



TECHNICAL REPORT

**Universal Mobile Telecommunications System (UMTS);
LTE;
Review of dedicated 3GPP UICC features (Red_UCe)
(3GPP TR 31.901 version 14.0.0 Release 14)**

STANDARD PREVIEW
iTech (standards.it) (ai)
https://standards.it/standards/standard/et1/ea6ac6d4-efb1-40bd-ad50-9da7f267f377/et1/et1-tr-131-901-v14.0.0-2017-04-01



ReferenceRTR/TSGC-0631901ve00

KeywordsLTE,UMTS

ETSI

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Contents

Intellectual Property Rights	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	6
1 Scope	7
2 References	7
3 Definitions, and abbreviations.....	7
3.1 Definitions	7
3.2 Abbreviations	8
4 Review of USIM, ISIM and USAT features	8
4.1 Background	8
4.2 Local Phonebook.....	8
4.2.1 Description.....	8
4.2.2 Input from other groups and bodies	9
4.2.2.1 GCF CAG	9
4.2.2.1.1 Operator usage.....	9
4.2.2.1.2 Feedback.....	9
4.2.2.2 PTCRB	9
4.2.3 Discussion of Feature Value	9
4.2.3.1 General	9
4.2.3.2 Recommendation	9
4.2.4 Relevant Core Specifications	10
4.2.5 CT6 or RAN5 Test Case	10
4.2.6 GCF or PTCRB Certification.....	10
4.3 Support of Usage of MMS related data stored on the USIM.....	10
4.3.1 Description.....	10
4.3.2 Input from other groups and bodies.....	11
4.3.2.1 GCF CAG	11
4.3.2.1.1 Operator usage.....	11
4.3.2.1.2 Feedback.....	11
4.3.2.2 PTCRB	11
4.3.3 Discussion of Feature Value	11
4.3.3.1 General	11
4.3.3.2 Recommendation	11
4.3.4 Relevant Core Specifications	11
4.3.5 CT6 or RAN5 Test Case	12
4.3.6 GCF or PTCRB Certification.....	12
4.4 Launch Browser	12
4.4.1 Description.....	12
4.4.2 Input from other groups and bodies	12
4.4.2.1 GCF CAG	12
4.4.2.1.1 Operator usage.....	12
4.4.2.1.2 Feedback.....	12
4.4.2.2 PTCRB	12
4.4.3 Discussion of Feature Value	13
4.4.3.1 General	13
4.4.3.2 Recommendation	13
4.4.4 Relevant Core Specifications	13
4.4.5 CT6 or RAN5 Test Case	13
4.4.6 GCF or PTCRB Certification.....	14
4.5 Support of ACL.....	14
4.5.1 Description.....	14
4.5.2 Input from other groups and bodies	14
4.5.2.1 GCF CAG	14

4.5.2.1.1	Operator usage.....	14
4.5.2.1.2	Feedback.....	14
4.5.2.2	PTCRB.....	14
4.5.3	Discussion of Feature Value.....	15
4.5.4	Relevant Core Specifications.....	15
4.5.5	CT6 or RAN5 Test Case.....	15
4.5.6	GCF or PTCRB Certification.....	16
4.6	Alpha Identifier in REFRESH command.....	16
4.6.1	Description.....	16
4.6.2	Input from other groups and bodies.....	16
4.6.2.1	GCF CAG.....	16
4.6.2.1.1	Operator usage.....	16
4.6.2.1.2	Feedback.....	16
4.6.2.2	PTCRB.....	16
4.6.3	Discussion of Feature Value.....	16
4.6.4	Relevant Core Specifications.....	17
4.6.5	CT6 or RAN5 Test Case.....	17
4.6.6	GCF or PTCRB Certification.....	18
4.7	Event: Language Selection.....	18
4.7.1	Description.....	18
4.7.2	Input from other groups and bodies.....	18
4.7.2.1	GCF CAG.....	18
4.7.2.1.1	Operator usage.....	18
4.7.2.1.2	Feedback.....	18
4.7.2.2	PTCRB.....	18
4.7.3	Discussion of Feature Value.....	18
4.7.4	Relevant Core Specifications.....	19
4.7.5	CT6 or RAN5 Test Case.....	19
4.7.6	GCF or PTCRB Certification.....	19
4.8	Event Network Search Mode Change.....	19
4.8.1	Description.....	19
4.8.2	Input from other groups and bodies.....	20
4.8.2.1	GCF CAG.....	20
4.8.2.1.1	Operator usage.....	20
4.8.2.1.2	Feedback.....	20
4.8.2.2	PTCRB.....	20
4.8.3	Discussion of Feature Value.....	20
4.8.4	Relevant Core Specifications.....	21
4.8.5	CT6 or RAN5 Test Case.....	21
4.8.6	GCF or PTCRB Certification.....	21
4.9	Provide Local Information (Language).....	21
4.9.1	Description.....	21
4.9.2	Input from other groups and bodies.....	21
4.9.2.1	GCF CAG.....	21
4.9.2.1.1	Operator usage.....	21
4.9.2.1.2	Feedback.....	21
4.9.2.2	PTCRB.....	21
4.9.3	Discussion of Feature Value.....	22
4.9.4	Relevant Core Specifications.....	22
4.9.5	CT6 or RAN5 Test Case.....	22
4.9.6	GCF or PTCRB Certification.....	23
4.10	Provide Local Information (search mode change).....	23
4.10.1	Description.....	23
4.10.2	Input from other groups and bodies.....	23
4.10.2.1	GCF CAG.....	23
4.10.2.1.1	Operator usage.....	23
4.10.2.1.2	Feedback.....	23
4.10.2.2	PTCRB.....	23
4.10.3	Discussion of Feature Value.....	23
4.10.4	Relevant Core Specifications.....	24
4.10.5	CT6 or RAN5 Test Case.....	24
4.10.6	GCF or PTCRB Certification.....	24

4.11 Language Notification24

4.11.1 Description.....24

4.11.2 Input from other groups and bodies24

4.11.2.1 GCF CAG24

4.11.2.1.1 Operator usage.....24

4.11.2.1.2 Feedback.....24

4.11.2.2 PTCRB25

4.11.3 Discussion of Feature Value25

4.11.4 Relevant Core Specifications25

4.11.5 CT6 or RAN5 Test Case25

4.11.6 GCF or PTCRB Certification.....26

5 Conclusions and Recommendations.....26

Annex A (informative): Change History27

History28

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1 Scope

The present document presents a review of the USIM, ISIM and the related Toolkit aspects (respectively found in TS 31.102 [3], TS 31.103 [4] and TS 31.111 [5]) features and their mandatory/optional support in the light of actual use or demand in the field is to be conducted. The technical report documents the justification for the support of features identified as not being implemented or required (e.g. from SA1 requirements). When a common understanding is reached about a potential need for a modification of the required support of a feature, it will be listed for further consideration by CT6. Should any normative work be derived from the content of the study, it will be carried out as part of a separate work item.

2 References

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- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TR 41.001: "GSM Release specifications".
- [3] 3GPP TS 31.102: "Characteristics of the Universal Subscriber Identity Module (USIM) application".
- [4] 3GPP TS 31.103: "Characteristics of the IP multimedia services identity module (ISIM) application".
- [5] 3GPP TS 31.111: "Universal Subscriber Identity Module (USIM) Application Toolkit (USAT)".
- [6] ETSI TS 102 223 V11.1.0: "Smart Cards; Card Application Toolkit".
- [7] 3GPP TS 21.111: "USIM and IC card requirements".
- [8] 3GPP TS 31.121: "Universal Subscriber Identity Module (USIM) application test specification".
- [9] 3GPP TS 22.140: "Multimedia Messaging Service (MMS)".
- [10] OMA-RD-MMS-V1 3-20110913-A: "MMS Requirements".
- [11] 3GPP TS 31.124: "Universal Subscriber Identity Module Application Toolkit (USAT) conformance test specification".
- [12] GSMA: "IMEI Allocation and Approval Process Version 7.0 31st October 2013".

3 Definitions, and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ETSI TS 102 223 [6] clause 3.1 and TR 21.905 [1] apply.

3.2 Abbreviations

For the purposes of the present document, the terms and definitions given in ETSI TS 102 223 [6] clause 3.1 and TR 21.905 [1] apply.

ACL	Access Control List
GCF	Global Certification Forum
ISIM	IM Subscriber Identity Module
MMS	Multimedia Messaging Service
PTCRB	PCS Type Certification Review Board
USAT	USIM Application Toolkit
USIM	Universal Subscriber Identity Module

4 Review of USIM, ISIM and USAT features

4.1 Background

Claiming support for a given release of 3GPP translates into the requirement to support all the mandatory features specified for that release. This requirement is often found to be a superset of the requirements actually expressed by the customers for 3GPP devices. This relates in particular to some of the mandatory features specified for USIM, ISIM and the related Toolkit aspects (respectively found in TS 31.102 [3], TS 31.103 [4] and TS 31.111 [5]), as it appears that there is no intent to use some of those mandatory features in the field.

With a view to best address their customer's requirements, the ME manufacturers tailor their implementation to the actual requirements expressed and to their understanding of which features are found to be used in the field. The current set of CT6 specifications does not allow for such profiling of features.

The following sub-sections look at individual features and identify if industry based test cases exist in CT6, RAN5, GCF and PTCRB. Other feature value attributes are also considered for the feature. Based on this information a conclusion is drawn if the feature should be made mandatory or optional in the respective TS 31.102 [3], TS 31.103 [4] and TS 31.111 [5] specifications.

4.2 Local Phonebook

4.2.1 Description

A Phonebook is a repository to store information about telephone numbers, email addresses, groups etc. There are different options where and in which way to store one or several phonebooks. There is a possibility to store a global phonebook under the $DF_{TELECOM}$ which is accessible by all applications of a UICC (e.g. several USIMs, a SIM, a CSIM). In addition it is possible to have a USIM application specific phonebook that is stored within an ADF_{USIM} which is only accessible by the related USIM application. This is what is called a "Local Phonebook"

Phonebooks are described in 3GPP TS 31.102 [3]. Extract of the feature from 3GPP TS 31.102 [3] is described below.

Table 4.2.1-1: DF PHONEBOOK extract from 3GPP TS 31.102 [3]

4.4.2 Contents of files at the DF PHONEBOOK level

The EFs in the $DF_{PHONEBOOK}$ level contain phone book related features as required in TS 21.111 [1].

The UICC may contain a global phonebook, or application specific phonebooks, or both in parallel. When both phonebook types co-exist, they are independent and no data is shared. In this case, it shall be possible for the user to select which phonebook the user would like to access. To achieve this, the terminal shall support the global and the application specific phonebooks

4.2.2 Input from other groups and bodies

4.2.2.1 GCF CAG

4.2.2.1.1 Operator usage

The following text is quoted from document C6-130531.

"Local Phonebook" appears to be required by just 1 operator for possible future use, The other 5 network operators are currently not requiring this feature and UE manufacturers have difficulty implementing it because of OS limitations, chipset limitations, etc. Additionally, these features may slow down device boot and it is also confusing for the user to be presented with several phonebooks.

4.2.2.1.2 Feedback

The following text is quoted from document C6-130531.

Noting the feedback, CAG would like to suggest that CT6 may consider making the "Local Phonebook" feature OPTIONAL.

4.2.2.2 PTCRB

PTCRB responded in C6-140252. The following is quoted from document C6-140252.

Based on this review by the PTCRB operators we would like to state that we agree with the GCF CAG evaluation with one exception. Item 2 – "Support of usage of MMS related data stored on the USIM" is viewed as required based on feedback from one of our operator members and we therefore recommend this feature be set to mandatory.

4.2.3 Discussion of Feature Value

4.2.3.1 General

There can be numerous phone books accessible in a device:

- a) UICC based phone books
 - i) Global Phone Book; and
 - ii) Local Phone Book; and
- b) Device based phone books;
 - i) Application specific; and
 - ii) Device Specific .e.g. Contacts List.

The UICC phone books are distinct; the local phone book is only accessible to the USIM application as specified in TS 31.102 [3] while the Global Phone Book is accessible to all UICC applications. Adding in the complexity of device based phone books and the roll out of IMS based services that use ISIM as specified in TS 31.103 [4] it becomes even more complex to manage a phone book specific to the USIM application.

In addition Global Phone Book is already a mandatory feature.

4.2.3.2 Recommendation

It is proposed to make the support of the local phone book in the ME mandatory in Feature Phones as specified in [12] only in TS 31.102 [3] and ensure that when Local Phone Book is supported by the ME the test specification as defined in TS 31.121 [8] makes the testing of the feature mandatory.