ETSI TR 131 900 V13.0.0 (2016-02)

Universal Mobile Telecommunications System (UMTS);
LTE;
SIM/USIM internal and external interworking aspects
(3GPP TR 31.900 version 13.0.0 Release 13)

Reference
RTR/TSGC-0631900vd00

Keywords
LTE,UMTS

ETSI

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Contents

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Introduction

This document describes the different cases of interaction between an Identity Module (GSM-SIM or a 3G-UICC) and a GSM or 3G mobile equipment with a special focus on the diverse situations that can apply in a mixed 2G/3G network environment.

Depending on the technical properties of other involved network elements, particularly during authentication and key agreement, the ICC and the ME may or must support some specific features to allow for compatibility. This is a complex matter and has generated some amount of confusion as the basic conditions implied by the 3G UICC are not always as clearly understood as they should be. The present document gives guidance by summarising the important details and applying them to the (theoretically) possible cases of security interworking along the transmission chain.

The document further tries to explain the options of interworking that exist internally when a SIM and one or more USIM(s) are implemented together on a single UICC.

As this document is a technical report and not a technical specification, none of its contents have the character of a requirement. Merely they should be seen as a clarifying summary and straightforward interpretation of the underlying core specifications.

1 Scope

The present document describes

- the different cases of interworking between a 2G or 3G ICC and a 2G or 3G ME.
- the different cases of interworking between any given ME/ICC combination and the rest of the network
- the possibilities of interworking between a SIM and a USIM together on a single UICC
- the possibilities of interworking between several USIMs on a single UICC

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

[1] 3GPP TS 31.101: "UICC-Terminal Interface; Physical and Logical Characteristics".

[2] 3GPP TS 31.102: "Characteristics of the USIM Application".

[3] 3GPP TS 21.111: "USIM and IC Card Requirements".

[4] 3GPP TS 22.100: "UMTS Phase 1".

[5] 3GPP TS 22.101: "Service Aspects; Service Principles".

[6] 3GPP TS 33.102: "3G Security; Security Architecture".

[7] 3GPP TS 11.11: "Specification of the Subscriber Identity Module - Mobile Equipment Interface".

[8] 3GPP TS 51.011: "Specification of the Subscriber Identity Module - Mobile Equipment Interface".