oneM2M Partnership Project

Founded in 2012 after 3 years of separate work within the partners

Over 200 member organizations actively involved in oneM2M

40+ Specifications publicly available on www.onem2m.org
Open source and commercial implementations available from 30+ companies

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oneM2M Partnership Project

Some of the 200+ active members of oneM2M

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Purpose
To specify a standard for a Common M2M Service Layer

Value #1
Provides the common IoT functions to applications so that they can focus on their own application logic

Value #2
Bridges systems from different vertical industries (lighting, energy, security, fleet, environment...) while allowing each system to use its own semantic

Value #3
Works with any communication technology (Cellular, xDSL, Satellite, Wifi, Bluetooth, ZigBee...)

Value #4
Hides the network complexity from the applications while using these networks in the best way

Value #5
Interworks with virtually every other IoT technology thanks to its interworking framework
oneM2M Interworking

Guidelines

OASIS
MQTT

OMA
OMADM LWM2M

IETF
HTTP CoAP TLS DTLS

active collaborations

interworks with

Open Interconnect Consortium

homekit

interworks with

Allseen Alliance

interworks with

Thread

Protocols

Full platforms

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oneM2M Interworking

Example implementation by KETI

AllJoyn

Google Nest

oneM2M Service Entity (MN-CSE)

oneM2M Interworking Proxy (for AllJoyn)

oneM2M Interworking Proxy (for Nest)

Powertech Smart Plug

Dawon DNS Smart Plug

AllJoyn

Pebble

Nest

onePass App

onePass App

onePass App

onePass App

Jawbone U24

Philips Hue

oneM2M Service Entity (IN-CSE)

oneM2M Interworking Proxy (for Jawbone)

oneM2M Interworking Proxy (for Hue)

UP

Jawbone

Hue

ONEM2M LIGHT

ALLJOYIN PLUG

ONEM2M FAN

ONEM2M DICE

ONEM2M DOOR

ALLJOYIN LIFX

ConnecThing Client

ConnecThing App

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oneM2M Interworking
Why Lighting

• At the center of services convergence in the city

• Light pole can serve multiple purpose as seen in early trials and test beds
  – Wifi broadcast, gun detection, air pollution sensors, audio broadcast, public safety alerts etc

• Multiple networks can be available be it mesh zigbee, wifi or cellular point to point.

→ OneM2M can ease integration of those services and optimize smart cities deployments (efficient use of networks, abstraction, etc)

→ Lighting use case defined in onem2m already as part of public services, test beds done as well
Smart City in Action

- Enable scalable Smart City platform to support multiple vendor, protocol and industry standards
- Uniform service layer across range of applications, semantic abstraction, interoperability
- Ease of integration

Smart City Platform

Control Vendor 1
Platform 1

Control Vendor 2
Platform 2

Video Platform 1

Water management platform

On2M2M
service layer & Semantics Abstraction

Lighting App

Lighting App 2

Video App

Water Mgt App

- Big Data & Analytics
- Storage
- Application Mash Up & data reusability (semantics)

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Why Open Standards Matter

• Improved **Functionality – Cost – Quality** tradeoffs

• Enable integrated services **across** domains

• Ensure **Scalability** of your systems and avoid the niche trap

• Add **Flexibility** by not locking yourself to proprietary technologies

• More **partnering choices and opportunities** for M2M/IOT industry stakeholders

• Enhanced **experience** through security, interoperability, device management and interaction with underlying networks