

## IREM® From the Front Lines Podcast

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### Episode 5.1

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Internet of Things (IoT)

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Welcome to another edition of From the Front Lines, where we discuss both the day to day and one of a kind issues facing real estate managers. Today, we talk to Craig Gosselin from BlueStreak about IoT, or Internet of Things, solutions for commercial real estate. Welcome to the podcast, Craig.

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Thank you, Todd. Thanks for having me on today.

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First, can you tell us a little bit about yourself and your company?

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Sure, BlueStreak is a platform that helps make field services better. So it'll make them more efficient, deliver a better tenant experience, improve sustainability. It's a software and hardware that gathers information from real estate environments and automates the actions needed by field service teams to improve the environment. We've got a portfolio of solutions that help real estate managers, including commercial scent marketing, propane monitoring, smart washrooms, trash monitoring, asset management, and more. Our team's been at the whole connected solutions space for over 25 years. So we've got a broad set of experiences in both the hardware and software side.

Personally, my background has been on the software side of Internet of Things or connected devices, spent the first part of my career working in big company environments, managing some large businesses and organizations and companies like AT&T and American Express, and then been on the entrepreneurial side, the second half of my career working with companies like Virgin Mobile, they've gone public and others that we've had some successful outcomes with in the technology space. So that's a little bit about my background.

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Can you explain IoT for listeners who aren't familiar with this technology?

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Yeah, good question. You know, IoT is one of those technology terms that if you let it can have a lot of complexity. But when you break it down, it really is pretty simple. And I think most people are familiar with it in some shape or form today, even if they don't put that Internet of Things, IoT name tag on it. I think most of us have these experiences around our homes today. I think products like the Apple AirTag is an example. You know, with an AirTag, you can kind of keep track through your find the app and your Apple phone, any whether it's a piece of suitcase, car, keys, wallet, any

of those kinds of things, and you report it on your phone. So you're essentially enabling a thing to talk to the internet and ultimately, to an application on your phone. I just read a really interesting article about some luggage stolen at an airport, the person happened to have an AirTag, and they were able to track it down and get it all back.

There's a lot of other good examples that work. Home stereo systems is a good example. Sonos is a big brand in the space. Of course, there are others, where you can kind of control the music, volume, and whether it's playing in one room, all rooms, different music in different rooms. Nest thermostats and other security devices by Google and others are also examples of Internet of Things technology. And again, the key in all these examples, whether it's commercial and commercial real estate with the space that we play in, or whether it's you know, in consumer space is that it's using modern technology to connect devices, to a network, and ultimately to an application in many cases, a mobile application that we're all familiar with, to get insights and control. It could be your whether on or off, temperature, spot temperature, etc. so that you can control things while you're not right next to them.

One of the big things I can also comment on is, you know, that communications is often the biggest challenge. So local Wi Fi in many examples, especially when we start to think about the commercial real estate space. One of the key things and products that we've developed, technologies that we've developed, here at BlueStreak is what we call a network gateway to solve that problem. So, I use Nest thermostats and other products in my home and you know, remote controlled Wi Fi light bulbs and things of that nature. And often they connect to the Wi Fi disconnect to the Wi Fi. So I make a change in my local Wi Fi just creates a lot of challenges for this Internet of Things space. What we do in our commercial solutions is we have a very small physically small product, fairly inexpensive product that we call network gateway, essentially install that and it allows communication from all the devices on a commercial real estate location to communicate with this network gateway. And we use a cellular signal, we essentially create our own communications network to talk to our network and our cloud based platform. And so what that does is a couple of things just it makes it easy. It's relatively inexpensive, but also perhaps most important creates both reliability because it won't go down with the nuances of a local Wi Fi network, which is often problematic in commercial real estate, but also creates significant security as well as reliability. So we separate all these devices communicating, we keep them off of the local Wi Fi network or corporate network. So there's no intrusion and no security issues, which was a major problem, early advances that this space had to deal with that problem. And our solution has been very effective.

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Now what processes and equipment do IoT solutions apply to it?

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There's a wide range of IoT solutions in the market today and certainly coming to market in the next few years. Right now, there I think people especially commercial real estate space, property managers, facility managers are familiar with some of the kind of large firms, the household names, the fortune sized companies that connect major building management system related services. So you know, heating, cooling, security, some of those kinds of things. So, so those are in market today and help buildings be more efficient.

The next frontier in the space BlueStreak places what we refer to as the long tail of building services, those many often local services that are outside of those core building management

services that in total require a lot of time, a lot of budget, a lot of management. So, so we focus on those areas, we do things for example, with what we'll call smart scent marketing solutions, many commercial spaces, multifamily real estate, fitness, casino and hospitality space, retail, etc. use scent as a core marketing technique to their target markets. We brought together what we call kind of scent, the ability to manage the solutions remotely, through a cloud-based infrastructure network operation center to dramatically improve uptime across a number of across a number of clients, hundreds of clients with 1000s of locations around the country.

Another example is propane monitoring in commercial solutions. We help people understand what the propane levels are real time and actually help large companies like American Gas and Suburban optimize a propane delivery to their commercial customers through the use of our technology. Can we see this applying more and more to those long tail building services, think washroom maintenance, cleaning crews, trash management, et cetera, is we like to say, you know, we have solutions and technology if something moves, physically moves, if it uses water, liquid of any kind, we can monitor it and manage it or if it uses electricity of any kind. So any kind of device that uses electricity, we can easily build a solution on our platform to monitor and manage it. And we're in the process of doing that today.

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What benefits can a property get from an IoT system?

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There's a lot of core benefits that IoT technology connected devices and connected solutions catering to property owners, you know, real estate managers, facility managers, I think the headline is always do more with less, right? We're in a resource constrained world, both from a people perspective and a budget perspective. So the Holy Grail is always be able to do more with less, but that ends up leading to a lot of benefits, I think, more efficient field services. So save money, do a better quality job, or I'd have more uptime for devices, have the facilities be cleaner, running more efficiently, effectively, etcetera, a better tenant experience.

So to the extent you know, smart washrooms or trash monitoring or other services that impact attendance, overall experience or, for example, in the commercial, marketing side, all those are running properly and efficiently and effectively, those drive a better tenant experience. And I think lastly, it's about improving sustainability. For example, if you have to have less truck rolls for servicing an environment that is better for the environment, so improves overall sustainability.

I think one of the other benefits is reducing what we often refer to as the agency problem and in many of the environments that our customers, our clients working right, they have contracts perhaps it's a national entity, they have contracts at a national level that supply resources and Field Service resources and trash removal, washroom cleaning, grease trap cleaning, propane, etc. at a regional or local level. Those contractors then in turn have either employees or subcontractors that they send out to actually do the service. So you've got all these handoffs in this part are often known as agency problems. So how do you know at national that the service was executed properly, and you should go ahead and pay the invoice.

By connecting the services and gaining insight being able to monitor and control, we help reduce that agency problem. So you know that the services are getting done when they're supposed to get done how they're supposed to get done. And therefore, it's okay to pay the bill, one of the key tenets of everything that we do in this IoT or connected service or field service solution space,

since we were applying just in time techniques, to field services, so thinking long ago, right, they were popularized in the manufacturing world. So having just in time inventory manufacturing, much more efficient don't have too much of a part on hand and have inventory expense tied up, don't ever run out of parts to slow down your manufacturing line, right? It's applying those long held techniques of effective and efficient delivery to the field services world.

So it's really kind of a key element we're applying by gaining those insights from connected devices throughout that service world applying those just in time techniques. So that if you're, if you're running a commercial real estate space that has, let's say, many, many commercial washrooms, and there's a, a large event at the space and all of a sudden, there's a peak in activity, you can see that monitor, react to that if there's a lull in activity, because something's perhaps seasonal that takes place at that location, then you can, again, adjust your services appropriately. So you're applying kind of a right amount of resource at the right time.

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Does a typical property need any infrastructure or network upgrades to implement an IoT system?

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There's two basic approaches that we see in the IoT space. And for properties to start to adopt these technologies. One, we refer to as greenfield and one we refer to as brownfield. And those are terms that really kind of come from the software development and other spaces. And in greenfield, what that means is essentially starting from scratch, we are building out a new infrastructure. So for example, if you would like to have a smart washroom in your commercial real estate space, it would require a greenfield type of implementation to take out all the old equipment. So basically, big renovations at washrooms, which has a large capital expense, and requires a long timeframe to implement the install, whether it's paper towel dispenser, sinks, etc, all those new hardware components that are enabled to be communicating to a network. So IoT enable, the challenge of that is obviously large capital expense large timeline and makes a return on investment pushed out quite a bit. And, and oftentimes, the business case isn't strong.

The second way we see implementing IoT or connected service solutions is what we call a brownfield approach. And that's by enabling existing equipment that is in the field today, obviously, much less expensive, right, than ripping things out and making capital investments. And so brownfield allows you to implement a solution much more quickly, much lower expense, without that major project management that's involved. So it brings significant solutions, and is the technology right around sensors and battery technology, etc, again, improve, we're able to monitor more things, for longer periods of time, gain greater insights from the devices that exist in the field today. And that's, you know, the approach all of our solutions at BlueStreak take to the market, we look at enabling existing equipment environments, through our hardware and software technology platform, not ripping out the old and bringing in a bunch of new.

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How do you manage the change to an IoT system among management staff, both to maintain their buy in and to get the most out of the system?

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Yeah, change is always difficult, right? Whether it's new process, new regulations, new technology. And what we found is the key is to deliver real value that makes life better for property and facility

managers right away. Characteristics of that are all low ramp up, the interaction experience needs to be easy to understand and execute.

So for example, most property managers, real estate managers and others, there used to care about mobile app experience today, you know, whatever it is, you know, turning on their car remotely to warm it up. In the winter, for those who live in the winter climates, adjusting your stereo or you know, your Nest thermostat or security products for your home, whatever it is. Most of us have a portfolio of mobile app experiences that we like we enjoy. So by presenting the information, the choices and simple mobile app type experience, we have a very low ramp up and value is delivered right away. I think one of the other things that is an important part of driving value and making kind of change management process easy is to essentially just whenever you automate manual things in an easy to understand way, that's a good thing.

So as an example, and in our commercial scent marketing systems, you know, these are large commercial systems quite often, and in large facilities like casinos in Las Vegas, with this connected device technology, this IoT technology, we can actually predict pump failures in the system, right? Pumps go bad, it's just one of the things that happens. We can by understanding the profile of how that pump is behaving, our network operation center can remotely predict when it's gonna fail. And that's really, really powerful. So we can change out that pump send a technician out before it ever fails.

So there's a couple of things that predictive technology obviously helps make the life of property and facility managers better. And you know, large installations and certain solutions, we can monitor all that with our own network operation center and take action. So we get, you know, insights into equipment messages back, how are things performing, and then take action.

For example, we have a client, a large client, who uses a wide amount of our services, they reported to us in their own business case that they've reduced service hours by 75%, because the old equipment wasn't connected and monitored and managed, and their new equipment is monitored and managed by our network operation center. And we kind of proactively take, take control of that and help them service it by sending our team out.

So those are the keys in change management, right? It's low ramp up, it's got to be a user experience that people understand and are familiar with. It's got to drive value right away, certainly in early days and had a low implement, you know, a low bar for implementation. So it's not huge capital expense renovation type projects, we're just enabling things that are out there today.

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What's the future of IoT in commercial real estate?

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We see a really bright future for IoT and connected solutions and connected devices and commercial real estate. And we see a world where property facility managers have real time insights into all their services, essentially helping them to create and execute this just in time servicing environment I spoke of earlier, providing resources, whether it's human resources, budget resources, contracting resources, where it's needed when it's needed more effectively and efficiently than it's done today.

We're in the early stages of a revolution in sensor and battery technology. And as those continue to improve, there'll be really limitless opportunities to monitor and manage services through new solutions. Using a standard platform such as BlueStreak, the way we've constructed our platform, or to support our early solutions was to make it essentially a plug and play environment so that we can have solutions up and running within weeks, not months, quarters, or years. And so you know, using standards around our network gateway communication technology, our cloud based platform or network operations center, as new sensors come out, that can help us understand what's going on in the field environment, we easily in a plug and play environment and bring those into our platform.

And then so we think of things like did the cleaning crew do an effective and efficient job in a facility overnight? And we can use sensor technology and our platform to understand how much did the wash bucket move around? Throughout, or the cleaning cart throughout the evening, did that hit all the spots that it was supposed to hit? Did the traffic peak in a commercial washroom? Did the trash bin outside the facility, did it get an unusual amount of trash dumped in it? So perhaps it needs to be emptied earlier so it doesn't accumulate on the outside and create a really poor visual experience for tenants. And all those kinds of things with managing specific assets to understand, hey, if I've got a series of four or five assets, maybe a fitness center perhaps, or similar environment, you know, what's the utilization among each and how are they being utilized? And are we getting your end of lifespan? Or is there a way we can automate services around that?

So I think the future is really bright. And as the sensor technology continues to improve having a plug and play platform that not only kind of reports back in a simple, easy to understand way but allows real estate managers, property owners, facility managers, our network operations services, people who support our clients to be able to take action, I think that's really going to help us move toward adoption.

And ultimately, I think in the commercial real estate field, you know, people will start to feel about it like homeowners do today, right? If a homeowner wants to manage and control their temperature, turn on or off their lights, warm up the car, they go in and turn on and off their stereo system, etc. So there's tons of examples. We just kind of take it for granted today. You expect to be able to do that. We see that same world evolving into the commercial real estate space around field services and all the insights to make managing those that huge portfolio of local vendors and others who impact the commercial real estate service space to be managed, monitored and essentially made more efficient, ultimately for a better tenant experience and a great return on investment for property owners.

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Thanks for joining us, Craig.

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Really appreciate the time to talk about the subject. We're passionate about it at Blue Streak and continuing to deliver our solutions to hundreds of customers and 1000s locations across the country and adding new solutions. We anticipate making some announcements in 2024 around new solutions that will be added to our platform. We look forward to sharing those in future.

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