

Student Union at a leading UK university maximises efficiency and safety with Motorola Solutions' connected ecosystem

Loughborough Students' Union (LSU)

Loughborough University is a leading university in the East Midlands, UK. Loughborough Students' Union (LSU) serves students from the university and nearby Loughborough College, helping them to have the best possible experience while attending these institutions. A registered charity, LSU is managed by its elected executive committee, in conjunction with its Board of Trustees.



Customer

Loughborough Students' Union

Partner

SFL Mobile Radio

Industry

- Hospitality
- Education

Solutions

A MOTOTRBO™ Capacity Plus single-site system comprising:

- 2 x MOTOTRBO SLR 5500 two-way radio UHF repeaters
- 57 x MOTOTRBO R7 radios (a mixture of keypad and non-keypad models)
- Accessories, including IMPRES™ batteries, multi-unit chargers and covert earpieces
- TRBOnet Enterprise
- TRBOnet Watch
- TRBOnet Mobile App
- Radio Alert
- SMC Gateway (for fire alarms)

Body camera solution:

- 8 x VB400 body cameras with Klick Fast mounts
- VideoManager

Existing Avigilon Unity video security system

Challenge

LSU issued a tender offer to replace its outdated VHF radio system, which no longer provided the reliability or coverage it needed. Other key requirements included the ability to manage, programme and update the system in-house, as well as the need to integrate the fire alarm management system with the radio system.

Following various interviews and presentations, SFL Mobile Radio, a Motorola Solutions ecosystem partner, was awarded the contract. SFL decided to invite LSU to Motorola Solutions' Innovation Centre in London to showcase how these solutions could overcome the Union's challenges. SFL was aware that LSU had an existing Avigilon Unity on-premises video security system comprising approximately 120 cameras with in-built AI analytics positioned in and around its student Union building. Therefore, SFL was also keen to demonstrate how integrating and connecting the wider Motorola Solutions ecosystem could deliver more in terms of safety, efficiency and productivity.

Solution

Following detailed site surveys and successful trials, SFL deployed a MOTOTRBO single-site Capacity Plus radio network in UHF for improved communications between its multiple venues located across the campus. SFL installed two SLR 5500 repeaters in the Student Union building; one was configured for voice, and one for data transmission. Following training, LSU equipped its teams operating in the Student Union building (bar staff, security, cleaning, medical, facilities, events, food outlets, kitchen, and retail store workers) with R7 radios and covert earpieces. SFL helped establish various talk groups and channel allocations to ensure staff could collaborate effectively within their teams. Occasionally, facilities staff work in other areas of the

campus and beyond. With the new network, they still enjoy robust coverage. The radios are used heavily for standard operations day and night and during events; user feedback has been excellent.

LSU utilises TRBOnet Enterprise to record voice and data transmissions, for playback in case of incident investigation, and to track radio users (using additional beacons for indoor positioning in some areas) for safety and deployment purposes. Some managers use the TRBOnet Mobile app on their smartphones to enable push-to-talk (PTT) communications with the R7 radios via cellular networks or Wi-Fi. LSU also uses TRBOnet Watch for a comprehensive view of its MOTOTRBO network health, for example, to monitor its repeaters.

LSU has set up Radio Alert on the devices so that, in case of an alarm being triggered by the self-learning video analytics in LSU's Avigilon fixed video system, users receive a text message or a text-to-voice announcement directly on their radios, which they can acknowledge and respond to quickly and efficiently. An SMC Gateway, meanwhile, distributes real-time alerts from fire panels to specified radios. The alerts are sent in the form of text messages with the location and details of why the fire alarm has been triggered, so that teams can quickly investigate, evaluate and manage the situation, to avoid unnecessary mass evacuations.

The system has a UPS (uninterruptible power supply) backup and is configured to ensure maximum redundancy and resilience. LSU also appreciates the flexibility and ease of management, which enables it to quickly and easily reprogramme and reconfigure radios and update handsets via OTAP (over-the-air programming).

Following the successful integration of its MOTOTRBO and Avigilon systems, LSU decided to trial Motorola Solutions

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“Our Motorola Solutions systems deliver a level of reliability, performance and ease of management that we have never previously achieved. However, what has really impressed us is the level of flexibility and integration. Having multiple solutions on a single platform allows us to streamline operations, share data more efficiently and collaborate effectively, while also offering opportunities for future functionality development in response to our evolving needs. And SFL, as a valued partner, will continue to support us along the way.”

– Nathaniel Olson, Venue Operations Manager,
Loughborough Students' Union



VB400 body cameras, for both a first-hand perspective of incidents and as a deterrent to anti-social behaviour. Following the success of these tests, night-time workers (security, medical and event management staff) have been equipped with body cameras, which are also connected to LSU's Avigilon Unity video management software for immediate transparency and streamlined workflows. The cameras can livestream, have pre- and post-record functionality, deliver evidence-grade video footage and automatically start recording when a body camera in close vicinity is activated (peer-assisted recording), or when a user's radio enters emergency mode. LSU uses VideoManager software to prepare, manage and share footage, if needed, in line with GDPR.

Outcome

LSU now has an impressive, connected safety and security ecosystem of communications, data, fixed and mobile video and analytics in place. The technologies are helping LSU to deliver the best possible experience for its students in a safe environment. Having teams that can collaborate effectively in real-time, coupled with intelligent analytics, automatic device pairing and alerts, means it can respond to incidents or enquiries in an informed and effective manner. It has invested in a future-proof system, and SFL, in conjunction with Motorola Solutions, provides any ongoing service and support needed, so any issues are quickly resolved. Moving forward, LSU may look at further solutions, such as Lone Worker or Fall Alert for members of its cleaning teams who work alone during the night.

Nathaniel Olson, Venue Operations Manager, summarises: "We have had some successful convictions for serious offences, and the system also helps us when we are dealing with incident investigations. Ultimately, the reliable, connected systems are making our lives easier, saving us time, and most importantly, helping us to keep our students and staff safe, and our Student Union secure."



Benefits

- The MOTOTRBO network delivers greater availability, capacity, resilience and reliable, clear radio communications across the multi-venue campus, including in the outdoor queuing area, beer gardens and beyond
- The VB400 body cameras provide a first-hand perspective of incidents and act as an effective deterrent; LSU particularly appreciates the live-streaming functionality and the ability to view fixed camera and body camera footage on the same platform
- The integration between the radios, body cameras and fixed video is improving productivity, efficiency, safety and security
- The systems are highly flexible and easy to manage, so that LSU can adapt the solutions to its changing requirements
- The ongoing support from SFL and the regular OTAP (over-the-air programming) updates ensure that LSU has a robust, future-proof system





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Motorola Solutions Ltd., Nova South, 160 Victoria Street, London, SW1E 5LB, United Kingdom

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