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To: secretariat@rtirc.gov.au
Cc: [Steve Rogers](#)
Subject: Submission to 2018 Regional Telecommunications Independent Review
Date: Thursday, 28 June 2018 5:03:58 PM
Attachments: [image002.png](#)
[image004.png](#)
[image006.png](#)
[Review of Regional telecommunications services - CAT response 2015.doc](#)

Regional Telecommunications Review 2018

The Centre for Appropriate Technology (CfAT) has made submissions to all earlier Regional Telecommunications Reviews since 2008, particularly with regard to improving telecommunications services to people living in remote areas of Australia.

We attach a copy of our RTIR 2015 submission to provide specific context to the current submission. The Mobile Phone Hotspot described therein has now been installed in 45 remote locations in the NT, including a majority in remote Aboriginal communities, primarily of outstation (homeland) size but also in some cases in larger remote communities. Other sites include roadside stops and remote tourism locations. Most of the funding has come from direct grants from the NT Government, and from community or NT regional royalty funds. The 2015 product continues to be installed, but has also been enhanced since that time, again with funding assistance from NTG.

We believe, and these successes demonstrate, that this technology, and potentially other 'alternative' cellular technologies provide a valuable complement to the high cost mainstream Mobile Network Operator (MNO)-provided macro cell or small cell solutions, because they provide a very economical extension to the cellular networks' core coverage, while providing access either to the public at large or to all residents of communities of Indigenous people. We also point out that the CfAT solution is agnostic to both carrier and 3/4G technology, and being a passive repeater requires no power and virtually no maintenance, and is orders of magnitude lower in implementation cost than a macro-cell tower. By the nature of the Mobile Phone Hotspot, all call charge revenues from its use flow through to the relevant MNO.

The funding guidelines for earlier rounds of the Mobile Blackspot Program (MBP) did not envisage (non-MNO-provided) complementary solutions, thus virtually precluding such complementary technologies from eligibility. Even if they had been countenanced, the scale in terms of time and cost of the processes for funding, vetting and approval that were in place for MBP Rounds 1 & 2 were not appropriate to low-cost solutions, and would have overwhelmed any advantage that the latter had to offer.

On the June 10 2018 announcement by the Government of an MBP Round 4, we wrote to the Round 4 Program Manager to ask that the Round 4 Guidelines (yet to be announced as at today's date) make room for funding low-cost complementary cellular technologies. The text of that communication is included below:

"The Centre for Appropriate Technology (CfAT) welcomes the announcement on June 10 of a 4th Round for the Mobile Blackspot Program (MBP).

CfAT has a 35 year history of providing technology products and services to remote Indigenous communities throughout Australia, including telecommunications solutions. More recently, we have developed a Mobile Phone Hotspot, a low-cost single-user passive repeater that has been deployed throughout the Northern Territory, essentially as a 'public good' facility with funding from the Northern Territory Government and other primarily public sources. This device extends the effective hand-held coverage footprint for existing isolated radio base stations (mobile towers) by a factor of two or more. It is carrier and 3G/4G agnostic. Hotspots have been installed on a turnkey basis at 45 sites including remote Aboriginal communities, roadside stops and

tourist locations, and we are actively pursuing similar opportunities in SA, WA and Queensland. All three of the earlier MBP rounds have been constrained to funding large scale conventional Mobile Network Provider solutions for improving mobile coverage, at an average combined capital investment per tower (averaged over macro and small cells) of around \$800,000. We believe that Alternative or Complementary Technologies to enhance existing or new coverage for mobile customers living and working at the network periphery can be a very cost effective component of the implementation mix, enabling a suite of solutions to complement mainstream offerings, thereby adding value to the Government's investment. These include active repeaters such as Cel-Fi Go, long range local networks using WiFi mobile calling, and our own Mobile Phone Hotspot.

However, these kinds of smaller scale innovation opportunity are often overlooked in the design and tendering of large scale implementation programs such as the MBP. We made a short submission to the Commonwealth ICT Procurement Taskforce to this effect early in 2017, the text of which is attached.

We urge the MBP project team to consider such a broader approach when developing the eligibility guidelines for Round 4, and would be pleased to provide further information as needed.
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We ask the RTIRC in turn to consider and provide support to this approach in its discussions and recommendations around the operation of the Mobile Blackspot Program Round 4, and any other publicly-funded cellular coverage enhancement program that may emerge.

Yours sincerely,

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