

Connectivity in Northern Australia

Northern Australia Communication Analysis

Digital inclusion is not just about computers, the internet or even technology.

It is about using technology as a channel to improve skills, to enhance quality of life, to drive education and to promote economic well-being across all elements of society (Australian Digital Inclusion Index, 2019).

Premise is working with Queensland University of Technology (QUT), James Cook University (JCU), Charles Darwin University (CDU), Centre for Appropriate Technology (CfAT) and Regional Development Australia (RDANT), on a project funded by the Cooperative Research Centre for Developing Northern Australia (CRCNA), to identify barriers, and devise solutions for digital inclusion in Northern Australia (NA). For our project together, digital inclusion describes the extent to and the effectiveness with which people are able to access, afford, and use digital media and communication technologies. QUT is driving the development of a directions paper outlining a detailed road map for digital inclusion research, practice, and policy development for NA.

As an agricultural consultancy, Premise have an understanding of ag tech currently being used by our clients and what will be available 'on the horizon'. Utilising our network, Premise have undertaken a series of discussions with agricultural producers in NA to understand their connectivity challenges and desires. The output of our project will be case studies detailing the successful journeys of particular NA producers. Ultimately we want to tell positive stories, for others to learn from. Premise's case studies will become part of QUT's directions paper.



Case Study 1

Zetifi founder, Dan Winson, was working as a teacher for TAFE NSW when he began designing a system for off-grid, regional connectivity and in 2017 he formed Zetifi.



Dan has been working with producers in rural and regional Australia to build networks using off-the-shelf hardware. Bec and Jay, from Mathison Station a cattle property 100 km west of Katherine, have been working with Zetifi to improve their property's connectivity. They will soon have multiple Wi-Fi 'bubbles' at remote locations over their property allowing their new walkover weigh bridges, remote weather monitoring stations and security cameras to work.

The addition of the Wi-Fi bubbles will allow staff to send/receive information (including internet, data, voice, texts) rather than driving up to 1.5 hours to get back to the office. There are also safety advantages to these bubbles; if there are approaching storms staff can access the Bureau of Meteorology radar, if there is smoke they can access the Northern Australia Fire Information website to see if a bushfire is nearby, and if someone is injured staff can raise the alarm from a nearby bubble rather than having to travel back to the office. Data can now be collected on a daily basis from the weigh bridges which will enable weight gain analysis to assist with mustering decisions. This remote monitoring will also mean that Bec and Jay no longer need to add data manually, thereby saving time in travel, data collection and data entry.



Case Study 2

Activ8me is an Australian Internet Service Provider with a history of developing and implementing remote, robust connectivity solutions.



In 2018, a partnership was formed with Activ8me, OBE Organic, Chappel Accounting and 10 remote Qld properties together with JoAnn Resing from the Department of Agriculture and Fisheries (DAF) to develop a business-grade internet solution able to service the varied needs of a large, multi-person enterprise. This partnership resulted in Activ8me developing the 'Business Hub' product, a customised smart router that receives internet from multiple NBN Sky Muster dishes which is then relayed across the property as separate Wi-Fi networks. These networks provide free Guest Wifi, casual PAYG (Pay As You Go) internet plans for staff, a private family network, an IOT network and a closed password protected business operational network. The business network is prioritised over the other networks to ensure that important business operation and financial transactions take precedence. The Business Hub hardware arrives as a 'Plug and Play' unit, ready for DIY installation and instant network delivery.

Northern Australia Pastoral Company (NAPCO) purchased the Business Hub for 9 of its properties. NAPCO wanted an internet solution for their permanent and transient staff workforce which didn't impact or interfere with their already established corporate network. Previously, NAPCO properties had no, or minimal, internet with strongly restricted Wi-Fi access for the staff. Now, with the Business Hub, NAPCO staff have access to their own internet plans and can easily connect with friends and family using Skype, Facebook and Wi-Fi calling. By offering data to remote workers NAPCO believe they have improved their staff living conditions, thus leading to better retention of staff.

Where to Next?

Premise is currently working on a decision tree to assist producers with the process of assessing their own connectivity needs and the identification of potential ag tech solutions. Our case studies and decision tree will be a part of QUT's directions paper, due for publication next year.

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