

An Introduction

Group Name: - New Participants / Informational Session

Source: oneM2M MARCOM - Richard Brennan MARCOM Chair

Date: 2014-07-28

Meeting: oneM2M Technical Plenary 12 - Sophia-Antipolis FR



Market Situation

Exhibit 4

Map of potential Internet of Things development

Analytics intensive / high level of intelligence

IoT takes several years to take off

Some companies adopt customised solutions and measure key variables accurately. The IoT helps them make some key decisions, although implementation remains costly, with no scale effect. Adoption in only a few sectors.

Low level of standardisation

IoT takes a decade to take off

Some companies adopt customised solutions and can more accurately measure key variables, but without improvement in cost-saving decisions. Adoption in only a few sectors because of high implementation cost.

IoT is a success and makes an impact on global GDP

High level of standardisation helps penetration in multiple sectors, and the increasing use of analytics leads to significant cost savings in multiple industries. Cross-pollenization of algorithms across sectors is a multiplier effect.

Standardisation / lower costs

High level of

standardisation

IoT takes several years to take off

Sensors are implemented in various devices but companies fail to turn data from sensors into useful decision-making. Reporting is improved across several sectors at a relatively low cost.

Low tech -- only sensors and hardware



Mission

oneM2M is working to unify the Global M2M Community, by enabling the federation and interoperability of M2M systems, across multiple networks and topologies.



Introduction

- On July 24, 2012 seven of the world's leading ICT Standards Development Organizations (SDOs) launched a new global organisation: the oneM2M Partnership Project: http://www.oneM2M.org to:
 - cooperate in the production of globally applicable, accessindependent M2M Service Layer specifications, including Technical Specifications and Technical Reports related to M2M Solutions and
 - ensure the most efficient deployment of machine to machine (M2M) communications systems



Global Partners





























Participation

- Levels of participation:
 - Partner Type 1
 - Members (companies / organizations)
 participate <u>directly</u> in Technical work
 - Partner Type 2
 - Contribute on behalf of their members for Technical work
 - Associate Member
 - Regulatory / Governmental

Join: http://www.onem2m.org/join.cfm

Docs: http://www.onem2m.org/library/index.cfm

News: http://www.onem2m.org/subscribe.cfm



Scope & Objectives

- To develop: Global M2M end-to-end specifications using common use cases and architecture principles across multiple
 M2M applications to connect M2M devices with application servers
 worldwide with an access independent view of end-to-end services
- To define: Service Layer platform with high level / detailed service architecture including:
 - Protocols/APIs/standard objects (open interfaces & protocols)
 - Interoperability, test and conformance specifications
 - Common use cases, terminal/module aspects
 - Service Layer interfaces/APIs between:
 - Application and Service Layers
 - Service Layer and communication functions
 - Security and privacy aspects
 - authentication, encryption, integrity verification



M2M Service Layer

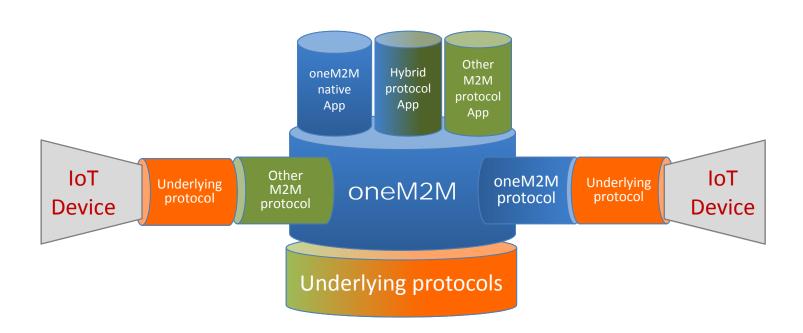
Middleware - supporting secure end-to-end data/control exchange between M2M devices and customer applications by providing functions for remote provisioning & activation, authentication, encryption, connectivity setup, buffering, synchronization, aggregation and device management

- software layer
- sits between M2M applications and communication elements that provides data transport
- normally rides on top of IP
- provides commonly needed functions for M2M applications across different industry segments



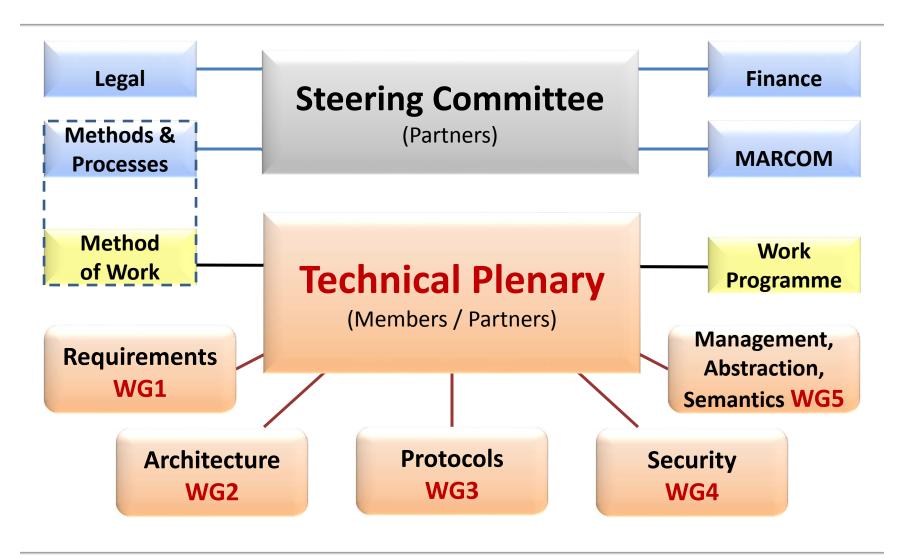
Vision:

Interconnecting the Internet of Things; Connecting the Un-connected











Steering Committee

- SC Participation:
 - One member designated by each partner
 - Chair and Vice Chairs of the Technical Plenary
- SC Leadership: Elected 24 July 2014
 - SC Chair: Fran O'Brian Cisco (TIA)
 - SC Vice Chair: Thomas Li Huawei (CCSA)
 - SC Vice Chair: Puneet Jain Intel (ATIS)
 - SC Vice Chair: Enrico Scarrone, Telecom Italia (ETSI)



Steering Committee

Key Steering Committee responsibilities:

- Developing, approving, and maintaining the oneM2M purpose and scope and oneM2M Working Procedures;
- Approving applications from organizations wishing to join oneM2M as new Partners;
- Managing the oneM2M Secretariat;
- Handling appeals from Partners and Members on procedural matters; and
- Approving liaison relationships
- Overseeing subcommittees: Finance committee, Legal Group, MarCom, and Methods and Procedures



FRAND

Fair, Reasonable, and Non-Discriminatory

- All the Partners Type 1 of oneM2M have IPR policies that support a FRAND IPR regime. The IPR policies of each of the Partners Type 1 of oneM2M also recognize the importance of respecting the rights of owners of essential/potentially essential IPRs. Thus, the IPR policies seek to balance such rights with the ability of implementers to access essential IPRs under Fair, Reasonable and Non-Discriminatory (FRAND) terms and conditions.
- Each **oneM2M Member** is required to comply with the disclosure obligations of that admitting Partner's IPR policies, procedures and guidelines with respect to IPRs that are or may be essential to Technical Specifications and/or Technical Reports developed in oneM2M. If a Member engages in oneM2M activities through more than one Partner, then the Member shall be required to comply with the IPR policies, procedures and guidelines of all Partners which have admitted such a Member.



Consensus

 General agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interest and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments.

(Note: consensus need not imply unanimity).



TP/WG Work Areas

- WG1 Requirements
 - Input accepted on more than 100 service requirements
- WG2 Architecture
 - Service-layer architectural options
- WG3 Protocols
 - Protocols for service layer, and interoperability
- WG4 Security
 - Ensuring Security and Privacy aspects are considered
- WG5 Management, Abstraction, & Semantics
 - Providing device management; Working on semantic library



TP/WG Work Program

Work Items

- Proposed to TP (Technical Plenary
 Scope / Rapporteur / 4 Supporting Companies
- Defines one or more deliverables

Deliverable

 Intended to be made available for distribution beyond the membership of the Technical Plenary, such as to the Partners Type 1.

A deliverable may be one of:

TR (Technical Report) or TS (Technical Specification)

Release

 A set of ratified Deliverables that are technically consistent at the time of the freeze of the Release.



TP/WG Working Process

- Meeting Notice / Invitation (Regular or ad-hoc)
- Agenda
- Contributions
- Discussion as/required
- Revisions as/required
- Agreement (or noted, withdrawn etc...)
- Added to draft deliverable (by Rapporteur)
- Approval of final Draft



Partner Publication Process

- oneM2M TP (Technical Plenary) <u>Ratification</u> of WG-Approved Deliverable
- Deliverable is made available to oneM2M
 Partner Type 1 for their Publication on a Regional basis
- Partners choose to publish according to their individual process and timing



References

oneM2M Web: http://www.onem2m.org

oneM2M Portal: http://member.onem2m.org

Steering Committee: http://www.onem2m.org/schome.cfm

Technical Plenary: http://www.onem2m.org/tphome.cfm

WG1:REQ WG2:ARC WG3:PRO WG4:SEC WG5:MAS

Document templates:

http://member.onem2m.org/Static_pages/Templates/Index.htm

Work Programme:

http://member.onem2m.org/static Pages/others/WPM-pages/Work-Programme.htm

Rules and Procedures: http://member.onem2m.org/website/Procs.aspx



www.oneM2M.org