*4G mobile service activated 30 June 2023*
Wi-Fi access: Ongoing need for Wi-Fi access beyond 4G installation	Switch Activ8me Wi-Fi hotspot at store from costly voucher system to free access (previously listed in Affordability)	Australian Private Network (APN) National Indigenous Australians Agency (NIAA)	*Activ8me Wi-Fi switched to Sky Muster Plus premium and free access in late 2023*
	Continue provision of free Wi-Fi and computers at CDP office and Centrelink for affordable online service access beyond installation of 4G service	Central Desert Regional Council (CDRC) Department of Social Services (DSS)	*Free Wi-Fi services have been continued at CDP (daytime use only, upgraded to Starlink backhaul) and Centrelink (24/7 access)*
	Upgrade Wi-Fi facilities at recreation hall and change to nbn Sky Muster Premium or Starlink backhaul	CAYLUS	*Yet to do*

Identified Issue	Possible Actions	Potential Stakeholders	Progress/ Next Steps
CDRC broadband needs: Need fast, reliable, low latency broadband for CDRC community office, meeting room and facilities	Consider trial of Starlink satellite service for CDRC office, meeting room for videoconferencing, and in CDP and other CDRC facilities	CDRC NT Government	*Starlink installed at CDRC office in 2023, and CDP office and other CDRC facilities by 2024, improving connectivity speed and reliability*
Computer access: Demand by Elders and CDP participants for access computers for digital skills development, meetings/training, MS Office, design applications and creative or cultural use	Review use of existing community access computers and unmet demand videoconferencing, printers, scanners and other IT equipment. Seek additional computers to support demand, especially by Elders, CDP participants and students	CDRC	*Computer access in CDP facility operated by CDRC with digital support for CDP participants, however not intended for public use*
Computer Room: CAYLUS- funded youth computer room at basketball court disbanded by CDRC due to old equipment, dusty space and lack of staff support	Seek appropriate youth access facility and funding for equipment, staffing and operations to re-establish a computer room to enable computer access, learning, archive computer and creative applications; likely multi-function facility with above groups	CDRC CAYLUS	*Yet to do*
Affordability			
High cost of pre-paid mobile data: Increased expenditure on pre-paid mobile data since mobile tower activated	Request Telstra to supply low-cost Community Pre-Paid Mobile Plan option for sale in Alpirakina Store, and/or or Boost to provide more affordable data costs for low-income residents	Telstra Alpirakina Store	*Yet to do*
Connectivity Literacy: Awareness needed of mobile and satellite plan options, data use, and ways to reduce costs	Provide easy-to-read materials (posters, brochures) on options for affordable mobile and household satellite services, and ways to reduce data use/costs	First Nations DI Resource Hub (funding due 2025) CfAT, Money Mob or other central Australian agency	*Yet to do*

Identified Issue	Possible Actions	Potential Stakeholders	Progress/ Next Steps
High device turnover: Regular replacement of devices due to phone or screen damage	Provide protective phone cases as standard with new phones, especially high-priced models; And/or supply Opel dual-SIM phone with rubber casing	Alpirakina Store Telstra	*Yet to do*
Digital Ability			
Workplace digital skills: Demand for IT skills for workforce readiness and use of online services	Incorporate digital skills training into workforce readiness training and on-the-job training by local agencies as needed	CDRC/CDP Other agencies	*CDRC provide digital support and basic skills training at the CDP training room*
IT training and support: Need for more regular IT and mobile use training, scam and cyber-safety awareness, particularly for seniors and other target groups	Provide more regular training opportunities, including culturally-informed content for Elders and other target groups	CDRC NIAA First Nations DI Resource Hub	*Ongoing training and support required*
	Develop targeted scam and cyber-safety awareness resources and Promote scam and cyber-safety awareness messages on radio, social media, posters and in schools	PAW Media Office of e-Safety Schools NT	*Office of e-Safety have visited Yuendumu and developed local resources* *Funding required for radio and social media campaign*
Digital mentors: High demand on service providers for support in setting up and using online services, banking, sourcing identification, SIM activation, etc	Employment of a digital mentor, possibly based at CDP or Centrelink office, to support people to use online government, banking and other services and apps, phone SIM activation/recharge, ID requirements etc	CDRC DSS/Centrelink Digital Mentors support agency TBC (Australian Government program funded in 2025)	*Yet to do*
Access to media services			
ABC Radio not working: No ABC radio FM broadcast in Yuelamu	Advocate for funding to re-establish and maintain an ABC radio service in Yuelamu (and other central Australian communities)	CDRC NIAA ABC PAW Media	*No funding as yet*

Identified Issue	Possible Actions	Potential Stakeholders	Progress/ Next Steps
TV services failure: VAST direct-to-home satellite TV services not working in about 65% of homes; high cost for households to repair equipment and replace set-top boxes; Challenges with activating smart cards for set-top boxes	Consider cost-benefit of switching to local TV broadcasting to improve reliability and reduce ongoing maintenance costs **OR** advocate for funding to upgrade or install residential VAST satellite services, replace set-top boxes where not working and install power surge protection	CDRC Australian Government (DITRDCA)	*No funding program for VAST equipment repair program or switch to local broadcast model* *Note: DITRDCA ran an remote and regional TV Audit Group in 2023/24 to review VAST service delivery but no resulting programs as yet*
Music studio: Demand for space for music recording/production and multi-media production	GMAAC to fund upgrade of music studio at school PAW Media to support planning and recruitment of trainer/producer (if staff housing available)	GMAAC PAW Media Yuelamu School	*GMAAC funding allocated for studio upgrade and fitout at school, now complete* *PAW Media staff to arrange outreach visits to support studio due to lack of on-site trainer accommodation*
Digital archive and production: Demand for space for archive access, local history media production, and personal photo storage	Strong interest in local oral history and cultural recording as well as access to historic records collected by PAW Media, AIATSIS and other agencies; need for support for storing personal photo collections	PAW Media AIATSIS First Nations Media Australia (FNMA)	*PAW Media have updated Keeping Culture archive collection, enabling cloud-based access; PAW also supports language and cultural production in Yuelamu*

Appendix 1: Summary of Survey results

This section provides the full list of weighted survey results undertaken with First Nations participants in Yuelamu from 2022-24. These vary from results published in the previous outcomes reports which used 'raw' survey data, prior to cleaning and weighing against ABS statistics.

Demographics	2022	2023	2024
Gender	45% female; 55% male	45% female; 55% male	45% female; 55% male; 100%
% Aboriginal respondents	100%	100%	100%
Education			
Completed year 11 or 12	31%	30%	28%
Completed year 10 or below	66%	65%	61%
Holds tertiary education qualification (certificate, diploma, degree)	4%	5%	10%
Employment			
Employed or on CDP	28% (7% of these full-time)	54% (10% of these full-time)	34% (42% of these full-time)
Unemployed	26%	18%	9%
% looked for work in past month	21%	18%	64%
Welfare			
Receives Centrelink payments	93%	97%	Not reported 2024
Most common payments	Family Tax Benefit (45%), JobSeeker/Youth Allowance (40%)	JobSeeker/Youth Allowance (63%), Family Tax Benefit (17%)	JobSeeker/Youth Allowance (44%), Disability Support Pension (21%)
Housing – Live in a multi-generational or shared household	81%	80%	83%
Average number of people per household	5.5	7.1	Not reported 2024
% with long-term disability or health condition	21%	15%	20%
% speak language other than English at home	94%	100%	99%
ATSI languages spoken (multi-choice question)			
Anmatyerre/Anmatyerr	87%	75%	85%
Warlpiri	45%	28%	43%
Understanding of English (very or quite well)			
Spoken English	57%	63%	81%
Written English	56%	51%	76%

Income			
Average weekly household income	$1,018	$1,443	$1,241
Households with weekly income of $1–$399	0%	0%	1%
$400–$999	65%	36%	41%
$1000–$1999	29%	35%	27%
above $2000	0%	21%	18%
Phone use	**2022**	**2023**	**2024**
Primary devices used for phone calls			
Mobile phone	55%	45%	97%
Phone in community office or workplace	35%	36%	28%
Public phone	55%	74%	30%
Fixed line telephone in home	13%	20%	1%
No phone access	2%	5%	0%
Reliability of public phone			
Stated the public phone was reliable	31%	68%	95%
Stated public phone was not reliable	65%	6%	0%
Does not use the public phone	4%	26%	5%
Rate of mobile phone ownership	67% (92% of these smartphones)	61% (89% of these smartphones)	95% (100% of these smartphones)
Pre-paid mobile phone use			
% of phone owners on prepaid services	100%	100%	100%
Avg number of prepaid services per household	3.4	3.0	3.5
Media use	**2022**	**2023**	**2024**
Radio Access (multi-choice question)			
Via car radio	100%	85%	98%
Via radio at home	25%	47%	32%
Via phone or tablet	0%	6%	25%
Listen only at places other than home or car	0%	15%	23%
Via TV using VAST satellite	9%	10%	1%
Never listen to radio	7%	20%	0%

Radio programs listenership			
Local First Nations radio service	45% daily or weekly, 41% occasionally	32% daily or weekly, 42% occasionally	79% daily or weekly, 21% occasionally
ABC Radio	24% daily or weekly, 25% occasionally	7% daily or weekly, 56% occasionally	0% daily or weekly, 31% occasionally
Commercial radio	8% daily or weekly, 8% occasionally	1% daily or weekly, 35% occasionally	0% daily or weekly, 4% occasionally
Radio Access (multi-choice question)			
Watch on TV via VAST satellite	60%	60%	38%
Via computer or tablet	15%	0%	57%
Only watch TV outside of home	14%	2%	13%
Via phone	33%	16%	Not collected 2024
Only via USB/DVDs on TV	15%	36%	Not collected 2024
Never watch TV	21%	17%	10%
VAST TV Access			
% with working VAST service	60%	56%	35%
Without working VAST service	40% (58% due to set-top box not working, 33% not sure why)	44% (91% due to set-top box not working, 52% due to damaged dish or cabling)	65% (93% due to set-top box not working, 60% due to damaged dish or cabling)
Most popular sources of TV and online media content (multi-choice question)			
YouTube	25% daily, 8% weekly	25% daily, 6% weekly	80% daily, 16% weekly
Streaming service	22% daily, 6% weekly	15% daily, 0% weekly	51% daily, 23% weekly
Commercial TV	45% daily, 11% weekly	40% daily, 3% weekly	21% daily, 46% weekly
ABC	30% daily, 21% weekly	8% daily, 0% weekly	1% daily, 45% weekly
ICTV	30% daily, 16% weekly	5% daily, 4% weekly	1% daily, 33% weekly
NITV	30% daily, 16% weekly	5% daily, 3% weekly	1% daily, 21% weekly

Primary sources of news and information (multi-choice question)			
Direct and in-person	50% daily, 14% weekly	71% daily, 5% weekly	99% daily, 0% weekly
First Nations Radio (PAW Media)	39% daily, 4% weekly	21% daily, 12% weekly	28% daily, 43% weekly
Commercial TV	45% daily, 11% weekly	40% daily, 3% weekly	21% daily, 46% weekly
Other social media	11% daily, 7% weekly, 21% occasionally	8% daily, 5% weekly, 33% occasionally	17% daily, 1% weekly, 34% occasionally
Facebook	15% daily, 13% weekly, 15% occasionally	10% daily, 8% weekly, 32% occasionally	11% daily, 14% weekly, 33% occasionally
NITV	30% daily, 16% weekly	5% daily, 3% weekly	1% daily, 21% weekly
Primary sources of emergency information (multi-choice question)			
Direct/in-person communication	48%	99%	97%
First Nations radio (PAW Media)	44%	51%	88%
Commercial TV	43%	21%	59%
ABC TV	47%	14%	59%
Facebook	40%	6%	33%
Online news service	12%	8%	33%
Internet use	**2022**	**2023**	**2024**
Latest internet use			
Have used the internet in the past week	54%	44%	80%
In the past month	7%	6%	1%
Never uses the internet	33%	39%	19%
Rate of internet use (of respondents who used internet in the last three months)			
Use the internet almost constantly	26%	11%	9%
Several times a day	29%	19%	45%
About once a day or several times a week	32%	27%	41%
Regular internet users (Indented sections below refer to respondents who had used the internet within the last six months)	63%	59%	81%

Primary online devices (multi-choice question)			
Smartphone	100%	89%	97%
Smart TV	19%	8%	36%
Desktop computer	23%	57%	9%
Portable laptop or notebook computer	12%	6%	3%

Use of Internet provided by others (multi-choice question)			
Public space with free Wi-Fi	39%	55%	44%
Government or community office	0%	63%	31%
At place of work or education	16%	16%	6%
Shopping centre, retail, or service business	0%	28%	3%
Concern about amount of time spent online			
Extremely concerned	4%	0%	Not reported 2024
Moderately concerned	6%	14%	Not reported 2024
Slightly concerned	39%	35%	Not reported 2024
Not at all concerned	45%	40%	Not reported 2024
Low internet users	37%	41%	19%
Reasons given for not using the internet more – low internet users (multi-choice)			
I am not confident using the internet	50%	23%	100%
Not enough content is available in my language	24%	0%	81%
I do not have convenient internet access	52%	75%	0%
I am concerned about inappropriate content and causing conflict	24%	2%	15%
The internet is not a priority for me	58%	74%	0%
Use of fixed internet services			
Does not have fixed home internet	70%	88%	88%
NBN including NBN Sky Muster	24%	12%	5%
ADSL	6%	0%	0%
Data allowances of those with fixed broadband			
Have less than 49 GB/month	56%	0%	0%
Between 50-199 GB/month	35%	46%	100%
Above 200 GB/month	9%	54%	0%
Have unlimited internet data	0%	0%	0%

Frequency of exceeding fixed broadband data limits within the last year			
1 - 5 times	64%	54%	80%
6-11 times	9%	15%	20%
Every month	0%	0%	0%
Use of mobile broadband services			
Do not have any mobile broadband device	98%	100%	100%
Use other mobile broadband device	2%	0%	0%
Affordability	**2022**	**2023**	**2024**
Expenditure Average monthly household expenditure on pre-paid mobile	$138	$143	$253
Monthly household expenditure on phone and internet services	$198	$207	$258
% of respondents who cut back on essential household costs to afford personal or household internet			
Sometimes	20%	18%	60%
Often or always	7%	3%	13%
% of respondents who compromise on internet speed and/or quality to prioritise affordability	22%	27%	76%
Digital Ability	**2022**	**2023**	**2024**
Regular internet users **(The following sections refer to respondents who used internet in last three months)**	63%	59%	81%
Basic digital ability metrics (very true/mostly true)			
Open a new browser tab	94%	86%	48%
Send and receive emails	67%	77%	26%
Find and install apps	85%	94%	66%
Complete online forms	85%	57%	38%
Download and open a file	92%	88%	30%
Connect to a Wi-Fi network	91%	95%	70%
Online security and cyber-safety awareness (very true/mostly true)			
Add/remove friends or followers on social media	61%	81%	65%
Decide what personal info to share online	64%	75%	75%
Set/manage secure passwords	93%	92%	23%
Identify if apps/software are safe to download	81%	78%	67%

Set/adjust privacy settings	91%	86%	22%
Check if information is trustworthy	67%	78%	17%
Online content creation (very true/mostly true)			
Produce online content	45%	42%	8%
Post videos	64%	62%	14%
Create websites	23%	8%	0%
Awareness of online copyright law	47%	38%	8%
Use of smart devices (very true/mostly true)			
Connect smart devices (e.g. smart TV) to the internet	58%	88%	25%
Adjust smart device privacy and security settings	57%	60%	21%
Primary online activities (activities undertaken in past six months)			
Online banking	94%	95%	77%
Accessing government services	81%	78%	70%
Comparing prices of products or services	60%	33%	55%
Tracking packages	54%	41%	62%
Online shopping	61%	30%	32%
Accessing health information	60%	42%	28%
Online buying/selling	60%	41%	12%
Online learning/study	64%	27%	13%
Looking for work online	61%	30%	32%
Looking for housing/accommodation	30%	38%	7%
Social media use (activities undertaken in past six months)			
Keeping in touch with family or friends	87%	78%	68%
Meeting new friends or reconnecting with old friends online	70%	73%	63%
Engaged with content that made you feel connected to community	70%	56%	65%
Engaging with online groups	46%	22%	32%
Online entertainment (activities undertaken in past six months)			
Used online entertainment services	79%	78%	85%
Attended an online music, arts, or cultural event online	53%	9%	9%

Survey comments:

Feedback on new mobile service:

- It's good having mobile to connect with family and friends and keeping up with news.
- People can call if they're stuck out bush. We can do online shopping at home now instead of sitting at shop or hotspot
- We Ike having mobile. It's easier than using the hotspot
- The mobile is good and we can use apps from my phone instead of going to the office to use Centrelink
- It's good to have mobile so we can talk at our house and have internet and watch movies
- I've got a mobile phone now and my daughter helps me do banking and use online services.
- We're happy to have mobile now
- I don't have a phone, just use my partner's phone. It's good to be able to make calls from home now
- It's been good having mobile. It would be good to have TV working here
- We only use a phone for calls not internet. I only use internet for YouTube and TikTok
- The mobile makes it easier to talk with family
- Since the mobile it's easier to communicate but sometimes it makes trouble. We got rid of satellite now that there is mobile
- It's great to have mobile. It's good to have work and be busy. It's good to see movies now, it was hard before
- We are happy about the mobile working now. We had to use the hotspot before
- We were excited to get mobile at last
- The mobile service is good for keeping in touch with family
- The mobile has been good for Yuelamu
- It's good having mobile now but now the kids humbug to watch YouTube, even the 2-year-old
- It's good having mobile coverage for keeping in touch and having access to emergency services which is important because we don't have a full-time nurse here. Before we only had public phone and the CAT hotspot, which is still working. I've got Sky Muster on our house but I don't use internet much
- I used to have Sky Muster at home but don't need it now with the mobile coverage so stopped the service
- The mobile service is good
- The mobile has made it easier for us to access online services and keep in touch with family.
- It's good having mobile coverage but I'm saving up to buy a mobile phone
- The mobile has been good for Yuelamu
- It's good to have mobile now. We used to have to drive towards Yuendumu to get reception
- It's been good having mobile in Yuelamu now
- I live out of town so don't have any mobile service. I don't have a mobile phone and don't use online services. I just use the public phone for calls

Wi-Fi use:

- The free Wi-Fi is good too, saves us money
- It's good that the Wi-Fi is free at the store is free now, it was too expensive
- Having the Wi-Fi free now is good

Starlink Use:

- I've had Starlink since 2022 for the kids to have cartoons to watch online

Affordability:

- We have stopped our Sky Muster for a couple of months because of cost
- Since we got mobile we stopped the Sky Muster service at home, it was costing too much for excess data
- I closed internet banking and changed password to stop kids trying to rob me

Need for TV services:

- We want the TV working so I can watch the news and gospel shows. It costs too much to watch on phone
- The VAST TV needs to be fixed up, it doesn't work on most houses. We should have broadcast TV back so we only need an antenna and get rid of The satellite on every house. It costs too much for the set top boxes and to fix the satellite
- We got a new house but they still haven't installed the TV dish so we're waiting for TV
- We want the TV fixed up, been waiting a long time
- I need a set top box but cost $449 in the shop, it costs too much
- We want TV fixed up so we don't use the satellite
- We want a set top box for TV but costs too much

Need for digital training and support:

- We need more help to learn internet
- We need more training and support for people to learn to use the internet and create their own websites and online media and start businesses. I want to start my own company.
- I would like more help to learn

Figure 25: It is a 300km trip from Alice Springs to Yuelamu, mostly on the Tanami Highway

Appendix 2: Community Communications Audit

About the community	
Community name:	Yuelamu
Alternate name	Mt Allan
Traditional owners/ Language group	Anmatyerr (Anmatjere)
Location (Coords)	22.2564° S, 132.2075° E
Region	Central Desert
LGA/Shire/ Regional Council	Central Desert Regional Council
Land Council	Central Land Council
Regional service centre, distance	43 km east of Yuendumu; 277 km north-west of Alice Springs
Remoteness (ABS/ARIA+)	Very remote
Demographic data – ABS 2021	
ABS link – All persons QuickStats	https://abs.gov.au/census/find-census-data/quickstats/2021/SAL70300
ABS link – Aboriginal and/or Torres Strait Islander people QuickStats	https://abs.gov.au/census/find-census-data/quickstats/2021/IARE709016
Total population	149
Aboriginal and/or Torres Strait Islander (ATSI) population	142 (95.3%)
Gender breakdown	53.3% male/46.7% female
Total population	26
Families	37 families (34 ATSI families)
Language groups – numbers of speakers	Central Anmatyerr - 137 (92%); Warlpiri - 3 (2%)
% ATSI people who speak an ATSI language	99%
% who speak only English at home	9 (6%)
Employment levels	Worked full-time - 4 (11.4%); Worked part-time - 7 (20%); Away from work- 8 (22.9%); Unemployed- 15 (42.9%)
Education levels	Certificate III - 4 (3.5%); Year 12- 14 (12.4%); Year 11- 13 (11.5%); Year 10 - 13 (11.5%); Year 9 or below - 24 (21.2%); No educational attainment - 16 (14.2%); Not stated - 24 (21.2%)
Number of buildings	45 private dwellings
Housing suitability for ATSI households	The average household size was 4.8 people, with an average 1.7 people per bedroom
Median ATSI household income	$833 ($866 whole population)
Median personal income – over 15 years	$254/week for ATSI population
Average weekly rent	$75
Average motor vehicles per dwelling	Approx. 1.2

Community services and plans	
Community Layout Plan	See Bushtel website for planning and projects in Yuelamu: https://bushtel.nt.gov.au/profile/197
Agencies in community	Central Desert Regional Council (Community office, Sports and Rec, Centrelink/CDP program, Night Patrol, Childcare, Aged Care, Essential Services); Mt Allan School; Clinic (by Yuendumu Clinic); Power & Water; Alpirakina Store
Visiting agencies	Central Land Council, CAYLUS, NDIS providers, Centrelink, NAAJA
Community Development Plan	See https://bushtel.nt.gov.au/profile/197 for all community plans and services
Power supply/type in community	Generator power from Yuendumu
Use of power cards	Yes
Types of communications available	
Public phones – number/ location	3 - opposite CDRC office, 2 on other side (1 not working)
Fixed line phones	Only in staff agencies and residences
Mobile service	Telstra 4G mobile tower in place, activated 30 June 2023; CfAT hotspot near store picks up 4G signal from Yuendumu (backup use only since 4G activation)
Mobile coverage description	4G services has range up to 30km away at high points
Backhaul to community	Microwave repeater network from Yuendumu (which has fibre connectivity), also connects Willowra and Laramba
ADSL – number of connections	No ADSL services (HCRC does not support ADSL)
Fibre-to-the-premises connections	None – all internet access via satellite services or 4G
Satellite services – number, locations, provider	14% of residents surveyed in 2023 had household Sky Muster services; CDRC office and facilities and school now have Starlink, as well several staff houses; Reduced use of Sky Muster by residents since 4G activated
UHF or HF Radio	UHF used by by Rangers, CDRC staff and municipal services; Police, emergency services and aircraft also use VHF radio
Communications funding history – Mobile Black Spots, Regional Connectivity Program, state government investment etc	4G mobile service provided under NT Government Remote Telecommunications Program with Telstra co-investment; CfAT mobile hotspot (funded by CLC); Activ8Me Wi-Fi hotspot originally funded under NIAA trial in mid 2010s, upgraded to free service in 2023
Any planned upgrades?	None known
Emergency information system	Satellite phones held by CDRC, rangers, emergency services
Telemetry network	All generators, pumps, water chlorination etc monitored via telemetry; Power and Water have a communications network that enables remote phone calls 5 km from shed to enable remote diagnostics and support

Media services available	
Radio services broadcast – AM or FM	8PAW Radio (FM) only local radio service; ABC radio only via faint AM signal from Alice Springs
TV services – local broadcast, number of DTH services, number working	VAST DTH; all houses have had VAST installed, but under 35% working
RIBS radio station – location, staff, roles	PAW Media RIBS site, intermittent broadcaster role
RIMO – regional provider	PAW Media
Other media services – newspaper etc	Land Rights News (CLC)
Community access facilities	
Public access facilities (computers, printers, videoconferencing or other facilities)	CDP- laptops and printer available for use by CDP participants; Centrelink office – one computer; CDRC meeting room has videoconferencing facility
Public Wi-Fi availability, free or voucher system, agency, RSP, monthly download limit	Activ8Me Wi-Fi hotspot at Alpirakina store now free; Free Wi-Fi provided by CDRC at CDP office (work hours) and by youth program at the recreation hall with daily data limits; Free DHS Wi-Fi at Centrelink office 24/7
Access computers in other facilities	None known
Any programs running to support community access	CDRC/ CDP provide basic access and support, but no other programs at present; CAYLUS previously supported youth computer room and Wi-Fi access; PAW Media delivered inDigiMOB digital skills workshops and support until 2021

Figure 26: Sunset over the ponds near Yuelamu

Appendix 3: Photos of Research Activities

Figures 27 & 28: Mel Langdon doing an interview with resident Billy Stafford; Daniel with PAW Media team (Jason Woods, Chris Tait, Tess Foxworthy) in Yuendumu

Figures 29 & 30: Daniel with former media worker Noel Heenan; Mel Langdon with Elders Kathy Bagot and David Stafford

Figures 31 & 32: Cluster of satellite dishes on CDRC office; Mel doing survey with CDP supervisor Cliffy Tommy

Figures 33 & 34: One of two working public phone boxes; Alpirakina Store which now has a free Wi-Fi hotspot