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INTERNET OF THINGS – BENEFITS BUT ALSO RISKS

The Internet of Things was the stuff of dreams and futurists just a few short years ago. Now it is a reality and growing faster and faster.

At the end of 2021 there were an estimated 10 billion IoT devices in use, estimated to be 25 billion by 2025.

IoT is in all areas from offices to hospitals to factories to homes and individuals.

But this is a cybersecurity blog so let's look at the impact of IoT on that.

The goal of the Internet of Things is to have everything connected. To accomplish that the focus has often been on size, price and time to market. Sadly, cybersecurity has often been a victim of that focus. Many devices have little to no cybersecurity giving cybercriminals an uncountable number of new attack points.

Many IoT devices use opensource software. There is nothing inherently wrong with that. However, in some cases the software doesn't get security updates, or the final user may not be informed of the updates by the device manufacturer leaving the devices vulnerable to cyberattacks.

This has proven inconvenient in some cases and potentially fatal in other cases such as medical equipment, vehicles, or industrial and municipal control systems. These risks are not theoretical as compromises have been detected in medical equipment that can change settings or turn the device off. Think of devices keeping someone alive or infusion devices delivering medicine, even chemotherapy. Vehicle engines have been turned off while the vehicle was being driven. Municipal water control systems that manage the amount of purification chemicals into the drinking water have been hacked. Those chemicals are beneficial in the right amount and poisonous in the wrong amount.

IoT devices are multiplying in the home, Alexa, Siri, fitness trackers, etc. Hacked home devices may not be fatal but they can monitor everything being said in the home eliminating any privacy or use the camera to monitor family members including children.

The point here is don't neglect or shy away from IoT where it is useful but also don't take the security of these devices for granted. Consider what they do or what can happen if they are hacked, as they will be.

Before buying the devices, especially ones that can cause harm if hacked, investigate the software used in them. Be sure to know who is responsible for security updates, and how and when they will be distributed.

If users and purchasers insist on cybersecurity, then manufacturers and sellers will take it more seriously benefitting everyone.

We can help.

Ready to take the next steps? Contact onebrightlycyber at info@onebrightlycyber.com or call (888) 773-1920.