



Workshop Smart Grid
Standardisation
May 16th 2013

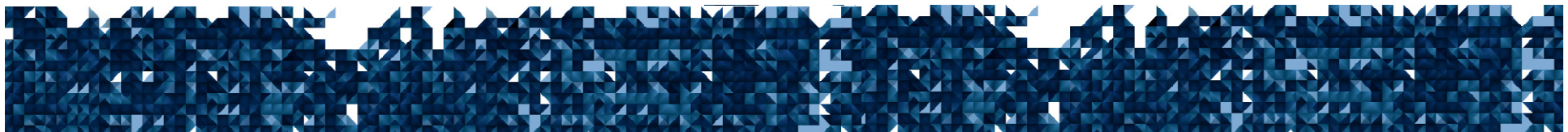


ETSI M2M and oneM2M Standardization Activities

Session

Smart Metering

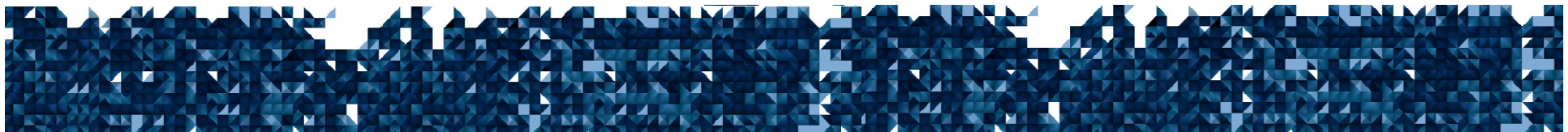
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ETSI TC M2M standard

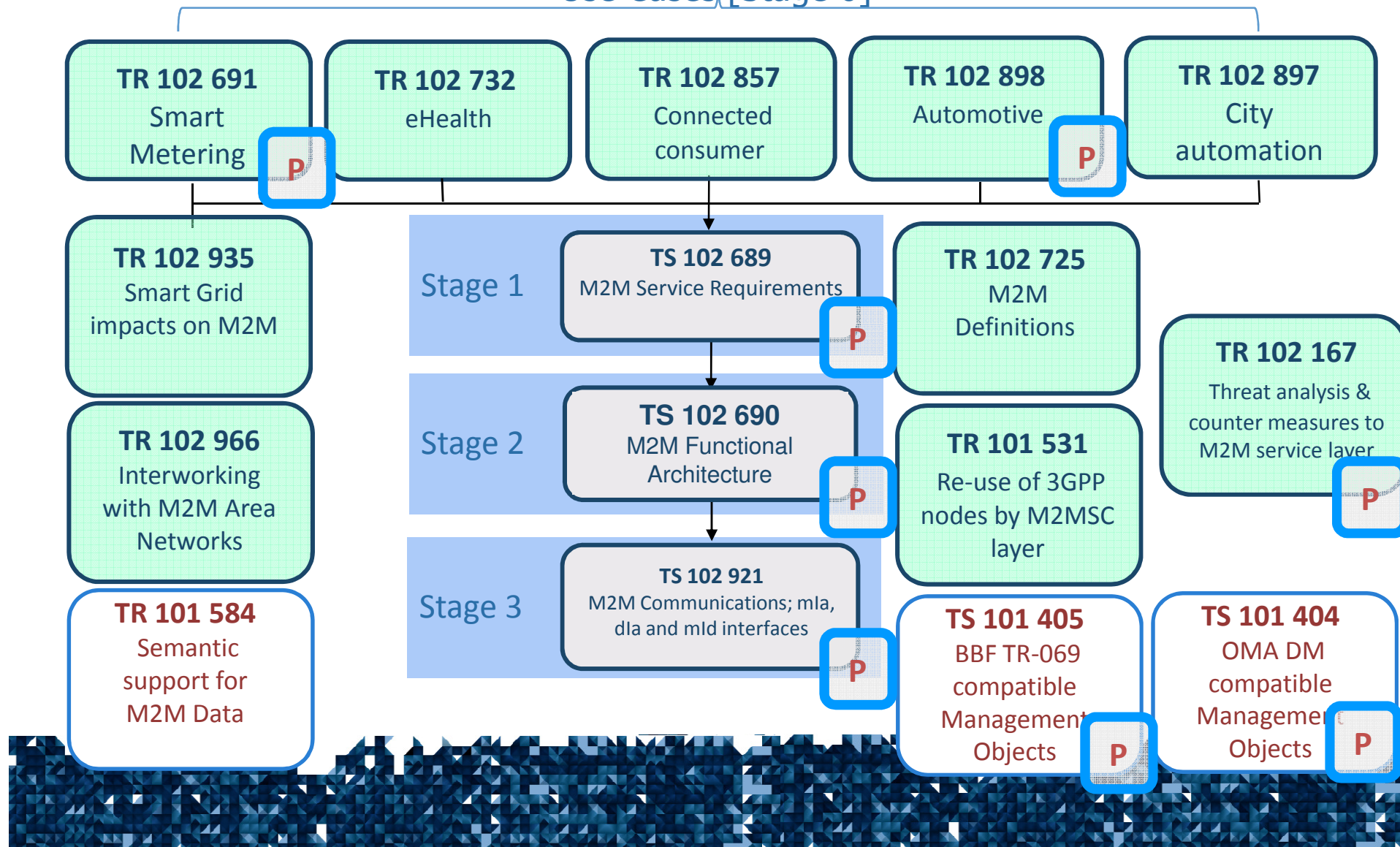


- Started 2009 as ETSI TC with high international participation
- Scope:
 - *to develop and maintain an end-to-end overall telecommunication high level architecture for M2M*
 - ✓ *multi-application*
 - ✓ *network independent*
 - *Main ETSI contact for EU mandates (M/441, M/490..) => SMCG*
- Published its first release of M2M standards in 2012
 - *Second release expected in 2014*
 - *Further technical work will be carried out in oneM2M, but still working on European aspects of M2M*

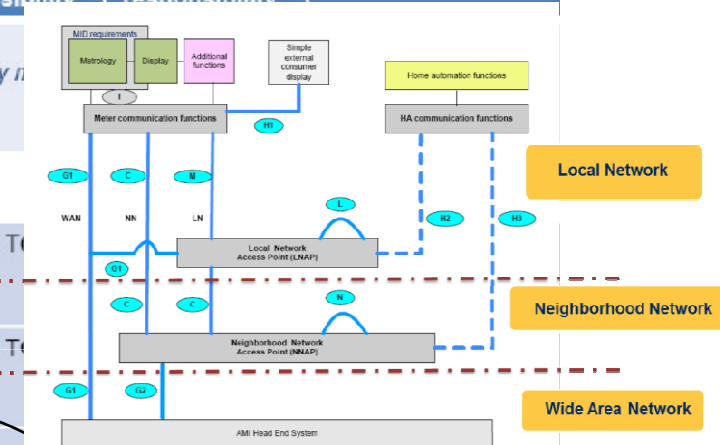


ETSI M2M Specification overview

Use Cases [Stage 0]



from CEN/CLC/ETSI/TR 50572 (SMCG)

		Metrology impact	Lower layer protocol responsibility	Upper layer protocol responsibility	Co-ordinating TC responsibility
I	Link between MID meter part and meter comms functions	Yes	Used by		
M	Link from Meter comms functions to Local Network Access Point (LNAP)	No	TC 13 / T		
C	Link from Meter comms functions / LNAP to Neighborhood Network Access Point (NNAP)	No	TC 13 / T		
G1	Link from Meter comms functions to LNAP / AMI head end system	No	ETSI		
G2	Link from NNAP to AMI head end system	No	ETSI	TC 13 / TC294 / ETSI M2M	TC 13 / TC294 / (TC57)
H1	Link from Meter comms to support simple external display	No	TC 205	TC 205	TC 205
H2 / H3	Link from LNAP / NNAP to support home automation end device(s)	No	TC 205	TC 205	TC 205
L	Peer interface for LNAPs	No	ETSI	ETSI	ETSI M2M
N	Peer interface for NNAPs	No	ETSI	ETSI	ETSI M2M



The oneM2M Global Initiative

- To **avoid creation of competing M2M standards** the 7 SDOs, that publish telecom standards: TTC, ARIB (Japan), ATIS, TIA (USA), TTA (Korea), CCSA (China), ETSI (Europe) this year have created the **oneM2M Global Initiative**.

⇒ *ETSI TC M2M (Europe), TIA TR-50 (USA), TTA (Korea) and CCSA TC 10 (China) give up their individual work and join their efforts to create a single M2M standard!*

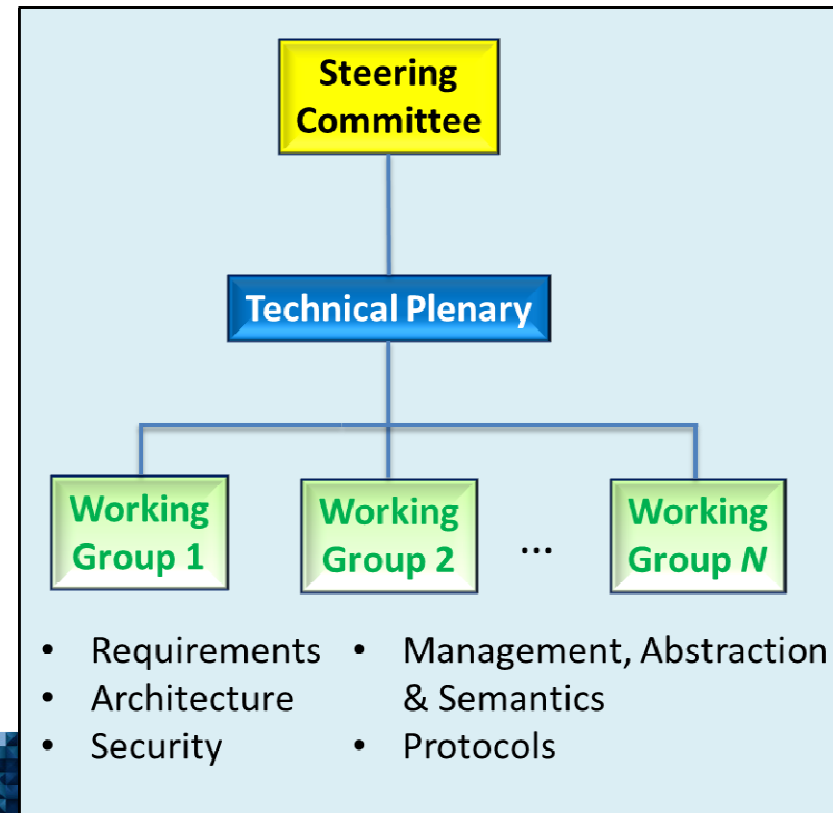


Objective:

- Develop **one globally agreed M2M specification**, initial focus on Service Layer
- Consolidate** current **M2M Service Layer** standards activities into the oneM2M initiative
- Partner/Collaborate** with wireless and wireline SDOs and fora responsible for developing standards
 - for Core and Access Networks.
 - the vertical markets (i.e., domain-specific)
 - auxiliary specifications (OMA BBF, W3C ...).

oneM2M membership and structure

- currently 263 Participating Partners and Members
 - 3 Partner organizations Type 2 (Continua Health Alliance, Home Gateway Initiative (HGI), Open Mobile Alliance (OMA))
 - 6 physical meetings per year
 - weekly conference calls
- Plan to finalize first release of specs by end of the year !!

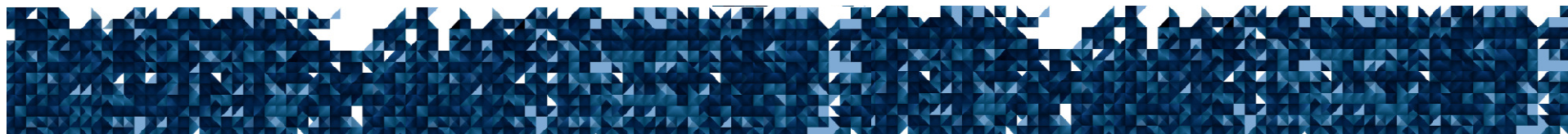


Challenges of M2M standards

- ‘Multi-purpose’ M2M standards need to interwork with ‘single-purpose’ solutions.
 - Specific data models of vertical industry groups need to be supported (mapped to the standards)
 - Semantics of data only known in the vertical industry
 - “Abstraction” is desired
 - ❖ e.g. implementation of a light switch could be ZigBee, KNX ...
but should be accessible without knowledge of specific technology
- Global standards have to compete with solutions that exist today.
- International standards need to support regional regulations



Annex



ETSI M2M – High Level Architecture

M2M Device & Gateway Domain

M2M Network Domain

