



Akhter's Command and Control Solution Joint Military Command and Headquarters London District



"Very happy with the level of service provided throughout the whole project. Several meetings and visits to ensure the plan was correct... Overall, the project delivery was expected of a company like AKHTER... and I look forward to working with them again on the next project."

- WO1 Craig Douglass AAC | District Signals Warrant Officer | HQ London District

Background to Requirement

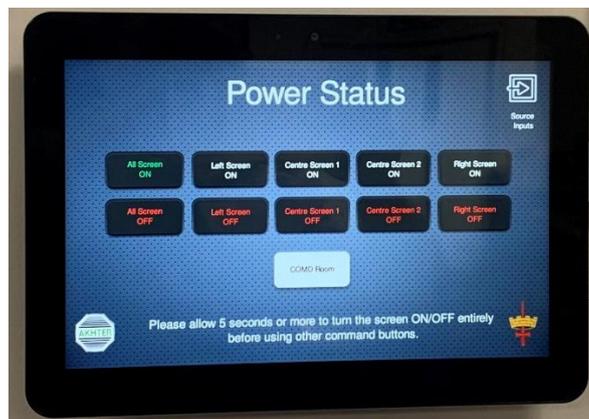
Within the London Operations Rooms, which encompasses the London Military Operations Room and the Horse Guard Operations Room, there is a requirement to maintain situational awareness and to plan and coordinate for UK Operations. Additionally, they are required to act as the Operations Centre with a broader responsibility to coordinate activity for significant incidents on behalf of Comd, as well as a requirement to share situational awareness with other teams and business units. This is an enduring requirement, and there has been a capability with some functionality that has been used to conduct these tasks.

At present, the Operations rooms are equipped with a central AV system. However, the current infrastructure is now inadequate and is reaching an obsolescence state. This is lacking support for the latest media input/output devices, such as DisplayPort and HDMI. The system is a decade old, having been installed to support Op OLYMPICS in 2011/12 and uses analogue technologies. It is unsupported by a maintenance and repair contract, and work on this system falls on HQ LONDIST. It is assessed that the functionality of support will further reduce over time.

Scope of Requirement

There is a need for a technical refresh of the current, outdated system within the London Military Operations Centre (LMOC). The LMOC is in Wellington barracks and consists of 3 rooms: Operations room, Plans room and Commanders room.

The capability must be capable of displaying multiple dissimilar sources at once, across 16 different display screens, at a size and clarity visible to an assembled group over distances up to 20 metres. Furthermore, the system must be capable of being used to display and manipulate data as part of a collaborative planning activity and display live feeds to ensure staff have the correct SA and command control when coordinating live operations.



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Akhter Solution

For the past 20 years, Akhter has been a trusted partner in delivering high-quality AV installations in the UK defence sector. In undertaking this project, we encountered a unique set of challenges. The existing AV system was ageing and no longer met the standards of modern technology and capabilities. The current setup utilizes a combination of analogue video (S-video and composite video), video graphics array (VGA), and SCART, which only supports standard graphics for low-resolution displays. The current analogue infrastructure cannot pixelate the image as you would expect of the visuals today. The signal is slightly degraded by every meter of cable.

To address this issue, the Akhter team began by conducting an exhaustive site survey, gaining a deep understanding of the areas, discussing the project schedule, reviewing proposed floor plans, showcasing various equipment options, and exploring cost-effective solutions.

Following comprehensive discussions, we presented HQ LONDIST with a detailed proposal, including Scope of Work (SoW), project plans, elevations, and equipment specifications. Upon reviewing the proposal, HQ LONDIST approved the contractor's engagement to proceed.

Akhter embarked on a comprehensive overhaul, replacing outdated equipment and revamping the entire setup to ensure a state-of-the-art audio-visual experience. In our commitment to delivering a comprehensive solution, we meticulously analyse the Statement of Requirements to comprehend client needs and expectations.

Akhter provides an in-house pre-configured solution tailored for the London Military Operations Room. Utilising the Akhter 16 x 16 card chassis as the foundation, the system integrates six HDMI 4K60Hz input cards and eight 4K60Hz HDBaseT cards with HDBaseT Rx for extended reach. This setup facilitates seamless routing and distribution of audio and video signals, enabling users to showcase multiple input feeds across various output devices, such as three 98" displays for quad and single display and six 43" displays for single display. This versatility allows clients to customise displayed feeds according to their specific needs, ensuring situational awareness and effective planning and coordination for UK Operations' command and control activities.



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Akhter Control Panel

Akhter collaborated closely with the London Military Operation Centre and developed a new command control user interface. This interface was designed to enable staff to efficiently understand and operate it during live operations. After comprehensive discussions with the LMOC, Akhter programmers created a tailored, user-friendly interface that meets the demands of live military command and control scenarios. Akhter installed a dedicated touch panel in each operation room to facilitate the sharing of feeds across rooms. This allows users to access any desired feed from any room and display it in their current location, enabling the commanding officer to make real-time decisions based on the displayed data, resulting in a seamless and intuitive control room experience.

Additionally, our solution is compatible with BYOD/MODNET laptops through the use of a MoDnet USB-C docking station and an HDMI faceplate, ensuring seamless device integration. Strategically positioned on the desk, it promotes a tidy workspace with organised cable routing.

Akhter Professional services

Akhter Professional Services initiated the project with a comprehensive site survey, meticulously assessing the client's location for specific requirements, potential challenges, and ideal equipment placement. The survey laid the groundwork for a customized solution designed to meet the unique needs of the Ministry of Defense (MoD) environment.

The installation process was seamlessly managed by Akhter's project management team, ensuring efficiency and a smooth workflow. Drawing on their extensive experience in MoD environments, the highly skilled installation team was involved in a high-level technical design process to address the unique challenges posed by the client's setting.

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Akhter's installation team executed the full installation with precision and expertise, ensuring that each component of the AV system was integrated seamlessly. The team's familiarity with MoD environments allowed them to navigate any unforeseen challenges that arose during the installation process.

Following the successful installation, setup, and configuration, Akhter's engineers conducted a comprehensive demonstration of the AV system's functionality. During this hands-on session, the client's personnel were walked through the various features and functionalities of the system.

At Akhter, we go above and beyond to develop lasting relationships with our clients, and this includes working closely with them to resolve problems and ensure they get a solution they want that is available to them and that functions as intended. Whilst this seems a usual and sensible business practice to us, it is not always a priority for other businesses.

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