

Case Study



Site: **Orange Hospital**

Project: **Networking Emergency Lights**

Solution Implemented: **Plexus Smart Building Compliance Suite**

Background

Orange Hospital is a major health facility with a large campus in regional NSW. Within the hospital, the acute mental health ward is a highly sensitive environment where maintaining a calm and stable atmosphere is a critical component of patient care. The hospital's maintenance and contractor, Wormald, identified the need for a modern system to overcome these unique challenges and partnered with WBS Technology to install a solution using the Plexus mesh network.

Challenge

Traditional emergency lighting systems posed a significant challenge in this specialised ward.



- **Patient Disruption:** Manual emergency lighting discharge tests are intrusive and can cause distress to patients, disrupting the calm and stable environment essential for care.
- **Unreliable Network Coverage:** Previous experiences with other monitored systems proved unreliable. The large footprint of the site led to frequent communication dropouts and clunky performance, making the system ineffective.

Solution

To address its challenges, Orange Hospital implemented the PLEXUS Smart Building Compliance Suite. The key components of the implementation were:

- **IoT-Enabled Emergency Lights:** Installation of smart lights that perform automated self-tests and provide real-time reporting, removing the need for manual inspections.
- **Centralised Dashboard:** A cloud-based platform to give facility managers a clear, live overview of the system's performance and compliance status.
- **LoRa Mesh Network:** This wireless network technology was used for robust connectivity, eliminating the need for extensive and disruptive cabling during installation.
- **Future-Proof Scalability:** The system was designed to allow for the simple integration of other IoT sensors in the future.



Results

The implementation of the Plexus system delivered immediate and significant benefits tailored to the needs of a sensitive healthcare environment:

- **Zero Disruption to Patients:** All compliance testing is now fully automated and conducted silently in the background, preserving the therapeutic environment of the ward.
- **Guaranteed Compliance & Safety:** Automated, real-time reporting ensures the facility is always compliant with safety standards and that all lighting is operational.
- **Improved Staff Efficiency:** Facility staff are freed from the burden of record-keeping, allowing them to focus on other critical operational tasks.
- **Proactive Maintenance:** The system automatically identifies and reports faults as they occur, enabling swift and targeted maintenance before issues can escalate.

Conclusion

By adopting the Plexus system, Orange Hospital successfully modernised its compliance process, prioritising patient care while simultaneously improving building safety and operational efficiency. This case study demonstrates that automated compliance solutions are essential for sensitive healthcare environments, delivering a modern, reliable, and non-disruptive approach to critical safety management.

