

Alex Brown: Welcome to Take Five, Plante Moran's podcast to deliver valuable information in five minutes or less. I'm Alex Brown, Manager with our cybersecurity practice and I'm here today with our cybersecurity practice leader, Raj Patel. Raj and I want to talk to you today about a relatively new term, the internet of things, and how it's slowly easing into our lives.

Raj Patel: The internet of things refers to a world in which all everyday objects and devices are seamlessly connected through wired and wireless technologies. Some examples I share with clients include turning on the lights from your smartphone. When you drive past a Starbucks, your phone alerts you to that day's specials. Or when the alarm on your phone goes off in the morning, an app automatically turns the coffee pot. While these examples might seem impressive or even unimaginable five years ago, it's really just the surface of what internet of things means.

Alex Brown: While the internet of things is already changing how we go about our personal lives, it's going to, and in some cases it already does, have a huge impact on business. Consider this, the internet of things will allow businesses to do a variety of things more effectively. Consider a hospital, a nurse could immediately be alerted if IV bag runs empty and instead of making rounds to check like they may have in the past. For a manufacturing company, this could mean that if there's a problem with the water sensor, employees could receive an alert on their phone and use an app to shut down the device to prevent a costly flood. For a logistics company, they can track their trucks in real time. They know where the truck is, how long it stops for, and when a package should arrive to its destination.

Raj Patel: This all sounds really exciting, maybe even enticing, but it's important to remember that new security risks are presented with the adoption of each new technology.

Alex Brown: Exactly Raj, especially when you're an early adopter of new technology. The technology always comes first and security measures and protection to follow. The internet of things is no different.

Raj Patel: Absolutely. From a personal standpoint consider this, while the user may appreciate apps that sense their location and provide recommendations, they need to realize this means their location services and actual activities are being tracked. What would happen if that data got into the wrong hands? Similarly, smartphone technology that allows a home user to turn on their lights and control other devices could also be hacked. Think of what a hacker could do with access to devices like video cameras and security systems.

Alex Brown: Yes, this is exciting and scary at the same time. What are some of the risks you see for businesses?

Raj Patel: There are many, but here's one that comes to mind. Some would say a benefit of internet of things is automatic ordering of supplies or parts. But I might call this a risk. In the past, businesses had controls set around ordering supplies. Well with internet of things, sensors could make those decisions. That loss of control and approvals could

impact some businesses. For example, a sensor will know a copy machine is low on paper. It wouldn't know that the office manager picked up an extra paper at sale. Or what if the vendor has set up a copy machine to automatically order the most expensive brand of paper? The internet of things could cause us to lose an important human element.

Alex Brown: That's a great example. Another thing to consider is the risk of hacking. Just like your example with the lights and the home security system, hackers can gain access to devices at a business. For example, with the hospital we talked about earlier, this might mean a hacker could gain access to the medicine being administered into the patient's IV bag.

Raj Patel: Good point Alex. There's certainly a lot to consider and that's the point. Businesses considering adopting the internet of things need to be aware of the risks and benefits. Security measures will evolve that will help us mitigate the risks, but they're not here today.

Alex Brown: Right Raj. Definitely a lot to think through. That about does it for us. If you have any questions, feel free to reach out to either Raj or me. Thank you for listening.