

oneM2M Testing & Certification



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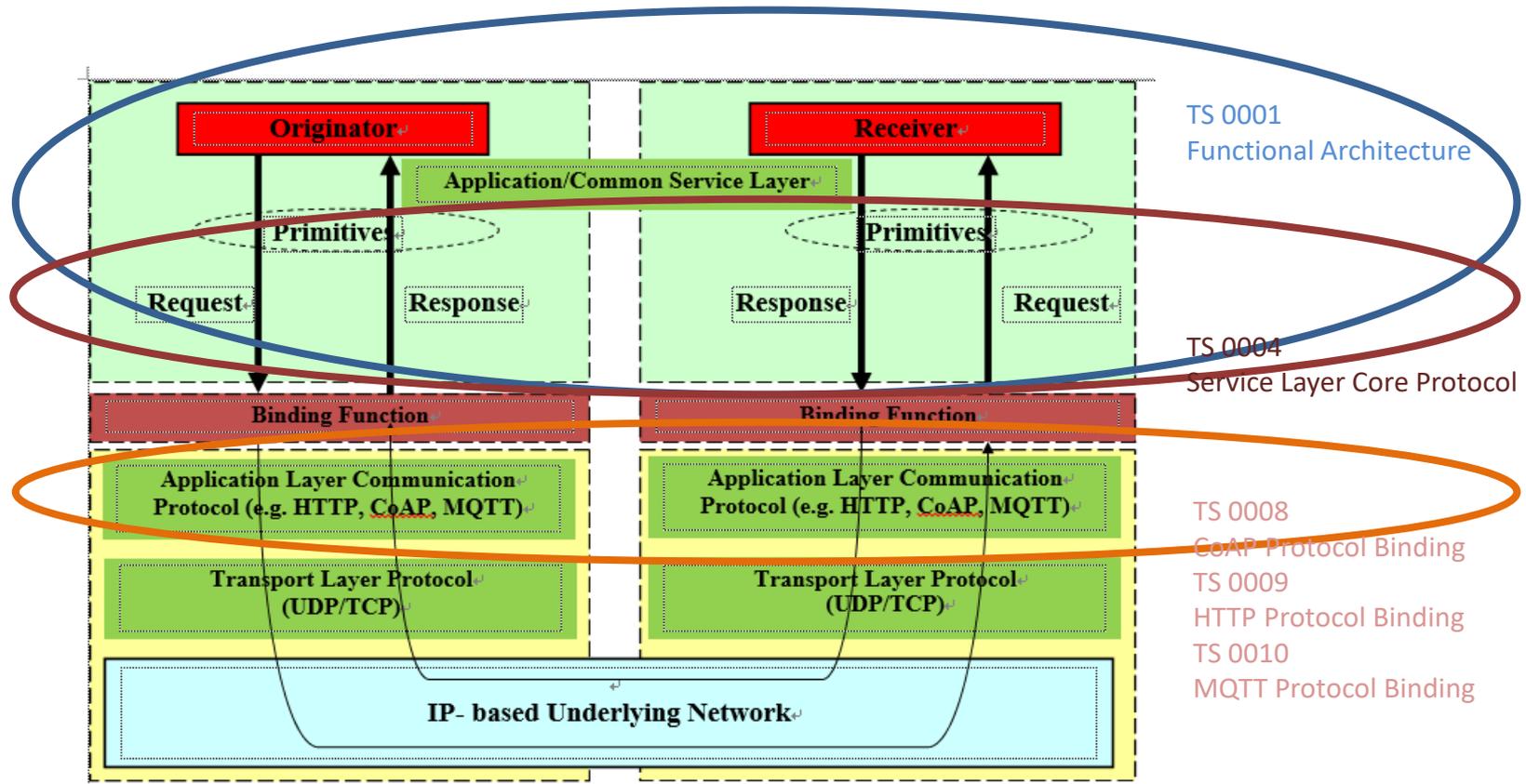


01 Testing and Certification in oneM2M Standard



oneM2M Specifications

Various Specs covering a various specific area.



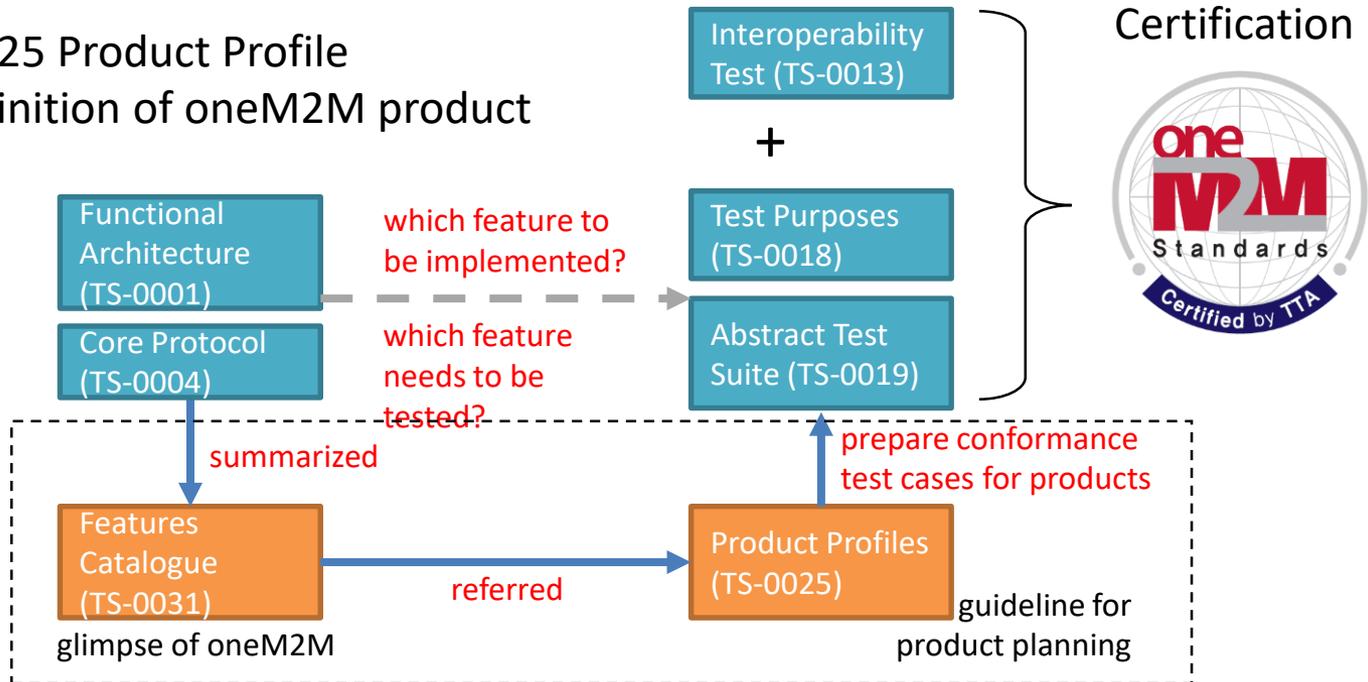
<TS-0004 Figure 5.4.1-1>



Relationship between oneM2M Specification

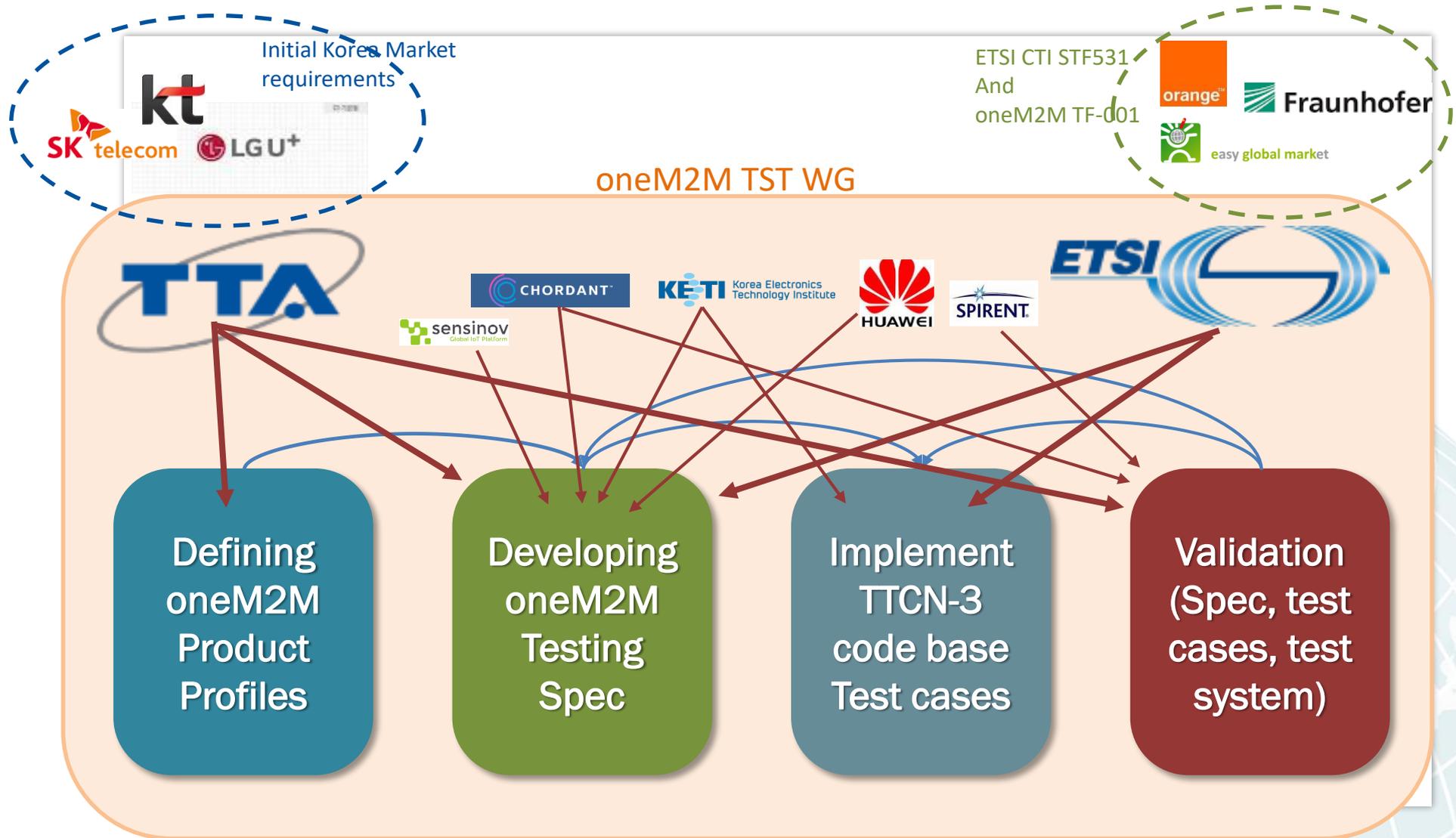
Recently adding,

- TS 0031 Features Catalogue
Summarizing oneM2M functions
- TS 0025 Product Profile
Definition of oneM2M product



<TP-2017-0288 Glimpse of oneM2M, SeungMyeong JEONG (KETI)>

Collaboration for developing oneM2M Test Spec





Collaboration Results

1. Complete **Specification for oneM2M testing**.
 - Release oneM2M Test Specification. (TS 0017, TS 0018, TS 0019, TS 0025, 2018.01 oneM2M TP#33 approved)
2. Real executable **code base (TTCN-3) oneM2M conformance test cases**.
 - Open source TTCN-3 code released. (<https://git.onem2m.org/TST/ATS>)
3. Stable and reliable **Authorized Test System**.
 - Spirent Ttsuite-oneM2M (TTworkbench, 2018.02.21 released)
4. Fully standard compatible **market-released product**.
 - InterDigital Chordant Platform (2018.02.21 certified)
5. Well-made **certification program** what market could trust.
 - Start conformance testing. (2018.02.21 launched)





02 oneM2M Certification





oneM2M Certification Background



- TTA was agreed as the **first oneM2M Certification Body** at the 33rd Steering Committee meeting(Sep. 2016).
- **oneM2M Certification Program** was officially launched on **Feb. 9, 2017**.
 - Provide global confidence of oneM2M standard

oneM2M Certification History





oneM2M Certification Goal

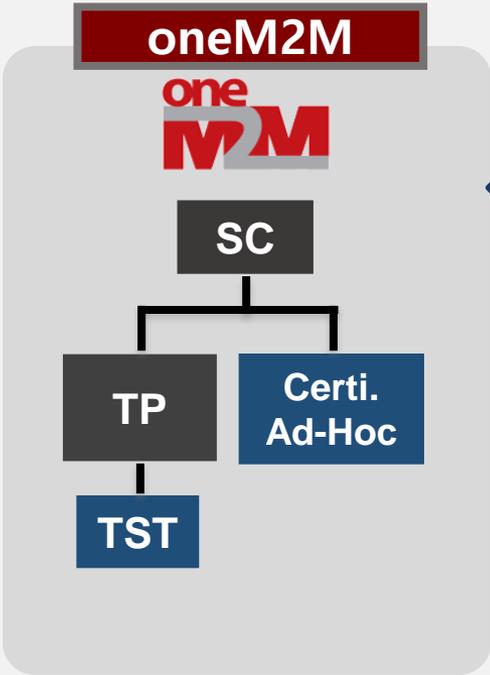


- **oneM2M Certification** is intended to **create an ecosystem of certified products** that **ensures interoperability** among oneM2M certified products
- **oneM2M Certification** is LOGO program, NOT an compulsory program.
 - Representation that oneM2M products and services **meet oneM2M Specification and Test requirements** that ensure interoperability.

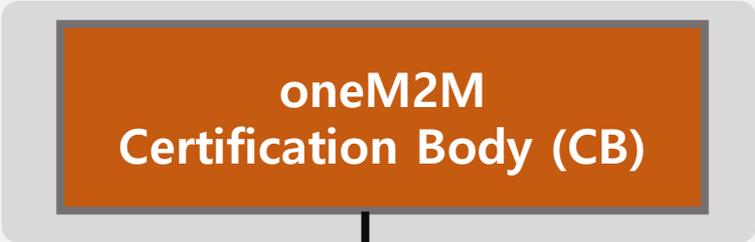
oneM2M Certification Organization



oneM2M - oneM2M CB



1st oneM2M Certification Body!



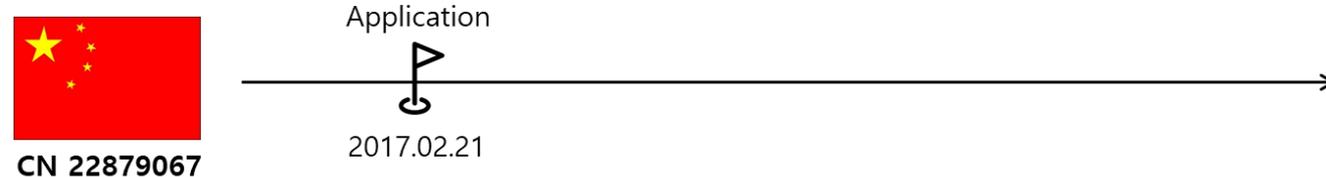
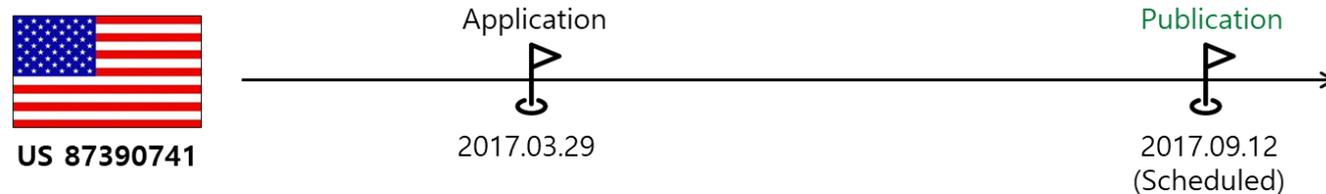
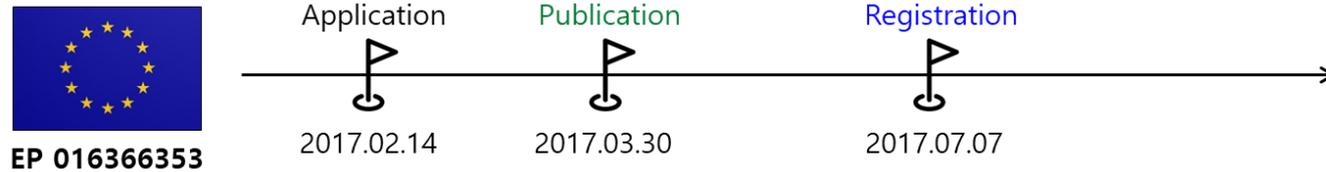
- 1. TTA (Korea, 2017.2)
- 2. DEKRA J.J (Japan, 2018.2)



Certification Logo Status



- **oneM2M Certification Logo** registration :
- Korea & Europe(completed), U.S.A & China(In progress)





Product Type



- oneM2M certification product type consists of **End Product** and **Component**
 - **End Product** is a product that claims to have implemented at least one of oneM2M node types.
 - **Component** is an implementation of one or more of embedded oneM2M node types as software that is used to produce End Product.
- End Product or Component must implement at least one of oneM2M node types.
 - Node type: ADN, ASN, MN, IN



Certification Type



- **New product**
 - Any product that is certified using oneM2M standard specification for the first time
- **Product change**

Product Change Type	Description	Testing Scope	New Certification issue
Major	Change impacts all oneM2M functionality and is regarded as a new product	Full Re-testing	O
Partial	Change impacts a portion of oneM2M functionality	Additional testing of new functionality and/or changed functionality	O
Minor	Change does not impact oneM2M functionality (e.g., add another model name)	No testing required	X

- **Rebranding**
 - Previously certified product that acquired a new name, term, symbol, design, or combination of two or more external change



Testing Scope



- **Interoperability Testing**

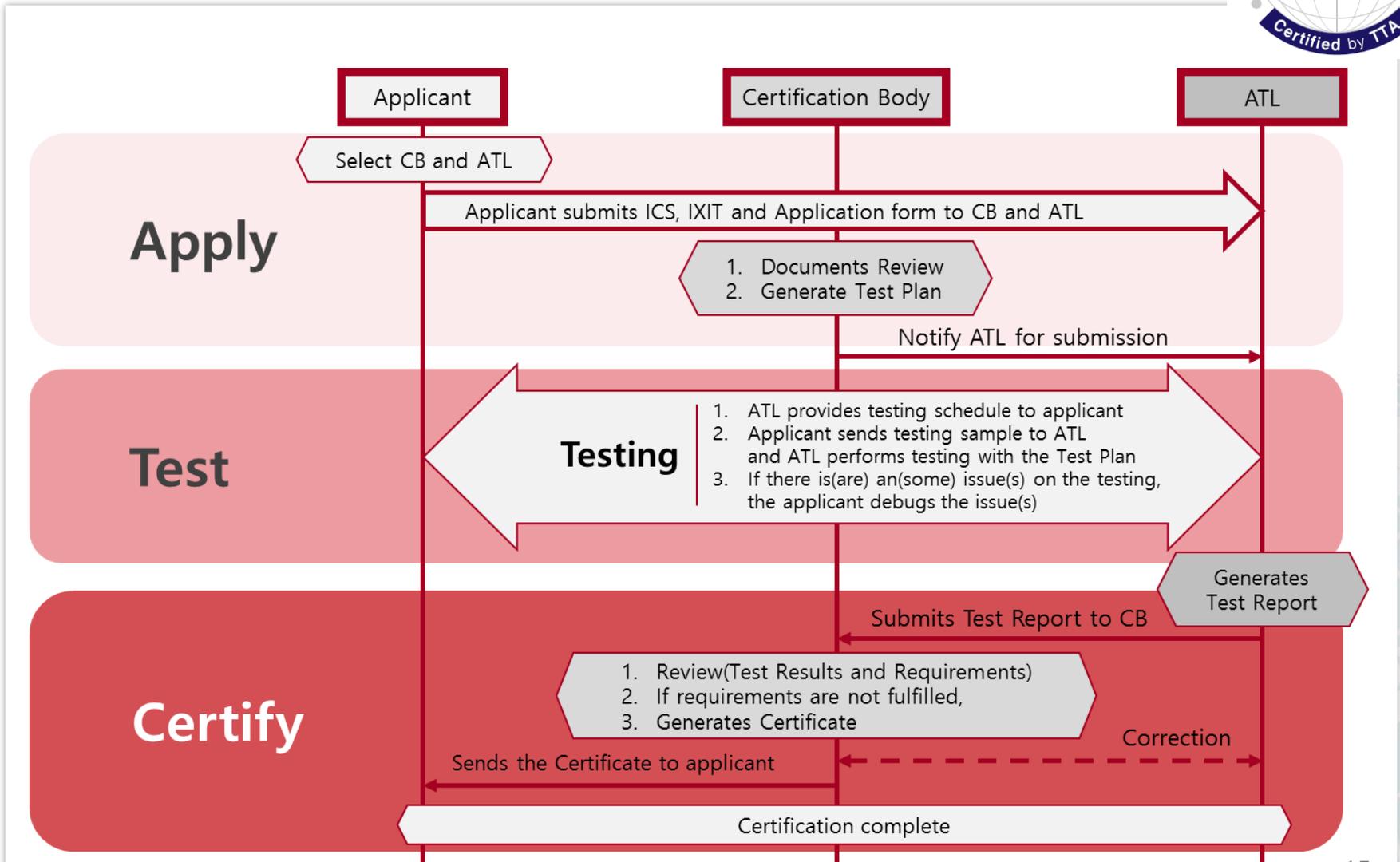
- Verification of end-to-end functionality in accordance with oneM2M binding protocols (HTTP, CoAP and MQTT) and serializations (XML and JSON).
 - Interoperability test specification for oneM2M certification based on TS-0013(Interoperability Testing)
- Total Test Cases : 288

- **Conformance Testing**

- Based on oneM2M conformance testing specifications
 - TS 0017 Implementation Conformance Statements
 - TS 0018 Test Suite Structure and Test Purpose
 - TS 0019 Abstract Test Suite and Implementation eXtra Information for Test
 - TS 0025 Product Profiles
- Total Test Cases : 328



Certification Process





oneM2M Certification Website

www.onem2mcert.com





one Certification for oneM2M Standard

HOME | LOG IN | JOIN

- Introduction
- Certification Guide
- Facilities
- Certified Products
- Downloads
- Reference



oneM2M Certification logo is intended to represent to consumers that oneM2M products and services meet oneM2M standard testing requirements that ensure interoperability.

When your product is oneM2M Certified, it becomes a part of integral ecosystem of oneM2M enabled products, services and applications in the market.

START CERTIFICATION



CERTIFICATION GUIDE

The purpose of the certification program is to certify that products conform to and are in compliance with the requirements of the oneM2M standards.



IoT Standards

oneM2M is the global standards initiative for Machine to Machine Communications and the Internet of Things

oneM2M Standards

Standards for M2M and the Internet of Things

47 Bundang-ro, Bundang-gu, Seongnam-City, Gyeonggi-do, Korea (267-2 Seocheon-dong)

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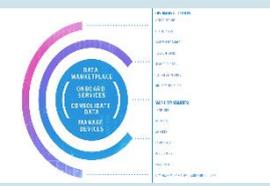
Telecommunications Technology Association



Certified Products(I)



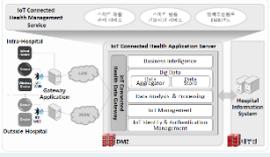
Certified Products: 17 products from 14 manufacturers

Product Vendor	Product Name	Product Website	Product Information	
InterDigital	Chordant™ Platform	https://www.chordant.io/		THE CHORDANT PLATFORM ENABLES SMART CITY SOLUTIONS THAT UNLOCK VALUE FROM ANY DATA SOURCE.
nTels	N-MAS	http://www.ntels.com		N-MAS is an open IoT platform that provides connectivity functions used in various service areas such as smart city, industry, healthcare, sports, and agriculture.
KT	IoTmakers Middleware	http://iotmakers.olleh.com		IoTmakers Middleware provides interface to communicate with KT Platform via oneM2M standard protocol ..
	IoTmakers	http://iotmakers.olleh.com		IoTmakers is the OPEN IoT platform which can support IoT players to realize their idea and lead to success ..
KEPCO	e-IoT Energy Gateway	https://spin.kepco.co.kr		e-IoT Energy Gateway provides interface to communicate between sensors and the e-IoT Energy Platform via oneM2M standard protocol.
	e-IoT Energy Platform	https://spin.kepco.co.kr		e-IoT Energy Platform is the OPEN IoT platform for an electrical power system and industry.



Certified Products(II)



Product Vendor	Product Name	Product Website	Product Information
HANDYSOFT, Inc.	HANDYPIA IoT Platform	http://www.handypia.co.kr/homepage_eng/	 <p>Cloud-based Open IoT platform.</p>
HealthConnect Co., Ltd	IoT Healthcare Platform	http://www.hconnect.co.kr/	 <p>IoT Healthcare Platform is an IoT platform for connected healthcare management service such as rehabilitative management and nursing support service.</p>
Samsung SDS	Insator™	https://iot.insator.io	 <p>Cloud based Enterprise IoT platform that supports the development of numerous smart solutions and intelligence services through data collection and analytics</p>
IREXNET	AiSOP (iThings)	http://www.irexnet.co.kr	 <p>AiSOP(Ai SMART OPEN PLATFORM) is oneM2M based IoT platform to manage and control a variety of IoT devices</p>
	GWP (Global Water Platform)	http://www.irexnet.co.kr	<p>GWP(Global Water Platform) is oneM2M based IoT platform that is specialized for management of IoT water resources system</p>



03 oneM2M Certification with GCF



Global Certification Forum

GCFTM
Global Certification Forum

GCF Certification

Essential certification for device manufacturers targeting the global mobile market.

The mark of devices that conform to international standards for mobile technologies and interoperate correctly with networks worldwide.

Test Once, Use Anywhere

GCF Certification is supported by operators with interests in markets worldwide



Test once, use anywhere

Expanding oneM2M to global Market.

 **oneM2M Certification Program, GCF migration.**

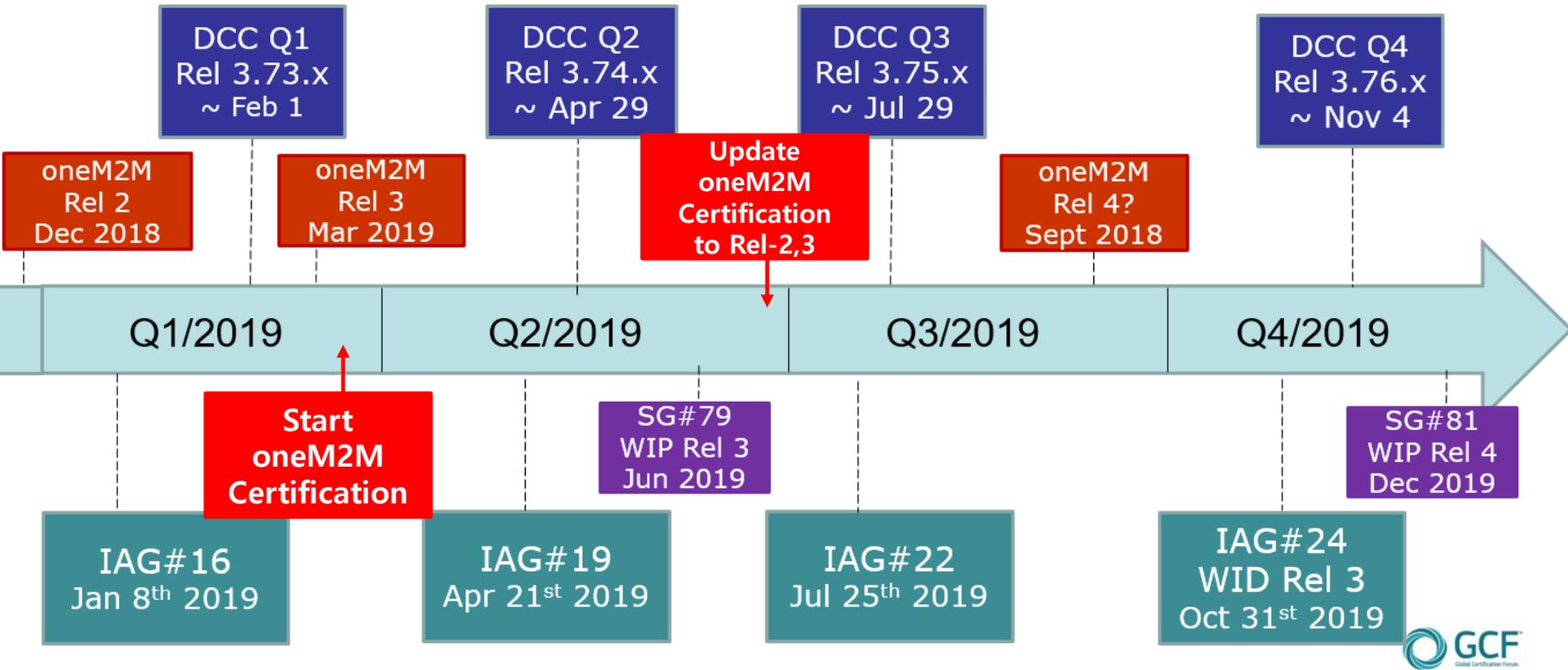


Global Certification Forum

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Program Update Based on oneM2M Releases

- The GCF oneM2M Certification Program will be tied to quarterly GCF DCC Database Release:





04 Global IoT Test & Certification Centre



Global IoT Test & Certification Centre

- **(Objective)** To improve the reliability and accelerate overseas expansion of IoT product, providing international standards based test and certification service.



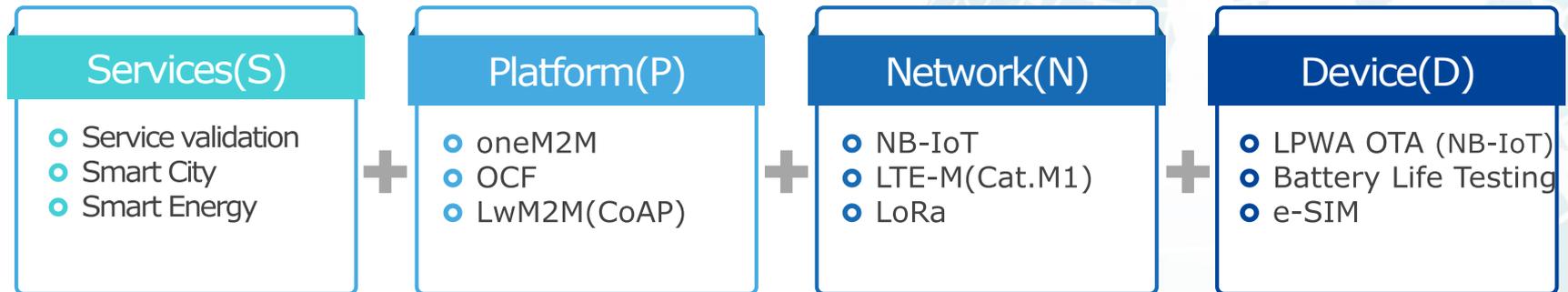
2017.11 Open
『Global IoT Test & Certification Centre』
in Pangyo 2nd Techno Valley.

- ⊖ Establishment of int`l standard based test&certification environment
- ⊖ Providing global scale test&certification service and consulting

IoT Service Provider

IoT Platform Company

IoT Device Company



Reducing time and cost
for testing & certification

Promote global expansion
based on int`l standards



THANK YOU!

www.oneM2Mcert.com

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