



Healthcare Provider Case Study

Environmental Monitoring

Monitor. Integrate. Alert. Peace of Mind.

Our Customer



Our customer is a major federal health care provider in the

northwest US with facilities that span two hospitals and ten community-based outpatient clinics. They provide comprehensive primary care, mental health care, specialty care, and social programs and services to their specialized community of patients, as well as housing research and development labs and teaching programs in both general medicine and surgery.

Products Leveraged

- o FMS monitoring appliance
- o WiNG-MGR wireless sensor gateway
- o WiNG-RXT range extender and POE kit
- o WiNG-TH wireless temperature and humidity sensors
- o WiNG-AIR wireless airflow sensors
- o WiNG-LD wireless leak detection sensors with leak sensing cables
- o F200 monitoring appliances
- o 1-wire temperature / humidity sensors

A major federal health care provider came to an RLE preferred partner with a dilemma: they did not have any type of environmental monitoring system that could provide their staff with insight to the health of their facility and its equipment. Their employees were worn out from excessive time spent chasing problems and from dealing with personnel frustrations when equipment shut downs led to unexpected outages throughout their facility.



Reactive Strategy

We've all seen it, whether it's from the perspective of a customer, operator, or technician. A system or machine goes down, nobody knows why, and now we have to spend valuable time not only fixing the machine, but also tracing what caused the outage in the first place. It's a stressful situation to be in regardless of the role you play. All too often tempers flare, time is wasted, and individuals walk away frustrated and inconvenienced.

Such was the case with our major federal health care provider. They didn't have a facility monitoring system, which meant they operated in reactive mode - patching holes, making apologies, and playing catch-up.

Proactive Solution

The health care provider knew it was time to implement a UPS refresh and an enterprise DCiM solution. But how can you use that single pane of glass to also monitor the wide variety of environmental conditions that impact operations in medical facilities? RLE provided its solution: retrofit the facility with WiNG wireless monitoring.

We selected a variety of wireless sensors to monitor temperature and humidity, water leaks, differential air pressure and airflow sensors within multiple retrofitted spaces in the buildings, as well as in the facility's data center. Data from these sensors was integrated into the enterprise DCiM system to



monitor the facility for environmental condition changes. This allowed staff to be proactive in spotting issues that might lead to system failures, and in turn prevent downtime.

RLE's FMS - commonly used to monitor sensitive facilities, critical equipment status, and environmental sensors - was used to create zone-level visibility and alarming for the IT team. They also used the FMS to integrate BACnet data into the enterprise BMS system. This monitoring and the resulting data allowed staff to optimize CRAC unit performance. As a result, the staff was able to slow down exhaust fans and raise the temperature in the data center with confidence, improving efficiencies and reducing load stress on the CRAC units.



F200 devices were placed in core switch rooms and data closets and used to monitor temperature, humidity, leak detection and whether doors were open or closed. The small footprint of the F200 makes it an easy choice for tight spaces, and the plug-and-play sensor temperature and humidity sensors are quick and easy to install. Data from the F200 was sent back to the FMS via Modbus, and was also served to the enterprise systems via BACnet and SNMP.

The Test

The customer is currently receiving and responding to alarms and alerts for temperature spikes, so they have time to address issues and tend to fluctuations before they experience a major system or equipment shutdown. No leaks have been detected yet, but the protection is in place to alarm maintenance and security should an event occur.

The facility staff are impressed with the user friendly features of their RLE products, including the wide range of available wireless sensors, the web user interfaces on the WiNG-MGR, F200, and FMS, the protocol communications options that allow RLE devices to talk to each other as well as other systems, the reliability of RLE's firmware, and how easy it was to set up and manage the technology components.

"This is really the type of situation where our partners and sales reps provide maximum value to our end users," says Tom Metzinger, RLE's VP of Sales. "These RLE product experts really understand what our products can do and how they can work together. So when a customer comes to us with an umbrella problem like this - a general overarching lack of transparency into their multi-building facility - our specialists can really analyze and break down that problem and tailor a robust solution leveraging the RLE product catalog. These products all work together easily and integrate with each other to give the end user a robust solution that addresses and resolves all their issues."



RLE Equipment Used in This Application

- One (1) FMS-x-N-24 - Monitoring appliance
- One (1) WiNG-MGR - WiNG Manager
- One (1) WiNG-RXT - WiNG range extender, 900 MHz signals, includes PSWA-DC-5 power supply and type A blade
- One (1) RXT-POE-Kit - WiNG-RXT PoE kit including: PoE power mini splitter USB converter w/ passive 48VDC PoE input and 5VDC 15W USB output, USB 2.0 A type male to 5.5 x 2.5mm DC 5V power plug barrel connector charge cable.
- Seventeen (17) WiNG-TH - WiNG temperature/humidity sensors
- Two (2) WiNG-AIR4 - WiNG wireless transmitters; measure air velocity at 0-4m/s +/-5%
- Two (2) WiNG-AIR10 - WiNG wireless transmitters; measure air velocity at 0-10m/s +/-5%
- Two (2) WiNG-LD-LC - WiNG wireless leak transmitters, includes LC-Kit for connection to SC leak detection cable
- Three (3) SC-10 and Four (4) SC-25 - 130' of leak detection sensing cables
- Two (2) F200 - Monitoring appliances
- Four (4) 1WIRE-THS - 1-wire temperature / humidity sensors; 25' leader cable with RJ-11 connector
- Two (2) LC-Kit - Leader cables & end-of-line terminators

