The IoT Standard

10th IEEE World Forum on Internet of Things

Industry Forum 1:
oneM2M Global IoT Standard and its Ecosystem

11 November 2024 // Ottawa, Canada
Room: Confederation III - Level 4 // 11:30 – 13:30

Roland Hechwartner
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Agenda

IEEE World Forum on Internet of Things

Industry Forum 1: oneM2M Global IoT Standard and its Ecosystem

Room: Confederation III - Level 4

Time	Title	Speaker
11:30- 11:40	Introduction to oneM2M global IoT standard	Roland Hechwartner (oneM2M TP-Chair, Deutsche Telekom)
11:40~11:50	Standardized Data Platform for AI, Metaverse, Blockchain, Edge Computing	JaeSeung Song (oneM2M TP Vice-Chair, Sejong University)
11:50~12:00	Enabling Edge Computing to oneM2M Standardized IoT Platform	Bob Flynn (EXACTA)
12:00~12:10	Open and Unified Framework to Interconnect Sensing IoT devices, data and application (oneM2M and OCG)	Ingo Friese (Deutsche Telekom)
12:10~12:20	Supporting Metaverse Services via Standardized oneM2M IoT Platform	SeungMyeong Jeong (Korea Electronics Technology Institute)
12:20~12:30	Standardised Testing Framework and Global oneM2M Certification	Miguel Angel Reina Ortega (ETSI)
12:30~12:40	An overview about the oneM2M Open Source Ecosystem	Andreas Kraft (EXACTA)
12:40~13:30	**Panel Discussion:** Towards next generation intelligent IoT data platform	**Moderator:** Roland Hechwartner (oneM2M TP-Chair, Deutsche Telekom)

Introduction to oneM2M global IoT standard

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Content

- The **oneM2M** Partnership Project
- To **Overcome the Fragmentation** in the IoT Space
- The **Common Service Layer Toolkit**
- **A little bit of history**: highlighting key-events
- **Insights** - Learnings from Deployments
- What's Next? - **Future Features**
- Takeaways

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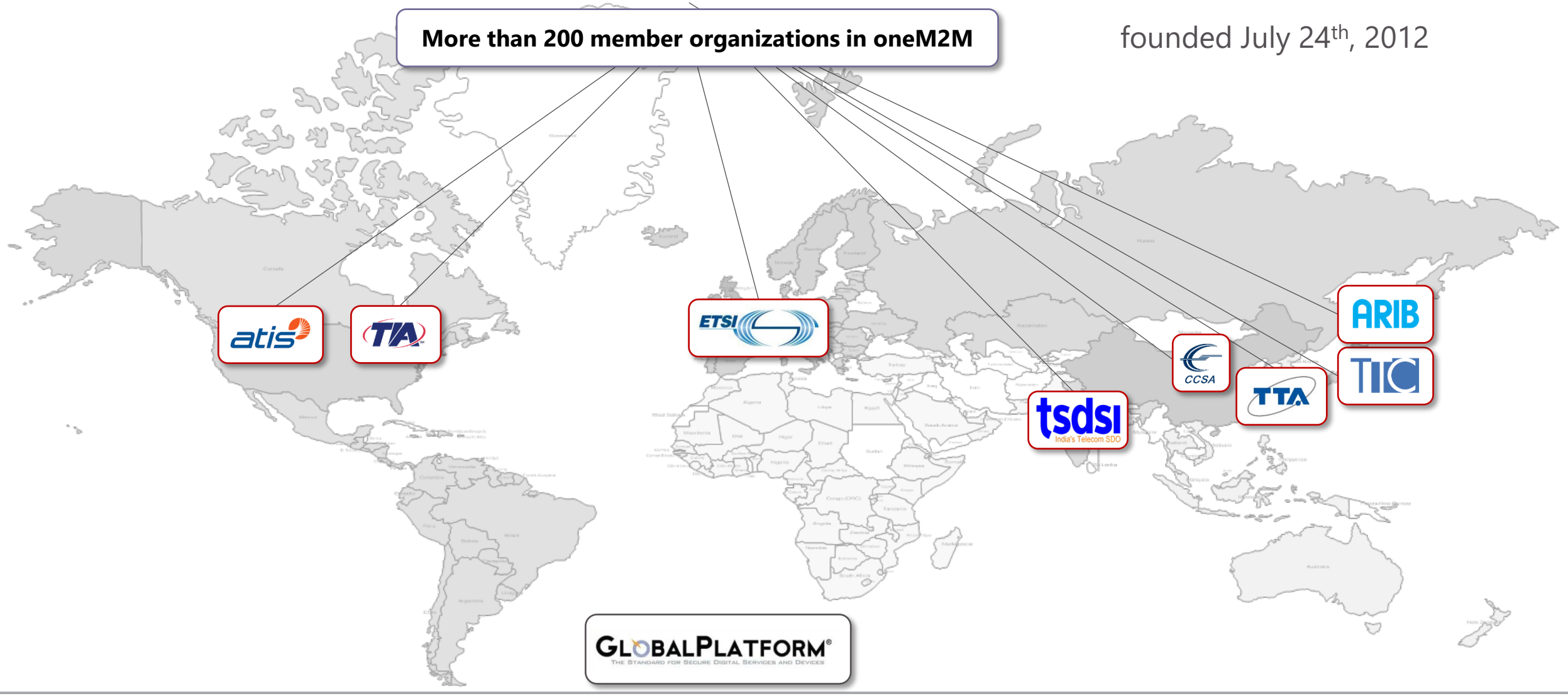
oneM2M Partnership Project

www.oneM2M.org **All documents and specifications are publically available**



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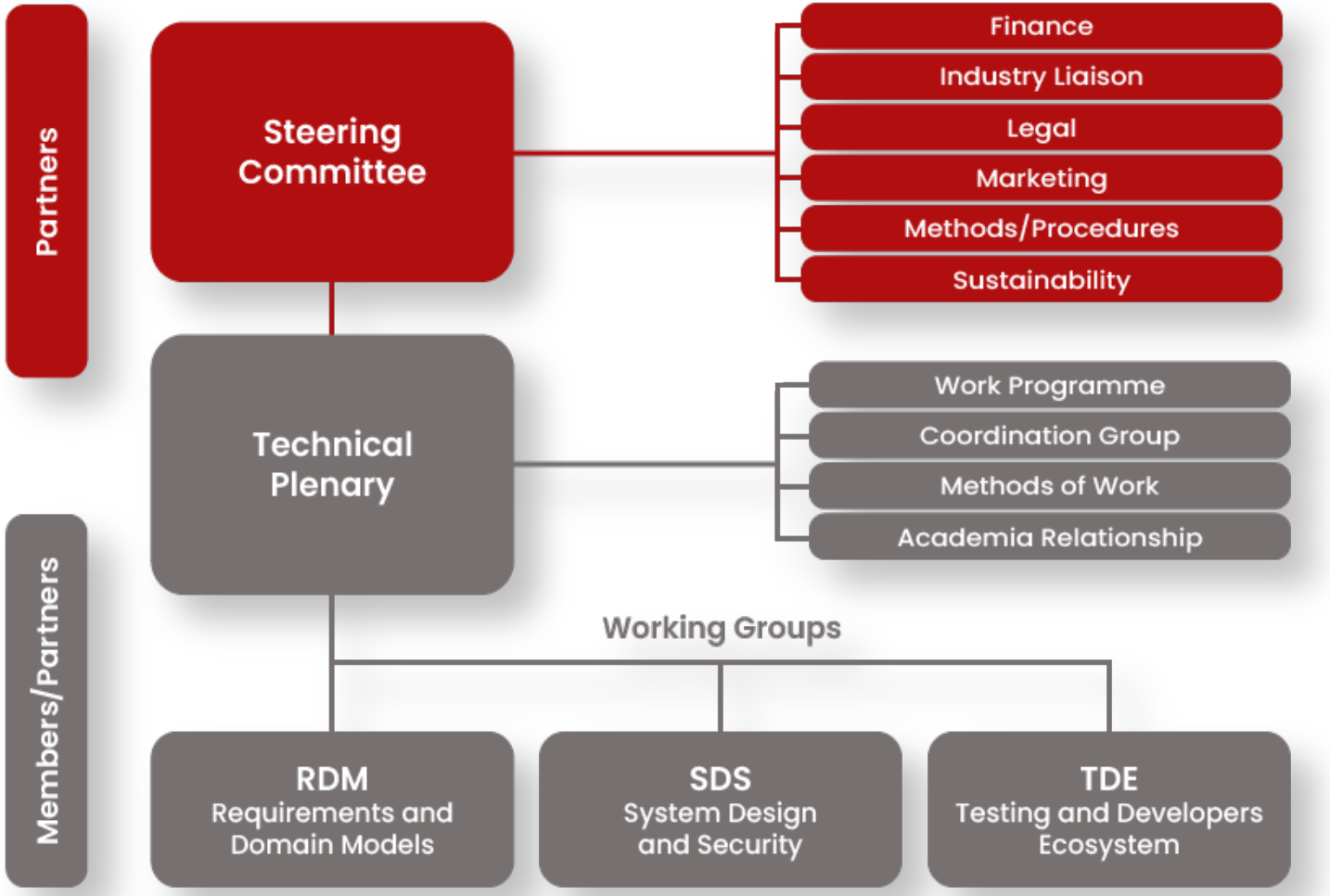
Organization

http://onem2m.org/about-onem2m/organisation-and-structure



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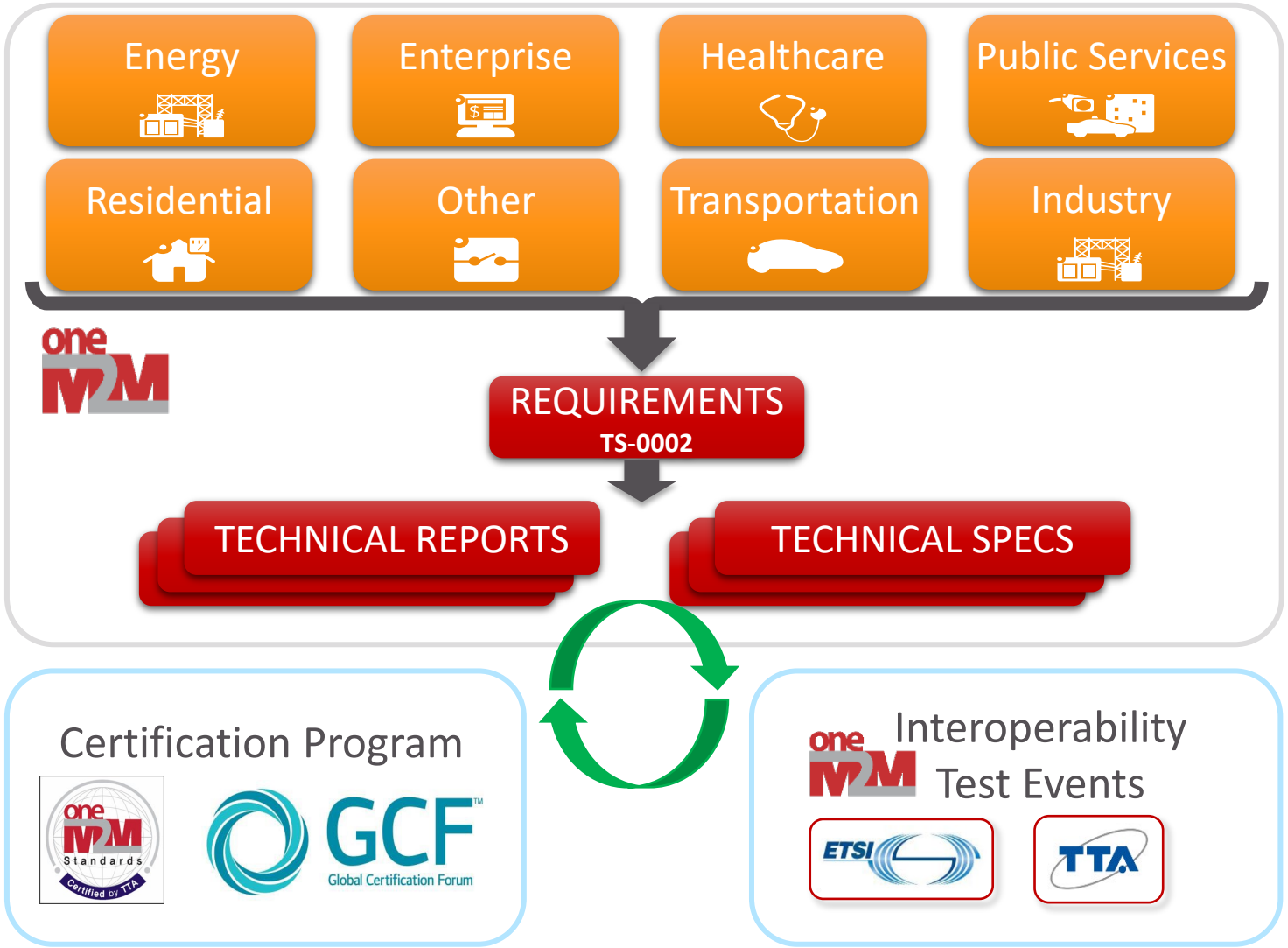
Standard – Testing – Certification Program



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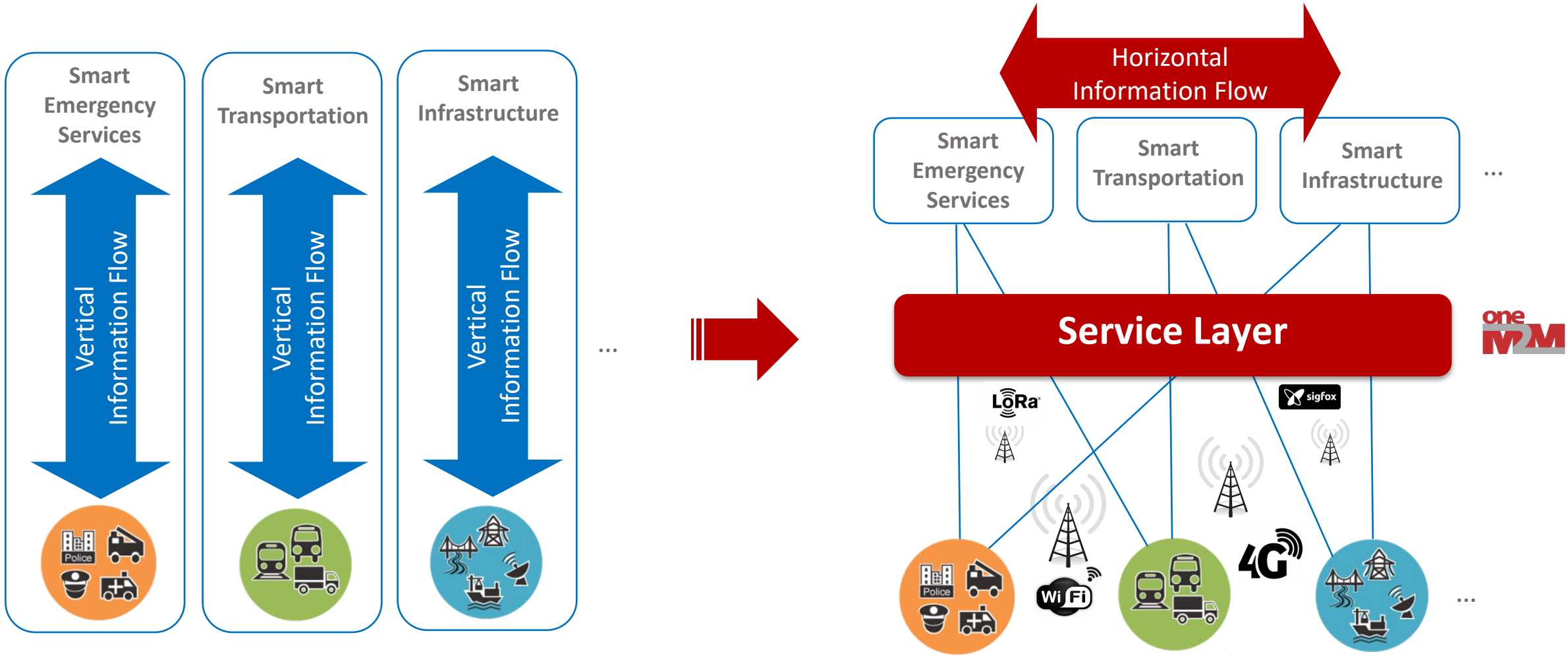
oneM2M Breaks Down the Silos



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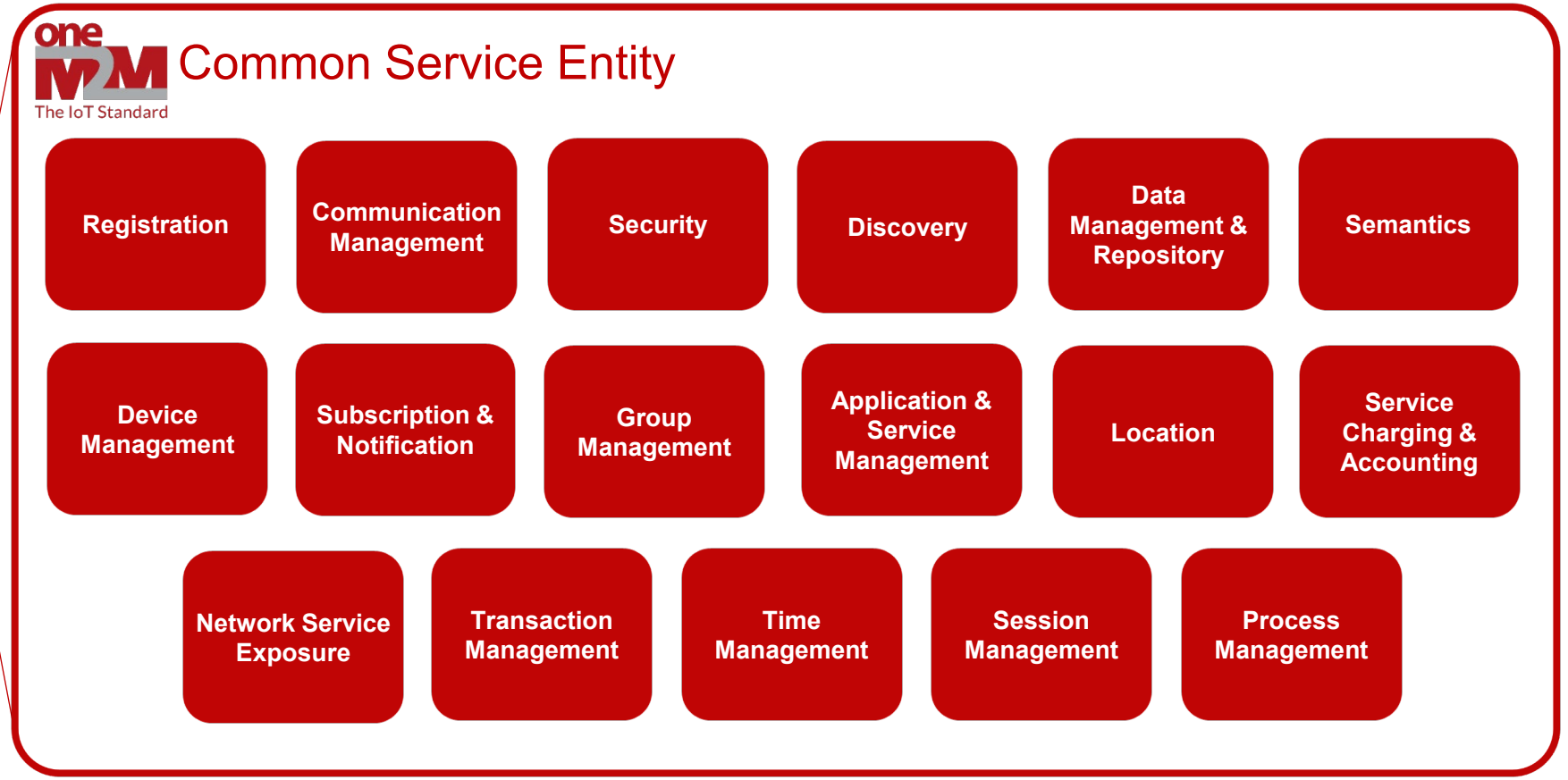
oneM2M Common Services "Toolkit"

IoT Application Layer

oneM2M Common Services Layer

IoT Devices and Connectivity Layer



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oneM2M Key-Events Timeline

Transposition to ITU-T SG20 Y.4500.x

Academia Relation Group

Interoperability Events

Interop 8

Release 1

Release 2

Release 2A

Release 3

Release 4

Release 5 initial plan

oneM2M Partnership Project established

oneM2M Hack-a-Thon Events

2012 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026

Industry Days

oneM2M WS & Developers Training

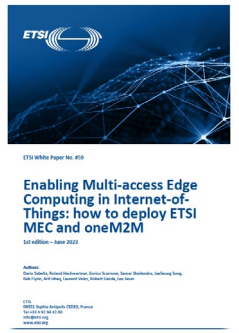
oneM2M White Paper *IoT for Sustainability*

oneM2M White Paper *How oneM2M is Enabling More Sustainable IoT Deployments*

oneM2M & ETSI ISG MEC White Paper *Enabling Multi-access Edge Computing in IoT: How to deploy ETSI MEC and oneM2M*

oneM2M Certification launch

oneM2M Certification launch



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Insights...

"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

"Using oneM2M, our data hub collects and links data for a hundred different services. We plan to export it to other local governments."

Seon-woo Yi, nTels

"oneM2M has been evolving continually and solutions to common problems faced by the IoT industry are incorporated quickly in its specifications."

Anupama Chopra, C-DOT

"We rewrote our proprietary system to use oneM2M's open standard and now operate at scale, meeting over 99% of our customers' reporting metrics and delivering over 3 billion meter reads daily"

Ray Bell, Aetheros

Deployments

Executive Viewpoints

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oneM2M Future Feature development

Release 5

TECHNICAL REPORTS

REQUIREMENTS
TS-0002

TECHNICAL SPECS

- AI enablement
- Support of Data Protection Regulations
- Support of Data License Management
- Advanced Semantic Discovery
- Enablement of IoT in the metaverse
- Digital Twins Enablement in oneM2M
- Integrating NGSI-LD API in oneM2M
- Additional Interworking (e.g. OGC's Sensor Thing API)
- Enhanced Filter and Queries
- Enhanced Public Warning Service Enabler
- Effective IoT Communication to Protect 3GPP Networks (cont'd)

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Takeaways

Join oneM2M

Work in progress on oneM2M Release 5

Work commence on oneM2M Release 6

oneM2M

- is a global open standard, not controlled by a single private company
- specifies a common set of horizontal IoT services
  - architecture, common services functions,
- enables data interoperability
  - Information model, semantics, ontology-based interoperability
- interworks with existing IoT technologies
- has interoperability testing and a certification program
- standardized APIs simplify the life for IoT stakeholders
  - minimize development, deployment & maintenance costs
- is a mature and a commercially deployed technology

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Thank You!

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