1. Abstract

Lightweight M2M (LWM2M) is an Open Mobile Alliance (OMA) standard that provides a fast deployable client-server specification to provide machine to machine services. It provides efficient device management as well as security workflow for CoAP applications using the same protocol, making it suitable for use in Internet of Things. In this poster we explore the LWM2M client-side implementation framework carried out over Contiki-based IoT nodes. It includes automatic device registration, deregistration, registration update, factory bootstrapping and firmware update functionalities. It provides resource management through interfaces such as READ, WRITE, OBSERVE and NOTIFY. Our implementation is compliant to OMA LWM2M v1.0 specification, supports OMA mandatory objects, IPSO objects as well as 3rd party objects and enables low memory-footprint implementation.

2. Device Management in IoT

3. LWM2M Architecture

4. LWM2M communication interfaces

5. Lightweight DTLS

6. LWM2M Implementation

7. Application Scenario

References

2. OMA LWM2M technical specification v1.0.
3. LWM2M for IoT – Opportunities and challenges, Embien – Technology Blog