Ideas for IoT Mini App Standardization

Background

In IoT kingdom,
We need More than Mini App!

Apps is Backward

- Development cost
- Upgrade cost
- Operation cost

Cost is High

- C, C++, ASM
- Cloud &Device split
- Lack of app ecology

- HW difference is huge
- Scenarios difference is huge

Difference is Huge
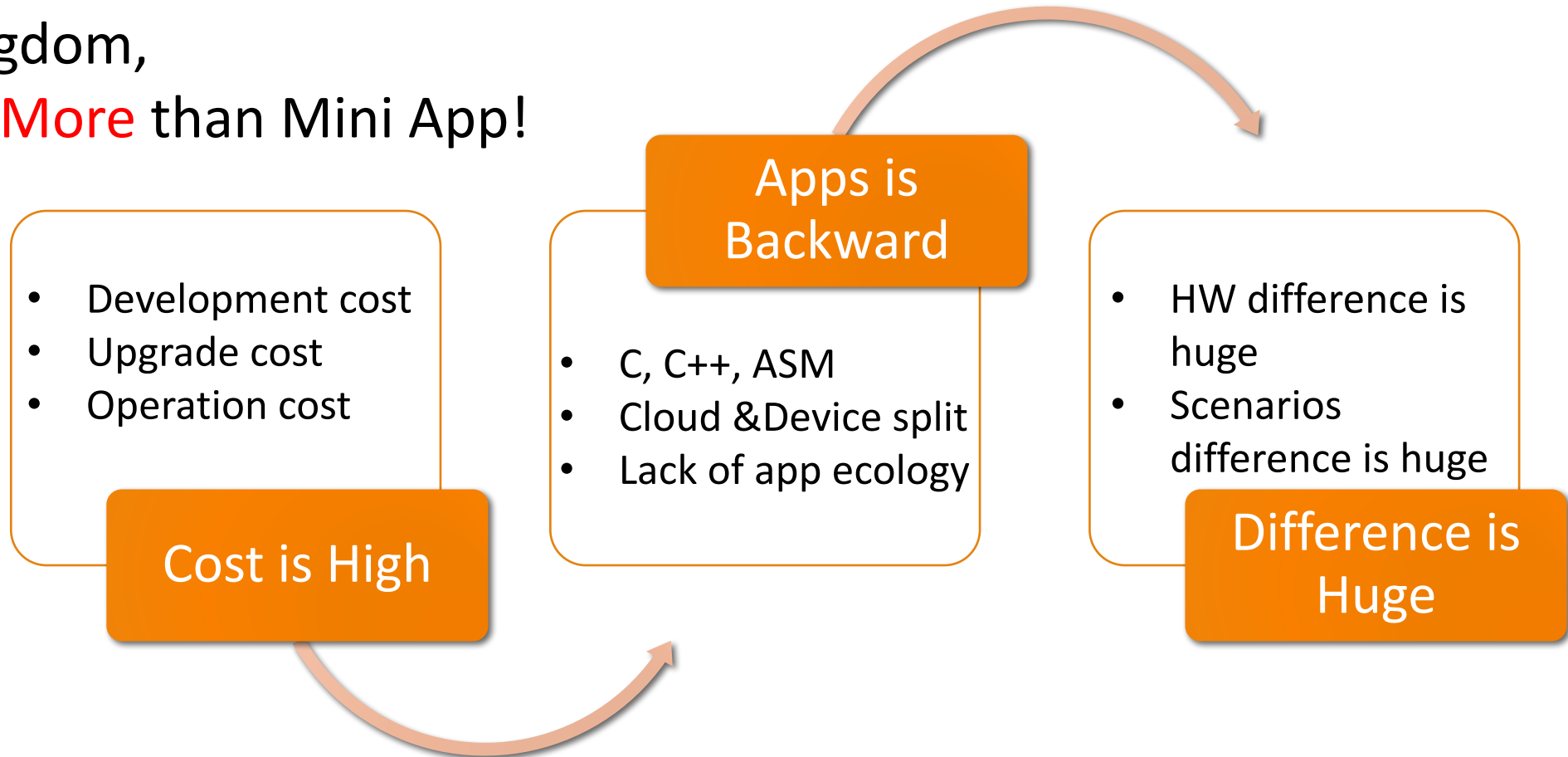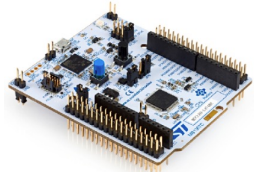
What is IoT Mini App

- Reuse Most of Mini App Standardization

- Extend special component and JSAPI for IoT

- Cut unnecessary JSAPI on IoT Mini App

- Support Local render mode & web render mode

- Not depends on Native APP

Typical scenarios of IoT MiniApp
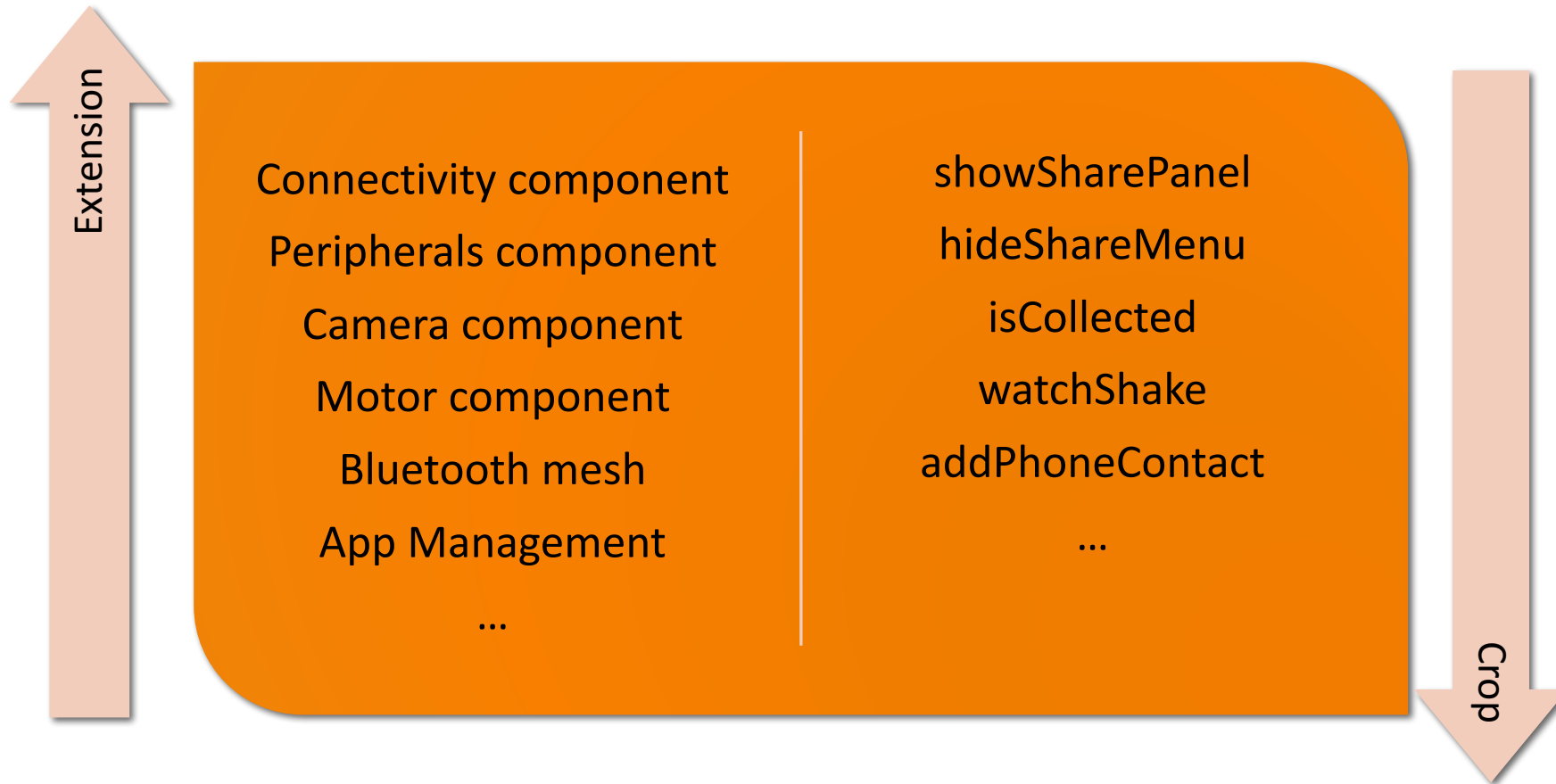
Embedded Module

To B

To C

Extension & Crop

What should be standardized

1. **Connectivity component**

Requirement：Make IoT Mini App developers do not care communication protocols details

Define:

Supported protocols: UDP/TCP/HTTP/MQTT

What should be standardized

2. Peripherals component

Requirement：Provide developers the way to control on-chip peripherals without write c/asm code

Define:

Peripherals component include
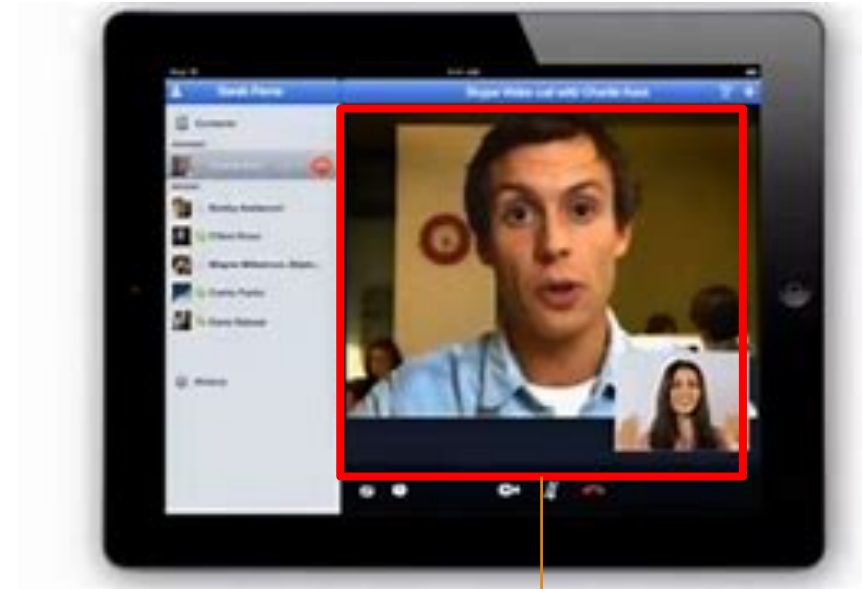UART/GPIO/I2C/SPI/ADC/DAC/PWM/TIMER/RTC/WDG

What should be standardized

3. Camera component

Requirement：Camera will be used as facing tracking, Video Calls, etc. Provide this component to avoid developers to deal with camera buffer, encode and decode.

Camera component

Define:

Camera component include properties/control events

What should be standardized

4. Motor Component

Requirement： Exposing low-level motor control event to IoT Mini App to make motor perform well enough.

Define:

Motor Component include Stepper/ Servo

What should be standardized

5. Bluetooth Mesh

Requirement：Make developer to use bluetooth mesh uniformly.

Define:

Bluetooth Mesh JSAPIs

Specify the standard process of provision/status submit

What should be standardized

6. App Management

Requirement： Make developers to manage app pacakge storage and app switch action on Device by themselves.

Define:

App Management JSAPIs InstallApp/UninstallApp/startApp/startPage

Thank You!