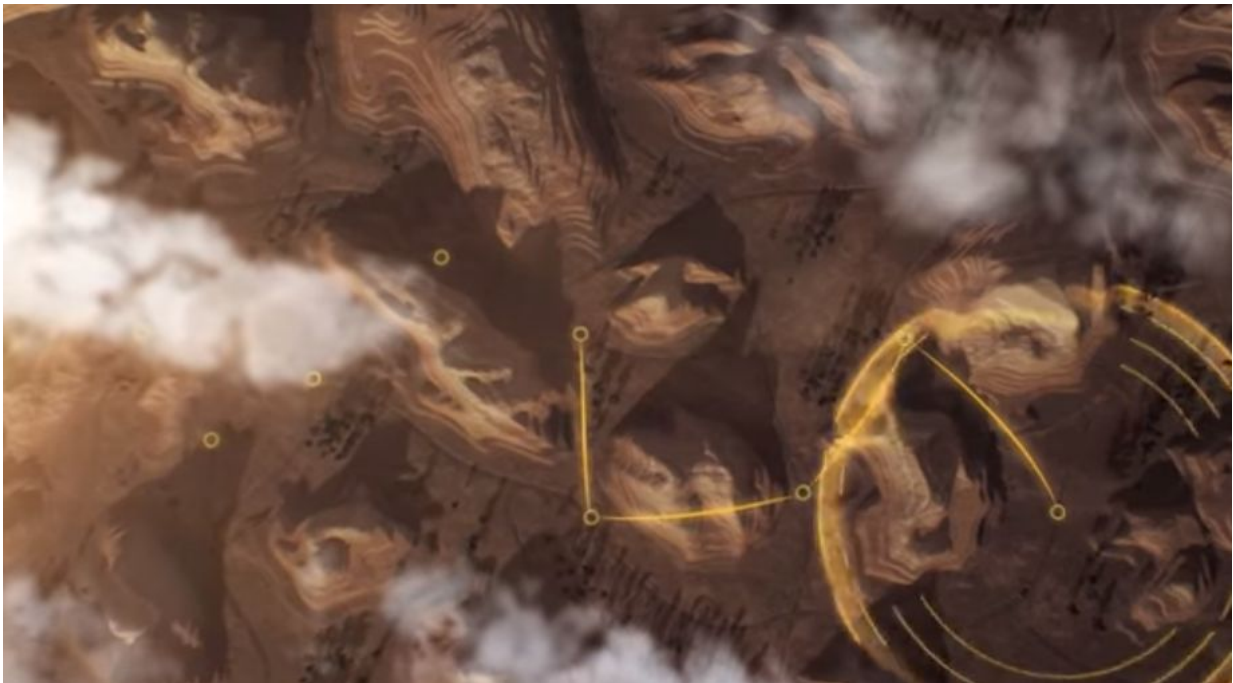


Australia project turns vehicles into emergency network

May 16 2016, by Nancy Owano



(Tech Xplore)—We are quite accustomed to hearing about the wonders of enjoying a global experience in a connected universe where communications ignores limitations of borders, arrival gates and physical walls. Not everyone gets to enjoy.

Take Australia. Over 65 percent of Australia still receives no mobile

signal. That's an area larger than the European Union.

One solution has been in the works and it leverages a very familiar vehicle in Australia, the Toyota LandCruiser. This initiative is the Toyota LandCruiser Emergency Network.

Video notes posted last month said the LandCruiser Emergency Network is an ongoing project aiming to bring emergency communications to rural and remote Australian communities that currently receive no mobile signal.

People in the video, seen in Outback settings, said there are risks in going into remote areas without communication; one participant said, "Out here, you have to worry." He counted factors such as heat, a question of whether or not you have enough water and snakes. Another person said, "If phones don't work you're on your own."

The LandCruiser Emergency Network is fundamentally turning vehicles into an emergency mobile network. In being connected this way they can provide mobile services in emergencies. How: The project team makes use of a simple plug and play device for the vehicle.

This is a small cylindrical object that was developed in conjunction with Flinders University. It can turn the vehicle into an emergency communications hotspot with up to a 25km range. The signal is passed from vehicle to vehicle—as soon as one of these gets close to a base station the message alerts first responders and is carried off to the outside world.

Klint Finley of Wired Business elaborated: "If someone is lost in the Outback or needs help, the system would allow them to connect to one of these hotspots via Wi-Fi. The hotspot would then seek out any other Land Cruiser hotspots within a range of a little over 15 miles and pass

the emergency beacon along to them. With enough properly equipped LandCruisers, the message would travel up the chain until it finally reached [emergency](#) first [responders](#)." A Saatchi & Saatchi release on the project said the engineering involves a "clever mix of WI-FI, UHF and Delay Tolerant Networking (DTN) [technology](#)."

To say that the LandCruiser has a substantial presence in the outback is not marketing hyperbole. Commented *Wired*: "The sport utility vehicles are the closest thing that the Outback has to ubiquitous infrastructure." Brad Cramb, Toyota Motor Corporation Australia, said they sell more LandCruisers in Australia per capita than anywhere else in the world.

No matter where you go in the Outback you find LandCruisers, said Dr. Paul Gardener-Stephen, project engineer, Flinders University.

The network initiative started in August last year, also involving Saatchi & Saatchi in partnership with Flinders University. The technology is being piloted in a fleet of LandCruisers fitted with the device in the Flinders Ranges.

More information: [saatchi.com.au/portfolio/the-l ... r-emergency-network/](http://saatchi.com.au/portfolio/the-l...r-emergency-network/)

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