- Announced at ARM TechCon 2014
- ARM is expanding their mbed OS so it can be used as a platform for Internet of Things (IoT)
- Free release to stimulate Cortex-M sales / kick-start IoT

ARM mbed™

IoT Device Platform

mbed Device Server
- Free for development
- Licensable for commercial use
- Application data and device management

mbed Ecosystem
- Partners
- Developers
- Enabled Services
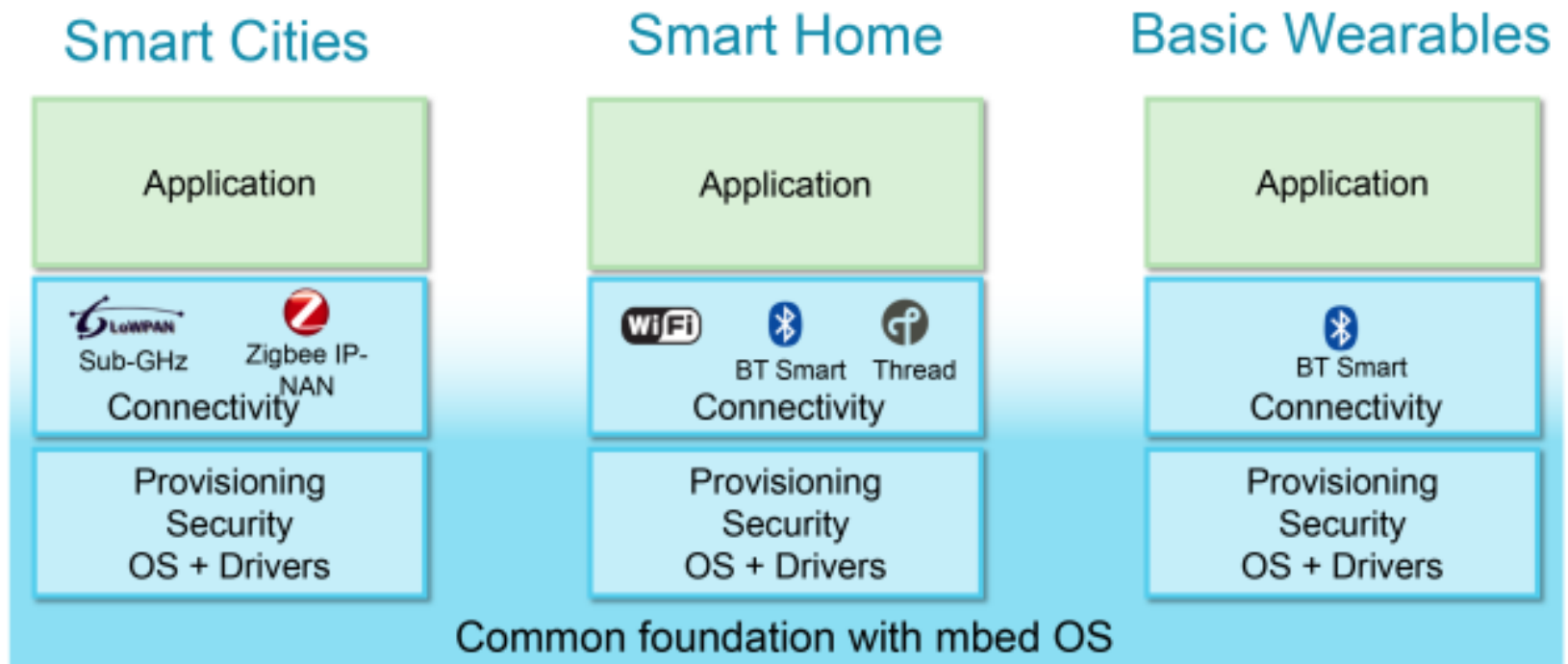- Enabled Products

mbed OS
- Free on ARM architecture
- Energy-efficiency, productivity, connectivity, security
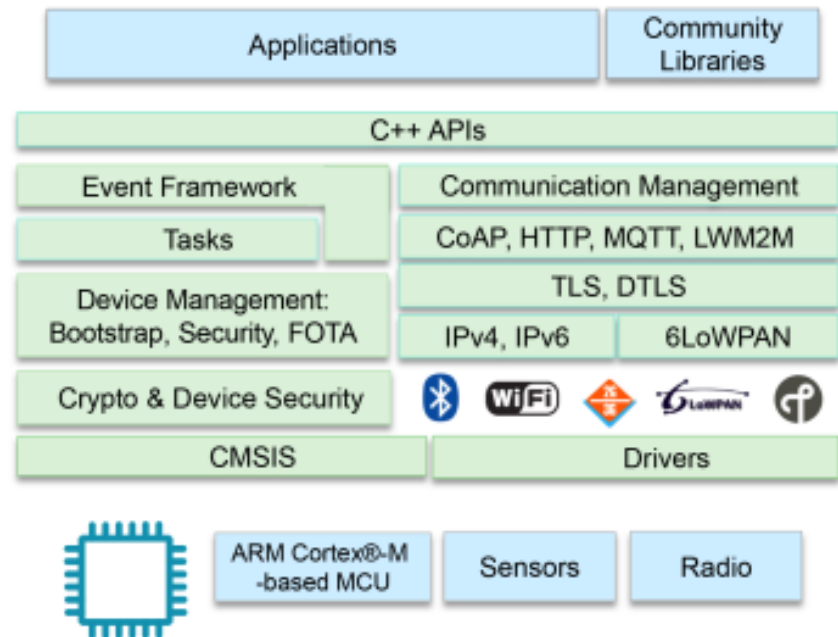
ARM Cortex®-M -based MCU

ARM

- RESTful architecture (Representation state transfer)
  - Client-server separation
  - Stateless
  - Cacheable
  - Layered system
  - Code on demand
  - Uniform interface

Common OS and Connectivity Across Markets

Smart Cities

Application

6LoWPAN
Sub-GHz

Zigbee IP-
NAN

Connectivity

Provisioning
Security
OS + Drivers

Smart Home

Application

WiFi

BT Smart   Thread

Connectivity

Provisioning
Security
OS + Drivers

Basic Wearables

Application

BT Smart

Connectivity

Provisioning
Security
OS + Drivers

Common foundation with mbed OS

ARM

- mbed OS still under development
- full release in late 2015

mbed OS Roadmap 2015

Minimize time-to-market

Low-power by design

Complete security solution

Top connectivity standards

Built-in device management

Applications | Community Libraries

C++ APIs

Event Framework | Communication Management
Tasks | CoAP, HTTP, MQTT, LWM2M
Device Management: Bootstrap, Security, FOTA | TLS, DTLS
| IPv4, IPv6 | 6LoWPAN
Crypto & Device Security
CMSIS | Drivers

ARM Cortex®-M -based MCU | Sensors | Radio

ARM

- Device server software to bridge mbed OS device interaction with web services

- Based on open standards

- Requires integration with cloud server

- Commercial License Required