ABUP 艾拉比

RA Ecosystem Partner Solution
ABUP OpenFOTA OTA Solution for IoT
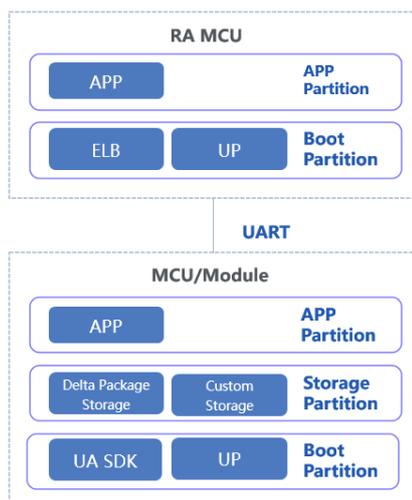
Solution Summary

OpenFOTA is ABUP's OTA delta solution for RA MCUs brings together experience from serving many IoT applications. It aims to upgrade the MCU memory with the help of the delta upgrade capability of modules and Flash resources, so that the main control program can achieve OTA function more easily and conveniently. OpenFOTA provides an integrated solution to the OTA upgrade of the whole system. It can upgrade not only modules but also main controls.

Features/Benefits

- More efficient delta algorithm: Reduce download and program, reduce power consumption; High security, short interruption;
- Maximize the resource utilization: Make full use of the memory resources;
- High reliable protection mechanism: Provide mechanisms such as failback and security authentication☐ Support rollback without consuming MCU resources;
- Codeless OTA capability: No need to develop, can use after program;
- Multiple OTA Scenarios: Support multi-mode OTA delta upgrade, such as NB-IoT plus Infrared.

Diagrams/Graphics

Boot Partition: An area in the Flash of an MCU or module where the Bootloader can be burned;

App Partition: An area in the Flash of an MCU or module where the Application program can be burned;

Storage Partition: An area in the module Flash where MCU upgrade package, module upgrade package, business data or other data can be stored. Users can customize the area according to requirements;

UP(Upgrade Protocol):Upgrade protocol program provided by ABUP is responsible for data and business interaction between different nodes within the OTA system;

ELB(External Lite Bootloader): ABUP released a lightweight bootloader program. It can boot the system up and support communication with the built-in modules, reading and brushing data.

Target Markets and Applications

- Smart Home
- M2M
- Smart Wearing
- Smart Metering
- Shared Devices
- Surveillance