Overview

Running a ceiling fan to create a cooler feeling space takes a fraction of the energy that it takes to run traditional HVAC. Fans also inherently have significantly fewer maintenance requirements and long term life expectancies since they seem to reliably work. These are among the many reasons why many companies are now looking to control comfort in their industrial and commercial spaces with large, high volume, low speed (HVLS) ceiling fans.

As green initiatives have increasingly come into fashion, and as companies look to get their energy and maintenance expenses under control, the idea of using fans to create space comfort until air conditioning becomes necessary is an attractive one to many building owners and facility managers. This has led to a massive new market for the ceiling fan industry, which is now manufacturing and installing enormous HVLS fans in breweries, distilleries, gyms, warehouses and other commercial and industrial spaces.

To meet this demand for HVLS fans, Hunter Fan launched their Hunter Industrial line in 2016. Founded by the innovator and inventor of the ceiling fan, Hunter Fan is the recognized leader and industry standard in the ceiling fan industry. Their entrance into the HVLS industry was disruptive, positioning them to compete with a number of established industrial ceiling fan manufacturers.

But ceiling fans in commercial and industrial spaces are different than ceiling fans in residential spaces. While there may only be one ceiling fan in a residential room, commercial and industrial spaces could utilize multiple per room. All told, some commercial and industrial buildings could require anywhere from 60 to 100 fans to meet their cooling needs and requirements.

Facility managers and building owners no longer want individual devices. Rather, they want systems of devices that are capable of being managed and operated together, as a whole. Simply picture an employee walking from room to room, shutting off 100 fans individually before leaving for the weekend, and it becomes immediately and vividly obvious why systems are so necessary and preferred.

Hunter Fan, like many HVLS providers, is able to create a local fan network allowing users to operate as a system from a single controller within the building's space. This sounds ideal, but in some cases it still isn't enough.

Hunter Fan

Challenge

To enable them to be operated as a system, the Hunter Fan controller creates an intranet of its own—an on-site, on-premise network between the fans. This is sufficient for most of Hunter Fan's customers, except for approximately ten percent of its prospects that were looking to integrate their fan systems into their building management system (BMS) or building automation system (BAS).

While only a small percentage of their prospects and customers require BMS/BAS integration, it was an important percentage. Many of these prospects are larger, more sophisticated implementations that could require a large number of fans—some even requiring up to 100 fans.

Unfortunately, while the previous Hunter Fan controllers worked for local intranet control, there was a challenge when a customer required integration into their BMS/BAS systems over a BACnet protocol. The Hunter Fan solution could not provide both local control and BMS/BAS integration—it was one or the other.

Sierra Monitor's Solution

Utilizing a plug-and-play FieldServer IoT Gateway solution, Hunter Fan was able to continue to use their existing fan intranet network with a local controller, as well as integrate into a BMS/BAS system over BACnet simultaneously. This makes it possible for the fan systems to integrate with the automation system, delivering increased control over air circulation, even air distribution, space comfort, and equipment scheduling to the end user both remotely and locally.

Thanks to Sierra Monitor FieldServer Gateway, any changes that are made locally to the fans via the HMI controller is now reflected in the BMS/BAS system. The BMS/BAS systems are also able to more effectively utilize the fan systems as a part of the facility's larger cooling system—using fans to circulate air until a certain temperature threshold is crossed before initializing HVAC systems and air conditioning systems to keep the conditions comfortable. This helps to significantly increase the cost efficiency of the facility and the HVAC systems—using the systems that cost more to run only when they're absolutely necessary, and using systems with a lower cost of operation for as long as possible.

With this approach to BMS/BAS integration in place, Hunter Fan is now able to ensure they can best address their customer needs.

Benefits to Hunter Fan

- A "plug and play" IoT gateway solution that connects their existing fan system controller to building management and building automation systems.
- The ability to offer a fan system with both local interface control and remote capability.
- The ability to offer enhanced fan control capabilities by integrating the fan schedules in conjunction with other systems through the customers' building automation system.

"As customer were doing their research, we had our competitors telling them that Hunter Fan could only offer a BMS BACnet connection or local control – not both simultaneously. With the Sierra Monitor FieldServer Gateway, Hunter can now offer this flexibility to our customers."

– Marc Brandt, Hunter Fan

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