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## OMTP UICC/(U)SIM DEFRAGMENTATION AND REQUIREMENTS OMTP UICC

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# 1 INTRODUCTION

## 1.1 DOCUMENT PURPOSE

This document is concerned with the defragmentation and consolidation of requirements for the ME to support UICC functionalities. The document uses ETSI SCP and 3GPP Release 7 (Rel7) as the baseline release and it clarifies the optional parts and some implementation issues.

It also adds additional requirements to the baseline to deliver a UE platform providing consistent behaviour for value-added services relying on UICC.

The document defines two main classes of requirements... Each class of requirements may have different releases.

- OMTP UICC0: Basic class
  - OMTP UICC0 REL-6: Basic class release 6
  - OMTP UICC0 REL-7: Basic class release 7
- OMTP UICC1: Full class
  - OMTP UICC1 REL-6: Full class release 6
  - OMTP UICC1 REL-7: Full class release 7

In addition, the operators are considering new enablers offered by Rel7 and they are drafting terminal requirements specifications about these items. This document intends to provide a set of requirements to help consolidation of these works. To assist this, supplementary classes are defined to address additional features of Rel7. These classes are built on top of UICC0 and can be independently used to require features like SCWS, HSP, mobileTV and Contact-less as defined in Rel7.

- OMTP UICC2: SCWS class
- OMTP UICC3: HSP class
- OMTP UICC4: mTV class
- OMTP UICC5: C-less class

They have to be referenced as "OMTP UICCX" or "OMTP UICCX REL-Y" where X represents the number of the OMTP profile and Y represents the intended release of this profile (e.g. OMTP UICC0 REL-6 or OMTP UICC 2). The relationship between these classes is defined in section 3.

## 1.2 BUSINESS RATIONALE

Different MEs have different levels of support for the variety of features provided by the UICC. Operators are therefore presented with a limited subset of UICC capabilities due to the fragmentation of ME support. Different levels of support for UICC features also bring high operational costs via the necessary customization of the UICC applications and of applications relying on the UICC/(U)SIM in order for them to operate with different MEs.

The wide scope of options within UICC/(U)SIM related standards makes interoperability tests between ME and UICC/(U)SIM a huge and costly exercise for the operators.

## 1.3 INTENDED AUDIENCE

The document is intended to be used as reference in:

- terminal requirements definition,
- platform and terminal characteristics description,
- to refer to UICC support in mobile terminal definition

Some examples of usage follow:

*Within requirements for a STK application: "The application needs an ME compliant with OMTP UICC0 REL-6 definition as defined in 'OMTP UICC requirements and defragmentation: OMTP UICC0 REL-6'"*

*"The ME is compliant with OMTP UICC2 requirements as defined in 'OMTP UICC requirements and defragmentation: OMTP UICC2'"*

## 1.4 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 RFC2119 [1].

- MUST: This word, or the terms "REQUIRED" or "SHALL", mean that the definition is an absolute requirement of the specification.
- MUST NOT: This phrase, or the phrase "SHALL NOT", mean that the definition is an absolute prohibition of the specification.
- SHOULD: This word, or the adjective "RECOMMENDED", mean that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.
- SHOULD NOT: This phrase, or the phrase "NOT RECOMMENDED" mean that there may exist valid reasons in

particular circumstances when the particular behaviour is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behaviour described with this label.

- **MAY:** This word, or the adjective "OPTIONAL", mean that an item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because the vendor feels that it enhances the product while another vendor may omit the same item. An implementation which does not include a particular option **MUST** be prepared to interoperate with another implementation which does include the option, though perhaps with reduced functionality. In the same vein an implementation which does include a particular option **MUST** be prepared to interoperate with another implementation which does not include the option (except, of course, for the feature the option provides.)

The requirements within this document are uniquely identified using the following format:

UICC-####(.#.#)(a), where:

- #### is a 4 digit number that identifies the requirement (e.g. 0020) and which is to be unique within the document.
- (.#.#) are numbers that indicate sub-requirements (e.g. 00020.1 & 00020.2 which would be sub-requirements of 00020 and 00020.1.1 & 00020.1.2 which would be sub-requirements of 00020.1)
- (a) is one lower-case letter used to indicate a minor revision has been made to the requirement definition.

In the columns defining the classes a '×' indicates that the requirement does not apply to this class. A '✓' indicates that the requirement does apply to this class.

Some requirements reflect implementation issues on standard functionalities that are often recognized not to be consistently implemented in commercial products. These requirements are identified by a caption of "*Implementation advice and clarification*".

The informative sections within requirements are in *italic* font.

The requirements that apply starting in a given release of a class **MUST** start with the following caption: "*REL-Y and onwards*" where Y indicates the release number. If this caption is not present in the requirement, the requirement is applicable to all the releases of the concerned classes.



Note: The requirements defined in the first release of the present document have been re-numbered. The mapping between the old and new requirements numbers can be found in section 12.



## 2 USE CASES

1. George is an STK application developer and he is writing a new application, which exploits all the features of the Toolkit standard. The STK application is installed on a USIM card and works well on a software development kit and emulator, so George tries to use it on some terminals. George is surprised to see that the USIM's STK application only works in a few terminals. He checks the STK terminal capabilities and discovers that not all of them implement the same STK commands and options. George is not able to develop powerful STK applications as he is restricted by the small common subset of commands implemented by the different terminals. The defragmentation of STK commands on terminals will enable George to develop STK applications, which will work on all terminals.

2. Alex performs tests on terminals to verify STK capabilities and STK applications compatibility. During test sessions he discovers many differences in the behaviour between the terminals and he must manage a large data set to understand which STK applications can run on which terminals. The STK defragmentation will decrease the variability in terminal behaviour and will increase the STK application's compatibility.

3. John replaces his old 2G card for a new 2G/3G card. He wants to take advantage of the most up-to-date STK services and the larger 3G phonebook included by the operator. Unfortunately John's phone is not compliant with all of the STK features required so he cannot access the advantages of this new card. In addition, the 3G phonebook is not fully supported by the phone. It has not implemented the maximum speed of communication with the card, so he has to wait for 2 or 3 minutes each day at switch on for the phone to access his phonebook.

Other use cases can be found in the ETSI SCP document [2].

### 3 GENERAL REQUIREMENTS

This chapter defines the relationship between the different OMTP UICC classes:

- The OMTP Basic class is SHALL be a pre-requisite to the HSP class, the mTV class and the C-less class.
- The SCWS class should be assumed to be met when requesting the mTV class and the C-less class. The relationship between the HSP class, the mTV class and the C-less class is defined in the table below.

REQ. ID	REQUIREMENT	UICC2	UICC3	UICC4	UICC5
<b>UICC-0010</b>	The ME SHALL support also the OMTP UICC0 (Basic class) requirements as defined in the present document.	✓	✓	✓	✓
<b>UICC-0020</b>	The ME SHOULD support also the OMTP UICC2 (SCWS class) requirements defined in the present document.	X	✓	✓	✓

## 4 BASIC CLASS AND FULL CLASS REQUIREMENTS

### 4.1 GENERAL

This chapter lists requirements related to support of the main standards.

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0030</b>	The ME SHALL support legacy GSM Phase 2, Phase 2+ SIM cards of latest release  On the UICC interface (SIM or USIM or both, SAT & USAT Applications) the ME SHALL comply with 3GPP release 6/release 7 specifications based at least on December 2007 version; the ME SHOULD comply with the latest available version.  In particular, the ME SHALL at a minimum comply with:	✓	✓
<b>UICC-0030.1</b>	ETSI TS 102.221 [3]	✓	✓
<b>UICC-0030.2</b>	3GPP TS 31.101 [4]	✓	✓
<b>UICC-0030.3</b>	3GPP TS 31.102 [5]	✓	✓
<b>UICC-0030.4</b>	3GPP TS 31.111 [6]	✓	✓
<b>UICC-0030.5</b>	3GPP TS 51.011 [7]	✓	✓
<b>UICC-0030.6</b>	3GPP TS 51.014 [8]	✓	✓

### 4.2 PHYSICAL INTERFACE

This chapter defines the requirements related to the ME-UICC physical interface.

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0040</b>	The ME SHALL support transmission factor (Fi,Di)=(512,64) in addition to those specified in TS 31.101 [4].	x	✓
<b>UICC-0050</b>	The ME SHOULD support transmission factor (Fi,Di)=(512,64) in addition to those specified in TS 31.101 [4].	✓	x

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0060</b>	The ME SHALL support transmission factor (Fi,Di)=(512,32);	✓	✓
<b>UICC-0070</b>	The ME SHOULD be able to supply the maximum application power consumption as specified in TS 102 221 table 6.3 [3].	X	✓
<b>UICC-0080</b>	Where some ME software/applications or application environments can use logical channels, the ME SHALL be able to support 3 logical channels in addition to the basic logical channel 0 [4].	✓	✓
<b>UICC-0090</b>	The ME SHALL support class B and C, as described in [4].	✓	✓
<b>UICC-0100</b>	The ME SHALL support T=0, as described in [4].	✓	✓
<b>UICC-0110</b>	<i>Implementation advice and clarification</i> The ME SHALL apply the PPS fall back procedures defined in section 6.4 of ETSI TS 102 221 [3] before issuing PPS using the default values (372,1).	✓	✓
<b>UICC-0120</b>	<i>(only applicable to UICCx REL-7 and onwards)</i> <i>Implementation advice and clarification</i> The ME SHALL support and use the "TERMINAL CAPABILITY" command as defined in ETSI TS 102 221 [3].	✓	✓

### 4.3 APPLICATION PROTOCOL

This chapter defines the requirements related to the Application Protocol implemented by the ME.

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0130</b>	The ME SHOULD support the Data Oriented commands as specified in TS 102 221 section 11.3 [3].	✓	x

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0140</b>	The ME SHALL support the Data Oriented commands as specified in TS 102 221 section 11.3 [3].	x	✓
<b>UICC-0150</b>	If the ME supports iWLAN/WiMAX, it SHOULD be able to support the WLAN related procedures as specified in TS 31.102 section 5.6 [5] and TS 102.310 [9].	✓	x
<b>UICC-0160</b>	If the ME supports iWLAN/WiMAX, it SHALL be able to support the WLAN related procedures as specified in TS 31.102 section 5.6 [5] and TS 102.310 [9].	x	✓
<b>UICC-0170</b>	The ME SHOULD support the Generic Bootstrapping Architecture (GBA) related procedure as specified in TS 31.102 [5].	✓	✓
<b>UICC-0180</b>	If the ME supports applications requiring GBA, the ME SHALL support the Generic Bootstrapping Architecture (GBA) related procedure as specified in TS 31.102 [5].	✓	✓
<b>UICC-0190</b>	If the ME supports MBMS, the ME SHALL support the MBMS related procedure as specified in TS 31.102 [5].	✗✓	✓
<b>UICC-0200</b>	If the ME supports iWLAN/WiMAX, the ME SHOULD implement the EAP support in the UICC as specified in TS 102 310 [9].	✓	x
<b>UICC-0210</b>	If the ME supports iWLAN/WiMAX, the ME SHALL implement the EAP support in the UICC as specified in TS 102 310 [9].	X	✓
<b>UICC-0220</b>	The ME SHALL support SIM and USIM phonebooks	✓	✓
<b>UICC-0230</b>	The ME SHALL be able to manage a minimum of 100 SMS on the (U)SIM	✓	✓
<b>UICC-0240</b>	If the ME supports MMS as in UICC-0720, the ME SHOULD be able to manage a minimum of 50 MMS on the USIM	✓	x

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0250</b>	If the ME supports MMS as in UICC-0720, the ME SHALL be able to manage a minimum of 50 MMS on the USIM	x	✓
<b>UICC-0260</b>	If the ME supports MMS, on MMS Request, update, erasure, the ME SHOULD perform the procedure according to sequences specified in TS 31.102 section 5.3.29 [5]	✓	x
<b>UICC-0270</b>	If the ME supports MMS, on MMS Request, update, erasure, the ME SHALL perform the procedure according to sequences specified in TS 31.102 section 5.3.29 [5]	x	✓
<b>UICC-0280</b>	The ME SHALL support at least 5 preferred languages listed in the EF_PL Preferred Languages	✓	✓
<b>UICC-0290</b>	The ME SHALL support at least 10 emergency call codes stored in the EF_ECC Emergency Call Codes on the (U)SIM	✓	✓
<b>UICC-0300</b>	The ME SHALL support at least 5 MSISDNs stored in EF_MSISDN MSISDN with at least 2 for voice and 3 for data	✓	✓
<b>UICC-0310</b>	The ME SHALL be able to support at least 100 SDNs stored in EF_SDN Service Dialling Numbers	✓	✓
<b>UICC-0320</b>	The ME SHALL be able to support at least 80 PLMNs including their Access Technology stored in EF_OPLMNwACT Operator controlled PLMN selector with Access Technology	✓	✓
<b>UICC-0330</b>	The ME SHALL support at least 10 records of HPLMN including their Access Technology stored in EF_HPLMNwAcT HPLMN selector with Access Technology	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0340</b>	The ME SHALL support EF_PNN (PLMN Network Name) and EF_OPL (Operator PLMN List) of 3GPP 31.102 [5].	✓	✓
<b>UICC-0350</b>	The ME SHALL support at least 4 SMSP entries stored in EF_SMSP.	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0360</b>	<p>The ME SHALL support the features SPN and PNN/OPL and Idle Mode Text. The ME SHALL support the display of all three display items and of the entire SPN string.</p> <p><i>Implementation advice and clarification</i></p> <p>The ME SHOULD have the following behaviour:</p> <p>A. If the first byte of EF_SPN is set to "01" (Display of reg. PLMN required), the ME SHALL:</p> <ul style="list-style-type: none"> <li>• Display the content of EF_PNN if one is defined in EF_OPL for the network code of the registered PLMN. (If no valid entry is defined in EF_PNN/OPL, the operator name as stored in the UE firmware MAY be displayed.)</li> <li>• Display the entire SPN string if one is defined in EF_SPN. (FF...FF = Empty)</li> <li>• Display the Idle Mode Text if one is set up by the card via STK.</li> </ul> <p>B. If the first byte of EF_SPN is set to "00" (Display of reg. PLMN _NOT_ required), the ME SHALL:</p> <ul style="list-style-type: none"> <li>• NOT display any network name (neither any content of EF_PNN/OPL, nor any network name as stored in the UE firmware), except in roaming case.</li> <li>• Display the entire SPN string if one is defined in EF_SPN. (FF...FF = Empty)</li> <li>• Display the Idle Mode Text if one is set up by the card via the STK.</li> </ul> <p>C. In roaming case the ME SHALL:</p> <ul style="list-style-type: none"> <li>• Display the content of EF_PNN if one is defined in EF_OPL for the network code of the registered PLMN.</li> <li>• Display the appropriate operator name as stored in the UE firmware, if no valid entry is defined in EF_PNN/OPL.</li> </ul>	✓	✓



REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0370</b>	<p>The ME SHALL support the following management of 3G Global Phonebook:</p> <ul style="list-style-type: none"> <li>• Management and access to the 3G Global Phonebook located in DFPHONEBOOK (FID = 5F3A) under DFTELECOM (FID=7F10).</li> <li>• Link files: EF_PBR, EF_IAP and EF_PBC.</li> <li>• Synchronisation files: EF_UID, EF_PSC, EF_CC and EF_PUID.</li> <li>• Hidden entries of EF_ADN and secret key (EF_HiddenKey).</li> <li>• Alpha strings for groups and additional numbers: EF_GAS and EF_AAS.</li> <li>• Support of at least 2 files of ADN.</li> </ul>	✓	✓
<b>UICC-0380</b>	<p>The ME SHOULD support the following management of the 3G Global Phonebook:</p> <ul style="list-style-type: none"> <li>• Support of at least 500 ADN entries.</li> <li>• Support of at least 500 SNE entries.</li> <li>• Support of at least 500 e-mail entries.</li> <li>• Support of at least 500 ANR entries.</li> <li>• Support of at least 5 AAS entries.</li> <li>• Support of at least 500 GRP entries.</li> <li>• Support of at least 5 GAS entries.</li> </ul>	✓	x

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0390</b>	<p>The ME SHALL support the following management of the 3G Global Phonebook:</p> <ul style="list-style-type: none"> <li>• Support of at least 500 ADN entries.</li> <li>• Support of at least 500 SNE entries.</li> <li>• Support of at least 500 e-mail entries.</li> <li>• Support of at least 500 ANR entries.</li> <li>• Support of at least 5 AAS entries.</li> <li>• Support of at least 500 GRP entries.</li> <li>• Support of at least 5 GAS entries.</li> </ul>	x	✓
<b>UICC-0400</b>	<p>The ME SHALL support the following management of the 3G Global Phonebook:</p> <ul style="list-style-type: none"> <li>• Support of at least 3 GRP assignments per contact.</li> <li>• Support of at least 3 ANR fields per contact</li> </ul>	✓	✓
<b>UICC-0410</b>	The ME SHALL support the retrieval of operator certificates stored in the UICC using the PKCS#15 file structure [10].	✓	✓
<b>UICC-0420</b>	The ME SHOULD support the retrieval of WAP provisioning data stored in the UICC using the PKCS#15 file structure according to [11].	✓	x
<b>UICC-0430</b>	The ME SHALL support the retrieval of WAP provisioning data stored in the UICC using the PKCS#15 file structure according to [11].	x	✓
<b>UICC-0440</b>	The ME SHALL support at least 80 PLMN including their Access Technology stored in EF_PLMNwACT User Controlled PLMN selector with Access Technology	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0450</b>	<p>If ME supports MMS, the ME SHOULD support the following MMS configuration in the UICC.</p> <ul style="list-style-type: none"> <li>• EF_MMSN: at least 10 notifications.</li> <li>• EF_Ext8: at least 3 entries.</li> <li>• EF_MMSICP: at least 4 operator configurations.</li> <li>• EF_MMSUP: at least 1 user preference.</li> <li>• EF_MMSUCP: at least 2 user configurations.</li> </ul>	✓	x
<b>UICC-0460</b>	<p>If the ME supports MMS, the ME SHALL support the following MMS configuration in the UICC.</p> <ul style="list-style-type: none"> <li>• EF_MMSN: at least 10 notifications.</li> <li>• EF_Ext8: at least 3 entries.</li> <li>• EF_MMSICP: at least 4 operator configurations.</li> <li>• EF_MMSUP: at least 1 user preference.</li> <li>• EF_MMSUCP: at least 2 user configurations.</li> </ul>	x	✓
<b>UICC-0470</b>	If the ME supports IMS, the ME SHALL support at least 1 ISIM application [12] in addition to USIM	✓	✓
<b>UICC-0480</b>	The ME SHALL support a SIM on the UICC where EF-DIR is empty, i.e. USIM not available	✓	✓
<b>UICC-0490</b>	If the ME supports ISIM applications, the ME SHALL be able to manage the following security contexts described in 3GPP TS 31.103 [12]: IMS AKA, HTTP Digest, GBA.	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0500</b>	The features corresponding to the following services SHALL be supported, in accordance with the description of the services in the UST as a minimum (see Table 1):	See table 1	See table 1

Table 1 – UST

REQ. ID	UST N°	SERVICE DESCRIPTION IN UST	UICC0	UICC1
<b>UICC-0500.1</b>	1	Local Phone Book	✓	✓
<b>UICC-0500.2</b>	2	Fixed Dialling Numbers (FDN)	✓	✓
<b>UICC-0500.3</b>	3	Extension 2	x	✓
<b>UICC-0500.4</b>	4	Service Dialling Numbers (SDN)	✓	✓
<b>UICC-0500.5</b>	5	Extension3	x	✓
<b>UICC-0500.6</b>	6	Barred Dialling Numbers (BDN)	✓	✓
<b>UICC-0500.7</b>	7	Extension4	x	✓
<b>UICC-0500.8</b>	10	Short Message Storage (SMS)	✓	✓
<b>UICC-0500.9</b>	12	Short Message Service Parameters (SMSP)	✓	✓
<b>UICC-0500.10</b>	13	Advice of Charge (AoC)	x	✓
<b>UICC-0500.11</b>	14	Capability Configuration Parameters (CCP)	x	✓
<b>UICC-0500.12</b>	15	Cell Broadcast Message Identifier	✓	✓
<b>UICC-0500.13</b>	17	Group Identifier Level 1	✓	✓
<b>UICC-0500.14</b>	18	Group Identifier Level 2	✓	✓
<b>UICC-0500.15</b>	19	Service Provider Name	✓	✓

REQ. ID	UST N°	SERVICE DESCRIPTION IN UST	UICC0	UICC1
<b>UICC-0500.16</b>	20	User controlled PLMN selector with Access Technology	✓	✓
<b>UICC-0500.17</b>	21	MSISDN	✓	✓
<b>UICC-0500.18</b>	27	GSM Access	✓	✓
<b>UICC-0500.19</b>	28	Data download via SMS-PP	✓	✓
<b>UICC-0500.20</b>	29	Data download via SMS_CB	✓	✓
<b>UICC-0500.21</b>	30	Call Control by USIM	✓	✓
<b>UICC-0500.22</b>	31	MO-SMS Control by USIM	✓	✓
<b>UICC-0500.23</b>	33	SHALL be set to '1'	✓	✓
<b>UICC-0500.24</b>	34	Enabled Services Table	✓	✓
<b>UICC-0500.25</b>	35	APN Control List (ACL)	x	✓
<b>UICC-0500.26</b>	38	GSM security context	✓	✓
<b>UICC-0500.27</b>	39	CPBCCCH Information	✓	✓
<b>UICC-0500.28</b>	43	HPLMN selector with Access Technology	✓	✓
<b>UICC-0500.29</b>	45	PLMN network name (PNN)	✓	✓
<b>UICC-0500.30</b>	46	Operator PLMN list (OPL)	✓	✓
<b>UICC-0500.31</b>	47	Mailbox dialling number (MBDN)	x	✓
<b>UICC-0500.32</b>	48	Message waiting indication status (MWIS)	x	✓
<b>UICC-0500.33</b>	49	Call Forwarding indication status (CFIS)	x	✓
<b>UICC-0500.34</b>	53	Extension 8	x	✓
<b>UICC-0500.35</b>	54	Call control on GPRS by USIM	✓	✓

REQ. ID	UST N°	SERVICE DESCRIPTION IN UST	UICC0	UICC1
<b>UICC-0500.36</b>	56	Network's indication of alerting in the MS (NIA)	x	✓
If the ME supports application requiring GBA				
<b>UICC-0500.37</b>	68	Generic Bootstrapping Architecture (GBA)	✓	✓
If ME supports MBMS				
<b>UICC-0500.38</b>	69	MBMS security (SHOULD)	✓	x
<b>UICC-0500.38B</b>	69	MBMS security	x	✓
If ME supports iWLAN/WiMAX				
<b>UICC-0500.39</b>	66	WLAN Reauthentication Identity	✓	✓
<b>UICC-0500.40</b>	60	User Controlled PLMN selector for WLAN access	✓	✓
<b>UICC-0500.41</b>	61	Operator Controlled PLMN selector for WLAN access	✓	✓
<b>UICC-0500.42</b>	62	User controlled WSID list	✓	✓
<b>UICC-0500.43</b>	63	Operator controlled WSID list	✓	✓
<b>UICC-0500.44</b>	59	Pseudonym	✓	✓
If ME supports MMS				
<b>UICC-0500.45</b>	52	Multimedia Messaging Service (MMS)	✓	✓
<b>UICC-0500.46</b>	55	MMS User Connectivity Parameters	✓	✓
<b>UICC-0500.47</b>	67	Multimedia Messages Storage (SHOULD)	✓	x
	67	Multimedia Messages Storage (SHALL)	x	✓
If ME supports VBS				

REQ. ID	UST N°	SERVICE DESCRIPTION IN UST	UICC0	UICC1
<b>UICC-0500.48</b>	58	VBS Group Identifier List (EF_VBS and EFVBSS)	x	✓
<b>UICC-0500.49</b>	65	VBS security	x	✓
If ME supports VGCS				
<b>UICC-0500.50</b>	57	VGCS Group Identifier List (EF_VGCS and EFVGCS)	x	✓
<b>UICC-0500.51</b>	64	VGCS security	x	✓
If ME support AT command interface				
<b>UICC-0500.52</b>	32	RUN AT COMMAND command	x	✓

#### **4.4 3G PHONE BOOK PERFORMANCES REQUIREMENTS**

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0510</b>	The ME SHALL be capable of retrieving 254 entries in less than 10 seconds.	✓	✓
<b>UICC-0520</b>	The inter-byte time SHOULD not exceed 400 clock cycles.	✓	✓
<b>UICC-0530</b>	The time between consecutive APDUs used for fetching 3G phone book data SHOULD not exceed 1000 clock cycles.	✓	✓
<b>UICC-0540</b>	The ME SHOULD use the READ next record mechanism.	✓	✓
<b>UICC-0550</b>	The ME SHOULD make use of available SFIs.	✓	✓

#### **4.5 ISIM CONFIGURATION REQUIREMENTS**

In this chapter requirements related to ISIM support are listed.

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0560</b>	The ME SHALL allow the support of the service as defined in the EF_IST: Service n°2 Generic Bootstrapping Architecture (GBA) in TS 31.103 [12].	x	✓

#### 4.6 REMOTE MANAGEMENT REQUIREMENTS

In this chapter requirements related to remote managements are listed.

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0570</b>	<p>The ME shall support the following commands (as specified in TS 31.111 [6] or TS 51.014 [10]):</p> <ul style="list-style-type: none"> <li>• SEND SMS, ENVELOPE SMS_PP DATA DOWNLOAD</li> <li>• BIP class e</li> </ul> <p><i>These commands enable Remote UICC/(U)SIM Management as defined in the following specifications:</i></p> <ul style="list-style-type: none"> <li>• ETSI TS 102 225 (including CAT-TP related features) [13]</li> <li>• ETSI TS 102 226 (including CAT-TP related features) [14]</li> <li>• 3GPP TS 23.040 [15]</li> <li>• 3GPP TS 23.048 [16]</li> <li>• 3GPP TS 31.115 [17]</li> <li>• 3GPP TS 31.116 [18]</li> </ul>	✓	✓



## 4.7 APPLICATION REQUIREMENTS

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0580</b>	<p>The ME SHALL support all features allowing implementation of the Device Management SmartCard Bootstrap method as defined in OMA in the following references:</p> <ul style="list-style-type: none"> <li>• OMA Device Management Bootstrap v1.2 [19]</li> </ul> <p>as defined in OMTP Advanced Device Management [20]</p> <p><i>Implementation advice and clarification</i></p> <p>The ME SHOULD implement either both (i.e. DM and CP) Profiles or DM Profile as defined in [19] when bootstrapping from a Smartcard.</p>	✓	✓
<b>UICC-0590</b>	<p>If the ME supports the DM profile for bootstrap, the ME SHALL support the Device Management TNDS as defined in OMA in the following references:</p> <ul style="list-style-type: none"> <li>• OMA Device Management TNDS [21].</li> </ul>	✓	✓
<b>UICC-0600</b>	<p>A Java-enabled ME SHALL support JSR 177 [22] with the following access API to be supported</p> <ul style="list-style-type: none"> <li>• SATSA APDU</li> </ul>	✓	✓
<b>UICC-0610</b>	<p>A Java-enabled ME SHOULD support JSR 177 [22] with the following access API to be supported</p> <ul style="list-style-type: none"> <li>• SATSA PKI</li> <li>• SATSA Crypto</li> </ul>	✓	x
<b>UICC-0620</b>	<p>A Java-enabled ME SHALL support JSR 177 [22] with the following access API to be supported</p> <ul style="list-style-type: none"> <li>• SATSA PKI</li> <li>• SATSA Crypto</li> </ul>	x	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0630</b>	A Java-enabled ME SHOULD support JSR 177 [22] with the following access API to be supported <ul style="list-style-type: none"> <li>SATSA JCRMI</li> </ul>	✓	✓
<b>UICC-0640</b>	A Java-enabled ME SHALL support JSR 118 Recommended Security Policy [23] : management of the operator root certificate in the UICC	✓	✓
<b>UICC-0650</b>	<p><i>Implementation advice and clarification</i></p> <p>The ME SHALL support Proof of Receipt capability.</p> <p><i>It has been detected that several handsets do not correctly implement Proof of Receipt functionality when receiving an 3GPP TS 23.048 [16] OTA message.</i></p> <p>The proper implementation of the following procedures SHALL be enforced</p> <ul style="list-style-type: none"> <li>SMS-DELIVER-REPORT 'RP-ACK' procedure.</li> <li>SMS-DELIVER-REPORT 'RP-ERROR' procedure.</li> <li>The 6F XX Status Word SHALL be supported by the ME, as specified in 3GPP TS 31.111 [6]. In this case the ME SHALL use the error acknowledgement channel (e.g. RP-ERROR).</li> </ul>	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0660</b>	<p>The ME SHALL support the following WAP interaction with OTA messages:</p> <p>When there is a WAP session active and a class 2 short message ((U)SIM specific) is received, the message SHALL NOT be stored and later forwarded to the (U)SIM, as the described processes MUST NOT interfere with OTA messages (<i>e.g., as WAP channel is a different channel to the OTA messages channel, the messages could be delivered to the (U)SIM as soon as they are received</i>). In this case the message SHALL be delivered to the UICC immediately after its reception by the handset.</p>	✓	✓
<b>UICC-0670</b>	<p>A Java-enabled ME SHALL support the following MIDlet interaction with OTA messages.</p> <p>When there is a MIDlet running and a class 2 short message ((U)SIM specific) is received, the message SHALL NOT be stored and later forwarded to the (U)SIM, as the described processes MUST NOT interfere with OTA messages. In this case the message SHALL be delivered to the UICC immediately after its reception by the handset.</p>	✓	✓
<b>UICC-0680</b>	<p>The ME SHALL support the following priority of SAT processes over WAP/web pages.</p> <p>If during WAP/web navigation a card application is activated (for example after receiving an OTA message), the card application SHALL take control of the handset UI until it finishes. The WAP/web session SHALL be kept in background until the card application is finished.</p>	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0690</b>	A JAVA enabled ME SHALL support the following priority of SAT processes over MIDlet execution.  If during a MIDlet execution a card application is activated (for example after receiving an OTA message), the card application SHALL take control of the handset UI until it finishes. The MIDlet session SHALL be kept in background until the card application is finished.	✓	✓
<b>UICC-0700</b>	The ME SHALL support Local, Global and Universal PIN.	x	✓
<b>UICC-0710</b>	The ME SHALL re-read the related PLMN selection list before it searches for a Higher Priority PLMN.	✓	✓

#### **4.8 OPERATOR APPLICATION APIs FOR UICC ACCESS**

This chapter defines APIs for ME applications. The needed APIs capabilities are expressed through set of AT commands available to ME Operator applications.

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0720</b>	The ME SHALL provide to an Operator application as defined in [24] (within an Application Client or a Service Enabler as defined in [24]) APIs to send and receive APDU to UICC (i.e. equivalent to the Generic SIM access +CSIM AT command as specified in TS 27.007 [25].)  Refer to [26] for applicability.	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0730</b>	<p>The ME SHALL provide to an Operator application as defined in [24] APIs to access and manage Logical Channels (i.e. equivalent to the following AT commands:</p> <ul style="list-style-type: none"> <li>• Generic UICC Logical Channel access +CGLA</li> <li>• Open Logical Channel +CCHO</li> <li>• Close Logical Channel +CCHC</li> </ul> <p>as specified in TS 27.007 [25].</p>	✓	✓
<b>UICC-0740</b>	<p>The ME SHALL provide to an Operator application as defined in [24] APIs to discover application on UICC (i.e. equivalent to the UICC Application Discovery +CUAD AT command as specified in TS 27.007 [25])</p>	✓	✓
<b>UICC-0750</b>	<p>If ME supports EAP commands as defined in TS 102 310 [9], the ME SHALL provide to an Operator application as defined in [26] APIs to access and manage EAP authentication (i.e. equivalent to the following AT commands:</p> <ul style="list-style-type: none"> <li>• EAP authentication +CEAP</li> <li>• EAP Retrieve Parameters +CERP</li> </ul> <p>as specified in TS 27.007 [25]).</p>	✓	✓

## 4.9 CAT & USAT PROACTIVE COMMANDS

This chapter defines the requirements related to the CAT and USAT proactive commands. Considering that TS 31.111 Annex A [6] states: “if a ME states conformance with a specific 3G release, it is mandatory for the ME to support all functions of that release. The support of USAT implies the support of CAT TS 102 223 [27]. The support of letter classes, which specify mainly ME hardware dependent features, is optional for the ME and may supplement the USAT functionality described in the present document. If an ME states conformance to a letter class, it is mandatory to support all functions within the respective letter class.” The following requirements defines the letter classes required.

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0760</b>	If the ME supports AT commands interface, the ME SHALL support class letter <b>b</b> CAT proactive commands as specified in TS 102 223 [27] and 3GPP TS 31.111 [6].  The set of AT commands that SHALL be supported through the RUN AT COMMAND (class b) are listed in Table 2	x	✓
<b>UICC-0770</b>	An ME which implements an Internet Browser SHALL support class letter <b>c</b> CAT proactive commands as specified in TS 102 223 [27] and 3GPP TS 31.111 [6].	✓	✓
<b>UICC-0780</b>	An ME which supports soft keys SHALL also support class letter <b>d</b> CAT proactive commands as specified in TS 102 223 [27].	x	✓
<b>UICC-0780.1</b>	The ME SHALL support class letter <b>e</b> CAT proactive commands on packets bearers as specified in TS 102 223 [27] and 3GPP TS 31.111 [6].	✓	x
<b>UICC-0780.2</b>	The ME SHALL support class letter <b>e</b> CAT proactive commands whatever is the bearer and default bearer as specified in TS 102 223 [27] and 3GPP TS 31.111 [6].	x	✓
<b>UICC-0790</b>	If the ME provides a local bearer (Bluetooth, IrDA, RS232, USB), it SHALL support class <b>e</b> and <b>f</b> CAT proactive commands related to local bearer as specified in TS 102 223 [27].	x	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0800</b>	If the ME supports multimedia call services it SHALL support class letter <b>h</b> CAT proactive commands as specified in TS 102 223 [27].	x	✓
<b>UICC-0810</b>	The ME SHALL support class letter <b>i</b> CAT proactive commands as specified in TS 102 223 [27].	x	✓
<b>UICC-0820</b>	If the ME is able to send and receive MMS [28] it SHOULD support class letter <b>j</b> USAT proactive commands as specified in TS 31.111 [6].	✓	x
<b>UICC-0830</b>	If the ME is able to send and receive MMS [28] it SHALL support class letter <b>j</b> USAT proactive commands as specified in TS 31.111 [6].	x	✓
<b>UICC-0840</b>	<p>The ME SHALL support the following <i>Send USSD</i> command behaviour (I).</p> <p><i>3GPP TS 31.111 [6] states the following:</i></p> <p><i>“Once the USSD transaction is initiated, a dialogue between the network and the user may occur which involves the MMI of the ME. If an alpha identifier was initially provided by the UICC, this alpha identifier <b>may</b> be discarded during this dialogue.”</i></p> <p><i>As it is not mandatory, there may be cases where the alpha identifier is not discarded and the user is not able to access the USSD dialogue.</i></p> <p>The requirement SHALL be intended as</p> <p><i>“Once the USSD transaction is initiated, a dialogue between the network and the user may occur which involves the MMI of the ME. If an alpha identifier was initially provided by the UICC, this alpha identifier <b>MUST</b> be discarded during this dialogue.”</i></p>	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
UICC-0850	<p>The ME SHALL support the following <i>Send USSD</i> command behaviour (II).</p> <p><i>3GPP TS 31.111 [6] states the following:</i></p> <p><i>“Once a RELEASE COMPLETE message containing the USSD Return Result message not containing an error has been received from the network, the ME SHALL inform the UICC that the command has been successfully executed, using TERMINAL RESPONSE. This command SHALL include the text contained in the USSD Return Result in a Text String data object. If a null alpha identifier was provided by the UICC, the ME <b>should not</b> give any information to the user at the reception of a USSD Return Result message”</i></p> <p><i>As it is not mandatory, it may happen that the handset shows in the screen the Return Result text string, independently of the STK application. So, if the STK application is programmed to show the result on screen, the same text can be shown twice to the user, providing confusion.</i></p> <p>The requirement SHALL be changed to “if a Return Result text string is passed to the STK application, it <b>SHALL NOT</b> be displayed to the user”.</p> <p>If the USSD session was initiated by STK, the ME SHALL always submit the USSD return result to the UICC.</p>	✓	✓



REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0860</b>	<p><i>Implementation advice and clarification</i></p> <p>The ME SHALL support the following <i>Launch Browser</i> command behaviour:</p> <p><i>ETSI TS 102 223 [27] states the following:</i></p> <p><i>“If the terminal is able to execute the command:</i></p> <ul style="list-style-type: none"> <li><i>• the terminal shall inform the UICC that the command has been successfully taken into account, using TERMINAL RESPONSE;</i></li> <li><i>• the UICC shall end the proactive session;</i></li> <li><i>• then the terminal shall request content using the URL.”</i></li> </ul> <p><i>It has been detected that some devices launch the browser but immediately after that event, and as a consequence of the UICC finishing the proactive session, the screen where all STK applications are displayed is shown to the user, hiding in background the browser screen, so the user tends to think the browser request has been cancelled.</i></p> <p>Once the ME receives the Launch Browser request and launches the browser, no other STK-related screen SHALL superimpose the browser screen without user intervention.</p>	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<p><b>UICC-0870</b></p>	<p><i>Implementation advice and clarification</i></p> <p>The ME SHALL support the following Provide Local Information command behaviour.</p> <p><i>TS 102 223 [27] states that Provide Local Information command is able to provide the following information:</i></p> <ul style="list-style-type: none"> <li>• <i>MCC, MNC, LAC, Cell Identity, IMEI and Extended Cell Identity</i></li> <li>• <i>Network Measurement results</i></li> <li>• <i>Timing Advance.</i></li> </ul> <p><i>However, NMR and Timing Advance are optionally implemented by the manufacturer, which leads to fragmentation.</i></p> <p>Any manufacturer implementing the Provide Local Information command SHALL implement NMR and Timing Advance capabilities for 2G Bearers along with the rest of the options of the command.</p> <p>The Format of the LAC and Cell-ID SHALL be as follows: 2 Bytes (for 2G)/4 Bytes (for 3G) length for each, the nibbles SHALL NOT be swapped, i.e. the LAC and Cell-ID are forwarded without modification as they are broadcasted by the network. The MCC and MNC SHALL be sent to the card as specified in the 3GPP TS 24.008 [29] , i.e. for two digit MNC, a padding 'F' SHALL be inserted after the MCC and all nibbles SHALL be swapped (262 01 -&gt; 62F210). If the UE is not in the MM-IDLE state when a change in the LAC or Cell-ID or both occurs, the Event (Location Status) SHALL be sent to the card directly after a Location Update procedure is initiated by the ME and the related data files are updated; nevertheless the total execution time for the process SHALL NOT exceed 1 second.</p> <p>The typical delay value for the ME in idle mode state SHALL NOT exceed 2 seconds after detecting a change in the location status.</p>	<p>✓</p>	<p>✓</p>

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0880</b>	<p>The ME SHALL support the following UPDATE command for FPLMN file behaviour.</p> <p><i>3GPP TS 31.102 [5] states the following:</i></p> <p><i>“When n FPLMNs are held in the EF, and rejection of a further PLMN is received by the ME from the network, the ME SHALL modify the EF using the UPDATE command. This new PLMN SHALL be stored in the n<sup>th</sup> position, and the existing list “shifted” causing the previous contents of the first position to be lost.”</i></p> <p>The management of this file's content SHALL be consistent with the fact that, whilst the file is not full, no record will be deleted whenever a new record is stored. Additionally, the file SHALL be updated in a way that ensures that once the file is full, the addition of a new record as described in 3GPP TS 31.102 [5] SHALL always cause the older record to be lost (FIFO behaviour).</p>	x	✓
<b>UICC-0890</b>	<p>The ME SHALL support the following configuration on data buffers for Bearer Independent Protocol:</p> <p>Specify 2 buffers of 1500 bytes at minimum, one for incoming and another for outgoing transmissions.</p>	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<p><b>UICC-0900</b></p>	<p><i>Implementation advice and clarification</i></p> <p>The ME SHALL support all Refresh command variants. <i>It has been detected that several MEs are not compliant with Refresh command and all its variants.</i></p> <p>The following variants SHALL be correctly implemented according to the definition given in 3GPP 31.111 [6] document:</p> <ul style="list-style-type: none"> <li>• Refresh (U)SIM initialization</li> <li>• Refresh File Change Notification</li> <li>• Refresh (U)SIM initialization and File Change Notification</li> <li>• Refresh (U)SIM initialization and Full File Change Notification</li> <li>• Refresh (U)SIM Reset</li> <li>• If the UE keeps an image of files in its memory, it SHALL update the content of the files depending on the mode (i.e. if a REFRESH with full file change notification is sent by the UICC, the image of all files in memory SHALL be updated. If a file change notification is sent, only the listed files are updated).</li> <li>• If a Refresh on the file EF_IMSI is received, the image of the file in the ME memory SHALL be updated and the UE SHALL perform a new network registration. If the ME detects a change of IMSI the ME SHALL in any case perform a new network registration.</li> </ul> <p>In addition:</p> <ul style="list-style-type: none"> <li>• If a Refresh on the file EF_SPN is received, the image of the file in the UE memory SHALL be updated and the UE SHALL display the new service provider name.</li> <li>• If a Refresh on the file EF_PLMNsel or EF_OPLMNwACT or EF_PLMNwACT is received, the image of the file in the ME memory SHALL be updated.</li> </ul>	<p>✓</p>	<p>✓</p>

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0910</b>	<p><i>Implementation advice and clarification</i></p> <p>The ME SHALL support all <i>Play Tone</i> command specific tones, as specified in ETSI TS 102 223 [27].</p> <p>The ME SHALL as well support the “Standard Supervisory Tones”.</p>	✓	✓
<b>UICC-0920</b>	<p><i>Implementation advice and clarification</i></p> <p>If the Play Tone command includes a Duration object, the device SHALL use that duration as the length of time for which the device generates the tone.</p>	✓	✓
<b>UICC-0930</b>	<p>The time interval that triggers the Terminal response “no response from user” result value event SHALL be 60 seconds</p>	✓	✓
<b>UICC-0940</b>	<p><i>Implementation advice and clarification</i></p> <p>The ME SHALL support the PROACTIVE UICC DISPLAY TEXT (VARIABLE TIME OUT) capability, so if a Display Text command includes a Duration object, the device SHALL use that duration as the required duration for execution of the command before the timeout expires.</p>	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC-0950</b>	<p>The typical delay value for the ME in idle mode state SHALL not exceed 2 second between receiving the SET UP IDLE MODE TEXT command and displaying the idle mode text on the display.</p> <p>Idle Mode Text with "Text string" set to a null data object (i.e. length = '00' and no value part) SHALL be supported.</p> <p>In this case an already existing Idle Mode Text SHALL be removed, even if none was set previously.</p> <p>If some other high priority information is showed in the display (i.e. during a call) the previous Idle Mode Text SHALL be restored as soon as the other information is no longer displayed. If during the display of the other information a Set Up Idle Mode Text command is received by the UE, the new text SHALL be displayed or the text SHALL be removed (if the Set Up Idle Mode Text contains a null data object as Text String)</p>	✓	✓
<b>UICC-0960</b>	The ME SHALL send the USSD string according to the setting of the DCS byte (e.g. as 7 bit GSM default alphabet or 8 bit Data)	✓	✓
<b>UICC-0970</b>	The ME SHALL support the alpha identifier of all proactive commands as defined in the appropriate standards. E.g. for the Send SMS command: if an Alpha Identifier (AI) is provided by the card and it is not a null data object, the ME SHALL use it to inform the user; if a null data object AI is provided by the card then the UE SHALL NOT give any indication to the user	✓	✓
<b>UICC-0980</b>	The ME SHALL support the event_SMS_CB_Data_Download and the EF_CBMID management as indicated in [6] (CELL BROADCAST SIM DATA DOWNLOAD)	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC - 0990</b>	<p>The ME SHALL support the following CAT commands and events as defined in ETSI TS 102 223 [27]:</p> <ul style="list-style-type: none"> <li>• "TIMER MANAGEMENT" commands and "Timer expiration" event</li> <li>• PROVIDE LOCAL INFORMATION (date, time and time zone) command</li> </ul>		✓

Table 2

<b>UICC -0760.1</b>	ATZ
<b>UICC -0760.2</b>	AT
<b>UICC -0760.3</b>	ATE1
<b>UICC -0760.4</b>	AT+CGDCONT=%s,%s,%s,%s,%s,%s
<b>UICC -0760.5</b>	AT+CGDCONT=?
<b>UICC -0760.6</b>	AT+GCAP
<b>UICC -0760.7</b>	AT+CGEQREQ?
<b>UICC -0760.8</b>	AT+CGEQMIN?
<b>UICC -0760.9</b>	AT+CGATT?
<b>UICC -0760.10</b>	AT+CGATT=%s
<b>UICC -0760.11</b>	AT+CPIN=?
<b>UICC -0760.12</b>	AT+CPIN?
<b>UICC -0760.13</b>	AT+CPIN=%s
<b>UICC -0760.14</b>	AT+CPIN=%s,%s
<b>UICC -0760.15</b>	AT+CPWD=%s,%s,%s
<b>UICC -0760.16</b>	AT+CLCK=%s,%s,%s
<b>UICC -0760.17</b>	AT+CLCK=%s,%s

<b>UICC -0760.18</b>	AT+CMEE=?
<b>UICC -0760.19</b>	AT+CMEE?
<b>UICC -0760.20</b>	AT+CMEE=%s
<b>UICC -0760.21</b>	AT+CGMM
<b>UICC -0760.22</b>	AT+GMM
<b>UICC -0760.23</b>	AT+CGMI
<b>UICC -0760.24</b>	AT+GMI
<b>UICC -0760.25</b>	AT+CGSN
<b>UICC -0760.26</b>	AT+GSN
<b>UICC -0760.27</b>	AT+CIMI
<b>UICC -0760.28</b>	AT+COPS=?
<b>UICC -0760.29</b>	AT+COPS?
<b>UICC -0760.30</b>	AT+COPS=%s,%s,%s
<b>UICC -0760.31</b>	AT+COPS=3,%s
<b>UICC -0760.32</b>	AT+COPS=0
<b>UICC -0760.33</b>	AT+CFUN=%s
<b>UICC -0760.34</b>	AT+CBST=%s,%s,%s
<b>UICC -0760.35</b>	AT+CHSN=%s,%s,%s,%s
<b>UICC -0760.36</b>	AT+CBC=?
<b>UICC -0760.37</b>	AT+CBC
<b>UICC -0760.38</b>	AT+CSQ=?
<b>UICC -0760.39</b>	AT+CSQ
<b>UICC -0760.40</b>	AT+CCLK?
<b>UICC -0760.41</b>	AT+CSCS=?



<b>UICC -0760.42</b>	AT+CSCS?
<b>UICC -0760.43</b>	AT+CSCS=%s
<b>UICC -0760.44</b>	ATDT%s
<b>UICC -0760.45</b>	ATD%s;
<b>UICC -0760.46</b>	ATH
<b>UICC -0760.47</b>	AT+CPAS
<b>UICC -0760.48</b>	AT+CPBS=%s
<b>UICC -0760.49</b>	AT+CPBS=?
<b>UICC -0760.50</b>	AT+CPBS?
<b>UICC -0760.51</b>	AT+CGMR?
<b>UICC -0760.52</b>	AT+CGMR=?
<b>UICC -0760.53</b>	AT+CGREG=%s
<b>UICC -0760.54</b>	AT+CGREG?
<b>UICC -0760.55</b>	AT+CGREG=?

#### 4.10 SAT COMMANDS

In this chapter the SAT related requirements are listed.

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC -1000</b>	ME SHALL support SAT R4 as defined in TS 51.014 R4 [8]	✓	✓
<b>UICC -1010</b>	SAT R4 Class b (AT commands) SHALL be supported by the ME	x	✓
<b>UICC -1020</b>	SAT R4 Class c (launch browser) SHALL be supported by the ME	✓	✓
<b>UICC -1030</b>	SAT R4 Class d (soft keys) SHALL be supported by the ME	x	✓
<b>UICC -1040</b>	SAT R4 Class e (BIP) SHALL be supported by the ME for packets bearers.	✓	x

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC -1050</b>	SAT R4 Class e (BIP) SHALL be supported by the ME whatever the bearer is.	x	✓
<b>UICC -1060</b>	SAT R4 Class f (BIP over Bluetooth) SHALL be supported by the ME	x	✓

#### 4.11 INTEROPERABILITY

In this chapter the Interoperability test suite requirements are listed.

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC -1070</b>	The ME SHOULD be compliant with the validated tests as defined in 3GPP TS 31.124. [30]	✓	✓
<b>UICC -1080</b>	The ME SHOULD be compliant with the validated tests as defined in 3GPP TS 51.010-4 [31]	✓	✓

#### 4.12 USER EXPERIENCE REQUIREMENTS

In this chapter requirements dealing with the User Experience are listed.

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC -1090</b>	The ME SHOULD have a configurable key such that a long key press of that key would always launch the SAT/USAT menu where SAT/USAT apps are located. If the ME implements User Experience Customisation document [32], refer to requirement CL4D-F004	✓	✓
<b>UICC -1100</b>	The ME SHALL allow the user to access the SAT/USAT menu using no more than 3 clicks from the stand-by/startup screen If the ME implements UE Customisation document [32]: refer to requirements in section 5.2.	✓	✓

REQ. ID	REQUIREMENT	UICC0	UICC1
<b>UICC -1110</b>	The ME SHOULD add a new contact on the (U)SIM by default. The ability to change the default location for a new contact SHOULD be supported for this feature.	✓	x
<b>UICC -1120</b>	The ME SHALL add a new contact on the (U)SIM by default. The ability to change the default location for a new contact SHOULD be supported for this feature.	x	✓
<b>UICC -1130</b>	Unless the PID or DCS indicate otherwise, the ME SHOULD store the incoming SMS on the (U)SIM by default. The ability to change the default SHOULD be supported for this feature.	✓	x
<b>UICC -1140</b>	Unless the PID or DCS indicate otherwise, the ME SHALL store the incoming SMS on the (U)SIM by default. The ability to change the default SHOULD be supported for this feature.	x	✓
<b>UICC -1150</b>	The ME SHALL be able to store the incoming MMS on the USIM by default.	x	✓
<b>UICC -1160</b>	The ME SHOULD be able to store the incoming MMS on the USIM by default.	✓	x
<b>UICC -1170</b>	The ME SHALL display a bitmap logo stored in the ME when EF_PNN selected = Record 1.	x	✓
<b>UICC -1180</b>	The default Phonebook SHOULD be the (U)SIM Phonebook. The ability to change the default Phonebook SHOULD be supported for this feature.	✓	x
<b>UICC -1190</b>	The default Phonebook SHALL be the (U)SIM Phonebook. The ability to change the default SHOULD be supported for this feature.	x	✓



## 5 SCWS CLASS REQUIREMENTS

In this chapter requirements dealing with the SCWS Class are listed.

### 5.1 GENERAL

REQ. ID	REQUIREMENT	UICC2
<b>UICC -1200</b>	The ME shall support the SCWS as defined in OMA SCWS [33].	✓
<b>UICC -1210</b>	The ME SHALL support transmission factor (Fi,Di)=(512,64) in addition to those specified in TS 31.101 [4].  If the ME supports SCWS on HSP interface, the ME MAY NOT support this requirement.	✓
<b>UICC -1220</b>	The ME SHALL support class letter <b>e</b> CAT proactive commands related to "UICC Server Mode" as defined in ETSI TS 102 223 [27].	✓
<b>UICC -1230</b>	The ME SHALL support class letter <b>e</b> CAT proactive commands related to packet bearers as defined in ETSI TS 102 223 [27] and 3GPP TS 31.111 [6]. This SHALL include the support of the establishment of at least one BIP channel in UDP mode and one BIP channel in TCP mode.	✓
<b>UICC -1240</b>	The ME SHALL support up to four BIP channels ( <i>Two for UICC TCP and UDP Client modes for remote connections and two for UICC server mode for local HTTP and HTTPS connections</i> ).	✓
<b>UICC -1240.1</b>	The ME SHOULD support up to five BIP channels ( <i>Two for UICC TCP and UDP Client modes for remote connections and three for UICC server mode for local HTTP and HTTPS connections</i> ).	✓

REQ. ID	REQUIREMENT	UICC2
<b>UICC -1250</b>	<p><i>Implementation advice and clarification</i></p> <p>The ME SHALL transparently establish a BIP channel if the alpha identifier is provided by the UICC and is a null data object.</p> <p><i>ETSI TS 102 223 [27] states the following:</i></p> <p><i>“if the alpha identifier is provided by the UICC and is a null data object (i.e. length = '00' and no value part), this is an indication that the terminal should not give any information to the user or ask for user confirmation”</i></p>	✓
<b>UICC -1260</b>	<p><i>Implementation advice and clarification</i></p> <p>The ME SHALL transparently send an SMS upon the reception of a SEND SHORT MESSAGE command if the alpha identifier is provided by the UICC and is a null data object.</p> <p><i>ETSI TS 102 223 [27] states the following:</i></p> <p><i>“if the alpha identifier is provided by the UICC and is a null data object (i.e. length = '00' and no value part), this is an indication that the terminal should not give any information to the user on the fact that the terminal is sending a short message”</i></p>	✓
<b>UICC -1270</b>	<p>The ME SHALL support class letter <b>k</b> CAT proactive commands and related "Terminal Applications" procedures as defined in ETSI TS 102 223 [27].</p> <p><i>This feature is also known as Launch Application.</i></p>	✓
<b>UICC -1280</b>	<p>If an application, as listed in the "Terminal Applications" part of TS 102 223 [27], has requested registration to ME, the ME SHALL declare this application using the "ENVELOPE (TERMINAL APPLICATIONS) command".</p>	✓
<b>UICC -1290</b>	<p>The ME SHALL support the TLS based secure channel as defined in ETSI TS 102 484 [34].</p>	✓

REQ. ID	REQUIREMENT	UICC2
<b>UICC -1300</b>	If the ME supports the TLS based secure channel, the ME SHALL support the Maximum Fragment Length Negotiation as defined in ETSI TS 102 484 [34] and SHALL support a fragment length down to the minimum of 512 bytes.	✓
<b>UICC -1310</b>	The ME SHOULD support the "Key Establishment Mechanism" as defined in 3GPP TS 33.110 [35] and 3GPP TS 31.102 [5].	✓
<b>UICC -1320</b>	The ME SHALL support the OMA Smart Card Provisioning mechanism as defined in OMA Provisioning Smart Card [11].	✓
<b>UICC -1320.1</b>	The ME SHALL support the "OMA-w2-Application-Characteristic-for-Browsing" as defined in [36]	✓

## 5.2 BROWSER REQUIREMENTS

REQ. ID	REQUIREMENT	UICC2
<b>UICC 1330</b>	The ME SHALL have an embedded browser to access SCWS compliant with at least OMTP Browser Class B [37 ]	✓
<b>UICC 1340</b>	If ME supports download of a browser, the ME SHALL allow this browser to access the SCWS following OMTP ASF document specification [26].	
<b>UICC -1350</b>	<i>Implementation advice and clarification</i> The ME SHALL be able to run the default embedded Browser and to connect to the SCWS independently of any network connection (e.g. even when no GSM/UMTS network is available) and without asking for any user confirmation.	✓

### 5.3 CONNECTIVITY REQUIREMENTS

REQ. ID	REQUIREMENT	UICC2
<b>UICC-1360</b>	The ME SHOULD support requirements in 'OMTP Recommended Practices for Connected Applications' chapter 3.5 (Terminal Requirements) [38].	✓

### 5.4 USER EXPERIENCE REQUIREMENTS

REQ. ID	REQUIREMENT	UICC2
<b>UICC -1370</b>	The ME SHALL allow the user to launch the browser with the SCWS URL using no more than 1 click from the stand-by/startup screen. If the ME implements UE Customisation document [32]: refer to requirements in section 5.2.	✓
<b>UICC -1380</b>	The ME SHALL allow the user to access the SCWS using no more than 1 click from the Internet Browser screen.	✓



## 6 HSP CLASS REQUIREMENTS

In this chapter requirements dealing with the HSP Class are listed.

REQ. ID	REQUIREMENT	UICC2	UICC4	UICC5
<b>UICC-1390</b>	If the ME supports the Inter-Chip USB interface, the ME SHALL support the OMTP UICC3 (HSP class) requirements defined in the present document.	✓	✓	✓

### 6.1 GENERAL

REQ. ID	REQUIREMENT	UICC3
<b>UICC -1400</b>	The ME SHALL support Inter-Chip USB interface as defined in ETSI TS 102 600 [39].	✓
<b>UICC -1410</b>	The ME SHALL support the "Power negotiation" functionality as defined in ETSI TS 102 600 [39].	✓
<b>UICC -1410.1</b>	The ME SHALL supply the maximum current that is requested during the negotiation by the UICC if requested current is less or equal 64 mA. <i>*Note for UICC stakeholders: UICC platform should not always use available 64mA in order to avoid battery life degradation.</i>	✓
<b>UICC -1420</b>	The ME SHALL support the voltage class B as defined in ETSI TS 102 600 [39] and in ETSI TS 102 221 [3].	✓
<b>UICC -1430</b>	The ME SHALL support the "Protocol stacks for USB UICC applications" as defined in ETSI TS 102 600 [39], ETSI TS 102.221 [3] and 3GPP TS 31.101 [5].	✓
<b>UICC -1440</b>	The ME SHALL support and enable the "remote wake-up" functionality as defined in ETSI TS 102 600 [39].	✓
<b>UICC -1450</b>	The ME SHALL support the "IP applications over the IC USB Interface" as defined in ETSI TS 102 600 [39].	✓

REQ. ID	REQUIREMENT	UICC3
<b>UICC -1460</b>	The ME SHALL support IP over EEM over USB as defined in ETSI TS 102 600 [39].	✓
<b>UICC -1470</b>	The ME SHALL support the following commands as defined in ETSI TS 102 600 [39]: <ul style="list-style-type: none"> <li>• SuspendHint</li> <li>• ResponseHint</li> <li>• ResponseCompleteHint commands</li> </ul>	✓
<b>UICC -1480</b>	The ME SHALL support "IP Connectivity between UICC and Terminal" as defined in ETSI TS 102 483 [40].	✓
<b>UICC -1490</b>	The ME SHALL support IP connectivity between a UICC and remote servers as defined in ETSI TS 102 483 [40].	✓
<b>UICC -1500</b>	The ME SHALL support IP Connectivity between UICC and external devices (e.g. PC) as defined in ETSI TS 102 483 [40].	✓
<b>UICC -1510</b>	The ME SHALL support TCP and UDP client and server modes as defined in ETSI TS 102 483 [40] and RFC768 [41]. and RFC793 [42].	✓
<b>UICC -1520</b>	UICC IP address (defined in [40]) SHALL be part of the ME IP routing table. The ME IP router SHALL treat the UICC IP address as any other IP address allowing IP connectivity to/from applications. The access SHALL be guaranteed also without any activated access to the network.	✓
<b>UICC -1530</b>	The ME SHALL support "mass storage applications over the IC USB Interface" and the "SCSI Transparent subclass" as defined in ETSI TS 102 600 [39].	✓

## 6.2 3G PHONE BOOK PERFORMANCES REQUIREMENTS

REQ. ID	REQUIREMENT	UICC3
<b>UICC -1540</b>	The ME SHALL be capable of retrieving 1000 entries in less than 10 seconds.	✓

## 7 MTV CLASS REQUIREMENTS

REQ. ID	REQUIREMENT	UICC2	UICC3	UICC5
<b>UICC-1550</b>	If the ME supports OMA BCAST, the ME SHALL support the OMTP UICC4 (mTV class) requirements defined in the present document.	✓	✓	✓

In this chapter requirements dealing with the mobile TV Class are listed. OMA BCAST Smart Card profile is the foundation standard for these requirements.

REQ. ID	REQUIREMENT	UICC4
<b>UICC -1560</b>	The ME SHALL support the OMA BCAST Smart Card profile defined in OMA BCAST [43].	✓
<b>UICC -1570</b>	The ME SHALL support the Generic Bootstrapping Architecture (GBA) related procedure as specified in TS 31.102 [5].	✓
<b>UICC -1580</b>	The ME SHALL support the MBMS related procedure as specified in TS 31.102 [5].	✓
<b>UICC -1590</b>	The ME SHOULD support "APDU application-to-application" secure channel as defined in ETSI TS 102 484 [34].	✓
<b>UICC -1600</b>	The ME SHOULD support the "Key Establishment Mechanism" as defined in 3GPP TS 33.110 [35] and 3GPP TS 31.102 [5].	✓

## 8 C-LESS CLASS REQUIREMENTS

REQ. ID	REQUIREMENT	UICC2	UICC3	UICC4
<b>UICC -1610</b>	If the ME supports contactless services, the ME SHALL support the OMTP UICC5 (C-less class) requirements defined in the present document.	✓	✓	✓

In this chapter requirements dealing with the contactless Class are listed.

REQ. ID	REQUIREMENT	UICC5
<b>UICC -1620</b>	The ME SHALL support the Single Wire Protocol interface as defined in ETSI TS 102 613 [44].	✓
<b>UICC -1630</b>	The ME SHALL support the CLT mode as defined in ETSI TS 102 613 [44].	✓
<b>UICC -1640</b>	The ME SHALL support class letter <b>I</b> CAT proactive commands as specified in TS 102 223 [27].	✓
<b>UICC -1650</b>	The ME SHALL support the HCI interface as defined in ETSI TS 102 622 [45].	✓
<b>UICC -1660</b>	The ME SHALL support class letter <b>m</b> CAT proactive commands as specified in TS 102 223 [5].	✓

## 9 FUTURE WORK

This document will be reviewed once the Release 7 will be officially completed, The proper test lists and test experience will allow further specification and identification of solutions of IOT problems that may be raised by new standards, especially in area of profiles UICC2, UICC3, UICC4 and UICC5

Following Release 7 features have not been considered in this document. OMTP may consider them in future versions of this document

- Extension of the refresh command to support Steering of Roaming.
- Extension of BIP bearers to support I-WLAN
- Inclusion of Equivalent HPLMN
- Network Selection Procedures Enhancements.
- Home PLMN Network Name segmentation
- Presentation of Equivalent HPLMN.
- Last RPLMN Selection Indication.
- Presentation of additional information in manual selection mode
- C\* voltage class

## 10 DEFINITION OF TERMS

TERM	DESCRIPTION
<b>TERMINAL</b>	Used as an alternative term for a cellular telephone or handset.

## 11 ABBREVIATIONS

ABBREVIATION	DESCRIPTION
<b>3GPP</b>	3 <sup>rd</sup> Generation Partnership Project
<b>AAS</b>	Additional number Alpha String
<b>ADN</b>	Abbreviated dialling numbers
<b>AI</b>	Alpha Identifier
<b>AKA</b>	Authentication and Key Agreement
<b>ANR</b>	Additional Number
<b>APDU</b>	Application Protocol Data Unit
<b>BIP</b>	Bearer Independent Protocol
<b>C-LESS</b>	Contact-less
<b>CAT</b>	Card Application Toolkit
<b>CP</b>	Client Provisioning
<b>DCS</b>	Data Coding Scheme
<b>DI</b>	Baud rate adjustment factor
<b>DM</b>	Device Management
<b>EAP</b>	Extensible Authentication Protocol
<b>EF</b>	Elementary Files
<b>ECC</b>	Emergency Call Codes
<b>EEM</b>	Ethernet Emulation Model
<b>EPLMN</b>	Equivalent Public Land Mobile Network
<b>ETSI</b>	European Telecommunications Standards Institute
<b>Fi</b>	Clock rate conversion factor
<b>FIFO</b>	First In, First Out

<b>ABBREVIATION</b>	<b>DESCRIPTION</b>
<b>FPLMN</b>	Forbidden PLMNs
<b>GAS</b>	Grouping information Alpha String
<b>GBA</b>	Generic Bootstrapping Architecture
<b>GRP</b>	Grouping file
<b>GSM</b>	Global System for Mobile Communications
<b>HPLMN</b>	Home Public Land Mobile Network
<b>HSP</b>	High Speed Protocol
<b>HTTP</b>	Hyper Text Transfer Protocol
<b>HTTPS</b>	Secure HTTP
<b>IMEI</b>	International Mobile Equipment Identity
<b>IMS</b>	IP Multimedia Subsystem
<b>IOT</b>	Interoperability Testing
<b>IP</b>	Internet Protocol
<b>ISIM</b>	IM Subscriber Identity Module
<b>IST</b>	ISIM Service Table
<b>IWLAN</b>	Interworking Wireless Local Area Network
<b>JSR</b>	Java Specification Request
<b>LAC</b>	Location Area Code
<b>MCC</b>	Mobile Country Code
<b>ME</b>	Mobile Equipment
<b>MBMS</b>	Multimedia Broadcast/Multicast Service
<b>MMS</b>	Multimedia Message Service
<b>MNC</b>	Mobile Network Code



ABBREVIATION	DESCRIPTION
<b>MSISDN</b>	Mobile Station Integrated Services Digital Network Number
<b>mTV</b>	Mobile TV
<b>NMR</b>	Network Measurement Results
<b>OMA</b>	Open Mobile Alliance
<b>OMTP</b>	Open Mobile Terminal Platform
<b>OPL</b>	Operator PLMN List
<b>OTA</b>	Over The Air
<b>PID</b>	Packet Identification
<b>PIN</b>	Personal Identification Number
<b>PKI</b>	Public Key Infrastructure
<b>PL</b>	Preferred Languages
<b>PLMN</b>	Public Land Mobile Network
<b>PNN</b>	PLMN Network Name
<b>PPS</b>	Protocol and Parameter Select
<b>SAT</b>	SIM Application Toolkit
<b>SCWS</b>	Smart Card Web Server
<b>SDN</b>	Service Dialling Numbers
<b>SIM</b>	Subscriber Identity Module
<b>SMS</b>	Short Message Service
<b>SMSP</b>	Short Message Service Parameters
<b>SNE</b>	Second Name Entry
<b>SPN</b>	Service Provider Name
<b>STK</b>	SIM ToolKit. It refers to SAT and USAT definitions without distinction

<b>ABBREVIATION</b>	<b>DESCRIPTION</b>
<b>TCP</b>	Transmission Control Protocol
<b>TLS</b>	Transport Layer Security
<b>UDP</b>	User Defined Protocol
<b>UE</b>	User Equipment
<b>UI</b>	User Interface
<b>UICC</b>	Universal Integrated Circuit Card
<b>(U)SIM</b>	Referred to both USIM and SIM application
<b>UMA</b>	Unlicensed Mobile Access
<b>URL</b>	Uniform Resource Locator
<b>USAT</b>	USIM Application Toolkit
<b>USB</b>	Universal Serial Bus
<b>USIM</b>	Universal Subscriber Identity Module
<b>USSD</b>	Unstructured Supplementary Service Data
<b>UST</b>	USIM Service Table
<b>VGCS</b>	Voice Group Call Service
<b>WAP</b>	Wireless Application Protocol
<b>WiMAX</b>	Worldwide Interoperability for Microwave Access
<b>WSID</b>	WLAN Specific Identifier

## 12 REFERENCED DOCUMENTS

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 and/or edition number or version number) or non specific.

- For a specific reference, subsequent revisions do not apply.
- For a non specific reference, the latest version applies (in particular, minimum requirement is April 2005 versions). In the case of a reference to a Rel 7 document, a non specific reference implicitly refers to the latest version of that document in the same Release as the present document.

No.	DOCUMENT	AUTHOR	DATE
1	RFC 2119 - Key words for use in RFCs to Indicate Requirement Levels	IETF	
2	ETSI TS 102 412 - Smart Cards; Smart Card Platform Requirements - Stage 1 (Release 7)	ETSI	
3	ETSI TS 102 221 - UICC-Terminal interface; Physical and logical characteristics (Release 7)	ETSI SCP	
4	3GPP TS 31.101 - UICC-Terminal interface; Physical and logical characteristics (Release 7)	3GPP CT6	
5	3GPP TS 31.102 - Characteristics of the USIM application (Release 7)	3GPP CT6	
6	3GPP TS 31.111 - USIM Application Toolkit (USAT) (Release 7)	3GPP CT6	
7	3GPP TS 51.011- Specification of the Subscriber Identity Module - Mobile Equipment (SIM-ME) interface	3GPP CT6	
8	3GPP TS 51.014 - Specification of the SIM Application Toolkit for the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface	3GPP CT6	
9	ETSI TS 102 310 Extensible Authentication Protocol support in the UICC (Release 7)	ETSI SCP	

No.	DOCUMENT	AUTHOR	DATE
10	PKCS #15 v1.1 - Cryptographic Token Information Syntax Standard, RSA Laboratories, June 6, 2000 .	RSA	
11	OMA Provisioning SmartCard - OMA-WAP-ProvSC-V1_1	OMA	
12	3GPP TS 31.103 – Characteristics of the IP Multimedia Services Identity Module (ISIM) application	3GPP CT6	
13	ETSI TS 102 225 - Secured packet structure for UICC based applications	ETSI SCP	
14	ETSI TS 102 226 - Remote APDU structure for UICC based applications	ETSI SCP	
15	3GPP TS 23.040 - Technical realization of Short Message Service (SMS)	3GPP CT1	
16	3GPP TS 23.048 - Security mechanisms for the (U)SIM application toolkit (Release 5)	3GPP CT6	
17	3GPP TS 31.115 - Secured packet structure for (Universal) Subscriber Identity Module (U)SIM Toolkit applications (Release 7)	3GPP CT6	
18	3GPP TS 31.116 - Remote APDU Structure for (Universal) Subscriber Identity Module (U)SIM Toolkit applications (Release 7)	3GPP CT6	
19	OMA Device Management Bootstrap - OMA-TS-DM-Bootstrap-V1_2	OMA	
20	OMTP Advanced Device Management v1.0	OMTP	Jan 2008
21	OMA Device Management Tree and Description Serialization - OMA-TS-DM_TNDS-V1_2	OMA	
22	JSR177- Security and Trust Services API for J2ME	JCP	

No.	DOCUMENT	AUTHOR	DATE
23	JSR 118 - Mobile Information Device Profile 2.0	JCP	
24	OMTP Application Framework v1.0	OMTP	July 2005
25	3GPP TS 27.007 - AT command set for User Equipment (UE) (Release 7)	3GPP CT1	
26	OMTP Application Security Framework v2.2	OMTP	June 2008
27	ETSI TS 102 223 - Card Application Toolkit (CAT) (Release 7)	ETSI SCP	
28	OMA MMS Conformance Document MMS v1.2	OMA	
29	3GPP TS 24.008 - Mobile radio interface Layer 3 specification; Core network protocols; Stage 3	3GPP C1	
30	3GPP TS 31.124 - Mobile Equipment (ME) conformance test specification; Universal Subscriber Interface Module Application Toolkit (USAT) conformance test specification (Release 7)	3GPP CT6	
31	3GPP TS 51.010-4 - Mobile Station (MS) conformance specification; Part 4: SIM Application Toolkit conformance specification	3GPP CT6	
32	OMTP Customisation (Look & Feel, Menu & Application Integration) v2.0	OMTP	Dec 2005
33	OMA SCWS - OMA-TS-Smartcard_Web_Server-V1_0	OMA	
34	ETSI TS 102 484: Secure Channel between Endpoints in a UICC and a Terminal	ETSI	
35	3GPP TS 33.110: "Key establishment between a UICC and a terminal"	3GPP	

No.	DOCUMENT	AUTHOR	DATE
36	OMA W2 v1.0, Application Characteristic for the Browsing Enabler <a href="http://www.openmobilealliance.org/Technical/omna/omna-dm_ac.aspx">http://www.openmobilealliance.org/Technical/omna/omna-dm_ac.aspx</a>	OMA	
37	OMTP Browser v2.3	OMTP	Oct 2007
38	OMTP Recommended Practices for Connected Applications	OMTP	
39	ETSI TS 102 600 - UICC-Terminal interface; Characteristics of the USB interface	ETSI	
40	ETSI TS 102 483 - Internet Protocol connectivity between UICC and terminal	ETSI	
41	RFC768, User Datagram Protocol	IETF	
42	RFC 793 Transmission Control Protocol	IETF	
43	OMA BCAST - OMA BCAST - OMA-TS-BCAST_SvcCntProtection	OMA	
44	ETSI TS 102 613 - UICC-CLF interface; Physical and data link layer characteristics	ETSI	
45	ETSI TS 102 622 - UICC-CLF interface; Host Controller Interface	ETSI	

## APPENDIX 1 – REQUIREMENT ID CHANGES FROM V1.1

This appendix provides information on the requirement ids used in the previous published version of this document (version 2.0) and the requirement ids used in this document. The requirement id structure has changed between the two versions.

The following table contains the mapping between the old requirements and new requirements numbers where applicable.

VERSION 1.1 REQUIREMENT ID	VERSION 2.0 EQUIVALENT
<b>GEN1</b>	<b>UICC-0030</b>
<b>GEN1.1</b>	<b>UICC-0030.1</b>
<b>GEN1.2</b>	<b>UICC-0030.2</b>
<b>GEN1.3</b>	<b>UICC-0030.3</b>
<b>GEN1.4</b>	<b>UICC-0030.4</b>
<b>GEN1.5</b>	<b>UICC-0030.5</b>
<b>GEN1.6</b>	<b>UICC-0030.6</b>
<b>PI1.1</b>	<b>UICC-0040</b>
<b>PI1.2</b>	<b>UICC-0050</b>
<b>PI1.3</b>	<b>UICC-0060</b>
<b>PI2</b>	<b>UICC-0070</b>
<b>PI3</b>	<b>UICC-0080</b>
<b>PI4</b>	<b>UICC-0090</b>
<b>PI5</b>	<b>UICC-0100</b>
<b>AP1.1</b>	<b>UICC-0130</b>
<b>AP1.2</b>	<b>UICC-0140</b>
<b>AP2.1</b>	<b>UICC-0150</b>
<b>AP2.2</b>	<b>UICC-0160</b>
<b>AP3</b>	<b>UICC-0180</b>

<b>VERSION 1.1 REQUIREMENT ID</b>	<b>VERSION 2.0 EQUIVALENT</b>
<b>AP4</b>	<b>UICC-0190</b>
<b>AP5.1</b>	<b>UICC-0200</b>
<b>AP5.2</b>	<b>UICC-0210</b>
<b>AP6</b>	<b>UICC-0220</b>
<b>AP7</b>	<b>UICC-0230</b>
<b>AP8.1</b>	<b>UICC-0240</b>
<b>AP8.2</b>	<b>UICC-0250</b>
<b>AP9.1</b>	<b>UICC-0260</b>
<b>AP9.2</b>	<b>UICC-0270</b>
<b>AP10</b>	<b>UICC-0280</b>
<b>AP11</b>	<b>UICC-0290</b>
<b>AP12</b>	<b>UICC-0300</b>
<b>AP13</b>	<b>UICC-0310</b>
<b>AP14</b>	<b>UICC-0320</b>
<b>AP15</b>	<b>UICC-0330</b> <b>(WORDING AMENDED)</b>
<b>AP16</b>	<b>UICC-0350</b>
<b>AP17</b>	<b>UICC-0350</b>
<b>AP18</b>	<b>UICC-0360</b>
<b>AP19</b>	<b>UICC-0370</b>
<b>AP20.1</b>	<b>UICC-0380</b>
<b>AP20.2</b>	<b>UICC-0390</b>
<b>AP21</b>	<b>UICC-0410</b>
<b>AP22.1</b>	<b>UICC-0420</b>



<b>VERSION 1.1 REQUIREMENT ID</b>	<b>VERSION 2.0 EQUIVALENT</b>
<b>AP22.2</b>	<b>UICC-0430</b>
<b>AP23</b>	<b>UICC-0440</b>
<b>AP24.1</b>	<b>UICC-0450</b>
<b>AP24.2</b>	<b>UICC-0460</b>
<b>AP25</b>	<b>UICC-0470</b>
<b>AP26</b>	<b>UICC-0480</b>
<b>AP27</b>	<b>UICC-0490</b>
<b>AP28</b>	<b>UICC-0500</b>
<b>AP28.1</b>	<b>UICC-0500.1</b>
<b>AP28.2</b>	<b>UICC-0500.2</b>
<b>AP28.3</b>	<b>UICC-0500.3</b>
<b>AP28.4</b>	<b>UICC-0500.4</b>
<b>AP28.5</b>	<b>UICC-0500.5</b>
<b>AP28.6</b>	<b>UICC-0500.6</b>
<b>AP28.7</b>	<b>UICC-0500.7</b>
<b>AP28.8</b>	<b>UICC-0500.8</b>
<b>AP28.9</b>	<b>UICC-0500.9</b>
<b>AP28.10</b>	<b>UICC-0500.10</b>
<b>AP28.11</b>	<b>UICC-0500.11</b>
<b>AP28.12</b>	<b>UICC-0500.12</b>
<b>AP28.13</b>	<b>UICC-0500.13</b>
<b>AP28.14</b>	<b>UICC-0500.14</b>
<b>AP28.15</b>	<b>UICC-0500.15</b>

<b>VERSION 1.1 REQUIREMENT ID</b>	<b>VERSION 2.0 EQUIVALENT</b>
<b>AP28.16</b>	<b>UICC-0500.16</b>
<b>AP28.17</b>	<b>UICC-0500.17</b>
<b>AP28.18</b>	<b>UICC-0500.18</b>
<b>AP28.19</b>	<b>UICC-0500.19</b>
<b>AP28.20</b>	<b>UICC-0500.20</b>
<b>AP28.21</b>	<b>UICC-0500.21</b>
<b>AP28.22</b>	<b>UICC-0500.22</b>
<b>AP28.24</b>	<b>UICC-0500.23</b>
<b>AP28.25</b>	<b>UICC-0500.24</b>
<b>AP28.26</b>	<b>UICC-0500.25</b>
<b>AP28.27</b>	<b>UICC-0500.26</b>
<b>AP28.28</b>	<b>UICC-0500.27</b>
<b>AP28.29</b>	<b>UICC-0500.28</b>
<b>AP28.30</b>	<b>UICC-0500.29</b>
<b>AP28.31</b>	<b>UICC-0500.30</b>
<b>AP28.32</b>	<b>UICC-0500.31</b>
<b>AP28.33</b>	<b>UICC-0500.32</b>
<b>AP28.34</b>	<b>UICC-0500.33</b>
<b>AP28.35</b>	<b>UICC-0500.34</b>
<b>AP28.36</b>	<b>UICC-0500.35</b>
<b>AP28.37</b>	<b>UICC-0500.36</b>
<b>AP28.38</b>	<b>UICC-0500.37</b>
<b>AP28.39</b>	<b>UICC-0500.38B</b>

<b>VERSION 1.1 REQUIREMENT ID</b>	<b>VERSION 2.0 EQUIVALENT</b>
<b>AP28.40</b>	<b>UICC-0500.39</b>
<b>AP28.41</b>	<b>UICC-0500.40</b>
<b>AP28.42</b>	<b>UICC-0500.41</b>
<b>AP28.43</b>	<b>UICC-0500.42</b>
<b>AP28.44</b>	<b>UICC-0500.43</b>
<b>AP28.45</b>	<b>UICC-0500.44</b>
<b>AP28.46</b>	<b>UICC-0500.45</b>
<b>AP28.47</b>	<b>UICC-0500.46</b>
<b>AP28.48</b>	<b>UICC-0500.47</b>
<b>AP28.49</b>	<b>UICC-0500.48</b>
<b>AP28.50</b>	<b>UICC-0500.49</b>
<b>AP28.51</b>	<b>UICC-0500.50</b>
<b>AP28.52</b>	<b>UICC-0500.51</b>
<b>AP28.53</b>	<b>UICC-0500.52</b>
<b>IS1</b>	<b>UICC-0560</b>
<b>RMR1</b>	<b>UICC-0570</b>
<b>AR1</b>	<b>UICC-0580</b> <b>(WORDING AMENDED)</b>
<b>AR2</b>	<b>UICC-0600</b>
<b>AR3.1</b>	<b>UICC-0610</b>
<b>AR3.2</b>	<b>UICC-0620</b>
<b>AR4</b>	<b>UICC-0630</b>
<b>AR5</b>	<b>UICC-0640</b>
<b>AR6</b>	<b>UICC-0650</b>

<b>VERSION 1.1 REQUIREMENT ID</b>	<b>VERSION 2.0 EQUIVALENT</b>
<b>AR7</b>	<b>UICC-0660</b>
<b>AR8</b>	<b>UICC-0670</b>
<b>AR9</b>	<b>UICC-0680</b>
<b>AR10</b>	<b>UICC-0690</b>
<b>AR11</b>	<b>UICC-0700</b>
<b>AR12</b>	<b>UICC-0710</b>
<b>AT1</b>	<b>UICC-0720</b>
<b>AT2</b>	<b>UICC-0730</b>
<b>AT3</b>	<b>UICC-0740</b>
<b>AT4</b>	<b>UICC-0750</b>
<b>CU1</b>	<b>UICC-0760</b>
<b>CU1.1</b>	<b>UICC-0760.1</b>
<b>CU1.2</b>	<b>UICC-0760.2</b>
<b>CU1.3</b>	<b>UICC-0760.3</b>
<b>CU1.4</b>	<b>UICC-0760.4</b>
<b>CU1.5</b>	<b>UICC-0760.5</b>
<b>CU1.6</b>	<b>UICC-0760.6</b>
<b>CU1.7</b>	<b>UICC-0760.7</b>
<b>CU1.8</b>	<b>UICC-0760.8</b>
<b>CU1.9</b>	<b>UICC-0760.9</b>
<b>CU1.10</b>	<b>UICC-0760.10</b>
<b>CU1.11</b>	<b>UICC-0760.11</b>
<b>CU1.12</b>	<b>UICC-0760.12</b>

<b>VERSION 1.1 REQUIREMENT ID</b>	<b>VERSION 2.0 EQUIVALENT</b>
<b>CU1.13</b>	<b>UICC-0760.13</b>
<b>CU1.14</b>	<b>UICC-0760.14</b>
<b>CU1.15</b>	<b>UICC-0760.15</b>
<b>CU1.16</b>	<b>UICC-0760.16</b>
<b>CU1.17</b>	<b>UICC-0760.17</b>
<b>CU1.18</b>	<b>UICC-0760.18</b>
<b>CU1.19</b>	<b>UICC-0760.19</b>
<b>CU1.20</b>	<b>UICC-0760.20</b>
<b>CU1.21</b>	<b>UICC-0760.21</b>
<b>CU1.22</b>	<b>UICC-0760.22</b>
<b>CU1.23</b>	<b>UICC-0760.23</b>
<b>CU1.24</b>	<b>UICC-0760.24</b>
<b>CU1.25</b>	<b>UICC-0760.25</b>
<b>CU1.26</b>	<b>UICC-0760.26</b>
<b>CU1.27</b>	<b>UICC-0760.27</b>
<b>CU1.28</b>	<b>UICC-0760.28</b>
<b>CU1.29</b>	<b>UICC-0760.29</b>
<b>CU1.30</b>	<b>UICC-0760.30</b>
<b>CU1.31</b>	<b>UICC-0760.31</b>
<b>CU1.32</b>	<b>UICC-0760.32</b>
<b>CU1.33</b>	<b>UICC-0760.33</b>
<b>CU1.34</b>	<b>UICC-0760.34</b>
<b>CU1.35</b>	<b>UICC-0760.35</b>

<b>VERSION 1.1 REQUIREMENT ID</b>	<b>VERSION 2.0 EQUIVALENT</b>
<b>CU1.36</b>	<b>UICC-0760.36</b>
<b>CU1.37</b>	<b>UICC-0760.37</b>
<b>CU1.38</b>	<b>UICC-0760.38</b>
<b>CU1.39</b>	<b>UICC-0760.39</b>
<b>CU1.40</b>	<b>UICC-0760.40</b>
<b>CU1.41</b>	<b>UICC-0760.41</b>
<b>CU1.42</b>	<b>UICC-0760.42</b>
<b>CU1.43</b>	<b>UICC-0760.43</b>
<b>CU1.44</b>	<b>UICC-0760.44</b>
<b>CU1.45</b>	<b>UICC-0760.45</b>
<b>CU1.46</b>	<b>UICC-0760.46</b>
<b>CU1.47</b>	<b>UICC-0760.47</b>
<b>CU1.48</b>	<b>UICC-0760.48</b>
<b>CU1.49</b>	<b>UICC-0760.49</b>
<b>CU1.50</b>	<b>UICC-0760.50</b>
<b>CU1.51</b>	<b>UICC-0760.51</b>
<b>CU1.52</b>	<b>UICC-0760.52</b>
<b>CU1.53</b>	<b>UICC-0760.53</b>
<b>CU1.54</b>	<b>UICC-0760.54</b>
<b>CU1.55</b>	<b>UICC-0760.55</b>
<b>CU2</b>	<b>UICC-0770</b> <b>(WORDING AMENDED)</b>
<b>CU3</b>	<b>UICC-0780</b>

<b>VERSION 1.1 REQUIREMENT ID</b>	<b>VERSION 2.0 EQUIVALENT</b>
<b>CU4.1</b>	<b>UICC-0780.1</b> <b>(WORDING AMENDED)</b>
<b>CU4.2</b>	<b>UICC-0780.2</b> <b>(WORDING AMENDED)</b>
<b>CU5</b>	<b>UICC-0790</b>
<b>CU6</b>	<b>UICC-0800</b>
<b>CU7</b>	<b>UICC-0810</b>
<b>CU8.1</b>	<b>UICC-0820</b>
<b>CU8.2</b>	<b>UICC-0830</b>
<b>CU9</b>	<b>UICC-0840</b>
<b>CU10</b>	<b>UICC-0850</b>
<b>CU11</b>	<b>UICC-0860</b>
<b>CU12</b>	<b>UICC-0870</b>
<b>CU13</b>	<b>UICC-0880</b>
<b>CU14</b>	<b>UICC-0890</b>
<b>CU15</b>	<b>UICC-0900</b> <b>(WORDING AMENDED)</b>
<b>CU16</b>	<b>UICC-0910</b>
<b>CU17</b>	<b>UICC-0920</b>
<b>CU18</b>	<b>UICC-0930</b>
<b>CU19</b>	<b>UICC-0940</b>
<b>CU20</b>	<b>UICC-0950</b>
<b>CU21</b>	<b>UICC-0960</b>
<b>CU22</b>	<b>UICC-0970</b>

<b>VERSION 1.1 REQUIREMENT ID</b>	<b>VERSION 2.0 EQUIVALENT</b>
<b>CU23</b>	<b>UICC-0980</b>
<b>SAT1</b>	<b>UICC-1000</b>
<b>SAT2</b>	<b>UICC-1010</b>
<b>SAT3</b>	<b>UICC-1020</b>
<b>SAT4</b>	<b>UICC-1030</b>
<b>SAT5.1</b>	<b>UICC-1040</b>
<b>SAT5.2</b>	<b>UICC-1050</b>
<b>SAT6</b>	<b>UICC-1060</b>
<b>IR1</b>	<b>UICC-1070</b>
<b>IR2</b>	<b>UICC-1080</b>
<b>UE1</b>	<b>UICC-1090</b>
<b>UE2</b>	<b>UICC-1100</b>
<b>UE3.1</b>	<b>UICC-1120</b>
<b>UE3.2</b>	<b>UICC-1130</b>
<b>UE4.1</b>	<b>UICC-1130</b>
<b>UE4.2</b>	<b>UICC-1140</b>
<b>UE5.1</b>	<b>UICC-1150</b>
<b>UE5.2</b>	<b>UICC-1160</b>
<b>UE6</b>	<b>UICC-1170</b>
<b>UE7.1</b>	<b>UICC-1180</b>
<b>UE7.2</b>	<b>UICC-1190</b>

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