Standalone Solution (SDK)

# Getting Started

Hostless or Standalone solution is one of the solution architectures offered by InnoPhase IoT. In this case, there is no external host involved and the application runs on the internal MCU of the Talaria TWO.

This solution is available as part of the SDK release package. For example: sdk\_x.y.zip.

Note: x and y in sdk\_x.y refers to the SDK version of the release package.

The standalone solution is beneficial for development of integrated applications on Talaria TWO with InnoOS RTOS, lwIP network stack and GCC compiler-based SDK. It helps enable applications, networking and wireless (BLE/Wi-Fi) functionality on Talaria TWO.

# Key Features

1. Ultra-low power 2.4GHz 802.11 b/g/n Wi-Fi connectivity
2. Support for WPA2 (Personal & Enterprise) and WPA3
3. DTIM10 at 57uA enables Wi-Fi connected battery-based applications
4. Full stack including MQTT, mbedTLS for supporting IoT Direct-to-Cloud for a variety of cloud services (AWS, Azure, Google Cloud, IBM Watson, etc.)
5. BLE5.0 w/ Advanced Features LE Coding/FEC (Long-Range), 2M PHY, Extended Advertising
6. Supports Wi-Fi Provisioning over BLE and local device management, plus BLE to Wi-Fi bridging
7. Bluetooth GATT/GAP Profile support, and HCI interface option for host MCU-based BLE profile stacks
8. Advanced security features including Secure Boot, PUF (Physically Unclonable Function) and hardware Crypto Engines
9. Embedded 80MHz Arm Cortex-M3 w/ 512KB SRAM and 2MB Flash
10. Eleven (11) configurable GPIO plus Tx Console port (on GPIO17)
11. Dedicated ADC Input pin
12. Integrated clocks and power management – only a single 3.3V supply needed
13. PCB antenna, U.FL antenna connector, RF Pin, and ceramic antenna options