

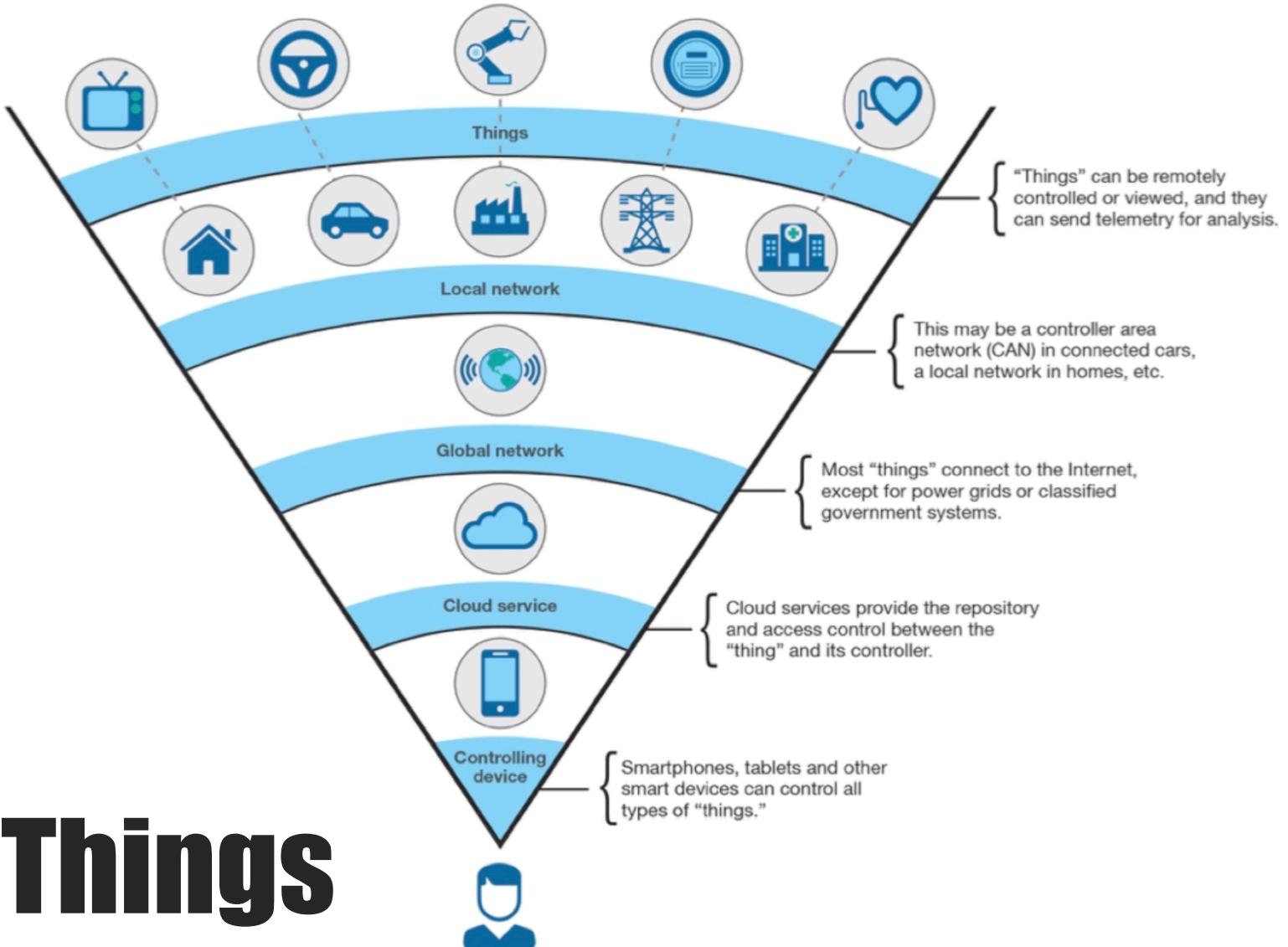


Thing's Behind Scene Crime



Things

IBM model for the Internet of Things



Things

Graphic 1. IBM model for the Internet of Things



not Thing's



Thing's

- Hardware
 - Limited & Specific
 - LowEnd
- OS
 - Simple (Ala-ala)
- Application
 - Poor
 - Need Base

No Thing's

- Hardware
 - Powerfull
 - HighEnd
- OS
 - Complexs
- Application
 - Complicated
 - A Lot

Thing's = no Thing's



Controlling Device

- Insecure network communication
- Insecure authentication and authorization
- Business and Logical flaws
- Hardcoded sensitive information
- Outdated and/or insecure 3rd party libraries and SDKs

Cloud Service

- Insecure API communication
- Improper protection against sensitive resources
- Ability to modify sensitive data
- Side channel data leakage
- Injection based attacks

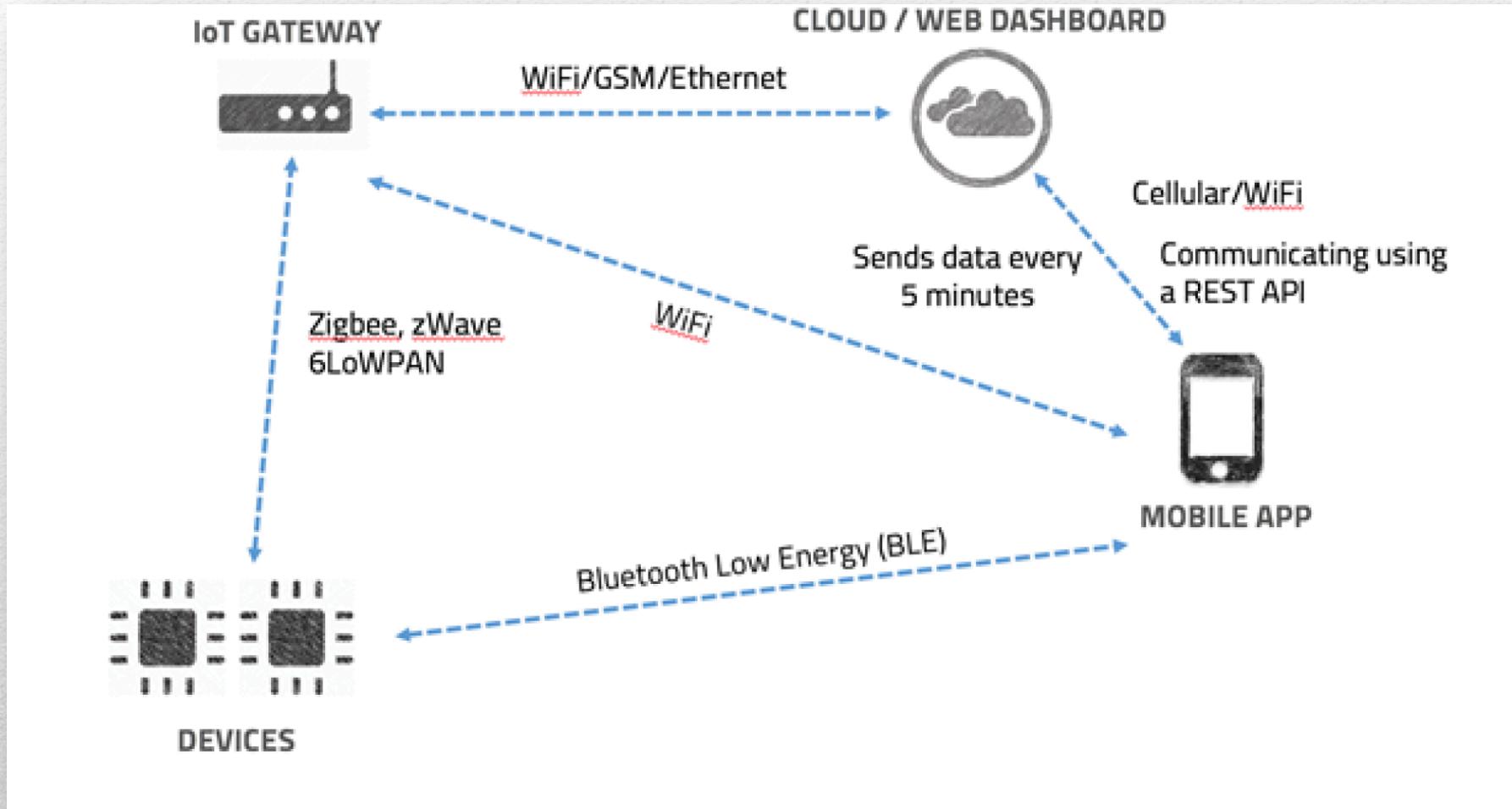
Global network and Local network

- Man in the Middle Attack
- Replay based attacks
- Jamming attacks
- Sensitive data in clear text

The honest SIN

- Hardware or the Embedded Devices
- Application : Web, Mobile, and Cloud based assets
- Firmware
- Radio Communication

Attack Surface



Attack Surface Mapping

Data Communications

- External Inspection
- Internal Inspection
- Analyzing Datasheets
- FCC ID

Analyzing Hardware

Data Communications

UART - Universal Asynchronous Receiver/Transmitter

- a way of serial communication allowing two different components on a device to talk to each other without the requirement of a clock.

Serial Communication

- I²C
- SPI

Facilities / holes
