Korea University Medicine Modernizes Network Infrastructure for Smarter Care

"The superior performance of the new network has significantly improved our operational efficiency and enabled us to deploy advanced medical technologies that were previously constrained by our network limitations."

Yoon Ju Sung, Head of Digital Transformation, Medical Intelligence & Data Hub,

Korea University Medicine, a top South Korean healthcare institution, has delivered world-class care and education for over 90 years—and is leading digital healthcare innovation through modernized infrastructure.

CHALLENGES

Since its founding in 1928, Korea University Medicine's hospitals in Anam, Ansan, and Guro faced rising service disruptions due to:

- Widespread wireless dead zones that hampered work efficiency
- Outdated infrastructure that couldn't support modern wireless speeds or high-performance medical devices
- Network congestion due to the surge in IoT and wireless healthcare devices
- Limited Workforce Integrated Performance System (WIPS) features from foreign vendors, raising security concerns

ACTION

To modernize its network and enable smart healthcare, Korea University Medicine partnered with ALE and BIN Solutions to upgrade infrastructure across all three hospitals.

Key actions included:

- Selecting Alcatel-Lucent OmniAccess® Stellar WLAN and switching solution for its robust distributed architecture and proven healthcare reliability
- Opting for a dedicated WIPS solution to strengthen wireless security, despite higher cost, to meet evaluation criteria and mitigate risk
- Integrating ALE's APs with existing HPE Aruba APs, after confirming full technical support from both the systems integrator and ALE partner
- Leveraging BIN Solutions' IDEN platform for seamless compatibility with ALE's APs, enabling real-time locating system (RTLS) and centralized network management
- Collaborating with ALE HQ for development support, ensuring smooth RTLS integration for smart hospital readiness

PRODUCTS AND SOLUTIONS

Alcatel-Lucent OmniAccess® Stellar AP1321
Alcatel-Lucent OmniSwitch® 6900V48
Alcatel-Lucent OmniSwitch® 6560P48Z16
Alcatel-Lucent OmniVista® 2500

RESULTS

Technical benefits

- Distributed architecture ensures reliable wireless across all campuses, boosting productivity by approximately 20%
- Data transmission speeds improved by over 50% for critical systems like Picture Archiving and Communications Systems (PACS), compared to existing solutions.

Financial benefits

- Controller-less design removed the need for separate IoMT antennas, cutting deployment costs by approximately 50%
- Improved network performance reduced downtime, enabling staff to focus more on patient care

User experience benefits

- The new solution enables staff to move freely with connected devices while maintaining access to critical patient information and communication systems.
- The integration of IoMT devices reduced nurse workloads by enabling automated patient monitoring and real-time data collection.

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Customer Story

MARKET: HEALTHCARE

DEAL IMPLEMENTED: FEBRUARY 2024

COUNTRY: SOUTH KOREA

NUMBER OF USERS: 4000+

COMPANY:

KOREA UNIVERSITY MEDICINE