**Final Research Project - Securing IoT Devices: What are the Challenges?**

Internet security, in general, is a challenge that we have been dealing with for decades. It is a regular topic of discussion and concern, but a relatively new segment of internet security is getting most attention—internet of things (IoT). So why is internet of things security so important?

The high growth rate of IoT should get the attention of cybersecurity professionals. The rate at which new technology goes to market is inversely proportional to the amount of security that gets designed into the product. According to [IHS Markit](https://news.ihsmarkit.com/press-release/number-connected-iot-devices-will-surge-125-billion-2030-ihs-markit-says), “The number of connected IoT devices worldwide will jump 12 percent on average annually, from nearly 27 billion in 2017 to 125 billion in 2030.”

IoT devices are quite a bit different from other internet-connected devices such as laptops and servers. They are designed with a single purpose in mind, usually running minimal software with minimal resources to serve that purpose. Adding the capability to run and update security software is often not taken into consideration.

Due to the lack of security integrated into IoT devices, they present significant risks that must be addressed. IoT security is the practice of understanding and mitigating these risks. Let’s consider the challenges of IoT security and how we can address them.

**Some security practitioners suggest that key IoT security steps include:**

1. Make people aware that there is a threat to security;
2. Design a technical solution to reduce security vulnerabilities;
3. Align the legal and regulatory frameworks; and
4. Develop a workforce with the skills to handle IoT security.



**Final Assignment - Project Plan (Deliverables):**

1. Address each of the **FOUR** **IoT security steps** listed above in terms of IoT devices.
2. Explain in detail, in a step-by-step guide, how to make people more aware of the problems associated with the use of IoT devices.

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