

Internet of Things (IOT) Zones Case Study

Zones Helps Property Management Firm Create Energy-Efficient Smart Building

The Internet of Things (IoT), in which people, process, data, and things are connecting at unprecedented scope and scale, is making precision network connections more essential than ever before.

Solution:

Took advantage of

Internet of Things to

connect all building

physical access control,

unified communications,

systems, as well as Cisco video surveillance,

and digital signage

solutions

The next generation of real estate and building services is turning workplaces and residential spaces into environments that are personalized, efficient, functional, and profitable. The innovative technology behind this type of transformation can be found in Cisco[®] Smart+Connected Real Estate solutions.

Customer:

Transwestern and Metropolis Investment

Challenge:

- Attract tenants in competitive real estate market
- Lower energy costs
- Increase staff efficiency

Results:

 Increased building efficiency by centrally monitoring and managing all 95,000 network connected building points

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- Improved tenant experience by responding to requests in real time
- Unlocked business intelligence in energyuse patterns

As a Cisco Gold Certified IT solutions provider, Zones was uniquely qualified to assist Transwestern and Metropolis Investment Holdings with their Smart+Connected project. A project that successfully connected people, process, data, and things to the building-wide IP network, transforming building efficiency and tenant experience.

Transwestern is a privately held real estate firm whose many specialties include property and facilities management and sustainability. Among its management properties is the award-winning Pennzoil Place, two 36-story towers in Houston, Texas, built in 1975. Owned by Metropolis Investment Holdings, the building has 1.4 million square feet of rentable space, currently occupied by 37 business tenants. "To compete in the Houston real estate market, we need to keep costs down and differentiate ourselves by providing innovative services," says Roger Vasquez,

Internet of Things (IoT)

director of engineering for Transwestern.

But efficient building management presented

Transwestern and Metropolis Investment Holdings engaged Zones to connect every one of the 95,000 building points and systems at

a challenge because of the number and diversity of network connected points. Pennzoil Place has 95,000 sensors and data points connected to the network, including fire alarms, wireless access points, video surveillance cameras, temperature sensors, air conditioning units, and monitoring points for British Thermal Unit (BTU) consumption and full-building electric energy consumption. Holdings engaged Zones to connect every one of the 95,000 building points and systems at Pennzoil Place to a Cisco fibre-optic network. The network also connects every endpoint and application in the building, including Cisco solutions for unified communications and collaboration, video surveillance, physical access control, digital signage, and highdefinition videoconferencing.

How Did Zones Help Actualize a Smart Building?

Zones is a Cisco Gold Certified Partner with engineers and solution architects who have the advanced qualifications and experience necessary to design, deploy and maintain networks built on Cisco Systems technologies. For the Pennzoil Place project, the Zones team collaborated with Cisco and the customer's IT team to design and implement an effective solution. The products and services provided by Zones for the project included: Gold Partner

Routers and Switches

- Cisco Catalyst[®] 2960 Switch
- Cisco 3825 Integrated Services Router (ISR)

Wireless

- Cisco Aironet[®] Wireless Access Points
- Cisco Wireless Control System

Unified Communications and Collaboration

- Cisco Business Edition 6000 Cisco Jabber™
- Cisco Unity[®] Connection
- Cisco Unified IP Phones 7945
- Cisco Unified Wireless IP Phones 7925G

Physical Security

- Cisco Video Surveillance Manager
- Cisco Video Surveillance Analog Encoder Card
- Cisco Physical Access Control Manager

TelePresence

- Cisco TelePresence[®] EX-90
- Cisco TelePresence Video Communication System (VCS) Expressway

Data Center

Cisco UCS[®] C220 M3 Rack Servers

Services

Cisco SMARTnet®

Zones is fully committed to Cisco's Internet of Things initiative, and is actively supporting IoT by making significant investments in a nationwide network of company solutions architects, systems engineers and other technical resources as well as certification of these resources in key Cisco technologies. is a service-oriented business. Happy tenants are more likely to renew their leases with us and pay their rent and operating charges on time. Embracing the Internet of Everything has increased tenant satisfaction while also lowering operating costs.

Property management

— Roger Vasquez, Director of Engineering, Transwestern

Connecting more people, process, data, and things to the Internet of Everything is benefiting Transwestern, Metropolis Investment Holdings, and tenants:

 Increased building efficiency and staff efficiency: Building engineers now monitor and manage air conditioning, lighting, and other building systems from wireless tablets. This capability enables them to adjust the schedule to automatically turn off lights instead of walking back and forth to a management console, for example. Mobile employees can reach each other anywhere in the building at their usual number, using Cisco Unified Wireless IP Phones.

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- Improved tenant experience: "Our tenants now receive network services in days, not the many weeks they would have to wait in most office buildings," says Vasquez. "When an existing tenant needed to extend its network to newly leased space in another tower, the service provider was going to charge \$25,000 to complete the project in about six weeks. We were able to provide the same result service in two days, for less than onetenth the cost." To further increase the appeal of the building, Transwestern and Metropolis Investment Holdings plan to provide unified communications, wireless, and physical security as a service, saving tenants the expense of purchasing and managing their own solutions.
- Fueled innovation: Joining all building systems together has created a wealth of possibilities for new services to increase tenant satisfaction and to further increase building and staff efficiency. For example, Transwestern and Metropolis Investment Holdings analyzed information from more than 1700 temperature sensors to discover that air conditioners can be started later in the day at certain times of the year.

Transwestern and Metropolis Investment Holdings expect to successively increase the value of the Internet of Everything by collecting, analyzing, and communicating information in innovative ways. For example, the companies are collaborating with their local energy company to design a contest for tenants to reduce energy consumption and carbon emissions. In addition, tenants will soon be able to visit a website to enter requests such as adjusting temperature, fixing leaks, and so on. Building engineers will receive the requests right away on their tablets so they can acknowledge them promptly. Vasquez concludes, "Property management is a service-oriented business. Happy tenants are more likely to renew their leases with us and pay their rent and operating charges on time. Embracing the Internet of Everything has increased tenant satisfaction while also lowering operating costs."