



2018 COMMONWEALTH GAMES

OFFICIAL RADIO COMMUNICATIONS SUPPLIER



THE CHALLENGE

6,600 athletes and team officials from 71 nations and territories coming together for the Commonwealth Games in April 2018

1.5 million tickets sold for 35 venues in Brisbane, Townsville, Cairns and on the Gold Coast

A media contingent numbering more than 3000 expected to attend events and produce content

How do we set up and manage a communication network for events involving millions of people in multiple venues spread over a vast geographic area? That was the challenge faced by our client, The Gold Coast 2018 Commonwealth Games Corporation (GOLDOC).

WHY MOTOROLA?

We help people be their best in moments that matter. We were chosen from a competitive international field because of our experience and technical excellence. We've provided radio communications to prior Commonwealth and Olympic Games as well as the 2014 G20 World Leaders' Summit in Brisbane.

Our ZEON wide-area network technology allowed us to provide dedicated radio communications and 24/7 monitoring to GOLDOC. This was one of our client's core requirements because the huge crowds of spectators put an overwhelming load on public communications networks during the Commonwealth Games.

"We confidently chose Motorola Solutions knowing their strong history of providing reliable communications services at international events. The company has a proven track record in Queensland providing crucial communications support for our emergency services and I'm pleased they've come on board for the Games"

GOLDOC Chairman, Peter Beattie AC

THE SOLUTION

Our mission was to create a digital two-way radio network extending over 10,000 square kilometres of the Australian continent from Brisbane to the Gold Coast.

Our design team started with an in-depth analysis of GOLDOC's communication requirements. From this analysis, we were able to identify several alternate implementation strategies.

Our systems engineering team tested different options in a forum with GOLDOC to decide which implementation approach would best serve their needs.

We drafted fleet maps of each venues talk-groups to make sure that communication channels would be efficient and flexible.

We equipped the GOLDOC team with MOTOTRBO digital portable radios and constructed a communication network based of DMR and TETRA technology and Motorola's advanced communications networks which supported voice and data services for complex group communications.

We've sold more than 5 million MOTOTRBO radio systems globally, and we were the first providers to offer Digital Mobile Radio (DMR) technology, the standard for MOTOTRBO, to Australian customers. We've been designing, delivering and supporting DMR solutions since 2007 and in 2015 we launched DMR Tier III.

"We have the network, and our radio hardware and software come off the shelf but to make that into a solution our engineers needed to work closely with the client to resolve the design approach."

Byron Adams, Project Director, Motorola Solutions

"We drew on our local major event communications experience and lessons of previous events to make sure we had an architecture with the necessary capacity."

Maz Iranmehr, Senior Systems Engineer, Motorola Solutions

We provided GOLDOC with a fully-managed comprehensive service covering design, testing, installation, training, maintenance and removal of radio system hardware and software.

When lives are at stake communications technology needs to work smoothly and flawlessly.

Our customers trust us because they know we won't release new technology until it meets our rigorous standards.

We committed ourselves to deliver reliable, dependable technology to the GOLDOC team members so they could focus on the task in hand, even if they had to contend with emergency conditions.

"Clearly this was a significant technological undertaking; however the technology was academic if the staff managing and operating these services were not committed to it. My approach was that there was no longer GOLDOC and Motorola, it became an environment where everyone worked together with the same purpose."

Martin Chapell, General Manager Commercial, Motorola Solutions Australia and New Zealand



THE NUMBERS

- An average of 160,000 daily push-to-talk communications
- **340,000** push-to-talks in the 17 hours leading up to the opening ceremony
- More than two million push-to-talks over the entire Games period with an availability rate over 99%
- **450** total talk groups, with one repeater site supporting 120 talk groups alone

"Having efficient radio communications is absolutely essential in the lead up to and throughout the Commonwealth Games."

As the numbers show, there is a heavy reliance on radio to help manage spectators and athletes as well as to keep all of our daily operations safe and running smoothly."

Head of Technology for the Games, Mathew Peterson





THE RESULT

GOLDOC faced an immovable deadline to stage the Commonwealth Games, so effective collaboration was critical to the success of this project.

Our expertise, reliability and commitment ensured that GOLDOC's communication network was fully operational at every venue for the duration of the Games.

Our workforce of 60 engineers and support staff monitored the network 24/7, enabling GOLDOC's 1,800 employees and 15,000 volunteers to ensure the safety and security of athletes, VIPs and the crowds of spectators who turned out to enjoy the Games.

"As our official radio communications supplier, Motorola Solutions have done a stellar job. Now the company can add the Gold Coast 2018 Commonwealth Games to the long list of successful international events they have supported."

Head of Technology for the Games, Mathew Peterson

THE TECHNOLOGY

- 7,000 radios across 49 sites operating on more than 450 talk groups
- More than 11,000 radio accessories distributed to network users
- 10 wide-area radio repeater sites plus a mobile trailer-based solution for road events and additional support
- TETRA digital radios and ZEON radio network supplemented with two additional base stations to provide wide-area coverage for venues in Brisbane and the Gold Coast
- Stand-alone MOTOTRBO Digital Mobile Radio solutions in Townsville, Cairns and Belmont
- Two mobile VHF repeaters capable of carrying four simultaneous voice communications for the Australian wide Queen's Baton Relay vehicles

