

# RadioResource

## INTERNATIONAL

### Global Forum

By Hamish Duff

## Australia's Diverse PMR Market

The professional mobile radio (PMR) market in Australia is growing steadily and plays a critical role in the delivery of a range of public and private sector activities, advancing the Australian economy. A study commissioned by the Australian Radio



Communications Industry Association (ARCIA) estimated the number of PMR licenses allocated by the Australian Communications and Media Authority (ACMA) at 65,000, with around 1.5 million active users.

Two-way radio communications are widely adopted in the mining, utilities, transport, public safety, farming and government sectors — and despite technological change driven by the rapid rise of mobile telephony and smartphones — PMR remains a necessary and deeply embedded technology.

The radio communications industry is deeply enmeshed in the development and operations of resources projects, both operational sites and those in development. Resource projects in excess of \$300 billion in investment are in development, with each having radio communications requirements that are more than \$100 million overall. Although the new technologies being developed for many of these new projects are based on Long Term Evolution (LTE) and mobile broadband, the underlying requirement is still for dedicated voice radio networks as the essential communications link.

According to the survey results, professionals used radio equipment an average of 47 times a day during operational events and 22 times a day in “nonoperational or event” periods. Emergency service users were close to double this average, while small business users were somewhat less. More than 55 percent of the respondents regarded PMR as “absolutely critical and essential” for the delivery of their organizations’ services.

Australia is an open market with all technologies and brands of equipment. The survey identified that many PMR users are still highly dependent on traditional analog services. Analog services will continue to play an important role for the foreseeable future as the costs of implementing technological change would be substantial for many organizations.

However, with the more recent advent of low-cost digital devices, the transition to digital systems and services is in full swing. Of 400 corporate radio users surveyed, 53 percent of respondents agreed that digital technology would be critical in the future.

Among digital users, TETRA, Project 25 (P25) and Digital Mobile Radio (DMR) are popular, each with its own benefits and industry preferences. The emergency services sector dominates the P25 platform, with key decision makers historically favoring its encryption platform. DMR is growing in popularity and is the technology of choice for the commercial sector — rapidly gaining traction within the energy, government and industrial sectors as a

low-cost, reliable solution.

In the DMR space, Motorola Solutions’ MOTOTRBO technology is a leading choice with a wide range of products, applications and partners. Motorola Solutions in Australia estimates that about 40 percent of radio users have migrated to digital during the past five years, driving a rationalization of its analog portfolio. Other DMR manufacturers such as Hytera Communications, Tait Communications and Simoco are rapidly catching up with new networks, products and services in development.

Australia is now host to one of the largest commercial digital mobile radio networks globally — The Orion Network. This partnership was founded by a group of communications experts and is underpinned by a MOTOTRBO platform.

“Digital radio does enhance workplace safety, and with the growing emphasis on occupational health and safety compliance, this technology is proving to be a crucial tool in helping business to manage complex workplace compliance issues with automation and easy-to-operate user features,” said Melanie Arnott, founding director of The Orion Network. “Integrated GPS is a key function that many users are demanding, with organizations finding new ways of using this technology to report on key business activities to deliver outcomes never before possible.”

The survey generated two sets of estimates of economy. The former is demonstrably conservative. The equip-

ment valuation method yields an economic benefit estimate of \$1.99 billion per annum while the time valuation method yields \$3.72 billion. Compared with this is the opportunity cost of the spectrum used for PMR.

The ability to demonstrate the economic benefit that arises from allocating spectrum to PMR services in

Australia is of the utmost importance — without this knowledge, we run the risk of overlooking a critical communications market that underpins the backbone of Australia's ability to deliver critical social services and smooth running of basic infrastructure — let alone our ability to compete on a global level. ■

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