20+ Years of Airport Partnership with CIAL

Christchurch International Airport Ltd (CIAL) operates New Zealand's second largest airport, and acknowledged gateway to the South Island. The airport has experienced almost continuous development since its first flights in 1940. By the end of the 2016 financial year, passenger numbers had exceeded 6.3 million passengers, up from 5.9 million the previous year.

TL Parker has been a trusted adviser and partner for more than 20 years of this rapid development, as an industry leader in delivering mobile radio systems and solutions in New Zealand, backed by Motorola Solutions' technology, networks and devices.

The relationship began with the installation and supply of network and products in 1993, followed by an upgrade to analogue Smartnet trunked services and networks in 1996.

Post-earthquake
The relationship was strengthened in the aftermath of the Christchurch earthquakes of September 2010 and February 2011. During the latter earthquake, the cellular phone network was brought down, but the radio network remained operational. As CIAL's Annual Report 2011 relates, TL Parker's foresight in including a single channel dedicated to all airline campus-related companies paid off:

"A radio channel has always been dedicated to emergency communications, allowing for clear and swift decisions to be made. Throughout each large aftershock, this communications process proved its worth with a highly efficient emergency response."

"Everyone recognised the value of this vital piece of infrastructure, as flights carrying civil defence and emergency personnel arrived within 90 minutes of the disaster. For the first 20 hours after the earthquake, the only flights were military, ambulance and medivac flights. When commercial flights resumed the next morning, thousands of people poured into the airport to take the first available flight out of the city."[1]

Moving to digital

Several years later in 2014, Christchurch Airport rolled out the Orion Digital Network, including applications and software.

Powered by Motorola Solutions' MOTOTRBO Connect Plus digital mobile radio (DMR) technology, Orion enables the integration of voice and data services. Using this platform, Christchurch Airport moved from a single site to multi-site system, ensuring redundancy for the network and greater security of service. The Orion Network also improved coverage of the

network, meaning more reliable communications over a wider area. Overlapping coverage ensured that if any one site failed, the other two could take over.

Apps for greater safety
Digital technology offered greater functionality with applications such as GPS and messaging via TRBOnet software solution integrated with Motorola Solutions' devices.

GPS functionality is a major feature. Previously the only way to locate vehicles on the tarmac – such as maintenance crews or airport fire services – was visually seeing them. TRBOnet created a custom-made map of the tarmac layout which is displayed on a console, where operators can use GPS functionality to identify the location of every vehicle on the screen, and advise drivers accordingly. In the case of an emergency, operators are also able to determine the location of airport fire services and ascertain the best response.

Growing as the business grows
Growth has been exponential. Christchurch Airport set several records early in 2016, following on from new international flights from Singapore Airlines, China Airlines, China Southern Airlines, Qantas and Virgin. Further new flights are being added constantly and, as a result, the airport had its busiest day ever on 19 February 2016, with 25,618 passengers passing through.

A large number of factors has enabled this expansion, however, an efficient and scalable communications system is one prerequisite for such expansion. The presence of a trusted supplier who has knowledge and experience of the entire system makes for a smooth integration when new airlines join the airport.

TL Parker also manages the installation of a complete operational communications network throughout all vehicles at Christchurch Airport, including radios, sirens, PA system, beacons and flashing lights. Once the system is installed, management reverts back to the airport company, along with repairs and maintenance.

One device platform
The next stage of the journey is a fully integrated communications system in 2016, with convergence between all devices: two-way radios, smart phones, Wi-Fi devices and the newly released Motorola Solutions' LEXL10 devices.

The LEXL10 combines the core features of Motorola Solutions' APX radios – loud and clear audio, exceptional durability and excellent security – with a sleek and rugged smart phone form factor. Airport staff members such as executive managers, IT and customer service not requiring two-way radios still need to contact two-way radio users and be aware of what is occurring throughout the airport. Using the WAVE3000 application on the LEXL10, this lighter device provides constant contact with radio users and enables management to stay abreast of developments as they happen, particularly evacuations.

By using the WAVE 3000 application, all companies on the airport campus can run apps and emails on their devices.
WAVE technology also enables availability to workers who bring their own devices

(BYOD). External people, such as a specialist technician, who need temporary access to the network can use WAVE3000 software and do so from their
device, even a smart phone.

By completion of the migration, every airline, catering company, rental car company, security team and other personnel, with the exception of emergency services, will be part of one fully integrated communications system. This is the culmination of a journey that started in 1996 when TL Parker began working towards the common goal
of complete convergence at the airport.