

## Application Report IPR100 RoIP

### Customer Profile

- Variety BASH Victoria

### Application

- To provide remote HF radio connections to mobile vehicles during the Variety BASH charity event.

### Business Benefits

- Improved safety standards.
- Readily available, cost effective mobile data network.
- A single device which channels audio and data to remote locations
- The ability to remotely control HF radio, channels, DSP functionality and HF Selcall.

### Products Used

- IPR100's
- 960CSD

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# CONNECTING REMOTE MOBILE RADIO'S USING VoIP

## → Customer Overview

The Variety BASH has become a series of well known events across Australia raising more than \$6million dollars each year for charity. Variety consists of 7 separate state based events, each running several events some of which involve up to 100 cars and 450 personnel.

## → The Challenge

Taking a large amount of people and their 30 year old cars into the remote areas of Australia requires Variety to provide a supporting safety & logistics communications network, and this has been provided over the years by state based groups of volunteers using mainly HF radio. As the level of safety requirements increases so does the importance of the communications network.

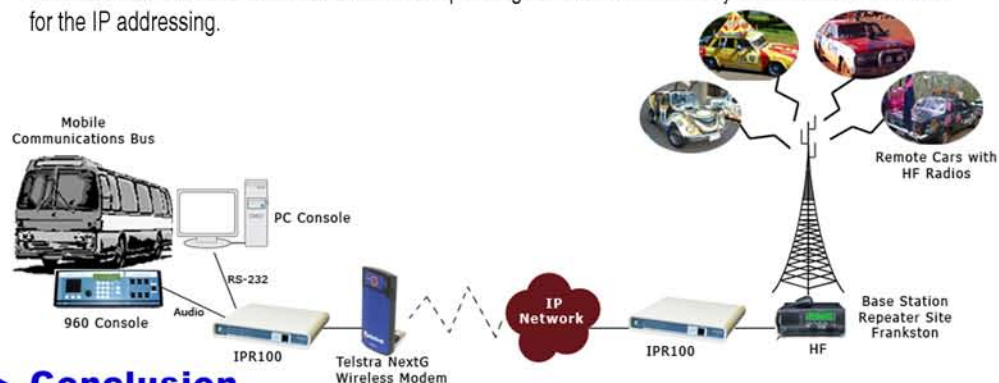
Variety Victoria was continually on the lookout for ways to provide a reliable HF radio network infrastructure, in a different part of Australia every year. A large fixed remote station connected back to a central location would be ideal, however due to the change in location each year and during each event this was not feasible.

## → Solution

As IP connectivity started to become a reality, a new world of communications unfolded. When the Omnitronics IPR100 appeared on the market, it was the solution Variety had been looking for. Variety Victoria had already purchased Omnitronics 960 Series consoles to provide multiple radio console connectivity in one of the mobile communications buses. Incorporating the IPR100 product into this facility was a simple step forward. Andrew Richards from Variety Victoria and Peter James from Lara Electronics worked together to implement this innovative solution.

The one stumbling block was the ability to connect to the internet in a mobile environment in a cost effective way. Using the Telstra NextG™ network, ethernet connectivity for the IPR100 in the mobile communication bus was provided.

During the 2007 event in Victoria, Variety BASH communications made extensive use of a fixed base station located in Frankston Victoria. Each time the mobile communications bus was setup, it was a simple case of turning on the router and connections were made to the HF network. As the HF propagation shifted during the day, especially when the sun went down, the communication operators in the bus were able to switch easily from a local HF radio, to the remote HF radio sometimes located up to 1,000kms away. The transmit and receive audio was sent via the internet to the IPR100 & HF radio in Frankston which was sent back to the area in which the BASH was operating. The DNS functionality of the IPR100 was used for the IP addressing.



## → Conclusion

One of the most outstanding features of the IPR100 in this case was the serial communications. Setting this to transparent mode allowed the group to use the CICS features of their radios. The Variety communication bus is able to control the remote radio, change frequencies (channels), control the radios DSP facility and send and receive HF selcall and short messages. This means that the remote radio does not require any local attention. Omnitronics acknowledges the commitment and dedication by Andrew Richards and Peter James in helping develop, build and implement this innovative solution.

*Innovative Electronic Solutions*