



ANDROID THINGS 1.0

FAST FACTS:

- **Time to install the technology:**
Up to 6 months to develop and install a novel system, less for existing IoT integration.
- **Approximate cost:**
As low as \$2000 for existing IoT applications and associated equipment, up to \$100K for novel complete systems depending on level of complexity.
- **Type of innovation:**
Advancement to existing technology capabilities.

What is the Internet of Things?

In its simplest form, it is a network of connected Smart devices with simple on and off functionality. These devices can be connected to each other either locally or globally via the Internet, but when used together can perform a range of simple, as well as more complex tasks.

The Internet of Things (IoT) is the framework that allows many Smart Appliances including televisions, fridges, vacuum cleaners, toasters, coffee machines, and more recently light bulbs and air conditioners, to behave in a “Smart” way. How much these domestic appliances can help us around the home varies depending on one’s level of technology adoption. Many experts see this technology being of greatest benefit in regards to how this framework can be applied to devices used in industrial and commercial applications. IoT usage in the workplace can be utilized to monitor and control almost any mechanical process, from switching on Agriculture pumps remotely in the field to controlling the temperature and pressure of a single or group of pasteurizers in a food factory from the other side of the world.

What is Android Things 1.0?

We are all aware of the global power and credibility of Google. When we visit a new city, we trust google to aid our navigation. We ask it where we should eat, and even trust it to pay our bills. It is this credibility and trust that creates a significant advancement to the IoT with the introduction of Android Things 1.0.

Previously IoT software was developed in an open source environment that made it susceptible to cyber security threats, which

hampered its mass scale adoption in industry. Android Things 1.0 is the next step in IoT’s evolution, as it is a purpose-built framework for the development of IoT Devices with robust security protocols developed to ensure that data is safe and secure.

Android Things 1.0 is new Operating System specifically designed for use in IoT devices. It includes future proofing protocols for internet and network security, as well as continuous improvement. It is specifically designed to be energy efficient yet flexible enough to be used across all the current and future applications of IoT devices.

Android Things 1.0 was developed to be easily programmed and utilises the same development and programming skillset of other Google Android Apps, therefore allowing more Apps creators to develop and create technology for IoT devices with minimal additional code creation.

Finally, to support the potential of new Apps for IoT devices, Google Things have teamed up with hardware providers Intel, NXP and the Raspberry Pi Foundation to support advanced hardware setups including multicore processors and higher storage capacity. This step change will drive IoT products towards more advanced functioning, including the potential for onboard Artificial Intelligence. This advanced functioning will provide additional benefits to the food and agribusiness sector, as these next generation IoT devices will be able to not only monitor processes, but to also make simple decisions even when connection to the internet is not possible.

What the experts say:

While the age of the cloud computing is upon us, the usage of IoT devices have been devalued due to their risks regarding security and access of data to outsiders. The support and backing by the tech giant Google will create standards in OS and security protocols with updates instantly pushed through, similar to how the Google Pixel phone operates. This will create a new dawn of IoT devices, as they become truly set and forget, allowing for them to become better integrated into our lives. With this integration and acceptance of items in our lives the further of IoT connected devices will become broader and cover aspects of our lives that we have not ever considered today.

GET INVOLVED:

Do you have some information to share about IoT or Android Things? Connect with the FIAL Insights Community via the FIAL Facebook page to join in the conversation: <https://www.facebook.com/FoodInnovationAU/>.

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