WHAT IS THE
INTERNET OF THINGS?

It is hard to avoid hearing about the Internet of Things. Articles in the mainstream business media appear frequently in print and online, and even consumers are becoming aware of it now. So let's dive in and quickly define the Internet of Things. First, it is important to understand that the IoT is not a specific product. You don't buy a box of "internet things." The IoT refers to all of the things that are connected, primarily via the internet, with the goal of collecting data and taking action with that data. The example usually trotted out to show the wonders of the IoT is the connected refrigerator. Using barcodes and scanning technology, the refrigerator can become "aware" that some product is running low. It can send a message to the homeowner to add this or that to a grocery list, or even place the order on its own to a delivery service. What makes the IoT so powerful is not the things but that the ***data*** that is passed between and among endpoints. Data is collected and sent and then acted upon. The IoT is all about amassing data and using it to create greater value.

As a result, the primary security issue that IoT technology hits us with is the issue of data security. IoT, at root, is not about the things we connect but about the ***data*** each of those things collect and share. The IoT is really all about collecting greater volumes of data to create better value and drive more informed decision-making. In short, the IoT is a greater security risk due to its inherent nature as a data collector. It collects data that was once unavailable. Let's consider a few examples.

You can remotely tell your house to raise the temperature before you arrive home after work and to turn on the lights. Very convenient. However, you are also creating a critical mass of data that can soon predict when your house is going to be empty.

A smart speaker can, if hacked, collect data from conversation in a room. Consider what Alexa could learn while it sits in the office of an executive who uses it to play music, tell the weather or provide other informational services.

The moral of the story is that it is important to understand that the IoT is more than a new set of tools in the technology toolbox. The IoT is a source of serious data security concerns, so before you begin introducing connected things, get the support you need to be sure you are safeguarding the integrity of the data that is now being collected.