EMPIRE
TECHNOLOGIES

"At Empire Technologies, we specialize in security solutions for the supply chain customer who operates in the large industrial space. Securing a 1,000,000-plus square foot warehouse in a cost-effective manner comes with its challenges, but with our in-house design and engineering team along with partners like Johnson Controls we can design reliable solutions, install them quickly, and support them for the long haul. This allows our customers to save time, money and avoid headaches down the road."

Nathan Estrada, President of Empire Technologies

Case Study

Wirelessly Securing 1,000,000 Square Feet

Integrators utilize range and flexibility of PowerG to protect enormous distribution center

Background

Empire Technologies is a security integrator based out of Riverside in Southern California. Beginning in 2005, Empire Technologies initially worked in telecom and networking installations, but in recent years has moved towards providing large commercial security installations across the United States largely focused on supply chain, warehousing, and industrial manufacturing businesses.

Recently, Empire Technologies was brought in by a 3rd-party logistics company to install an intrusion alarm system for a new warehouse in Arizona with over 1,000,000 square feet of space. The warehouse was being built to function as a distribution center for a variety of large businesses requiring storage and distribution services for their products.

The Problem

The sheer scale of this distribution warehouse introduced issues stemming from the potential enormous cost generated by a hardwired system running throughout an area roughly equivalent to 23 acres of land. The customer's business also necessitated a fast turnaround time on construction and finalization of the warehouse and its security systems. Because their business was related to supply chain and fulfillment work, the warehouse would need to be able to begin operation as soon as possible.

The fastest, cheapest option would be to create a wireless system. Compared to a wireless system, hardwired devices would cost $20,000 more and necessitate a much longer install time. However, while a wireless system provided a cheaper alternative, the building's 1,000,000 square foot interior was so massive that ensuring continuous wireless coverage throughout the entire area presented its own unique challenge. Because the building was not in use yet, there was no way to guarantee how the new wireless

EMPIRE TECHNOLOGIES

devices would interact with the steel racking and other warehouse equipment which would fill the warehouse floor after it opened.

Additionally, several 3rd-party long range motion detectors were requested to be installed on the dock doors by the client due to internal device standardization requirements.

The Solution

Due to the high costs associated with a hardwired system, Empire Technologies utilized the wireless capabilities of the DSC PowerSeries Pro and several PowerG-enabled devices to create a comprehensive wireless solution which would secure the enormous square footage of the building.

Empire Technologies was brought in soon after the building's walls were erected to secure the exterior, allowing for the customer to begin working out of the building before the entire system was finalized. Before Empire Technologies stepped on site to begin the install, their team was able to preprogram each planned device in their office to cut down on the time required to install when on the property and ensure that operations could begin quickly.

The mile-and-a-quarter range of PowerG wireless enabled installers to quickly create a practical, dependable wireless security system without the need to run extensive wiring throughout.

The system included five PowerG secondary keypads (HS2LCWF9), 10 PowerG wireless sirens, 13 3rd-party PIR motion detectors connected to zone expander cards, and eight PowerG repeaters.

Freddie Amaral, a technical sales trainer at Johnson Controls, tested the wireless range of PowerG during install to ensure that PowerG's range remained stable on site.

"I walked this whole building right here before any repeaters were installed and got nothing but green lights," said Amaral. "We actually could have covered 1,000,000 square feet without any repeaters, but we're not using the repeaters only for range; we're actually going to save battery life for the devices in those areas."

The 3rd-party long range motion detectors were installed on the

dock doors and easily wired to to nearby zone expanders which allowed for seamless integration with the rest of the devices.

"We have a diverse portfolio of sensors, but sometimes installations require specialty sensors," said Sigifredo Miguel Ruiz, a direct sales representative for Johnson Controls. "Our devices have adaptability and capability to fluidly work with those 3rd-party sensors as well."

"At Empire Technologies, we specialize in security solutions for the supply chain customer who operates in the large industrial space. Securing a 1,000,000-plus square foot warehouse in a cost-effective manner comes with its challenges, but with our in-house design and engineering team along with partners like Johnson Controls we can design reliable solutions, install them quickly, and support them for the long haul. This allows our customers to save time, money and avoid headaches down the road."

Nathan Estrada, President of Empire Technologies

EMPIRE TECHNOLOGIES

The Results

The powerful wireless functions of the DSC PowerSeries Pro paired with the range and flexibility of PowerG devices opened the door to total wireless security in this enormous warehouse for less than a fully hardwired system. Empire Technologies was able to save the customer over $22,000 in labor for the install and even more in the future through fewer service calls and faster maintenance.

The installed range extenders are expected to reduce the amount of service required for each wireless device as they provide closer points of contact for the sensors to communicate with the system. As Amaral mentioned, installing these extenders was not a requirement for the system to function; however, by communicating with a nearby extender, the battery life for each device will last much longer and require less maintenance over the system's lifetime.

Concerns about how the wireless devices would interact with metal shelving and other physical barriers in the future were addressed with native PowerG features.

"The beauty is that PowerG adjusts according to changes in the environment to ensure proper communication at all levels," said Amaral. "When there are changes, PowerG can recognize that and adjusts frequencies and signal strength to ensure constant connection throughout the system."

PowerG's immense range, flexibility, and portfolio of compatible devices empowered Empire Technologies to confidently create a wireless system for this daunting project. Even with such a huge project, the installation took less than a week to complete since very few wires were required to run through the building and each device was able to be programmed beforehand.

This massive undertaking by Empire Technologies saved tens of thousands of dollars for their client, installed quickly, and guaranteed wireless security throughout an enormous facility using the powerful features of PowerG.

EMPIRE TECHNOLOGIES