

Case Study

Technology Summary:

UHF CB Linked
Conventional Radio

Blue Pole Access Point

RADICAL



PY Media (WaruTech)
2004

WaruTech UHF CB Network

Introduction

In the 1970's and 80's, the "Pitjantjatjara Bush Radio" was an incredible network of HF radios located in remote Aboriginal communities throughout the central western desert region of Australia.

WaruTech has constructed a wide area UHF CB repeater network on the Anangu Pitjantjatjara Lands 1,300 kilometres northwest of Adelaide. This was a major step toward improving communications infrastructure in remote Australia.

Objective

To rekindle the 'Bush Radio' era by constructing a robust, low cost to user radio network based on UHF CB 'communicator' coverage within communities and 'mobile' coverage along main thoroughfares.

Solution

Construction of the network involved establishing 16 linked repeater sites and began with Tetracom being commissioned to supply and build the UHF CB radio network. These mountaintop sites provide total coverage of road thoroughfares for vehicles fitted with UHF CB mobile radios.

Blue Poles provide emergency plus social access to the UHF CB radio network from strategic locations along main thoroughfares. They feature:

- Extreme vandal resistance plus suitable for permanent exposure to the environment
- Location, function, and operation is obvious by design and signage
- Field maintainable by non-technical personnel i.e. secure but quickly removed 'talking point' panel attached to single module containing all equipment

Remote Area Diagnostic Information Collection And Logging is a simple and low cost method of verifying UHF CB repeater network integrity plus providing immediate self-reporting of non-operational Blue Poles. RADICAL uses automated selcall or manual polling from any UHF CB radio. Control and monitoring of non-UHF CB repeater equipment is also possible e.g. retransmission services, security alarms. The system:

- Regularly interrogates Blue Poles and provides fault indication and logging
- Verifies network integrity by intelligent polling i.e. Blue Pole interrogation verifies operation of access point as well as the associated repeater site and network links

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Watinuma West Blue Pole