



Network Connex Steps In
to Meet Strict Engineering
and State Regulatory
Requirements of a Hospital
Network's iDAS Installation

Case Study

Overcoming the complexities of **iDAS installations** for hospitals in California to improve network connectivity and meet demanding HCAI requirements

To support escalating digital communications demands, the network infrastructure of today's institutions must be modernized to be faster, more reliable, and scalable. This poses several challenges for older institutions, such as hospitals, which were not built with technology enablement in mind, nor with the structural engineering needed to meet the strict requirements to safely and securely enable wireless communications.

Network Connex was awarded a contract to assist its customer – a national wireless service provider – with a complex iDAS installation for an older seven-site hospital system in California. An iDAS provides reliable wireless coverage and adds capacity in difficult-to-cover areas like tall office buildings, parking garages, stadiums, airports, shopping malls, and hospitals. A complex installation by itself, this project was even more challenging due to the strict requirements of the California Department of Health Care Access and Information (HCAI).

HCAI requirements protect critical care facilities by ensuring structural and communications services

meet the architectural and engineering guidelines required to protect structures from seismic disruptions. Wireless communications systems meet these strict requirements as they are proven to minimize the loss of communications due to fire, floods, and other disasters.

Further complicating the project was the lengthy timeline HCAI requires to thoroughly review and approve the engineering plans. With multiple passes between stakeholders, the HCAI review can add six months or longer to the project timeline.

The engineering firm originally commissioned to upgrade the communications systems at the seven hospital sites realized the value of installing an iDAS to improve cellular and mobile services throughout the networked system. Unfortunately, the engineering firm was not familiar with the HCAI requirements and designed the new iDAS system using the hospital's existing technology infrastructure. As a simple upgrade of the original design, the new system would not meet current HCAI guidelines and be approved for installation.



The engineering firm now found itself facing four hurdles:

01

The California HCAI department process required two prepared drawings of the project to be submitted.

02

During the review process itself, HCAI required two physical site visits to be completed in a short timeline – a seemingly insurmountable challenge since each site visit required a walk through and evaluation of over one-million square feet.

03

In order to submit the designs, the network engineering team would have to complete a thorough audit of the environment, along with additional drawings of all floor plans, dimensions, fixtures, electrical needs, and more to understand the structural integrity of the buildings and the potential impact of these changes on its entire foundational infrastructure.

04

Given the HCAI's crucial responsibility to ensure the structural integrity of critical care facilities will withstand certain seismic activities, the engineering firm concluded that the project parameters were much more extensive than originally thought.

Network Connex, with its nationwide reach and expertise in managing complex engineering projects through the specific guidelines and process required by the HCAI, was able to step in and complete the project in a timely manner.

With PE-Certified engineers in all 50 states, Network Connex enlisted its expert team of California PE-Certified engineers to conduct a thorough review of the project. Having already completed many successful projects to meet the California HCAI requirements, the Network Connex team was confident they could get the project back on track and completed on time.

“We’re thrilled to partner with the engineering team at Network Connex. Their understanding of state and local legislative requirements and ability to work within a challenging landscape helped accelerate our efforts. We look forward to engaging the talents of their full team on future projects.”

— COO of national wireless service provider

Together with the original engineering firm, the Network Connex team successfully updated and submitted the necessary drawings and specifications outlined by the HCAI process and fast-tracked the approval needed for the iDAS installation. As a result of the successful work of Network Connex’s team of engineers, the engineering firm continues to bring them new projects, leveraging the valuable collaboration and expertise that Network Connex delivers.

To learn more about Network Connex and its full suite of network design and engineering, wireless/fiber construction and maintenance, OSP/ISP fiber placement, splicing and acceptance, construction management, data center infrastructure, integration, and emergency restoration solutions, please visit networkconnex.com.



MISSION

Fast-track the In-building Distributed Antenna System (iDAS) engineering design for a seven-site California hospital communications network while meeting the rigid requirements of the California Department of Health Care Access and Information (HCAI).

HIGHLIGHTS

- The initial engineering firm selected for this project was not familiar with the HCAI requirements and designed the new iDAS system leveraging the hospital's existing technology infrastructure, which was not going to pass the critical HCAI review process.
- Network Connex completed a thorough audit of the environment – along with drawings of all floor plans, dimensions, fixtures, and electrical needs to understand the structural integrity of the seven buildings.
- Network Connex efficiently provided the high-level review and detailed quality engineering drawings required by the customers and the HCAI to keep the installation project on schedule.
- The customer continues to reach out to Network Connex for more projects and support.

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