

Intelibs Neutral-Host Distributed Antenna System (DAS) for Critical Hospital Environment

Solution Highlights:

- A Neutral-Host Distributed Antenna System (DAS) that improved indoor coverage within the hospital's eight buildings that totals to 2-million sq. ft.
- Enable the hospital's use of cellular-based patient monitoring devices, increasing efficiency and reducing costs,
- Enable physicians to connect to their patients via their smartphone while they are in the DMC hospital buildings.

Background:

SUNY Downstate Health Sciences University, located in Brooklyn, New York, is a renowned academic medical center with a rich history dating back to its establishment in 1890. It has since served the surrounding communities, providing approximately 300,000 outpatient visits annually and houses 882 inpatient beds. The hospital is also known for its contributions to medical research that addressing critical health challenges over the decades.

The University's Brooklyn Hospital, like many complex healthcare facilities, faced challenges with indoor wireless connectivity across its campus. This lack of mobile coverage affected hospital staff, healthcare providers, and patients during their time inside the hospital.



The Challenge

The hospital's critical environment required a solution that is able to support all types of communication—clinical, patient, and administrative—to maintain the high standard of patient care the hospital has been known for. This solution would not only solve present connectivity issues, but is well-prepared to accommodate future technologies, like 5G.

The hospital partnered with Intelibs to achieve these goals, while ensuring the following project requirements are met, such as:

- Working in a hospital area that requires additional measures to ensure that patient care remain uninterrupted, including a dust mitigation plan, quiet operations, and restricted work hours.
- This specific project was executed during the COVID-19 pandemic, requiring strict adherence to personal protective equipment (PPE) requirements, respect for quarantine zones, and enhanced safety measures.

The Solution

Intelibs led the project in its entirety, from stakeholders coordination and planning to network implementation and post-installation monitoring. The result is a Neutral-Host Indoor Distributed Antenna System (iDAS) that has improved indoor wireless connectivity across the 2-million-square-foot campus.

Intelibs' engineers designed a multi-headend DAS to provide coverage across the hospital's eight buildings to overcome the challenge that came from a lack of inter-building dark fiber. This multi-building system is managed under one platform for seamless monitoring and troubleshooting.

Hospital's IT personnel were then trained by Intelibs to utilize the monitoring platform and how to perform simple troubleshooting. However, Intelibs engineers will respond and perform the troubleshoot should the hospital report a more complex issue.

As a turnkey solution provider, Intelibs also managed all aspects of wireless carrier integration to the network in providing carrier signal source. Intelibs coordinated with the carriers directly, including:

- Obtaining carriers' design approval,
- Conducting site visits with each carrier,
- Lease negotiation between the hospital and carriers,
- Scheduling carrier equipment installation throughout the construction process, and
- Assisting carriers with troubleshooting and other post-installation monitoring tasks.

At every stage of the project, Intelibs maintained clear communication with hospital stakeholders by providing detailed progress updates, including completion percentages and two-week work projections. Today, Intelibs continues to provide ongoing support to the hospital.

"Intelibs has been professional in progressing the DAS installation, navigating COVID-19 complications in a medical facility. They are proving to be a responsible and responsive contractor adhering to the rules and regulations working in both an academic and medical environment"

Michelle Williams, Project Coordinator, FNMD

The Result

- **Enhanced Connectivity:** Intelibs DAS Solution provided seamless wireless coverage throughout the hospital. This connectivity facilitates critical and essential communications for the hospital staff, patients, and visitors. Whether it's a doctor reaching the lab or a patient calling their loved ones, the hospital is equipped to handle the connectivity demands of its community.
- **Scalable Network:** Intelibs DAS solution allows for easy expansion to accommodate the growing connectivity need of the hospital and new technologies.
- **Future-Ready Design:** Intelibs delivered a clear plan for the integration of 5G network into the DAS system.

Contact Us Today

Intelibs' commitment to excellence made it the trusted wireless connectivity partner for SUNY Downstate Health Science University to this day. By delivering a robust, future-ready DAS, while navigating environment challenges, Intelibs proved itself a reliable wireless communication solutions provider for critical environments.