



# Internet of things

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In simple terms, the Internet of Things describes the network of physical objects (things) that are embedded with sensors, software, and other technology for the purpose of connecting and exchanging data with other devices and systems over the internet. It aims to improve productivity, efficiency, services and more. IoT is a growing industry as it enables customers to make the concept of a smart home become a reality.

### **How it works**

Due to the progress in technology, analytics, sensors, embedded systems, wireless systems, automation, control systems and machine learning, we can share data to platforms with applications designed to address distinct requirements. IoT platforms are able to determine useful data and which pieces of data can be discarded, in order to detect patterns, therefore enabling it to make recommendations and find problems, often before they arise.

### **Where did IoT come from?**

The idea of a network of smart devices was first considered in 1982, it was then in 1991 that the contemporary vision was produced. The term 'Internet of Things' was initially devised in 1999, whilst IoT was not entirely comprehended until 2008 when objects were first connected directly to the internet.

### **What is it used for?**

Consumer applications – examples are wearable technology, remote monitoring capabilities and smart home devices; these are often available to purchase at quite low prices.

Medical/healthcare applications – provides a digitalised system with abilities to monitor health and emergency notifications. They may be also used to capture patient data using wireless solutions.

Industrial applications – this allows for automated updates of assets, like machinery, to maintain efficiency and prevent increased costs from repairs and assets slowing down.

Alongside these uses, they are involved in many other applications that affect our daily life in ways that we don't even notice.

## Who owns the data?

Although nobody owns the data, the actual collection of the data may be owned by an individual or organisation. Database rights determine who is able to use the data and who is allowed to manage/store/process data.

Overall, the Internet of Things offers many advantages for applications including day-to-day usage to industrial manufacturing to entire smart cities. Safety, efficiency, and time management are just some of the benefits however some people are concerned about device security for IoT. Despite this, it is estimated to become an increasing part of many people's everyday lives as we depend more on its benefits.