

Lyell McEwin Hospital Emergency Department achieves well-planned change management, minimizing disruption to hospital operations

Challenges

SA Health has expanded the Lyell McEwin Hospital Emergency Department (LMH ED)—doubling the hospital’s capacity to meet the growing needs of Adelaide’s northern area. The CommScope SYSTIMAX® VisiPatch® 360 solution was already in use at the site; however, it was critical for CommScope’s local partner, Electro Data & Generation (ED&G), to relocate LMH ED’s major IT infrastructure to the new site with minimal disruption to services.

CommScope solution

The CommScope SYSTIMAX VisiPatch 360 solutions were deployed to ensure that systems managers can maintain a real-time view of the network’s physical layer, facilitate faster troubleshooting, and improve security. These measures reduce network downtime and make maintenance more cost effective, while also future-proofing the system for additional growth.

The project

The LMH ED redevelopment project has been staggered to ensure the uninterrupted functioning of the existing ED. To achieve this, a critical works plan was required to manage the digital health systems outage. This was developed by ED&G in consultation with LMH ED’s project team and CommScope to ensure a successful migration of services.

Critical health services and uninterrupted networks

Physicians, administrators, and other staff members involved in providing emergency care must have access to the most up-to-date and reliable information so they



can deliver the best possible outcomes for the patient. Medical devices must always work accurately and reliably. Having any system fail in that setting could affect not just one but potentially dozens of patients. Strengthening and future-proofing LMH ED’s IT infrastructure was critical, and doing so without causing any unplanned downtime was non-negotiable.

Addressing population growth and future-proofing services

LMH is part of the Northern Adelaide Local Health Network (NALHN), which delivers services to a population of more than 400,000 people living in Adelaide’s north and northeastern suburbs.¹ It is a major tertiary hospital offering medical, surgical, diagnostic, emergency, and support services.

Faced with the dual challenges of a growing community population and the need to provide new services around recent medical advancements with existing infrastructure, LMH's leadership team decided to invest in infrastructure growth and upgrades to its emergency department (ED). Given that the real estate available was limited, LMH ED developed a plan to build a multi-story facility on the existing ED site. This plan included relocating the existing communication room to the second level of the new building.

A robust, state-of-the-art solution

While the existing CommScope infrastructure was functioning well, the relocation was an excellent opportunity to upgrade and expand the system. This empowered LMH ED to future-proof its network infrastructure—ensuring the best possible access to (and incorporation of) advanced medical technologies, which are critical to delivering state-of-the-art healthcare solutions now and into the future.

The CommScope SYSTIMAX solution is viewed as the most prestigious structured cabling solution globally. It is a robust, reliable, and proven solution that comes with a 25-year extended warranty on the product as well as application assurance that guarantees performance for 25 years—ensuring the system can reliably support the heavy workload and urgency of critical moments that happen in EDs.

The SYSTIMAX VisiPatch 360 solution, with consolidation points and OS2 singlemode fiber, was implemented across the project to meet all current requirements as well as future growth needs, while assuring minimal disruptions to current services. This included preserving the full functionality of numerous health provisions—most importantly, the ED.

Executing the relocation of the existing communication room, implementing the new system, and seamlessly ensuring critical infrastructure pathway redeployment was a joint project involving the hospital's IT department, ED&G, and CommScope.

CommScope and ED&G needed to retain and transition all medical critical services, medical day services, and building management services (BMS), including heating, ventilation and air conditioning (HVAC); electrical metering and water metering; access control; closed-circuit television (CCTV); master antenna television (MATV); and duress.

To achieve this, the team invested a large amount of time in investigating, recording, negotiating, designing, pre-works critical planning, and managing the timing for implementation of cutovers. The smooth delivery of the work required professionalism and dedication to the highest order.

On-the-ground expertise supports best-in-class installations

The differentiator for CommScope is that it not only supplies the most robust and reliable structured cabling solution in the market, but it also has the on-the-ground skills and expertise to design and deliver a flawless project for critical infrastructure organizations that cannot afford disruptions during the project or daily operations.

This is a long-term, future-focused project. As the certified CommScope PartnerPRO® Network solution provider that deployed this solution—and is the current CommScope solution provider to multiple South Australia (SA) health sites—ED&G is highly regarded by SA Health for its professionalism, reliability, and total investment in the delivery of health services to the people of South Australia.

The SYSTIMAX VisiPatch 360 solutions are built to exceed industry standards. However, local certified teams are required to design, install, and provide support throughout the full warranty period. There was a significant amount of expertise leveraged across the teams around the critical works planning involved in the relocation of the critical fiber-optic infrastructure.

Throughout the project, to ensure a harmonious, best-in-class installation, CommScope's engineering and technical team conducted regular audits. This ensured there was no degradation of the cabling during the installation before everything was sealed and run through key consolidation points. These points were placed strategically around the building to ensure maximum speed and connectivity.

Seamless transitions and integrations

Many outlying divisions were reconnected through the installation of consolidation points to the new communications room.

Overall, 1,540 data outlets were relocated or removed, 1,401 new data outlets were installed, 33 fiber cables were relocated, and 72 fiber connections were repatched.

Throughout the project, ED&G provided uninterrupted services across numerous health provisions, including the ED.

Ultimately, ED&G ensured there was no downtime in the delivery of critical services. This was made possible by a team of trained, experienced, professional integrators committed to excellence, backed by a supportive channel that aligns with and contributes to CommScope's global and regional business goals. Over the next decade, ED&G will continue to provide professional, reliable installations of CommScope SYSTIMAX VisiPatch 360 data infrastructure. This infrastructure plays an important part in LMH ED's ability to deliver the health solutions needed by the community.

¹Northern Adelaide Local Health Network (NALHN) of Government of South Australia. Web: <https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/services/hospitals/lyell+mcewin+hospital/lyell+mcewin+hospital>

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