



MOTOTRBO™ PERFORMS FOR BRIDGEWATER HALL

MIGRATION TO DIGITAL AUGMENTS VOICE COMMUNICATIONS AT INTERNATIONAL CONCERT VENUE



The ability to communicate instantly and reliably is crucial to an organisation such as Manchester's Bridgewater Hall. With seating for some 2400 people, the Hall hosts a broad range of music performances across many genres and is home to three resident orchestras: the Hallé, the BBC Philharmonic and Manchester Camerata.

However, hosting over 250 music performances a year is no easy task and demands slick co-ordination to ensure this international concert venue maintains the highest operational standards.

So when Bridgewater Hall began to reach the performance limits of its legacy analogue radio system, it was decided to replace it with a MOTOTRBO™ digital system. Implemented by Motorola Solutions' partner, Pennine Telecom, the system features 30 portable digital two-way radios and a repeater. It delivers clear communications across the entire venue with increased channel capacity for creating separate user groups and greatly extending the battery life of their radios.

CUSTOMER PROFILE

Company
Bridgewater Hall, Manchester, UK

Technology Partner
Pennine Telecom

Industry Name
Entertainment

Product Name

- Enhanced reception and 100% coverage
- Prolonged battery life and extended talk-time
- Lower maintenance costs
- 16 x increase in available channels

Key Benefits

- DR 3000 repeater
- DP 3600 portable radios
- IMPRES™ Smart Energy System

THE CHALLENGE

According to Bridgewater Hall's Technical Manager, Jonathan Rowland, their analogue radios were over ten years old, battered and unreliable, there were radio coverage 'blackspots' in some areas of the building and the batteries weren't even holding their charge for a full shift, which in itself was causing problems.

"With the analogue system, we wouldn't get the coverage we needed in extreme areas like the basement and the signal dropped out," added Rowland. "This was temporarily addressed by having a base station installed in the roof to extend the signal."

Another issue was the lack of user groups which meant that when one person was 'on air' it could be heard by all radio users throughout the venue. This proved to be particularly problematic during music performances as stage and other technical personnel had to share two communication channels with all the other teams, even catering.

Rowland notes that his initial thoughts were that the Hall couldn't afford a new digital radio system to resolve the communication problems, due to budget constraints. "I believed a new system would cost so much more than it does and that money would be better spent repairing and maintaining our old handsets and replacing the batteries. But when I looked into this further we'd have ended up spending a lot more money over the long term," he said.

THE SOLUTION

Bridgewater Hall's MOTOTRBO system was installed in a couple of hours and comprises DP 3400 series portable radios and a DR 3000 repeater. The system provides a complete solution for delivering increased capacity and spectrum efficiency, enhanced voice communications and integrated data communications, should the need arise in the future. And to ensure that radio signal is available throughout the entire venue, antennas have been installed in the roof above the stage.

One of the key features of MOTOTRBO is its ability to provide clearer voice communications over a greater range as a result of its digital error-correction technology. Digital radios significantly reduce background noise at the transmitter and reduce the impact of interference and static at the receiver, delivering high-quality audio in challenging environments.

An important move was the decision to include Motorola's IMPRES™ Smart Energy System which has further enhanced

"It was all very simple and straightforward. The engineers came in and set it up in a morning with minimal disruption, which was great. The reception and coverage is definitely better and we don't lose any calls which sometimes happened with the old radios."

Jonathan Rowland, Technical Manager,
Bridgewater Hall



operations due to longer battery life and extended talk time. "I was told that they would be more energy efficient but I didn't expect we would get this much usage out of them," continued Rowland. "They're lasting a good shift and a half now with a radio often used by one member of staff until four o'clock and then by another for the rest of the day. Sometimes they can be used from seven in the morning through to midnight."

THE BENEFIT

With the migration to digital two-way radio, Bridgewater Hall has overcome many of the inherent limitations associated with analogue technology and it now has a system which offers extended functionality, such as: expanded digital voice, data and control capabilities, clearer voice communications as well as static and noise rejection.

In addition, MOTOTRBO's expanded calling and user capacity has resolved the issue of channel clogging as the DP 3400s feature 32 individual channels. This allows each departmental team – spanning technical, facilities, corporate, programming, bars and catering teams to reception staff – to have their own dedicated user group with the added advantage of being able to communicate with other teams when required.

Finally, by utilising the IMPRES™ Smart Energy System, Bridgewater Hall now has the ability to automate battery maintenance, optimise life cycle and thus maximise talk time which will help ensure communications are maintained over much longer periods.

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