's Eye on Cape Cod Healthcare:

The Value of Remote BMS Access For Healthcare Organizations



A facilities manager and an HVAC contractor were frustrated with the inefficient processes needed to operate a hospital's outdated BMS and infrastructure. ODIN lowered the learning curve, streamlined operations, and provided instant access from anywhere in the palm of their hands. This led to improved HVAC performance and confident technicians who could do more with less work.

Meet CCHC & Sagamore

Cape Cod Healthcare (CCHC) has been working together with HVAC contractor Sagamore Plumbing & Heating for years. As the leading provider of healthcare services in the Cape, CCHC has 450 physicians, 5,300 employees, 790 volunteers, and countless patients counting on safe, comfortable, and reliable care facilities every day. Facilities Manager David Thorniley at Cape Cod Hospital and General Foreman Marc Tatlow of Sagamore are the two people who most closely oversee that mission.

The physical locations of CCHC include two hospitals (in Hyannis and Falmouth), a rehabilitation facility, and an assisted living facility. Sagamore knows CCHC's facilities well, and assists in maintaining them all.

The largest is Cape Cod Hospital in Hyannis. David Thorniley's in-house team handles a lot of the day-to-day building management for Cape Cod Hospital, but Marc Tatlow will get a call from someone on-site when there's a problem they need help to resolve.













The Challenge

Cape Cod Hospital has an aging infrastructure and an aging facilities workforce. The in-house techs could keep a small city running, but complex computing systems aren't their strongest suit. Before ODIN, the only way to control the dated units with the BMS was to have one worker up on the roof while another was elsewhere on a computer. Both positions were less than ideal and also inefficient from a manpower perspective. They were also juggling two overlapping building management systems with unique interfaces and unit responsibilities.

Meanwhile, Marc found himself taking calls and needing to physically drive out to the location to check the BMS from a stationary computer on their network. Even once he got there, the process to fix a system was arduous. He'd be standing at the unit and have to walk to wherever the site's computer was located, turn the unit on, walk back to see if it was working, go back to the computer to troubleshoot, and so on.

What Cape Cod Healthcare needed was a more mobile solution that was intuitive and user-friendly for the inhouse techs, and which could also eliminate the backand-forth relay race between units and computers.

"Our hospital has been a two-headed monster when it comes to the BMS, with both Johnson Controls and Honeywell.

We're thrilled that ODIN has solved the balancing act. Now, we have no need to utilize a second BMS and can convert everything over to Johnson for a unified system."

David Thorniley





How Helped

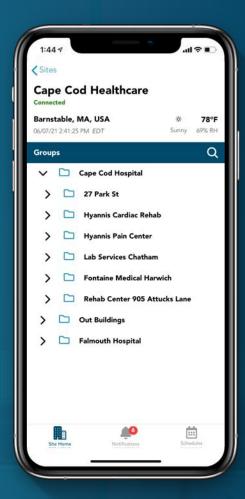
The HVAC system of a major hospital is complex. Variable Air Volume (VAV) boxes supply air to each OR in David's hospital. They regulate airflow and heating locally for each of the building's 14 ORs and it's critical to keep them as close to the set point as possible. Those ORs are served by a much larger air handling unit that pulls in and exhausts fresh air from outside.

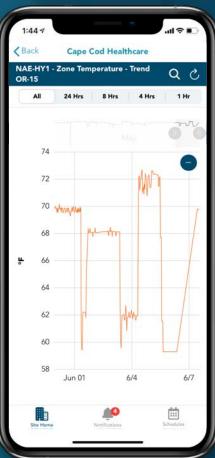
The doctors prefer a colder environment for operations, and want the thermostats turned down to 62 degrees for each procedure, but brought back up in between to reduce the load on the cooling systems. David found ODIN to be an extremely unique solution with simplicity and versatility:

- It seamlessly fit in with their existing BMS
- The intuitive interface was easy and fast to pick up
- He had rapid visibility into the system from anywhere (including at home)
- ODIN's mobile app let his team to make adjustments with their phones, a device with which they were familiar and comfortable

Of all these advantages, mobility is what stood out the most to David. While ODIN has a lot of great features, the ability to do things from the palm of his hand while accomplishing other tasks has been life-changing.

When an OR, clean room, or anyone else needs an adjustment, no one needs to find a computer with the BMS on it. They can just check their phones.







Here are a few examples of scenarios in which ODIN has come in especially handy:

- **Setup:** During the initial setup, ODIN's device discovery mode found every unit in the BMS instantly and accurately.
- Contractors: Sagamore, CCHC's primary HVAC contractor, was able to quickly gain narrow access to specific buildings without needing to download a full program for the BMS controls.
- Compliance: When the Joint Commission came on behalf of CMS to examine the hospital for compliance, ODIN made it easy to display data trends and show compliance with Joint Commission regulations.

"Not only is it a time saver and a resource saver but it's also one of the easier ways to keep an organization in compliance with what they need to do."

David Thorniley

- Alarms: One of the hospital's air handling units recently went down on a high static discharge. David worked with ODIN to set up a series of alarms that will alert him when something like this goes wrong in the future so that downtime is minimized.
- Off-Hours Requests: While at home on the weekend with limited staff in the hospital, David was able to handle a doctor-requested OR temperature adjustment from his phone and save a busy technician from coming down off a roof.
- Covering Gaps: When a system went down, Marc at Sagamore was able to manipulate other on-site systems with ODIN to cover the gaps while they worked on a fix.

"I'm saving an incredible amount of time and effort with ODIN. It's been a game-changer because we no longer have to tie up resources by going out to every call."

"Other people in our organization, who previously had no experience on the BMS, have taken an interest in trying to see how they could work with it. Our VP is able to use ODIN and take control over the things that he oversees."

- Marc Tatlow

David Thorniley



The Results

OFF-SITE RESOLUTIONS

Marc no longer needs to be on-site to resolve most issues. Most often, he'll get a call from someone in the building to check trends, temperatures, functionality, and make adjustments using ODIN on his phone. It's quick and he can immediately let CCHC's folks know that everything is working properly and taken care of.

NO BACK AND FORTH

Even when he does come on location to work on a unit, Marc can handle everything while standing right in front of the unit with his phone or iPad. The low learning curve helped him pick up ODIN's capabilities quickly, and the tiered controls have made it easy to collaborate with other users (like the in-house techs) with different permissions.

FASTER ACCESS TO DATA

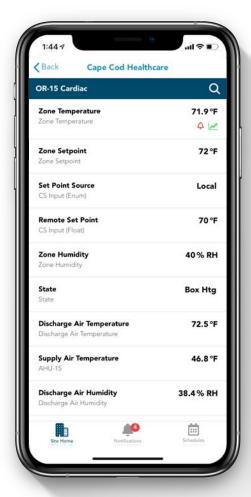
The remote access has made David and Marc's lives a lot easier. Before, the system of checks and safeties to engage remote access to the BMS from a computer were time consuming and often more trouble than they were worth for a simple piece of information. ODIN has bypassed all that. A few clicks on the mobile app and a user can see or adjust anything they need to.

WIDESPREAD ADOPTION

At least 11 members of David's team at Cape Cod Hospital are actively using the ODIN application and loving it. Setting up users, new items, different user groups, and permissions has been easy. The team has appreciated the familiarity of an easy-to-learn mobile app on their phones – a device and interface style that they're comfortable with from their daily lives. Best of all, they no longer must be in two places at once to handle routine tasks like adjusting temperatures or checking system vitals.

"I love that the data and information is in real time. We can troubleshoot faster because we can see the issue right away, from anywhere, and make adjustments before we even show up."

- Marc Tatlow





IMPROVED HVAC PERFORMANCE

The ability to quickly and remotely override damper positions or the BMS schedule has helped Cape Cod Hospital to produce more air in the room and shorten the time it takes to clean the air in an OR after any aerosolizing event.

PERSONALIZED FEATURES

The only major obstacle David encountered early on was that every unit in their BMS began in a catch-all menu. Some of his team only needed to see the hospital but nothing outside of it. Others needed to see certain outbuildings but nothing in the hospital. In a very short period, the ODIN team adjusted the app's programming to silo each area with simple-to-set permissions and groups.

"I don't even think we had to re-download or update anything. We just had to log out and log back in, and it had everything broken out the way we had requested it. This made things easier not only for our staff, but also for contractors, who just need limited control over a building for preventative maintenance. We were able to do that without giving them the key to the whole system."

- David Thorniley

This was a shining example of why CCHC enjoys their relationship with the ODIN team. They had input, it was taken seriously, and ODIN made adjustments within short order.

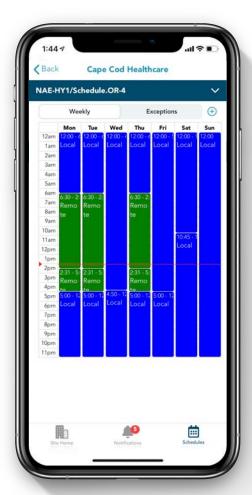


ACH Improvements at Cape Cod
Hospital:

Number of ORs Managed: 14

Peak Air Changes per Hour (ACH): 30

Wait per
Aerosolizing Procedure:
7 minutes





When asked if he would recommend ODIN to other healthcare organizations, David was clear: "Absolutely, without a doubt." The ODIN system solved every pain point. It unified the BMS, provided faster and easier remote access, streamlined manpower, and offered a comfortable experience to an aging workforce. David has been so pleased with the convenient mobile phone functionality that he usually does not use the larger format of his tablet or a computer.

Marc also sees a ton of value in utilizing the ODIN system. He offers a ringing endorsement and insists he has never seen anything like it. Marc plans to continue using ODIN for troubleshooting issues with CCHC, but also for other tasks such as commissioning startups. He can use ODIN for warranty work to show that devices are being used properly and efficiently.

Neither Marc nor David harbors any complaints as they look ahead to the future. Other controls reps have pitched similar-sounding apps, but when Marc shows them ODIN's functionality, their responses share a common theme:

"Yeah, ours can't do all that."

"It's great for hospitals and healthcare and pharma because it's so important to maintain the HVAC systems, and you can't have downtime."

- Marc Tatlow

