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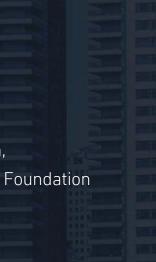
TURNING UP THE PRESSURE IN THE CRE WORLD

By Steve Bergsman,
Sponsored by SIOR Foundation

The Internet of Things ("IoT") is subtly pressuring the commercial real estate world. Tomorrow, however, the pressure will be even more substantial and it is time for the industry to get on board.

Those observations were made by Grant Pruitt, SIOR, co-founder, president and managing director of Whitebox Real Estate LLC in Dallas, who has become something of an expert on IoT and commercial real estate.

For the novice, the concept of IoT is simple. Basically, it is a network of objects – vehicles, buildings, cellphones, etc. – embedded with the necessary electronics to interconnect, integrate, and exchange data at all times.

As for IoT in terms of a commercial building, let us imagine a situation where the manager of a company and a tenant in your building arrive at the garage. A tag on the car recognizes who the driver is and where he or she works. At the same moment, the light in that person's office goes on and the HVAC zone is cued to the person's comfort. When the person approaches the elevator, it is either there waiting or arriving shortly. To make sure no one is falsely using the person's car, security monitors the person's whereabouts in the building.

According to Pruitt, commercial buildings are much more connected today than we think they are. Quoting a study from Memoori on Smart Buildings, he says there were roughly 1 billion connected devices in 2017; by 2019, the number will jump to 2.2 billion; and by 2021, there will be 3.9 billion connected devices.

"One of the biggest drivers for IoT adoption is that cost will continue to come down," Pruitt says. "The growth is going to be exponential. All new systems are going to have more data and that data is going to come from everywhere."

IoT and the Commercial Real Estate Industry

Commercial real estate is generally a conservative industry and change comes slowly, but Pruitt maintains there are three good reasons to consider IoT.

First, connectivity to utilities, city, and other infrastructure can have advantages in ways apparent and unapparent. In theory, a smart building would be networked to all utilities, with smart meters monitoring water and electricity usage. If the building was also connected to the city, traffic congestion and street lights could be adjusted to the traffic patterns of the building as well.

Secondly, monetary gains can be achieved through efficiencies. Just consider the concept of light harvesting. When you walk into or out of an office, the lights will turn on or off. If there is enough light coming through the exterior windows, overhead lights can turn off, harvesting light from the outside and reducing electrical consumption.

Finally, today's biggest advantage is creating "happier" tenants who want to be in your building.

"IoT is a vast array of issues that can increase income and lower expenses in real estate," says Pruitt. "One of the biggest things that we have seen and will continue to see is improved efficiency of buildings. A lot of that comes down to HVAC and chillers so we can more appropriately manage systems both in cooling and heating, based on in-building population density and times of day. This way the landlord can really start to cut down on expenses and maximize profit."

"The most important thing people need to keep in mind is that landlords make money with the increased efficiencies by creating a sticky rent roll," Pruitt adds, "When people are looking for space, they are looking for a place they want to occupy."

There is a push to become more people-centric and stress quality over quantity (in a 10-year period ending in 2014, the workplace went from an average of 250-square-feet to 185 square-feet per person). Employee expectations are demanding better technology in a better workplace experience. Some factors to consider are:

- Getting more tenant engagement (mobile concierge apps).

- WELL Certification® is replacing LEED Certification since the former does not just measure building efficiency, but also employee health and well-being.

- Everything is moving to browser-based systems, because it allows for easier access, graphical interfaces, and drag and drop.

- New concepts of ROAM (digital signage), wayfinding, geofencing, sensors, signage, mobile apps, and beacons are available.

IoT Makes Impacts on the Workplace

Historically speaking, most employees get to the office at 8 am. At that time, smart elevator systems start sending down more elevators to be able to take people up. A tenant will go up to the appropriate floor, where more predictive analytics can evaluate how

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space is being used and who is using the space. The result is better allocation.

You can then use this data to gauge and configure your space so that it is more efficient. If you find that people are not using huge conference rooms, you can break it up, creating smaller conference rooms. If you find people are using more of the break-room space than living-room space then you can increase density in the former.

"From a building owner standpoint, the direct benefit may not be as great as the indirect benefit, which is creating that sticky rent roll that keeps tenants in the building," Pruitt cautions. "The direct benefit would come from being able to better manage the building and offset the expenses. It also helps your maintenance people to be more

proactive and better diagnose issues with the buildings."

Challenges of Initiating IoT

Achieving IoT is not as easy as it seems when connectivity to entities beyond the buildings is required. For instance, says Pruitt. "I'm in Dallas and the West End has been designated as a Smart City launch point. The challenge is that not everything flows in the way it should. The various connection points (i.e., the building, the city utilities, and internet providers) have a disconnect. In theory, a smart building should be connected all the way through and have smart meters monitoring water, electricity, traffic, etc. The reality is the infrastructure has difficulty catching up with your smart building and the users in your smart building."

Dallas is a typical city working to get IoT, but not everything is a go, Pruitt says. "When you say IoT, the idea is that everything is connected, from the building, to the tenant, all the way to your utility, infrastructure, and the city – and that's where the backlog is. We're making great strides, but with governmental entities, we are just not there yet. It takes a lot of money to go that last mile and how do you incentivize the city to invest in the future?"

Landlords are also a bit of a challenge, because they, too, do not want to spend the dollars to get connected, however, IoT is the future. A company like Wired Score ranks buildings based on connectivity. That puts pressure on other landlords to step up the game. In our market, KBS came in and received a high score on all their buildings, so

they were able to tout their Wired Score ranking. For a tech company, that is both important and a factor to evaluate in the building selection process.

Finally, management teams are not always thrilled to have a computer telling them how to do things. That is a real challenge, as some employees fear the computer will take over their jobs. They should instead be thinking of this as a tool to help them do their work at the highest level, taking out miniscule tasks, and doing a better job of forecasting, diagnosing and performing. ▽

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CONTRIBUTING SIOR

Grant Pruitt, SIOR