



one M2M



Introducing oneM2M

The global standards initiative for Machine-to-Machine (M2M) Communications and the Internet of Things (IoT).





Why oneM2M?

oneM2M will turn the concepts of smart cities, connected homes and industrial interoperability into a reality. It will create the global framework needed to make it easier, cheaper and more reasonable for implementation and adoption of the IoT and will accelerate the connected world of tomorrow, setting the stage for success.

The benefits of oneM2M

Financially, there is a strong case for producing global specifications, as the IoT offers unprecedented business opportunities for new devices and services. If these opportunities are to be fully utilised, however, common global standards are necessary to reduce complexity, facilitate the roll-out of new devices and services, and provide economies of scale.

oneM2M helps:

- Boost economies of scale and shorten time-to-market for IoT products and services
- Reduce market fragmentation
- Simplify developments of IoT applications and the integration of services
- Leverage network interoperability for enhanced reach of services and expanded business opportunities
- Enhance IoT security and reliability
- Reduce standardisation overlap across vertical market segments

What is oneM2M?

oneM2M is the global standards initiative for M2M communications and the IoT. Led by eight of the world's leading ICT standards development organisations with more than 200 member companies, oneM2M provides a necessary framework for interoperability between the many M2M and IoT technologies being introduced.

oneM2M is accelerating the globally agreed-upon, access-independent, end-to-end specifications for an M2M and IoT communications and management system that can be readily embedded within various hardware and software. oneM2M is experiencing major growth and progress towards connecting billions of devices in the field with the worldwide M2M application servers that power the IoT.

oneM2M for cross sector standards

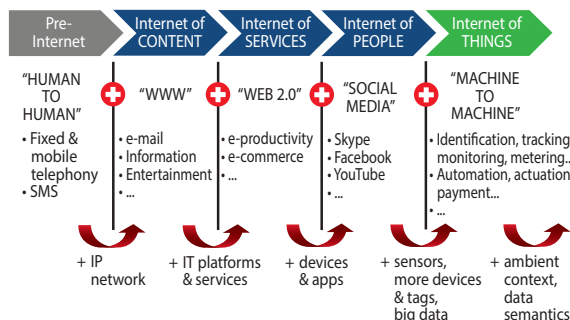
oneM2M's architecture, standards and specifications are designed to be applied to many different industries and take into account the specific needs of each sector, including:

- eHealth and telemedicine
- Enterprise automation
- Transportation
- Energy
- Public services

The evolution of the Internet

We are living in the age of the Internet of People, where the use of social media has grown exponentially following the introduction of new devices and apps. The integration of sensors, tags and big data is ushering in the age of M2M, with identification, tracking, monitoring and automation opening up the IoT. It will all be powered by M2M communications.

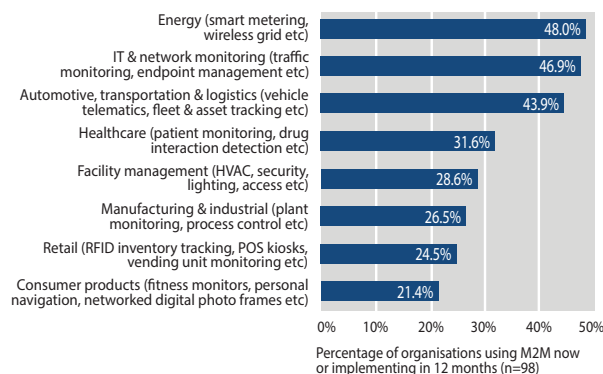
The next step in Internet evolution



Source: TechRepublic & ZDNet, 2013

Already M2M communications are used in numerous fields.

Where is M2M used today?



Source: Alcatel-Lucent

oneM2M specifications

- A common set of service layer capabilities
- An access-independent view of end-to-end services
- Open/standard interfaces, APIs and protocols
- CoAP, HTTP, MQTT and Websockets bindings
- Semantic interoperability
- Security, privacy and charging
- Reachability and discovery of applications
- Interoperability, including test specifications
- Interworking with AllJoyn, OCF and OMA Lightweight M2M technologies
- Identification and naming of devices and applications
- Management using OMA and Broadband Forum Device Management
- Industrial domain enablement
- Home domain enablement
- Data language interoperability
- Dynamic authorisations
- End-to-end security

Complete oneM2M specifications can be found at onem2m.org

The impact of M2M and the IoT

The potential of the IoT is enormous. To illustrate the range of possible applications – using oneM2M's first release of standards – the following are example scenarios:

- Home energy management
- Vehicle-to-home solutions
- Smart city services and multiple service layer platform interworking
- A oneM2M-enriched personal life
- A oneM2M-based healthcare system
- Connected vehicle cloud
- A oneM2M business application across multiple use cases and market segments

The IoT continues to experience exponential growth. According to analysts*, the number of connected devices has grown by 30 percent since 2015 to reach 6.4 billion connected objects in use worldwide in 2016. That number will more than triple to 20.8 billion connected IoT devices by 2020.

*Source: GARTNER, November 10, 2015 Projected IoT growth rate



The IoT is going to be

BIG

(though nobody really knows how big...)

↘ I D C

28.1
BILLION
"UNITS" IN 2010

\$7.1
TRILLION
GLOBAL SOLUTION
REVENUES BY 2020
Source: IDC, May 2014

↘ G A R T N E R

26
BILLION
"UNITS" IN 2010

\$300
BILLION
SERVICE REVENUES
IN 2020

\$1.9 TRILLION
GLOBAL ECONOMIC VALUE IN 2020
Source: Gartner, March 2014

↘ M A C H I N A R E S E A R C H

25
BILLION
M2M CONNECTIONS
BY 2022

OF WHICH
2.6
BILLION
ARE CELLULAR

\$1.2 TRILLION
GLOBAL OPPORTUNITY BY 2022
Source: Machina Research, January 2013

oneM2M is a global initiative created by eight of the world's leading ICT standards bodies:



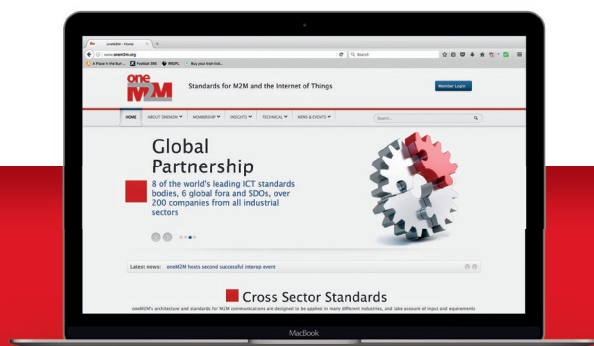
and more than 200 companies from a wide cross-section of related industrial sectors.



oneM2M is open to new members and partners which would like to become part of an important global technology project that will shape the future of the world we live in.

For additional information or to view the current list of oneM2M members, please visit

www.onem2m.org



Membership of oneM2M is open to members of ARIB, ATIS, CCSA, ETSI, TIA, TSDSI, TTA and TTC.

All members of TIA and ECP participants in the TIA TR-50 (M2M - Smart Device Communications) committee are welcome to join oneM2M.

To join oneM2M as a TIA member or TR-50 participant, please contact **Victoria Mitchell** of the oneM2M support team, at **vmitchell@tiaonline.org**.

If you are not already a TIA member, please contact **Ancilla Brady**, Director of Membership, at **abrady@tiaonline.org**.



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