

# How UofL Health Transformed Environmental Monitoring with EdgeX

## Background

UofL Health is a not-for-profit fully integrated regional academic health system with nine hospitals, four medical centers and a network of physician practice locations.

UofL Health lost critical vaccine inventory in one of their physician clinics due to faulty environmental monitoring equipment. This loss, and the disruption of service, triggered a complete review of alternative environmental monitoring solutions for healthcare.

## The Problem

Their goal was to find a solution that was centrally accessible to help monitor temperature, humidity, and pressure in within their pharmacy cleanroom suites and inpatient pharmacy areas, along with room temperatures and humidity monitoring for drug storage locations and refrigeration monitoring across more than 50 UofL Health owned physician clinics and urgent care centers.

UofL Health's search for a new environmental monitoring system had three priorities:

### 1. Wire-Free

They needed a system that could span across all the UofL Health facilities, including the physician offices, without the need for renovation to accommodate power sources. They did not want to add outlets in their physician practices, medication rooms or pharmacies. They also did not want to deal with sensors that required recharging on a regular basis.

### 2. Reliable Signal

The existing environmental monitoring system at UofL Health was connected via Wi-Fi and was going in and out of signal quite frequently. It would send text messages when it lost internet connectivity and the system would fail. When the system was down, Stanley or a member of her pharmacy team would have to go and manually check all the devices.

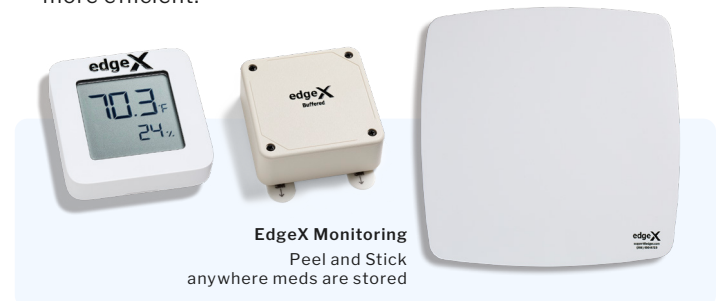
### 3. Overall Cost

Health systems across the country are under financial pressure, so having a cost-effective system that delivers what they need at a reasonable price was extremely important in their decision.

## The Solution

EdgeX Monitoring offered the ideal solution for UofL Health's needs because of its three key differentiators:

- 1. Completely Wire Free:** The wire-free technology allowed the team to install the devices without having to install outlets into the walls, eliminating time and expensive renovation costs. The EdgeX solution provided UofL with the flexibility to swap out refrigerators or change the layout of their medication rooms at any time. The wire-free EdgeX sensors could easily be moved to accommodate new equipment and new room configurations.
- 2. Separate, Secure Cellular Connection:** EdgeX's reliance on cellular signals instead of the facilities' wired or Wi-Fi networks has delivered consistent monitoring with a dramatic improvement in uptime when compared to the internet connectivity issues they were facing with their previous provider.
- 3. Low Cost of Ownership:** EdgeX offers a complete system for environmental monitoring that can be easily installed with no I.T. resources required and no large upfront capital expense. Sensors are affordable, completely wire-free and peel-and-stick. That means anything can be monitored. It also means enterprise tracking is cheaper, easier, and more efficient.



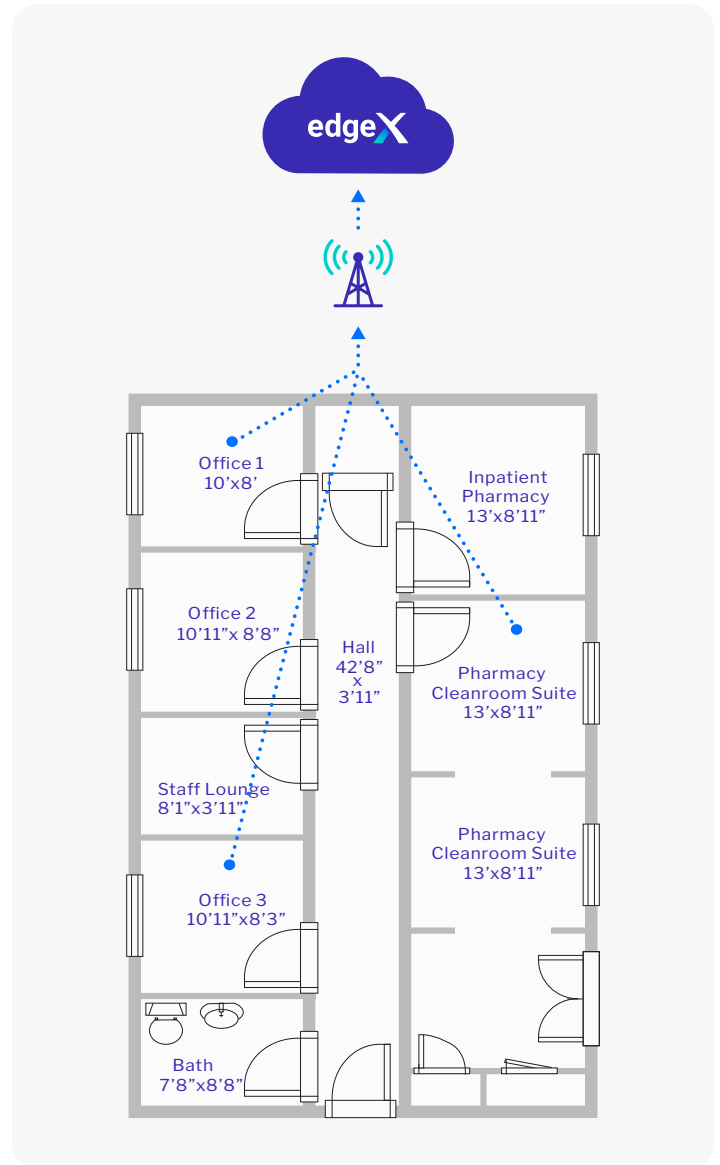
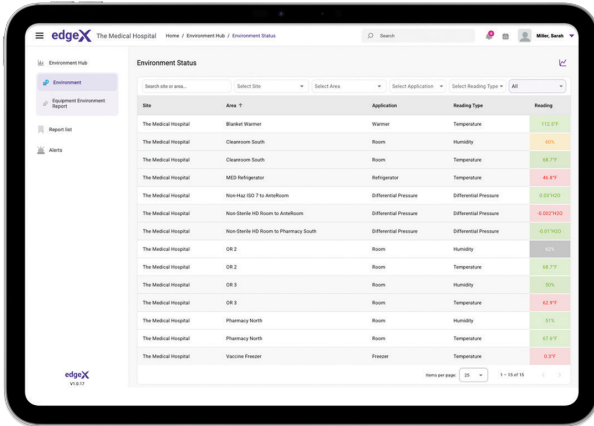
## Implementation

The EdgeX team consulted floor plans of the hospitals to decide where to place the technology and visited each individual physician clinic to install the devices, working with the clinic managers and educating the staff.

Stanley was running the project for all the pharmacy and clinic sites, so the assistance of the EdgeX team in navigating the implementation process was something she really appreciated. Holding the organization to the timelines as well as navigating the staff through the process helped make the implementation successful.

The EdgeX team took time to learn about the different programs in place at UofL Health and customize the software to their needs. EdgeX's open architecture and integrations with partners, allowed the EdgeX sensor data to automatically populate within their USP 797 documentation system, Pharmacy Stars Compounding 360.

A powerful reporting engine helps them with unique requests like the specific requirements for reporting monitoring data on vaccines for children.



## Results

The pharmacy technicians at UofL Health no longer need to go to every single device and physically document the temperature, humidity, and pressure in their cleanrooms as well as all the refrigerators. They've been very happy with the new automated process.

**"I would describe our experience with EdgeX as a partnership. We've had nothing but a positive experience with the company. The customer service is really second to none and the experience in the platform is also very user friendly. They assisted with the beginning to end process and continue to be responsive 24-7 to our requests and have a very fast turnaround time."**



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