



Device Type Definitions

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1 Introduction

1.1 Overview

There are various terms used to describe device types in markets around the world. In many cases these terms are not defined in standards and consequently they may be interpreted in different ways by different parties.

This document aims to formalise the requirements that underpin such terminology so that all parties can work from a common baseline. It is also intended to serve as a reference document for other GSMA PRDs.

1.2 Scope

This document details the requirements that underpin certain device type definitions, and is applicable where devices and networks have obtained GSMA certification of compliance with IR.25 [4]. The definitions included here are ones that have wider applicability than a single GSMA technical specification.

1.3 Definitions

Term	Description
GSMA Service Profile	GSMA Service Profile identifies a minimum mandatory set of features for a service that GSMA requires a device and network to implement in order to provide interoperable service. The service and its features are defined in 3GPP specifications. Examples of GSMA Service Profiles: IR.92 – GSMA PRD for IMS Profile for Voice and SMS, IR.94 – GSMA PRD for IMS Profile for Conversational Video Service, and RCC.71 – GSMA PRD for RCS Universal Profile.
Non-Standard Locked Device	A Non-Standard Locked Device has limitations on which networks it can operate in and/or the available capabilities such as VoLTE or RCS. These limitations are placed on the device by using a method other than the ones used by SIM/USIM Locked Device. Examples: It could be OEM, MNO, or any other party that locks this type of device.
Open Market Device	An Open Market Device is neither a Non-Standard Locked Device nor a SIM/USIM Locked Device and has functionality intended for use on the network that supports any of the GSMA Service Profiles that the device also supports.
SIM/USIM Locked Device	A SIM/USIM Locked Device has one or more active personalisation as defined in [3].
Unlocked Device	An Unlocked Device is neither a Non-Standard Locked Device nor a SIM/USIM Locked Device. However, unlike Open Market Device, it does not have the functionality intended for use on the network that supports any of the GSMA Service Profiles that the device also supports.

1.4 Abbreviations

Term	Description
3GPP	3 rd Generation Partnership Project
IMS	Instant Messaging Service

Term	Description
MNO	Mobile Network Operator
MVNO	Mobile Virtual Network Operator
OEM	Original Equipment Manufacturer
PRD	Permanent Reference Document
RCS	Rich Communication Service
SIM	Subscriber Identity Module
USIM	Universal Subscriber Identity Module
UICC	Universal Integrated Circuit Card
VoLTE	Voice over LTE

1.5 References

Ref	Doc Number	Title
[1]	RFC 2119	"Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997. Available at http://www.ietf.org/rfc/rfc2119.txt
[2]	RFC8174	Ambiguity of Uppercase vs Lowercase in RFC 2119 Key Words
[3]	3GPP TS22.022	Personalisation of Mobile Equipment
[4]	GSMA PRD IR.25	VoLTE Roaming Testing

1.6 Conventions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119 [1] (RFC8174) [2] when, and only when, they appear in all capitals, as shown here.

2 Device Types

This section covers requirements for various device types defined in section 1.3.

For any type of device to operate in a network, basic device-network compatibility with respect to the supported radio technologies and bands is required. Any incompatibility in that context does not constitute locking of the device as defined in this document.

If the lock from a SIM/USIM Locked Device or Non-Standard Locked Device is removed, it does not mean that the device always becomes an Open Market Device or Unlocked Device. For a locked device to become an Open Market Device or Unlocked Device after its lock has been removed requires it to then meet the definition of such a device, which might require removal of an additional type of lock (if the device had more than one type of lock) and / or a software update.

2.1 SIM/USIM Locked Device

No additional requirements are defined in this version of the document other than those defined in TS 22.022 [3].

2.2 Non-Standard Locked Device

The requirements in this section apply to a Non-Standard Locked Device.

Requirement ID	Requirement
TS59_2.2_REQ_1	An MNO together with the party that locked a Non-Standard Locked Device MAY implement a means (e.g., provisioning servers and network settings) to identify a full set of services available on that device while operating in that MNO's network.

2.3 Unlocked Device

The requirements in this section apply to an Unlocked Device.

Requirement ID	Requirement
TS59_2.3_REQ_1	An Unlocked Device SHOULD have the ability to become an Open Market Device through device-specific implementations, e.g., software or configuration change.

2.4 Open Market Device

The requirements in this section apply to an Open Market Device.

Requirement ID	Requirement
TS59_2.4_REQ_1	<p>When a UICC (or its equivalent) from a network is inserted into an Open Market Device, the device SHALL use the network settings of that network for the GSMA Service Profiles supported by both the device and the network.</p> <p>For example, if the network supports IR.92 (VoLTE) and RCC.71 (RCS), and the device supports only IR.92, then the device shall use network settings for IR.92. If the device supports both IR.92 and RCC.71, then it shall use network settings for both IR.92 and RCC.71.</p>

Annex A Document Management

A.1 Document History

Version	Date	Brief Description of Change	Approval Authority	Editor / Company
1.0	July 2021	New PRD	ISAG#10 TSG#43j	Alan Berrey / Evolve Cellular & Salman Nomani / Verizon

A.2 Other Information

Type	Description
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