Centrelink Case Study

Helping link Centrelink in remote areas

Issue

Provide a data connection to enable efficient customer service by teams in remote areas

Solution

An embedded 3G router with antennas to boost signal strength teamed with Australia's largest and fastest 3G network.

3G M2M Benefits:

- Connectivity looks "very promising" after initial trial
- Sharing of the connection between team members
- Improved standards of customer service

Centrelink is an Australian Government statutory agency, delivering a range of Commonwealth services to the Australian community. This includes assisting people to become self-sufficient and supporting those in need.

In Central and Northern Australia, **Centrelink** is responsible for providing services to its customers across a vast geographical area, including in very isolated communities. To do this, **Centrelink** uses teams of mobile staff, who travel to these locations and set up service points on a regular basis. The aim is to provide **Centrelink** customers in these areas with the chance of accessing the same range of services as people in more urban locations would receive at a regular shopfront office.

Naturally many of these locations do not typically have fixed line communications infrastructure that allows the **Centrelink** staff to access the centralised databases and tools they require. These applications are often based upon web browsers and require high levels of bandwidth to function within an adequate time frame. This necessitates the use of the 3G network for carrying out the work. Even then, the nature of the distances and terrain involved can make this connection marginal or non-existent, depending on the equipment being used.

Even in urban areas, Centrelink employees found that the NetComm router offered advantages. In one office constructed of heavy concrete, positioning the unit near a window and using its wireless capacity allowed staff to access better download speeds than their individual 3G cards provided.

Currently, **Centrelink** Remote Servicing Teams are issued with PCMCIA cards for each individual to insert into their laptop computer and connect to the 3G network. Whilst these provide good connectivity, there are some drawbacks to this approach:

- The internal antennas incorporated into the cards provide weak or no reception outside handheld coverage areas
- In these cases throughput speeds not always adequate to run browser-based applications
- The cost of providing and administering multiple card accounts

In 2009 **Centrelink** commenced a three-month trial finishing at the end of February 2010 with the NetComm 3G10WVT Router, developed by NetComm in conjunction with Telstra This embedded 3G router has a robust antenna array and allows the sharing of the same 3G connection between multiple users over its own Ethernet or wireless LAN. The **Centrelink** teams also decided to experiment with different external antenna systems for boosting their connection. This included trialling Yagi and omnidirectional antennas.

The results of the trial so far are very promising. The NetComm routers, teamed with antennas and Telstra's 3G network, provided much greater reception in remote areas than PCMCIA cards alone. Even in some locations where handheld mobile phone reception was not obtainable, the 3G10WVT could still offer a data link when combined with an additional antenna. The three or four person teams were then able to position the router in the location where it could receive the strongest signal. They could then share the connection using Wi-Fi allowing them to set up their individual terminals wherever they needed.

Where there was a cell mast in close proximity, download speeds of up to 4 Mbps were achieved by **Centrelink** staff, even with just the device's standard domestic antennas.

Since most of the locations that **Centrelink** operates at are visited on a regular basis, staff are building a database of what antenna combinations work best in which places. This will allow the rapid deployment of the best possible data link on subsequent visits.

Even in urban areas, **Centrelink** employees found that the NetComm router offered advantages. In one office constructed of heavy concrete, positioning the unit near a window and using its wireless capacity allowed staff to access better download speeds than their individual 3G cards provided.

For **Centrelink**, using the new routers has meant faster and more reliable connectivity, reduced costs and the ability to offer their remote area customers a higher level of service.

NetCommWireless
NETCOMM WIRELESS LIMITED
Head Office - 18-20 Orion Road, Lane Cove,
NSW 2066, Sydney, Australia ABN 85 002 490 486
E: m2msales@netcommwireless.com

www.netcommwireless.com