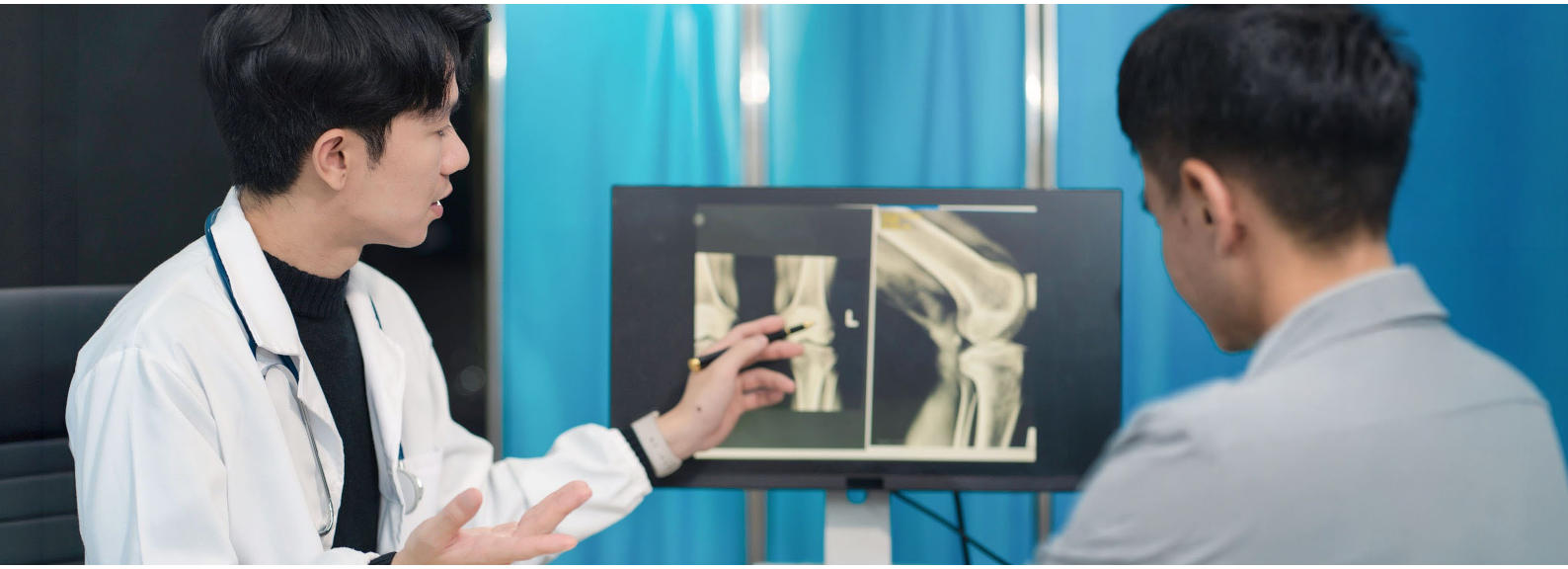

Supporting Better Care with Reliable, Secure Hospital Connectivity

Overview

A specialized orthopedic hospital in Cheongju, housing a neurosurgery center, joint center, spine center, and non-surgical treatment center, needed an infrastructure that could support a large, multi-department medical operation. A stable network throughout the hospital is essential to delivering high-quality patient care. Zyxel Networks, together with partners Dalm Communication and LG U+, deployed a high-speed, secure network, alongside a hospital telephone system optimized for clear sound quality and fast connections. Medical staff and visitors now have a dependable network that supports consistent care delivery across the hospital.

Challenges

The hospital operates across multiple centers, including a Korean medicine center and an internal medicine center. Ensuring a highly stable and efficient network across every department was the key challenge for the network deployment. The hospital's telephone system needed to support communication between different departments, calling for excellent sound quality and fast connection speeds that could remain reliable in everyday medical use. The lobby, patient registration, and payment areas see the highest concentration of people connecting to the wireless network at once, so the network needed to handle that density without slowing down or dropping connections. With medical staff moving between departments while relying on electronic health records and wireless connectivity, the hospital also needed a wireless environment that maintained connectivity as staff moved, rather than dropping connections or requiring reconnection from room to room.

Solutions

The project team first looked closely at how each department communicated and worked. By mapping the communication needs between departments, they were able to design the network around the hospital's actual workflow. This approach helped maximize both internet speed and network stability once the infrastructure was in place.

Customer
Cheongju Orthopedic Hospital

Industry
Healthcare

Location
Cheongju, South Korea

Partner
Dalm Communication
LG U+

Customer Background

The orthopedic hospital in Cheongju is a specialized medical institution covering spine, neurosurgery, joint, and non-surgical treatment services. Network performance directly affects patient care, so the hospital regards stability, security, and efficiency as its top priorities.

WAX510D access points were installed across the hospital's common areas to handle a high number of simultaneous wireless users, backed by GS1920-8HPv2 switches and the USG FLEX 200 firewall. For medical staff moving between departments with electronic medical equipment, access points share the same WiFi name and password, connecting devices to the nearest access point automatically. Roaming was configured so devices could automatically switch to the nearest access point regardless of location, preventing disconnections that would otherwise disrupt clinical work.

Because protecting patient information is a growing priority for hospitals, the network was also built with robust security features, treating the network as core infrastructure rather than a simple communication tool. The hospital's telephone system received the same level of attention, with regular inspections and a systematic maintenance plan to keep it reliable even in unexpected situations.

A cloud management platform monitors connection status and power consumption in real time. If a failure occurs, the dedicated maintenance team can respond immediately to restore stable WiFi, and hospital staff get prompt assistance whenever configuration changes are needed.

Product List

- WAX510D WiFi 6 Access Point
- GS1920-8HPv2 Smart Managed PoE Switch
- USG FLEX 200 Firewall

Results

The new network gives the hospital the speed and security that patient care depends on, with staff and patients both able to rely on consistent connectivity across the hospital. Behind the scenes, the cloud-managed platform gives the IT team full visibility into network health, so potential issues can be caught and resolved before they affect patients or staff.

- Fast, stable network enhancing healthcare quality across every hospital department
- Uninterrupted WiFi in high-traffic common areas, including the lobby and registration space
- Seamless WiFi connectivity for medical staff moving around the hospital with electronic medical equipment
- Robust security features protecting patient information alongside a stable network foundation
- Real-time monitoring and rapid issue resolution through the cloud-managed platform