



MAG DEPLOYS MOTOROLA SOLUTIONS MOTOTRBO™ CAPACITY MAX AT STANSTED AIRPORT

FOR FLEXIBLE EXPANSION, EXTENDED COVERAGE AND RELIABLE, MISSION-CRITICAL COMMUNICATIONS



MAG / STANSTED AIRPORT

Manchester Airports Group (MAG) is a leading UK airport group that owns and operates Manchester and London Stansted airports, alongside a significant property portfolio. Collectively MAG airports contributed over £7bn to the UK economy last year, supporting thousands of jobs and serving circa 62 million passengers, with 70 airlines flying to 270 destinations from its hubs; and this number will only grow. MAG supports principles of sustainable development in the aviation industry, striking a balance between economic, social and environmental considerations.

London Stansted Airport is London's third-busiest airport, currently serving around 28 million passengers a year. Stansted continues to increase passenger numbers, year on year and has longer term aspirations to grow beyond the current 35 million passengers per year planning approval.

CUSTOMER PROFILE

Organisation:

Stansted Airport (MAG)

Partners:

Radiocom Systems Ltd

Industry:

Aviation

Location:

UK

Motorola Solutions Products:

- Large site MOTOTRBO™ Capacity Max system:
- 13 x MOTOTRBO SLR 5500 repeaters
- Over 400 x MOTOTRBO DP4801e digital portable two-way radios
- Over 90 x MOTOTRBO DM4601e mobile two-way radios
- Range of Motorola Solutions accessories including swivel earpieces with in-line microphones and PTT, remote speaker microphones (RSMs), covert earpieces and belt clips
- 5-year Motorola Solutions premier services

CASE STUDY

STANSTED AIRPORT (MAG)

“Radiocom has extensive experience deploying radio networks within the airport sector, working with several UK Airports and major Airlines. Airport business is managed by a dedicated team of four engineers, with over 70 years’ experience in the radio communications aviation sector. The transition from analogue to digital was handled very smoothly, with no loss of service, and we rest assured that our Capacity Max system has all the functionality, security and scalability we need to meet our future requirements here at Stansted.”

Nick Millar, Operations Director, London Stansted Airport (MAG)



CHALLENGE

MAG decided to upgrade its radio communications networks from analogue to digital at Stansted and Manchester airports. MAG wanted all three airports on the same system, all radio protocols to be identical and features and functions aligned, with the option of connecting the 3 sites in the future. It selected a Motorola Solutions MOTOTRBO Capacity Max system to be deployed by industry specialist and long-term Motorola Solutions partner Radiocom. In view of its current growth and the new terminal due to open next year, it was agreed to start the deployment at Stansted.

SOLUTION

Working in close collaboration with IT Communications at MAG, Radiocom managed the deployment in its entirety, from proposed design, to site surveys, rack positioning, architecture requirements, to redundancy elements and full documentation. The system was built, tested and signed off at Radiocom’s offices in Heathrow, before being transported to Stansted for storage while the system was rolled out smoothly, and with no loss of service. The analogue and digital systems ran in parallel during transition.

13 MOTOTRBO SLR 5500 repeaters were installed at four sites within the airport canopy, with the primary rack positioned in the main office building, Enterprise House. The system is designed to ensure radio coverage across the whole site, including far runways, cargo areas and outlying carparks, and within a 1.6 km (1-mile) radius beyond the airport’s perimeter. The complex infrastructure comprises numerous elements such as the Capacity Max System Server (CMSS) and IP network switches, routers, gateway servers and RMS servers.

Users were equipped with MOTOTRBO DP4801e portable two-way radios, with 30 MOTOTRBO DM4601e two-way radios used as desk radios and a further 60 DM4601e units being installed in-vehicle; departments can also order accessories such as earpieces and remote speaker microphones (RSMs) to meet their specific requirements. 51 talk groups were set up across 21 departments, including airside security, baggage, airfield operations, landside operations, terminal facilities and in-store teams, for example, so all Stansted airport employees can communicate over the network. Departments and sub-departments can decide how best to organise and manage their talk group and each has a primary channel for that group, but they can also have access to other relevant talk groups on request, for example the customer experience group can also

communicate with security and terminal facilities. There are also three dedicated priority level “Inform” channels that are programmed into every single radio, and are only used in the event of a widespread incident, such as a fire or a security alert.

As well as the airport employees, Radiocom also manages the network for 250 third-party commercial users such as employees of major airlines, ground handlers, transport companies, builders and concessions, who have started communicating over the network. In view of the potential scale and capacity of the network, it is expected that further commercial users will be migrated onto the platform in the future.

Stansted has a comprehensive maintenance agreement with Radiocom, who has a dedicated airport team of four specialist engineers; the team has access to Service Now, MAG’s ticketing platform, and works to strict SLAs: infrastructure downtime response within two hours, fix within four hours and a 5-day radio repair turnaround. This agreement is backed up with Motorola Solutions premier services package, which covers the initial deployment and subsequent incremental orders.

BENEFIT

Stansted is currently using the MOTOTRBO Capacity Max system purely for voice communications, however, in the future, it may access any of the numerous other features and functionality, such as GPS location, job ticketing, voice recording, lone worker and data communications. Radio coverage is completely reliable and has extended beyond the airport perimeter. Audio clarity and channel availability have significantly improved, despite the increase in system user numbers. User feedback is excellent, with operators particularly enjoying the 1-2-1 calling which the DP4801e keypad enables.

The support and service element has been key to the success of this deployment. There is a well communicated structure for reporting and resolution and Radiocom is continually meeting the strict SLAs in terms of incident response.

MAG is now working with Radiocom to install the second network at Manchester, with the network at Stansted being scaled up to meet the increased demands when its new terminal opens. Moreover, with Capacity Max, there is the option to link the airports in the future.

Benefits:

- Smooth transition from analogue to digital with no loss of service
- Increased capacity for growing usage of system, with option to extend to 3rd party commercial users
- Flexible architecture for simple expansion once Stansted’s new terminal is complete
- Improved site coverage up to 1.6km (1-mile) radius beyond airport perimeter
- Future capability to link the MAG airports
- Excellent user feedback with regard to the ease-of-use and audio clarity
- Dedicated talk groups and priority level channels enable more efficient communications, both day-to-day and in an emergency
- Dedicated, ongoing 24/7 support and service to meet strict SLAs