

3GPP TSG-T (Terminals) Meeting #18
New Orleans, USA, 4-6 December 2002

Tdoc TP-020287

Source: TSG-T3
Title: Change Requests to TS 31.122 "USIM Conformance Test"
Document for: Approval

This document contains the following change request:

Doc-1st-Level	Spec	CR	Phase	Subject	Cat	Vers. old	Vers. new	Doc-2nd-Level
TP-020287	31.122	014	R99	Correction of test of Read Record on Linear Fixed EF and T=1 test	F	3.4.0	3.5.0	T3-020903

CR-Form-v7	CHANGE REQUEST
⌘ 31.122 CR 014 ⌘ rev - ⌘ Current version: 3.4.0 ⌘	

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:	⌘ Correction of test of Read Record on Linear Fixed EF and T=1 test		
Source:	⌘ T3		
Work item code:	⌘ TEI	Date:	⌘ 06/11/02
Category:	⌘ F	Release:	⌘ R99
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2 (GSM Phase 2)	
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)	
	B (addition of feature),	R97 (Release 1997)	
	C (functional modification of feature)	R98 (Release 1998)	
	D (editorial modification)	R99 (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP TR 21.900.		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ For T=1, the UICC may send blocks of length less or equal to IFSD. Its is not mandatory that the UICC sends block equal to IFSD. The record length can be at most 255 bytes. Thus when receiving Read Record with Le=0, the UICC may return a warning or an error.
Summary of change:	⌘ In section 6.4.2.3.1.1.4, allow the UICC to return the information using several I-blocks. In section 6.5.2.2.2.4, use the correct length for the Read Record as returned after the Select command.
Consequences if not approved:	⌘ Wrong tests.

Clauses affected:	⌘ 6.4.2.3.1.1.4, 6.5.2.2.2.4								
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="width: 20px; height: 15px;"></td> <td style="width: 20px; height: 15px;"></td> </tr> <tr> <td style="width: 20px; height: 15px;"></td> <td style="width: 20px; height: 15px;"></td> </tr> </table>	Y	N					Other core specifications	⌘
	Y	N							
		Test specifications							
		O&M Specifications							
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.

6.4.2.3.1.1 Information field size

6.4.2.3.1.1.1 Definition and applicability

It shall be mandatory for all cards complying with TS 102.221 [1] to support all functions described therein.

6.4.2.3.1.1.2 Conformance requirement

- CR1 IFSC shall be the maximum length of information field of blocks that can be received by the UICC.
- CR2 The default value of the IFSC shall be 32 bytes and another value may be indicated in TA3 of the ATR.
- CR3 IFSD shall be the maximum length of information field of blocks that the terminal can receive.
- CR4 IFSD shall have a default value of 32 bytes and may be adjusted during the card session.
- CR5 The maximum value of the IFSD shall be 254 bytes.

Reference: TS 102.221 [1], subclause 7.2.3.1.1

Test Group Reference (TGR): TGR_USIM_TP102.221_TP_DLL_TP1

Test Procedure Reference (TPR): TPR_USIM_TP102.221_TP_DLL_TP1_TS_IFS

6.4.2.3.1.1.3 Test purpose

To verify that an I-block from the UICC has an INF field of length \leq IFSD.

NOTE: CR1 and CR2 shall not be tested as it depends on the capability of the UICC.

6.4.2.3.1.1.4 Method of test

NOTE: When EF_{SMS} is not supported by the UICC, any supported linear EF with record length more than or equal to 31 bytes may be chosen.

Initial conditions

- 1) The UICC shall be connected to a ME simulator.

Test procedure

- a) The ME simulator shall reset the UICC.
- b) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.
- c) The ME simulator shall send a SELECT command to the UICC to select EF_{SMS} .
- d) The ME simulator shall send a VERIFY command with PIN to the UICC.
- e) The ME simulator shall send a READ RECORD command to read record 1 from EF_{SMS} .

The UICC shall return the contents of record 1 in a series of chained I-blocks, whose INF fields are \leq IFSD, i.e. less than or equal to 32 bytes in length [CR3, CR4].

- f) The ME simulator shall reset the UICC.
- g) The ME simulator shall send an IFS REQUEST to the UICC, requesting an adjustment of IFSD to 255 bytes.

The UICC shall reject the request and respond with an R-block with bits b1-b4 in the PCB-byte having a value of '2' – other errors [CR5].
- h) The ME simulator shall reset the UICC.
- i) The ME simulator shall send an IFS REQUEST to the UICC, requesting an adjustment of IFSD to 254 bytes.
- j) The ME simulator shall send a SELECT command to the UICC to select and activate the USIM application.

- k) The ME simulator shall send a SELECT command to the UICC to select EF_{SMS}.
- l) The ME simulator shall send a VERIFY command with PIN to the UICC.
- m) The ME simulator shall send a READ RECORD command to read record 1 from EF_{SMS}.

The UICC ~~shall~~ returns the contents of record 1 in a single I-block or multiple I-blocks [CR5].

6.5.2.2.2 Linear fixed EF

6.5.2.2.2.1 Definition and applicability

Linear fixed Elementary Files structure the way in which information is held in a sequence of the same length of record format on the UICC and provide means on how this information is accessed.

6.5.2.2.2.2 Conformance requirement

- CR1 A linear fixed EF consists of a sequence of records all having the same (fixed) length.
- CR2 The first record shall be record number 1.
- CR3 The length of a record shall be indicated in the SELECT response of the EF.
- CR4 The length of a record multiplied by the number of records shall be indicated in the SELECT response of the EF.
- CR5 The UICC shall be able to access records within a linear fixed EF using all of the following:
 - absolutely using the record number;
 - when the record pointer is not set, it shall be possible to perform an action on the first or the last record by using the NEXT or PREVIOUS mode;
 - when the record pointer is set it shall be possible to perform an action on this record, the next record (unless the record pointer is set to the last record) or the previous record (unless the record pointer is set to the first record);
 - by identifying a record using pattern search.
- CR6 If an action following selection of a record is aborted (e.g. due to an unsuccessful execution of a command), then the record pointer shall remain set at the record at which it was set prior to the action.

Reference: TS 102.221 [1], subclause 8.2.2.2.

Test Group Reference (TGR): TGR_USIM_TP102.221_AFS_FT_EF_LF

Test Procedure Reference (TPR): TPR_USIM_TP102.221_AFS_FT_EF_LF

6.5.2.2.2.3 Test purpose

To verify that the EFs within the UICC file structure conform to the above requirements.

NOTE: CR5 and CR6 are tested in subclause 6.8.1.

6.5.2.2.2.4 Method of test

Initial conditions

- 1) The UICC shall be connected to a ME simulator.
- 2) The records in EF_{FDN} shall contain the following data for the first 10 bytes:

1st record 'A0 A1 A2 B0 B1 B2 A0 A1 A2 A0'
2nd record 'B0 B1 B2 A0 A1 A2 A0 A1 A2 B0'
3rd record 'B0 B1 B2 A0 A1 A2 B0 B1 B2 A0'
4th record 'A0 A1 A2 B0 B1 B2 B0 B1 B2 B0'

- 3) The data for the remainder of these four records and for all other records (if any) shall be 'FF'.

Test procedure

- a) The ME simulator shall reset the UICC.
- b) The ME simulator shall send a SELECT command to the UICC to select and activate USIM application.
- c) The ME simulator shall send a VERIFY PIN command with PIN to the UICC.
- d) The ME simulator shall send a SELECT command to the UICC to select EF_{F_{DN}}.

Following shall be true for the SELECT response data:

- *the value of TLV DO with tag '80' shall be equal to product of byte 6 and byte 7 in TLV DO with tag '82' [CR4].*
- e) The ME simulator shall send a READ RECORD command to the UICC using ABSOLUTE mode with record 1 and Le shall be the record length as indicated in byte 6 in TLV DO with tag '82' of the response data in step d) ~~'00' to the UICC~~.

The data returned by the UICC shall be that of the first record [CR2].

The length of the data returned shall be that of byte 6 in TLV DO with tag '82' of the response data in step d) [CR3].

The status condition returned by the UICC shall be SW1='90', SW2='00' - normal ending of the command.

- f) The ME simulator shall repeat sending a READ RECORD command to the UICC using NEXT mode with Le being the record length as indicated in byte 6 in TLV DO with tag '82' of the response data in step d) ~~'00' to the UICC~~ until it reaches the last record whose record number is equal to the byte 7 in TLV DO with tag '82' of the response data in step d).

The length of the data returned in response to every READ RECORD command shall be that of byte 6 in TLV DO with tag '82' of the response data in step d) [CR1, CR3].

The status condition returned by the UICC in response to every READ RECORD command shall be SW1='90', SW2='00' - normal ending of the command.

- g) The ME simulator shall send a READ RECORD command to the UICC using NEXT mode with Le being the record length as indicated in byte 6 in TLV DO with tag '82' of the response data in step d) ~~'00' to the UICC~~.

The UICC shall return an error code appropriate to the command (e.g. SW1='6A', SW2='83' - record not found) [CR4]

NOTE: Step g) confirms that the number of records indicated in byte 7 in the TLV DO with tag '82' of the response data is correct.