



THE EDEN PROJECT DEPLOYS MOTOTRBO™ CAPACITY PLUS TO SUPPORT DAY-TO-DAY OPERATIONS

FOR OPTIMAL COMMUNICATIONS IN CHALLENGING GEOGRAPHICAL TERRAIN



THE EDEN PROJECT

The Eden Project is a world-famous visitor attraction near St Austell, Cornwall, south-west England. Co-founder Tim Smit's visionary transformation of a derelict Cornish china clay pit first opened its doors in 2001. The two iconic 300ft geodesic domes – or Biomes – are filled with thousands of plants and trees, recreating the environmental conditions of both a rainforest (the world's largest in captivity) and those of temperate climates like the Mediterranean. The 35-acre site is a shrine to ingenuity and the human imagination, filled with sculptures, play areas, vegetable gardens, botanical gardens, plants with a prehistoric heritage, restaurants and even a zip wire, all with environmental conservation, education and sustainability as their key message. Eden also hosts numerous seasonal events and live music concerts, the Eden Sessions, during the summer.

The Eden Project needed to upgrade its radio system and decided on a MOTOTRBO™ Capacity Plus network. Staff use the system daily to make hundreds of calls to ensure the smooth operational running of the tourist attraction. The system was designed, supplied and installed by Gould Electronics, who also remotely monitor the network using TRBOnet™ Watch Enterprise and remotely programme the radios using Motorola Solutions OTAP application.

The Eden Project now has a reliable, adaptable, high-performance digital radio network, which provides excellent coverage across the geographically challenging site and offers enhanced functionality and an excellent price-performance ratio. Operational efficiency and worker safety have significantly improved.

CUSTOMER PROFILE

Organisation:
Eden Project

Industry:
Tourism

Location:
Cornwall, UK

Partners:

- Gould Electronics (authorised reseller)
- RadioTrade Ltd (authorised distributor)

Motorola Solutions Products:

- MOTOTRBO Capacity Plus system including:
- 3 DR 3000 UHF Repeaters
- 124 DP4400 Portable Two-Way Radios
- 16 DP4401 Portable Two-Way Radios
- 11 DP4800 Digital Mobile Radios
- 1 DM4600 Digital Mobile Radio
- IMPRES batteries and chargers
- Motorola Solutions OTAP (Over The Air Programming)



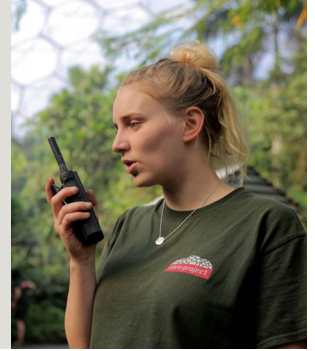
RADIOTRADE

CASE STUDY

MOTOTRBO FOR THE EDEN PROJECT

“Our goal was to find a radio network that can provide high quality communications across our whole site with its unique challenges, from the biomes in the regenerated quarry to our car parks and extensive outer estate. We found the answer in MOTOTRBO’s Capacity Plus, which provides a flexible and adaptable digital radio network offering improved communications, coverage and functionality. The hardware is reliable and robust and the new system can also easily support communications across a large number of teams, from our day-to-day activities through to our larger events such as the Eden Sessions. Gould has been an excellent partner who continues to provide technical support and short-term radio hire as and when we need it.”

Dave Folland, Operations Manager, Eden Project



CHALLENGE

The Eden Project was previously using an analogue system, comprising a mixture of VHF licensed analogue radios and licence free PMR446 radios. However, as this became outdated and struggled to provide efficient communications, especially during larger-scale events, the Eden Project decided it was time to upgrade to a future-proof digital network. It was looking for a system with eco credentials that could provide excellent coverage both in the quarry and the higher surrounding areas, as well as increased functionality and 100% radio availability. Another key requirement was the ability to track personnel using an individual’s radio location.

The Eden Project approached long-term Motorola Solutions reseller Gould Electronics to make recommendations based on its requirements and budget. Gould Electronics has a long-term relationship with the site, having supplied radios to the clay pit company before it became the Eden Project, to the construction company who transformed the site and then to the Eden Project itself from its opening.

SOLUTION

Working in close collaboration with Motorola Solutions authorised hardware distributor RadioTrade Ltd, Gould Electronics installed a MOTOTRBO network comprising three DR 3000 UHF Repeaters connected in a Capacity Plus configuration, which fulfils and exceeds the coverage brief. The network provides expanded capacity and supports hundreds of radios at large-scale performances and concerts hosted by the Eden Project, which brings in a significant number of additional visitors to the site. The Eden Project rents extra handsets from Gould for these events and extra event-specific user groups are set up.

With multiple users in a range of environments from outside working to the hot, humid rainforest biome, the Eden Project selected a range of MOTOTRBO radios, with the majority of personnel using Motorola Solutions DP4400 Portable Two-Way Radios to communicate via voice and data. Workers communicate over all the 16 channels available and the radios are programmed into 17 different user groups that reflect the large variety of teams working at Eden, from Horticulture and Hospitality through to Education and Events teams. There is also an emergency channel for managers that has the facility to broadcast across all user groups, critical in the event of incident management. Lone workers, however, carry the DP4401 model, as this has integrated GPS capability. Tracking data is sent transparently over the MOTOTRBO network and remotely transmitted to Gould’s

cloud-based GPS tracking system, so staff in the control room can monitor lone workers in and around the site. Managers use the DP4800 model with a keypad, giving them the ability to make private and high priority calls. The DM4600 model is used by the Site Manager or the Duty Operations Manager leading that shift; its display screen shows which channels are being used and allows them to scroll through named user group lists.

The MOTOTRBO network is managed by Gould using the TRBOnet Watch application, which monitors all the traffic on the system and captures system performance data including GPS location, signal strength, radio ID, calls and texts. TRBOnet also allows Gould to remotely balance channel loading and define and solve problems in the network. Gould can also reprogramme or deploy critical radio updates, such as adding or removing channels, modifying talk groups and changing contact lists, to any of the radios using Motorola Solutions OTAP.

BENEFIT

The Eden Project now has excellent radio communications over its geographically challenging site. The improved communications, range of radios and enhanced functionality, such as specific group calling and location of lone workers, has had a very positive and cost-effective impact on the efficiency of day-to-day operations and the security of staff. Moving to a digital network has given the Eden Project twice the capacity of an analogue network; this, combined with the Capacity Plus feature, allows for more efficient channel usage so reducing infrastructure, as fewer repeaters are needed, maintenance and network running costs and fulfilling the Eden Project’s eco credentials.

The radios themselves are also more efficient, with the long-life IMPRES batteries increasing uptime and reducing charging times and the IMPRES chargers recognising when the batteries are fully recharged.

The remote maintenance of the network ensures continual optimum performance. Being able to update any programming for individual radios without needing to locate them and return them to base also saves time, cost and radio downtime. The inbuilt redundancy of the MOTOTRBO system means the network is always operational, even during unforeseen mains power outages, and so achieves the Eden Project’s target of 100% radio availability. Ultimately staff know they can rely on the radio network and so can fully focus on ensuring visitors to the Eden Project have the most enjoyable and safe day out!

Applications:

- TRBOnet™ Watch Enterprise

Usage:

- Voice and data communications for 17 user groups
- Group, individual and discreet calling options
- Personnel tracking
- Remote monitoring of network
- Remote radio programming

Benefits:

- Improved site coverage across challenging terrain
- Enhanced health and safety for lone workers
- Increased functionality with elements such as multiple user groups, GPS and private calling
- Excellent range of robust radios ensures requirements met in cost-effective and future-proof solution
- Scalable network ensures seamless communications at large-scale events
- Built-in redundancy and remote monitoring and synching ensure the network remains fully up-to-date and operational
- Traffic monitoring enables more efficient working practices within groups
- Remote radio programming saves time
- Excellent ROI

For more information on MOTOTRBO, and Capacity Plus, please visit us on the web at

www.motorolasolutions.com/MOTOTRBO

www.edenproject.com www.gouldelectronics.co.uk www.radiotrade.co.uk

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