Duke Realty Sets the Standard for a Framework for Simplified, Effective Building Management
Duke Realty Case Study


Duke Realty owns and operates a variety of facilities across the country, including 291 office buildings and 423 industrial buildings totaling 135 million square feet. Over time, as new buildings were developed, Duke Realty ended up with a wide range of building management systems and an ever-growing list of suppliers and contractors.

It all added up to operational inefficiencies ranging from different training needs for different systems, not knowing who to call about the varied building control systems, duplication of security databases, difficulties in establishing energy-management practices, and much more.

“The NiagaraAX Framework® allowed us to standardize on integrated security and building automation products nationwide. Before NiagaraAX, we had no integration or efficiencies between buildings.”

Paul Quinn, Duke Realty Strategic Execution Officer and CIO

THE GOALS
• Standardize on a common platform
• Open standards for competitive pricing
• Flexibility for incremental retrofits
• Consistency for maintenance technicians
• Increase efficiency, minimize onsite time
• Leverage centralized tenant call center
• Improved monitoring, diagnosis and configuration
• Better energy management data

HONEYWELL PRODUCTS INSTALLED
• WEBs-AX Security controllers
• Honeywell HVAC controllers
• Spyder® controllers
• Zio® LCD wall modules
• SUB Series Submeters for energy monitoring
• Other Honeywell field devices, including variable frequency drives, valves and actuators
• All installed systems are monitored on Honeywell NiagaraAX Building Supervisors integrated with Enterprise Security Server and Honeywell Energy Analytics at Duke Realty headquarters in Indianapolis, Indiana

THE RESULTS
• A nationwide, qualified contractor network
• Using Honeywell NiagaraAX true open systems enabled Duke Realty to integrate and leverage existing systems
• Energy savings, improved building management, and reduced maintenance costs
• Overall simplified operations and cost-effective control

CONTRACTOR
A network of qualified Honeywell Authorized Controls Integrators (ACI) and Building Controls Specialists (BCS) who are WEBs-AX certified. Because the members of the contractor network share a thorough knowledge of the products and solutions used, Duke Realty enjoyed the efficiency of a common working language along with the common building system platform.

DISTRIBUTOR
A network of Authorized System Distributors (ASD) provided valuable recommendations and support as needed for each site. In addition, communication between the distributors as well as their communications with Honeywell helped ensure on-time product availability for the contractor network.
A Common Framework For Uncommon Efficiency
The Honeywell NiagaraAX Framework®, WEBs-AX™ Security and WEBs-AX building automation systems provide an open system that allowed Duke Realty to integrate and leverage existing systems while improving building management, reducing maintenance costs, and increasing energy savings.

One of the key benefits of the NiagaraAX Framework is the seamless integration of all buildings to a central location, allowing alarms to be automatically consolidated, monitored and escalated. Meter histories are automatically collected for analysis with Honeywell energy monitoring software. Card access is maintained through the national call center in a timely and cost effective manner. User administration is tied into the HR processes to ensure maintenance technicians and vendors have the proper system access.

With every step, Duke Realty’s building operations became more streamlined and efficient. In fact, as the company reached a critical mass of buildings using the NiagaraAX Framework, it gained even more efficiency by hiring its own NiagaraAX-certified professional for commissioning duties.

Creating the Duke Realty Nationwide Network
Duke Realty not only needed to standardize building platforms, but also needed a network of distributors and contractors who could work together to implement the solutions across Duke Realty’s nationwide series of facilities. To make it happen, Duke Realty turned to Honeywell.

Honeywell not only provided Duke Realty with the NiagaraAX Framework for seamless integration of all buildings, but also gave them nationwide access to distributors and contractors experienced and certified in migrating existing systems into the NiagaraAX Framework. Knowledgeable, efficient Honeywell ACIs, BCSs and ASDs often work in tandem to provide commercial building owners with the full depth and breadth of qualified support. Together, the nationwide network of ACIs, BCSs and ASDs serve Duke Realty from coast to coast.

“There’s No Substitute For Submeters
Effective energy management begins with effective energy monitoring, and Honeywell SUB Series submeters provide the detailed information that main meters can’t. They provide information on specific building areas or departments that can be analyzed for energy savings and individual tenant billing.

To maximize energy savings and control, Duke Realty has authorized and is deploying an additional 50 buildings with Honeywell WEBs-AX controllers and Honeywell SUB Series submeters. The information provided by the submeters can be analyzed for load shedding, creating an overall energy-savings plan, allocating costs and more. In addition, Duke Realty is installing WEBs-AX controllers that are larger than currently needed so that they can gradually integrate other building functions, resulting in more long-term savings.

““The nationwide network of ACIs, BCSs and ASDs serves Duke Realty from coast to coast.””

As Paul Quinn, Duke Realty’s Strategic Execution Officer and CIO, notes, “What I struggled with the most was trying to find certified experienced contractors in the markets where Duke Realty had an initiative to improve operations and lower operating cost by migrating our building HVAC and security systems into the NiagaraAX Framework. Honeywell’s large network of distributors and contractors solved that problem.”
Meeting Local and Nationwide Needs

While Honeywell solutions allowed Duke Realty to build on a common platform, each facility still had its own unique needs. Projects ranged from security only and HVAC only to integrated HVAC and security solutions to energy analysis and elevator and parking garage control. Below are some examples of Duke Realty’s successful building upgrades.

CINCINNATI, OHIO — 19 BUILDINGS
Duke Realty’s three outdated and proprietary access control systems were not compatible with each other, causing a duplication of effort to maintain the separate cardholder databases. With the implementation of Honeywell WEBs-AX Security, the Honeywell BCS contractor integrated all 19 buildings, including many existing system elements, into an open, single-database platform on the NiagaraAX Framework.

RALEIGH, NC — 23 BUILDINGS
Ten buildings were integrated into an existing security system infrastructure with card access, and one building was used as a video integration test site using Honeywell WEBs-AX. Pleased with the results, Duke Realty has now standardized on NiagaraAX for video as well as security and HVAC integration.

HVAC solutions were integrated in 13 buildings using Duke Realty’s existing HVAC equipment to reduce costs. Honeywell’s WEBs-AX open system provides a cost-effective and painless upgrade path as building automation components need to be upgraded or replaced. As part of their focus on green buildings, Duke Realty also converted these buildings to Honeywell WEBs-AX Energy Analytics for energy management.

ST. LOUIS, MO — 20-STOREY TOWER
The cost to replace the elevator and parking garage control system — with more than 1,200 cardholders — was more than three times higher than conversion to Honeywell WEBs-AX Security on the NiagaraAX Framework, making the switch to Honeywell an easy choice for Duke Realty.

ATLANTA, GA — 18 BUILDINGS
Integration using the Honeywell NiagaraAX Framework saved Duke Realty money by allowing reuse of their existing security equipment, which included 48 cameras, card readers and other access control hardware. 7,000 cardholders were imported into the new system from the old system and DVRs were added, allowing Duke Realty to easily manage the cardholder database. More importantly, they’re now able to make immediate access control changes to the site, which is critical for building security.