

# Understanding IoT

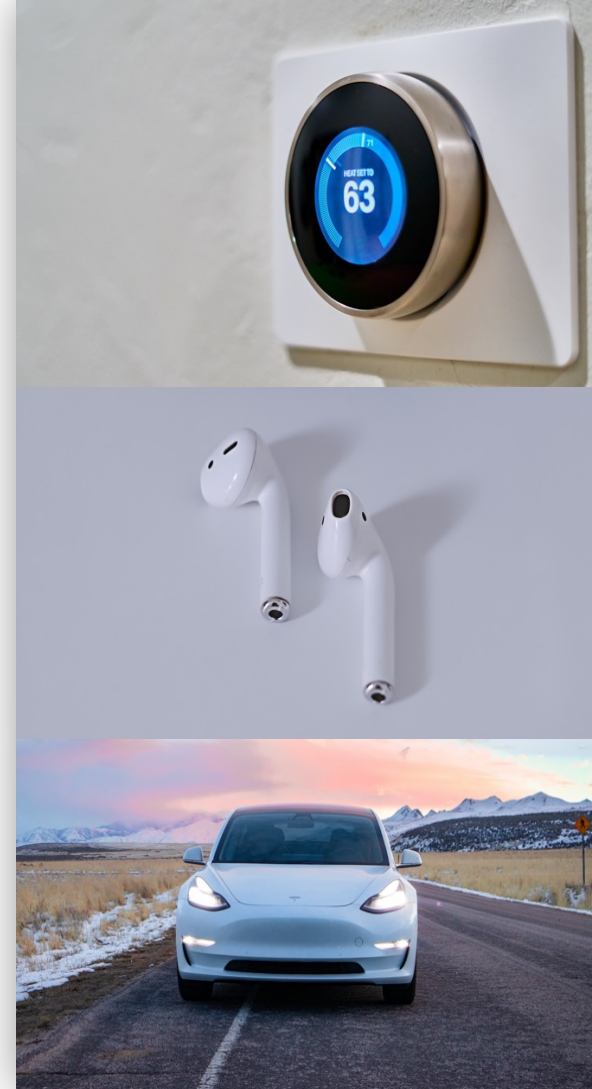
## The Internet of Things

# What is IoT?

The Internet of Things – or IoT – is the interrelation of all internet-connected physical devices (except computers and smartphones). They share data with other devices that are also connected to the internet without the need of a human operator pushing buttons.

In other words, one IoT device can talk to another on its own.

Anything from a house to a car or from a plane to a toilet can connect to the Internet of Things. If you place a sensor with IoT capabilities – meaning it shares and analyzes data – on an object, then that object becomes a branch of the IoT framework.





Almost anything can be connected to the Internet of Things, but not everything that connects to the internet is an IoT device. What are some things that are IoT devices?

- A house alarm monitored by your phone
- A smart-city streetlamp analyzing the weather
- Shipment containers with weight sensors
- Wearables that measure heart rate
- And city scooters that report their location

What are some things that are not IoT devices?

- A computer
- A smartphone

To be considered an IoT device, an item must have these four characteristics:

- Be a physical device
- Have a unique identifier
- Sends data somewhere for collection/analysis
- No human interaction required (apart from setup)



# IoT is Automated

In a world constantly becoming more automated, tasks and procedures require less and less manual interaction. Technology can execute the same tasks quicker, with fewer resources, and more consistently, from asset tracking to automated reported.

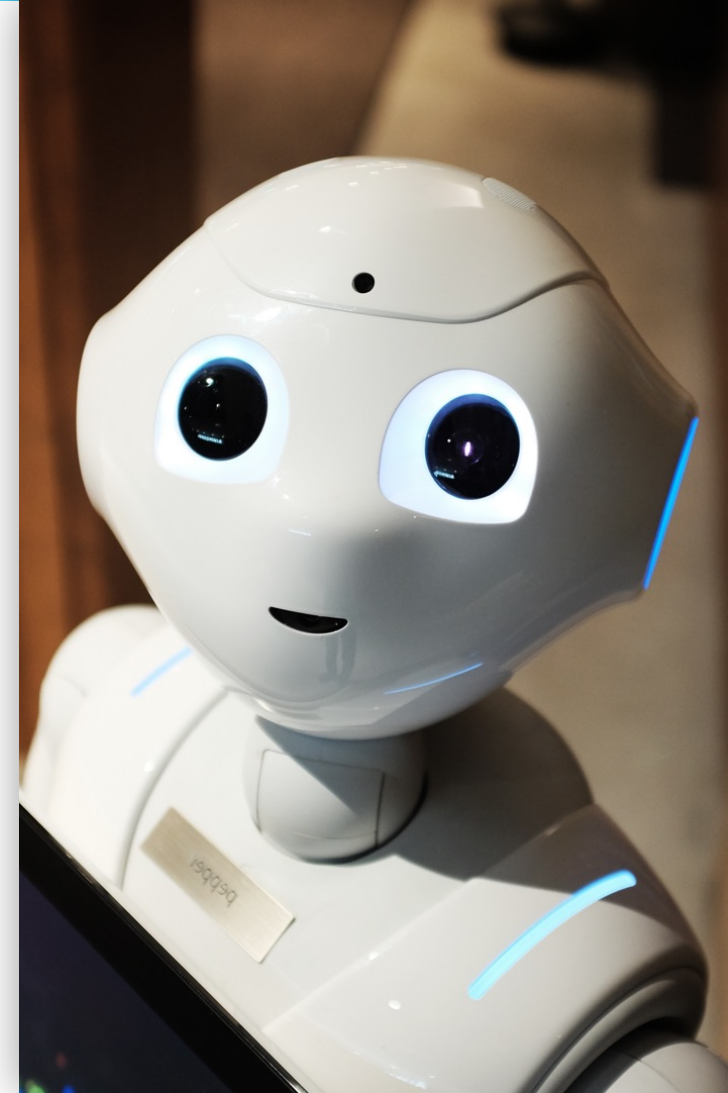
In the supply chain logistics world, IoT devices provide crucial information about:

- Real-Time Location Services (RTLS)
- Environmental Readings like temperature
- Usage Measurements

A good supply chain management solution uses the latest in autonomous IoT devices to meet business strategy metrics without extensive manual interaction.

At Apptricity, our IoT technology allows you to...

- Associate assets and inventory with IoT-enabled tags
- Visualize real-time movement of your items
- Analyze gaps in the process that slow down execution
- Discover missing equipment or materials
- Generate informative reports based on collected data





# Automated IoT - Teazzers

Apptricity's customer Teazzers sells commercial grade tea and lemonade brewing machines which are located in convenience stores and businesses. The computer screen allows the consumer to pick the type of tea brew they want.

The machines communicate with Apptricity's software in real time with order and brewing information. This allows Teazzers to track and monitor the stock of each machine, so they know when the machine's need refilled or serviced.

This setup is an example of M2M (machine to machine) and IoT technology.



# IoT is Boundless

As 5G wireless becomes commercially available, cellular speeds will reach a point where they compete with and exceed the speed and reliability of wired connections. Computing is increasingly happening in the cloud, meaning companies can spend less on specialized hardware. When put together, we enter a new age of inexpensive, global accessibility and truly boundless connectivity.

IoT sensor technology communicates information without the dependence of a wired connection. This allows for the reporting of location, status, and other data from anywhere in the world. Businesses with inadequate visibility to their assets can experience immediate benefits using this self-reporting technology. Plus, with multiple real-time, wireless solutions such as RFID, Bluetooth, LTE, GPS, etc., businesses can equip their unique setup with IoT technology on any budget.

At Apptricity, our IoT technology and software gives you...

- A global access solution that takes advantage of all wireless IoT technologies
- Visibility to any asset or inventory item regardless of its location or yours when connected to the internet
- Connectivity to your assets that is truly boundless





Apptricity customer Oldcastle uses Apptricity's RTLS (real-time location services) IoT devices to geolocate their cement silos across the US and Canada. These silos constantly report back to base with their location using GPS and LTE.

Oldcastle uses this system to make sure their equipment is where it belongs and that movement between locations goes smoothly.



A defining characteristic of IoT technology is that it's **always** connected. With a variety of connection options, IoT-enabled devices can always remain connected to your hub. It is a constant system of self-reporting that requires little interaction, attention, and, least of all, searching for your assets,

Modern technology and IoT technology has even made it possible to stay connected with your family, friends, coworkers, and pets!

Apptricity is at the forefront of pairing data with robust software solutions.

- Our IoT technology solution can give you 360-degree visibility to efficiently manage your assets
- Real-time location services (RTLS) and alerts offer instant feedback, so you can make critical decisions without delay
- Common tasks such as inventory reordering, missing asset alerts, and tracking movement history are all readily available in real-time





# How Can You Benefit From IoT?

IoT provides your company with:

- Added security for items that previously could not be secured
- Enhanced security for all of your assets
- Large amounts of useful data for analysis, automation, and process optimization
- A streamlined process that saves you time and money



# Why Apptricity?

Apptricity is the leader in global real-time asset tracking and management. We have been providing continuous tracking and monitoring of your assets, inventory and personnel with the most secure, accurate and proven technology in the world since 1999.

We are a global provider of enterprise software applications that:

- Focus on real-time asset tracking and inventory management
- Provide SaaS/Cloud applications on single tenant platforms with detached capabilities
- Use Automated Identification Technologies (AIT) with IoT devices including:
  - Barcode
  - Active & Passive RFID
  - Bluetooth
  - NFC on Wi-Fi
  - LTE/Cell
  - GPS/Satellite

At Apptricity, our expertise includes extensive past performance in global, enterprise-wide integration of multiple systems. We are professionals skilled in integrating new applications and open systems into legacy applications (e.g., SAP, Oracle, etc.). Apptricity has experience in significant deployment of IoT technology and software solutions for real-time tracking, asset visibility, sensor technology, and edge computing devices. We have a highly experienced professional services team with broad skills, deep subject matter expertise and a proven deployment methodology.





# Interested in Working With **Apptricity?**

Please visit us at [www.apptricity.com](http://www.apptricity.com) for more  
information or to request a demo.