

Our Connected World

by Ravi Das

I have to admit, even being a security professional myself, I let my guard down a few weeks ago, as I became a victim of credit card theft. The damage was only a couple hundred of dollars, but it still jarred me. Although I was lucky enough to have my credit card replaced in just three business days, during that timeframe it occurred to me how much I had become dependent on my card. I hardly ever carry any cash on me, and during those few days I felt paralysed. What if I really had an emergency, what would I do?

Even after receiving my new credit card, the whole episode made me think about just how dependent we have become on our interactions with other objects in both our daily and professional lives. In fact, all of this relates to a concept known as the 'Internet of Things' (IoT). This concept defines how our lives are already based on our interactions with both the physical and virtual objects with which we are surrounded. The IoT can be specifically defined as follows: "It is made up of devices – from simple sensors to smartphones to wearables – all connected together. All of this can be used to gather information, analyse it, and create an action to help someone with a particular task or learn from a process."

The advantages of IoT

Because the Internet of Things encompasses so many different things, it can serve a wide array of particular applications. In fact, this is probably one of its greatest strengths. Examples of applications include the following:

- **Transportation**
In this regard, IoT consists of a monitor sensor which can track the distances and real-time locations of cargo trucks and service delivery vehicles.
- **Inventory management**
IoT makes use of radio frequency sensors which can track the location and movement of products in real-time. It can also keep track of the level of inventory and reorder stock automatically, without any human intervention.
- **Assessment of web user intelligence**
Let's face it, everything is on the web now, including how we shop and the way we go about it. With the use of IoT, third-party web aggregators can be used to better understand customer buying trends by tracking their social media network activity. This can help to identify key customers and their preferences for products and services.

The disadvantages of IoT

But we have to take the bad with the good. The following are some of the perceived or forecasted disadvantages of IoT as it will become much more mainstream in the coming years:

- **Surveillance**
In the United States, surveillance is a hot-button topic, especially when facial recognition is involved. But imagine these fears once our everyday movements would be tracked on a much more granular level. It is summarised nicely in this quote: "The risk is that inimical forces may gain control and create serious problems."
- **Social division**
In today's world, there are three classes of society when it comes to embracing new technology: a) those that never will; b) those who only use it if they need to; c) those who are the earliest of the early adopters. When society as a whole starts using IoT, it is quite likely that social division will only increase.
- **Cyber-based attacks**
Today's hackers want to steal all our personal information and data, and with the use of IoT we will see an increase in cyber-based attacks, as our interactions with objects will generate even more data.

My thoughts

I personally have mixed views on IoT. I think there are good applications for it, especially in the healthcare sector. But in today's world it feels like there is complete imbalance if there is just one particular object missing from our lives. Just imagine what that feeling would be like when missing even a few objects in the IoT-world, where everything is dependent upon each other...

