The Global Standards initiative for developing standards to enable **interoperable, secure,** and **simple-to-deploy** services for the IoT ecosystem. oneM2M standards are **open, accessible**, and **internationally recognized**.

oneM2M envisions a world of **Interoperable** *and* **Secure IoT services** *where market adoption is easy and delivers benefits to society*

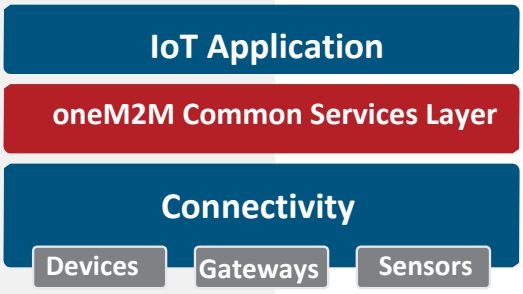
oneM2M was launched in 2012 as a global partnership initiative between eight of the world's preeminent standards development organizations: ARIB (Japan), ATIS (North America), CCSA (China), ETSI (Europe), TIA (U.S.), TSDSI (India), TTA (Korea), and TTC (Japan) to develop technical specifications for distributed M2M/IoT systems.

> oneM2M provides a very solid architectural foundation in terms of interfaces and data structures. It is built for interoperability and is very flexible
> *Andre Dutra, Deutsche Telekom*

oneM2M brings together over 200 organizations from different geographies and business domains to develop a global IoT standard that integrates industry-specific standards and minimizes the duplication of global efforts.

oneM2M Horizontal Architecture

oneM2M defines an architectural framework based on a middleware technology that sits in the horizontal layer between IoT applications and a lower layer of communications networks and connected devices. The middleware layer provides a rich set of functions that developers can use to design, deploy and manage end-to-end IoT systems.



oneM2M Common Service Functions (CSFs)

oneM2M's road map and Release cycle supports the addition of CSFs as new requirements arise. By Release 4, oneM2M's Technical Specifications cover seventeen CSFs. Developers can use these functions progressively for their applications, beginning with the most frequently required ones such as device management, registration and security. More complex applications can incorporate features to support semantic interoperability and location services, for example.

How oneM2M standardization works

oneM2M is a "global partnership project" that is open to all organizations who can join as members through their regional standards development bodies. oneM2M has an elected Steering Committee that provides strategic direction and management; and a Technical Plenary which has total responsibility for the full life-cycle of technical standardization activities spanning industry-needs analysis, technical specifications, interoperability testing and certification.

oneM2M's Technical Plenary comprises three working groups:

- Requirements and Domain Models (RDM) Working Group focuses on the future roadmap
- The System Design and Security (SDS) Working Group defines oneM2M system architecture and management
- The Testing and Developers Ecosystem (TDE) Working Group defines test requirements for oneM2M Systems and related services, and supervises interoperability test events

Release timeline

oneM2M specifications are issued as Releases – with new capabilities being added in each release that are developed under formally agreed workplans.

2015: Release 1

Provided a standardized, general-purpose architecture for operators and service providers to deploy IoT solutions.

2016: Release 2

Added an interworking framework enabling each service provider to support more types of devices on their IoT platform.

2018: Release 3

Added a complementary set of oneM2M value-added services to complement IoT features in 3GPP standards.

2022: Release 4

Unlocks new and enhanced vertical IoT implementations, such as the smart home, smart cities and Industry 4.0.

Resources

For a full list of resources, including published specifications, whitepapers, deploying with oneM2M, developer guides and more, visit: link.

For more information on current members and how to become a member, visit: link.