

NOTHING BUT NET

Use your voice to shape
our digital future

**Tōu waha,
ā tātou wā**

JULY 2020



Far North
District Council

Te Kaunihera o Tai Tokerau ki te Raki

“Technology can help bring a different perspective or idea to something you are creating or doing. It can help you realise what you’re missing or it can help you share your creativity with others.”

“If Covid19 has taught me anything is that technology is access. Access to be able to work from home, access to be able to be educated from home, access to be informed and kept up to date, access to essential services. However it is also keeps people at home. There needs to be a balance of technology and getting out of the house and having face to face time as well.”

“More connectivity means more opportunity to reach out and ask for help, more chance of helping others and as we have learned through the COVID-19 outbreak, staying in touch is the best way to keep each other safe.”

“There are so many opportunities out there, but not always a lot of exposure around what those opportunities are. We should celebrate virtual opportunities instead of laughing at them. It's not as unrealistic as people think!”

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BACKGROUND

Nothing But Net

Finding creative solutions
to address our digital divide

If you have connectivity — and the skills to use it — you can work from anywhere, anytime. You can take a course, upskill or earn a degree. You can take part in a remote consultation with a health professional or keep in touch with whanau — wherever they might be. Extending internet access can help change economies and societies.

“The pandemic has illustrated the divide between those who have connectivity and those who don’t. Although not the only way to stay connected, digital connectivity is becoming more important. If we don’t have that ability, then we miss out on many opportunities.”

The digital divide is the gap between those who have connectivity and the skills to use it and those who do not. It is the result of inadequate or lacking digital infrastructure, difficulties in access and affordability, poor digital literacy and capability and relevance. The COVID-19 pandemic and resulting nationwide lockdown has further exposed the digital divide across Northland.

“Ensure all our local communities have accessible, reliable Internet access so in times like this [COVID-19 lockdown] or when we are separated by natural causes, we can still stay connected.”

Lockdown forced many Far North residents to become remote workers overnight. For some people, poor or no connectivity meant this was an impossibility. For others this meant a slowing or stopping of revenue as their business did not have an established online presence or they lacked the required skills to utilise online platforms.

“If you look at the Electricity Industry, I pay the same rate per KW/H as a town dweller and my bill is not loaded with charges based on the fact that I live out of town. Whilst I get that extra capacity has to be built to service rural communities, why should we pay such a premium, to access a service that in modern life is an essential one.”

“We can maintain our rural societies by enabling the kids to go to study and then when they’re done come back and live and work in the places they were born. Without broadband they will leave and never return, and our communities will wither and die.”

Aside from the economic impacts, the lockdown had significant social implications. Family members were physically isolated from each other. People worried about vulnerable friends and whanau and what extra stresses like unemployment and loss of income might mean for some households already living on the edge. Some young people were not able to continue education online and became disengaged with learning. For those with adequate connectivity and skills, video conferencing platforms like ‘Zui’s’ (Zoom hui), enabled social inclusion and became a key tool to keep in touch.

“Zoom has been an awesome tool over the lockdown period, it was our way to stay connected and keep in contact with friends, work colleagues and family members outside of our bubble.”

In response to the digital challenges faced by our communities in lockdown, and while connectivity and digital skills were top of mind, Council considered it an opportune time to start a conversation about how we could become a more digitally enabled district. Using co-design methodologies and a new and innovative online engagement tool ([Video Ask](#)), people were asked a series of questions that linked the 4 wellbeings and digital connectivity.

Called ‘Nothing But Net’, engagement ran for a 2-week period (1 May-15 May) and 118 full and complete responses (i.e. all 9 questions were answered, that is over 1000 individual responses!) were submitted over this time. Hundreds more submitted answers to a few questions only or simply ‘clicked through’ to find out more.

In addition to the qualitative data collected through Nothing But Net, the Northland Digital Enablement Group’s annual Broadband Speed Test Surveys (2016-2020) provides quantitative data on broadband speeds and insight into ongoing infrastructure challenges. Both these pieces of work actively involved key stakeholders, enabling and empowering the people affected by the issues to contribute to developing the solutions, and they have helped inform this piece of work, the Nothing But Net digital strategy.

The 'Nothing But Net' strategy and action plan is a 3.5 year plan that will be used to support our district's digital future by directly addressing the digital divide. Internal and external reference groups have been established to provide feedback and guidance and care has been taken to ensure Nothing But Net meets the immediate needs of our communities.

"If the COVID-19 lockdown has taught us anything its that not all of our community is digitally enabled."

The Far North District Council has never approached strategy development in this way before. This is a new way of doing things and COVID-19 presented a window to try new things. Nothing But Net is a collaborative, community-focused effort with the goal of exploring how we can use digital technology to grow, both as individuals and a collective.

We would like to thank everyone who used their voice to help shape our digital future. You directly contributed to the construction of this document and we hope you can see yourself reflected in the following pages.

Eliminating the digital divide in the Far North will take many hands but now that we have a plan, we can all work together towards the shared goals of ensuring that everyone is empowered by digital technology, our economy is supported, and no one is left behind.

***Ngā mihi
mahana ki a
tātou katoa.***

VISION 2023

100% connectivity

100% opportunity

This is in line with the Vision of the [Northland Digital Enablement Group](#).

MISSION

Supporting our people to use digital connectivity for their own and collective benefit.

CONTEXT

Digital is a key enabler in the [Te Taitokerau Northland Economic Action Plan \(TTNEAP\)](#). As an active member of the [Northland Digital Enablement Group](#), the Far North District Council has been advocating for improved digital infrastructure across Northland for the past 5 years. We have initiated local projects and actively contributed to central government led digital enablement programmes.

There are four key central government initiatives tasked with delivering better digital infrastructure to our communities. All are managed by crown-owned company [Crown Infrastructure Partners \(CIP\)](#). These are;

01

Rural Broadband Initiative phase two (RBI2) targets rural end users who have access to terrestrial broadband services (fixed line or wireless) of less than 20 Mbps maximum speed in rural New Zealand. At March 2020 RBI2 has delivered better broadband to 45,768 rural households and businesses, which is 54 per cent of the overall target.

- There are 6,316 households or businesses with RBI2 access in Northland which is 69% of target.
- There have been 21 mobile towers built which is 33% of target. 8 of these are in the Far North District — 2 in the Te Hiku ward (this includes Waitiki Landing) and 6 in the Kaikohe-Hokianga ward. There are towers planned in the Bay of Islands-Whangaroa ward but they have not been delivered yet.
- The towers provide 4G service to customers of all three mobile networks (Spark, Vodafone and 2degrees) by using shared antennae technology on the towers,
- In places where towers will not be built, Wireless Internet Service providers (WISPs) are being installed.
- Across New Zealand this programme is taking longer to deliver than anticipated with the main hold up being leasing land for tower sites.
- RBI2 mobile towers are being delivered by the [Rural Connectivity Group \(RCG\)](#) across New Zealand. In Northland, [StrataNet](#) is the contracted WISPs.

02

The Ultra-Fast Broadband (UFB) programme is the broadband programme deploying fibre-to-premises to 87 per cent of the population by 2023 (including private fibre). Under the UFB programme, smaller New Zealand towns will receive reliable and consistent world-class connectivity, with up to 1 gigabit broadband speeds. At March 2020, UFB was available to 82 per cent of the population; with UFB connectivity completed to 169 towns and cities.

- Fibre will be delivered to the following Far North towns;
Ahipara, Awanui, Hihi, Kaikohe, Kaitaia, Kawakawa, Kerikeri, Mangonui, Moerewa, Ohaeawai, Okiato, Opononi, Opuha, Paihia, Pukenui, Rawene, Russell, Taipa, Tokerau Beach/Whatuwhiwhi.
- Fibre has already been delivered to Kawakawa, Moerewa, Kaikohe and Kerikeri.
- In the Far North this programme is being delivered by Chorus. In Kaipara and Whangarei districts' Northpower has the contract.

03

The Marae Digital Connectivity programme enables marae (and regional digital hubs) to receive a grant-funded broadband connection and associated hardware to enable use of the connection, creating marae 'digital hubs' that support communities to undertake economic activity and enhance their digital capability.

- There are 24 Marae connected in Northland.
- Marae are assessed on a case by case basis and providers are engaged depending on the solution required (could be fixed, wireless, satellite etc).
- [Te Puni Kokiri \(TPK\)](#) are working with the Ministry of Businesses and Innovation (MBIE) and CIP to deliver this programme.

04

Under the Mobile Black Spot Fund Programme (MBSF), mobile coverage is being deployed to:

- State Highway 'blackspots' where there is currently no mobile coverage, to support public safety in high traffic areas where there are high incident rates.
- 443 kilometres of mobile coverage have been deployed on State Highway 'blackspots'; and tourism locations around New Zealand where there is currently no mobile coverage, to support tourism and economic growth. 36 tourism sites have new mobile coverage.
- There are 5 tourist sites with mobile coverage across Northland which is 33% of target.
- In Northland there are 74 kilometres of mobile coverage on State Highways which is 65% of target.

Additionally, not officially part of the above CIP programme but a piece of work implemented to support the education needs of students through the Covid-19 lockdown period, CIP partnered with providers to connect previously unconnected households with school aged children with 6 months free broadband. At the end of 6 months it will be the whanau's choice if they can commit to continuing with the plan. In May, CIP also received \$15M to oversee upgrades in the rural network capacity. These upgrades will be to existing infrastructure – that is existing Rural Broadband 1 Initiative (RBI1) areas — and are not in areas where the RCG is being deployed under the RBI2/MBSF programme. It will mean that towers that are currently at or near capacity (and cannot service any new customers) will be able to provide service to more households inside their coverage area.

These central government sponsored programmes are helping with 'Universal Service', which is ensuring baseline digital infrastructure is available. They do not address 'Meaningful Connectivity' and 'Universal Access', which is impactful and equal access for all people. This is relevant to affordability, poor digital literacy, the quality of connectivity and relevance issues. In regards to baseline standards, the Australian Government has just introduced minimum broadband speeds [for all Australians](#).

The government's RBI1, completed in 2016, greatly improved broadband

across rural New Zealand but its resources were not evenly allocated. The Far North benefited less than most other districts. Resources were deployed to more populous and prosperous regions, leaving major gaps in both mobile and broadband coverage across much of the district. The current RBI2, UFB, MBSF and Marae Connectivity programmes aim to fill these gaps and by 2023, 'current and planned' digital infrastructure mapping shows there will adequate connectivity to most households in the Far North. Most marae will also be well connected, as will popular tourist spots. There will still be gaps on our State Highways and Public Conservation Areas (that is land administered by the Department of Conservation which accounts for 16.8% across the Far North) will have limited coverage.

The New Zealand Census captures internet access data across the country. According to the 2018 census, [65.9%](#) of homes in Far North District had access to the internet. This is an increase from the 2013 census of 57% but our district is still below regional and national indicators for mobile, telephone and internet access. The Census also shows a shift in how people are accessing the internet. In 2018, when compared to 2013, access to a telephone (landline) was down -2,580 households, but access to a mobile phone had increased +2,283 households. This is in keeping with global trends as people move away from fixed landlines and adopt mobile technology.

Every year since 2016 the Far North District Council has run a [Broadband Speed Test Survey](#). Through taking part, our communities identify infrastructure issues and improvements. We use this independent, crowd-sourced data to advocate on behalf of our communities for better broadband. There were 173 responses to the 2019/2020 survey.

In the 2018/19 Northland Broadband Speed Test Survey, only two per cent of the Far North District-based respondents indicated that they were on fibre, while in the 2019/20 survey 16 per cent did. The mean average download speed across Northland has increased from 20Mbps to 46Mbps, although the median has only lifted from 15 to 17Mbps. This difference in mean and median shows the rollout of fibre in urban areas has skewed the average speed and the gap in connectivity between those in urban areas with fibre, and rural areas without, is growing the digital divide between Northland's towns and rural communities.

The proportion of respondents indicating that they are more than or very satisfied with the internet service has risen from 11 per cent in 2018/19 to 17 per cent in 2019/20 across Northland. However, one-in-four respondents are not at all satisfied with the internet service they have and a further 40 per cent are only partly satisfied. These percentages have not changed a great deal in the past two years. The speed test also looks at affordability issues. 'Affordable broadband' was set by ITU/

UNESCO Broadband Commission for Digital Development in 2011, stating it should cost under five percent of household income. In the Far North, survey respondents spent between 0.3% and 6.1% of their monthly income on broadband services. 92% of respondents spend less than 5%. The 8% that spend more than 5% are from households with annual incomes less than \$30,000.

Mobile coverage is still poor with 27% of respondents having no mobile reception at home. This was greatest in Kaikohe-Hokianga ward at 19.4%, 12.% in Te Hiku and 5.7% in Bay of Islands-Whangaroa.

There were 11 different providers represented in the survey. There is now more choice than ever in terms of 'type' of broadband – whether it be mobile, fixed (ADSL, VDSL, fibre) or satellite and improvements in technology and the increased competition in the market means that some very expensive options (like satellite) have fallen in price and the quality of service has improved greatly. Satellite broadband will see further disruption later this year when [SpaceX's Starlink](#) satellite constellation goes live.

There are few training and upskilling opportunities in the Far North in the digital space. There are online courses offered by overseas or national providers, but students need a base level of digital literacy (and connectivity) to access these courses. A few local tertiary providers offer degrees and diplomas in web development and coding however

these are Whangarei based and none currently operate in the Far North. There are some more basic level, informal computing classes available at community centres and education providers, and council initiatives like the Far North Libraries Robot Tuesdays are helping the next generation get excited about science, technology, engineering and mathematics (STEM). There are few opportunities for seniors wanting to upskill.

In 2019 a [Digital Hub](#) opened in Kaitaia. The hub offers hot-desking, co-working spaces, video conferencing and meeting rooms with the intention of bringing businesses and the community together. Prices start at \$5 for 1 hours casual hotdesking. A second hub is planned for Kaikohe.

At March 2020, New Zealand's unemployment rate was 6.5%. This is expected to rise as the impacts of COVID-19 on the labour market become clearer. In the Far North the number of people receiving Jobseeker Support payments from Work and Income increased from 2,982 people in March to 3,691 people in April, a 23% increase. The tourism sector has been hit particularly hard.

Taking the above into account, this Strategy and Action Plan focusses on the immediate challenges, identified by our communities, that we need to tackle to eliminate the digital divide in the Far North. It also celebrates the unique strengths we have as a district and investigates how we might build on these and use digital connectivity for our own and collective benefit. Consideration has also given to the [New Zealand Government's Strategy](#)

[for a Digital Public Service](#), the [UN Sustainable Development Goals](#), Council's Community Outcomes, Far North 2100, the Far North Libraries April 2020 Outreach Survey and the Internet New Zealand's May 2020 [Five point plan for digital inclusion: COVID-19 and beyond](#).

GOALS



"Bring better educational options to Northland, providing hands on options as well as online learning."

"Utilising smart-phone apps and sites that are mobile-supported is great for our region, as mobile data solutions are more affordable for many than 'full' connectivity and as this technology becomes more affordable it is now widely used."

"Use connectivity to help a bunch of kids to learn a whole bunch of stuff from a whole bunch of really smart people around the world."

"We have no mobile coverage at all at our farm. We rely solely on the landline and sometimes this is affected by flooding or wet weather. Our farm is large so if someone has an accident a long way from home then they can't use a mobile phone for help. Part of our farm forms the Cycleway and it has poor coverage."



CONNECT TUHONO

"We have very limited university courses in the Far North — and limited courses that youth can do while living at home. I am assuming that this is due to resourcing — both financial and people. It is a shame, for those that do go and get educated outside of the area, we don't have the jobs for them to return to and so they continue to live outside the area and don't come back until it is time to retire or they have set up financial nest egg. We need more university courses and certainly a wider variety of options to study and then jobs to be able to keep our youth. Even if my children could continue to do university classes like they have with their high school classes over zoom etc. At least they would be provided with the opportunity to upskill — in a career of their choice."

"Reception needs to be available to those out of reach places and then once more 4G towers are installed (like the one that was installed for our rural areas) they need to be protected from vandals."

"During the Covid19 lockdown technology has become the only way for some of us to communicate with those not in our bubble. However this has meant having to get internet, to pay for this I have had to readjust my already tight budget. Internet is extremely important in terms of communication, however for many it is unattainable due to cost and actual internet access."

"We need better internet connection and speeds. I work from home via the internet. During summer months when tourists arrive in numbers our home internet just about disappears."



GOAL

The Far North will have world class mobile and broadband infrastructure by 2023 and every school aged child will have internet access in the home.

RATIONALE

There are three key reasons why people are not online — poor infrastructure, relevance and affordability/cost.

- The number one barrier to eliminating the digital divide is lack of digital infrastructure.
- In the Far North, infrastructure tends to be weakest in our rural communities.
- Improvements need to be made in the reach, affordability, quality and reliability of broadband and mobile coverage through increased investment in infrastructure.

This section relates to [Internet New Zealand's five point plan for digital inclusion point 5 -Longer term Internet resilience by addressing gaps in coverage and performance](#) and the UN Sustainable Development [Goal 9: To Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.](#)

“A lot of my whanau that live in rural areas do not have good reception or any reception at all.”

“We need internet speeds that allow businesses to work from home or work remotely on site. Extremely limiting internet speeds and high mobile data costs.”

“The biggest restriction in the north is the extremely low internet speeds that limits developing and sharing content.”

NEXT GEN

A [survey of schools](#) during Level 4 lockdown showed a significant gap between in home internet access for school students in rich and poor New Zealand families. The survey also found that 56 per cent of the low-decile principals felt the lack of internet at home had an impact on teaching and learning. One school said “Most class work and homework is cloud-based. Lack of access is a barrier”. There are 72 schools in the Far North District. 62 (86%) are low decile and 8 are mid decile. The Ministry of Education calculates deciles using student addresses and five socio-economic indicators — household income, occupation, household crowding, education qualification, income support.

“Better connectivity to everyone then kids have the opportunity to learn online and are not penalised unfairly by being born in a remote community with only very expensive rural broadband. These days you can learn at home.”

“Engage with youth, connect more directly with school governance and management, especially high schools. Challenge curriculum irrelevance.”

“Social media is encouraging creativity among our current generation of students. Through social media programs such as Tumblr, Pinterest, and Instagram, students are combining technology with inspiration, create a wealth of resources and information available globally. Students in higher education are able to innovate, engage in online discussions, and share creativity through social media platforms. Through these platforms students can share ideas with each other and collaborate.”

FIBRE IS FUEL

Fibre optic cable provides the backbone for all connectivity, connecting to the underwater oceanic cables that link

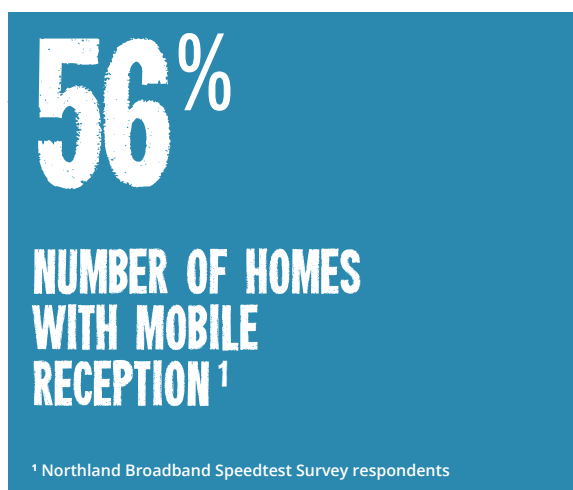
us to the world wide web. Of all the many ways we can connect to the internet, fibre offers the fastest & most consistent performance.

As shown in the recent Northland Broadband Speed Test survey, the gap in connectivity between those in urban areas with fibre, and rural areas without, is growing the digital divide between Northland’s towns and rural communities. In the last two years, the mean average download speed of those responding to the survey has increased from 20Mbps to 46Mbps, although the median has lifted only from 15 to 17Mbps. This is the result of fibre in urban areas skewing the average.

Fibre is expensive to install, and that is why central government’s UFB programme targets higher density areas where there is usually fibre in the area already. Pushing fibre out further into less populated areas will help address the digital divide, ensuring people are not receiving a lesser service because they live rurally while providing much needed backhaul for all our networks – both fixed and mobile.

“To many of our tamariki and whanau are in the dark ages without internet connection. Fibre should be the basic level for all, not just those in cities.”

“We need fibre to the marae and schools then high-speed broadband from these nodes out to the local population using fibre or copper lines in the ground.”



5G

Nothing But Net saw responses for both for and against 5G.

5G is the next generation of mobile broadband. 5G provides very fast download and upload speeds and the latency, or the time it takes devices to communicate with wireless networks is much less. It could offer fibre-like speeds in areas where the rollout of fibre optic cable is cost prohibitive. [According to the Germany-based international body](#) in charge of setting limits on exposure to radiation, 5G is safe. However some Far North residents are still concerned by the potential health impacts. There is currently no 5G in the Far North and none planned.

In an increasingly connected world, questioning the need for everywhere to have coverage is something to consider. There are communities overseas where people have chosen to live in areas without wireless signal. Such areas have no interference so are also used for the testing of highly sensitive technical equipment. As connectivity grows and these areas become harder to find, 'blackspot' areas potentially increase in value.

"Get everyone connected by wired lines and then for those who are just too far away use 5G for fixed wireless access."

"I think we should be minimising our exposure to 5G. We are bioelectrical beings our bodies are not evolved to deal with all the EMR in the atmosphere currently let alone adding more to it."

"Do not listen to the tin foil hat brigade and their lies about radiowaves being dangerous. There is no evidence that 5G or any of the other wireless technologies cause harm. Instead, having mobile phones and better coverage literally saves lives, especially in rural and remote areas. No more blackspots of coverage on our roads mean breakdowns and accidents can quickly be responded to."

"Most of us stay connected online with Facebook, chatting in Messenger, Whatsapp or Skype, etc. 4G and the existing fibre are both brilliant for this. We don't need 5G. We DO need more people to have access. There are still areas of the Far North that have no mobile coverage at all. And still some people who cannot afford any internet."

CONNECT TŪHONO ACTION PLAN

| What | Why | Who | When |
|--|--|--|---------------------------|
| Universal service & universal access — increase internet access, affordability and improve upload and download speeds. Push for fibre first and address mobile blackspots | <p>The number one barrier to eliminating the digital divide is lack of digital infrastructure</p> <p>Increase mobile coverage:</p> <ul style="list-style-type: none"> • Pou Herenga Tai Cycle • Trail • Te Araroa Walkway • Public Conservation Areas • Rural Communities • Towai/Maromaku • State Highways <p>Increase fibre and advocate for key towns not currently listed in UFB rollout;</p> <ul style="list-style-type: none"> • Kaeo • Okaihau | <p>Work with Te Kahu o Taonui (Taitokerau Iwi Chairs Forum) as per agreement with the Northland Mayoral Forum on the agreed common goal to 'jointly advocate to central government on shared regional priorities e.g. provision of digital infrastructure'.</p> <ul style="list-style-type: none"> • Crown Infrastructure Partners • Ministry of Business and Innovation • Northland Inc • Northland Regional Council • Far North District Council • Far North Communities | July 2021 – December 2023 |
| Internet access for all school children | <p>In the Far North District. 86% of our schools are low decile and no/poor internet access in the home is more common in low decile areas.</p> | <ul style="list-style-type: none"> • Te Kahu o Taonui (Taitokerau Iwi Chairs Forum) • Northland Mayoral Forum • Crown Infrastructure Partners • Ministry of Business, Innovation and Enterprise • Northland Inc • Northland Regional Council • Far North District Council • Ministry of Education • Far North Communities | July 2020 – December 2023 |
| Advertise 'choice' and demystify the 'current state' of broadband infrastructure by promoting use of NZ Broadband Map and encouraging self-checking of in-home setup | <p>The Speed Test Survey showed some people are on inferior connections simply because they are not aware there is something better available in their area. It also identified in-home issues e.g. VDSL recording of 1mbps download is not possible as VDSL won't sync at such low rates, or the fibre download speed at 20Mbps.</p> | <ul style="list-style-type: none"> • Far North District Council • Northland Inc • Far North Communities | July 21 |

| What | Why | Who | When |
|--|--|---|---------------------|
| 5G | Work with central government to disperse information about 5G | <ul style="list-style-type: none"> • Far North District Council • Far North Communities • Ministry of Business, Innovation and Enterprise | |
| Schools as digital hubs and better support our schools and teachers | <p>Nothing But Net feedback showed that there needs to be better curriculum and pastoral support for teachers wanting to teach tech.</p> <p>Make schools 'digital hubs'. This is likely to be most relevant in rural and remote areas.</p> <p>Support schools to utilise the Digital Learning Lab at Waitangi Treaty Grounds</p> | <ul style="list-style-type: none"> • Ministry of Education • Te Puki Kokiri | July 2020 - ongoing |
| Marae as digital hubs | Upskill locals to use connectivity to full advantage and be the tech support | <ul style="list-style-type: none"> • Northland Inc • Provincial Growth Fund • Te Puni Kokiri | July 2020 - ongoing |
| Protect the infrastructure we have | Limit future attacks on our digital infrastructure e.g. mobile towers | <ul style="list-style-type: none"> • Mobile providers • NZ Police • Northland Inc • Northland Regional Council • Far North District Council • Far North Communities | July 2020-ongoing |

"The main challenge to increasing jobs in the Far North is the geography. We are isolated from many quality goods, services, technology and infrastructure. The answer to that is making the Far North a self-sustainable economy. Start with education and good training. You can connect to any resource anywhere in the world via the internet.

Incentivise kids to learn and people, goods and services to stay in the Far North.

This will grow the infrastructure and naturally jobs will be created."

"We need awesome jobs using technology for some would be work you could do from home, like mums who have just had babies but aren't quite ready to leave their baby to go back to work, digital devices can make that possible."

"Technology allows some roles to be done in any location, so we physically do not have to leave our district for employment. Better connectivity would aid this."

"Create an environment in our communities that encourages, collaboration, discussion and unity by drawing people together to common goals that benefit the wider population. Create work opportunities that were not possible with old tech systems."

"Training and education are now online in a way we've never seen before. COVID has given us the need to upskill and also the opportunity. Why would anyone stick at a low paying job when they can train and live in their local community and earn big city money by working remotely."

"Local small businesses could develop an online presence; and create business services and transactions online."

"We need a datacentre up here. A local supplier of a Far North Cloud.

This is sold on as services to start-ups and small businesses. All of this \$ is going south at the moment. We need to encourage startups to grow and base themselves here — and trust in the connectivity back to the world that will allow for this to happen. Like Hawkes Bay and BOP we position the district as a place to locate your successful tech enterprise.

This can be developers, testers, contact centres, support staff as better option to the cities."



GROW WHAKATIPU



GOAL

The Far North will challenge the pre-covid economic model and use technology to create a new state of being that embraces disruption, collaboration and localism and has positive social impacts.

“We need to think about a different economic model. One that aligns with the cultural and personal values of the people rather than pursuing success as a financial goal. The Covid fallout on the regional and national economy presents an opportunity to encourage employers to engage people who work remotely and have good connectivity. Create work hubs where people are working in the same space for different employers while sharing the benefit of sharing ideas and finding ways for businesses to collaborate.”

“Partner up with some big wigs either from NZ or globally. Be bold and innovative. Don’t wait for it to come to you, go out and find it.”

RATIONALE

Improved digital connectivity is crucial for economic development and can transform the very nature of an economy. Increased connectivity allows for a transition from an economy based on resources — which are often finite and can’t be shared easily — to one of knowledge — where ideas can be freely exchanged. This is known as the ‘quaternary sector’. Internet access is vital to extending access to educational resources and accelerating knowledge sharing, and can enhance healthcare access and empower disadvantaged communities. Here we look at how we could use connectivity to grow our people and economy.

This section relates to *UN Sustainable Development Goals 4 & 8 — Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, and; Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.*

FUTURE WORK

The Far North has a great lifestyle to offer but our district's geographical and digital isolation has contributed to a limited job market. With better connectivity and innovative thinking, future jobs no longer need to be bound by location, putting the Far North on par with other areas to receive and grow local talent.

Our local products and services can be sold online in the global marketplace. Having an online presence will be key to our district's post-covid economic recovery as current and future travel restrictions limit the numbers of overseas visitors. Good connectivity allows customers to find you with a click.

"I think there are lots of opportunity to create jobs up here in the Far North, I have my own business, with clients in North America and all over NZ, it's entirely run online."

"It would be great to have call centres located in areas with people who need jobs in NZ, rather than outsourcing overseas. With fibre connectivity it should be easy to set up telecommunications hubs to make this happen. People could even work from home!!"

"Easy online access to situations vacant so that we could get access to the employer who is advertising the work instead of having to go through all these other channels such as WINZ. Online CV forms made easy for people to fill in and complete without having to feel degraded for not having one or being unable to complete one."

INNOVATION HUBS

Our current economic strengths are based on natural resource-related industries. ICT and broadband infrastructure provides a platform to add value to these industries through improved performance measurement, resource management innovation, and allowing businesses to maintain connections with customers and suppliers.

There was strong support for the establishment of digital hubs and business incubator-type opportunities. There is already a digital hub in Kaitia and one planned for Kaikohe, offering co-location opportunities and event spaces. The Ngawha Innovation & Enterprise Park (NIEP) is currently being built just out of Kaikohe. NIEP will lead programmes in research and development, workforce development, value-add manufacturing, new business development and co-location opportunities.

“We need to create an innovation hub, with investment from national and local government. Starting with a support hub similar to Ice House, for example, we then need to approach entrepreneurs who want to enjoy the Far North lifestyle while running their business. We need to invest in a Far North based education facility focusing on future technologies. This will help keep our young people in our communities, as well.”

“Hanging out with innovative people breeds innovative ideas and innovation. We need to create hubs, opportunities and forums where people can mix and meet others to share what they are up to and inspire others.”

“Create Regional Digital Hubs (RDHs). RDHs are place-based facilities which may include key digital services such as free connectivity (via WiFi), co-working spaces for businesses and potentially council activities, event spaces, some support for technical connectivity and guidance on use of the internet for business purposes.”

“Put in some hubs and funding like Whangarei’s orchard. Collaboration, support and mentoring matter. Cheap effective disused commercial space with some x-factor, like what The Merchants did in Kerikeri, but for tech.”

WHAKATIPU ACTION PLAN

| What | Why | Who | When |
|---|---|---|-------------------------------|
| Use technology help connect workers with local work opportunities | <p>Alongside growing our pool of remote workers there is also a need to use technology to find more efficient and affordable ways of transporting workers to where the jobs are.</p> <p>Start date is post General Election as funding options will be clearer at this point.</p> | <ul style="list-style-type: none"> • Northland Regional Council • Northland Inc • Far North District Council | December 2020 – December 2023 |
| Support Ngawha Innovation & Enterprise Park (NIEP) | To support value added primary sector in the Far North and provide support for technology-led innovation and skill creation. | <ul style="list-style-type: none"> • Far North Holdings • Far North District Council • Northland Inc • Primary sector • Iwi • Far North Communities | July 2020 – July 2022 |
| Far North Marketplace – an online store and real-life support as part of post COVID-19 economic recovery | The Far North is home to many makers and craftspeople. This project will bring support and coordination to our already established markets, create a recognised ‘market trail’, while expanding the scope of our markets to include online (using an already established platform like Etsy) so makers can capitalise on a global marketplace | <ul style="list-style-type: none"> • Far North District Council • Far North Communities | July 2020 – December 2020 |
| Support Digital Hubs in the Far North and improve digital skills for businesses | <p>Develop opportunities for skill sharing and networking and for Far North businesses to upskill and create an online presence, allow for online bookings and transactions etc</p> <p>Note: The Governments May 2020 Budget included \$10 million for incentives and grants to encourage SMEs to take up more technology such as ecommerce</p> | <ul style="list-style-type: none"> • Northland Inc • Digital Hubs • Far North District Council • Far North Communities • Business Associations | July 2020 – June 2021 |

"I'm not very good on those [iPad] but my Moko is doing her schoolwork on one and her Poppa always carries his everywhere to take as many photos and videos as he can."

"Stable IT infrastructure will support a rural interdisciplinary health hub development in mid north and rural Northland. Students who would otherwise not access core science subjects necessary for health science tertiary education, through their local school supplied curriculum could access a regional science academy through remote learning and peer support."

"There are some really cool online learning programs available overseas such as Coursera. This allows you to watch lectures and complete tasks that are part of a university program. There are a huge variety of things that you can learn about and if something doesn't interest you, you can just stop watching. Many of these programs are completely free.

It would be great to get a similar platform set up in NZ. Online courses could be provided by a range of NZ educational institutions for free or a small cost."

"Check out Te Ipukarea — The National Māori Language Institute was established in 2008 partly to develop and advance a digital strategy for the creation, delivery, and assessment of Māori language curricula as well as the collection and dissemination of Māori knowledge across a range of domains."



**KŌRERO MAI,
KŌRERO ATU**

**SPEAK UP,
SPEAK OUT**

"I already do training courses using data on my iPhone using 3G. It's fast and unlimited!"

"Make digital content for Northland by Northlanders. What employment opportunities are available in the Far North? What training is available here in the Far North? Is there any financial support for training here in the Far North? Who can help — with CV's, Drivers Licences, who are Justice of the Peace? Make a website to support our people with answers to our most common questions. Make it available for employers to advertise."

"Connect and better utilize worldwide resources. Step away from the conventional model of education and broaden the scope into real areas that affect real people."

"We could do online Te Reo basics through video calls i.e. families learning together, four families one tutor would be something cool to see. It could be used to teach those of Non- Māori decent to learn as well so we can all grow as one and become closer as a community."



GOAL

The Far North will be known as tech-friendly district with a skilled workforce.

“Let’s market our place as a tech friendly start-up place for people.”

“Technology doesn’t just mean computers, software and apps. It is about problem solving. Understanding what problems, or opportunities face our communities provides the motivation and thirst for knowledge.”

“Technology can be used to expose people to what is out there! This is what virtual reality tech looks like, this is what it does and then, digital workshops/footage of what you can do with it. Show the people what is out there and what is possible, then, let them go for it.”

RATIONALE

In this section we look at building on and advertising our strengths. We already have excellent connectivity in some areas and planned improvements in others. We have a growing pool of local talent, people who are using connectivity to do amazing things right now. We have already successful local businesses who might need a helping hand to develop their online presence and take their product to the world.

This section looks at how can we speak up and share all the great stuff that is already happening, support our people and businesses to embrace technology, innovate, upskill and entice those already in the tech industry to consider bringing their business — and their jobs — to the Far North.

MAKING THE MAKERS

For our local tech sector to evolve we need to support workforce development. Across New Zealand outside of the main centres there are limited learning opportunities in IT related fields. While there are online course available, these require good

connectivity and the discipline to learn in isolation. Also, not all online courses (especially ones based overseas) are eligible for NZ study grants and student loans.

Nothing But Net feedback showed a strong desire by our communities to upskill in tech so that they can be makers, not just consumers. People also identified the power of peer support and learning with others as well as having the opportunity to be tactile and physically interact with things in the real world.

“New Zealand has a unique cultural mix and with the advent of digital technology we are more able to share that with a wider world than ever before. We don’t need to allow the Americans or the Brits to colonise our subconscious — we can build our own identity and share it with the world.”

“Giving the community opportunities to engage with technology in ways that they can create music or art or movies, rather than passively being users and becoming content creators.”

“A technology facilitated inter professional and mixed trade educational facility would mean less dependence on local teaching skills but could reach out regionally,

nationally and internationally for the appropriate teaching resources. Likewise, we could “export” local knowledge across same networks. This would make living and working in Northland an attractive option and allow “work from home” or “work from regions” possible. Less commuting. Lifestyle balance living rurally but still contributing to ‘city-based’ enterprise.”

“To attend courses remotely using digital platforms. This would enable us to stay in our communities but upskill vs having to travel or move to another part of the country.”

TAKING LOCAL GLOBAL

An online presence is essential for any business. The first step for most people researching a product or service is an online search. For businesses without an online presence, shutting the doors during lockdown meant shutting out customers. A website, e-commerce platforms and social media channels all help sell and showcase your product and engage with customers or potential customers. Nothing But Net feedback showed local businesses know there are tools available but they would like support to use these tools to reach their online potential.

“There is a lack of understanding of what you can do in a digital space. There needs to be more training or educational information available. For example, we have started to use facebook to sell our business products under covid-19 but we have struggled to use the platform, and will be not using it to its full ability. We need to be more in the digital space to promote local industry.”

“Educate people how to run a business online or how to assist others setting this up. Create a safe and creative platform for Northland based business’s to place ads.”

SHOUT ABOUT IT

The Far North does not currently have a reputation for being a tech savvy district. With ongoing improvements in connectivity and a growing skilled workforce, now is a good time to create a new narrative and market the Far North as digitally enabled district to encourage further growth in this sector.

“Right now people often have to leave small towns and go to the city if they want to advance their careers in all kinds of industries. It would be fantastic if we would encourage employers all over the country to realise what

talent we already have in the Far North District.”

“With stable, reliable connectivity in the Far North there should be no difference to working elsewhere in the country, or world for that matter. I really think the key to this initially is securing and then advertising stable, reliable, uninterrupted, connectivity.”

“We need an event where people can showcase their ideas and products.”

“I design print format: logos, business cards, flyers, brochures, invitations, catalogues, magazines, newspapers, signage (billboards, storefronts), vehicle wraps, flags, banners, etc. All you need is a PC with the correct software and a wild imagination!”

KORERO MAI, KORERO ATU - SPEAK UP, SPEAK OUT ACTION PLAN

| What | Why | Who | When |
|--|---|--|------------------------------|
| Use technology help connect workers with remote learning and work opportunities | <p>By partnering with organisations already doing online training to help people get 'job ready' and placement in jobs we can bring international expertise and future global opportunities to our district.</p> <p><u>NOTE:</u> Funding has been secured to deliver this project</p> | <ul style="list-style-type: none"> • Connected Nation US • Far North District Council • Northland Inc • US State Department • MSD | March 2021– July 2021 |
| Campaign to celebrate our digital success stories | Market the Far North as digitally enabled district that celebrates our successes and shows what's possible. Plus the enviable Far North lifestyle including cheaper housing. | <ul style="list-style-type: none"> • Far North Business Associations • Remote Workers • Northland Inc • Far North District Council | July 2020 – June 2021 |
| Support Tuia Matauranga Education Truck to visit Far North towns and schools | Travelling museum and education facility showcasing high tech activities | <ul style="list-style-type: none"> • Ministry of Education • Schools/Kura • Far North District Council | October 2020 |
| App development | <ul style="list-style-type: none"> • An app that can help celebrate our place, people and culture and share it with others. We are a district of great storytellers and great stories to tell. • An app to share great experiences like our Pou Herenga Tai Twin Coast Cycle Trail, the Te Araroa Trail, our beaches and forests. • Run a community monthly online art exhibition. Upload your art onto the online art gallery. Could be themed each month. One month could be visual art, another month environmental sculpture etc. • Set up a live free Q & A with someone from the community – a business owner, teachers, kids — where people can ask them questions online live and they can answer however they want. • Virtual tourism e.g. 360 virtual tour of the treaty grounds with optional commentary. | <ul style="list-style-type: none"> • Far North Communities | July 2020 – December 2023 |

"Sharing cultural videos can be seen as a passionate person for their culture. And they want the world to know that this culture is alive and still going strong."

"Lately I have seen some of my fb friends using zoom to workout together!"

"As we move from paper to digital the life of the digital record must be maintained for the future. This needs protecting in back-ups, from being hacked and then future proofed in formats that will allow it to be accessed into the future. This requires a level of prudence and capability in our digital guardians who oversee this. Data becomes more and more valuable — as an asset when it holds the history and informs the future. This value must be realised."

"Love the apps for learning languages such as Duolingo, but also more and more for Te Reo Maori. Tikanga is a harder one to learn digitally, however have seen some cool ones for walking tours around museums etc, so this could be done virtually where someone could walk us through the Waitangi Treaty Grounds and talk about the Taonga but also add in things like common terms, tapu, rahui etc and maybe some history and examples."

"We can use digital tools to share and teach other people about each other's cultures. By sharing each other cultures and teaching other people about them we can protect peoples cultures from being lost."

"Community online Zoom dance classes, karate, Tai Chi, stretching, yoga and exercises to get everyone a little more physical. Local information about where to buy healthy food, from restaurants and takeaways, to farm stalls and markets. Mental health is really important. "Exercise the mind with some puzzles, reading novels. There are support groups for trauma, depression, etc already"



Tēnā koe. Āe e tika ana kia pupuri i ngā tikanga o a mātou Matua Tupuna o tātou o Ngai Māori. E huri ana te ao inaiane ki ngā rā o nehe. Ko te ipurangi tētahi o ngā tino taonga ka whakamahi i ēnei rā, kohungahunga mai, taiohi mai, mātua mai, kaumātua mai hoki. Me ako, me whakaako e tātou me pehea te whakamahi tika i te ipurangi, ngā taupānga me erā atu o te ao matihiko kia ora ai tātou, kia ora ai tō tātou reo, kia ora ai ō tātou tikanga anō hoki. Ā, mā te ipurangi ka taea te tohatoha ki te whānau, ki te ao hoki o tātou tikanga, kia mōhio pai ai te ao katoa, kia kore ai o mātou tikanga e ngaro. Me whakamahi tātou i te ipurangi hei painga mā tātou, kia hopu hītori mo te inaiane me te apōpō.

Greetings. Yes it is appropriate to adhere to our ancestral customs for Māori near and far. The world of today has turned from times past. The internet being one of those prized treasures used today by little ones, young ones, older and elderly ones as well. We must learn about and be taught the complexities of the net, its software and all associated elements of the digital world that will enhance our wellbeing, our vocabulary including our customary practices. By use of the internet, whanau wellbeing will be continuous and enhanced and our worldly knowledge, language and customs will not be lost. We must make use of the internet for our benefit that will capture our histories of today and of tomorrow.

Translation provided by Ted Wihongi, Senior Maori Liaison Officer Far North District Council.



GOAL

GOAL: Our people will be digitally literate and have the support they need to use connectivity to help take better care of themselves, each other, our culture and our environment.

“Have classes for us “oldies” who can do basics on the computer but wish to do more.”

“Use technology to raise awareness about nutrition, growing kai and more information about our connection to food as individuals and as a society.”

“I would love the opportunity to use technology in our Kura to create pest monitoring systems and work alongside the local council and government departments to see if students could use technology to monitor ecological issues that affect our community”

“Use drones against pest species!”

RATIONALE

Around the world better connectivity is helping farmers improve health and safety, collect data and use this information to farm smarter and more competitively. Civil defence organisations are becoming increasingly reliant on digital technology to alert communities to emergencies and natural disasters and conservationists are using technology to assist the recovery of native species the eradication of pests.

A number of respondents talked about 'balance' and ensuring that more time spent in a digital world does not mean less time connecting with each other. This was especially of concern in relation to the potentially isolating effects of too much time spent on devices by children and young people. The opposite was also of concern, that is, the potentially isolating effects of older people lacking the digital skills to allow them to fully participate in society as services move more online. How we might use connectivity to take better care of our environment, namely through the use of sensor technology, was a reoccurring theme, both in data capture and the public sharing of this data in a way that it means something to people (i.e. human readable) so people can be better informed and take more personal responsibility (e.g. transparency of water levels in a drought so residents can take action earlier).

"I feel we should be focusing on how we can connect more as communities without relying on a digital technology. We have already seen growing trends amongst children being on devices more than connecting to nature do we really need more?"

HEALTHY PEOPLE

Wellness is physical, emotional, mental and spiritual. The health of your immediate environment, both natural and work environments', also impacts on your wellbeing, as does how intellectually stimulated you are in your daily life. All these things are linked and impact on your quality of life.

Nothing But Net feedback showed a strong desire to have online opportunities to share and learn more — about each other, our cultures, our languages and our heritage. Having local people tell their stories to help build understanding and give insight into different world views.

"By using our digital devices to record some parts of our customs to share with others so they get a little bit of insight and understanding. For example, if I was going to India I would want to know a little bit about their culture to prepare me for my visit, so I would use my digital

device to look some up. But remembering to keep the sacred stuff sacred and to respect all cultures.”

“Language is the gateway to culture and there is no other tool quite as powerful as the internet at sharing and fostering language skills.”

“Rahui could be advertised locally online. Colonial culture could also be explained: I’m a Scot by origin and my tribal background is fascinating!!”

“Collect our stories and share - along the lines of the NZ Wars series that has just been replayed on TV — what are the true stories of the north? For all ethnicities — Māori, Pakeha, Dalmatian. What about the orchard workers from Vanuatu? Celebrate our diversity.”

For some there was a keenness but shyness or shame in not knowing more about other cultures especially Te Ao Māori (this was repeated by both Maori and non-Maori) and people viewed learning online, at their own pace, was a safe way to take the first steps on this journey.

“For many Maori, it can be scary having to admit that you have very limited knowledge of your culture. Technology could be better used to educate before having

to attend courses. The first time I had to set foot on a marae I was scared and did not want to insult anyone with my lack of knowledge of the protocols. You would look at me and assume that I would know what to do — however I had no clue. A video on what happens on a marae before I went would have been helpful. I went to marae as a child — however it was not until 25 years later that I set foot on a marae again — as you can imagine I had very limited memories of the marae visit and what happened. There are a lot of courses now online to learn Te Reo and resources and this is fantastic.”

Help to navigate the internet and tackle its “hugeness” and “vastness” came up repeatedly. People can feel overwhelmed by choice and some do not know where to begin. Cost was also seen as a barrier to accessing devices and software. For example, someone might have excellent technical drawing skills but if they are not proficient in the right industry standard products — like the Adobe Creative Suite for example — they will struggle to find employment in the design industry. Protection from online scams, bullying and predators and knowing where to go to get help was also a key point.

“Put the programs out for free brutha. My music producing gear cost 10k. That’s not affordable for 99% of people. Have it in schools or have a place where they can go for free to train and use the gear.”

“There’s physical safety (e.g. CCTV cameras) but there is also emotional & cultural safety. There can be a lot of bullying on social media platforms, leading to people not speaking out. Whenever something controversial is discussed, the conversation is in danger of deteriorating into personal attacks, racism and mocking of people who hold a different opinion. Also recently the hoaxes and conspiracy theories that have been circulating have been quite shocking and often dangerous. Whatever platform is used needs to be carefully and strongly moderated — well beyond simply what’s legally required. The rules of engagement need to be clearly laid out and actively enforced.”

The need for increased access to digital tools to deliver health services and the use of personal health assistant apps was repeatedly identified by respondents.

“I love using my Fitbit to track how active I am, as well as compete with my friends to see who can do the most steps!!”

“There are many ‘apps’ available to help people track their health. Video conferencing with specialists may help those who are unable to easily travel to Whangarei Hospital (this would need to be supported by Nurses). Doctors and Nurses have been consulting via phone with patients, this could be expanded to monitoring conditions with appropriate technology in peoples home. This of course will require reliable internet and electricity supply.”

“I am lucky to have a large property to go for long walks for exercise. I use Samsung health which monitors the exercise and footsteps I do each day.”

“It would be great to support Whanau with free data when accessing any health or social service in Northland.”

There was also an eagerness to use current online platforms and more cutting-edge technology to learn and share.

“Te Reo Maori on Duolingo. 3D digitization of archaeological artefacts, so schools can engage with goggles and/or 3D print replicas. Mashup of traditional arts with modern tech, eg CNC meets carving.”

“Protect by digitally recording the stories and narratives of the older generation. Celebrate by using digital technology to showcase the uniqueness of Te Tai Tokerau to the world via innovative digital media (VR, AR, Websites, Computer games, Virtual tours)”

“Programmable robots, drones, deep learning AI, much more advanced classes really push the envelope, we’d be surprised what students can grasp.”

“Over the lockdown period I have had to learn to use my digital devices to be more creative for school and learning purposes. So relatable tutorials would’ve been awesome, most stuff I just had to wing it or look on YouTube who are created mainly by people who are not from NZ and some are a bit harder to understand due to accents and what not. So tutorials and videos done by NZ on how to use draw or design apps or apps such as

iMovie to the utmost fullest would be awesome.”

“There are some really cool tools out there now that allow you to draw on screen as if on a piece of paper. It would be great if more children could have access to these interactive screens and pens such as apple pencil. They could then draw to their hearts content without ever running out of paper. The picture creations can then be shared easily with family members. It would be great if there were also online colour in competitions for kids with prizes sent out through the mail.”

HEALTHY KAI

The Nothing But Net engagement proved we are a district of foodies, as kai came up regularly. People suggested online local cooking classes, information sharing about when and how to grow your own fruits and vegetables and the development of apps that encourage healthy eating and allow you to purchase local, organic, spray-free produce.

“Have more information available about local produce available in our area.”

“How to seek out your nearest organic grower.”

“To study what is healthy and how our bodies operate etc. the influence of your environment and the connection between you and the kai you put in how it’s grown and hunted can all be learned through tech. Tech can be used to create a great environment for growing kai etc watering systems etc and even for preparing cooking and sharing of kai tech can be used recipes etc the list goes on.”

“Swap Macca’s for home cooked meals, the internet has thousands of affordable, healthy meal recipes.”

SKILLED SENIORS

Assistance and opportunities for adults and community groups to upskill was a reoccurring theme. With younger generations of ‘digital natives’ highly confident in the online world, older generations would like help to navigate competently and independently through the digital landscape and to ‘keep up’ with the kids.

“Teaching technology classes as Adult education — to teach us adults so we can nearly keep up with the kids. My 2 younger ones have been going to Rox’s Tuesdays at the library and talking about the coding and the games they have been doing — WAY over my head.”

“We could have free courses about the newest technologies coming out and that are already out. It would help a lot of our older generation.”

“Many older people who have a lot of skills and knowledge that has been undervalued recently (but in some circles is achieving a new renaissance). It would be great to use technology to capture some of these skills, so they are not lost. Also it would be great to have local oral history projects where people can talk about people they knew, things they saw, the way places used to be, so that personal experience isn’t lost.”

“All learning how to use technology/social media efficiently. Generally, people over the age of 50 are notorious for not knowing as much about technology and social media as younger people, and I know a few youth myself who are kind of tired of having to explain to some older people how to do the same thing over and over. It is my experience that there are older people who know how to use technology and only ask for help sometimes, some who ask for help but learn how to use it eventually, and then there are those that ask for help but refuse to learn how to use it or constantly talk about

how technology is bad etc. I think we need to educate everyone within all generations about technology and it's uses."

MANAAKI - CARE ACTION PLAN

| What | Why | Who | When |
|--|---|--|---------------------------|
| Support older generations to use technology confidently and competently | Internet banking, video conference tools and information sharing platforms like You Tube so knowledge they hold can be shared with the next generation | <ul style="list-style-type: none"> • Education providers • Office for Seniors in Ministry for Social Development • Far North District Council | July 2020 - ongoing |
| Online first aid course | The majority of Far North residents live in rural and remote areas with poor mobile coverage, which can result in delays in emergency services arriving. St Johns already offer a refresher course online but with support this could be expanded to include a First Aid Certificate. | <ul style="list-style-type: none"> • St John • Civil Defence Emergency Management (CDEM) • Far North District Council | July 2020 – December 2023 |
| Kai Connect | Create an online platform to connect local people with local produce – paddock to plate. | <ul style="list-style-type: none"> • Ngawha Innovation & Enterprise Park (NIEP)/Far North Holdings | December 2021 - ongoing |
| Support the development of digi health across the Far North | Distance and expense can sometimes mean people miss important appointments. Improve digihealth network across Northland so patients don't have to travel so far for appointments and can received specialist care in their own homes or at the local clinic/hospital. | <ul style="list-style-type: none"> • Mahi Tahi Hauora • Northland District Health Board • Northland Inc • Hauora Hokianga | July 2020 - ongoing |
| Support the local farming community to utilise tech | Education for farming community in how technology (agritech) can improve productivity and lessen environmental impacts. The Governments May 2020 Budget included \$11.4 million to grow the agritech sector and improve environmental outcomes. | <ul style="list-style-type: none"> • Northland Regional Council/Northland Inc • Ngawha Innovation & Enterprise Park (NIEP)/Far North Holdings | July 2020 - ongoing |
| Support community groups to upskill their digi skills | To engage with new members, keep current members informed and take advantage of funding and other opportunities groups need to be skilled in navigating internet and using online platforms | <ul style="list-style-type: none"> • Far North District Council | December 2020 - ongoing |

MANAAKI - CARE ACTION PLAN (continued)

| What | Why | Who | When |
|--|--|---|-----------------------------|
| Safety online from scams & bullying | Ensure people know where to go to report any issues online | <ul style="list-style-type: none"> Netsafe | December 2020-December 2023 |
| App development | <ul style="list-style-type: none"> Apps related to 'caring' including: An alert system than can go directly to police for youths in trouble Accessible crime mapping to show pattern of activity in vandalism and theft so communities can be more proactive Assume all GP visits are virtual unless absolutely necessary to be seen. Remote monitoring of pulse, blood pressure and diabetes over smartphones. Smart devices with digital prescription from health professionals loaded with evidence-based apps that increase and enable remote home monitoring and health care including video consultation. Focus on elder folk and ensure training and competence in use as part of access to device. We can create more apps that are aimed at people with diabetes and other ailments Apps to connect people with healthy food Sensors to track for water quality, water levels, People can take photos of illegal dumping and littering and notify Council Establish online networks (virtual face to face) with key service industries ie. doctors, vets, banks as a back up option if people are unable to meet in person. Online video conferencing counselling sessions | <ul style="list-style-type: none"> Far North Communities | July 2020 - ongoing |

"Have a link on the FNDC website to all of the various free programs there are that people can use to be creative with. Half of the time people just don't know what's out there."

"Better comms from local government to keep communities updated. This could be achieved by having a local personality provide weekly podcasts to providing to key issues/ services throughout the district."

"Council could offer scholarships for those who have an interest in learning computer programming. Upon completion if you work in the Far North you do not need to pay back the school fees. This would encourage more people to work here."



WHAKARATO DELIVER

"We need to normalise what we do with technology so that it isn't something different, it's just how we do things. COVID19 has helped show how versatile we can be and how easily we can change our behaviours."

"Demand for accessibility to communications services such as wifi and mobile coverage is growing increasingly and is vital for sustainability of communities living in the Far North."

"Information sharing allows people to make better informed decisions."



GOAL

The Far North District Council will embrace new technology and use connectivity to create great places and support our people.

“Make all council bills and payment contactless. We still have to find \$3 change to pay for transfer station!”

“Have a link on the FNDC website to all of the various free programs there are that people can use to be creative with. Half of the time people just don’t know what’s out there.”

RATIONALE

This section is all about the Far North District Council and how we can engage with our community better, deliver services better and what we can do to encourage growth in the local tech industry and knowledge economy. Through our Nothing But Net engagement, our communities have told us they want us to use technology to work smarter and be more responsive to our community’s needs.

A SMART COUNCIL

Like many organisations across the Aotearoa New Zealand, the COVID-19 lockdown forced council into large scale digital transformation overnight. All staff are now set up for remote working and council has made a

commitment to embrace this more flexible and people-centric way of working on an ongoing basis.

Communities showed strong support for Council transactions online, giving people greater choice in how and when they pay rates, dog registrations, consenting fees, etc.

There is also support for Council to use different kinds of online communication and engagement tools, like Video Ask, the platform used for Nothing But Net. People liked having choice in how they responded to the questions, and having the questions delivered by a real human — “kanohi ki te kanohi” — helped to make the exchange more interesting and meaningful.

“Video conferencing is HUGE and has great potential to help Council and Community Boards to engage in an equal opportunity type forum with people of the district. We can all have a better say, share input, ideas and more using these platforms.”

“Online meetings have provided opportunity for all to participate without travel; I would say that the ability

to provide this input from home has increased the ability collaborate."

"Video calls and meetings to talk to our Councillors and staff, for example on the water shortage."

"Interactive community surveys like this one are great!"

A SMART DISTRICT

There was a strong interest in Council embracing new technology like sensors and smart city networks. Smart technologies help to promote safer communities, reduce environmental impacts, improve digital equity, improve transportation, monitor public utilities and allow for the development of new economic development opportunities. Council has already started to invest in Smart Lights which will provide the foundation infrastructure necessary to allow a future public wifi networks, CCTV and sensor technology like air quality monitoring to be established. Smartcity projects are commonplace in larger urban centres but the cost can be a barrier for smaller territorial authorities. By Council committing to intentionally deploying this sort of technology when the opportunities arise it will contribute over time to the Far North becoming a 'smart district'.

"I'd like to see a real time monitoring of our waterways and our beaches, for water quality, sediment control, etc"

"I would like to see graphs of water and air quality."

"There're a huge amount of applications which were used by the primary sector to monitor the soil, the rainfall, the growth of plants, the heat in the climate's. It would be really good if we could repurpose some of those tools and make them suitable for managing and finding out more about our forests. So in the same way that a farmer can look at his fields, wouldn't it be cool if we could actually take the same approach and monitor our forests so that we know what's going on? What plants are growing well, what pests are arriving or what pests have been caught on all of those things that are useful information to monitor the wellbeing of our natural environment."

"We need more public places like Te Ahu with free wifi connection."

"Smart graphics on displays around our commercial areas could rotate their displays making streets novel and ever changing . Brighten up our surroundings. Demonstrate information of public health and welfare in new and attractive ways to keep

**population informed.
Find enthralling storytelling
opportunity in our district.
Maybe digital visual history
boards around our urban
areas and tourist venues"**

ON THE ROAD

There was a lot of support shown for Far North Libraries initiatives like Robot Tuesday's, and a desire for Council to extend the reach of this programme and develop others.

"Offer more fabulous free programmes such as Robot club please. The libraries are a great local community place to start and have already made a good impact. My daughter loves Robot club!"

"Why is this course [Robot Tuesdays] not being run around all the Far North District Council libraries?"

"Firstly make sure everyone has access to a device!! Secondly teach older people how to use them. Then instead of getting books out of the library they could get them on their iPad and make the text larger so they could read them."

JOINED-UP THINKING

And a request to be more mindful of connectivity when future planning and consenting and thinking about ways local government can support and grow the local business and tech industry.

"Ensure all subdivisions are completed and signed off with the ability to connect to the internet. Ours was signed off, but we had to argue with the providers who said at the time internet capacity was available to find room in their network. While we were able to connect, our neighbours were not."

"We need business incubators, and tax and rate relief. In Australia, you get tax and rate relief if you set up a business up in an area that people don't really think of to go to."

By embracing digital first, Council will work under [Central Government's Strategy for Public Service](#) to ensure our operations are more open and accountable, people-centric and unified and that we encourage greater collaboration and 'co-creation' with our communities and foster a learning environment for our staff.

WHAKARATO - DELIVER ACTION PLAN

| What | Why | Who | When |
|--|---|--|-------------------------------|
| Support Far North Libraries Mobile Library service | The Far North District Libraries would like to purchase a vehicle to establish and build on their outreach programme and mobile library services across the district – taking initiatives like Robot Tuesday's out into our more rural and remote areas. | <ul style="list-style-type: none"> Far North District Council | December 2020 |
| Support Far North Libraries to become digital hubs | <p>The Far North Libraries April 2020 Outreach Survey and Nothing But Net community engagement both reinforced the need for new digital services for children, youth and seniors.</p> <p>Consider how libraries can support Better Digital Futures programmes.</p> <p>Far North Libraries are a Skinny Jump partner</p> | <ul style="list-style-type: none"> Far North District Council | December 2020 – December 2023 |
| Move Council payments online | <p>Feedback shows people want greater flexibility on how and when they pay their rates, dog registration, building consents, resource consents etc.</p> <p>The Council will soon begin rolling out new online services, making it easier for our customers to do business with us. Staff have been reconfiguring our customer interface system, Pathway, and we plan to begin testing a MyFNDC service with small groups of staff over the next six weeks. MyFNDC will allow customers to set up an online account and use this account to request a service, pay their rates bill, apply for a building consent, LIM report, property file, and much more. Most of the development work for these new services has been done by our staff rather than contractors.</p> | <ul style="list-style-type: none"> Far North District Council | December 2020 |

| What | Why | Who | When |
|---|---|---|--|
| Free Public Wifi | <p>Free public wifi can help to address 'last mile' connectivity issues as people can use the wifi when they come into main centres to do grocery shopping or use other services. Other rural Councils – like Otorohanga – have had great success implementing main street public wifi with high use by both locals and visitors.</p> <p>Both the Far North Libraries April 2020 Outreach Survey and the Nothing But Net community engagement showed high levels of need for more free public wifi across the district.</p> | <ul style="list-style-type: none"> Far North District Council | December 2020 – ongoing |
| Open source data | <p>Communities would like to be better informed so they can take greater responsibility in the management of resources and take action to address any issues (e.g. water levels, pollution) before it becomes a crisis.</p> | <ul style="list-style-type: none"> Far North District Council Northland Regional Council Far North Communities | Start December 2020 for available data - ongoing |
| Livestream public meetings – Council, Community Board, Hearings etc | <p>Council meeting times are not convenient for everyone and travel across the district can also be a barrier to attendance. Livestreaming council meetings also helps make council operations more open and transparent.</p> | <ul style="list-style-type: none"> Far North District Council | May 2020 - June 2021 |
| Support the use of new online channels and platforms | <p>Communities would like to see greater responsiveness on social media platforms (like live chat functions) and new online engagement tools being used like podcasts, making information easier to digest or "How to" videos produced by staff on how to apply for a building consent, how to apply for a resource consent, how to apply for funding etc</p> | <ul style="list-style-type: none"> Far North District Council | December 2020 – ongoing |
| Map council facilities and make processes more transparent | <p>Help people find council assets spatially and develop online dashboards to report on how we're doing/progressing on a wide variety of workstream including community enquires via RFS</p> | <ul style="list-style-type: none"> Far North District Council | December 2020 – December 2021 |
| Embrace Smart City technology | <p>Make new builds smart builds.</p> <p>This includes smart lights and sensor technology which allows for CCTV and public wifi networks</p> | <ul style="list-style-type: none"> Far North District Council | July 2020 – ongoing |

WHAKARATO - DELIVER ACTION PLAN (continued)

| What | Why | Who | When |
|--|--|------------------------------|-------------------------|
| Invest in a digital future | Consider the possibility of supporting students with scholarships, cadetships or work placements and investigate rate or tax relief that could be offered to encourage growth in the tech local tech sector | • Far North District Council | July 2020 – ongoing |
| Invest in staff training Staff education will include raising staff awareness | Upskill Council staff in digital tools and make sure they have the support they need to excel | • Far North District Council | July 2020 - ongoing |
| Map council facilities and services | Instead of lists on a website, communities would like to have a map showing rubbish collection points, dog exercise areas, toilets, parks and playgrounds, libraries, RFS's etc In the future this could also show real time road works and other notable works | • Far North District Council | December 2020 - ongoing |
| District Plan review to take connectivity into account | Ensure all subdivisions and new builds are signed off with the ability to connect to the internet and consider 'blackspot areas' as having potential value | • Far North District Council | July 2020 - ongoing |

BETTER BROADBAND AT YOUR PLACE

BECAUSE LIFE'S TOO SHORT FOR #STINKNET

Every piece of media or content on the internet uses a certain amount of data. Data is most commonly measured in megabytes or gigabytes, and Mbps is an acronym that stands for 'megabits per second'.

1 MEGABYTE (1 MB) = 8 MEGABITS (8 Mb)
1 GIGABYTE (1 Gb) = 1,000 MEGABYTE (1000 MB)

When you're using the internet, you're either uploading or downloading or, as in the case of a video call, you're both uploading and downloading at the same time. Downloading means your computer is receiving data from the internet. Uploading means data is being sent from your computer to the internet.

The more people you have using your network, the slower your internet will run, since it's shared across multiple internet users. So if you're part of a family of four and everyone's watching Netflix at the same time on different devices, you're going to need a higher-speed plan.

Some file types, such as text documents and PDFs, may take only a few MBs. But to download an HD movie can easily take 4 GB. People who download a lot of HD videos, upload high-resolution photos or work from home will need more Mbps than someone who just wants to surf Facebook or send emails.

IS THERE ANYTHING YOU CAN DO RIGHT NOW TO IMPROVE YOUR CONNECTIVITY? MAYBE!

1. Check out the National Broadband Map.

Type in your home address and see what broadband options are available for you. It shows the type of broadband as well as the expected speeds. Better broadband may be as simple as switching your provider.

<https://broadbandmap.nz/home>

2. What is your home setup like?

How many people are accessing your network at the same time, how far away from your wifi router are you, or maybe your wifi signal being blocked by thick walls or other potential interference? These things make a big difference to the strength of your signal and the quality of your internet.

| Activity type | Minimum speed required |
|---------------------------------------|------------------------|
| General browsing/email/social media | 1 Mbps |
| Streaming music | <0.5 Mbps |
| Streaming video (standard definition) | 3–4 Mbps |
| Streaming video (high definition) | 5–8 Mbps |
| Online multiplayer game | 4 Mbps |
| Video conference call | 6 Mbps |

Instead of using wifi, try plugging your laptop straight into your ethernet cable. This will give you an idea of the quality of internet coming into your home. If you're experiencing a significant drop in quality when you're on wifi then you may need to look at your setup. Wifi boosters/extenders can be a great way to extend your wifi signal to others parts of the house if your signal is weak.