



# The Software of Things

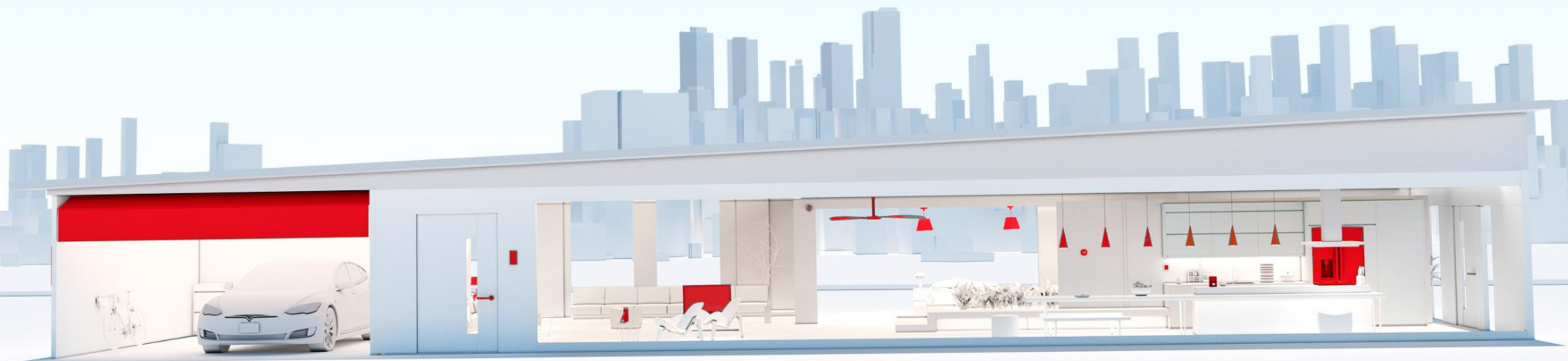
TYSON TUTTLE | CEO | SILICON LABS  
ASPENCORE CEO SUMMIT | SHENZHEN | 8 NOVEMBER 2018



“Most technology we’ve built so far was for the Internet of People (IoP). Whether it was an e-commerce or search application, it was built to serve people – and to accumulate specific types of data that we could analyze later.

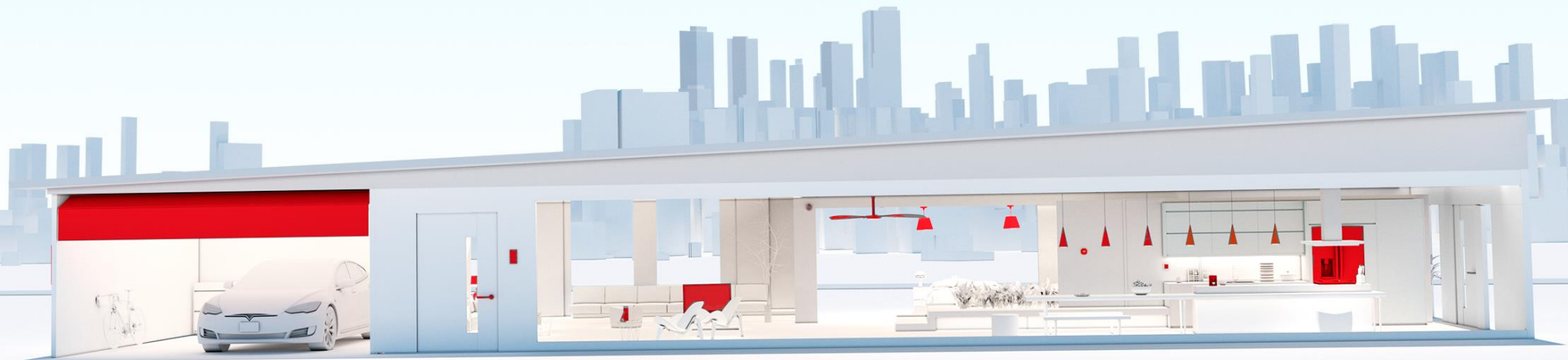
But people are not things. Things produce vast amounts of data nonstop and can give us information whenever we ask for it. So why would we think the technology we built for the Internet of People would work for the Internet of Things?”

Timothy Chou  
Lecturer, Cloud Computing at Stanford  
Former President of Oracle Cloud

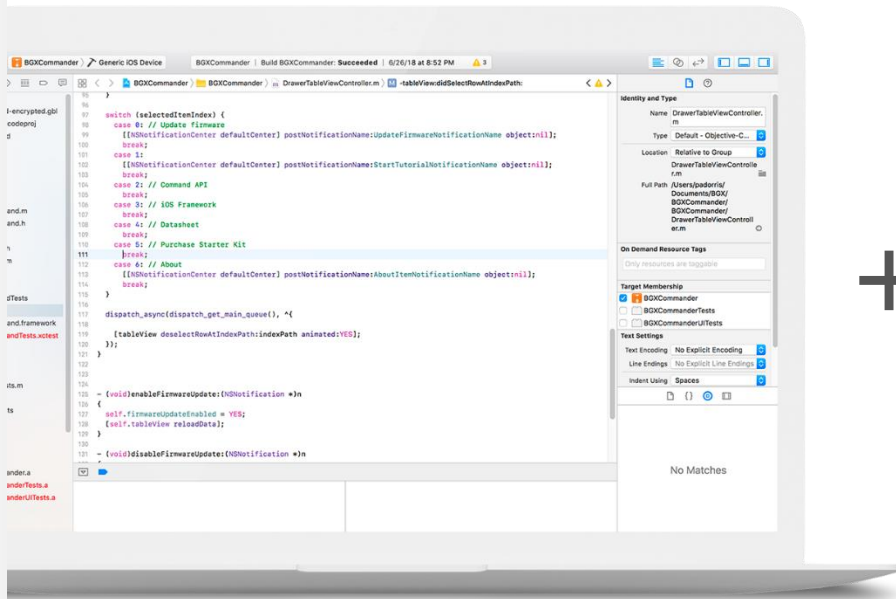




Silicon, software and solutions for a smarter, more connected world

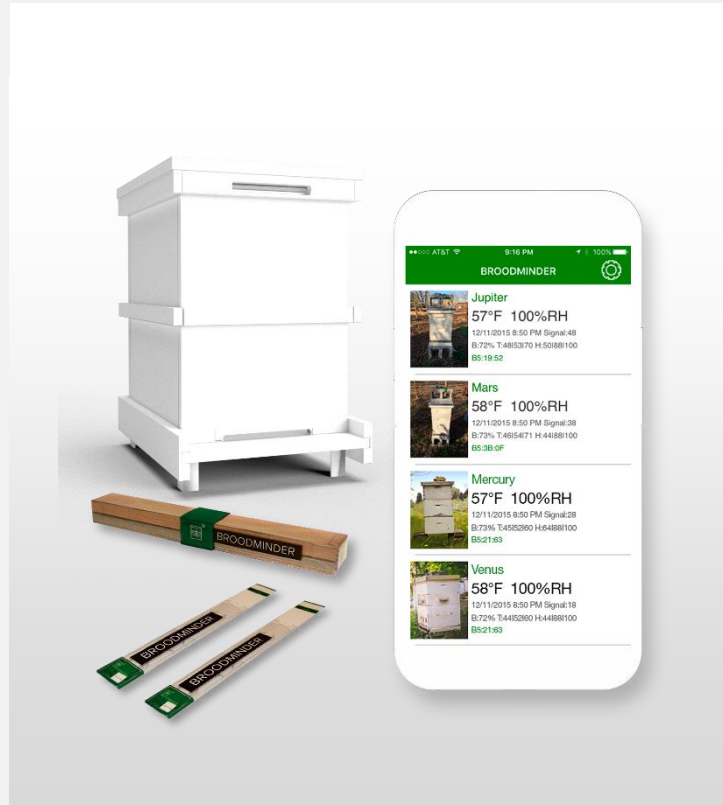


# Connected Hardware + Software – A Powerful Combination



- Software defines the next generation of things
- Connected hardware requires more software
  - Wireless protocols
  - Apps, middleware, over-the-air updates
  - Abstraction of human controls
  - Sensor data processed, sent, stored and secured
- IoT device lifecycle needs reliable software

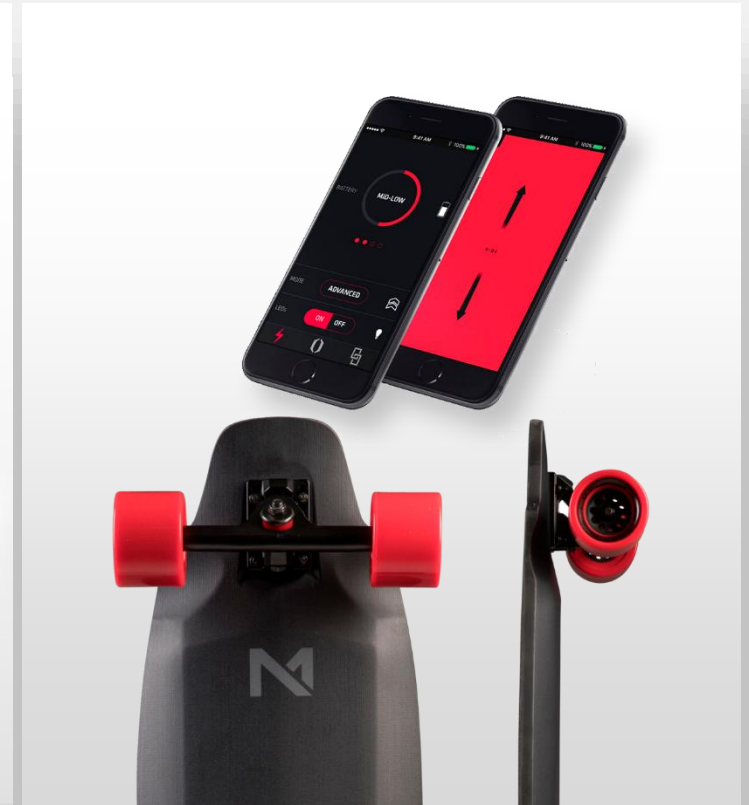
# Connected Hardware + Software – Enabling New Applications



Cloud Connection | Large Data Sets



AI | Predictive Analytics | Visualizations



Alerts | Functions | Management

# Connected Hardware + Software – Transforming Industries

\$10T

Economic Impact

\$1T

IoT Revenue

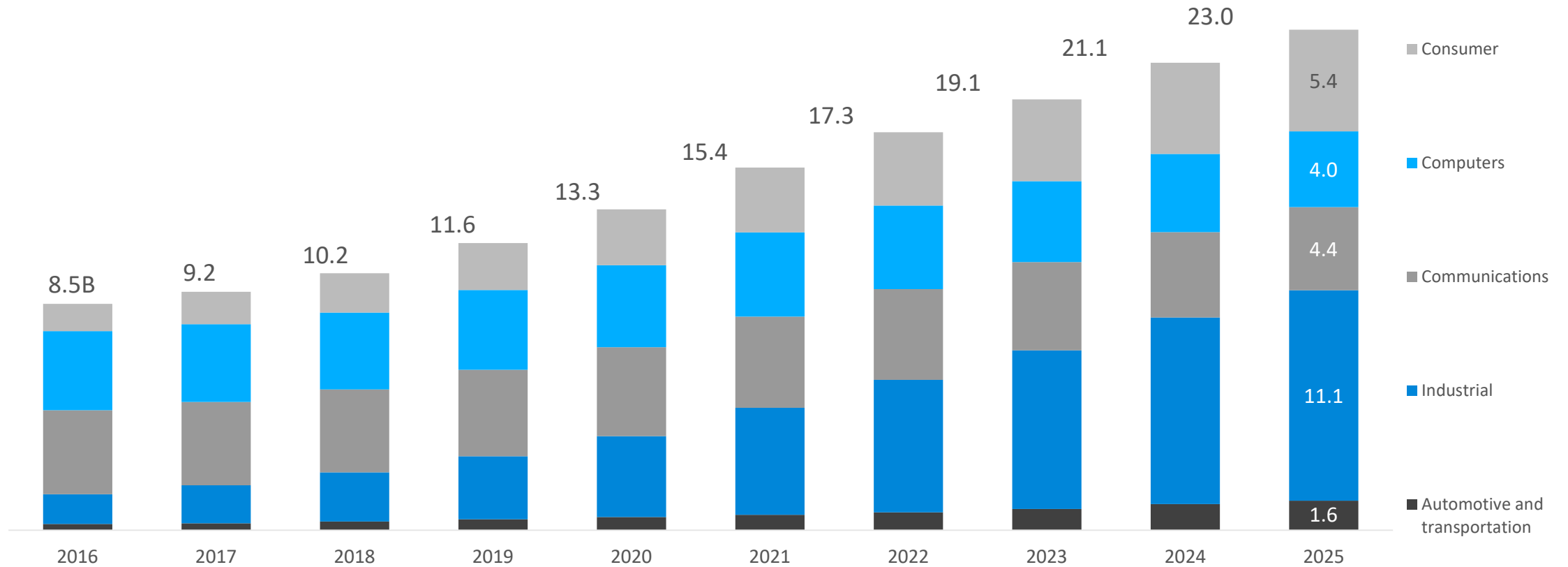
\$100B

Silicon, Software and Solutions TAM

Source: Silicon Labs estimates for 2025

# Fueling the Growth of Connected Devices

Global Internet Connectable Device Shipments  
In Billions per Year



Source: IHS Markit Q2 2018 Report

# IoT Creates New Business Models



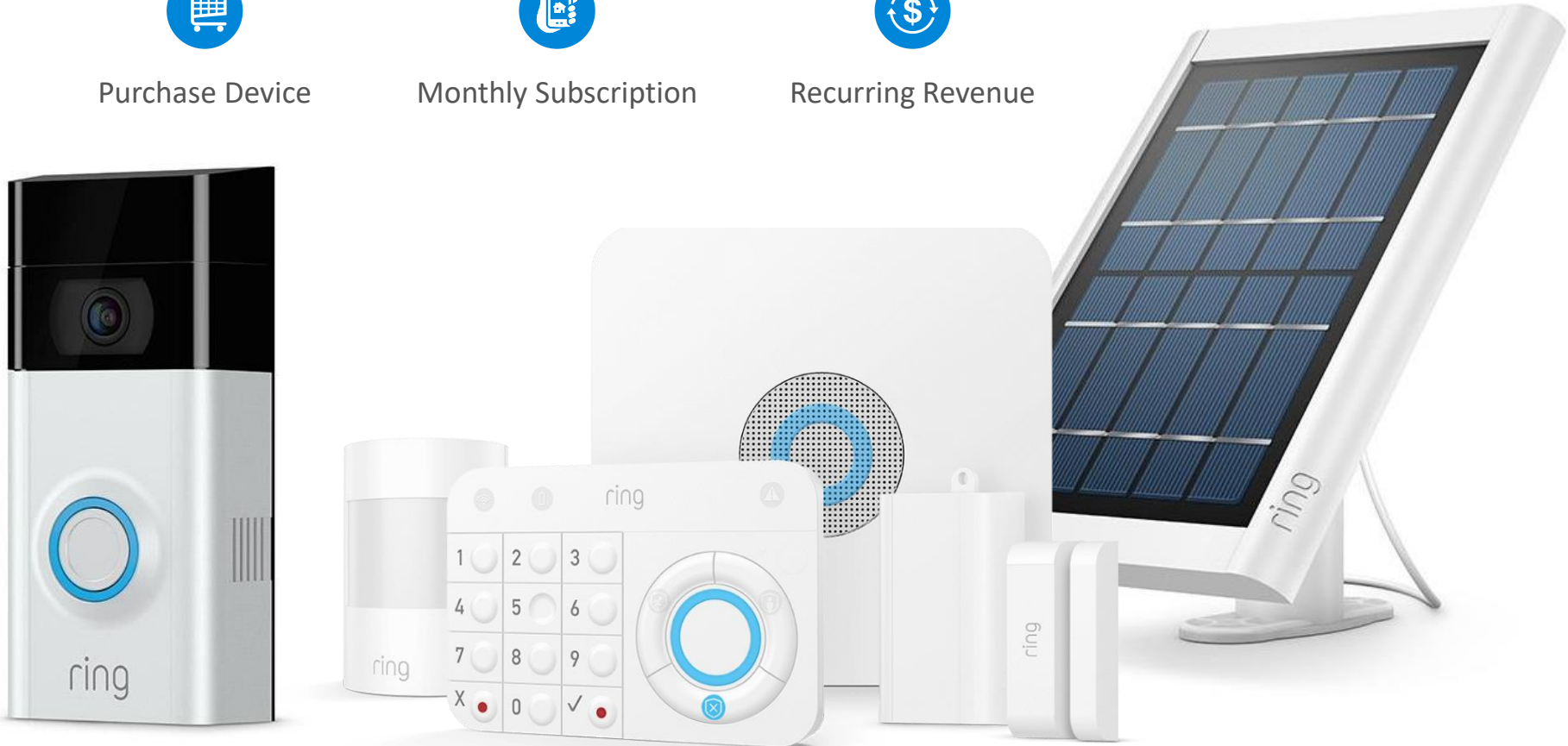
Purchase Device



Monthly Subscription

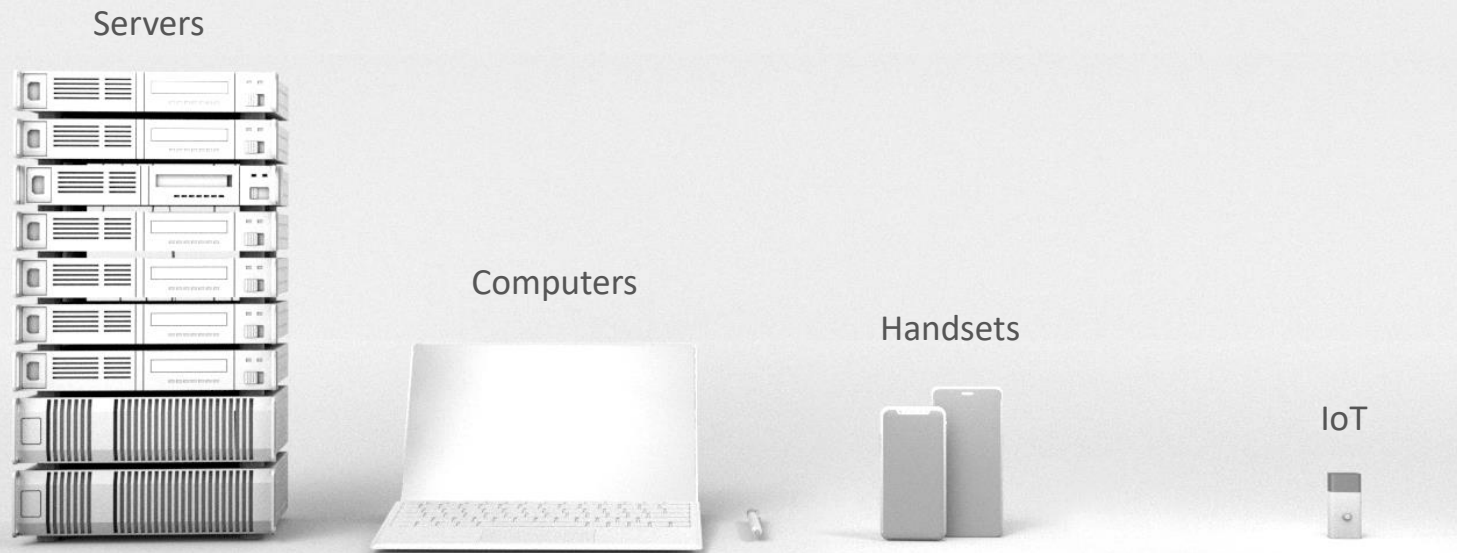


Recurring Revenue



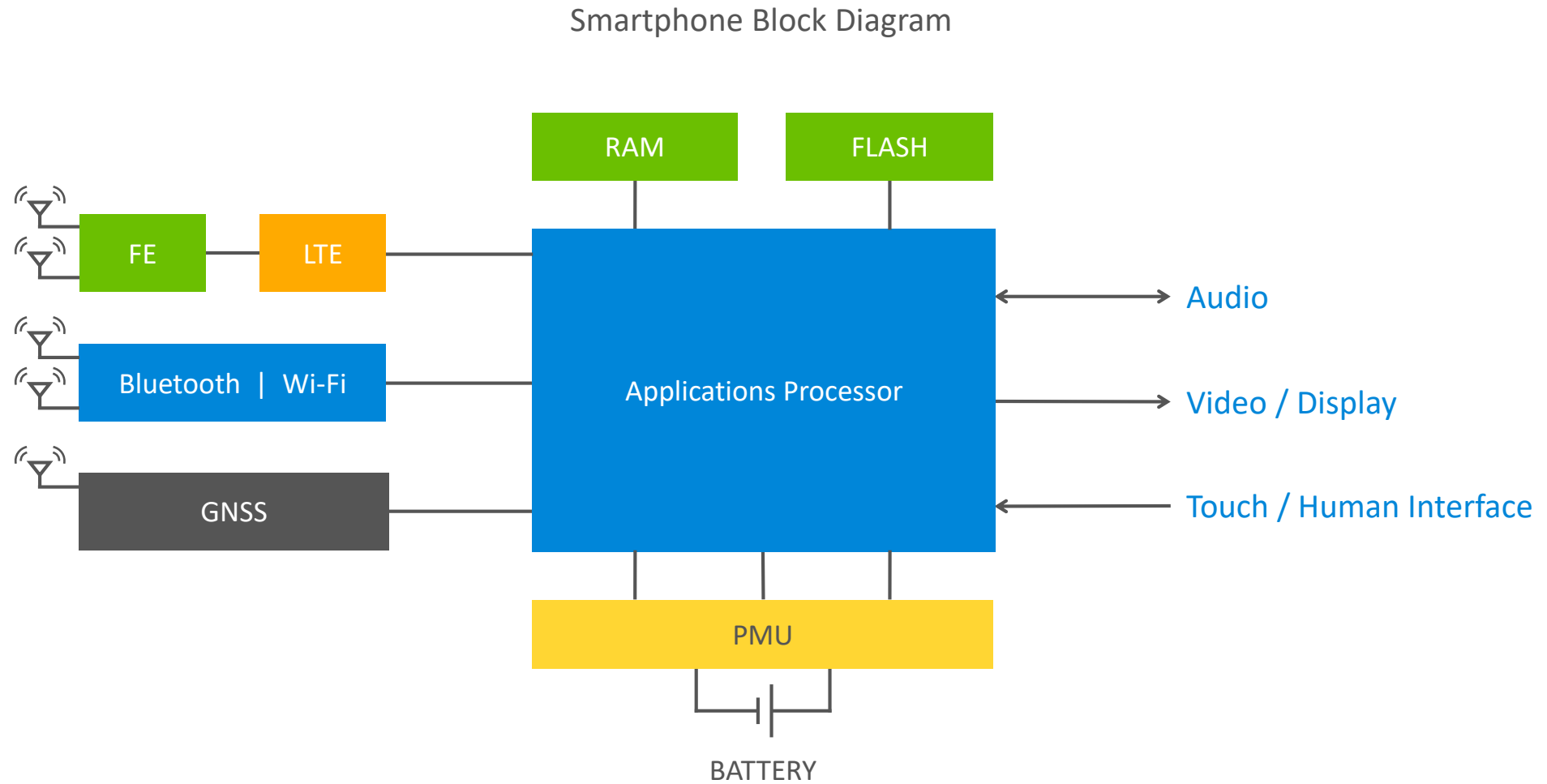


# IoT Applications Have Significant Constraints

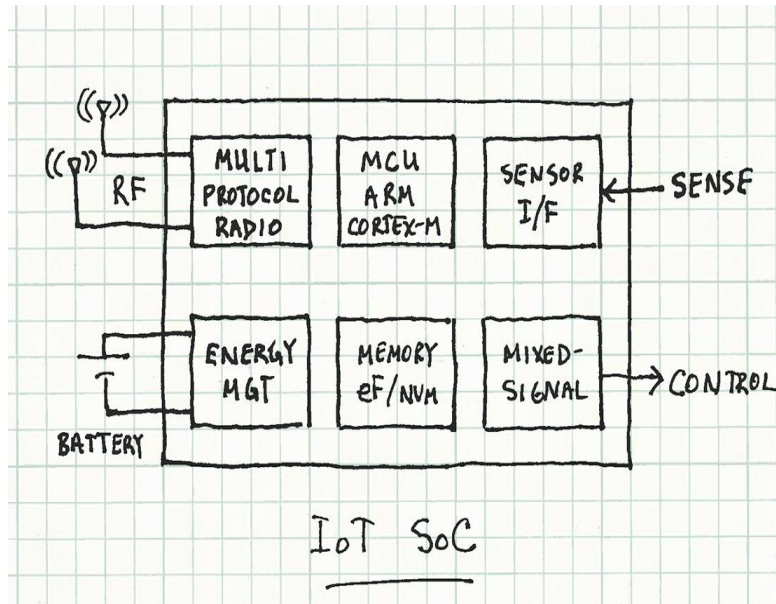


<b>Storage</b>	PB	TB	GB	MB
<b>Power</b>	kW	100 W	10 W	$\mu$ W
<b>Battery Life</b>	AC Powered	100 Wh/1 day	10 Wh/1 day	1 Wh/10 years
<b>Cost</b>	\$10,000	\$1,000	\$100	\$10

# Integrating Wireless Connectivity Is Hard



# IoT SoCs Integrate Wireless Connectivity

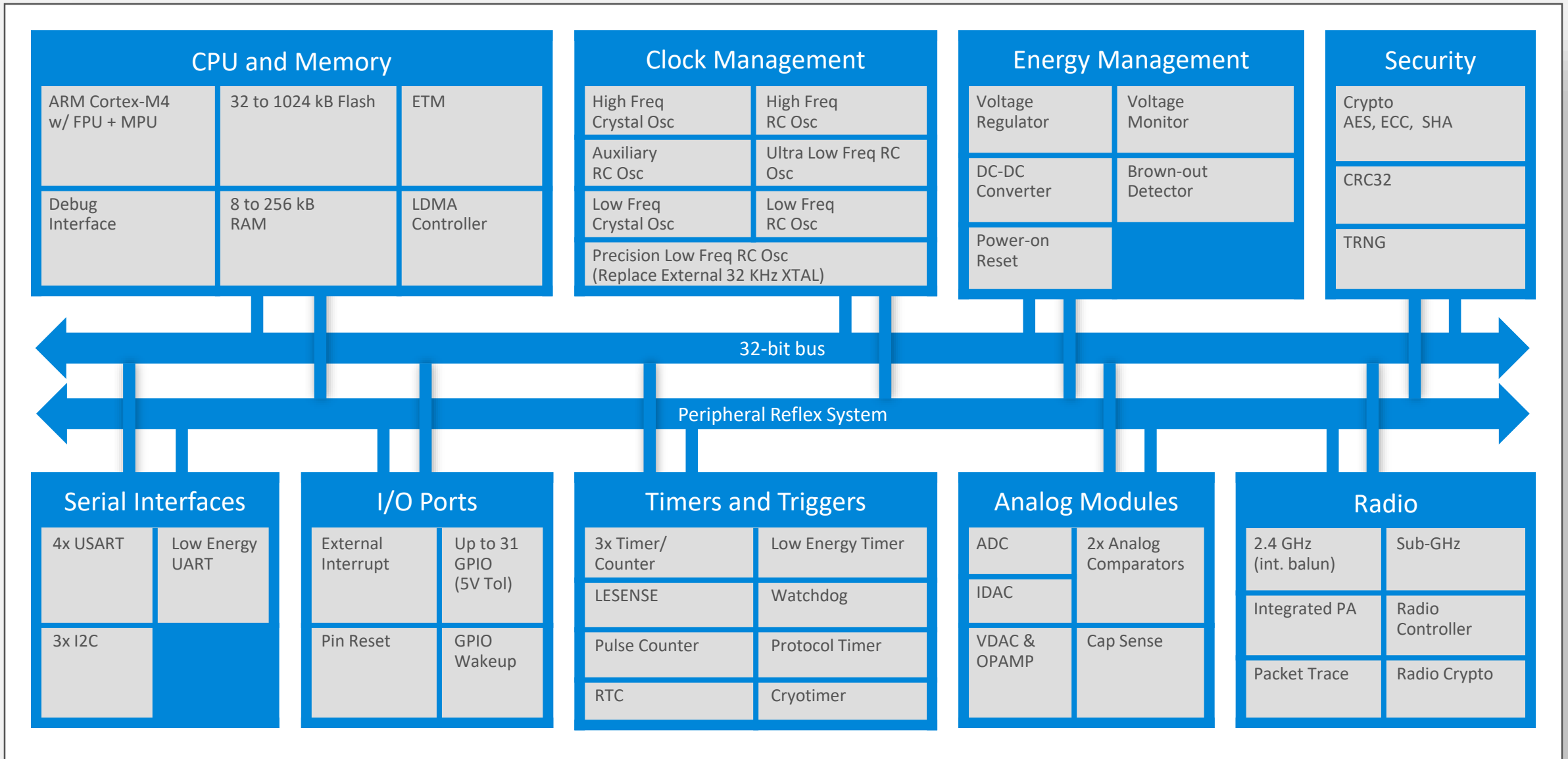


**2014**  
IoT SoC Concept



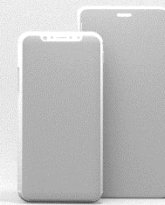
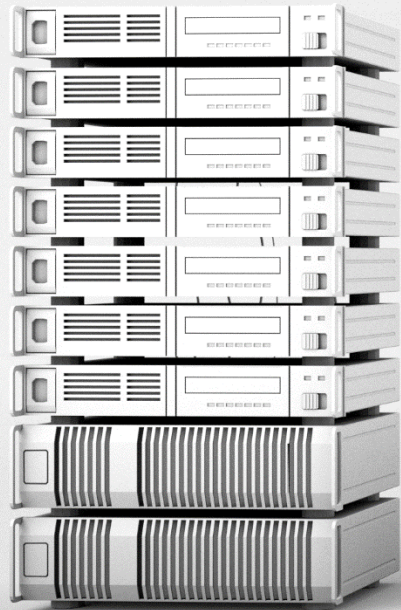
**2018**  
EFR32xG1x SoC Portfolio

# IoT SoCs Integrate Wireless Connectivity



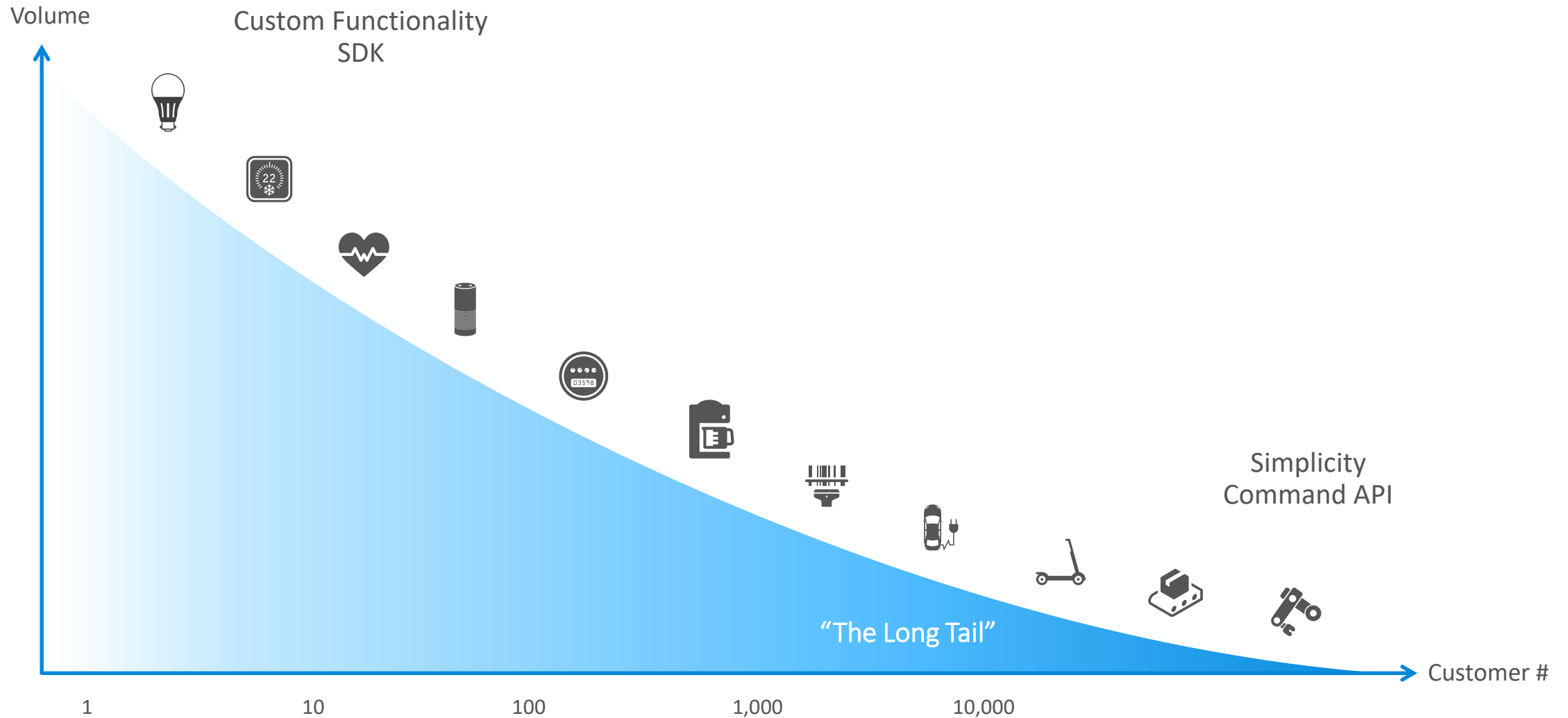


# The Best Software Will Decide the IoT's Future

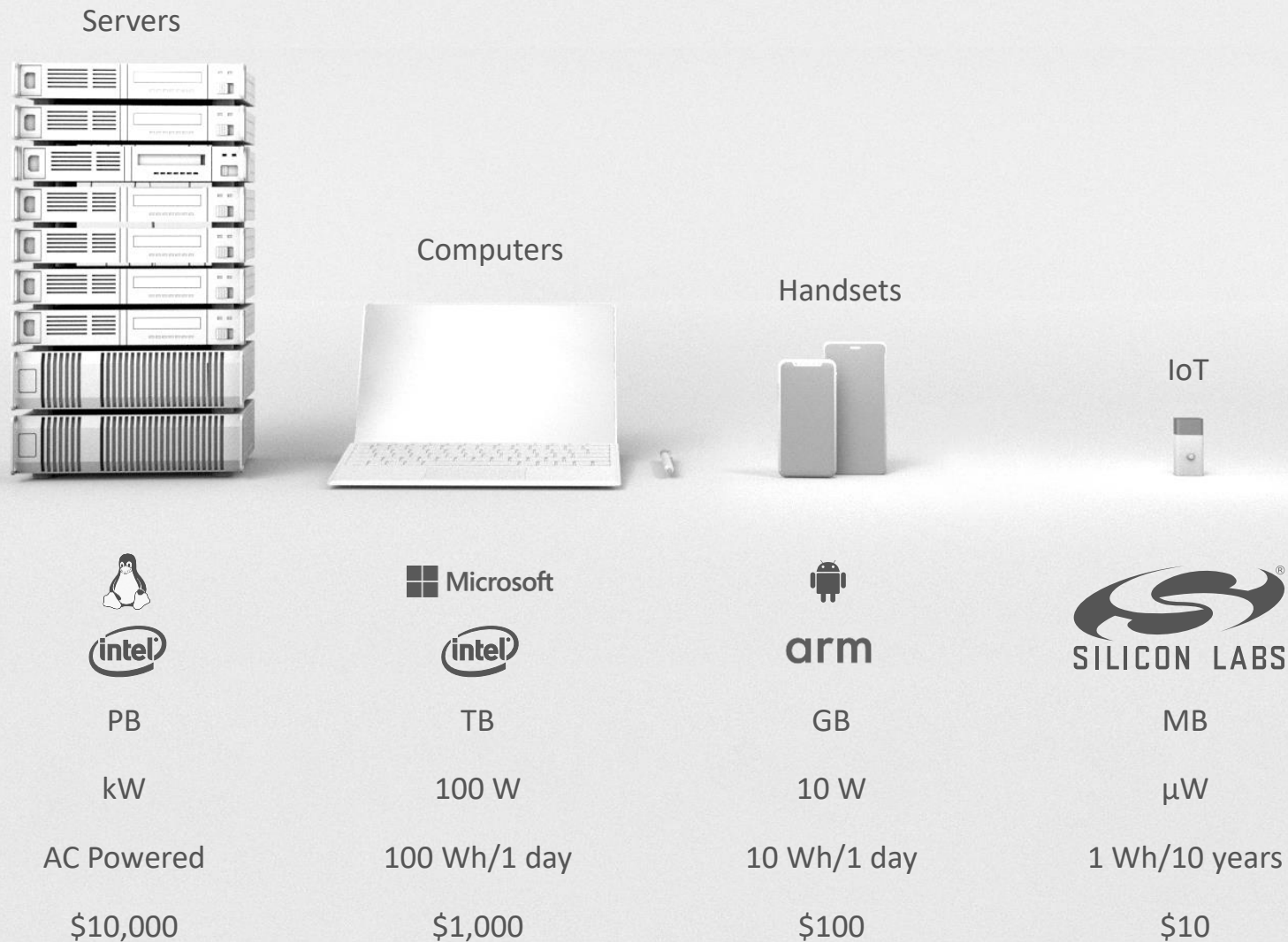


Qualcomm android

# Models for IoT Software Development

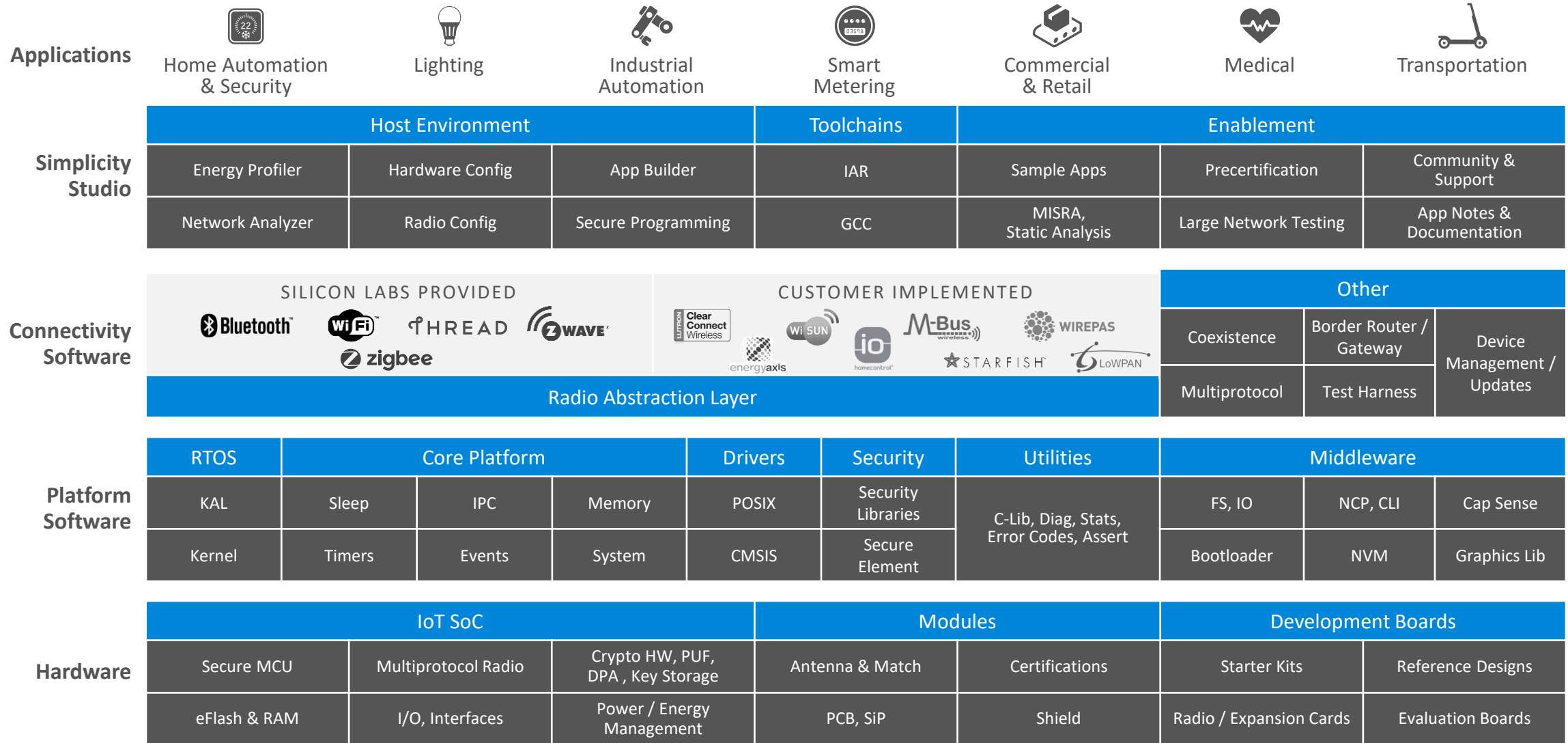


# IoT Requires Integrated Hardware + Software



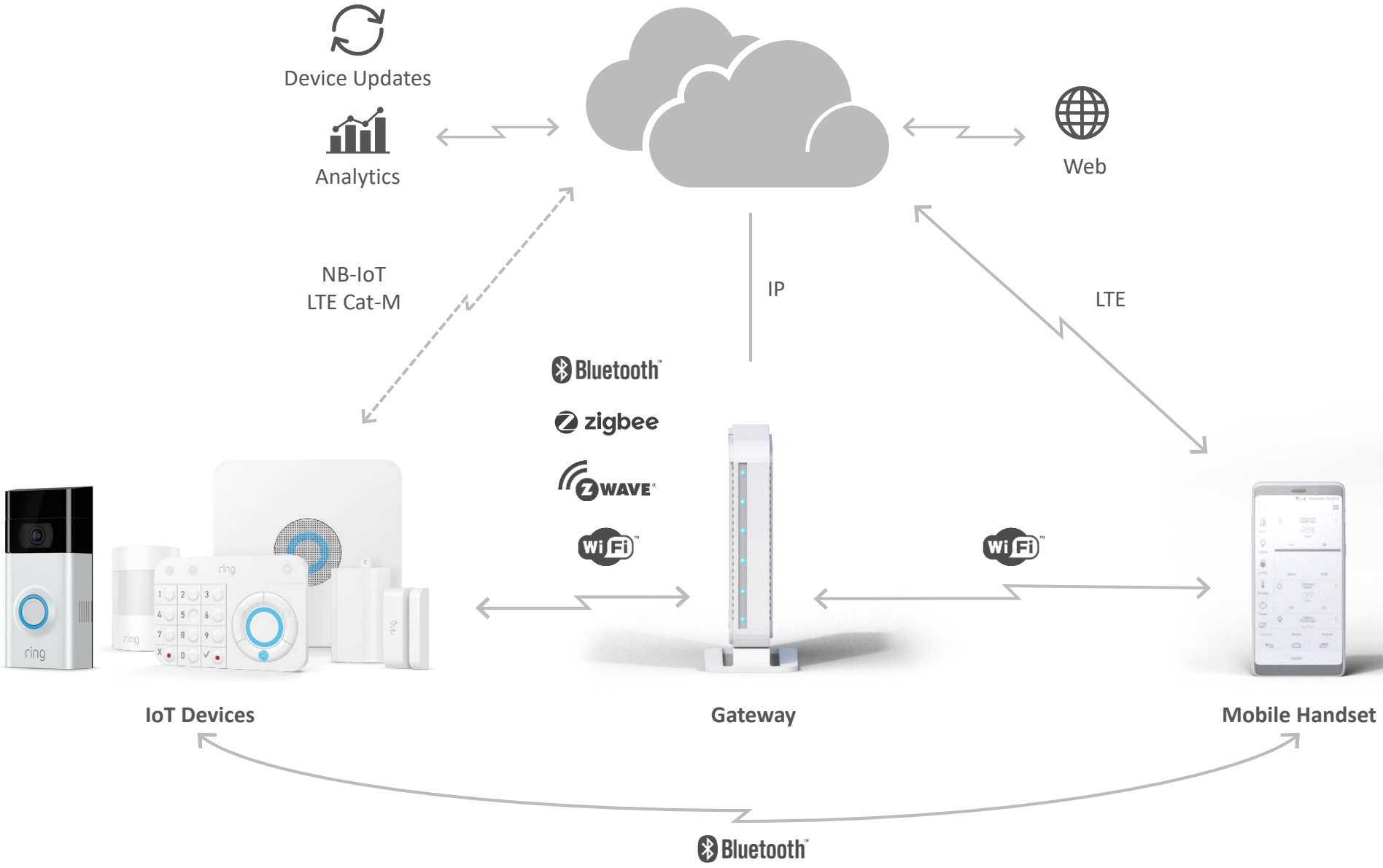


# Integrated Gecko Hardware + Software Platform





# Connected Hardware + Software – Silicon to Cloud





SoftBank



Baidu 百度

amazon.com



COMCAST

Collaborating to Build the IoT

阿里巴巴 Alibaba.com

Tencent 腾讯



中国移动 China Mobile

Google

vodafone

Thank You 谢谢

silabs.com

