Simplifying Operations

Schieghoffer and his team built a total solution from scratch. You can find NRM’s controls in more than 40,000 coolers and freezers, including retail stores, distribution and mass-merchandising plants, laboratory environmental rooms, and food-service facilities across North America. “We focused on the end-user and enabling them to quickly diagnose issues and determine the what, when and whom to best service their equipment,” Schieghoffer says. Before NRM, you couldn’t pinpoint problems or see what the compressor was doing during cooling—now you can. That platform, which has much more processing power than other management systems, makes up-to-date data in real-time.

“Part of it was energy savings and that it pays for itself—but the real value is in the value our systems provide for operations and management of that facility,” Schieghoffer says. NRM makes life easier for contractors, technicians, and end-users alike.

“NRM lets me know there’s a problem before there’s a problem,” says Shawn Clarke, facilities manager at Thermo Fisher Scientific in Austin, Texas. Clarke has relied on NRM to help manage Thermo Fisher’s cold storage for eight years. He mainly uses the system to avoid product loss and emergency incidents. Thermo Fisher once notified a threatened that knocked out two of its compressors. Thanks to NRM’s notification, they knew right away that compressor went running, which saved them from valuable product loss.

“NRM has the one software system that actually works for me,” Clarke says. He also troubleshoots his refrigeration systems on his cell phone. Thermo Fisher stores valuable medical supplies, including biomedical products and cancer research, so the products must be monitored carefully.

Clarke says he’s become a better manager since implementing NRM’s system. “It has allowed us to move to a preventive maintenance system versus a reactive facility team,” he says. “Now we actually have some time to figure out the issue.”

Improving Convenience

Michael Bruzzese, director of facilities at State Gardens, Inc., didn’t know how he managed his facility before NRM’s technology. He manages millions of dollars in food, drinks and supplies and manages about 50 units. Business mainly uses NRM’s system to monitor and maintain temperatures between the set boundaries. “To have something on the wall is nice, but no one will pay attention to it. But with NRM, I can check and see what is going on, even from my phone.”

Because State Gardens sells to major grocery stores, the company is frequently audited. With NRM, Bruzzese doesn’t have to write down detailed records because he can show historical data in the auditor directly from the system.

NRM’s unique solution also saves him time because he doesn’t have to drive from home to work to check on things. “Now that it’s immune-based and I can make changes remotely, I can shut off a unit or call a contractor to fix it,” he says. “It’s very convenient, and I don’t have to depend on other people to monitor things.”

NRM’s system stands out from the rest because it also offers a bypass mode where the user can easily turn off the system if needed. That feature gives users and technicians the option of resorting back to the original mechanical operation.

“An old-school contractor and a lot of contractors in their 50s and 60s are not the most technologically savvy type of people,” says Charlie Sternberg, owner of S&S Refrigeration Co. If one of Sternberg’s workers is unfamiliar with the NRM system, all they have to do is flip a switch and they can go back to the old method. Sternberg knows if the NRM system stops working, his refrigeration system can fail off. And that’s a big deal.

“A lot of refrigeration systems only offer temperature monitoring. But if you have a problem with temperatures, you don’t want to know what caused it,” Schieghoffer says. NRM takes it a step further—showing you exactly where and what the problem is. “The user can easily monitor their summary pages, which shows all of their coolers and freezers in a clear and detailed table. She calls on the contractor’s corner

“"It helps me as a contractor because I’m providing a viable and reliable service, it gives them more peace of mind.”

“With the NRM system provides real-time system functionality and control, energy savings, monitoring, and notification of potential issues,” says Charlie Sternberg, owner of S&S Refrigeration Co. in New Jersey. “I liken it to a check engine light in your car.”

When it comes to effective refrigeration controls, fault detection is key. Like a check engine light, NRM’s system alerts facility managers to check on their equipment. Sternberg and his team design, sell, and install refrigerated buildings and the freezers for food and pharmaceutical distributors. Many of Sternberg’s clients feel safer knowing that he is monitoring their valuable product and equipment with a proven solution. “It helps me as a contractor because I’m providing a viable and reliable service. It gives them more peace of mind.”

Contractors are usually not at their desks—they often work within a 100-mile radius of their office. “Driving a long distance to check a customer’s system for a minor problem is a waste of time and money,” Sternberg says. “With NRM, I can sit at my desk and maybe fix the problem remotely before we have to drive out to the site, like eliminating a detergent remotely if a soil is bad up.”

Another current issue with cold storage is short-cycling—when the compressor goes on and off excessively. This can lead to a $10,000 or $20,000 refraich.

“Back in the day all we would know is the motor has already burnt out,” says Sternberg. Now, with NRM, he and his team can react to short-cycling right when the notification arrives and preempt a major repair.

NRM AT A GLANCE

• On-site controls for cold storage facilities
• Remote Site Manager monitoring equipment performance
• Receive email alerts for immediate fault detection

THE CONTRACTOR’S CORNER

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BENEFITS OF NRM

The best turn to NRM, including Harvard University, who installed NRM’s controls in more than 50 walk-ins after a major setback before

Accessible Data

• Generate graphs for individual units
• Access data quickly for audits
• Set specific time intervals for viewing granular reports and downloaded historical data on CSV file

Technical Support

• Attend a video-recorded training session you can reference later
• Contact NRM for immediate assistance

JUNE/JULY 2018

and they haven’t in the 10 years since.

PHOTOS: COURTESY OF NRM

JUNE/JULY 2018

to their server. If anything has changed, it immediately sends the informa-
ation to their system.

Detailed Information

• Summary page shows temperature, equipment status, and diagnostics at a glance
• 24-hour weighted average temp, number of compressor starts, percent run time of compressor and evaporator fans
• Data and information is updated in real time

The alarm and fault detection system can send an email alert to multiple users for a variety of equipment performance issues. You can easily inhibit alarms that don’t apply to your system by customizing your notifications.

Saving Energy

• Monitoring based commissioning for continuous improvement and optimization
• Intelligent management of cooling, evaporator fans, anti-destratification fans, setbacks, and defrost can reduce operating costs by up to 70%
• Adaptive defrost saves energy by initiating defrost only as needed

Sternberg compares the system to diagnosing a medical condition. If your doctor had access to your vital signals, he could tell you if you’re coming down with something. Thinking and his team of contractors are able to diagnose minor issues before they turn into serious ones, and his service team can help a customer eliminate potential failures or loss of product.

Users also can set up lead-lag schedules to alternate between units at preset intervals. This allows for redundancy where both units—the main unit and its backup—are exercised and tell you if you’re coming down with something. Thinking and his team of contractors are able to diagnose minor issues before they turn into serious ones, and his service team can help a customer eliminate potential failures or loss of product.

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Avoid product loss and emergency incidents with NRM’s notifications, which show you exactly where a problem is and when it started.

Schveighoffer and his team are continuous monitoring for continuous improvement and optimization. The setpoint change was added in the last few weeks because in regulated food storage or biomedical facilities altering the setpoint is a safety hazard—even a one degree change could negatively af-
fected products.

One of the main problems in the facilities management industry is that people ignore alarms and then all of a sudden have a catastrophic failure, Schveighoffer says. “It’s not about blame. It’s about how do we solve this problem in the future?”