auria wireless

P25 Solutions for the Australian Mining Industry

Auria is at the forefront in delivering robust, flexible APCO P25 solutions to emergency services and commercial users who require reliable coverage over large and remote geographical areas.

Auria's solutions cover single site conventional to wide area multi-site high density trunking networks. Networks using these solutions have been deployed across the United States, Canada and New Zealand.

Custom Solutions

To address Australian customer needs, Auria has developed a specialized network solution allowing P25 to be deployed in more remote locations where traditional fixed IP links are not available.

Typical applications include multi-hop links to support rail and road transportation services, temporary services for new development areas, all tailor-made for the Australian mining industry without the need for dedicated IP infrastructure.

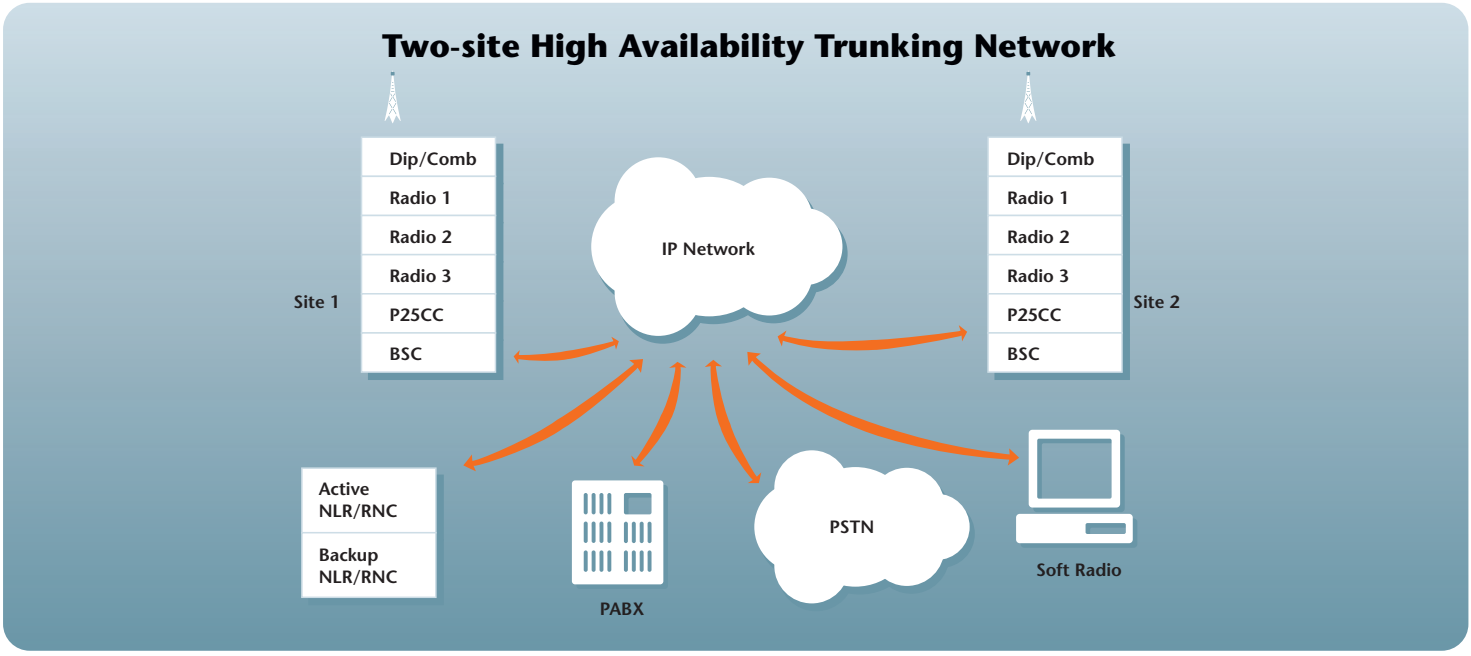
Scalable Deployments

Auria offers highly competitive P25 solutions, built around proven, off-the-shelf hardware, customized for:

- Starter networks from single-site 1-32 channel trunking configurations, and beyond.
- Rail and road transport coverage
- Mixed analog and digital systems where contractors can use their existing analog mobile radios in a P25 network.
- Auria's networks can be deployed with a choice of base station vendors and the potential to incorporate existing radio infrastructure.

Value added integrated applications:

- GIS based Automatic Vehicle Location system for vehicle tracking and fleet monitoring.
- PC/laptop based, fully featured soft radio for desktop radio network access.
- FIPS 140 approved AES/DES encryption across the entire network with OTAR support.



Example Deployments

Primary Site P25 Communications Network

The requirement was to provide a high availability solution where site redundancy and seamless integration into the existing site's overall voice network were paramount.

Auria's solution comprised a two-site P25 trunking system linked via the existing corporate LAN. Post deployment, the system provides:

- Site redundancy; mobiles select the strongest site for service. If a site suffers a catastrophic failure, mobiles automatically move to the other site.
- Each site handles any radio failure by automatically selecting alternative radios for critical control channel functions.
- Should the IP network be unavailable, each site continues to operate in trunking mode.
- Further fallback options exist should the Base Station Controller (BSC) at a site fail. In this mode, the trunking system reverts to conventional repeater operation.
- The Active/Standby RNC/NLR combination provides wide area call connection between mobiles on different sites and calls to and from the PSTN or local PABX.
- Single channel trunking sites with composite control/traffic channel.

Additional sites and channels can be added to increase coverage area or site capacity.

Options:

Additional facilities can be provided including:

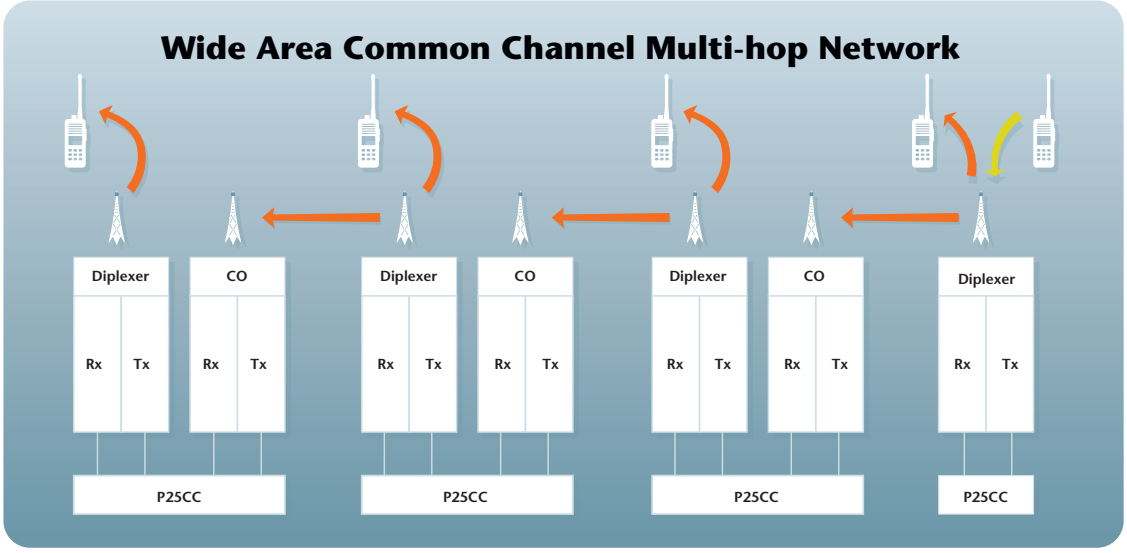
- Analogue channel integration; allows contractors visiting the site with conventional FM radios to be integrated with the site's P25 network.
- Temporary/portable sites can be added and linked to the main network with a mobile IP connection such as a cellular 3G network or via a satellite link.

Wide Area Common Channel Multi-hop Network

The requirement was to provide a single wide area channel without microwave links, operating from solar powered sites.

The configuration below shows four full-duplex repeater sites linked in a multi-hop daisy chain with standard configuration 12.5/25kHz VHF/UHF transceivers. The mobile user at the far right of the diagram is making a call that is repeated on each site along the link. Using digital P25 enables the original signal to be repeated at each site without additional distortion that is characteristic of equivalent analogue networks.

These multi-hop networks can be linked into an Auria P25 core network solution for communication with the main site and other resources such as the public telephone network or mine PABX.



To discuss your particular P25 application, contact Auria Wireless directly:

P: +61 2 8399 7555

F: +61 2 8399 7507

info@auriawireless.com