

3GPP TSG-T (Terminals) Meeting #26
Athens, Greece
8 - 10 December 2004

TP-040225

Agenda Item: 5.2.3

Source: T2

Title: Change Requests on AT commands

Document for: Approval

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
27.007	119	-	Rel-5	Additional parameter for AT command +CRSM (Restricted SIM access)	F	5.4.0	5.5.0	T2-040437	TEI5
27.007	120	-	Rel-6	Additional parameter for AT command +CRSM (Restricted SIM access)	A	6.6.0	6.7.0	T2-040438	TEI5
27.007	121	-	Rel-5	Corrections to AcTs of PLMN Selection	F	5.4.0	5.5.0	T2-040472	TEI5
27.007	122	-	Rel-6	Corrections to AcTs of PLMN Selection	A	6.6.0	6.7.0	T2-040473	TEI5
27.007	123	-	Rel-6	Improve security in UICC generic access command +CGLA	C	6.6.0	6.7.0	T2-040453	TEI6
27.007	124	-	Rel-6	Support of EAP authentication command	B	6.6.0	6.7.0	T2-040468	TEI6
27.007	125	-	Rel-6	Correction of file identification in +CRLA command	F	6.6.0	6.7.0	T2-040466	TEI6
27.007	126	-	Rel-6	UICC Application Discovery Command +CUAD	B	6.6.0	6.7.0	T2-040439	TEI6
27.007	127	-	Rel-6	Clarification on the use of PIN with (U)SIM	F	6.6.0	6.7.0	T2-040452	TEI6
27.007	128	-	Rel-6	Editorial modifications to +CGLA and +CRLA commands	D	6.6.0	6.7.0	T2-040402	TEI6
27.007	129	-	Rel-6	Add RETRIEVE DATA and SET DATA APDU commands in +CRSM and +CRLA AT commands	B	6.6.0	6.7.0	T2-040408	TEI6
27.007	130	-	Rel-6	Extension of read, write and find phonebook entry commands for 3G phonebooks	B	6.6.0	6.7.0	T2-040451	TEI6

CHANGE REQUEST

⌘ **27.007 CR 119** ⌘ rev - ⌘ Current version: **5.4.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Additional parameter for AT command +CRSM (Restricted SIM access)		
Source:	⌘ T2 (Infineon)		
Work item code:	⌘ TEI5	Date:	⌘ 10/11/2004
Category:	⌘ F Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Release: ⌘ Rel-5 Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

Reason for change:	⌘ The existing AT command +CRSM is not precise enough. The same file ID of an Elementary File (EF) may occur within different Dedicated Files (DF), i.e. within different directories. The directory however can't be selected.
Summary of change:	⌘ Add an optional parameter to select the directory.
Consequences if not approved:	⌘ It's implementation specific which EF will be selected. Incompatible implementations will arise.

Clauses affected:	⌘						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications ⌘	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
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<input type="checkbox"/>	<input checked="" type="checkbox"/>						
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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
Other comments:	⌘						

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.18 Restricted SIM access +CRSM

Table 78: +CRSM action command syntax

Command	Possible response(s)
+CRSM=<command>[,<fileid>[,<P1>,<P2>,<P3>[,<data>[,<pathid>]]]]	+CRSM: <sw1>,<sw2>[,<response>] +CME ERROR: <err>
+CRSM=?	

Description

By using this command instead of Generic SIM Access +CSIM TE application has easier but more limited access to the SIM database. Set command transmits to the MT the SIM <command> and its required parameters. MT handles internally all SIM-MT interface locking and file selection routines. As response to the command, MT sends the actual SIM information parameters and response data. MT error result code +CME ERROR may be returned when the command cannot be passed to the SIM, but failure in the execution of the command in the SIM is reported in <sw1> and <sw2> parameters. Refer to subclause 9.2 for <err> values.

Coordination of command requests to SIM and the ones issued by GSM/UMTS application inside the MT is implementation dependent. However the TE should be aware of the precedence of the GSM/UMTS application commands to the TE commands.

Defined values

<command> (command passed on by the MT to the SIM; refer GSM 51.011 [28]):

- 176 READ BINARY
- 178 READ RECORD
- 192 GET RESPONSE
- 214 UPDATE BINARY
- 220 UPDATE RECORD
- 242 STATUS

all other values are reserved

NOTE 1: The MT internally executes all commands necessary for selecting the desired file, before performing the actual command.

<fileid>: integer type; this is the identifier of a elementary datafile on SIM. Mandatory for every command except STATUS

NOTE 2: The range of valid file identifiers depends on the actual SIM and is defined in GSM 51.011 [28]. Optional files may not be present at all.

<P1>, <P2>, <P3>: integer type; parameters passed on by the MT to the SIM. These parameters are mandatory for every command, except GET RESPONSE and STATUS. The values are described in GSM 51.011 [28]

<data>: information which shall be written to the SIM (hexadecimal character format; refer +CSCS)

<pathid>: string type; contains the path of an elementary file on the SIM/UICC in hexadecimal format as defined in ETSI TS 102221 [60] (e.g. "7F205F70" in SIM and UICC case). The <pathid> shall only be used in the mode "select by path from MF" as defined in ETSI TS 102221 [60].

NOTE 3: Since valid elementary file identifiers may not be unique over all valid dedicated file identifiers the <pathid> indicates the targeted UICC/SIM directory path in case of ambiguous file identifiers. For earlier

[versions of this specification or if <pathid> is omitted, it could be implementation specific which one will be selected.](#)

<sw1>, <sw2>: integer type; information from the SIM about the execution of the actual command. These parameters are delivered to the TE in both cases, on successful or failed execution of the command

<response>: response of a successful completion of the command previously issued (hexadecimal character format; refer +CSCS). STATUS and GET RESPONSE return data, which gives information about the current elementary datafield. This information includes the type of file and its size (refer GSM 51.011 [28]). After READ BINARY or READ RECORD command the requested data will be returned. <response> is not returned after a successful UPDATE BINARY or UPDATE RECORD command

Implementation

Optional.

CHANGE REQUEST

⌘ **27.007 CR 120** ⌘ rev - ⌘ Current version: **6.6.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Additional parameter for AT command +CRSM (Restricted SIM access)		
Source:	⌘ T2 (Infineon)		
Work item code:	⌘ TEI6	Date:	⌘ 10/11/2004
Category:	⌘ A Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Release: ⌘ Rel-6 Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

Reason for change:	⌘ The existing AT command +CRSM is not precise enough. The same file ID of an Elementary File (EF) may occur within different Dedicated Files (DF), i.e. within different directories. The directory however can't be selected.
Summary of change:	⌘ Add an optional parameter to select the directory.
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Clauses affected:	⌘ 8.18						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	⌘
	Y	N					
	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/>	Test specifications						
<input checked="" type="checkbox"/>	O&M Specifications						
Other comments:	⌘						

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Implementation

Optional.

CHANGE REQUEST

⌘ **27.007 CR 121** ⌘ rev **-** ⌘ Current version: **5.4.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Corrections to AcTs of PLMN Selection		
Source:	⌘ T2 (Nokia)		
Work item code:	⌘ TEI5	Date:	⌘ 21/10/2004
Category:	⌘ F	Release:	⌘ Rel-5
	<p>Use <u>one</u> of the following categories:</p> <p>F (correction)</p> <p>A (corresponds to a correction in an earlier release)</p> <p>B (addition of feature),</p> <p>C (functional modification of feature)</p> <p>D (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p>Use <u>one</u> of the following releases:</p> <p>Ph2 (GSM Phase 2)</p> <p>R96 (Release 1996)</p> <p>R97 (Release 1997)</p> <p>R98 (Release 1998)</p> <p>R99 (Release 1999)</p> <p>Rel-4 (Release 4)</p> <p>Rel-5 (Release 5)</p> <p>Rel-6 (Release 6)</p> <p>Rel-7 (Release 7)</p>

Reason for change:	⌘ Parameters of +COPS command are not in line with other specifications. In addition, the operation after the access technology is selected is not clear from current version of the specification. According to Core Network specifications, it is not possible to indicate situation where 3G part of network is forbidden and 2G is allowed. This is because there is no rejection cause which could tell us this e.g. "UMTS services not available in this PLMN". Currently operators may use e.g. cause #15 "No suitable cells in location area" to reject 3G LU attempt and force phone to search for other location areas of same PLMN, this search would also extend to other system. That rejection cause, and also other rejection causes which can be used to indicate that 3G roaming is not available in this network, are valid only for that one location area, not the whole AcT. This makes it impossible to classify different AcTs as 'forbidden' or 'allowed' as current version of the AT command specification requires.
Summary of change:	⌘ New AcT value GSM/UTRAN added to the +COPS command. A note explaining the situation after the selection is done added to the specification.
Consequences if not approved:	⌘ It is not possible to implement +COPS at all, or at least the implementations may vary between the manufacturers


Clauses affected:	⌘ 7.3								
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	⌘	X	⌘	X	Other core specifications	⌘
Y	N								
⌘	X								
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		Test specifications	⌘						

Other comments:



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7.3 PLMN selection +COPS

Table 36: +COPS parameter command syntax

Command	Possible response(s)
+COPS=[<mode>[, <format> [, <oper>[, <AcT>]]]]	+CME ERROR: <err>
+COPS?	+COPS: <mode>[, <format> , <oper>[, <AcT>]] +CME ERROR: <err>
+COPS=?	+COPS: [list of supported (<stat> , long alphanumeric <oper> , short alphanumeric <oper> , numeric <oper>[, <AcT>]) s] [, , (list of supported <mode>s) , (list of supported <format>s)] +CME ERROR: <err>

Description

Set command forces an attempt to select and register the GSM/UMTS network operator. <mode> is used to select whether the selection is done automatically by the MT or is forced by this command to operator <oper> (it shall be given in format <format>) to a certain access technology, indicated in <AcT>. If the selected operator is not available, no other operator shall be selected (except <mode>=4). [If the selected access technology is not available, then the same operator shall be selected in other access technology.](#) The selected operator name format shall apply to further read commands (+COPS?) also. <mode>=2 forces an attempt to deregister from the network. The selected mode affects to all further network registration (e.g. after <mode>=2, MT shall be unregistered until <mode>=0 or 1 is selected). Refer subclause 9.2 for possible <err> values. This command should be abortable when registration/deregistration attempt is made.

Read command returns the current mode, the currently selected operator and the current Access Technology. If no operator is selected, <format>, <oper> and <AcT> are omitted.

Test command returns a set of five parameters, each representing an operator present in the network. A set consists of an integer indicating the availability of the operator <stat>, long and short alphanumeric format of the name of the operator, numeric format representation of the operator and access technology. Any of the formats may be unavailable and should then be an empty field. The list of operators shall be in order: home network, networks referenced in SIM or active application in the UICC (GSM or USIM) in the following order: HPLMN selector, User controlled PLMN selector, Operator controlled PLMN selector and PLMN selector (in the SIM or GSM application), and other networks.

It is recommended (although optional) that after the operator list TA returns lists of supported <mode>s and <format>s. These lists shall be delimited from the operator list by two commas.

NOTE: The access technology selected parameters, <AcT>, should only be used in terminals capable to register to more than one access technology. [Selection of <AcT> does not limit the capability to cell reselections, even though access technology is selected, the phone may still re-select a cell in other access technology.](#)

Defined values

<mode>:

- 0 automatic (<oper> field is ignored)
- 1 manual (<oper> field shall be present, and <AcT> optionally)
- 2 deregister from network
- 3 set only <format> (for read command +COPS?), do not attempt registration/deregistration (<oper> and <AcT> fields are ignored); this value is not applicable in read command response
- 4 manual/automatic (<oper> field shall be present); if manual selection fails, automatic mode (<mode>=0) is entered

<format>:

0 long format alphanumeric <oper>

1 short format alphanumeric <oper>

2 numeric <oper>

<oper>: string type; <format> indicates if the format is alphanumeric or numeric; long alphanumeric format can be upto 16 characters long and short format up to 8 characters (refer GSM MoU SE.13 [9]); numeric format is the GSM Location Area Identification number (refer TS 24.008 [8] subclause 10.5.1.3) which consists of a three BCD digit country code coded as in ITU-T E.212 Annex A [10], plus a two BCD digit network code, which is administration specific; returned <oper> shall not be in BCD format, but in IRA characters converted from BCD; hence the number has structure: (country code digit 3)(country code digit 2)(country code digit 1)(network code digit 3)(network code digit 2)(network code digit 1)

<stat>:

0 unknown

1 available

2 current

3 forbidden

<Act> access technology selected:

0 GSM

1 GSM Compact

2 UTRAN

Implementation

Optional.

CHANGE REQUEST

⌘ **27.007 CR 122** ⌘ rev **-** ⌘ Current version: **6.6.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Corrections to AcTs of PLMN Selection		
Source:	⌘ T2 (Nokia)		
Work item code:	⌘ TEI5	Date:	⌘ 21/10/2004
Category:	⌘ A	Release:	⌘ Rel-6
	<p>Use <u>one</u> of the following categories:</p> <p>F (correction)</p> <p>A (corresponds to a correction in an earlier release)</p> <p>B (addition of feature),</p> <p>C (functional modification of feature)</p> <p>D (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p>Use <u>one</u> of the following releases:</p> <p>Ph2 (GSM Phase 2)</p> <p>R96 (Release 1996)</p> <p>R97 (Release 1997)</p> <p>R98 (Release 1998)</p> <p>R99 (Release 1999)</p> <p>Rel-4 (Release 4)</p> <p>Rel-5 (Release 5)</p> <p>Rel-6 (Release 6)</p> <p>Rel-7 (Release 7)</p>

Reason for change:	⌘ Parameters of +COPS command are not in line with other specifications. In addition, the operation after the access technology is selected is not clear from current version of the specification. According to Core Network specifications, it is not possible to indicate situation where 3G part of network is forbidden and 2G is allowed. This is because there is no rejection cause which could tell us this e.g. "UMTS services not available in this PLMN". Currently operators may use e.g. cause #15 "No suitable cells in location area" to reject 3G LU attempt and force phone to search for other location areas of same PLMN, this search would also extend to other system. That rejection cause, and also other rejection causes which can be used to indicate that 3G roaming is not available in this network, are valid only for that one location area, not the whole AcT. This makes it impossible to classify different AcTs as 'forbidden' or 'allowed' as current version of the AT command specification requires.
Summary of change:	⌘ New AcT value GSM/UTRAN added to the +COPS command. A note explaining the situation after the selection is done added to the specification.
Consequences if not approved:	⌘ It is not possible to implement +COPS at all, or at least the implementations may vary between the manufacturers.


Clauses affected:	⌘ 7.3								
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Other comments:



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7.3 PLMN selection +COPS

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+COPS?	+COPS: <mode>[, <format> , <oper>[, <AcT>]] +CME ERROR: <err>
+COPS=?	+COPS: [list of supported (<stat> , long alphanumeric <oper> , short alphanumeric <oper> , numeric <oper>[, <AcT>]) s] [, , (list of supported <mode>s) , (list of supported <format>s)] +CME ERROR: <err>

Description

Set command forces an attempt to select and register the GSM/UMTS network operator. <mode> is used to select whether the selection is done automatically by the MT or is forced by this command to operator <oper> (it shall be given in format <format>) to a certain access technology, indicated in <AcT>. If the selected operator is not available, no other operator shall be selected (except <mode>=4). [If the selected access technology is not available, then the same operator shall be selected in other access technology.](#) The selected operator name format shall apply to further read commands (+COPS?) also. <mode>=2 forces an attempt to deregister from the network. The selected mode affects to all further network registration (e.g. after <mode>=2, MT shall be unregistered until <mode>=0 or 1 is selected). Refer subclause 9.2 for possible <err> values. This command should be abortable when registration/deregistration attempt is made.

Read command returns the current mode, the currently selected operator and the current Access Technology. If no operator is selected, <format>, <oper> and <AcT> are omitted.

Test command returns a set of five parameters, each representing an operator present in the network. A set consists of an integer indicating the availability of the operator <stat>, long and short alphanumeric format of the name of the operator, numeric format representation of the operator and access technology. Any of the formats may be unavailable and should then be an empty field. The list of operators shall be in order: home network, networks referenced in SIM or active application in the UICC (GSM or USIM) in the following order: HPLMN selector, User controlled PLMN selector, Operator controlled PLMN selector and PLMN selector (in the SIM or GSM application), and other networks.

It is recommended (although optional) that after the operator list TA returns lists of supported <mode>s and <format>s. These lists shall be delimited from the operator list by two commas.

NOTE: The access technology selected parameters, <AcT>, should only be used in terminals capable to register to more than one access technology. [Selection of <AcT> does not limit the capability to cell reselections, even though access technology is selected, the phone may still re-select a cell in other access technology.](#)

Defined values

<mode>:

- 0 automatic (<oper> field is ignored)
- 1 manual (<oper> field shall be present, and <AcT> optionally)
- 2 deregister from network
- 3 set only <format> (for read command +COPS?), do not attempt registration/deregistration (<oper> and <AcT> fields are ignored); this value is not applicable in read command response
- 4 manual/automatic (<oper> field shall be present); if manual selection fails, automatic mode (<mode>=0) is entered

<format>:

0 long format alphanumeric <oper>

1 short format alphanumeric <oper>

2 numeric <oper>

<oper>: string type; <format> indicates if the format is alphanumeric or numeric; long alphanumeric format can be upto 16 characters long and short format up to 8 characters (refer GSM MoU SE.13 [9]); numeric format is the GSM Location Area Identification number (refer TS 24.008 [8] subclause 10.5.1.3) which consists of a three BCD digit country code coded as in ITU-T E.212 Annex A [10], plus a two BCD digit network code, which is administration specific; returned <oper> shall not be in BCD format, but in IRA characters converted from BCD; hence the number has structure: (country code digit 3)(country code digit 2)(country code digit 1)(network code digit 3)(network code digit 2)(network code digit 1)

<stat>:

0 unknown

1 available

2 current

3 forbidden

<Act> access technology selected:

0 GSM

1 GSM Compact

2 UTRAN

Implementation

Optional.

CHANGE REQUEST

⌘ **27.007 CR 123** ⌘ rev - ⌘ Current version: **6.6.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Improve security in UICC generic access command +CGLA		
Source:	⌘ T2 (Axalto)		
Work item code:	⌘ TEI6	Date:	⌘ 10/11/2004
Category:	⌘ C	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

Reason for change:	⌘ SA3 points out, in their LS S3-040840 sent to T2, the risks of 2G authentication data leakage into an open platform like a PC-based TE, and decided that this leakage must be avoided. Therefore, SA3 considers that it is necessary to prevent illegal or accidental use of the "Generic access" command to arbitrarily run Authenticate commands on the card in GSM context. Also it shall be noted that as network connections are managed by MT, then there is no use of making these commands available for the TE. As pointed out by SA3, the presence of appropriate filter rules out the security risk. Therefore the suggested solution is to forbid the transmission by the MT of the authenticate command in 2G context to the SIM/UICC, but enable the transmission by the MT of the authenticate command in other contexts		
Summary of change:	⌘ Introduce this new filtering rule in Generic UICC Logical Channel access +CGLA command regarding the network authentication		
Consequences if not approved:	⌘ SA3 issue presented in LS S3-040840 will remain unsolved.		

Clauses affected:	⌘ 8.43								
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	⌘	X	⌘	X	Other core specifications	⌘
Y	N								
⌘	X								
⌘	X								
		Test specifications							

O&M Specifications

Other comments:



8.43 Generic UICC Logical Channel access +CGLA

Table 103: +CGLA action command syntax

Command	Possible response(s)
+CSIM=<sessionid>,<length> ,<command>	+CSIM: <length>,<response> +CME ERROR: <err>
+CSIM=?	

Description

Set command transmits to the MT the <command> it then shall send as it is to the UICC. In the same manner the UICC <response> shall be sent back by the MT to the TA as it is. Refer subclause 9.2 for <err> values.

This command allows a direct control of the UICC by a distant application on the TE. The TE shall then take care of processing UICC information within the frame specified by GSM/UMTS.

Although Generic UICC Logical Channel Access command +CGLA allows TE to take control over the UICC-MT interface, there are some functions of the UICC-MT interface that logically do not need to be accessed from outside the TA/MT. Moreover, for security reason the GSM network authentication should not be handled outside the TA/MT. Therefore it shall not be allowed to execute a Run GSM Algorithm command or an Authenticate command in GSM context from the TE using +CGLA at all time whether the +CGLA is locked or unlocked. This shall not forbid the TE to send Authenticate commands in other security contexts (e.g. EAP security context).

For example, the TA/MT shall forbid the transfer of the Authenticate command to a USIM application when parameters P2 = 0 (GSM security context). See TS 31.102 [59] for USIM authenticate command definition.

NOTE: Compared to Restricted UICC Access command +CRLA, the definition of +CGLA allows TE to take more control over the UICC-MT interface. The locking and unlocking of the interface may be done by a special <command> value or automatically by TA/MT (by interpreting <command> parameter). In case that TE application does not use the unlock command (or does not send a <command> causing automatic unlock) in a certain timeout value, MT may release the locking.

Defined values

<sessionid>: integer type; this is the identifier of the session to be used in order to send the APDU commands to the UICC. It is mandatory in order to send commands to the UICC when targeting applications on the smart card using a logical channel other than the default channel (channel "0").

<length> : integer type; length of the characters that are sent to TE in <command> or <response> (two times the actual length of the command or response)

<command> : command passed on by the MT to the UICC in the format as described in 3GPP TS 31.101 [65] (hexadecimal character format; refer +CSCS)

<response> : response to the command passed on by the UICC to the MT in the format as described in 3GPP TS 31.101 [65] (hexadecimal character format; refer +CSCS)

Implementation

Optional.

CHANGE REQUEST

⌘ **27.007 CR 124** ⌘ rev - ⌘ Current version: **6.6.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Support of EAP authentication command		
Source:	⌘ T2 (T-Mobile)		
Work item code:	⌘ TEI6	Date:	⌘ 21/10/2004
Category:	⌘ B	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

Reason for change:	⌘ SA3 points out, in their LS S3-040840 sent to T2, the need for a dedicated command to transfer EAP authentication messages to the UICC and to the MT. The following CR is a technical proposal that fulfils the requirement described in SA3 liaison.		
Summary of change:	⌘ Introduction of a new EAP authentication related commands allowing the TE to send the EAP Authenticate command to the UICC or to the MT, and to retrieve the resulting parameters.		
Consequences if not approved:	⌘ No common interface will be defined for the EAP mechanism and split WLAN-UE according to TS 33.234 will not be completely implementable in Rel-6.		

Clauses affected:	⌘ 2, 8xx, 8.yy, 9.2.1						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
Other comments:	⌘ 1) This CR is linked to T2-040407. 2) The <EAPMethod> Parameter may not be needed for WLAN authentication according to TS33.234 section 6.1. However, addition of this parameter allows re-using the +CEAP command for other EAP methods.						

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. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TS 22.002: "3rd Generation Partnership Project; Bearer Services (BS) supported by a GSM Public Land Mobile Network (PLMN)".
- [2] 3GPP TS 22.003: "3rd Generation Partnership Project; Teleservices supported by a GSM Public Land Mobile Network (PLMN)".
- [3] 3GPP TS 22.081: "3rd Generation Partnership Project; Line identification supplementary services - Stage 1".
- [4] 3GPP TS 22.082: "3rd Generation Partnership Project; Call Forwarding (CF) supplementary services - Stage 1".
- [5] 3GPP TS 22.083: "3rd Generation Partnership Project; Call Waiting (CW) and Call Hold (HOLD) supplementary services - Stage 1".
- [6] 3GPP TS 22.088: "3rd Generation Partnership Project; Call Barring (CB) supplementary services - Stage 1".
- [7] 3GPP TS 23.003: "3rd Generation Partnership Project; Numbering, addressing and identification".
- [8] 3GPP TS 24.008: "3rd Generation Partnership Project; Mobile Radio Interface Layer 3 specification; Core Network Protocols-Stage 3".
- [9] GSM MoU SE.13, GSM MoU Permanent Reference Document SE.13: "GSM Mobile Network Codes and Names".
- [10] ITU-T Recommendation E.212: "Identification plan for land mobile stations".
- [11] ITU-T Recommendation T.31: "Asynchronous facsimile DCE control, service class 1".
- [12] ITU-T Recommendation T.32: "Asynchronous facsimile DCE control, service class 2".
- [13] ITU-T Recommendation T.50: "International Reference Alphabet (IRA) (Formerly International Alphabet No. 5 or IA5) - Information technology - 7-bit coded character set for information exchange".
- [14] ITU-T Draft new Recommendation V.250: "Serial asynchronous automatic dialling and control".
- [15] Telecommunications Industry Association TIA IS-99: "Data Services Option Standard for Wideband Spread Spectrum Digital Cellular System".
- [16] Telecommunications Industry Association TIA IS-135: "800 MHz Cellular Systems, TDMA Services, Async Data and Fax".
- [17] Portable Computer and Communications Association PCCA STD-101 Data Transmission Systems and Equipment: "Serial Asynchronous Automatic Dialling and Control for Character Mode DCE on Wireless Data Services".

- [18] 3GPP TS 24.022: "3rd Generation Partnership Project; Radio Link Protocol (RLP) for data and telematic services on the Mobile Station - Base Station System (MS - BSS) interface and the Base Station System - Mobile-services Switching Centre (BSS - MSC) interface".
- [19] 3GPP TS 22.030: "3rd Generation Partnership Project; Man Machine Interface (MMI) of the Mobile Station (MS)".
- [20] 3GPP TS 45.008: "Digital cellular telecommunication system (Phase 2+); Radio subsystem link control".
- [21] 3GPP TS 22.085: "3rd Generation Partnership Project; Closed User Group (CUG) supplementary services - Stage 1".
- [22] 3GPP TS 22.084: "3rd Generation Partnership Project; MultiParty (MPTY) supplementary services - Stage 1".
- [23] 3GPP TS 22.090: "3rd Generation Partnership Project; Unstructured Supplementary Service Data (USSD) - Stage 1".
- [24] 3GPP TS 27.005: "3rd Generation Partnership Project; Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE - DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)".
- [25] 3GPP TS 23.038: "3rd Generation Partnership Project; Alphabet and language specific information".
- [26] 3GPP TS 22.024: "3rd Generation Partnership Project; Description of Charge Advice Information (CAI)".
- [27] 3GPP TS 22.086: "3rd Generation Partnership Project; Advice of Charge (AoC) supplementary services - Stage 1".
- [28] 3GPP TS 51.011: "Digital cellular telecommunication system (Phase 2+); Specification of the Subscriber Identity Module - Mobile Equipment (SIM-ME) interface".
- [29] 3GPP TS 22.034: "3rd Generation Partnership Project; High Speed Circuit Switched Data (HSCSD) - Stage 1".
- [30] 3GPP TS 22.091: "3rd Generation Partnership Project; Explicit Call Transfer (ECT) supplementary service - Stage 1".
- [31] 3GPP TS 22.072: "3rd Generation Partnership Project; Call Deflection (CD) supplementary service - Stage 1".
- [32] ISO/IEC10646: "Universal Multiple-Octet Coded Character Set (UCS)"; UCS2, 16 bit coding.
- [33] 3GPP TS 22.022: "3rd Generation Partnership Project; Personalization of GSM Mobile Equipment (ME) Mobile functionality specification".
- [34] 3GPP TS 27.060: "3rd Generation Partnership Project; General requirements on Mobile Stations (MS) supporting General Packet Radio Bearer Service (GPRS)".
- [35] CCITT Recommendation V.110: "Support of data terminal equipments (DTEs) with V-Series interfaces by an integrated services digital network".
- [36] CCITT Recommendation V.120: "Support by an ISDN of data terminal equipment with V-Series type interfaces with provision for statistical multiplexing".
- [37] ITU-T Recommendation X.31: "Support of packet mode terminal equipment by an ISDN".
- [38] 3GPP TS 45.005: "Digital cellular telecommunication system (Phase 2+); Radio transmission and reception".
- [39] 3GPP TS 29.061: "3rd Generation Partnership Project; General Packet Radio Service (GPRS); Interworking between the Public Land Mobile Network (PLMN) supporting GPRS and Packet Data Networks (PDN)".

- [40] 3GPP TS 23.081: "3rd Generation Partnership Project; Technical Specification Group Core Network; Line identification supplementary services - Stage 2".
- [41] 3GPP TS 27.001: "3rd Generation Partnership Project; Technical Specification Group Core Network; General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)".
- [42] 3GPP TS 29.007: "3rd Generation Partnership Project; Technical Specification Group Core Network; General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)".
- [43] Infrared Data Association; Specification of Ir Mobile Communications (IrMC).
- [44] IrDA Object Exchange Protocol.
- [45] 3GPP TS 27.010: "3rd Generation Partnership Project; Terminal Equipment to User Equipment (TE-UE) multiplexer protocol User Equipment (UE)".
- [46] 3GPP TS 23.107: "3rd Generation Partnership Project; Quality of Service, Concept and Architecture".
- [47] 3GPP TS 23.060: "3rd Generation Partnership Project; General Packet Radio Service (GPRS) Service description; Stage 2".
- [48] 3GPP TS 23.067: "3rd Generation Partnership Project; Enhanced Multi-Level Precedence and Pre-emption service (eMLPP) - Stage 2".
- [49] 3GPP TS 43.068: "Digital cellular telecommunication system (Phase 2+); Voice Group Call service (VGCS) - Stage 2".
- [50] 3GPP TS 43.069: "Digital cellular telecommunication system (Phase 2+); Voice Broadcast Service (VBS) - Stage 2".
- [51] 3GPP TS 24.067: "3rd Generation Partnership Project; Enhanced Multi-Level Precedence and Pre-emption service (eMLPP) - Stage 3".
- [52] 3GPP TS 44.068: "Digital cellular telecommunication system (Phase 2+); Voice Group Call service (VGCS) - Stage 3".
- [53] 3GPP TS 44.069: "Digital cellular telecommunication system (Phase 2+); Voice Broadcast Service (VBS) - Stage 3".
- [54] 3GPP TS 22.067: "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; enhanced Multi-Level Precedence and Pre-emption service (eMLPP) - Stage 1".
- [55] 3GPP TS 42.068: "Digital cellular telecommunication system (Phase 2+); Voice Group Call service (VGCS) - Stage 1".
- [56] 3GPP TS 42.069: "Digital cellular telecommunication system (Phase 2+); Voice Broadcast Service (VBS) - Stage 1".
- [57] void
- [58] 3GPP TS 22.087: "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; User-to-User Signalling (UUS) - Stage 1".
- [59] 3GPP TS 31.102: "3rd Generation Partnership Project; Technical Specification Group Terminals; Characteristics of the USIM Application".
- [60] ETSI TS 102 221 "Smart Cards; UICC-Terminal interface; Physical and logical characteristics (Release 1999)".
- [61] 3GPP TS 44.065: "3rd Generation Partnership Project; General Packet Radio Service (GPRS); Mobile Station (MS) to Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDP)".

- [62] 3GPP TS 25.323: "3rd Generation Partnership Project; Packet Data Convergence Protocol (PDCP)".
- [63] 3GPP TS 23.227: "3rd Generation Partnership Project; Applications and User interaction in the UE-Principles and specific requirements".
- [64] 3GPP TS 23.101: "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; General UMTS Architecture "
- [65] 3GPP TS 31.101: "UICC-Terminal Interface; Physical and Logical Characteristics"
- [\[xx\] ETSI TS 102.310: "Smart Cards; Extensible Authentication Protocol support in the UICC".](#)
- [\[yy\] ETSI TS 102.221: "Smart cards; UICC-Terminal interface; Physical and logical characteristics".](#)
- [\[zz\] RFC 3748, June 2004, Extensible Authentication Protocol \(EAP\)](#)

8.xx EAP authentication +CEAP

Table yyy: +CEAP parameter command syntax

Command	Possible response(s)
+CEAP=<dfname> , <EAPMethod> , <EAP packet data>	+CEAP: <EAPsessionid> , <EAP packet response> +CEAP ERROR: <err>
+CEAP=?	

Description

This command allows a TE to exchange EAP packets with the UICC or the ME.

Prior to the execution of this command, the TE shall retrieve the available AIDs using the +CUAD command. The TE shall select one appropriate AID to be addressed. Selection may include asking the user, and considering EAP methods supported by the AIDs. The TE shall set the <dfname> value using the selected AID and shall set the <EAPMethod> value to the requested EAP method.

If the targeted application on the UICC does support the requested EAP method, the MT shall derive the directory file identifier (see ETSI TS 102.310 [xx]) from <dfname> and <EAPMethod> , and it shall transmit the <EAP packet data> to the UICC application using the Authenticate APDU command as defined in ETSI TS 102.310 [xx]. The appropriate DF_{EAP} in the ADF must be selected prior to the submission of an EAP Authenticate command with the <EAP packet data>. Then the EAP Response data sent by the UICC application in its response to the Authenticate command shall be provided to the TE in <EAP packet response>.

If the targeted application on the UICC does not support the requested EAP method and if the MT does support this method then the <EAP packet data> shall be handled by the MT. During the handling of the EAP method, the MT shall run the authentication algorithm on the SIM or USIM, respectively.

Also the MT has to allocate an <EAPsessionid> in order to identify an EAP session and its corresponding keys and parameters.

If neither the MT nor the appropriate UICC application support the requested EAP method, the MT shall respond with "EAP method not supported".

Refer subclause 9.2 for possible <err> values.

Defined values

<dfname>: string type; all selectable applications represented in the UICC by an AID are referenced by a DF name coded on 1 to 16 bytes.

<EAPMethod>: octet type; this is the EAP Method Type as defined in [zz]

<EAP packet data>: as defined in ETSI TS 102.310 [xx]

<EAPsessionid>: integer type; this is the identifier of the EAP session to be used in order to retrieve the EAP parameters with EAP Retrieve Parameters +CERP command.

<EAP packet response>: as defined in ETSI TS 102.310 [xx]

Implementation

Optional.

8.yy EAP Retrieve Parameters +CERP

Table yyy: +CERP parameter command syntax

Command	Possible response(s)
+CERP=<EAPsessionid>,<EAPparameter>	+CERP:<EAP packet response> +CERP ERROR: <err>
+CERP=?	

Description

This command allows a TE to retrieve EAP session parameters / derived keys after a run of the +CEAP command. If the EAP session is handled by the UICC then the MT shall return the content of the elementary file corresponding to the indicated <EAPparameter>. Those EFs are defined in ETSI TS 102.310 [xx].

If the MT handles the EAP session then the MT shall return the corresponding parameter encoded as defined for EAP files, see ETSI TS 102.310 [xx].

For example, the keys shall be retrieved in the TLV format described in ETSI TS 102.310 [xx].

If neither the MT nor the appropriate UICC application can provide the requested information (e.g. because the requested EAP session ID does not exist), the MT shall respond with "Incorrect parameters".

Refer subclause 9.2 for possible <err> values.

Defined values

<EAPparameter>:

01 Keys

02 Status

03 Identity

04 Pseudonym

<EAPsessionid>: integer type; this is the identifier of the EAP session to be used in order to retrieve the EAP parameters corresponding to an active EAP session with EAP Retrieve Parameters +CERP command.

<EAP parameter response>: depends on the value of <EAPparameter>; format of the parameter retrieved is as defined in ETSI TS 102.310 [xx].

Implementation

Optional.

9.2 Mobile Termination error result code +CME ERROR

The operation of +CME ERROR: <err> result code is similar to the regular ERROR result code: if +CME ERROR: <err> is the result code for any of the commands in a command line, none of the following commands in the same command line is executed (neither ERROR nor OK result code shall be returned as a result of a completed command line execution). The format of <err> can be either numeric or verbose. This is set with command +CMEE (refer previous subclause).

NOTE: ITU-T V.250 [14] command V does not affect the format of this result code.

<err> values (numeric format followed by verbose format):

9.2.1 General errors

- 0 phone failure
- 1 no connection to phone
- 2 phone-adaptor link reserved
- 3 operation not allowed
- 4 operation not supported
- 5 PH-SIM PIN required
- 6 PH-FSIM PIN required
- 7 PH-FSIM PUK required
- 10 SIM not inserted (Note)
- 11 SIM PIN required
- 12 SIM PUK required
- 13 SIM failure (Note)
- 14 SIM busy (Note)
- 15 SIM wrong (Note)
- 16 incorrect password
- 17 SIM PIN2 required
- 18 SIM PUK2 required
- 20 memory full
- 21 invalid index
- 22 not found
- 23 memory failure
- 24 text string too long
- 25 invalid characters in text string
- 26 dial string too long
- 27 invalid characters in dial string
- 30 no network service

- 31 network timeout
- 32 network not allowed - emergency calls only
- 40 network personalization PIN required
- 41 network personalization PUK required
- 42 network subset personalization PIN required
- 43 network subset personalization PUK required
- 44 service provider personalization PIN required
- 45 service provider personalization PUK required
- 46 corporate personalization PIN required
- 47 corporate personalization PUK required
- 48 hidden key required (NOTE: This key is required when accessing hidden phonebook entries.)

[49 EAP method not supported](#)

[50 Incorrect parameters](#)

100 unknown

NOTE: This error code is also applicable to UICC.

CHANGE REQUEST

⌘ **27.007 CR 125** ⌘ rev - ⌘ Current version: **6.6.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Correction of file identification in +CRLA command		
Source:	⌘ T2 (Axalto)		
Work item code:	⌘ TEI6	Date:	⌘ 10/11/2004
Category:	⌘ F	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

Reason for change:	⌘ It has been raised that multiple files with the same File ID can be found in the file structure of a UICC. In this case the File ID might not be sufficient to identify a file on the UICC. In order to solve this problem it is proposed to expand the File ID parameter in +CRLA command with an entire path. This way, all the files with the same file Id but in a different place in the file structure can be identified.
Summary of change:	⌘ Add a path to the File ID in +CRLA
Consequences if not approved:	⌘ Interoperability is not guaranteed in case of multiple files with same File ID.

Clauses affected:	⌘ 8.44						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<input checked="" type="checkbox"/>	Test specifications					
	<input checked="" type="checkbox"/>	O&M Specifications					
Other comments:	⌘						

8.44 Restricted UICC Logical Channel access +CRLA

Table 104: +CRLA action command syntax

Command	Possible response(s)
+CRSM=<sessionid>,<command>[,<fileid>[,<P1>,<P2>,<P3>[,<data>[,<pathid>]]]]	+CRSM: <sw1>,<sw2>[,<response>] +CME ERROR: <err>
+CRSM=?	

Description

By using this command instead of Generic UICC Access +CGLA TE application has easier but more limited access to the UICC database. Set command transmits to the MT the UICC <command> and its required parameters. MT handles internally all UICC-MT interface locking and file selection routines. As response to the command, MT sends the actual UICC information parameters and response data. MT error result code +CME ERROR may be returned when the command cannot be passed to the UICC, but failure in the execution of the command in the UICC is reported in <sw1> and <sw2> parameters. Refer to subclause 9.2 for <err> values.

Coordination of command requests to UICC and the ones issued by GSM/UMTS application inside the MT is implementation dependent. However the TE should be aware of the precedence of the GSM/UMTS application commands to the TE commands.

Defined values

<sessionid>: integer type; this is the identifier of the session to be used in order to send the APDU commands to the UICC. It is mandatory in order to send commands to the UICC when targeting applications on the smart card using a logical channel other than the default channel (channel "0").

<command> (command passed on by the MT to the UICC; refer 3GPP TS 31.101 [65]):

176 READ BINARY

178 READ RECORD

192 GET RESPONSE

214 UPDATE BINARY

220 UPDATE RECORD

242 STATUS

all other values are reserved

NOTE 1: The MT internally executes all commands necessary for selecting the desired file, before performing the actual command.

<fileid>: integer type; this is the identifier of a elementary datafile on UICC. Mandatory for every command except STATUS.

NOTE 2: The range of valid file identifiers depends on the actual UICC and is defined in 3GPP TS 31.101 [65]. Optional files may not be present at all.

<P1>, <P2>, <P3>: integer type; parameters passed on by the MT to the UICC. These parameters are mandatory for every command, except GET RESPONSE and STATUS. The values are described in 3GPP TS 31.101 [65]

<data>: information which shall be written to the SIM (hexadecimal character format; refer +CSCS)

<pathid>: string type; contains the path of an elementary file on the UICC in hexadecimal format (e.g. "5F704F30" for DF_{SOLSA}/EF_{SAD}). The <pathid> shall only be used in the mode "select by path from current DF" as defined in ETSI TS 102 221 [60].

<sw1>, <sw2>: integer type; information from the UICC about the execution of the actual command. These parameters are delivered to the TE in both cases, on successful or failed execution of the command

<response>: response of a successful completion of the command previously issued (hexadecimal character format; refer +CSCS). STATUS and GET RESPONSE return data, which gives information about the current elementary datafield. This information includes the type of file and its size (refer 3GPP TS 31.101 [65]). After READ BINARY or READ RECORD command the requested data will be returned. <response> is not returned after a successful UPDATE BINARY or UPDATE RECORD command

Implementation

Optional.

CHANGE REQUEST

⌘ 27.007 CR 126 ⌘ rev - ⌘ Current version: 6.6.0 ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ UICC Application Discovery Command +CUAD		
Source:	⌘ T2 (Axalto)		
Work item code:	⌘ TEI6	Date:	⌘ 08/11/2004
Category:	⌘ B	Release:	⌘ Rel-6
Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: <i>Ph2</i> (GSM Phase 2) <i>R96</i> (Release 1996) <i>R97</i> (Release 1997) <i>R98</i> (Release 1998) <i>R99</i> (Release 1999) <i>Rel-4</i> (Release 4) <i>Rel-5</i> (Release 5) <i>Rel-6</i> (Release 6) <i>Rel-7</i> (Release 7)	

Reason for change:	⌘ In order to use logical channel mechanism it is needed to know the AID (Application identifiers) of the selectable applications on the UICC. The AIDs of the selectable application on a UICC are stored in a file on the UICC and a mechanism is needed to retrieve the information contained in this file.		
Summary of change:	⌘ Introduction of a new command: UICC Application Discovery +CUAD		
Consequences if not approved:	⌘ Some applications running on the UICC have an AID that defined by a range of value. With a given AID, one can recognize what kind of application is identified (SIM, USIMÓ). But the right AID is needed in order to select an application.		

Clauses affected:	⌘ 8.xx										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications <input type="checkbox"/>	⌘
Y	N										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
Other comments:	⌘										

8.xx UICC Application Discovery +CUAD

Table yyy: +CUAD parameter command syntax

<u>Command</u>	<u>Possible response(s)</u>
+CUAD=<>	+CUAD:<response> +CUAD ERROR: <err>
+CUAD=?	

Description

This command asks the MT to discover what applications are available for selection on the UICC. According to TS 102.221 [60], the ME shall access and read the EF_{DIR} file in the UICC and return the values that are stored in its records. Each record contains the AID and optionally application parameters of one of the applications available on the UICC.

Defined values

<response> : the response is the content of the EF_{DIR}.

Implementation

Optional.

CHANGE REQUEST

⌘ 27.007 CR 127 ⌘ rev - ⌘ Current version: 6.6.0 ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Clarification on the use of PIN with (U)SIM		
Source:	⌘ T2 (Axalto)		
Work item code:	⌘ TEI6	Date:	⌘ 9/11/2004
Category:	⌘ F	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: <i>Ph2</i> (GSM Phase 2) <i>R96</i> (Release 1996) <i>R97</i> (Release 1997) <i>R98</i> (Release 1998) <i>R99</i> (Release 1999) <i>Rel-4</i> (Release 4) <i>Rel-5</i> (Release 5) <i>Rel-6</i> (Release 6) <i>Rel-7</i> (Release 7)

Reason for change:	⌘ From Rel-99 UICC the GERAN/UTRAN application running on the UICC can be either a SIM or a USIM. The aim of this CR is to clarify that what is defined as 'SIM PIN' can in the context of a UICC card be one of the PINs defined within the USIM specification.		
Summary of change:	⌘ An additional paragraph is added under chapter 8.3 'Enter PIN' in order to introduce the use of the USIM in addition to the SIM		
Consequences if not approved:	⌘ There will be a misalignment between TS 27.007 and TS 31.101		

Clauses affected:	⌘ 8.3										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	⌘	X	⌘	X	⌘	X	Other core specifications Test specifications O&M Specifications	⌘
Y	N										
⌘	X										
⌘	X										
⌘	X										
Other comments:	⌘										

8.3 Enter PIN +CPIN

Table 62: +CPIN parameter command syntax

Command	Possible response(s)
+CPIN=<pin>[, <newpin>]	+CME ERROR: <err>
+CPIN?	+CPIN: <code> +CME ERROR: <err>
+CPIN=?	

Description

Set command sends to the MT a password which is necessary before it can be operated (SIM PIN, SIM PUK, PH-SIM PIN, etc.). If the PIN is to be entered twice, the TA shall automatically repeat the PIN. If no PIN request is pending, no action is taken towards MT and an error message, +CME ERROR, is returned to TE. Refer subclause 9.2 for possible <err> values.

NOTE: [SIM PIN, SIM PUK, PH-SIM PIN, PH-FSIM PIN, PH-FSIM PUK, SIM PIN2 and SIM PUK2 refer to the PIN of the selected application on the UICC. For example, in an UTRAN context, the selected application on a UICC should be a USIM and the SIM PIN then represents the PIN of the selected USIM. See TS 31.101 \[65\] for further details on application selection on the UICC.](#)

If the PIN required is SIM PUK or SIM PUK2, the second pin is required. This second pin, <newpin>, is used to replace the old pin in the SIM.

NOTE: Commands which interact with MT that are accepted when MT is pending SIM PIN, SIM PUK, or PH-SIM are: +CGMI, +CGMM, +CGMR, +CGSN, D112; (emergency call), +CPAS, +CFUN, +CPIN, +CDIS (read and test command only), and +CIND (read and test command only).

Read command returns an alphanumeric string indicating whether some password is required or not.

Defined values

<pin>, <newpin>: string type values

<code> values reserved by the present document:

READY	MT is not pending for any password
SIM PIN	MT is waiting SIM PIN to be given
SIM PUK	MT is waiting SIM PUK to be given
PH-SIM PIN	MT is waiting phone-to-SIM card password to be given
PH-FSIM PIN	MT is waiting phone-to-very first SIM card password to be given
PH-FSIM PUK	MT is waiting phone-to-very first SIM card unblocking password to be given
SIM PIN2	MT is waiting SIM PIN2 to be given (this <code> is recommended to be returned only when the last executed command resulted in PIN2 authentication failure (i.e. +CME ERROR: 17); if PIN2 is not entered right after the failure, it is recommended that MT does not block its operation)
SIM PUK2	MT is waiting SIM PUK2 to be given (this <code> is recommended to be returned only when the last executed command resulted in PUK2 authentication failure (i.e. +CME ERROR: 18); if PUK2 and new PIN2 are not entered right after the failure, it is recommended that MT does not block its operation)
PH-NET PIN	MT is waiting network personalization password to be given
PH-NET PUK	MT is waiting network personalization unblocking password to be given

PH-NETSUB PIN MT is waiting network subset personalization password to be given

PH-NETSUB PUK MT is waiting network subset personalization unblocking password to be given

PH-SP PIN MT is waiting service provider personalization password to be given

PH-SP PUK MT is waiting service provider personalization unblocking password to be given

PH-CORP PIN MT is waiting corporate personalization password to be given

PH-CORP PUK MT is waiting corporate personalization unblocking password to be given

Implementation

Mandatory for MT not supporting the +CKPD command and supporting AT commands only.

CHANGE REQUEST

⌘ **27.007 CR 128** ⌘ rev - ⌘ Current version: **6.6.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Editorial modifications to +CGLA and +CRLA commands		
Source:	⌘ T2 (Axalto)		
Work item code:	⌘ TEI6	Date:	⌘ 13/10/2004
Category:	⌘ D	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

Reason for change:	⌘ Name of the command in tables 102 and 103 are wrong		
Summary of change:	⌘ In Table 102: change +CSIM to +CGLA In Table 103: change +CRSM to +CRLA		
Consequences if not approved:	⌘ Editorial error will stay in TS 27.007 specification		

Clauses affected:	⌘										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	⌘	X	⌘	X	⌘	X	Other core specifications ⌘ Test specifications O&M Specifications	⌘
Y	N										
⌘	X										
⌘	X										
⌘	X										
Other comments:	⌘										

8.43 Generic UICC Logical Channel access +CGLA

Table 103: +CGLA action command syntax

Command	Possible response(s)
+ CSIM CGLA=<sessionid>,<length>,<command>	+ CSIM CGLA: <length>,<response> +CME ERROR: <err>
+ CSIM CGLA=?	

Description

Set command transmits to the MT the <command> it then shall send as it is to the UICC. In the same manner the UICC <response> shall be sent back by the MT to the TA as it is. Refer subclause 9.2 for <err> values.

This command allows a direct control of the UICC by a distant application on the TE. The TE shall then take care of processing UICC information within the frame specified by GSM/UMTS.

NOTE: Compared to Restricted UICC Access command +CRLA, the definition of +CGLA allows TE to take more control over the UICC-MT interface. The locking and unlocking of the interface may be done by a special <command> value or automatically by TA/MT (by interpreting <command> parameter). In case that TE application does not use the unlock command (or does not send a <command> causing automatic unlock) in a certain timeout value, MT may release the locking.

Defined values

<sessionid>: integer type; this is the identifier of the session to be used in order to send the APDU commands to the UICC. It is mandatory in order to send commands to the UICC when targeting applications on the smart card using a logical channel other than the default channel (channel "0").

<length>: integer type; length of the characters that are sent to TE in <command> or <response> (two times the actual length of the command or response)

<command>: command passed on by the MT to the UICC in the format as described in 3GPP TS 31.101 [65] (hexadecimal character format; refer +CSCS)

<response>: response to the command passed on by the UICC to the MT in the format as described in 3GPP TS 31.101 [65] (hexadecimal character format; refer +CSCS)

Implementation

Optional.

8.44 Restricted UICC Logical Channel access +CRLA

Table 104: +CRLA action command syntax

Command	Possible response(s)
+ CRSM CRLA=<sessionid>,<command>[,<fileid>[,<P1>,<P2>,<P3>[,<data>]]]	+ CRSM CRLA: <sw1>,<sw2>[,<response>] +CME ERROR: <err>
+ CRSM CRLA=?	

Description

By using this command instead of Generic UICC Access +CGLA TE application has easier but more limited access to the UICC database. Set command transmits to the MT the UICC <command> and its required parameters. MT handles internally all UICC-MT interface locking and file selection routines. As response to the command, MT sends the actual UICC information parameters and response data. MT error result code +CME ERROR may be returned when the command cannot be passed to the UICC, but failure in the execution of the command in the UICC is reported in <sw1> and <sw2> parameters. Refer to subclause 9.2 for <err> values.

Coordination of command requests to UICC and the ones issued by GSM/UMTS application inside the MT is implementation dependent. However the TE should be aware of the precedence of the GSM/UMTS application commands to the TE commands.

Defined values

<sessionid>: integer type; this is the identifier of the session to be used in order to send the APDU commands to the UICC. It is mandatory in order to send commands to the UICC when targeting applications on the smart card using a logical channel other than the default channel (channel "0").

<command> (command passed on by the MT to the UICC; refer 3GPP TS 31.101 [65]):

176 READ BINARY

178 READ RECORD

192 GET RESPONSE

214 UPDATE BINARY

220 UPDATE RECORD

242 STATUS

all other values are reserved

NOTE 1: The MT internally executes all commands necessary for selecting the desired file, before performing the actual command.<fileid>: integer type; this is the identifier of a elementary datafile on UICC. Mandatory for every command except STATUS.

NOTE 2: The range of valid file identifiers depends on the actual UICC and is defined in 3GPP TS 31.101 [65].

Optional files may not be present at all.<P1>, <P2>, <P3>: integer type; parameters passed on by the MT to the UICC. These parameters are mandatory for every command, except GET RESPONSE and STATUS. The values are described in 3GPP TS 31.101 [65]

<data>: information which shall be written to the SIM (hexadecimal character format; refer +CSCS)

<sw1>, <sw2>: integer type; information from the UICC about the execution of the actual command. These parameters are delivered to the TE in both cases, on successful or failed execution of the command

<response>: response of a successful completion of the command previously issued (hexadecimal character format; refer +CSCS). STATUS and GET RESPONSE return data, which gives information about the current elementary datafield. This information includes the type of file and its size (refer 3GPP TS 31.101 [65]). After READ BINARY or READ RECORD command the requested data will be returned. <response> is not returned after a successful UPDATE BINARY or UPDATE RECORD command

Implementation

Optional.

CHANGE REQUEST

⌘ **27.007 CR 129** ⌘ rev - ⌘ Current version: **6.6.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Add RETRIEVE DATA and SET DATA APDU commands in +CRSM and +CRLA AT commands	
Source:	⌘ T2 (Axalto)	
Work item code:	⌘ TEI6	Date: ⌘ 13/10/2004
Category:	⌘ B	Release: ⌘ Rel-6
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

Reason for change:	⌘ SCP (Smart Card Platform) has added a set of command on the UICC-MT interface (RETRIEVE DATA and SET DATA) dedicated to the storage and retrieval of large amounts of data on the UICC. Such large data are stored in the UICC in a new type of files BER-TLV files and these new commands are the only available commands to access these files. These commands are still to be added in +CRSM and +CRLA AT commands in order to access newly defined BER-TLV files.
Summary of change:	⌘ Addition of RETRIEVE DATA and SET DATA in the command list of Restricted SIM access +CRSM and Restricted UICC Logical Channel access +CRLA.
Consequences if not approved:	⌘ Data stored in BER-TLV files on the UICC (e.g. MMS stored in the USIM) will remain inaccessible with +CRSM and +CRLA if these new APDU commands are not available.

Clauses affected:	⌘									
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications ⌘ Test specifications ⌘ O&M Specifications ⌘	Y	N	⌘	X	⌘	X	⌘	X	⌘
Y	N									
⌘	X									
⌘	X									
⌘	X									

Other comments:

36

8.18 Restricted SIM access +CRSM

Table 78: +CRSM action command syntax

Command	Possible response(s)
+CRSM=<command>[,<fileid>[,<P1>,<P2>,<P3>[,<data>]]]	+CRSM: <sw1>,<sw2>[,<response>] +CME ERROR: <err>
+CRSM=?	

Description

By using this command instead of Generic SIM Access +CSIM TE application has easier but more limited access to the SIM database. Set command transmits to the MT the SIM <command> and its required parameters. MT handles internally all SIM-MT interface locking and file selection routines. As response to the command, MT sends the actual SIM information parameters and response data. MT error result code +CME ERROR may be returned when the command cannot be passed to the SIM, but failure in the execution of the command in the SIM is reported in <sw1> and <sw2> parameters. Refer to subclause 9.2 for <err> values.

Coordination of command requests to SIM and the ones issued by GSM/UMTS application inside the MT is implementation dependent. However the TE should be aware of the precedence of the GSM/UMTS application commands to the TE commands.

Defined values

<command> (command passed on by the MT to the SIM; refer GSM 51.011 [28]):

176 READ BINARY

178 READ RECORD

192 GET RESPONSE

214 UPDATE BINARY

220 UPDATE RECORD

242 STATUS

[203 RETRIEVE DATA](#)

[219 SET DATA](#)

all other values are reserved

NOTE 1: The MT internally executes all commands necessary for selecting the desired file, before performing the actual command.

<fileid>: integer type; this is the identifier of a elementary datafile on SIM. Mandatory for every command except STATUS

NOTE 2: The range of valid file identifiers depends on the actual SIM and is defined in GSM 51.011 [28]. Optional files may not be present at all.

<P1>, <P2>, <P3>: integer type; parameters passed on by the MT to the SIM. These parameters are mandatory for every command, except GET RESPONSE and STATUS. The values are described in GSM 51.011 [28]

<data>: information which shall be written to the SIM (hexadecimal character format; refer +CSCS)

<sw1>, <sw2>: integer type; information from the SIM about the execution of the actual command. These parameters are delivered to the TE in both cases, on successful or failed execution of the command

<response>: response of a successful completion of the command previously issued (hexadecimal character format; refer +CSCS). STATUS and GET RESPONSE return data, which gives information about the current

elementary datafield. This information includes the type of file and its size (refer GSM 51.011 [28]). After READ BINARY ~~or~~ READ RECORD [or RETRIEVE DATA](#) command the requested data will be returned. <response> is not returned after a successful UPDATE BINARY ~~or~~ UPDATE RECORD [or SET DATA](#) command

Implementation

Optional.

8.44 Restricted UICC Logical Channel access +CRLA

Table 104: +CRLA action command syntax

Command	Possible response(s)
+CRSM=<sessionid>,<command>[,<fileid>[,<P1>,<P2>,<P3>[,<data>]]]	+CRSM: <sw1>,<sw2>[,<response>] +CME ERROR: <err>
+CRSM=?	

Description

By using this command instead of Generic UICC Access +CGLA TE application has easier but more limited access to the UICC database. Set command transmits to the MT the UICC <command> and its required parameters. MT handles internally all UICC-MT interface locking and file selection routines. As response to the command, MT sends the actual UICC information parameters and response data. MT error result code +CME ERROR may be returned when the command cannot be passed to the UICC, but failure in the execution of the command in the UICC is reported in <sw1> and <sw2> parameters. Refer to subclause 9.2 for <err> values.

Coordination of command requests to UICC and the ones issued by GSM/UMTS application inside the MT is implementation dependent. However the TE should be aware of the precedence of the GSM/UMTS application commands to the TE commands.

Defined values

<sessionid>: integer type; this is the identifier of the session to be used in order to send the APDU commands to the UICC. It is mandatory in order to send commands to the UICC when targeting applications on the smart card using a logical channel other than the default channel (channel "0").

<command> (command passed on by the MT to the UICC; refer 3GPP TS 31.101 [65]):

176 READ BINARY

178 READ RECORD

192 GET RESPONSE

214 UPDATE BINARY

220 UPDATE RECORD

242 STATUS

[203 RETRIEVE DATA](#)

[219 SET DATA](#)

all other values are reserved

NOTE 1: The MT internally executes all commands necessary for selecting the desired file, before performing the actual command.<fileid>: integer type; this is the identifier of a elementary datafile on UICC. Mandatory for every command except STATUS.

NOTE 2: The range of valid file identifiers depends on the actual UICC and is defined in 3GPP TS 31.101 [65]. Optional files may not be present at all.<P1>,<P2>,<P3>: integer type; parameters passed on by the MT to the UICC. These parameters are mandatory for every command, except GET RESPONSE and STATUS. The values are described in 3GPP TS 31.101 [65]

<data>: information which shall be written to the SIM (hexadecimal character format; refer +CSCS)

<sw1>, <sw2>: integer type; information from the UICC about the execution of the actual command. These parameters are delivered to the TE in both cases, on successful or failed execution of the command

<response>: response of a successful completion of the command previously issued (hexadecimal character format; refer +CSCS). STATUS and GET RESPONSE return data, which gives information about the current elementary datafield. This information includes the type of file and its size (refer 3GPP TS 31.101 [65]). After READ BINARY, ~~or~~ READ RECORD or RETRIEVE DATA command the requested data will be returned.

<response> is not returned after a successful UPDATE BINARY, ~~or~~ UPDATE RECORD or SET DATA command

Implementation

Optional.

CHANGE REQUEST

⌘ **27.007 CR 130** ⌘ rev - ⌘ Current version: **6.6.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Extension of read, write and find phonebook entry commands for 3G phonebooks		
Source:	⌘ T2 (Axalto)		
Work item code:	⌘ TEI6	Date:	⌘ 11/10/2004
Category:	⌘ B	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

Reason for change:	⌘ Most of phonebooks features existing know on the market have capabilities far beyond the basic iname + phone numberf types of phonebooks. E.g. one of the major functionalities of the USIM is the expanded 3G Phonebook. Unfortunately there is no way for the moment to acces such extended phonebooks. The aim of this CR is to propose new Phonebook access commands in order to allow the use of these phonebooks from a TE.		
Summary of change:	⌘ Extend Read, Write and Find phonebook entry commands to support additional phonebook fields: <group>, <adnumber>, <secondtext>, <email>		
Consequences if not approved:	⌘ There will be a misalignment between AT commands for phonebook access in TS 27.007 and the 3G phonebook defined in TS 31.102 (USIM)		

Clauses affected:	⌘ 8.12, 8.13, 8.14										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	⌘	X	⌘	X	⌘	X	Other core specifications Test specifications O&M Specifications	⌘
Y	N										
⌘	X										
⌘	X										
⌘	X										
Other comments:	⌘										

8.12 Read phonebook entries +CPBR

Table 72: +CPBR action command syntax

Command	Possible response(s)
+CPBR=<index1> [,<index2>]	[+CPBR: <index1>, <number>, <type>, <text> [, <hidden>][, <group>][, <adnumber>][, <adtype>][, <secondtext>][, <email>]] [[...] <CR><LF>+CPBR: <index2>, <number>, <type>, <text> [, <hidden>][, <group>][, <adnumber>][, <adtype>][, <secondtext>][, <email>]] +CME ERROR: <err>
+CPBR=?	+CPBR: (list of supported <index>s), [<nlength>], [<tlength>], [<glength>], [<slength>], [<elength>] +CME ERROR: <err>

Description

Execution command returns phonebook entries in location number range <index1>... <index2> from the current phonebook memory storage selected with +CPBS. If <index2> is left out, only location <index1> is returned. Entry fields returned are location number <indexn>, phone number stored there <number> (of format <type>), text <text> associated with the number ~~and~~, if the selected phonebook supports hidden entries, <hidden> indicating if the entry is hidden, <group> indicating a group the entry may belong to, <adnumber> an additional number (of format <adtype>), <secondtext> a second text field associated with the number and <email> an email field. If all queried locations are empty (but available), no information text lines may be returned. If listing fails in an MT error, +CME ERROR: <err> is returned. Refer subclause 9.2 for <err> values.

Test command returns location range supported by the current storage as a compound value and the maximum lengths of <number> ~~and~~, <text>, <group>, <secondtext> and <email> fields. In case of (U)SIM storage, the lengths may not be available. If MT is not currently reachable, +CME ERROR: <err> is returned. Refer subclause 9.2 for <err> values.

Defined values

<index1>, <index2>, <index>: integer type values in the range of location numbers of phonebook memory

<number>: string type phone number of format <type>

<type>: type of address octet in integer format (refer TS 24.008 [8] subclause 10.5.4.7)

<text>: string type field of maximum length <tlength>; character set as specified by command Select TE Character Set +CSCS

<group>: string type field of maximum length <glength>; character set as specified by command Select TE Character Set +CSCS

<adnumber>: string type phone number of format <adtype>

<adtype>: type of address octet in integer format (refer TS 24.008 [8] subclause 10.5.4.7)

<secondtext>: string type field of maximum length <slength>; character set as specified by command Select TE Character Set +CSCS

<email>: string type field of maximum length <elength>; character set as specified by command Select TE Character Set +CSCS

<nlength>: integer type value indicating the maximum length of field <number>

<tlength>: integer type value indicating the maximum length of field <text>

[<qlength>](#): integer type value indicating the maximum length of field <group>

[<slength>](#): integer type value indicating the maximum length of field <secondtext>

[<elength>](#): integer type value indicating the maximum length of field <email>

<hidden>: indicates if the entry is hidden or not

0: phonebook entry not hidden

1: phonebook entry hidden

Implementation

Optional.

8.13 Find phonebook entries +CPBF

Table 73: +CPBF action command syntax

Command	Possible response(s)
+CPBF=<findtext>	[+CPBF: <index1>, <number>, <type>, <text> [, <hidden>] [, <group>] [, <adnumber>] [, <adtype>] [, <secondtext>] [, <email>] [...] <CR><LF>+CBPF: <index2>, <number>, <type>, <text> [, <hidden>] [, <group>] [, <adnumber>] [, <adtype>] [, <secondtext>] [, <email>]] +CME ERROR: <err>
+CPBF=?	+CPBF: [<nlength>], [<tlength>], [<qlength>], [<slength>], [<elength>] +CME ERROR: <err>

Description

Execution command returns phonebook entries (from the current phonebook memory storage selected with +CPBS) which alphanumeric field start with string <findtext>. Entry fields returned are location number <indexn>, phone number stored there <number> (of format <type>), text <text> associated with the number ~~and~~, if the selected phonebook supports hidden entries, <hidden> indicating if the entry is hidden, [<group> indicating a group the entry may belong to](#), [<adnumber> an additional number \(of format <adtype>\)](#), [<secondtext> a second text field associated with the number and](#) [<email> an email field](#). If listing fails in an MT error, +CME ERROR: <err> is returned. Refer subclause 9.2 for <err> values.

Test command returns the maximum lengths of <number> ~~and~~, <text>, [<group>](#), [<secondtext>](#) and [<email>](#) fields. In case of (U)SIM storage, the lengths may not be available. If MT is not currently reachable, +CME ERROR: <err> is returned. Refer subclause 9.2 for <err> values.

Defined values

<index1>, <index2>: integer type values in the range of location numbers of phonebook memory

<number>: string type phone number of format <type>

<type>: type of address octet in integer format (refer TS 24.008 [8] subclause 10.5.4.7)

[<group>](#): string type field of maximum length <qlength>; character set as specified by command Select TE Character Set +CSCS

[<adnumber>](#): string type phone number of format <adtype>

<adtype>: type of address octet in integer format (refer TS 24.008 [8] subclause 10.5.4.7)

<secondtext>: string type field of maximum length <slength>; character set as specified by command Select TE Character Set +CSCS

<email>: string type field of maximum length <elength>; character set as specified by command Select TE Character Set +CSCS

<findtext>, <text>: string type field of maximum length <tlength>; character set as specified by command Select TE Character Set +CSCS

<nlength>: integer type value indicating the maximum length of field <number>

<tlength>: integer type value indicating the maximum length of field <text>

<glength>: integer type value indicating the maximum length of field <group>

<slength>: integer type value indicating the maximum length of field <secondtext>

<elength>: integer type value indicating the maximum length of field <email>

<hidden>: indicates if the entry is hidden or not

0: phonebook entry not hidden

1: phonebook entry hidden

Implementation

Optional.

8.14 Write phonebook entry +CPBW

Table 74: +CPBW action command syntax

Command	Possible response(s)
+CPBW=[<index>][, <number> [, <type> [, <text> [, <group> [, <adnumber> [, <adtype> [, <secondtext> [, <email> [, <hidden>]]]]]]]]]]	+CME ERROR: <err>
+CPBW=?	+CPBW: (list of supported <index>s), [<nlength>], (list of supported <type>s), [<tlength>], [<glength>], [<slength>], [<elength>] +CME ERROR: <err>

Description

Execution command writes phonebook entry in location number <index> in the current phonebook memory storage selected with +CPBS. Entry fields written are phone number <number> (in the format <type>), text <text> associated with the number ~~and~~, if the selected phonebook supports hidden entries, <hidden> parameter, which indicates if the entry is hidden or not, <group> indicating a group the entry may belong to, <adnumber> an additional number (of format <adtype>), <secondtext> a second text field associated with the number and <email> an email field. If those fields are omitted, phonebook entry is deleted. If <index> is left out, but <number> is given, entry is written to the first free location in the phonebook (the implementation of this feature is manufacturer specific). If writing fails in an MT error, +CME ERROR: <err> is returned. Refer subclause 9.2 for <err> values.

Test command returns location range supported by the current storage as a compound value, the maximum length of <number> field, supported number formats of the storage, ~~and~~ the maximum length of <text> field, the maximum length of <group>, the maximum length of <secondtext>, and the maximum length of <email>. In case of SIM storage, the lengths may not be available. If MT is not currently reachable, +CME ERROR: <err> is returned. Refer subclause 9.2 for <err> values. If storage does not offer format information, the format list should be empty parenthesis

Defined values

<index>: integer type values in the range of location numbers of phonebook memory

<number>: string type phone number of format <type>

<type>: type of address octet in integer format (refer TS 24.008 [8] subclause 10.5.4.7) ; default 145 when dialling string includes international access code character "+", otherwise 129

<text>: string type field of maximum length <tlength>; character set as specified by command Select TE Character Set +CSCS

<group>: string type field of maximum length <glength>; character set as specified by command Select TE Character Set +CSCS

<adnumber>: string type phone number of format <adtype>

<adtype>: type of address octet in integer format (refer TS 24.008 [8] subclause 10.5.4.7)

<secondtext>: string type field of maximum length <slength>; character set as specified by command Select TE Character Set +CSCS

<email>: string type field of maximum length <elength>; character set as specified by command Select TE Character Set +CSCS

<nlength>: integer type value indicating the maximum length of field <number>

<tlength>: integer type value indicating the maximum length of field <text>

<glength>: integer type value indicating the maximum length of field <group>

<slength>: integer type value indicating the maximum length of field <secondtext>

<elength>: integer type value indicating the maximum length of field <email>

<hidden> : indicates if the entry is hidden or not

0: phonebook entry not hidden

1: phonebook entry hidden

Implementation

Optional.