BIRRR

BETTER INTERNET FOR RURAL, REGIONAL & REMOTE AUSTRALIA

Support, advisory & lobby group for all bush telecommunications

Consultation on a new Digital Technology Hub

Better Internet for Rural, Regional & Remote Australia (BIRRR)

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BETTER INTERNET FOR RURAL, REGIONAL & REMOTE AUSTRALIA

Contents

Table of Figures

Background and Overview

The Better Internet for Rural, Regional & Remote Australia (BIRRR) group was founded in 2014 as a forum to address the lack of information, advocacy and support for bush broadband consumers. In particular, those requiring equitable telecommunications for their businesses and education of their children. ***Although BIRRR never set out to become solutions specialists, this role now takes up the majority of our limited volunteer time, with over 11,400 active, engaged BIRRR members from every state and territory of Australia.*** Rural, regional and remote (RRR) consumers are extremely reliant on effective communications, due to ***the nature of their geography***, and this ***heightens the need for effective representation.*** The BIRRR team has undertaken extensive large-scale research on regional telecommunication needs. Previously there have been few studies and limited research into this specific consumer group. ***This research has found that there is a large gap in the digital literacy skills needed to get connected and stay connected in regional areas.*** This is in part due to increased competition, rapid improvements to telecommunications services over the past 5 years, roll out of the nbn and a lack of digital skills and digital tech advisors and technicians in regional areas. As part of our volunteer work we have advocated for changes in policy, services and customer service for RRR communications users, however, ***our advocacy work is limited due to the large amount of troubleshooting needed to assist RRR people get connected, stay connected and use their connection***.

BIRRR has developed an extensive list of contacts and a website full of resources that assist people in getting connected, troubleshooting their connection and using their connections at their full potential. Additionally we have designed a desk check facility to help advise RRR users on their best connection options, overcome nbn addressing issues, achieved service class changes when required and highlighted disparities in computer modelling of service coverage. Our volunteers spend an extensive amount of time using a series of troubleshooting Google forms to identify service issues and escalate them to the required providers. Throughout the above processes we have been able to develop a knowledge base of issues, debunk many myths, and highlight the lack of awareness and misinformation surrounding bush telecommunications. Ideally we would prefer to devote our volunteer hours to advocacy and not be constantly troubleshooting and providing digital literacy skills assistance to RRR users who require assistance. Our volunteers are currently stretched beyond their

capabilities, with work in the advocacy and research space taking a back seat to our troubleshooting role.

BIRRR appreciates the opportunity to comment on the design of the *Digital Technology Hub (DTH) — consultation paper* and commends the Department of Infrastructure, Transport, Regional Development and Communications' (the Department) and Minister Bridget McKenzie and her team for understanding the need to fund a DTH service. The Department should work closely with the Rural Regional and Remote Communications Coalition (RRRCC) and in particular BIRRR on the design of the DTH and also encourage government commitment to supporting the hub beyond the two-year funding period. BIRRR is very keen to work with the DTH provider and pass on our knowledge, contacts and what we have learnt over the past 5 years. This submission is not a summary of all of our knowledge, thus it is highly recommended that the new DTH provider closely shadow BIRRR for an extended period of time to ensure that our processes and knowledge base are not lost.

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BIRRR Responses to the Digital Tech Hub Consultation Paper Questions

QUESTION 1

In addition to BIRRR, ACCAN, ACCC, ACMA, RSPs and Infrastructure providers, what sources of information should be incorporated into the design of the Digital Tech Hub (DTH)?

A main aim for the DTH would be to collate existing information and present it in an easy to understand, tech jargon free format. The BIRRR website has a wealth of information for RRR users trying to get connected and stay connected, it is recommended that the DTH Provider work closely with BIRRR and the above mentioned stakeholders to further develop existing resources. These resources should continually be updated and adapted to ensure they are kept current as new issues and information arises and should focus on helping consumers to understand and make decisions about their connections. The information should focus on:

1. **How to Get Connected** - desk check facility, advising of nbn connection type, mobile service and any alternate fixed wireless providers that may be available, advice on how to choose a good provider, assisting with nbn addressing issues, establishing what the end user is looking for in a connection (reliability, data limits, speeds, costs & customer service), how to access an education port, getting/maintaining a landline in RRR areas
2. **How to Stay Connected** - how to troubleshoot a connection, how to do a power cycle, purchasing the best router/modem or antennas and boosters, how to contact the TIO, how to extend a connection to a schoolroom or office, how to escalate an issue with your provider
3. **How to Use a Connection** - how to view and understand data usage, how to stream in SD not HD, using PlayOn Cloud, wifi calling, managing data, how to use off peak data, basic digital literacy skills involved in getting and staying connected, how to set up a generic email account.

Point 3 should be very general and not specifically related to digital literacy for innovative agriculture, health, education or other specific products. BIRRR understands the need for targeted digital literacy, however we believe this project does not contain enough funding to do this justice. The above points should also be expanded on and are only a sample of the information that will be required, with regular development of resources occurring as issues and new developments arise.

The website, along with a call centre and web chat facility, should be used to assist people in achieving points 1, 2 and 3. Referring end users to easy to understand information with clear details (including images) on how to solve issues is incredibly helpful. The DTH should use existing templates with very clear language, developed by the BIRRR team and expand on these when communicating with RRR end users.

In addition, the DTH Provider should:

- Refer consumers to the TIO for difficult to solve cases/issues.
- Refer end users to WhistleOut or similar independent plan comparison sites.
- Have the ability to conduct a desk check to assess all options for connection, this will include working with Alternate Fixed Wireless Providers (WISP's) and nbn when addressing issues arise.
- Provide information on consumers' telecommunication rights - e.g. USO, TIO etc.
- Work with stakeholders such as ICPA, ACCAN, NBN, and NBN Providers, to develop further resources that may be more specific in nature such as pensioner discounts, education ports, and ensure these are kept up to date regularly.
- Utilise existing network outage info e.g. nbn network status page, mobile carriers outage sites and provider specific outages & refer people to these links where possible.

QUESTION 2

Options for promotion of the Digital Tech Hub include distribution through existing networks including the RRRCC, Regional Development Australia network, and regional partnerships and local government organisations. ***What other existing networks can be used to promote the Digital Tech Hub?***

BIRRR acknowledges the RRRCC as an ideal base to promote the DTH, however, cautions that not all stakeholder groups in the RRRCC have on the ground experience with RRR connections and technologies and there are varying levels of digital literacy within the coalition. Other existing networks (including those mentioned in Q1 above) that could be used include:

- ABC Radio
- DTH Social media - Facebook Page is recommended
- Investigation of householder mail outs
- Regional newspapers, investigation of leaflets inside regional newspapers (possibly backed with a magnet that consumers could place on their fridge)
- Large state based field days e.g. Beef 2021
- Local Government e.g. inclusion of information in rates notices.
- State & Federal MP's could refer their constituents to the hub (and from BIRRR experience could use the resources provided by the hub as well & promote it in their newsletters). The DTH could investigate employing a government stakeholder advisor.

QUESTION 3

The Digital Tech Hub will help resolve users' telecommunications issues by referring them to appropriate third party information and contacts, and performing basic troubleshooting. The Hub is proposing to use a social media page with an interactive component (e.g. instant messaging). ***What social media presence is most relevant to regional consumers?***

BIRRR poll research shows that Facebook is the most used social media platform for regional users trying to get connected.

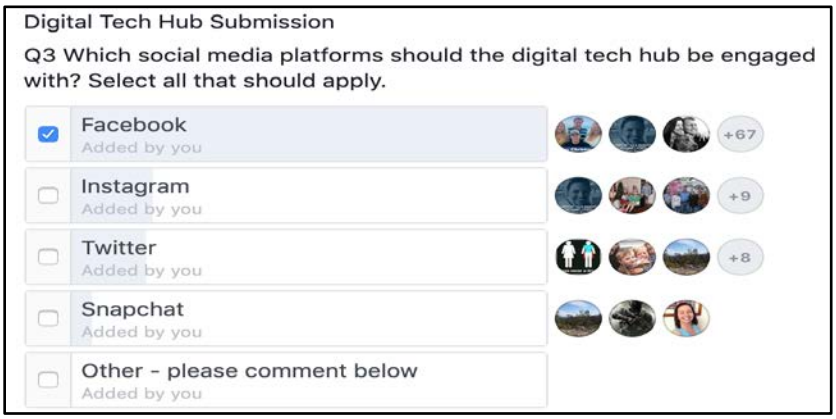

Figure 1: BIRRR Facebook Poll 2020 highlighting most used social media platforms

However, BIRRR members also highlighted that a mix of support systems is preferred.

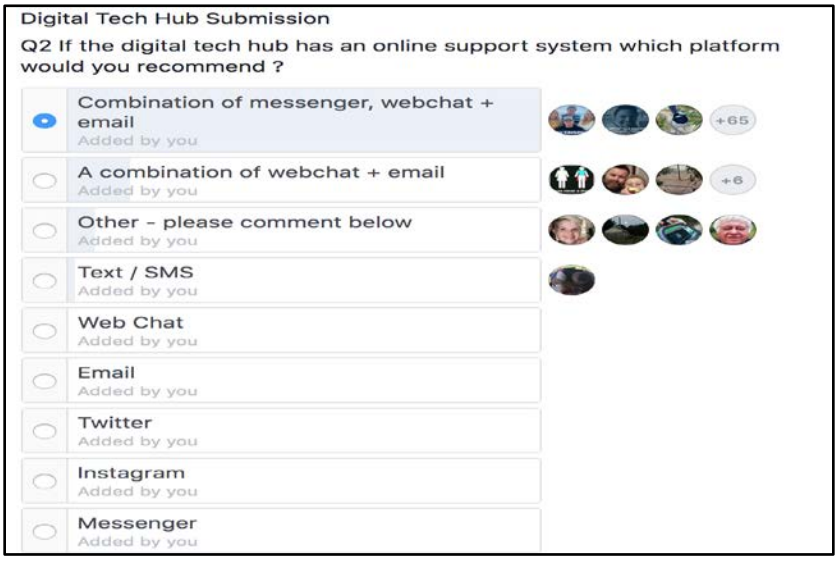

Figure 2: BIRRR Facebook Poll on recommended interactive platform, 2020

After consultation with the BIRRR Facebook Group, it is recommended the DTH establishes the following:

- a web chat facility that includes the ability for an end user to send images and text back and forth with a designated solutions specialist. This would be particularly useful as not all RRR residents use social media and it is highly advisable to have a backup chat facility (not rely on Facebook Messenger alone in the current climate of Facebook pages/groups being shut down).
- a Facebook page (and possibly a linked Facebook group forum), which can access Messenger. The Facebook page could then be used to promote the DTH and Messenger can be used to 'chat' or forward people to the web chat facility.
- The DTH hub should investigate establishing a forum, where information and troubleshooting can be shared, similar to BIRRR's Facebook forum which has been a successful tool for improving digital literacy in RRR areas.
- Phone support / assistance line. Often if an end user has internet issues they only have access to a landline, thus phone support is crucial. Likewise when users have difficulty with their landline phone they may only be able to access the internet.
- It is also essential that the DTH have a process to collate issues and be able to map them, similar to the mapping and data collection methods currently used by BIRRR.
- Solutions specialists need to be very familiar with mapping tools, regional technologies and regional areas.

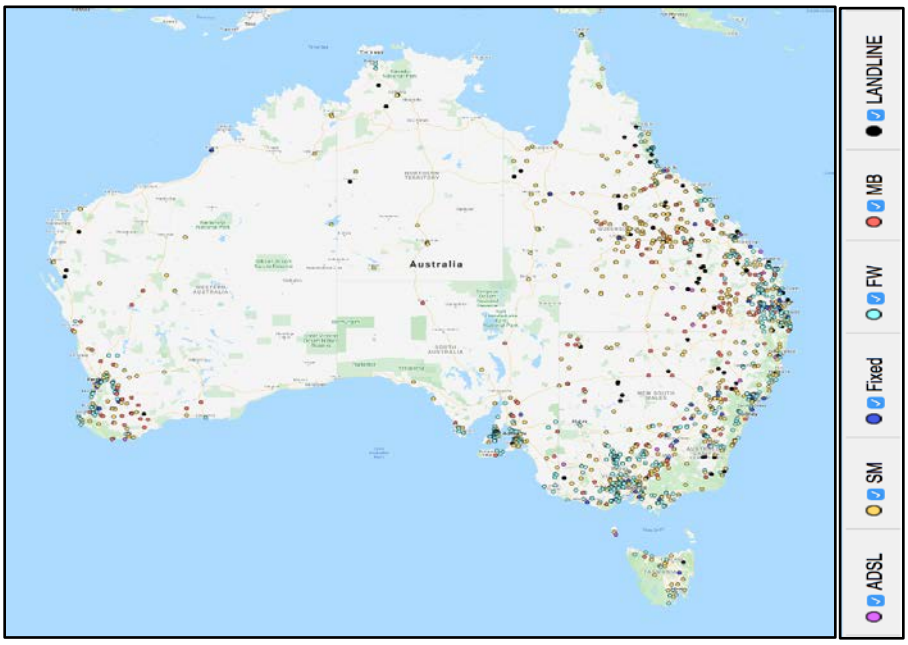

Figure 3: BIRRR Troubleshooting Map 2020 by Technology Type

QUESTION 4

What 3 to 4 hour window would best suit a limited-hours phone service, if implemented?

BIRRR recommends that a 'phone-in' feature is to the DTH. As seen by the following BIRRR poll the end of a day or beginning of a day are popular time slots for regional people, see Figure 4.

The DTH should consider the following in regards to establishing the hub's 'phone-in' feature:

- Need to consider Australian time zones.
- Call back service must be implemented if a limited hour's phone service is provided.
- Consider using an Office Assistant answering service to extend hours and cater for all time zones. The DTH Provider should investigate the services of a virtual receptionist such as OfficeHQ - https://www.officehq.com.au/ to maximise the phone service feature.
- Consider having a window of time that is not in regular working hours (e.g. after 5pm) to assist those who work full time away from their residence and can only troubleshoot whilst in front of their connection, see Figure 5.

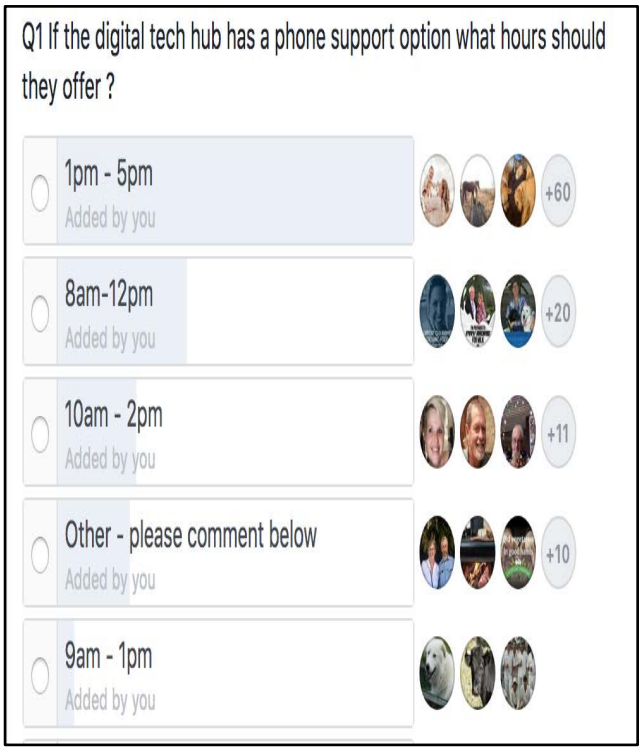

Figure 4: BIRRR Facebook Poll 2020 highlighting proposed hours of a phone in service.

Figure 5: BIRRR Facebook Comments 2020 on DTH phone in support hours

QUESTION 5

What sort of in-kind support should RSPs provide for the Digital Tech Hub e.g. training for staff and information on customer service escalation processes?

- RSP's should provide the DTH with a point of contact for escalations, as well as making available their resources and information such as plans, tip sheets etc.
- NBN should provide a dedicated contact for residences requiring a service class change, issues where the end user cannot escalate with their provider, training for the DTH on how to do a desk check for an nbn service.
- WISP's to provide locations of fixed wireless towers so the DTH are always up to date with the options in each community.
- Mobile providers should provide the DTH with coverage maps that can be utilised to help consumers find out their best internet options.

NB: BIRRR escalations currently work well with providers who are active and engaged with BIRRR.

QUESTION 6

Innovative digital applications exist today that could have immediate positive impacts to regional businesses if they are taken up. The Digital Tech Hub will aim to provide resources on these applications for regional business sectors and raise awareness of how current and emerging technologies can be adopted. ***What information would be most useful to help small and medium businesses to maximise the benefits of digital connectivity and new applications?***

As mentioned in Q1 the digital literacy component of the hub should be very generic and not specifically related to digital literacy for innovative agriculture, health, education or other specific user groups. BIRRR understands the need for targeted digital literacy, however, we believe this project does not contain enough funding to do this justice. Some areas the hub may like to focus on include:

- What to do to stay connected in a power outage
- How to use wifi calling
- How to extend wifi coverage.
- How to restrict data usage on limited connections
- How to set up a generic email account
- The importance of not having all your communication eggs in one basket (e.g. mobile phone for voice and mobile broadband for internet)
- Desk checks should promote all options to the end user who can then make a choice based on their needs.

QUESTION 7

Many local councils are considering developing digital plans for their communities. The Digital Tech Hub could provide resources and links to information that can assist local communities and councils to engage in digital planning processes, assisting them in taking a greater role in leading the process. **What information would be most useful in assisting communities to undertake local digital planning?**

- Technologies available in each community e.g. nbn technology types, mobile broadband, ADSL, WISP's. This may be able to be organised via regional council areas.
- Maps of location of fibre (this would also be incredibly useful for the Regional Connectivity Program and the alternate voice service grants)
- Mobile Providers coverage maps
- Map of equipment suppliers and technicians in RRR areas. These may be technicians who can supply mesh wifi systems, antennas and boosters, point to point equipment or actually attend to set up and install equipment. BIRRR have this map here: https://www.zeemaps.com/map?group=2304006

NB: In BIRRR's experience not all technicians in regional areas are up to speed with current technologies and plans, as such it becomes difficult for the DTH to recommend specific individual businesses and the hub may therefore be better to focus funding on training a limited number of technicians for each state.

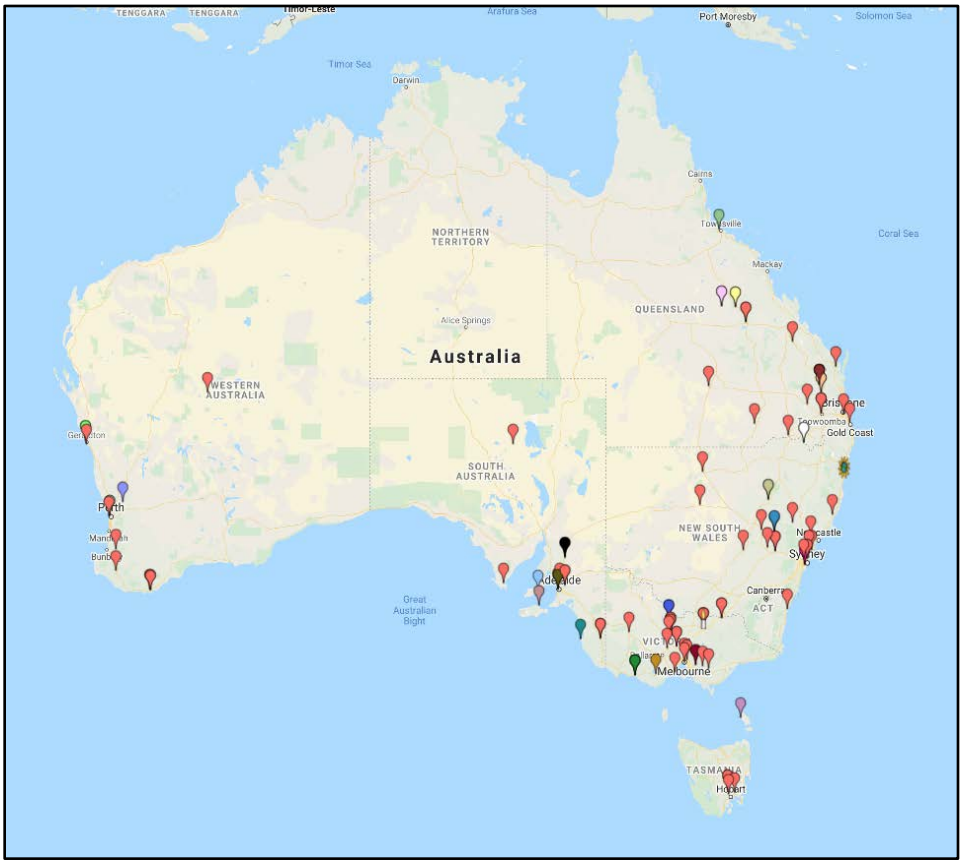

Figure 6: BIRRR Map of Tech Businesses 2020

A map should also be maintained to record WISP's as this is a very useful tool when doing desk checks, this would also be useful for the Regional Connectivity Program. Birrr currently has 276 Alternate Fixed Wireless Providers' towers mapped, however we are aware of many more. BIRRR map can be viewed here : http://www.zeemaps.com/pub?group=2307253

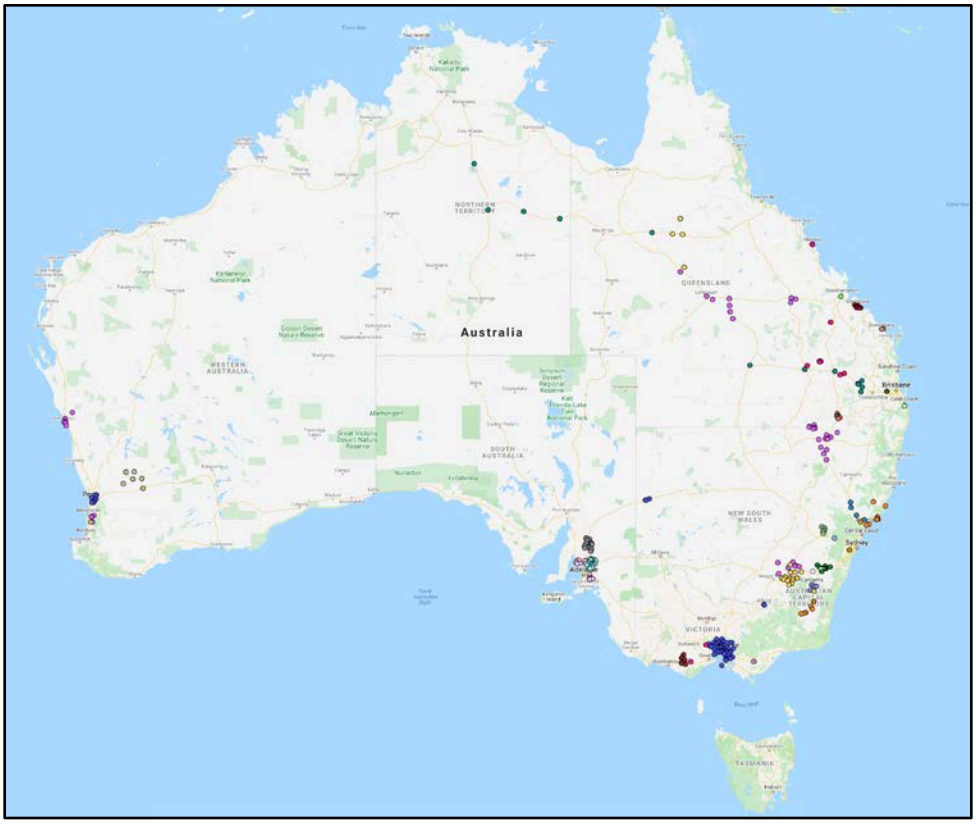

Figure 7: BIRRR Map of Alternate Fixed Wireless Providers 2020 (WISP's)

The hub should investigate employing a stakeholder manager that encourages and supports local government to provide digital literacy resources and information for their local community. This could include specific resources for regional businesses that are tailored to the technology available within that community.

QUESTION 8

The Digital Tech Hub could provide resources and information that would be able to better prepare communities to employ resilient communication strategies, including managing the expectations of communication capabilities during disaster and emergency situations and identifying what temporary equipment is available. ***What information would be most useful in assisting communities to prepare for, and best use digital connectivity during disaster and emergency situations?***

- Information that helps users understand what type of connection they have and how to remain connected in emergencies where possible
- Power back up options
- How to hot spot a mobile phone
- How to use wifi calling & compatible phones
- Apps that provide VOiP services
- Nbn emergency services at evacuation centres
- How to access financial and connection support after a natural disaster

QUESTION 9

What options are there to fund the operation of the Digital Tech Hub beyond its two year funding period, e.g. paid advertising?

Five years into our volunteer services, BIRRR is well placed to highlight the need for ongoing funding for a DTH. We encourage the government to commit to fund the service beyond the current two-year funding period. Volunteers should not have to support and educate RRR users on digital literacy. BIRRR also cautions using paid advertising as a way of funding the hub and believes the DTH needs to maintain independence. It is essential that the Department design a robust and sustainable DTH that can support ongoing needs of RRR users.

Some suggestions for continually funding of the hub include:

- Telecommunication provider levies
- TIO income from fines
- Contributions from service providers
- State Government and Local Government Funding
- Continual Federal Government Funding including regional growth funding

QUESTION 10

Additional comments, points or recommendations

- If allowed by Department policy BIRRR would be willing to be involved in the selection process for the DTH provider.
- The DTH should be located in a regional area and employee solution specialists who are familiar with RRR areas and technologies. The investigation of solutions specialists working remotely should also be considered.
- The DTH should work through a case until it is solved, or until the end user has been referred to a third-party who can resolve the issue. In some complex cases it is recommended that more than one solution specialist reviews the case (see Appendix 1 for some complex cases BIRRR has helped with over the years). Cases should remain 'on the books' until solved and should be followed up as required.
- The advice provided by the hub must be technology and provider agnostic.
- Suggestions on resourcing the DTH included above are not an exhaustive list and BIRRR recommends that fact sheets, web articles etc. are developed as issues arise. This will ensure the DTH remains relevant and up to date with changing technologies.
- Consider changing the name of the DTH as there is already a Facebook Page and Website with a similar name - https://www.facebook.com/DigitalTechnologiesHub/ www.digitaltechnologieshub.edu.au
- On location tech help and face-to-face education sessions should be considered if resources allow. The DTH could investigate the possibility of developing a team of regional tech advisors (based in each state) who will visit onsite and install required boosting and wifi equipment, or training existing techs to be familiar with all types of technology within their service area. This could be funded by infrastructure providers and carriers. Likewise the hub could support regional local government to run education and digital literacy sessions.
- Although this project does not have the required funding, the development of a Digital Capacity Building Centre / Centre for Digital Innovation, that can research and educate on digital tools and advancements in regional Australia. See the Victorian State Government proposal as an example (Miller, 2018). The centre would pull together new developments and tools that regional Australians could use in their lives and businesses as well as offer training and education on digital innovation. This needs to also focus beyond agriculture, and should also include innovation in education, health and regional business. It should include research into software that will work on regional connections e.g. mapping programs that cope with high latency, online educational platforms for distance education, multicast technology for streaming, platforms for delivering mental health and specialist health services to those currently without access. These centres could be delivered at a state or local government level

with contributed funds from state and local Government and advertising from businesses with innovative products.

- In conjunction with the DTH, Alternate Voice Trials and the Regional Connectivity Grants Program BIRRR strongly believes that there is an urgent need to map existing telecommunication infrastructure across regional Australia. We recommend that Infrastructure Australia should map all existing fibre and microwave backhaul networks and present a report on existing telecommunications infrastructure in regional Australia and who owns it.
  This needs to be a comprehensive report that clearly highlights the state of play of bush telecommunications infrastructure. Additionally BIRRR believes that the Australian Communications and Media Authority (ACMA) and Australian Competition and Consumer Commission (ACCC) should examine options to reduce costs and promote the sharing of spectrum and access to backhaul in regional Australia to ensure that alternate fixed wireless service providers continue to bring competition to regional broadband markets.
- The DTH needs to be aware that different end users will have different levels of knowledge about the technologies they are using, thus the ability to send photos and images is incredibly important. For example, often people on NGWL or HCRC landline phones are not aware of the specific technology used to deliver their voice service, and often their provider does not have customer support staff that understand the technology either. Another example is end users are often confused between fixed wireless and mobile broadband, or fixed wireless and satellite (referring to the FW antenna as a 'dish') and BIRRR admin regularly comes across consumers who believe 'wifi' is a technology type.
- It is essential that the new digital tech hub shadows BIRRR for a designated period of time so that existing knowledge is not lost and can be passed on. There may also be the possibility that some of the BIRRR volunteers could be engaged by the hub on a paid basis to assist in getting the hub set up.

References

Canstar Blue (2018) "Compare Electricity Providers | Prices From 22 Providers." Canstar Blue, www.canstarblue.com.au/electricity/.

Miller, Andrew (2018). "State Government Undertakes Global IoT Search." The Standard, 1 Aug. 2018, www.standard.net.au/story/5560638/state-government-undertakes-global-iot-search/?cs=72

https://birrraus.com/

https://www.zeemaps.com/mymaps

https://www.facebook.com/groups/BIRRR/

Appendix 1

Complex Case Study Samples from BIRRR Troubleshooting

- End user who was waiting for nbn to come and connect her service, didn't realise she needed to contact a provider. She had been waiting for 2 years.
- Sky Muster customer who had two NTD's (one in her cupboard), and one connected to the satellite. The one in the cupboard was activated the one connected to the satellite was not.
- New home owner who moved to a residence with a missing NTD, she contacted three providers who were unable to assist as none were able to find her address in the nbn database.
- Sky Muster user who moved his house, with the Sky Muster install still connected to a new LOCID, new owner of previous location unable to get an install as nbn had it recorded there was an install already at the address. Address was actually the neighbours address anyway. Took three providers, an installer and BIRRR to solve the issues which involved 4 LOCID's, 4 NTD's, three customers and three actual locations.
- Remote schoolroom with a very old wifi system installed (no routers) for Sky Muster to be bridged from house to schoolroom.
- End user who had spent three years trying to get a landline phone installed. Issue was terminology used by Telstra. End user thought an 'interim landline service' was the ISS satellite.
- Remote property mapped for FTTN instead of nbn Sky Muster. End user had given her provider the property co-ordinates as her address could not be found in the nbn system. Although she followed directions she was not home at the time and ended up supplying coordinates to the bakery where she was having a coffee.
- Sky Muster user with no landline phone, experienced an outage. Only communication method for her was to call her neighbour on two way radio. Neighbour rang the provider but was told she couldn't lodge a fault as she was not listed on the account. Neighbour resorted to phoning BIRRR admin for help.
- Multiple install attempts for an nbn fixed wireless connection, installer was testing the wrong tower or not using a pole mount and in some cases not even getting on roof.
- Ongoing issues with a nbn Sky Muster connection, long period with no service. Only to discover the ethernet cord was faulty.
- Ongoing issues with Sky Muster drop outs and poor signal, many attempts to resolve. Issue was a dish not bolted to the roof.
- BIRRR has been involved in hundreds of nbn addressing issues that have been unable to be solved by providers and end users:
  - marker on large properties are placed in the middle of the property, not where the house is (which is often in a Fixed Wireless footprint)
  - Sky Muster address is mapped to the nearest town, which often can be a long way from the actual property

- Multiple dwellings and no nbn LOCID, or one LOCID for multiple buildings
- ISS customers who had Sky Muster installed and are now eligible for FW, however nbn computer modelling says no as they already have Sky Muster installed.
- end users unable to find themselves on Google Maps or supply an address that can be entered into the nbn database, the removal of GPS co-ordinates from the check your address feature has made this task much harder.