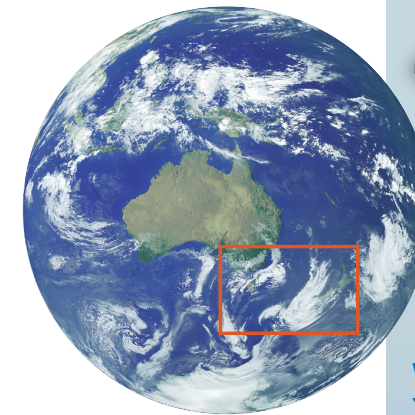


The magazine for critical radio system users



MCS Digital supports critical communications in Oz

"We've invested more than \$10 million (AUD) in our infrastructure, and it's extremely robust and reliable."

Don Warring

WITH MORE THAN TWENTY YEARS OF LOCAL EXPERIENCE, MCS DIGITAL IS M/A-COM'S REPRESENTATIVE IN AUSTRALIA, NEW ZEALAND AND OTHER ASIA/PACIFIC COUNTRIES. WITH A HEAVY INVESTMENT IN EDACS INFRASTRUCTURE, MCS IS ALSO A MAJOR SUPPLIER OF WIDE-AREA VOICE AND DATA COMMUNICATIONS FOR BUSINESSES, UTILITIES AND INDUSTRY THROUGHOUT THE REGION.

Mobile Communication Systems Pty. Ltd., now known as MCS Digital, was established in 1982 with the opening of offices in Melbourne and Sydney. That same year, the company installed the first trunked radio system in Australia.

"It was an 800 MHz GE MARC V, and we provided communications to subscribers in Victoria with it for more than a decade," says MCS Engineering Director Don Warring. Fourteen years later the company began the build-out of what is today an

18-site EDACS network providing integrated trunked voice and data to subscribers throughout its 110,000 square-mile coverage area.

Warring's ties with M/A-COM's radio products go back to the late 1970s. "I had worked with General Electric in Lynchburg for a while and knew both the products and the people," he says. "In May, 1982, we purchased the assets of GE Mobile Radio Australia and established MCS." The company has been providing sales, engineering, installation, and maintenance for radio equipment to the region ever since.

By 1987, MCS had closed its Sydney office and consolidated its staff in Melbourne. It then opened an office in Auckland, New Zealand, more than 2,000 miles to the east. In 1998 the New Zealand

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M/A-COM's intrinsically safe portables have an excellent record for safety and reliability in hazardous environments."

Don Warring

office expanded as a separate company, MCS Digital RT Ltd. "The Directors of MCS Australia retained part ownership of the expanded company, which sells various radio products in addition to running an EDACS Specialized Mobile Radio (SMR) network," says Warring. Today the two companies maintain over 40 EDACS sites throughout Australia and New Zealand.

The growth of EDACS

The 1990s saw the introduction of EDACS integrated voice and data networks throughout the region. In 1993-94, MCS installed an 11-channel EDACS network at the Jakarta Airport, Indonesia. "That was followed in 1994-95 with the original 16-site wide-area EDACS network on the North Island of New Zealand to serve business and industrial subscribers," Warring says. The New Zealand network has since been expanded to 23 sites and serves subscribers with approximately 3,000 terminals.

The company expanded its base of EDACS customers in 1995 with a contract to construct a private, 50-site EDACS integrated voice and data network for the neighboring Australian State of Tasmania's water department, Tasmanian Hydro. A few years after completion of the statewide system, the decision was made to share the network – and the cost of maintenance and upgrades – with another user.

"Police Tasmania joined the network in 1998 with Aegis digitally encrypted radios," says Warring. The system now consists of more than 70 sites, with approximately 1,200 terminal units in use by Hydro Tasmania and the police department. The network provides 95 percent coverage statewide and northward into the Bass Strait between Tasmania and Victoria in support of the police department's marine activities. The network is currently owned and operated by Ericsson Australia.

The EDACS boom continued, with MCS installing three EDACS networks for Comalco, a mining company with smelters in Australia and New Zealand, in 1997. "Our sister company in New Zealand supports the Comalco refinery there, while we support Comalco's refineries in Bell Bay (Tasmania) and Gladstone (Queensland)," Warring says.

MCS Digital's business has extended far beyond Australia and New Zealand. In recent years the company has completed projects in Lityan Malaysia, which is currently evaluating a data network, and the Police Department in the City of Madras, India who had an EDACS trial system installed in 2000. MCS Digital has also installed a 4-channel analogue system across the Fijian island of Viti Levu, and an 18-channel linked system in Western Samoa on the islands of Upolu and Savaii.



SMR operations find eager customers

Both MCS Digital in Victoria and MCS Digital RT in New Zealand have enjoyed strong demand for their respective Specialized Mobile Radio (SMR) networks. Warring says that the subscriber base in New Zealand tends to be comprised of mainly business and industrial users, while the Victorian network serves mainly utilities and oil/gas refineries.

"In New Zealand, more than half the population is within 200 miles of Auckland, on the North Island. That concentration of population creates an ideal business market for the wide-area voice and data communications that EDACS provides," says Warring.



In Australia, the population tends to be concentrated around the perimeter of the continent. "It's also a relatively flat terrain. Finding suitable transmit/receive sites is difficult and expensive, since outside the major cities there are few tall structures and towers are costly," Warring says.

Add to the difficulty of finding sites the limited spectrum availability and it's not difficult to see why the newly-privatized utilities – including gas, electricity and water – can't justify the cost of building-out and maintaining their own infrastructure. "That's one reason our EDACS network, which covers over 110,000 square miles across Victoria and into South Australia to Adelaide, is so attractive. We've invested more than \$10 million (AUD) in our infrastructure, and it's extremely robust and reliable," Warring says.

Two additional advantages of an EDACS network in Australia include the fact that other available radio technologies, such as TETRA, tend to require more sites for a given area of coverage. "We can provide the same coverage with fewer sites. That saves quite a lot on overhead, which means we can charge our subscribers less," says Warring.

The other EDACS advantage is the availability of intrinsically safe and robust portables, which add an extra measure of safety

to users in hazardous environments. Warring notes that other major subscribers to his network include mining and oil companies, such as ExxonMobil, who operates a gasoline refinery near Melbourne and has about 300 terminals on the

network. "Safety is very important to refinery operations, and M/A-COM's portables have an excellent record for safety and reliability," he says.

Communications secured for the future

As for the future, Warring is optimistic. "EDACS has provided the base for our company for more than a decade. It's the 'de facto standard' for trunked voice and data communications in the region. In addition, new product enhancements such as the EDACS IP Gateway and NetworkFirst can only reinforce its value. Our customers and subscribers have seen over the years that M/A-COM's continuing commitment to non-obsolence means that they won't be left stranded with an outdated technology, and that our ability to service and maintain their radio equipment is guaranteed." ■