

## General Information

**Application opportunity:** Effective communications for remote area health care

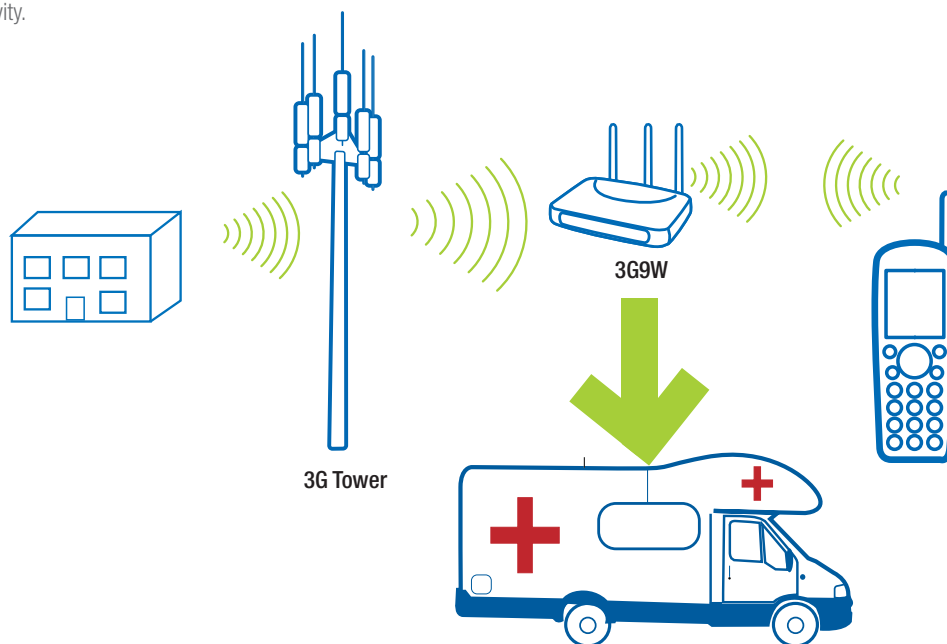
**Solution:** Vehicle-mounted 3G Wireless router with Wi-Fi mobile phone handset providing streaming video and VoIP connectivity.

### Benefits:

- Improved coverage
- Extended range of mobile phone connection
- Better healthcare outcomes

### Hardware:

- 3G9W – 3G Wi-Fi Router
- Wi-Fi mobile phone



For healthcare workers tasked with treating people in remote areas and rural hospitals, effective communications can make all the difference in saving a life or making the correct diagnosis. Distance and terrain can make it very difficult for patients to access a full range of healthcare services.

However, by using streaming video, audio and text sent by a mobile phone handset to a web interface, doctors and specialists from anywhere in the world can offer assistance to nurses and paramedics on the front line of patient care. Maintaining connectivity in remote areas is itself a challenge, and standard mobile phone coverage is not usually consistent.

Using high-gain antennas for both 3G and Wi-Fi, the units can provide coverage in marginal areas plus a footprint of up to 250 metres around the vehicles. The mobile phone offers Wi-Fi connection capability as well as an in-built SIP feature that permits VoIP calls to be made. When combined with NetComm 3G Wi-Fi Router, this means that the mobile phone can make phone calls via the wireless connection and 3G network.

Furthermore, by using other VoIP hardware, a health worker's handset pairs with the router when they enter the vehicle. Those wishing to make contact don't need to know the individual's phone details, but just the VoIP number of the vehicle. This can then be matched to whatever handset is in the vicinity of the 3G router and the call is connected. In a shift-work situation this is an ideal scenario as workers move on and off duty but the relevant crew remains automatically contactable via the one VoIP number.

This scenario is a fascinating example of what can be achieved with a dependable 3G router and a 3G network. Naturally, similar set-ups would be of great relevance to other emergency services, not to mention authorities involved in tasks such as national park or natural resource management. Likewise, private organisations operating in remote or mobile situations would also benefit from these same technologies.