



# COVERAGE FROM PARK EDGES TO UNDERGROUND



## Customer

City Parklands Services Pty Ltd

## Industry

Government Services

## Technology Partner

TR Hirecom

## Need

- An upgraded communications system for reliable and complete coverage, especially in underground areas

## Benefits

- Improved worker security
- Complete coverage
- Better communication between teams
- Increased productivity
- Adequate talk groups/channel capacity
- High redundancy
- Capacity to upscale

**The safety and security of workers in the area is paramount, so reliable coverage has improved this. If the duress button is pushed because a worker has fallen, cannot speak or is in a dangerous situation, security staff immediately know who is affected because the radios are allocated to particular users.**

As part of a commitment to providing world-class recreation facilities for residents and visitors, Brisbane City Council established City Parklands Services Pty Ltd (City Parklands ). This organisation manages the staff responsible for operational services for South Bank and Roma Street Parklands in Brisbane. These teams work on-site to ensure both parklands continue to contribute to the council’s vision for a vibrant and liveable city.

To improve the existing communications system for all staff, a Motorola Capacity Plus system was rolled out with 90 MOTOTRBO two-way radios and two MOTOTRBO DR3000 repeaters. Previously South Bank Parklands had used two-way radios with inadequate coverage, particularly in the underground carpark. In the absence of good radio reception, operational staff frequently used mobile phones, which were prone to functionality limitations and black spots.

With minimal disruption and risk mitigation the critical requirements, a new system was implemented in January 2016. Two-way radios were issued to all groups – electrical, maintenance, water, horticultural, cleaners, security staff and life guards (operating at the lagoon) – with a dedicated channel each.

A number of important objectives were achieved by the upgrade:

**Improved worker security:** The safety and security of workers in the area is paramount, so reliable coverage has improved this. If the duress button is pushed because a worker has fallen, cannot speak or is in a dangerous situation, security staff immediately know who is affected because the radios are allocated to particular users. Emergency calls go directly to security and operational heads of departments.

**Complete coverage:** With the upgrade from an analogue to a digital system the parklands have total coverage, including in the underground carpark.

**Better communication between teams:** The system has significantly improved communication between team members. There are now four talkback channels so one person can talk to an individual staff member if need be, for example, for a technical conversation. Supervisors also have the capability to talk to the whole group. And if required, a general alert can be broadcast in the case of fire or flood.

**Increased productivity:** Previous lack of coverage at the office made tasks significantly harder. With improved communication, team members are no longer trying to find each other and, consequently, productivity has increased.

**Adequate talk groups/channel capacity:** Previously each additional talk group required a new frequency, which are rare given the high density of Brisbane. City Parklands now has a private talk group dedicated to each group, with additional channels available if required.

**Rugged devices:** Former radios deployed at the lagoon constantly required repairs because of water getting into the devices. With new rugged MOTOTRBO radios, this is no longer an issue.



**High redundancy:** An outage in the communication system could present a significant financial and safety risk to the organisation, so a high level of redundancy was a critical requirement of the upgrade. The added benefit of a Capacity Plus mode of operation is that a level of resilience is inherent in the architecture. The failure of one repeater, while reducing the overall system capacity, is transparent to users as all talk groups (or channels) continue to operate on the remaining repeater. There are four backup channels, so if the system goes down due to lightning strike, for example, the radios can fall back on a Simplex system.

**Capacity to upscale:** Both parks are the site for several important public events, such as Riverfire and New Year's Eve celebrations. For Australia Day 2016, the new system had only been in place for two weeks. Capacity Plus provided the flexibility to add 90 radios just for the duration of the event with the option of two spare channels for separate talk groups. City Parklands was still able to monitor every talk group, particularly for rogue chatter.

**Managed service agreement:** This agreement means that all repairs or faults are proactively managed by TR Hirecom, removing the risk of downtime due to lack of spare parts or unrepaired items.

TR Hirecom worked closely with City Parklands to investigate and design a fully compliant long term solution for its communication system, and the project went well. The rollout went very smoothly and there was minimal disruption during the transition, which was completed in less than two hours.

