THE INTERNET OF THINGS

OR HOW TO MAKE YOUR LIFE EASIER BY FIRST MAKING IT MORE COMPLEX

WHAT IS THE INTERNET OF THINGS?

It is the internetworking of physical devices, vehicles (also referred to as "connected devices" and "smart devices"), buildings, and other items embedded with software, sensors, actuators, and network connectivity that enable these objects to collect, exchange and use data.

WHERE IS IT BEING USED?

- **Environmental monitoring**
- **Infrastructure management**
- **Manufacturing**
- **Energy Management**
- **Medical and Healthcare**
- **Home Automation**
- **Transportation**
- **Consumer applications**

HOME AUTOMATION – APPLE HOMEKIT

- HomeKit is the foundation of Apple's vision for our smart home future, a set of interconnecting apps and devices that control lighting, heating and the cycles of your washing machine.

- You control HomeKit devices with the all-new Apple Home app, which arrived with iOS 10.

WHAT IS HOMEKIT?

- HomeKit is a "robust framework" and a "common protocol" in the words of Apple; it was released to the world as part of iOS 8 back in June 2014. It's an API – an Application Programming Interface – that enables smart home devices to work seamlessly with iOS running on an iPhone or iPad.

- But not everyone will necessarily want to sign up to Apple's way of thinking and working. Google and Samsung have their own smart home protocols.

- In future years you may have to choose your smart home OS as well as your smartphone OS.

HOW DOES IT WORK?

IT STARTS WITH A DATA FOUNDATION…

- Without going too far into the technical details of HomeKit, it offers a common language for smart home devices to talk to each other and to Apple hardware – it's like all these devices learning German or French so they can work together.

THE YOU ADD A FEW HOMEKIT COMPATIBLE GADGETS....

- Deck out your living space with HomeKit-compatible things, and once you tell Siri you're going to bed, the app could lock the doors, dim the lights and turn down the thermostat.

- Being able to control multiple bits of kit from one central point is a key advantage of having a single app like HomeKit controlling everything.

- https://support.apple.com/en-gb/HT204903

TELL HOMEKIT WHAT YOU HAVE…

- Once you buy a gadget with "Works with Apple HomeKit" on the packaging, you can head to the App Store to find the relevant app.

- Then all you need to do is run through a quick pairing process and you should be securely connected to the smart home device of your choice.

ADD DEVICES, PROGRAM A SCENE, ADD SOME AUTOMATION…

- Demo….

SECURITY OF YOUR DATA….

- HomeKit is the most secure of any of the current Home Automation protocols, but….
- There are the some security holes that can exist in the devices' chipsets themselves, having nothing to do with the stated purpose of the device.
- Apple certifies the devices in the MFI program but it's still early days.

MORE SECURITY…

- Apple has set a high bar for security has been a bit of a headache for device makers.
- Many manufacturers need to release new, upgraded hardware in order to be HomeKit-compliant Such as Belkin's WeMo switches.
- Apple Security: http://www.apple.com/business/docs/iOS_Security_Guide.pdf

WHERE TO FIND OUT MORE?

- http://www.apple.com/ca/ios/home/
- https://developer.apple.com/homekit/
- http://www.apple.com/shop/accessories/all-accessories/homekit
- http://www.imore.com/homekit
- https://www.wareable.com/smart-home/apple-homekit-essential-guide-2016
- https://www.macobserver.com/analysis/homekit-security-iot-botnets/
- https://en.wikipedia.org/wiki/Internet_of_things

THE INTERNET OF THINGS

OR HOW TO MAKE YOUR LIFE EASIER BY FIRST MAKING IT MORE COMPLEX