Telecommunications Standards Advisory Committee (TSAC)

Technical Specification

eUICC Subscription Management Technology - Consumer Device

Draft IMDA TS eUICC SMT - CE Device
Issue 1, xxx 2026

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IMDA TS eUICC SMT - CE Device **Issue 1, xxx 2026**	Technical Specification for eUICC Subscription Management Technology (SMT) - Consumer Device
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eUICC Subscription Management Technology (SMT) – Consumer Device

1 Scope

1.1 This Technical Specification (TS) sets out the configuration requirements for implementing Remote SIM Provisioning (RSP) based on the GSMA Consumer RSP Architecture and Technical Specification (GSMA SGP.21 [1] and GSMA SGP.22 [2]).

1.2 The scope of this TS focuses on the Consumer Device as shown in Figure 1 and Figure 2, extracted from the GSMA SGP.22 [2] specification. Separate configuration requirements for the Consumer Server are set out in section 5 of the IMDA Provisioning of eUICC Subscription Management (IMDA Provisioning of eUICC SM).

1.3 Subscription management for the Consumer Device is pulled by the End User via a Local Profile Assistant (LPA) after obtaining commercial agreement from the Service Provider, unlike the M2M Device, where Subscription management is pushed from the M2M Server. The LPA MAY be located in the Consumer Device or the eUICC as shown in Figure 1 and Figure 2, depending on the use-case.

1.4 The Consumer Device MAY comprise a primary and a companion device, for example, where the LPA is located in the primary device (mobile) and the eUICC is in the companion device (wearable).

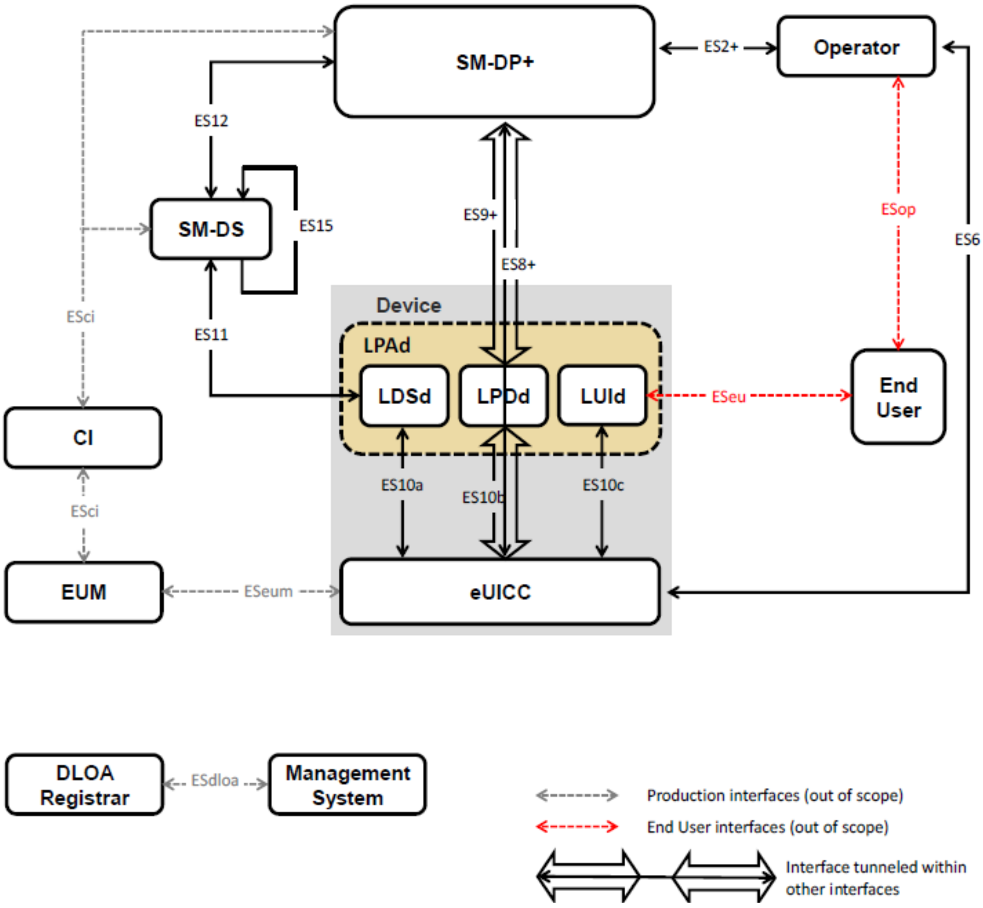
SM-DP+
ES2+
Operator
ES12
SM-DS
ES15
ES9+
ES8+
ESop
ES6
ESci
ES11
Device
LPAd
LDSd
LPDd
LUId
ESeu
End User
CI
ES10a
ES10b
ES10c
ESci
EUM
ESeum
eUICC
DLOA Registrar
ESdloa
Management System
Production interfaces (out of scope)
End User interfaces (out of scope)
Interface tunneled within other interfaces

Figure 1: Remote SIM Provisioning System, LPA in the Device (Figure 1 of GSMA SGP.22 [2])

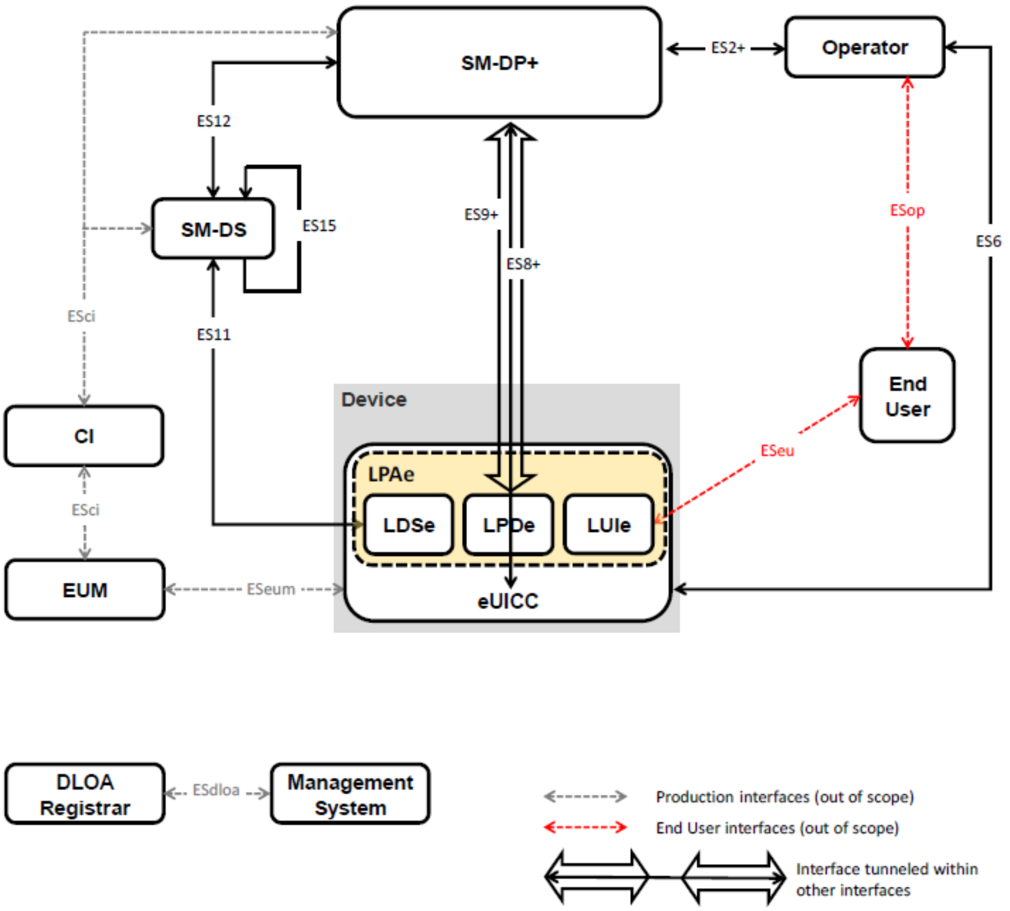
SM-DP+
ES2+
Operator
ES12
SM-DS
ES15
ES9+
ES8+
ESop
ES6
ESci
ES11
End User
Device
CI
ESeu
LPAe
LDSe
LPDe
LUIe
ESci
EUM
ESeum
eUICC
DLOA Registrar
ESdloa
Management System
Production interfaces (out of scope)
End User interfaces (out of scope)
Interface tunneled within other interfaces

Figure 2: Remote SIM Provisioning System, LPA in the eUICC (Figure 2 of GSMA SGP.22 [2])

2 References

2.1 For the requirements captured in this TS, reference has been made to the following documents. Where versions are not indicated, implementation of this TS shall be based on current and approved versions of these standards published by the respective Standards Development Organisations.

[1]	GSMA SGP.21: RSP Architecture
[2]	GSMA SGP.22: RSP Technical Specification
[3]	GSMA SGP.23: RSP Test Specification
[4]	GSMA SGP.24: RSP Compliance Process
[5]	GSMA SGP.25: eUICC for Consumer Devices Protection Profile
[6]	GSMA FS.04 SAS-UP: Security Accreditation Scheme for UICC Production – Standard
[7]	GSMA FS.05 SAS-UP: Security Accreditation Scheme for UICC Production – Methodology
[8]	IMDA TS CMT: IMDA Technical Specification for Cellular Mobile Terminal
[9]	ISO 27001: ISO 27001: Information technology – Security techniques – Information security management systems – Requirements
[10]	RFC 2119: Key words for use in RFCs to Indicate Requirement Levels, S. Bradner https://www.ietf.org/rfc/rfc2119.txt

2.2 Conventions

The use of "SHALL", "SHALL NOT", and "MAY" in this TS infers the following (RFC 2119 [10]):

a. SHALL means “REQUIRED”, a Mandatory requirement;
b. SHALL NOT means “MUST NOT”; and
c. MAY means an Optional requirement.

3 Definitions and Abbreviations

For the purpose of this TS, the following terms and definitions apply (taken mainly from GSMA SGP.22 [2]).

3.1 Definitions

Consumer Device: Device that supports Remote SIM Provisioning as defined by GSMA SGP.21 and SGP.22.

Device: User equipment used in conjunction with an eUICC to connect to a mobile network. E.g. a tablet, wearable, smartphone or handset.

eUICC: A removable or non-removable UICC which enables the local management of Profiles in a secure way. Note: The term originates from “embedded UICC”.

It is a UICC that supports “over the air” provisioning of an initial subscription and the subsequent change of subscription from one operator to another in accordance with GSMA specifications for RSP.

Local Profile Assistant (LPA): A functional element in the Device or in the eUICC that provides the Local Profile Download (LPD), Local Discovery Services (LDS) and Local User Interface (LUI) features. When the LPA is located in the Device, they are called LPAd, LPDd, LUId, LDSd. When the LPA is located in the eUICC, they are called LPAe, LPDe, LUIe, LDSe. Where LPA, LPD, LDS or LUI are used, they apply to the element independent of its location in the Device or in the eUICC.

Operator: A Mobile Network Operator or Mobile Virtual Network Operator; a company providing cellular mobile network services.

Profile: A combination of data and applications to be provisioned on an eUICC for the purpose of providing services.

Server: Either an SM-DS or SM-DP+.

Service Provider: The organization through which the End User obtains PLMN telecommunication services. This is usually the Network Operator or possibly a separate body.

Subscription: Describes the commercial relationship between the End User and the Service Provider.

UICC: It is the hardware used in mobile devices that contains SIM and/or USIM applications enabling access to GSM, UMTS/3G and LTE networks.

3.2 Abbreviations

CI	Certificate Issuer
DLOA	Digital Letter Of Approval
eUICC	Embedded UICC
EUM	eUICC Manufacturer
E-UTRAN	Evolved UMTS Terrestrial Radio Access Network
GSM	Global System for Mobile communications
GSMA	GSM Association
LTE	Long Term Evolution (also known as E-UTRA)
LPA	Local Profile Assistant
LPD	Local Profile Download
LDS	Local Discovery Services
LUI	Local User Interface
M2M	Machine to Machine
PLMN	Public Land Mobile Network
SAS	Security Accreditation Scheme
SAS-UP	Security Accreditation Scheme for UICC Production
SIM/USIM	Subscriber Identification Module or Universal SIM
SM-DS	Subscription Manager Discovery Server
SM-DP+	Subscription Manager Data Preparation (Enhanced)
UICC	Universal Integrated Circuit Card
UMTS/3G	Universal Mobile Telecommunications System - 3rd Generation mobile cellular system

4 General Requirements

4.1 For access to Public Land Mobile Network (PLMN) services, the Consumer Device SHALL comply with the IMDA Technical Specification for Cellular Mobile Terminal (IMDA TS CMT [8]), and SHALL support E-UTRAN (Annex C of SGP.22 [2]).

5 Consumer Device Requirements

5.1 At minimum, the Consumer Device SHALL be PTCRB or GCF certified as sufficient proof of compliance with GSMA's Remote SIM Provisioning specification, comprised of the GSMA SGP.21 [1] and the GSMA SGP.22 [2] Specifications. The Consumer Device SHALL comply with the applicable mandatory functional device requirements listed in Annex C of the GSMA SGP.22 [2].

5.2 Vendors of Consumer Devices and their eUICC Suppliers SHALL ensure that the required eUICC compliance declarations and certifications comply with GSMA's RSP Compliance Process for the GSMA Consumer RSP Architecture and Technical Specification (GSMA SGP.24 [4]), which include:

a. eUICC functional testing performed according to the RSP Test Specification (GSMA SGP.23 [3]);

b. eUICC security evaluations performed according to the eUICC for Consumer Devices Protection Profile (GSMA SGP.25 [5]);

c. eUICC hardware platform certified to Security IC Platform Protection Profile with Augmentation Package Certification (PP-0084) or Security IC Platform Protection Profile (PP-0035); and

d. Production sites for eUICCs used in the Consumer Devices accredited according to the SAS-UP (GSMA FS.04 SAS-UP [6] and GSMA FS.05 SAS-UP [7]).

5.3 No SIM Lock

The Consumer Device SHALL be enabled to provide for new Profile download and swapping by the End User. In the event that the Consumer Device comes with a pre-loaded Profile, the Device SHALL NOT prevent the End User from downloading a new Profile and subsequently, enabling that Profile for usage.