

IoT

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IoT the Internet of Things ,the evolution of the Internet where computing devices embedded in everyday objects are able to send and receive data themselves.

Definitions of the Internet

The Internet of Things term is coined by Kevin Ashton

A proposed development of the Internet in which everyday objects have network connectivity, allowing them to send and receive data.

Whatitis.com defines IoT

a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

Forbes defines IoT

“the concept of basically connecting any device with an on and off switch to the Internet (and/or to each other).

IoT is a collaboration between a hardware platform, an OS, an application (usually mobile) and the cloud.

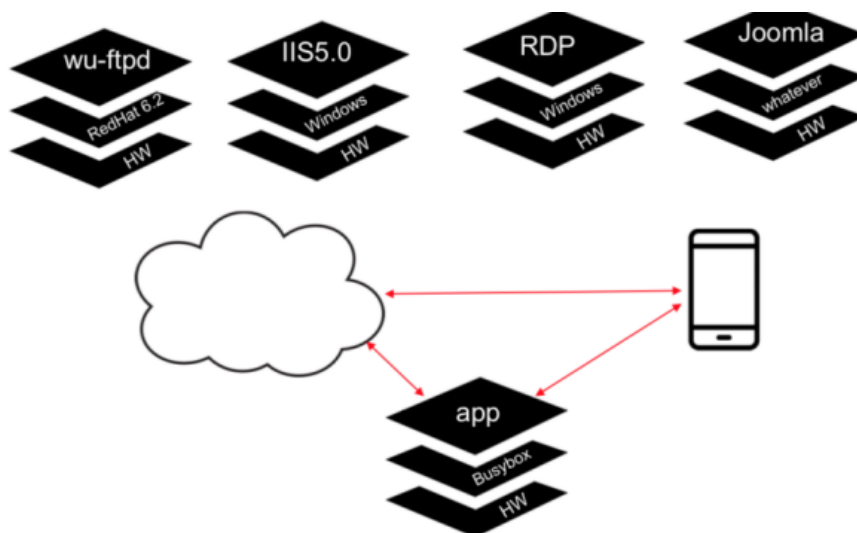


Figure 2. IoT architecture

How does IoT work?

The devices do most of the work without human intervention, although people can interact with the devices - for instance, to set them up, give them instructions or access the data.

Example in embedded systems using IoT

- IoT can benefit farmers in agriculture by making their job easier.

Sensors can collect data on rainfall, humidity, temperature and soil content, as well as other factors, that would help automate farming techniques.

- The ability to monitor operations surrounding infrastructure is also a factor that IoT can help with.

Sensors, for example, could be used to monitor events or changes within structural buildings, bridges and other infrastructure. This brings benefits with it, such as cost saving, saved time, quality-of-life workflow changes and paperless workflow.

- A home automation business can utilize IoT to monitor and manipulate mechanical and electrical systems in a building.
- IoT touches every industry, including businesses within healthcare, finance, retail and manufacturing.