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

TP-040269

Agenda Item: 5.3.3
Source: T3
Title: CRs to TS 51.013
Document for: approval

This document contains the following change requests that are approved by 3GPP TSG T3 and forwarded to 3GPP TSG T#26 for approval:

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Workitem
T3-040869	51.013	004	-	Rel-4	Correction of release references.	F	4.1.0	4.2.0	TEI4
T3-040870	51.013	005	-	Rel-5	Correction of release references.	A	5.1.0	5.2.0	TEI4
T3-040876	51.013	006	-	Rel-5	ProactiveHandler appendTLV(byte tag, byte value1, byte value2) method conformance requirement.	F	5.1.0	5.2.0	TEI5
T3-040877	51.013	007	-	Rel-5	Correction to ProactiveHandler appendTLV(byte tag, byte[] value, short valueOffset, short valueLength) method test	F	5.1.0	5.2.0	TEI5
T3-040878	51.013	008	-	Rel-5	Correction to dstBuffer length and dstLength in ProactiveResponseHandler copyChannelData() method tests.	F	5.1.0	5.2.0	TEI5
T3-040879	51.013	009	-	Rel-5	Correction to updateRecord() method test in access package.	F	5.1.0	5.2.0	TEI5
T3-040880	51.013	010	-	Rel-5	Addition of tests on HANDLER_NOT_AVAILABLE toolkitException in EnvelopeResponseHandler class for alignment with TS 43.019.	F	5.1.0	5.2.0	TEI5
T3-040881	51.013	011	-	Rel-5	MEProfile getValue(short indexMSB, short indexLSB) method conformance requirement.	F	5.1.0	5.2.0	TEI5
T3-040882	51.013	012	-	Rel-5	Addition of tests on Proactive Command Control for alignment with TS 43.019	F	5.1.0	5.2.0	TEI5
T3-040883	51.013	013	-	Rel-5	Correct in some script files wrong command qualifiers value for COMMAND DETAILS TLV and wrong source value and destination value for Device Identities TLV.	F	5.1.0	5.2.0	TEI5
T3-040884	51.013	014	-	Rel-5	Correction to EnvelopeHandler getTheHandler() method test procedure description.	F	5.1.0	5.2.0	TEI5
T3-040885	51.013	015	-	Rel-5	PRH getGeneralResult() method test: Unexpected API expectations.	F	5.1.0	5.2.0	TEI5
T3-040886	51.013	016	-	Rel-5	Cross references insertion.	F	5.1.0	5.2.0	TEI5

3GPP TSG-T3 Meeting #33
Sophia Antipolis, France, 16-19 Nov. 2004

Tdoc ⌘T3-040869
revised from T3-040648

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **004** ⌘**rev** **-** ⌘ Current version: **4.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Correction of release references.
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	19/11/2004
Category:	⌘	**F**
Release:	⌘	Rel-4

Use one 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 one 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:	⌘	3GPP TS 11.17 and 3GPP TS 11.14 references are not set in the correct release.
Summary of change:	⌘	Change 3GPP TS 11.17 and 3GPP TS 11.14 references to release 99.
Consequences if not approved:	⌘	Release of 3GPP TS 11.17 and 3GPP TS 11.14 references are erroneous.

Clauses affected:	⌘	§2 References			
Other specs affected:	⌘	**Y**	**N**		
				Other core specifications	⌘
				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.

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] Void.

[2] Void.

[3] 3GPP TS 51.011: "Specification of the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface".

[4] 3GPP TS 1~~5~~1.~~0~~14: "Specification of the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface (Release 99)".

[5] 3GPP TS ~~GSM~~ 11.17: "Digital cellular telecommunications system (Phase 2+); Subscriber Identity Module (SIM) test specification (Release 99)".

[6] Void.

[7] 3GPP TS 43.019: "Subscriber Identity Module Application Programming Interface (SIM API) for Java Card™; Stage 2".

[8] 3GPP TS 23.048: "Security Mechanisms for the (U)SIM application toolkit; Stage 2 (Release 4)".

[9] ISO/IEC 7816-3 (1997): "Information technology - Identification cards - Integrated circuit(s) cards with contacts - Part 3: Electronic signals and transmission protocols".

[10] 3GPP TS 42.019: "Subscriber Identity Module Application Programming Interface (SIM API); Stage 1".

[11] SUN Java Card Specification "Java Card 2.1 API Specification".

[12] SUN Java Card Specification "Java Card 2.1 Runtime Environment Specification".

[13] SUN Java Card Specification "Java Card 2.1 VM Architecture Specification".

NOTE: SUN Java Card Specifications can be downloaded at http://java.sun.com/products/javacard.

[14] ETSI TS 101 220: "Smart Cards; ETSI numbering system for telecommunication application providers".

[15] 3GPP TS 51.010-1: "Mobile Station (MS) conformance specification; Part 1: Conformance specification".

3GPP TSG-T3 #33
Sophia Antipolis, France
16-19 November 2004

T3-040885

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **015** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	PRH getGeneralResult() method test: Unexpected API expectations.
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	11/10/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	Some API expectations are defined for some command descriptions whereas they don't correspond one to each other.
Summary of change:	⌘	In test case 13 and 14, delete API expectations for Terminal Response commands.
Consequences if not approved:	⌘	Inconsistency between test specification and test script.

Clauses affected:	⌘	§6.2.8.4 ProactiveResponseHandler, getGeneralResult() method.

Other specs affected: ⌘	Y	N		⌘
			Other core specifications	
			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.

6.2.8.4 Method getGeneralResult

Test Area Reference: API_2_PRH_GTGR

6.2.8.4.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public byte getGeneralResult()
                    throws ToolkitException
```

6.2.8.4.1.1 Normal execution

- CRRN1: This method returns the general result of a proactive command.
- CRRN2: After a successful execution of the method, the Result TLV becomes the selected TLV of the ProactiveResponseHandler.

6.2.8.4.1.2 Parameter errors

No requirements.

6.2.8.4.1.3 Context errors

- CRRC1: A ToolkitException.UNAVAILABLE_ELEMENT shall be thrown in case of unavailable Result TLV element.
- CRRC2: A ToolkitException.OUT_OF_TLV_BOUNDARIES shall be thrown if the general result byte is missing in the Result Simple TLV.

6.2.8.4.2 Test Suite files

Test Script: API_2_PRH_GTGR_1.scr

Test Applet: API_2_PRH_GTGR_1.java

Load Script: API_2_PRH_GTGR_1.ldr

Cleanup Script: API_2_PRH_GTGR_1.clr

Parameter File: API_2_PRH_GTGR_1.par

6.2.8.4.3 Test procedure

Id	Description	API Expectation	APDU Expectation

1	**Build and send a DISPLAY TEXT command**
	`qualifier = 00h`
	`dcs = 04h`
	`buffer = 'Text'`
	Terminal Response with General Result = 00 (command performed successfully)
	ProactiveResponseHandler.getTheHandler()
	Call the getGeneralResult() method
		Result of getGeneralResult() is 00h	DISPLAY TEXT Proactive command

2	**Call the getValueLength() method**	Result is 01h	
3	**Build and send a DISPLAY TEXT command** **Terminal Response with General Result = 01,**		DISPLAY TEXT Proactive command

Id	Description	API Expectation	APDU Expectation
	without Additional information on result (command performed with partial comprehension) **ProactiveResponseHandler.getTheHandler()** **Call the getGeneralResult() method**	Result of getGeneralResult() is 01h	
4	**Call the getValueLength() method**	Result is 01h	
5	**Build and send a DISPLAY TEXT command** **Terminal Response with General Result = 01, with Additional information on result** `Result TLV = 03 02 01 55 (command performed with partial comprehension)` **ProactiveResponseHandler.getTheHandler()** Call the getGeneralResult() method	Result of getGeneralResult() is 01h	DISPLAY TEXT Proactive command
6	**Call the getValueLength() method**	Result is 02h	
7	**Build and send a DISPLAY TEXT command** **Terminal Response with General Result = 02** `Result TLV = 03 04 02 65 43 21 (Missing information)` **ProactiveResponseHandler.getTheHandler()** Call the getGeneralResult() method	Result of getGeneralResult() is 02h	DISPLAY TEXT Proactive command
8	**Call the getValueLength() method**	Result is 04h	
9	**Build and send a DISPLAY TEXT command** **Terminal Response with 7Fh additional** `bytes` `Result TLV = 03 81 80 02 55 55 55 …` **ProactiveResponseHandler.getTheHandler() ; call the getGeneralResult() method**	Result is 02h	DISPLAY TEXT Proactive command
10	**Call the getValueLength() method**	Result is 80h	

11	**Build and send a DISPLAY TEXT command**
	
	Terminal Response with 2 Result TLV
	
	`1st Result TLV = 03 02 02 12`
	`2nd Result TLV = 03 03 03 34 56`
	ProactiveResponseHandler.getTheHandler() ;
	`call the getGeneralResult() method`
		Result is 02h	DISPLAY TEXT Proactive command

12	**Call the getValueLength() method**	Result is 02h	
13	**Build and send a DISPLAY TEXT command** **Terminal Response without Result Simple TLV** **ProactiveResponseHandler.getTheHandler(); call the getGeneralResult() method**	~~ToolkitException.UNAVAILABLE_ELEMENT is thrown by send()~~ UNAVAILABLE_ELEMENT ToolkitException is thrown	DISPLAY TEXT Proactive command

Id	Description	API Expectation	APDU Expectation

14	**Build and send a DISPLAY TEXT command**
	
	Terminal Response without General Result Byte in Result Simple TLV
	
	ProactiveResponseHandler.getTheHandler() ;
	`call the getGeneralResult() method`
	
	`Result TLV = 03 00`
		~~ToolkitException.UNAVAILABLE_ELEMENT is thrown by send()~~
		
		OUT_OF_TLV_BOUNDARIES ToolkitException is thrown
			DISPLAY TEXT Proactive command

6.2.8.4.4 Test Coverage

CRR number	Test case number
N1	1, 3, 5, 7, 9, 11
N2	2, 4, 6, 8, 10, 12
C1	13
C2	14

3GPP TSG-T3 #33
Sophia Antipolis, France
16-19 November 2004

T3-040884

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **014** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Correction to EnvelopeHandler getTheHandler() method test procedure description.
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	11/10/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	Test Case 4 specification is not in accordance with test script and is wrong.
Summary of change:	⌘	Change test description of case 4.
Consequences if not approved:	⌘	Inconsistency between test specification and test script.
Clauses affected:	⌘	§ 6.2.5.1 EnvelopeResponseHandler, getTheHandler() method

Other specs affected:	⌘	Y	N		⌘
		[ ]	[ ]	Other core specifications	
		[ ]	[ ]	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.

6.2.5 Class EnvelopeResponseHandler

6.2.5.1 Method getTheHandler

6.2.5.1.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**getTheHandler twice**	The returned objects shall be the same	
2	**Verify that getTheHandler returns an EnvelopeHandler** `getTheHandler`	The reference returned shall be an EnvelopeResponseHandler (checkcast)	
3	**Verify the returned value is not null** `getTheHandler`	The reference returned shall not be null.	
4	~~**getTheHandler, then** **send a proactive command, and then**~~, **getTheHandler**~~**appendTLV**~~	ToolkitException HANDLER_NOT_AVAILABLE is thrown	

6.2.5.1.4 Test Coverage

CRR number	Test case number
N1	1, 2, 3
N2	To be checked in Framework tests and insert here cross reference
C1	To be checked in Framework tests and insert here cross reference
C2	4

3GPP TSG-T3 #33
Sophia Antipolis, France
16-19 November 2004

T3-040883

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **013** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Correct in some script files wrong command qualifiers value for COMMAND DETAILS TLV and wrong source value and destination value for Device Identities TLV.
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	21/10/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	Some parameters (command qualifiers in Command Details TLV, source and destination device identities in Device Identities TLV) are wrong in some tests.
Summary of change:	⌘	Replace parameters values with values specified in TS 11.14 specification.
Consequences if not approved:	⌘	The test scripts are not compliant with 3GPP TS 11.14 reference specification.

Clauses affected:	⌘	Annex E SourceCode scripts files (fwk_hin_prhd_1.scr, fwk_mha_erhd.scr, fwk_erp_efse_1.scr, FWK_TIN_MLME_1.scr, FWK_PCS_PCCO_1.scr, fwk_pcs_igco_1.scr, fwk_apt_estc_1.scr, fwk_apt_epdw_1.scr, fwk_apt_emsh_1.scr, fwk_apt_edda_1.scr, fwk_apt_edcs_1.scr, API_2_TKR_DMETB_1.scr, API_2_TKR_EMETB_1.scr, API_2_TKR_CMETB_BSSBZBS_1.scr)

		Y	N			
Other specs affected:	⌘			Other core specifications	⌘	
				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.

File API_2_TKR_CMETB_BSSBZBS_1.scr
REM ---------- Test case 4
REM Envelope
CMD A0 C2 00 00 2C \
D1 2A 02 02 83 81 0B 24 40 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 13 02 70 00 00 0E 0D 08 \
00 00 00 29 21 05 00 00 00 00 01 00 \
(91 32)

REM Fetch
CMD A0 12 00 00 32 \
[D0 30 81 03 01 25 ~~80~~ 00 82 02 81 82 85 0C 54 4F 4F \
4C 4B 49 54 20 54 45 53 54 8F 01 01 8F 10 02 4E \
65 78 74 41 63 74 69 6F 6E 49 6E 64 69 63 18 02 \
00 10] \
(90 00)

REM TerminalResponse
CMD A0 14 00 00 0C \
81 03 01 25 00 82 02 82 81 83 01 00 \
(90 00)

File API_2_TKR_EMETB_1.scr
REM ---------- Test case 3
REM Envelope
CMD A0 C2 00 00 2C \
D1 2A 02 02 83 81 0B 24 40 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 13 02 70 00 00 0E 0D 08 \
00 00 00 29 22 85 00 00 00 00 01 00 \
(91 20)

REM Fetch
CMD A0 12 00 00 20 \
[D0 1E 81 03 01 25 ~~XX~~ 00 82 02 81 82 85 0C 54 4F 4F \
4C 4B 49 54 20 54 45 53 54 8F 05 01 49 6E 69 74] \
(90 00)

REM TerminalResponse
CMD A0 14 00 00 0C \
81 03 01 25 ~~80~~ 00 82 02 82 81 83 01 00 \
(90 00)

File API_2_TKR_DMETB_1.scr
REM ---------- Test case 2
REM Envelope
CMD A0 C2 00 00 2C \
D1 2A 02 02 83 81 0B 24 40 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 13 02 70 00 00 0E 0D 08 \
00 00 00 29 22 05 00 00 00 00 01 00 \
(91 20)

REM Fetch
CMD A0 12 00 00 20 \
[D0 1E 81 03 01 25 00 82 02 81 82 85 0C 54 4F 4F \
4C 4B 49 54 20 54 45 53 54 8F 05 02 49 6E 69 74] \
(90 00)

REM TerminalResponse
CMD A0 14 00 00 0C \
81 03 01 25 ~~80~~ 00 82 02 82 81 83 01 00 \
(90 00)

File fwk_apt_edcs_1.scr

REM ---------- Test case 1
REM 1- Unformatted SMS PP Download Envelope
CMD A0 C2 00 00 19 \
D1 17 82 02 83 81 8B 11 00 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 00 \
(90 00)

REM 3- Event Download Channel Status Envelope
CMD A0 C2 00 00 0D \
D6 0B 99 01 0A 82 02 82 81 38 02 81 00 \
(90 00)

REM 4- Unformatted SMS PP Download Envelope
CMD A0 C2 00 00 19 \
D1 17 82 02 83 81 8B 11 00 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 00 \
(91 1A)

REM 6- Open Channel is fetched
CMD A0 12 00 00 1A \
[D0 18 81 03 01 40 01 82 02 81 82 06 05 81 55 66 \
77 88 35 02 03 00 39 02 00 0A] \
(90 00)

REM Unsuccessful Terminal Response
CMD A0 14 00 00 0C \
81 03 01 40 01 82 02 ~~81~~ 82 ~~82~~ 81 83 01 3A \
(90 00)

REM 8- Event Download Channel Status Envelope
CMD A0 C2 00 00 0D \
D6 0B 99 01 0A 82 02 82 81 38 02 81 00 \
(90 00)

REM 9- Unformatted SMS PP Download Envelope
CMD A0 C2 00 00 19 \
D1 17 82 02 83 81 8B 11 00 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 00 \
(91 1A)

REM 11- Open Channel is fetched
CMD A0 12 00 00 1A \
[D0 18 81 03 01 40 01 82 02 81 82 06 05 81 55 66 \
77 88 35 02 03 00 39 02 00 0A] \
(90 00)

REM Successful Terminal Response
CMD A0 14 00 00 18 \
81 03 01 40 01 82 02 82 81 83 01 00 38 02 81 00 \
35 02 03 00 39 02 00 0A \
(90 00)

REM ---------- Test case 2
REM 1- Event Download Channel Status Envelope
CMD A0 C2 00 00 0D \
D6 0B 99 01 0A 82 02 82 81 38 02 81 00 \
(90 00)

REM ---------- Test case 3
REM 0- Unformatted SMS PP Download Envelope
CMD A0 C2 00 00 19 \

D1 17 82 02 83 81 8B 11 00 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 00 \
(91 1A)

REM 1- Open Channel is fetched
CMD A0 12 00 00 1A \
[D0 18 81 03 01 40 02 82 02 81 82 06 05 81 55 66 \
77 88 35 02 03 00 39 02 00 0A] \
(90 00)

REM Successful Terminal Response
CMD A0 14 00 00 18 \
81 03 01 40 02 82 02 ~~81 82~~82 81 83 01 00 38 02 82 00 \
35 02 03 00 39 02 00 0A \
(91 0B)

REM 2- Close Channel is fetched
CMD A0 12 00 00 0B \
[D0 09 81 03 01 41 00 82 02 81 22] \
(90 00)

REM Unsuccessful Terminal Response
CMD A0 14 00 00 0C \
81 03 01 41 00 82 02 ~~81 82~~82 81 83 01 3A \
(90 00)

REM 3- Event Download Channel Status Envelope
CMD A0 C2 00 00 0D \
D6 0B 99 01 0A 82 02 82 81 38 02 82 00 \
(91 0B)

REM 4- Close Channel is fetched
CMD A0 12 00 00 0B \
[D0 09 81 03 01 41 00 82 02 81 22] \
(90 00)

REM Successful Terminal Response
CMD A0 14 00 00 0C \
81 03 01 41 00 82 02 ~~81 82~~82 81 83 01 00 \
(90 00)

REM ---------- Test case 4
REM 1- Event Download Channel Status Envelope
CMD A0 C2 00 00 0D \
D6 0B 99 01 0A 82 02 82 81 38 02 82 00 \
(90 00)

REM ---------- Test case 5
REM 0- Unformatted SMS PP Download Envelope
CMD A0 C2 00 00 19 \
D1 17 82 02 83 81 8B 11 00 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 00 \
(91 1A)

REM 1- Open Channel is fetched
CMD A0 12 00 00 1A \
[D0 18 81 03 01 40 01 82 02 81 82 06 05 81 55 66 \
77 88 35 02 03 00 39 02 00 0A] \
(90 00)

REM 2- Successful Terminal Response
CMD A0 14 00 00 18 \

81 03 01 40 01 82 02 ~~81 82~~82 81 83 01 00 38 02 82 00 \
35 02 03 00 39 02 00 0A \
(90 00)

File fwk_apt_edda_1.scr
REM ---------- Test case 1
REM 1- Unformatted SMS PP Download Envelope
CMD A0 C2 00 00 19 \
D1 17 82 02 83 81 8B 11 00 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 00 \
(90 00)

REM 3- Event Download Data Available Envelope
CMD A0 C2 00 00 10 \
D6 0E 99 01 09 82 02 82 81 38 02 81 00 37 01 0A \
(90 00)

REM 4- Unformatted SMS PP Download Envelope
CMD A0 C2 00 00 19 \
D1 17 82 02 83 81 8B 11 00 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 00 \
(91 1A)

REM 6- Open Channel is fetched
CMD A0 12 00 00 1A \
[D0 18 81 03 01 40 01 82 02 81 82 06 05 81 55 66 \
77 88 35 02 03 00 39 02 00 0A] \
(90 00)

REM Unsuccessful Terminal Response
CMD A0 14 00 00 0C \
81 03 01 40 01 82 02 ~~81 82~~82 81 83 01 3A \
(90 00)

REM 8- Event Download Data Available Envelope
CMD A0 C2 00 00 10 \
D6 0E 99 01 09 82 02 82 81 38 02 81 00 37 01 0A \
(90 00)

REM 9- Unformatted SMS PP Download Envelope
CMD A0 C2 00 00 19 \
D1 17 82 02 83 81 8B 11 00 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 00 \
(91 1A)

REM 11- Open Channel is fetched
CMD A0 12 00 00 1A \
[D0 18 81 03 01 40 01 82 02 81 82 06 05 81 55 66 \
77 88 35 02 03 00 39 02 00 0A] \
(90 00)

REM Successful Terminal Response
CMD A0 14 00 00 18 \
81 03 01 40 01 82 02 82 81 83 01 00 38 02 81 00 \
35 02 03 00 39 02 00 0A \
(90 00)

REM ---------- Test case 2
REM 1- Event Download Data Available Envelope
CMD A0 C2 00 00 10 \
D6 0E 99 01 09 82 02 82 81 38 02 81 00 37 01 0A \
(90 00)

REM ---------- Test case 3
REM 0- Unformatted SMS PP Download Envelope
CMD A0 C2 00 00 19 \
D1 17 82 02 83 81 8B 11 00 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 00 \
(91 1A)

REM 1- Open Channel is fetched
CMD A0 12 00 00 1A \
[D0 18 81 03 01 40 02 82 02 81 82 06 05 81 55 66 \
77 88 35 02 03 00 39 02 00 0A] \
(90 00)

REM Successful Terminal Response
CMD A0 14 00 00 18 \
81 03 01 40 02 82 02 82 81~~81 82~~ 83 01 00 38 02 82 00 \
35 02 03 00 39 02 00 0A \
(91 0B)

REM 2- Close Channel is fetched
CMD A0 12 00 00 0B \
[D0 09 81 03 01 41 00 82 02 81 22] \
(90 00)

REM Unsuccessful Terminal Response
CMD A0 14 00 00 0C \
81 03 01 41 00 82 02 82 81~~81 82~~ 83 01 3A \
(90 00)

REM 3- Event Download Data Available Envelope
CMD A0 C2 00 00 10 \
D6 0E 99 01 09 82 02 82 81 38 02 82 00 37 01 0A \
(91 0B)

REM 4- Close Channel is fetched
CMD A0 12 00 00 0B \
[D0 09 81 03 01 41 00 82 02 81 22] \
(90 00)

REM Successful Terminal Response
CMD A0 14 00 00 0C \
81 03 01 41 00 82 02 82 81~~81 82~~ 83 01 00 \
(90 00)

REM ---------- Test case 4
REM 1- Event Download Data Available Envelope
CMD A0 C2 00 00 10 \
D6 0E 99 01 09 82 02 82 81 38 02 82 00 37 01 0A \
(90 00)

REM ---------- Test case 5
REM 0- Unformatted SMS PP Download Envelope
CMD A0 C2 00 00 19 \
D1 17 82 02 83 81 8B 11 00 08 81 55 66 77 88 7F \
F6 00 11 29 12 00 00 04 00 \
(91 1A)

REM 1- Open Channel is fetched
CMD A0 12 00 00 1A \
[D0 18 81 03 01 40 01 82 02 81 82 06 05 81 55 66 \
77 88 35 02 03 00 39 02 00 0A] \

(90 00)

REM 2- Successful Terminal Response
CMD A0 14 00 00 18 \
81 03 01 40 01 82 02 82 8181 82 83 01 00 38 02 82 00 \
35 02 03 00 39 02 00 0A \
(90 00)

File fwk_apt_emsh_1.scr
REM Install Instance 03
CMD A0 C2 00 00 8C \
D1 81 89 82 02 83 81 8B 81 82 40 08 81 55 66 77 \
88 7F F6 00 11 29 12 00 00 04 71 02 70 00 00 6C \
15 0A 00 00 11 00 00 00 00 00 00 00 01 00 14 AA \
83 82 11 12 53 48 80 E6 0C 00 51 10 A0 00 00 00 \
09 00 02 FF FF FF FF 89 44 0C 00 00 10 A0 00 00 \
00 09 00 02 FF FF FF FF 89 44 0C 60 01 10 A0 00 \
00 00 09 00 02 FF FF FF FF 89 44 0C 64 02 01 00 \
1A EF 16 C8 02 08 00 C7 02 00 10 CA 0C 01 00 01 \
00 10 03 05 05 06 06 07 07 C9 00 00

RST

REM Terminal Profile
CMD A0 10 00 00 04 \
09 01 00 20 \
(91 3A)

REM Fetch
CMD A0 12 00 00 3A \
[D0 38 81 03 01 25 80 82 02 81 82 85 0C 54 4F 4F \
4C 4B 49 54 20 54 45 53 54 8F 09 05 41 70 70 6C \
65 74 33 41 8F 09 06 41 70 70 6C 65 74 33 42 8F \
09 07 41 70 70 6C 65 74 33 43] \
(90 00)

REM Terminal Response
CMD A0 14 00 00 0C \
81 03 01 25 00 80 82 02 82 81 83 01 00 \
(90 00)

REM *** 2-Applet3 is triggered ****
REM ENVELOPE MENU SELECTION WITH HELP REQUEST AND IDENTIFIER=05
CMD A0 C2 00 00 0B \
D3 09 82 02 01 81 10 01 05 15 00 \
(91 2F)

REM 3- Setup Menu is fetched
CMD A0 12 00 00 2F \
[D0 2D 81 03 01 25 80 82 02 81 82 85 0C 54 4F 4F \
4C 4B 49 54 20 54 45 53 54 8F 09 06 41 70 70 6C \
65 74 33 42 8F 09 07 41 70 70 6C 65 74 33 43]

REM Terminal Response
CMD A0 14 00 00 0C \
81 03 01 25 00 80 82 02 82 81 83 01 00 \
(90 00)

File fwk_apt_epdw_1.scr
REM *** FETCH OF THE REFRESH APPLET3***
CMD A0 12 00 00 0B \
[D0 09 81 03 01 01 03 82 02 81 82] \

(90 00)

REM ***TEST CASE 2 OF THE APPLETS 1 AND 2 ***
REM INI FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
CMD A0 10 00 00 02 \
03 01 \
(90 00)

REM TERMINAL RESPONSE TO THE REFRESH OF THE APPLET3
CMD A0 14 00 00 0C \
81 03 01 01 ~~80~~ 03 82 02 82 81 03 01 00 \
(90 00)

File fwk_apt_estc_1.scr
REM ***FETCH OF THE DISPLAY TEXT***
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 65 \
78 74 20 31] \
(90 00)

REM ***TEST CASE 2 OF THE APPLETS 1 AND 2 ***
REM STATUS COMMAND
CMD A0 F2 00 00 16 \
[ ] \
(90 00)

REM ***TERMINAL RESPONSE OF THE DISPLAY TEXT***
CMD A0 14 00 00 0C \
81 03 01 21 ~~00~~ 80 82 02 82 81 03 01 00

File fwk_pcs_igco_1.scr
REM Test Case 1 Interaction with GSM Commands after TERMINAL PROFILE

REM Terminal Profile
CMD A0 10 00 00 04 \
0B 01 00 20\
(91 29)

REM Select MF
CMD A0 A4 00 00 02 \
3F 00 \
(9F XX)

REM GetResponse
CMD A0 C0 00 00 06 \
[XX XX XX XX 3F 00] \
(91 29)

REM Select failed
CMD A0 A4 00 00 02 \
03 FF \
(94 04)

REM Fetch
CMD A0 12 00 00 29 \
[D0 27 81 03 01 25 00 82 02 81 82 85 0C 54 4F 4F \
4C 4B 49 54 20 54 45 53 54 8F 06 01 4D 65 6E 75 \
31 8F 06 02 4D 65 6E 75 32] \
(90 00)

REM Select MF
CMD A0 A4 00 00 02 \

3F 00 \
(9F XX)

REM GetResponse
CMD A0 C0 00 00 06 \
[XX XX XX XX 3F 00] \
(90 00)

REM TerminalResponse
CMD A0 14 00 00 0C \
81 03 01 25 ~~80~~ 00 82 02 82 81 83 01 00 \
(90 00)

File FWK_PCS_PCCO_1.scr
REM ***CASE 2 : TIMER MANAGEMENT Proactive command
REM Applet 2 is triggered
CMD A0 C2 00 00 34 \
D1 32 82 02 83 81 06 05 80 11 22 33 44 8B 25 40 \
08 81 55 66 77 88 7F F6 00 11 29 12 00 00 04 14 \
02 70 00 00 0F 0D 08 00 00 00 45 10 44 00 00 00 \
00 01 00 01 \
(90 00)

REM Applet 1 is triggered
CMD A0 C2 00 00 34 \
D1 32 82 02 83 81 06 05 80 11 22 33 44 8B 25 40 \
08 81 55 66 77 88 7F F6 00 11 29 12 00 00 04 14 \
02 70 00 00 0F 0D 08 00 00 00 45 10 24 00 00 00 \
00 01 00 01 \
(90 00)

REM Applet 2 is triggered
CMD A0 C2 00 00 34 \
D1 32 82 02 83 81 06 05 80 11 22 33 44 8B 25 40 \
08 81 55 66 77 88 7F F6 00 11 29 12 00 00 04 14 \
02 70 00 00 0F 0D 08 00 00 00 45 10 44 00 00 00 \
00 01 00 01 \
(90 00)

REM Applet 1 is triggered
CMD A0 C2 00 00 34 \
D1 32 82 02 83 81 06 05 80 11 22 33 44 8B 25 40 \
08 81 55 66 77 88 7F F6 00 11 29 12 00 00 04 14 \
02 70 00 00 0F 0D 08 00 00 00 45 10 24 00 00 00 \
00 01 00 01 \
(91 13)

REM Fetch 1st Timer management command
CMD A0 12 00 00 13 \
[D0 11 81 03 01 27 00 82 02 81 82 24 01 01 25 03 \
00 01 00] \
(90 00)

REM Terminal response
CMD A0 14 00 00 14 \
81 03 01 27 ~~01~~ 00 82 02 82 81 03 01 00 24 01 01 25 \
03 00 01 00 \
(91 13)

REM Fetch 2nd Timer management command
CMD A0 12 00 00 13 \
[D0 11 81 03 01 27 00 82 02 81 82 24 01 02 25 03 \

00 01 00] \
(90 00)

REM Terminal response
CMD A0 14 00 00 14 \
81 03 01 27 ~~01~~ 00 82 02 82 81 03 01 00 24 01 02 25 \
03 00 01 00 \
(91 13)

REM Fetch 3rd Timer management command
CMD A0 12 00 00 13 \
[D0 11 81 03 01 27 00 82 02 81 82 24 01 03 25 03 \
00 01 00] \
(90 00)

REM Terminal response
CMD A0 14 00 00 14 \
81 03 01 27 ~~01~~ 00 82 02 82 81 03 01 00 24 01 03 25 \
03 00 01 00 \
(90 00)

File FWK_TIN_MLME_1.scr
REM ---------- Test Case 4 - 5
REM Envelope menu selection
CMD A0 C2 00 00 09 \
D3 07 82 02 01 81 90 01 03 \
(91 40)

REM Fetch
CMD A0 12 00 00 40 \
[D0 3E 81 03 01 25 00 82 02 81 82 85 0C 54 4F 4F \
4C 4B 49 54 20 54 45 53 54 8F 0B 01 4D 65 6E 75 \
45 6E 74 72 79 34 8F 0B 02 4D 65 6E 75 45 6E 74 \
72 79 32 8F 0B 03 4D 65 6E 75 45 6E 74 72 79 33] \
(90 00)

REM TerminalResponse
CMD A0 14 00 00 0C \
81 03 01 25 ~~80~~ 00 82 02 82 81 83 01 00 \
(90 00)

File fwk_erp_efse_1.scr
REM Test case #2.1
REM Envelope(SMS_PP) submit
CMD A0 C2 00 00 2E \
D1 2C 02 02 83 81 0B 26 44 09 81 06 09 02 33 F7 \
7F F6 00 00 00 00 00 00 00 14 02 70 00 00 0F 0D \
08 21 00 00 47 10 24 00 00 00 00 01 00 01 \
(91 30, 91 2E)

SWI{
91 30:
CMD A0 12 00 00 30 \
[D0 2E 81 03 01 13 00 82 02 81 83 05 00 8B 21 41 \
00 09 81 06 09 02 33 F7 00 F6 15 02 71 00 00 10 \
0A 47 10 24 00 00 00 00 01 00 00 03 16 16 16 16] \
(90 00)

91 2E:
CMD A0 12 00 00 2E \
[D0 2C 81 03 01 13 00 82 02 81 83 8B 21 41 00 09 \
81 06 09 02 33 F7 00 F6 15 02 71 00 00 10 0A 47 \

10 24 00 00 00 00 01 00 00 03 16 16 16 16] \
(90 00)
}

CMD A0 14 00 00 0C \
81 03 01 13 00 82 02 ~~81 82~~82 81 83 01 00 \
(90 00)
REM Test case #2.2
REM Envelope(SMS_PP) submit
CMD A0 C2 00 00 2E \
D1 2C 02 02 83 81 0B 26 44 09 81 06 09 02 33 F7 \
7F F6 00 00 00 00 00 00 00 14 02 70 00 00 0F 0D \
08 21 00 00 47 10 24 00 00 00 00 01 00 01 \
(91 30, 91 2E)

SWI{
91 30:
CMD A0 12 00 00 30 \
[D0 2E 81 03 01 13 00 82 02 81 83 05 00 8B 21 41 \
00 09 81 06 09 02 33 F7 00 F6 15 02 71 00 00 10 \
0A 47 10 24 00 00 00 00 01 00 00 05 16 16 16 16] \
(90 00)

91 2E:
CMD A0 12 00 00 2E \
[D0 2C 81 03 01 13 00 82 02 81 83 8B 21 41 00 09 \
81 06 09 02 33 F7 00 F6 15 02 71 00 00 10 0A 47 \
10 24 00 00 00 00 01 00 00 05 16 16 16 16] \
(90 00)
}

CMD A0 14 00 00 0C \
81 03 01 13 00 82 02 ~~81 82~~ 82 8183 01 00 \
(90 00)

REM Test case #2.3
REM Envelope(SMS_PP) submit
CMD A0 C2 00 00 2E \
D1 2C 02 02 83 81 0B 26 44 09 81 06 09 02 33 F7 \
7F F6 00 00 00 00 00 00 00 14 02 70 00 00 0F 0D \
08 21 00 00 47 10 24 00 00 00 00 01 00 01 \
(91 32, 91 30)

SWI{
91 32:
CMD A0 12 00 00 32 \
[D0 30 81 03 01 13 00 82 02 81 83 05 00 8B 23 41 \
00 09 81 06 09 02 33 F7 00 F6 17 02 71 00 00 12 \
0A 47 10 24 00 00 00 00 01 00 00 28 05 04 16 16 \
16 16] \
(90 00)

91 30:
CMD A0 12 00 00 30 \
[D0 2E 81 03 01 13 00 82 02 81 83 8B 23 41 00 09 \
81 06 09 02 33 F7 00 F6 17 02 71 00 00 12 0A 47 \
10 24 00 00 00 00 01 00 00 28 05 04 16 16 16 16] \
(90 00)
}

CMD A0 14 00 00 0C \
81 03 01 13 00 82 02 82 81~~81 82~~ 83 01 00 \

(90 00)

REM Test case #2.4
REM Envelope(SMS_PP) submit
CMD A0 C2 00 00 2E \
D1 2C 02 02 83 81 0B 26 44 09 81 06 09 02 33 F7 \
7F F6 00 00 00 00 00 00 00 14 02 70 00 00 0F 0D \
08 21 00 00 47 10 24 00 00 00 00 01 00 01 \
(91 32, 91 30)

SWI{
91 32:
CMD A0 12 00 00 32 \
[D0 30 81 03 01 13 00 82 02 81 83 05 00 8B 23 41 \
00 09 81 06 09 02 33 F7 00 F6 17 02 71 00 00 12 \
0A 47 10 24 00 00 00 00 01 00 00 28 05 06 16 16 \
16 16] \
(90 00)

91 30:
CMD A0 12 00 00 30 \
[D0 2E 81 03 01 13 00 82 02 81 83 8B 23 41 00 09 \
81 06 09 02 33 F7 00 F6 17 02 71 00 00 12 0A 47 \
10 24 00 00 00 00 01 00 00 28 05 06 16 16 16 16] \
(90 00)
}

CMD A0 14 00 00 0C \
81 03 01 13 00 82 02 82 81~~81 82~~ 83 01 00 \
(90 00)

File fwk_hin_prhd_1.scr
REM ***TEST CASE 1***
REM ***TERMINAL PROFILE WITHOUT SETUP MENU,SETUP EVENLIST, POLL INTERVAL MANAGEMENT AND
REM SETUP IDLE MODE TEXT FALCILITIES ***
CMD A0 10 00 00 07 \
FF FF 9F DF F0 00 00 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31]\
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00\
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***TEST CASE 2***
INI 2F 0F 61 21 FF 03

REM ***EVENT MENU SELECTION WITH HELP REQUEST
CMD A0 C2 00 00 0B \
D3 09 82 02 01 81 10 01 02 15 00 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31]\
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00\
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT MENU SELECTION
CMD A0 C2 00 00 09 \
D3 07 82 02 01 81 10 01 01 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***UNFORMATTED SMS CB
CMD A0 C2 00 00 60 \
D2 5E 82 02 83 81 0C 58 00 00 00 00 00 00 00 00 \
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 \
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 \
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 \

00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 \
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT TIMER EXPIRTATION
CMD A0 C2 00 00 0E \
D7 0C 82 02 82 81 24 01 01 25 03 00 00 00 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT DOWLOAD MT CALL
CMD A0 C2 00 00 0C \
D6 0A 99 01 00 82 02 83 81 9C 01 01 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM *** EVENT DOWNLOAD CALL CONNECTED
CMD A0 C2 00 00 0C \
D6 0A 99 01 01 82 02 82 81 9C 01 01 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT DOWNLOAD CALL DISCONNECTED
CMD A0 C2 00 00 0C \
D6 0A 99 01 02 82 02 82 81 9C 01 01 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE

CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT DOWNLOAD LOCATION STATUS
CMD A0 C2 00 00 0C \
D6 0A 99 01 03 82 02 82 81 1B 01 01 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31]\
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT DOWNLOAD USER ACTIVITY
CMD A0 C2 00 00 09 \
D6 07 99 01 04 82 02 82 81 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT DOWNLOAD IDLE SCREEN AVAILABLE
CMD A0 C2 00 00 09 \
D6 07 99 01 05 82 02 02 81 \
(91 14)

REM DISPLAY TEXT

CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT DOWNLOAD CARD READER STATUS
CMD A0 C2 00 00 0C \
D6 0A 99 01 06 82 02 82 81 20 01 FF \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT STATUS COMMAND
CMD A0 F2 00 00 16 \
[ ] \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT FORMATTED SMS PP ENV
CMD A0 C2 00 00 33 \
D1 31 82 02 83 81 06 05 80 11 22 33 44 8B 24 40 \
08 81 55 66 77 88 7F F6 00 11 29 12 00 00 04 13 \
02 70 00 00 0E 0D 08 00 00 00 43 08 24 00 00 00 \
00 01 00 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[ ] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT UNFORMATTED SMS PP ENV
CMD A0 C2 00 00 20 \
D1 1E 82 02 83 81 06 05 80 11 22 33 44 8B 11 00 \
08 81 55 66 77 88 7F F6 00 11 29 12 00 00 04 00 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE

CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT CALL CONTROL BY SIM
CMD A0 C2 00 00 13 \
D4 11 82 02 82 81 89 02 81 01 93 07 81 F2 A3 34 \
05 76 67 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM ***EVENT SMS MO CONTROL BY SIM
CMD A0 C2 00 00 21 \
D5 1F 82 02 82 81 06 07 91 11 22 33 44 55 66 06 \
07 91 77 88 99 AA BB CC 13 07 11 22 33 44 55 66 \
77 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM *** UNRECOGNIZED ENVELOPE
CMD A0 C2 00 00 06 \
01 04 82 02 82 81 \

(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM *** ENVELOPE(SMS_CB) FORMATTED
CMD A0 C2 00 00 60 \
D2 5E 82 02 83 81 8C 58 C0 11 10 80 F6 11 00 0E \
0D 08 00 00 00 43 08 24 00 00 00 00 01 00 0D 0D \
0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D \
0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D \
0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D \
0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D 0D \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM *** ***EVENT DOWNLOAD LANGUAGE SELECTION
CMD A0 C2 00 00 0D \
D6 0B 99 01 07 82 02 82 81 AD 02 49 54 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \

58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

REM *** ***EVENT DOWNLOAD BROWSER TERMINATION
CMD A0 C2 00 00 0C \
D6 0A 99 01 08 82 02 82 81 B4 01 00 \
(91 14)

REM DISPLAY TEXT
CMD A0 12 00 00 14 \
[D0 12 81 03 01 21 80 82 02 81 02 8D 07 04 54 45 \
58 54 20 31] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0C \
81 03 01 21 80 82 02 82 81 03 01 00 \
(91 0E)

REM SELECT ITEM
CMD A0 12 00 00 0E \
[D0 0C 81 03 01 24 00 82 02 81 82 90 01 01] \
(90 00)

REM TERMINAL RESPONSE
CMD A0 14 00 00 0F \
81 03 01 24 ~~80~~ 00 82 02 82 81 03 01 00 90 01 01 \
(90 00)

3GPP TSG-T3 #33
Sophia Antipolis, France
16-19 November 2004

T3-040882

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **012** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Addition of tests on Proactive Command Control for alignment with TS 43.019
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	11/10/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	Tests on SIM Toolkit framework behaviour are missing. Framework sends an applet's proactive command without any check.
Summary of change:	⌘	In Framework Proactive Command Sending by the STF part, Proactive Command Control tests, add a two new test cases and corresponding script files.
Consequences if not approved:	⌘	The test suite is incomplete.

Clauses affected:	⌘	§6.3.4.3, Annex E SourceCode (FWK_PCS_PCCO java, ldr, clr and scr files)

	Y	N			
Other specs affected:			Other core specifications	⌘	
			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.

6.3.4.3 Proactive Command Control

Test Area Reference: FWK_PCS_PCCO

6.3.4.1.1 Conformance Requirements

6.3.4.1.1.1 Normal Execution

- CRRN1: The SIM Toolkit Framework shall prevent the toolkit applet to issue the following proactive commands: SET UP MENU, SET UP EVENT LIST, POLL INTERVAL, POLLING OFF. If an applet attempts to issue such a command, the SIM Toolkit Framework shall throw an exception.
- CRRN2: The SIM Toolkit Framework shall prevent a toolkit applet to issue a TIMER MANAGEMENT proactive command using a timer identifier, which is not allocated to it. If an applet attempts to issue such a command, the SIM Toolkit Framework shall throw an exception.
- CRRN3: The SIM Toolkit Framework shall prevent a toolkit applet to issue a SEND DATA, RECEIVE DATA and CLOSE CHANNEL proactive commands using a channel identifier, which is not allocated to it. If an applet attempts to issue such a command the SIM Toolkit Framework shall throw an exception.
- CRRN4: The SIM Toolkit Framework shall prevent a toolkit applet to issue an OPEN CHANNEL proactive command if it exceeds the maximum number of channel allocated to this applet. If an applet attempts to issue such a command the SIM Toolkit Framework shall throw an exception.
- CRRN5: The proactive command is sent to the ME as defined and constructed by the toolkit applet without any check of the SIM Toolkit Framework.
- CRRN6: The SIM Toolkit Framework cannot guarantee that if the SET UP IDLE MODE TEXT proactive command is used by a toolkit applet, another toolkit applet will not overwrite this text at a later stage.

6.3.4.1.2 Test Suite Files

Test Script:	FWK_PCS_PCCO_1.scr
Test Applet:	FWK_PCS_PCCO_1.java
	FWK_PCS_PCCO_2.java
	FWK_PCS_PCCO_3.java
Load Script:	FWK_PCS_PCCO_1.ldr
Cleanup Script:	FWK_PCS_PCCO_1.clr
Parameter File:	FWK_PCS_PCCO_1.par

6.3.4.1.3 Test Procedure

Id	Description	API/Framework Expectation	APDU Expectation
0	**Applets installation** Applet1 is installed with 4 timers maximum, 0 channel maximum and 1 menu. Applet2 is installed with 8 timers maximum, 3 channels maximum. Applet3 is installed with 1 channel maximum.		
1	**STK Proactive Commands** 1- Send a formatted envelope with the TAR of Applet1 2- Applet1 builds and sends a SET UP MENU proactive command 3- Applet1 builds and sends a SET UP EVENT LIST proactive command	1- Applet1 is triggered 2- COMMAND_NOT_ALLOWED toolkit exception is thrown 3- COMMAND_NOT_ALLOWED toolkit exception is thrown	1- 90 00 (no proactive command is sent)

Id	Description	API/Framework Expectation	APDU Expectation
	4- Applet1 builds and sends a POLL INTERVAL proactive command 5- Applet1 builds and sends a POLLING OFF proactive command	4- COMMAND_NOT_ALLOWED toolkit exception is thrown 5- COMMAND_NOT_ALLOWED toolkit exception is thrown	
2	**TIMER MANAGEMENT Proactive command** 1- Send a formatted envelope with the TAR of Applet2 2- Applet2 allocates 8 timers by calling allocateTimer() method and release the 3 timers from id 1 to 3. 3- Send a formatted envelope with the TAR of Applet1 4- Applet1 allocates 3 timers (Id 1 to 3) by calling allocateTimer() method 3 times 5- Send a formatted envelope with the TAR of Applet2 6- Applet2 releases timers of Id 4 to 7 7- Send a formatted envelope with the TAR of Applet1 8- For each of the 3 timers allocated by Applet1 (Id 1to 3) a TIMER MANAGEMENT proactive session is performed 9- For other timers (Id 4 to 8), Applet1 builds and sends a TIMER MANAGEMENT proactive command	 1- Applet2 is triggered 2- No exception is thrown 3- Applet1 is triggered 4- No exception is thrown 5- Applet2 is triggered 6- No exception is thrown 7- Applet1 is triggered 8- No exception is thrown 9- COMMAND_NOT_ALLOWED toolkit exception is thrown	 8- 3 TIMER MANAGEMENT proactive commands are fetched 9- The Status word of the last previous Terminal Response is 90 00 (no more proactive command is sent)
3	**No Channel allowed** 1- Send a formatted envelope with the TAR of Applet1 2- Applet1 builds and sends a CSD OPEN CHANNEL proactive command 3- Applet1 builds and sends a GPRS OPEN CHANNEL proactive command 4Applet1 builds and sends a SEND DATA proactive command 5- Applet1 builds and sends a RECEIVE DATA proactive command 6- Applet1 builds and sends a CLOSE CHANNEL proactive command	 1- Applet1 is triggered 2- COMMAND_NOT_ALLOWED toolkit exception is thrown 3- COMMAND_NOT_ALLOWED toolkit exception is thrown 4- COMMAND_NOT_ALLOWED toolkit exception is thrown 5- COMMAND_NOT_ALLOWED toolkit exception is thrown 6- COMMAND_NOT_ALLOWED toolkit exception is thrown	 1- 90 00 (no proactive command is sent)
4	**4 Channels allowed** 1- Send a formatted envelope with the TAR of Applet3 2- Applet3 builds and sends a CSD OPEN CHANNEL proactive command 3- Send a Fetch and Terminal Response OK on channel 7 4- Send a formatted envelope with the TAR of Applet2 5- Applet2 builds and sends a CSD OPEN CHANNEL proactive command 6- Send a Fetch and Terminal Response OK on channel 1 7- Applet2 builds and sends a GPRS OPEN CHANNEL proactive command	 1- Applet3 is triggered 2- No exception is thrown 4- Applet2 is triggered 5- No exception is thrown 7- No exception is thrown	 2- 91 1C 3- OPEN CHANNEL proactive 5- 91 1C 6- OPEN CHANNEL proactive command is fetched 7- 91 17

Id	Description	API/Framework Expectation	APDU Expectation
	8- Send Fetch and Terminal Response OK on channel 2		8- OPEN CHANNEL proactive command is fetched, SW = 91 1C on the Terminal Response
	9- For each channel id from 3 to 7, Applet2 builds and sends a SEND DATA proactive command	9- COMMAND_NOT_ALLOWED toolkit exception is thrown	
	10- For each channel id from 3 to 7, Applet2 builds and sends a RECEIVE DATA proactive command	10- COMMAND_NOT_ALLOWED toolkit exception is thrown	
	11- For each channel id from 3 to 7, Applet2 builds and sends a CLOSE CHANNEL proactive command	11- COMMAND_NOT_ALLOWED toolkit exception is thrown	
	12- Applet2 builds and sends a CSD OPEN CHANNEL proactive command	12- No exception is thrown	
	13- Fetch and Terminal Response OK on channel 3		13- OPEN CHANNEL proactive command is fetched
	14- Applet2 builds and sends an OPEN CHANNEL proactive command	14- COMMAND_NOT_ALLOWED toolkit exception is thrown	14- 90 00 expected to the previous Terminal Response (no proactive command is sent)
5	**Unknown proactive command** 1- Send an envelope menu selection with the item id of Applet1 2- Applet1 build an unknown proactive command of 8 null bytes and send it 3- Fetch and terminal response OK	1- Applet1 is triggered	2- 91 15 3- Command details TLV, Device Identities TLV and unknown TLV including 8 null bytes are fetched.

6.3.4.1.4 Test Coverage

CRR number	Test case number
N1	1
N2	2
N3	3,4
N4	3,4
N5	5
N6	Not testable

3GPP TSG-T3 #33
Sophia Antipolis, France
16-19 November 2004

T3-040881

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **011** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	MEProfile getValue(short indexMSB, short indexLSB) method conformance requirement.
Source:	⌘	T2
Work item code:	⌘	TEI
Date:	⌘	11/10/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	MEProfile getValue(short indexMSB, short indexLSB) method conformance requirement is wrong and not in accordance with TS 43.019.
Summary of change:	⌘	In conformance requirement of getValue(short indexMSB, short indexLSB) method, replace “ ” with “>=”.
Consequences if not approved:	⌘	Inconsistency between test specification and test script.

Clauses affected:	⌘	§6.2.6.4 getValue() method conformance requirement

Other specs affected: ⌘	Y	N		⌘
			Other core specifications	
			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.

6.2.6.4 Method getValue(short indexMSB, short indexLSB)

Test Area Reference: API_2_MEP_GVALSS

6.2.6.4.1 Conformance requirement:

The method with following header shall compliant to its definition in the API.

```
public static short getValue(short indexMSB,
                             short indexLSB)
                      throws ToolkitException
```

6.2.6.4.1.1 Normal execution

- CRRN1: The method returns the binary value of a parameter, delimited by two indexes, from the handset profile.

6.2.6.4.1.2 Parameters error

- CRRP1: The method shall throw BAD_INPUT_PARAMETER ToolkitException if (indexMSB —>= indexLSB +16) or (indexMSB < indexLSB) or (indexMSB < 0) or (indexLSB < 0).

3GPP TSG-T3 #33
Sophia Antipolis, France
16-19 November 2004

T3-040880

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **010** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Addition of tests on HANDLER_NOT_AVAILABLE toolkitException in EnvelopeResponseHandler class for alignment with TS 43.019.
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	11/10/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	Tests on EnvelopeResponseHandler Class are missing. Tests are declared no applicable whereas they are.
Summary of change:	⌘	§6.2.5, methods getLength(), copy(), findTLV(), getValueLength(), getValueyte(), copyValue(), compareValue(), findAndCopyValue(), findAndCompareValue(), appendArray(), appendTLV(), clear() : add a new test case to check a toolkitException.HANDLER_NOT_AVAILABLE is thrown. Complete applets, loading, script and cleaning files for these tests in Annex E.
Consequences if not approved:	⌘	Test suite is incomplete and in contradiction with 43.019 specification

Clauses affected:	⌘	§6.2.5.5, 6.2.5.6, 6.2.5.7, 6.2.5.8, 6.2.5.9, 6.2.5.10, 6.2.5.11, 6.2.5.12, 6.2.5.13, 6.2.5.14, 6.2.5.15, 6.2.5.16, 6.2.5.17, 6.2.5.18, 6.2.5.19, 6.2.5.20, Annex E

	Y	N			
Other specs affected: ⌘			Other core specifications	⌘	
			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.

6.2.5 Class EnvelopeResponseHandler

6.2.5.4 Method getLength

Test Area Reference: API_2_ERH_GLEN

6.2.5.4.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public short getLength()
               throws ToolkitException
```

6.2.5.4.1.1 Normal execution

- CRRN1: returns the length in bytes of the TLV list.

6.2.5.4.1.2 Parameter errors

No requirements.

6.2.5.4.1.3 Context errors

- CRRC1: if the handler is busy an instance of ToolkitException shall be thrown. The reason code shall be ToolkitException.HANDLER_NOT_AVAILABLE.

6.2.5.4.2 Test Suite files

Specific triggering: Unrecognized Envelope

Test Script: API_2_ERH_GLEN_1.scr

Test Applet: API_2_ERH_GLEN_1.java

Load Script: API_2_ERH_GLEN_1.ldr

Cleanup Script: API_2_ERH_GLEN_1.clr

Parameter File: API_2_ERH_GLEN_1.par

6.2.5.4.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**Clear the handler** `getLength()`	Result of getLength() is 0	
2	**appendTLV with length of 7** `getLength()`	Result of getLength() is 9	
3	**Clear the handler and appendTLV with Length of 250** `getLength()`	Result of getLength() is 253	
4	**Build a 7Fh Envelope response handler** `getLength()`	Result of getLength() is 81h	
5	**Build a 80h Envelope response handler** `getLength()`	Result of getLength() is 83h	
6	**Call the post() method** `getLength()`	A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	
NOTE: Test case 3 is limited to 253 and not 256 because the current 3GPP TS 43.019 [7] is not clear enough on this point. So this test allows the two possible implementations.			

6.2.5.4.4 Test Coverage

CRR number	Test case number
N1	1, 2, 3, 4, 5
C1	~~Does not apply for Envelope response handler~~6

6.2.5.5 Method copy

Test Area Reference: API_2_ERH_COPY_BSS

6.2.5.5.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public short copy(byte[] dstBuffer,
                  short dstOffset,
                  short dstLength)
           throws java.lang.NullPointerException,
                  java.lang.ArrayIndexOutOfBoundsException,
                  ToolkitException
```

6.2.5.5.1.1 Normal execution

- CRRN1: copies the simple TLV list contained in the handler to the destination byte array.
- CRRN2: returns dstOffset + dstLength.

6.2.5.5.1.2 Parameter errors

- CRRP1: if dstBuffer is null a NullPointerException is thrown.
- CRRP2: if dstOffset or dstLength or both would cause access outside array bounds, or if dstLength is negative, an ArrayIndexOutOfBoundsException is thrown.
- CRRP3: if dstLength is greater than the length of the simple TLV List, an instance of ToolkitException shall be thrown. The reason code shall be ToolkitException.~~-~~OUT_OF_TLV_BOUNDARIES.

6.2.5.5.1.3 Context errors

- CRRC1: if the handler is busy an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException.HANDLER_NOT_AVAILABLE~~ToolkitException.HANDLER_NOT_AVAILABLE.

6.2.5.5.2 Test Suite files

Specific triggering: Unrecognized Envelope

Test Script: API_2_ERH_COPY_BSS_1.scr

Test Applet: API_2_ERH_COPY_BSS_1.java

Load Script: API_2_ERH_COPY_BSS_1.ldr

Cleanup Script: API_2_ERH_COPY_BSS_1.clr

Parameter File: API_2_ERH_COPY_BSS_1.par

6.2.5.5.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**appendTLV with value length of 7** **NULL as parameter to dstBuffer**	NullPointerException is thrown	

2	**dstOffset ≥ dstBuffer.length**
	`dstBuffer.length = 5`
	`dstOffset = 5`
	`dstLength = 1`
		ArrayIndexOutOfBoundsException is thrown	

3	**dstOffset < 0** dstBuffer.length = 5 dstOffset = -1 dstLength = 1	ArrayIndexOutOfBoundsException is thrown	
4	**dstLength > dstBuffer.length** dstBuffer.length = 5 dstOffset = 0 dstLength = 6	ArrayIndexOutOfBoundsException is thrown	
5	**dstOffset + dstLength > dstBuffer.length** dstBuffer.length = 5 dstOffset = 3 dstLength = 3	ArrayIndexOutOfBoundsException is thrown	
6	**dstLength < 0** dstBuffer.length = 5 dstOffset = 0 dstLength = -1	ArrayIndexOutOfBoundsException is thrown	
7	**dstLength > length of the simple TLV list** dstBuffer.length = 10 dstOffset = 0 dstLength = 10	ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	
8	**Successful call, dstBuffer is the whole buffer** dstBuffer.length = 9 dstOffset = 0 dstLength = 9	Result of copy() is 9	
9	**Compare the buffer**	Result of arrayCompare() is 0	
10	**Successful call, dstBuffer is part of a buffer** dstBuffer.length = 15 dstOffset = 3 dstLength = 9	Result of copy() is 12	
11	**Compare the whole buffer**	Result of arrayCompare() is 0	
12	**Successful call, dstBuffer is part of a buffer** dstBuffer.length = 15 dstOffset = 3 dstLength = 6	Result of copy() is 9	
13	**Compare the whole buffer**	Result of arrayCompare() is 0	
14	**Successful call, copy with length =0** dstBuffer.length = 15 dstOffset = 15 dstLength = 0	Result of copy() is 15	
15	**Call the post() method** Call copy(): dstBuffer.length = 10 dstOffset = 0 dstLength = 0	A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.5.4 Test Coverage

CRR number	Test case number
N1	9, 11, 13
N2	8, 10, 12, 14
P1	1
P2	2, 3, 4, 5, 6
P3	7
C1	~~Does not apply for Envelope response handler~~15

6.2.5.6 Method findTLV

Test Area Reference: API_2_ERH_FINDBB

6.2.5.6.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public byte findTLV(byte tag, byte occurrence)
            throws ToolkitException
```

6.2.5.6.1.1 Normal execution

Looks for the indicated occurrence of a TLV element from the beginning of the TLV list (handler buffer):

- CRRN1: the method is successful if the required occurrence exists then the corresponding TLV becomes current.
- CRRN2: if the method is successful then it returns TLV_FOUND_CR_SET when Comprehension Required flag is set.
- CRRN3: if the method is successful then it returns TLV_FOUND_CR_NOT_SET when Comprehension Required flag is not set.
- CRRN4: if the required occurrence of the TLV element does not exist, the current TLV is no longer defined and TLV_NOT_FOUND is returned.
- CRRN5: The search method is comprehension required flag independent.

6.2.5.6.1.2 Parameter errors

- CRRP1: if an input parameter is not valid (e.g. occurrence = 0) an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException~~ ToolkitException.BAD_INPUT_PARAMETER.

6.2.5.6.1.3 Context errors

- CRRC1: if the handler is busy an instance of ToolkitException shall be thrown. The reason code shall be ToolkitException.~~-~~HANDLER_NOT_AVAILABLE.

6.2.5.6.2 Test Suite files

Specific triggering: Unrecognized Envelope

Test Script:	API_2_ERH_FINDBB_1.scr
Test Applet:	API_2_ERH_FINDBB_1.java
Load Script:	API_2_ERH_FINDBB_1.ldr
Cleanup Script:	API_2_ERH_FINDBB_1.clr
Parameter File:	API_2_ERH_FINDBB_1.par

6.2.5.6.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**append the handler with TLVs:** 81 03 11 22 33 82 02 99 77 **Invalid input parameter** Occurrence = 0	ToolkitException.BAD_INPUT_PARAMETER is thrown	
2	**Search 1st TLV** Tag = 01h Occurrence = 1	Result is TLV_FOUND_CR_SET	
3	**Call the getValueLength() method**	Result is 03h	
4	**Search 2nd TLV** Tag = 02h Occurrence = 1	Result is TLV_FOUND_CR_SET	
5	**Call the getValueLength() method**	Result is 02h	
6	**Select a TLV (tag 02h)** **Search a wrong tag** Tag = 03h Occurrence = 1	Result is TLV_NOT_FOUND	
7	**Call the getValueLength() method**	ToolkitException.UNAVAILABLE_ELEMENT is thrown.	
8	**Search a tag with wrong occurrence** Tag = 01h	Result is TLV_NOT_FOUND	

	Occurrence = 2		
9	**Call the getValueLength() method**	ToolkitException.UNAVAILABLE_ELEMENT is thrown.	
10	**Append a TLV with tag=02h** **Search the TLV** Tag = 02h Occurrence = 2	Result is TLV_FOUND_CR_NOT_SET	
11	**Append a TLV with tag=04h** **Search the TLV** Tag = 04h Occurrence = 1	Result is TLV_FOUND_CR_NOT_SET	
12	**Search tag 81h** Tag = 81h Occurrence = 1	Result is TLV_FOUND_CR_SET	
13	**Search tag 84h** Tag = 84h Occurrence = 1	Result is TLV_FOUND_CR_NOT_SET	
14	**Call the post() method then Search 1st TLV** Tag = 81h Occurrence = 1	A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.6.4 Test Coverage

CRR number	Test case number
N1	3, 5
N2	2, 4
N3	10, 11
N4	6, 7,8, 9
N5	12, 13
P1	1
C1	~~Does not apply for Envelope response handler~~14

6.2.5.7 Method getValueLength

Test Area Reference: API_2_ERH_GVLE

6.2.5.7.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public short getValueLength()
                    throws ToolkitException
```

6.2.5.7.1.1 Normal execution

- CRRN1: gets and returns the binary length of the value field for the last TLV element which has been found in the handler.

6.2.5.7.1.2 Parameter errors

No requirements.

6.2.5.7.1.3 Context errors

- CRRC1: if the handler is busy an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException.HANDLER_NOT_AVAILABLE~~ToolkitException.HANDLER_NOT_AVAILABLE.
- CRRC2: in case of unavailable TLV element an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException.UNAVAILABLE_ELEMENT~~ToolkitException.UNAVAILABLE_ELEMENT.

6.2.5.7.2 Test Suite files

Specific triggering: Unrecognized Envelope

Test Script: API_2_ERH_GVLE_1.scr

Test Applet: API_2_ERH_GVLE_1.java

Load Script: API_2_ERH_GVLE_1.ldr

Cleanup Script: API_2_ERH_GVLE_1.clr

Parameter File: API_2_ERH_GVLE_1.par

6.2.5.7.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**appendTLV 02 02 02 02** **findTLV with TAG 03** `getValueLength()`	ToolkitException.UNAVAILABLE_ELEMENT is thrown	
2	**appendTLV with TAG 0D and length 00** **Search TLV 0Dh** `getValueLength()`	Result is 00h	
3	**Clear the handler and append TLV with TAG 0D and length 02** **Search TLV 0Dh** `getValueLength()`	Result is 02h	
4	**Clear the handler and append TLV with TAG 0D and length 0x7F** **Search TLV 0Dh** `getValueLength()`	Result is 7Fh	
5	**Clear the handler and append TLV with TAG 0D and length 0x80** **Search TLV 0Dh** `getValueLength()`	Result is 80h	
6	**Clear the handler and append TLV with TAG 0D and length 0xF1** **Search TLV 0Dh** `getValueLength()`	Result is F1h	
7	**Call the post() method** `getValueLength()`	A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.7.4 Test Coverage

CRR number	Test case number
N1	2, 3, 4, 5, 6
C1	~~Does not apply for EnvelopeResponseHandler~~7
C2	1

6.2.5.8 Method getValueByte

Test Area Reference: API_2_ERH_GVBYS

6.2.5.8.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public byte getValueByte(short valueOffset)
                  throws ToolkitException
```

6.2.5.8.1.1 Normal execution

- CRRN1: Gets a byte from the last TLV element which has been found in the handler and returns its value (1 byte).

6.2.5.8.1.2 Parameter errors

- CRRP1: if valueOffset is out of the current TLV an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException OUT_OF_TLV_BOUNDARIES~~ToolkitException.OUT_OF_TLV_BOUNDARIES.

6.2.5.8.1.3 Context errors

- CRRC1: if the handler is busy an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException HANDLER_NOT_AVAILABLE~~ToolkitException.HANDLER_NOT_AVAILABLE.
- CRRC2: in case of unavailable TLV element an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException UNAVAILABLE_ELEMENT~~ToolkitException.UNAVAILABLE_ELEMENT.

6.2.5.8.2 Test Suite files

Specific triggering: Unrecognized Envelope

Test Script:	API_2_ERH_GVBYS_1.scr
Test Applet:	API_2_ERH_GVBYS_1.java
Load Script:	API_2_ERH_GVBYS_1.ldr
Cleanup Script:	API_2_ERH_GVBYS_1.clr
Parameter File:	API_2_ERH_GVBYS_1.par

6.2.5.8.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**appendTLV 82 02 81 82, appendTLV 81 03 11 22 FE** **findTLV with TAG 03** `getValueByte(0x00)`	ToolkitException.UNAVAILABLE_ELEMENT is thrown	
2	**Search TLV 01h** `getValueByte(0x03)`	ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	
3	**Search TLV 01h** `getValueByte(0x02)`	Result is FEh	
4	**Search TLV 02h** `getValueByte(0x00)`	Result is 81h	
5	**appendTLV with TAG 0D, Length 0x7E, Value: 00, 01, ..., 7D** `getValueByte(0x7D)`	Result is 7Dh	
6	**clear the handler, appendTLV with TAG 0D, Length 0x80, Value: 00, 01, ..., 7F** `getValueByte(0x7E)`	Result is 7Eh	
7	`getValueByte(0x7F)`	Result is 7Fh	
8	**clear the handler, appendTLV with TAG 0D, Length 0xF1, Value: 00, 01, ..., F0** `getValueByte(0xF0)`	Result is F0h	
9	**Call the post() method** `getValueByte(0)`	A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.8.4 Test Coverage

CRR number	Test case number
N1	3, 4, 5, 6, 7, 8
P1	2
C1	~~Does not apply for EnvelopeResponseHandler~~9
C2	1

6.2.5.9 Method copyValue

Test Area Reference: API_2_ERH_CPYVS_BSS

6.2.5.9.1 Conformance requirement

The method with following header shall be compliant with its definition in the API.

```
public short copyValue(short valueOffset,
                       byte[] dstBuffer,
                       short dstOffset,
                       short dstLength)
                throws java.lang.NullPointerException,
                       java.lang.ArrayIndexOutOfBoundsException,
                       ToolkitException
```

6.2.5.9.1.1 Normal execution

- CRRN1: copies a part of the last TLV element which has been found, into a destination. buffer.
- CRRN2: returns dstOffset + dstLength.

6.2.5.9.1.2 Parameter errors

- CRRP1: if dstBuffer is null NullPointerException is thrown.
- CRRP2: if dstOffset or dstLength or both would cause access outside array bounds, or if dstLength is negative ArrayIndexOutOfBoundsException is thrown.
- CRRP3: if valueOffset, dstLength or both are out of the current TLV an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException OUT_OF_TLV_BOUNDARIES~~ToolkitException.OUT_OF_TLV_BOUNDARIES.

6.2.5.9.1.3 Context errors

- CRRC1: if the handler is busy an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException HANDLER_NOT_AVAILABLE~~ToolkitException.HANDLER_NOT_AVAILABLE.
- CRRC2: in case of unavailable TLV element an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException UNAVAILABLE_ELEMENT~~ToolkitException.UNAVAILABLE_ELEMENT.

6.2.5.9.2 Test Suite files

Specific triggering: Unrecognized Envelope

Test Script:	API_2_ERH_CPYVS_BSS_1.scr
Test Applet:	API_2_ERH_CPYVS_BSS_1.java
Load Script:	API_2_ERH_CPYVS_BSS_1.ldr
Cleanup Script:	API_2_ERH_CPYVS_BSS_1.clr
Parameter File:	API_2_ERH_CPYVS_BSS_1.par

6.2.5.9.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**appendTLV with TAG: 0D and length 16** **Select Text String TLV** `copyValue() with a null dstBuffer`	NullPointerException is thrown	

2	**dstOffset ≥ dstBuffer.length**
	`dstBuffer.length = 5`
	`dstOffset = 5`
	`dstLength = 1`
		ArrayIndexOutOfBoundsException is thrown	

3	**dstOffset < 0**
	`dstBuffer.length = 5`
	`dstOffset = -1`
	`dstLength = 1`
		ArrayIndexOutOfBoundsException is thrown	

4	**dstLength >dstBuffer.length**
	`dstBuffer.length = 5`
	`dstOffset = 0`
	`dstLength = 6`
		ArrayIndexOutOfBoundsException is thrown	

5	**dstOffset + dstLength >dstBuffer.length**
	`dstBuffer.length = 5`
	`dstOffset = 3`
	`dstLength = 3`
		ArrayIndexOutOfBoundsException is thrown	

6	**dstLength < 0**
	`dstBuffer.length = 5`
	`dstOffset = 0`
	`dstLength = -1`
		ArrayIndexOutOfBoundsException is thrown	

7	**clear the handler, appendTLV with TAG: 0D and length 6**
	Select Text String TLV
	valueOffset ≥ Text String Length
	`valueOffset = 6`
	`dstBuffer.length = 15`
	`dstOffset = 0`
	`dstLength = 1`
		ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	

8	**valueOffset < 0**
	`valueOffset = -1`
	`dstBuffer.length = 15`
	`dstOffset = 0`
	`dstLength = 1`
		ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	

9	**dstLength > Text String length**
	`valueOffset = 0`
	`dstBuffer.length = 15`
	`dstOffset = 0`
	`dstLength = 7`
		ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	

10	**valueOffset + dstLength > Text String length**
	`valueOffset = 2`
	`dstBuffer.length = 15`
	`dstOffset = 0`
	`dstLength = 5`
		ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	

11	**Initialise the handler** `copyValue()`	ToolkitException.UNAVAILABLE_ELEMENT is thrown	

12	**clear the handler, appendTLV with TAG: 0D and value: 04 00 01 … 0F**
	Select Text String TLV
	Successful call
	`valueOffset = 0`
	`dstBuffer.length = 17`
	`dstOffset = 0`
	`dstLength = 17`
		Result of copyValue() is 17	

13	**Compare buffer** `buffer = 04 00 01 … 0F`	Result is 00h	

14	**initialise dstBuffer**
	`dstBuffer = 55 55 … 55`
	Successful call
	`valueOffset = 2`
	`dstBuffer.length = 20`
	`dstOffset = 3`
	`dstLength = 12`
		Result of copyValue() is 15	

15	**Compare buffer**
	`buffer =`
	`55 55 55 01 02`
		Result is 00h	

Id	Description	API Expectation	APDU Expectation
	03 04 05 06 07 08 09 0A 0B 0C 55 55 55 55 55		
16	**Successful call, copyValue with length =0** dstBuffer.length = 20 dstOffset = 20 dstLength = 0	Result of copyValue() is 20	
17	**Call post() method then copyValue()** dstBuffer.length = 20 dstOffset = 0 dstLength = 0	A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.9.4 Test Coverage

CRR number	Test case number
N1	13, 15
N2	12, 14, 16
P1	1
P2	2, 3, 4, 5, 6
P3	7, 8, 9, 10
C1	~~Does not apply for EnvelopeResponseHandler~~17
C2	11

6.2.5.10 Method compareValue

Test Area Reference: API_2_ERH_CPRVS_BSS

6.2.5.10.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public byte compareValue(short valueOffset,
                         byte[] compareBuffer,
                         short compareOffset,
                         short compareLength)
                  throws java.lang.NullPointerException,
                         java.lang.ArrayIndexOutOfBoundsException,
                         ToolkitException
```

6.2.5.10.1.1 Normal execution

Compares the last found TLV element with a buffer:

- CRRN1: returns 0 if identical.
- CRRN2: returns -1 if the first miscomparing byte in simple TLV List is less than that in compareBuffer.
- CRRN3: returns 1 if the first miscomparing byte in simple TLV List is greater than that in compareBuffer.

6.2.5.10.1.2 Parameter errors

- CRRP1: if compareBuffer is null NullPointerException shall be thrown.
- CRRP2: if compareOffset or compareLength or both would cause access outside array bounds, or if compareLength is negative ArrayIndexOutOfBoundsException shall be thrown.
- CRRP3: if valueOffset, dstLength or both are out of the current TLV an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException OUT_OF_TLV_BOUNDARIES~~ToolkitException.OUT_OF_TLV_BOUNDARIES.

6.2.5.10.1.3 Context errors

- CRRC1: if the handler is busy an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException.HANDLER_NOT_AVAILABLE~~ToolkitException.HANDLER_NOT_AVAILABLE.
- CRRC2: in case of unavailable TLV element an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException.UNAVAILABLE_ELEMENT~~ToolkitException.UNAVAILABLE_ELEMENT.

6.2.5.10.2 Test Suite files

Specific triggering: Unrecognized Envelope

Test Script: API_2_ERH_CPRVS_BSS_1.scr

Test Applet: API_2_ERH_CPRVS_BSS_1.java

Load Script: API_2_ERH_CPRVS_BSS_1.ldr

Cleanup Script: API_2_ERH_CPRVS_BSS_1.clr

Parameter File: API_2_ERH_CPRVS_BSS_1.par

6.2.5.10.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**appendTLV with TAG: 0D and length 16 Select Text String TLV compareValue() with a null compareBuffer**	NullPointerException is thrown	

2	**compareOffset ≥ compareBuffer.length**
	`compareBuffer.length = 5`
	`compareOffset = 5`
	`compareLength = 1`
		ArrayIndexOutOfBoundsException is thrown	

3	**compareOffset < 0**
	`compareBuffer.length = 5`
	`compareOffset = -1`
	`compareLength = 1`
		ArrayIndexOutOfBoundsException is thrown	

4	**compareLength >compareBuffer.length**
	`compareBuffer.length = 5`
	`compareOffset = 0`
	`compareLength = 6`
		ArrayIndexOutOfBoundsException is thrown	

5	**compareOffset + compareLength >compareBuffer.length**
	`compareBuffer.length = 5`
	`compareOffset = 3`
	`compareLength = 3`
		ArrayIndexOutOfBoundsException is thrown	

6	**compareLength < 0**
	`compareBuffer.length = 5`
	`compareOffset = 0`
	`compareLength = -1`
		ArrayIndexOutOfBoundsException is thrown	

7	**appendTLV with TAG: 0D and length 6
	Select Text String TLV
	valueOffset ≥ Text String Length**
	`valueOffset = 6`
	`compareBuffer.length = 15`
	`compareOffset = 0`
	`compareLength = 1`
		ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	

8	**valueOffset < 0**
	`valueOffset = -1`
	`compareBuffer.length = 15`
	`compareOffset = 0`
	`compareLength = 1`
		ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	

9	**compareLength > Text String length**
	`valueOffset = 0`
	`compareBuffer.length = 15`
	`compareOffset = 0`
	`compareLength = 7`
		ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	

10	**valueOffset + compareLength > Text String length**
	`valueOffset = 2`
	`compareBuffer.length = 15`
	`compareOffset = 0`
	`compareLength = 5`
		ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	

Id	Description	API Expectation	APDU Expectation
11	**Initialise the handler** compareValue()	ToolkitException.UNAVAILABLE_ELEMENT is thrown	
12	**appendTLV with TAG: 0D and value: 04 00 01 … 0F** **Select Text String TLV** **Initialise compareBuffer** compareBuffer = 04 00 01 … 0F **Compare buffers** valueOffset = 0 compareOffset = 0 compareLength = 17	Result is 00h	
13	**Initialise compareBuffer** compareBuffer = 04 00 01 02 03 04 05 06 07 08 05 0A 0B 0C 0D 0E 10 **Compare buffers with same parameters**	Result is -1	
14	**Initialise compareBuffer** compareBuffer = 03 00 01 … 0F **Compare buffers with same parameters**	Result is +1	
15	**Initialise compareBuffer** compareBuffer = 55 55 55 01 02 03 04 05 06 07 08 09 0A 0B 0C 55 55 55 55 55 **Compare buffers** valueOffset = 2 compareOffset = 3 compareLength = 12	Result is 00h	
16	**Initialise compareBuffer** compareBuffer = 55 55 55 02 01 03 04 05 06 07 08 09 0A 0B 0C 55 55 55 55 55 **Compare buffers with same parameters**	Result is -1	
17	**Initialise compareBuffer** compareBuffer = 55 55 55 01 02 03 04 05 06 07 08 09 0A 0A 0D 55 55 55 55 55 **Compare buffers with same parameters**	Result is +1	
18	**Successful call, compareValue with length =0** compareBuffer.length = ~~15~~20 compareOffset = 15 compareLength = 0	Result of compareValue() is 0	
19	**Call post() method then compareValue()** compareBuffer.length = 20 compareOffset = 0 compareLength = 0	A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.10.4 Test Coverage

CRR number	Test case number
N1	12, 15, 18
N2	13, 16
N3	14, 17
P1	1
P2	2, 3, 4, 5, 6
P3	7, 8, 9, 10
C1	~~Does not apply for EnvelopeResponseHandler~~19
C2	11

6.2.5.11 Method findAndCopyValue(byte tag, byte[] dstBuffer, short valueOffset)

Test Area Reference: API_2_ERH_FACYB_BS

6.2.5.11.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public short findAndCopyValue(byte tag,
                              byte[] dstBuffer,
                              short dstOffset)
                       throws java.lang.NullPointerException,
                              java.lang.ArrayIndexOutOfBoundsException,
                              ToolkitException
```

6.2.5.11.1.1 Normal execution

- CRRN1: looks for the first occurrence of a TLV element from the beginning of a TLV list and copy its value into a destination buffer.
- CRRN2: if no TLV element is found, the UNAVAILABLE_ELEMENT exception is thrown and the current TLV is no longer defined.
- CRRN3: if the method is successful then the corresponding TLV becomes current and dstOffset + length of the copied value is returned.
- CRRN4: The search method is comprehension required flag independent.

6.2.5.11.1.2 Parameter errors

- CRRP1: if dstBuffer is null NullPointerException shall be thrown.
- CRRP2: if dstOffset would cause access outside array bounds ArrayIndexOutOfBoundsException shall be thrown.

6.2.5.11.1.3 Context errors

- CRRC1: if the handler is busy an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException.HANDLER_NOT_AVAILABLE~~ToolkitException.HANDLER_NOT_AVAILABLE.

6.2.5.11.2 Test Suite files

Specific triggering: Unrecognized Envelope

Test Script:	API_2_ERH_FACYB_BS_1.scr
Test Applet:	API_2_ERH_FACYB_BS_1.java
Load Script:	API_2_ERH_FACYB_BS_1.ldr
Cleanup Script:	API_2_ERH_FACYB_BS_1.clr
Parameter File:	API_2_ERH_FACYB_BS_1.par

6.2.5.11.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**Initialise the handler findAndCopyValue() with a null dstBuffer**	NullPointerException is thrown	

Id	Description	API Expectation	APDU Expectation
2	**appendTLV with TAG: 0D and length 16** **Select Text String TLV** **dstOffset ≥ dstBuffer.length** tag = 0Dh dstBuffer.length = 20 dstOffset = 20	ArrayIndexOutOfBoundsException is thrown	
3	**dstOffset < 0** dstBuffer.length = 20 dstOffset = -1	ArrayIndexOutOfBoundsException is thrown	
4	**dstOffset + length >dstBuffer.length** dstBuffer.length = 20 dstOffset = 5	ArrayIndexOutOfBoundsException is thrown	
5	**length > dstBuffer.length** dstBuffer.length = 15 dstOffset = 0	ArrayIndexOutOfBoundsException is thrown	
6	**clear the handler, appendTLV with TAG 02 and Length 02** **Select a TLV (tag 02h)** findAndCopyValue() tag = 03h Call the getValueLength() method	ToolkitException.UNAVAILABLE_ELEMENT is thrown ToolkitException.UNAVAILABLE_ELEMENT is thrown.	
7	**appendTLV with TAG: 0D and value: 04 00 01 … 0F** **Successful call** Tag = 0Dh dstBuffer.length = 17 dstOffset = 0	Result of findAndCopyValue() is 17	
8	**Compare buffer** buffer = 04 00 01 … 0F	Result is 00h	
9	**initialise dstBuffer** dstBuffer = 55 55 … 55 **Successful call** dstBuffer.length = 20 dstOffset = 2	Result of findAndCopyValue() is 19	
10	**Compare buffer** buffer = 55 55 04 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F 55	Result is 00h	
11	**clear the handler, appendTLV with TAG: 0D and value: 04 00 01 … 0F** **append a 2nd Text String TLV** **Successful call** tag = 0Dh dstBuffer.length = 17 dstOffset = 0	Result of findAndCopyValue() is 17	
12	**Compare buffer** buffer = 04 00 01 … 0F	Result is 00h	
13	**clear the handler, appendTLV with TAG: 0D and value: 04 00 01 … 0F** **Successful call (with tag 8Dh)** tag = 8Dh dstBuffer.length = 17 dstOffset = 0	Result of findAndCopyValue() is 17	
14	**Compare buffer** buffer = 04 00 01 … 0F	Result is 00h	
15	**Append tag 0Fh** buffer = 00 01 … 0F **Successful call (with tag 8Fh)** tag = 8Fh dstBuffer.length = 16 dstOffset = 0	Result of findAndCopyValue() is 16	
16	**Compare buffer** buffer = 00 01 … 0F	Result is 00h	
17	**Call post() method then findAndCopyValue()** tag = 8Fh dstBuffer.length = 0	A toolkit Exception with HANDLER_NOT_AVAILABLE	

Id	Description	API Expectation	APDU Expectation
	dstOffset = 0	reason is thrown.	

6.2.5.11.4 Test Coverage

CRR number	Test case number
N1	8, 10, 12
N2	6
N3	7, 9, 11
N4	13, 14, 15, 16
P1	1
P2	2, 3, 4, 5
C1	~~Does not apply for EnvelopeResponseHandler~~17

6.2.5.12 Method findAndCopyValue(byte tag, byte occurrence, short valueOffset, byte[] dstBuffer, short dstOffset, short dstLength)

Test Area Reference: API_2_ERH_FACYBBS_BSS

6.2.5.12.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public short findAndCopyValue(byte tag,
                              byte occurrence,
                              short valueOffset,
                              byte[] dstBuffer,
                              short dstOffset,
                              short dstLength)
                       throws java.lang.NullPointerException,
                              java.lang.ArrayIndexOutOfBoundsException,
                              ToolkitException
```

6.2.5.12.1.1 Normal execution

- CRRN1: looks for the indicated occurrence of a TLV element from the beginning of a TLV list and copy its value into a destination buffer.
- CRRN2: if no TLV element is found, the UNAVAILABLE_ELEMENT exception is thrown and the current TLV is no longer defined.
- CRRN3: if the method is successful then the corresponding TLV becomes current and dstOffset + dstLength is returned.
- CRRN4: The search method is comprehension required flag independent.

6.2.5.12.1.2 Parameter errors

- CRRP1: if dstBuffer is null NullPointerException shall be thrown.
- CRRP2: if dstOffset or dstLength or both would cause access outside array bounds, or if dstLength is negative ArrayIndexOutOfBoundsException shall be thrown.
- CRRP3: if valueOffset, dstLength or both are out of the current TLV an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException OUT_OF_TLV_BOUNDARIES~~ToolkitException.OUT_OF_TLV_BOUNDARIES.

6.2.5.12.1.3 Context errors

- CRRC1: if the handler is busy an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException HANDLER_NOT_AVAILABLE~~ToolkitException.HANDLER_NOT_AVAILABLE.

6.2.5.12.2 Test Suite files

Specific triggering: Unrecognized Envelope

Test Script: API_2_ERH_FACYBBS_BSS_1.scr

Test Applet: API_2_ERH_FACYBBS_BSS_1.java

Load Script: API_2_ERH_FACYBBS_BSS_1.ldr

Cleanup Script: API_2_ERH_FACYBBS_BSS_1.clr

Parameter File: API_2_ERH_FACYBBS_BSS_1.par

6.2.5.12.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**Initialise the handler** findAndCopyValue() with a null dstBuffer	NullPointerException is thrown	
2	**appendTLV with TAG: 0D and length 16 dstOffset ≥ dstBuffer.length** tag = 0Dh, occurrence = 1 valueOffset = 0 dstBuffer.length = 5 dstOffset = 5 dstLength = 1	ArrayIndexOutOfBoundsException is thrown	
3	**dstOffset < 0** dstBuffer.length = 5 dstOffset = -1 dstLength = 1	ArrayIndexOutOfBoundsException is thrown	
4	**dstLength >dstBuffer.length** dstBuffer.length = 5 dstOffset = 0 dstLength = 6	ArrayIndexOutOfBoundsException is thrown	
5	**dstOffset + dstLength >dstBuffer.length** dstBuffer.length = 5 dstOffset = 3 dstLength = 3	ArrayIndexOutOfBoundsException is thrown	
6	**dstLength < 0** dstBuffer.length = 5 dstOffset = 0 dstLength = -1	ArrayIndexOutOfBoundsException is thrown	
7	**appendTLV with TAG: 0D and length 6 valueOffset ≥ Text String Length** tag = 0Dh, occurrence = 1 valueOffset = 6 dstBuffer.length = 15 dstOffset = 0 dstLength = 1	ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	
8	**valueOffset < 0** valueOffset = -1 dstBuffer.length = 15 dstOffset = 0 dstLength = 1	ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	
9	**dstLength > Text String length** valueOffset = 0 dstBuffer.length = 15 dstOffset = 0 dstLength = 7	ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	
10	**valueOffset + dstLength > Text String length** valueOffset = 2 dstBuffer.length = 15 dstOffset = 0 dstLength = 5	ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	
11	**clear the handler, appendTLV with TAG 02 and Length 02 Select a TLV (tag 02h)** findAndCopyValue() tag = 0Dh occurrence = 2 Call the getValueLength() method	ToolkitException.UNAVAILABLE_ELEMENT is thrown ToolkitException.UNAVAILABLE_ELEMENT is thrown.	

Id	Description	API Expectation	APDU Expectation
12	**clear the handler and appendTLV with TAG: 0D and value: 04 00 01 … 0F** **Successful call** tag = 0Dh, occurrence = 1 valueOffset = 0 dstBuffer.length = 17 dstOffset = 0 dstLength = 17	Result of findAndCopyValue() is 17	
13	**Compare buffer** buffer = 04 00 01 … 0F	Result is 00h	
14	**initialise dstBuffer** dstBuffer = 55 55 … 55 **Successful call** tag = 0Dh, occurrence = 1 valueOffset = 2 dstBuffer.length = 20 dstOffset = 3 dstLength = 12	Result of findAndCopyValue() is 15	
15	**Compare buffer** buffer = 55 55 55 01 02 03 04 05 06 07 08 09 0A 0B 0C 55 55 55 55 55	Result is 00h	
16	**Append a Text String TLV** tag = 0D buffer = 00 11 22 33 44 55 (no specific DCS byte) **Successful call** tag = 0Dh, occurrence = 1 valueOffset = 0 dstBuffer.length = 20 dstOffset = 0 dstLength = 17	Result of findAndCopyValue() is 17	
17	**Compare buffer** buffer = 04 00 01 … 0F	Result is 00h	
18	**Successful call** tag = 0Dh, occurrence = 2 valueOffset = 0 dstBuffer.length = 6 dstOffset = 0 dstLength = 6	Result of findAndCopyValue() is 6	
19	**Compare buffer** buffer = 00 11 22 33 44 55	Result is 00h	
20	**clear the handler and appendTLV with TAG: 0D and value: 04 00 01 … 0F** **Successful call (with tag 8Dh)** tag = 8Dh occurrence = 1 valueOffset = 0 dstBuffer.length = 17 dstOffset = 0 dstLength = 17	Result of findAndCopyValue () is 17	
21	**Compare buffer** buffer = 04 00 01 … 0F	Result is 00h	
22	**Append tag 0Fh** buffer = 00 01 … 0F **Successful call (with tag 8Fh)** tag = 8Fh occurrence = 1 valueOffset = 0 dstBuffer.length = 16 dstOffset = 0 dstLength = 16	Result of findAndCopyValue () is 16	
23	**Compare buffer** buffer = 00 01 … 0F	Result is 00h	
24	**Successful call, findAndCopyValue with length =0** dstBuffer.length = 16 dstOffset = 16 dstLength = 0	Result of findAndCopyValue () is 16	
25	**Call post() method then findAndCopyValue()** dstBuffer.length = 16	A toolkit Exception with	

Id	Description	API Expectation	APDU Expectation
	dstOffset = 0 dstLength = 0	HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.12.4 Test Coverage

CRR number	Test case number
N1	13, 15, 17, 19
N2	11
N3	12, 14, 16, 18, 24
N4	20, 21, 22, 23
P1	1
P2	2, 3, 4, 5, 6
P3	7, 8, 9, 10
C1	~~Does not apply for EnvelopeResponseHandler~~25

6.2.5.13 Method findAndCompareValue(byte tag, byte[] compareBuffer, short compareOffset)

Test Area Reference: API_2_ERH_FACRB_BS

6.2.5.13.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public byte findAndCompareValue(byte tag,
                                byte[] compareBuffer,
                                short compareOffset)
                         throws java.lang.NullPointerException,
                                java.lang.ArrayIndexOutOfBoundsException,
                                ToolkitException
```

6.2.5.13.1.1 Normal execution

Looks for the first occurrence of a TLV element from beginning of a TLV list and compare its value with a buffer:

- CRRN1: if no TLV element is found, the UNAVAILABLE_ELEMENT exception is thrown and the current TLV is no longer defined.
- CRRN2: if the method is successful then the corresponding TLV becomes current.
- CRRN3: if identical returns 0.
- CRRN4: if the first miscomparing byte in simple TLV is less than that in compareBuffer returns -1.
- CRRN5: if the first miscomparing byte in simple TLV is greater than that in compareBuffer returns 1.
- CRRN6: The search method is comprehension required flag independent.

6.2.5.13.1.2 Parameter errors

- CRRP1: if compareBuffer is null NullPointerException shall be thrown.
- CRRP2: if compareOffset would cause access outside array bounds ArrayIndexOutOfBoundsException shall be thrown.

6.2.5.13.1.3 Context errors

- CRRC1: if the handler is busy an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException.HANDLER_NOT_AVAILABLE~~ToolkitException.HANDLER_NOT_AVAILABLE.

6.2.5.13.2 Test Suite files

Specific triggering: Unrecognized Envelope

Test Script: API_2_ERH_FACRB_BS_1.scr

Test Applet: API_2_ERH_FACRB_BS_1.java

Load Script: API_2_ERH_FACRB_BS_1.ldr

Cleanup Script: API_2_ERH_FACRB_BS_1.clr

Parameter File: API_2_ERH_FACRB_BS_1.par

6.2.5.13.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**appendTLV with TAG: 0D and length 16** findAndCompareValue() with a null dstBuffer and tag 0Dh	NullPointerException is thrown	

2	**compareOffset ≥ compareBuffer.length**
	`tag = 0Dh`
	`compareBuffer.length = 20`
	`compareOffset = 20`
		ArrayIndexOutOfBoundsException is thrown	

3	**compareOffset < 0**
	`compareBuffer.length = 20`
	`compareOffset = -1`
		ArrayIndexOutOfBoundsException is thrown	

4	**compareOffset + length > compareBuffer.length**
	`compareBuffer.length = 20`
	`compareOffset = 5`
		ArrayIndexOutOfBoundsException is thrown	

5	**length > compareBuffer.length**
	`compareBuffer.length = 15`
	`compareOffset = 0`
		ArrayIndexOutOfBoundsException is thrown	

6	**clear the handler, appendTLV with TAG 02 and Length 02**
	Select a TLV (tag 02h)
	`findAndCompareValue()`
	`tag = 03h`
		ToolkitException.UNAVAILABLE_ELEMENT is thrown	

7	**Verify current TLV** `getValueLength()`	ToolkitException.UNAVAILABLE_ELEMENT is thrown.	

8	**clear the handler and appendTLV with TAG: 0D and value: 04 00 01 … 0F**
	Initialise compareBuffer
	`compareBuffer =`
	`04 00 01 … 0F`
	Compare buffers
	`tag = 0Dh`
	`compareOffset = 0`
		Result is 00h	

9	**Verify current TLV** `getValueLength()`	Result is 17	

10	**Initialise compareBuffer**
	`compareBuffer =`
	`04 00 01 … 10`
	Compare buffers with same parameters
		Result is -1	

11	**Initialise compareBuffer**
	`compareBuffer =`
	`03 00 01 … 0F`
	Compare buffers with same parameters
		Result is +1	

12	**Initialise compareBuffer**
	`compareBuffer =`
	`55 55 04 00 01`
	`02 03 04 05 06`
	`07 08 09 0A 0B`
	`0C 0D 0E 0F 55`
	Compare buffers
	`compareOffset = 2`
		Result is 00h	

Id	Description	API Expectation	APDU Expectation
13	**append a Text String TLV** tag = 0Dh buffer = 00 11 22 33 44 55 **Initialise compareBuffer** compareBuffer = 55 55 04 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F 55 **Compare buffers** compareOffset = 2	Result is 00h	
14	**Initialise compareBuffer** compareBuffer = 55 55 04 01 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F 55 **Compare buffers** compareOffset = 2	Result is -1	
15	**Initialise compareBuffer** compareBuffer = 55 55 04 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0D 10 55 **Compare buffers** compareOffset = 2	Result is +1	
16	**clear the handler and appendTLV with TAG: 0D and value: 04 00 01 … 0F** **Initialise compareBuffer** compareBuffer = 04 00 01 … 0F **Successful call (with tag 8Dh)** tag = 8Dh compareBuffer.length = 17 compareOffset = 0	Result is 00h	
17	**Append tag 0Fh** buffer = 00 01 … 0F **Initialise compareBuffer** compareBuffer = 00 01 … 0F **Successful call (with tag 8Fh)** tag = 8Fh compareBuffer.length = 16 compareOffset = 0	Result is 00h	
18	**Call post() method then findAndCompareValue()** tag = 8Fh compareBuffer.length = 0 compareOffset = 0	A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.13.4 Test Coverage

CRR number	Test case number
N1	6,7
N2	7,9
N3	8, 13, 12
N4	10, 14
N5	11, 15
N6	17, 16
P1	1
P2	2, 3, 4, 5
C1	~~Does not apply for Envelope response handler~~18

6.2.5.14 Method findAndCompareValue(byte tag, byte occurrence, short valueOffset, byte[] compareBuffer, short compareOffset, short compareLength)

Test Area Reference: API_2_ERH_FACRBBS_BSS

6.2.5.14.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public byte findAndCompareValue(byte tag,
                                byte occurrence,
                                short valueOffset,
                                byte[] compareBuffer,
                                short compareOffset,
                                short compareLength)
                         throws java.lang.NullPointerException,
                                java.lang.ArrayIndexOutOfBoundsException,
                                ToolkitException
```

6.2.5.14.1.1 Normal execution

Looks for the indicated occurrence of a TLV element from the beginning of a TLV list and compare its value with a buffer:

- CRRN1: if no TLV element is found, the UNAVAILABLE_ELEMENT exception is thrown and the current TLV is no longer defined.
- CRRN2: if the method is successful then the corresponding TLV becomes current.
- CRRN3: if identical 0 is returned.
- CRRN4: if the first miscomparing byte in simple TLV is less than that in compareBuffer -1 is returned.
- CRRN5: if the first miscomparing byte in simple TLV is greater than that in compareBuffer 1 is returned
- CRRN6: The search method is comprehension required flag independent.

6.2.5.14.1.2 Parameter errors

- CRRP1: if compareBuffer is null NullPointerException shall be thrown.
- CRRP2: if compareOffset or compareLength or both would cause access outside array bounds, or if compareLength is negative ArrayIndexOutOfBoundsException shall be thrown.
- CRRP3: if valueOffset, compareLength or both are out of the current TLV an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException OUT_OF_TLV_BOUNDARIES~~ToolkitException.OUT_OF_TLV_BOUNDARIES.
- CRRP4: if an input parameter is not valid (e.g. occurrence = 0) an instance of ToolkitException shall be thrown. The reason code shall be ToolkitException BAD_INPUT_PARAMETER.

6.2.5.14.1.3 Context errors

- CRRC1: if the handler is busy an instance of ToolkitException shall be thrown. The reason code shall be ~~ToolkitException HANDLER_NOT_AVAILABLE~~ToolkitException.HANDLER_NOT_AVAILABLE.

6.2.5.14.2 Test Suite files

Specific triggering: Unrecognized Envelope

Test Script:	API_2_ERH_FACRBBS_BSS_1.scr
Test Applet:	API_2_ERH_FACRBBS_BSS_1.java
Load Script:	API_2_ERH_FACRBBS_BSS_1.ldr
Cleanup Script:	API_2_ERH_FACRBBS_BSS_1.clr
Parameter File:	API_2_ERH_FACRBBS_BSS_1.par

6.2.5.14.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**Initialise the handler findAndCompareValue() with a null compareBuffer**	NullPointerException is thrown	
2	**clear the handler and appendTLV with TAG: 0D and value: 04 00 01 … 0F compareOffset ≥ compareBuffer.length** tag = 0Dh, occurrence = 1 valueOffset = 0 compareBuffer.length = 5 compareOffset = 5 compareLength = 1	ArrayIndexOutOfBoundsException is thrown	
3	**compareOffset < 0** compareBuffer.length = 5 compareOffset = -1 compareLength = 1	ArrayIndexOutOfBoundsException is thrown	
4	**compareLength >compareBuffer.length** compareBuffer.length = 5 compareOffset = 0 compareLength = 6	ArrayIndexOutOfBoundsException is thrown	
5	**compareOffset + compareLength >compareBuffer.length** compareBuffer.length = 5 compareOffset = 3 compareLength = 3	ArrayIndexOutOfBoundsException is thrown	
6	**compareLength < 0** compareBuffer.length = 5 compareOffset = 0 compareLength = -1	ArrayIndexOutOfBoundsException is thrown	
7	**clear the handler and appendTLV with TAG and length of 6 valueOffset ≥ Text String Length** tag = 0Dh, occurrence = 1 valueOffset = 6 compareBuffer.length = 15 compareOffset = 0 compareLength = 1	ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	
8	**valueOffset < 0** valueOffset = -1 compareBuffer.length = 15 compareOffset = 0 compareLength = 1	ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	
9	**compareLength > Text String length** valueOffset = 0 compareBuffer.length = 15 compareOffset = 0 compareLength = 7	ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	
10	**valueOffset + compareLength > Text String length** valueOffset = 2 compareBuffer.length = 15 compareOffset = 0 compareLength = 5	ToolkitException.OUT_OF_TLV_BOUNDARIES is thrown	
11	**Invalid parameter** occurrence = 0	ToolkitException.BAD_INPUT_PARAMETER is thrown	
12	**appendTLV with TAG 02 and length 02 Select a TLV (tag 02h)** findAndCompareValue() tag = 0Dh occurrence = 2	ToolkitException.UNAVAILABLE_ELEMENT is thrown	
13	**Verify current TLV** getValueLength()	ToolkitException.UNAVAILABLE_ELEMENT is thrown.	

Id	Description	API Expectation	APDU Expectation
14	**clear the handler and appendTLV with TAG: 0D and value: 04 00 01 … 0F** **Initialise compareBuffer** compareBuffer = 04 00 01 … 0F **findAndCompareValue()** tag = 0Dh, occurrence = 1 valueOffset = 0 compareOffset = 0 compareLength = 17	Result is 00h	
15	**Verify current TLV** getValueLength()	Result is 17	
16	**Initialise compareBuffer** compareBuffer = 04 00 01 … 10 **Compare buffers with same parameters**	Result is -1	
17	**Initialise compareBuffer** compareBuffer = 03 00 01 … 0F **Compare buffers with same parameters**	Result is +1	
18	**Initialise compareBuffer** compareBuffer = 55 55 55 01 02 03 04 05 06 07 08 09 0A 0B 0C 55 55 55 55 55 **Compare buffers** valueOffset = 2 compareOffset = 3 compareLength = 12	Result is 00h	
19	**Initialise compareBuffer** compareBuffer = 55 55 55 02 01 03 04 05 06 07 08 09 0A 0B 0C 55 55 55 55 55 **Compare buffers with same parameters**	Result is -1	
20	**Initialise compareBuffer** compareBuffer = 55 55 55 01 02 03 04 05 06 07 08 09 0A 0A 0D 55 55 55 55 55 Compare buffers with same parameters	Result is +1	
21	**append a Text String TLV** tag = 0Dh buffer = 00 11 22 33 44 55 **Initialise compareBuffer** compareBuffer = 04 00 01 … 0F **findAndCompareValue()** tag = 0Dh, occurrence = 1 valueOffset = 0 compareOffset = 0 compareLength = 17	Result is 00h	
22	**Initialise compareBuffer** compareBuffer = 00 11 22 33 44 55 **findAndCompareValue()** tag = 0Dh, occurrence = 2 valueOffset = 0 compareOffset = 0 compareLength = 6	Result is 00h	
23	**Initialise compareBuffer** compareBuffer = 00 11 22 33 44 66 **findAndCompareValue()** tag = 0Dh, occurrence = 2 valueOffset = 0 compareOffset = 0 compareLength = 6	Result is -1	
24	**clear the handler and appendTLV with TAG:**		

Id	Description	API Expectation	APDU Expectation

	0D and value: 04 00 01 … 0F
	Initialise compareBuffer
	`compareBuffer = 04 00 01 … 0F`
	Successful call (with tag 8Dh)
	`tag = 8Dh, occurrence = 1`
	`valueOffset = 0`
	`compareBuffer.length = 17`
	`compareOffset = 0`
	`compareLength = 17`
		Result is 00h	

25	**Append tag 0Fh**
	`buffer = 00 01 … 0F`
	Initialise compareBuffer
	`compareBuffer = 00 01 … 0F`
	Successful call (with tag 8Fh)
	`tag = 8Fh, occurrence = 1`
	`valueOffset = 0`
	`compareBuffer.length = 16`
	`compareOffset = 0`
	`compareLength = 16`
		Result is 00h	

26	**Successful call, findAndCompareValue with length =0**
	`CompareBuffer.length = 16`
	`compareOffset = 16`
	`compareLength = 0`
		Result of findAndCompareValue () is 00	

27	**Call post() method then findAndCompareValue()**
	`CompareBuffer.length = 16`
	`compareOffset = 0`
	`compareLength = 0`
		A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.14.4 Test Coverage

CRR number	Test case number
N1	12,13
N2	15,13
N3	14, 18, 22, 21, 26
N4	16, 19, 23
N5	17, 19
N6	25, 24
P1	1
P2	2, 3, 4, 5, 6
P3	7, 8, 9, 10
P4	11
C1	~~Does not apply for EnvelopeResponseHandler~~27

6.2.5.15 Method appendArray

Test Area Reference: API_2_ERH_APDA_BSS

6.2.5.15.1 Conformance requirement:

The method with following header shall be compliant to its definition in the API.

```
void appendArray(byte[] buffer, short offset, short length)
          throws java.lang.NullPointerException,
                 java.lang.ArrayIndexOutOfBoundsException,
                 ToolkitException
```

6.2.5.15.1.1 Normal execution

- CRRN1: appends a buffer into the EditHandler buffer
- CRRN2: a successful append does not modify the TLV selected

6.2.5.15.1.2 Parameters error

- CRRP1: if buffer is null, a java.lang.NullPointerException is thrown
- CRRP2: if offset or length or both would cause access outside the array bounds, or if length is negative, a java.lang.ArrayIndexOutOfBoundsException is thrown.

6.2.5.15.1.3 Context errors

- CRRC1: if the EditHandler buffer is too small to append the requested data, a ToolkitException is thrown with reason code HANDLER_OVERFLOW.
- CRRC2: if the EditHandler buffer is busy, a ToolkitException is thrown with reason code HANDLER_NOT_AVAILABLE.

6.2.5.15.2 Test suite files

Specific triggering: Unrecognized Envelope

Test Script:	API_2_ERH_APDA_BSS_1.scr
Test Applet:	API_2_ERH_APDA_BSS_1.java
Load Script:	API_2_ERH_APDA_BSS_1.ldr
Cleanup Script:	API_2_ERH_APDA_BSS_1.clr
Parameter File:	API_2_ERH_APDA_BSS_1.par

6.2.5.15.3 Test procedure

Id	Description	API Expectation	APDU Expectation
	Initialise the envelope response handler with a TLV of length 1		
1	**Null buffer**	NullPointerException is thrown	

2	**offset ≥ buffer.length**
	`buffer.length = 5`
	`offset = 5`
	`length = 1`
		ArrayIndexOutOfBoundsException is thrown	

3	**offset < 0**
	`buffer.length = 5`
	`offset = -1`
	`length = 1`
		ArrayIndexOutOfBoundsException is thrown	

4	**length > buffer.length**
	`buffer.length = 5`
	`offset = 0`
	`length = 6`
		ArrayIndexOutOfBoundsException is thrown	

5	**offset + length > buffer.length**
	`buffer.length = 5`
	`offset = 3`
	`length = 3`
		ArrayIndexOutOfBoundsException is thrown	

6	**length < 0**
	`buffer.length = 5`
	`offset = 0`
	`length = -1`
		ArrayIndexOutOfBoundsException is thrown	

7	**Handler overflow**
	`buffer.length = 256`
	`offset = 0`
	`length = 256`
		ToolkitException.HANDLER_OVERFLOW is thrown	

8	**append the handler with TLVs:**
	`81 03 11 22 33`
	`82 02 99 77`
	findTLV 0x81
	Successful call
	`buffer = FF FE … F8`
	`offset = 0`
	`length = 8`
	Verify Current TLV: Call getValueLength()
		Result is 03h	

Id	Description	API Expectation	APDU Expectation

9	**Clear the handler**
	Successful call
	`buffer = FF FE … F8`
	`offset = 0`
	`length = 8`
	Call copy() method
	Compare handler
	`compareBuffer = FF FE … F8`
		Result is 00h	

10	**Successful call**
	`buffer = 00 01 … 07`
	`offset = 2`
	`length = 6`
	Call copy() method
	Compare handler
	`compareBuffer = FF FE … F8 02 03 … 07`
		Result is 00h	

11	**Successful call**
	`buffer = 11 22 … 88`
	`offset = 2`
	`length = 4`
	Call copy() method
	Compare handler
	`compareBuffer = FF FE … F8 02 03 … 07 33 44 55 66`
		Result is 00h	

12	**Call post() method then appendArray()**
	`buffer = 11 22 … 88`
	`offset = 2`
	`length = 4`
		A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.15.4 Test Coverage

CRR number	Test case number
N1	9, 10, 11
N2	8
~~N3~~	
P1	1
P2	2, 3, 4, 5, 6
C1	7
C2	~~Does not apply for EnvelopeResponseHandler~~12

6.2.5.16 Method appendTLV(byte tag, byte value)

Test Area Reference: API_2_ERH_APTLBB

6.2.5.16.1 Conformance requirement:

The method with following header shall be compliant to its definition in the API.

```
void appendTLV(byte tag, byte value)
        throws ToolkitException
```

6.2.5.16.1.1 Normal execution

- CRRN1: Appends a TLV element to the current TLV list (1-byte element).
- CRRN2: A successful append does not modify the TLV selected.

6.2.5.16.1.2 Parameters error

No requirements

6.2.5.16.1.3 Context errors

- CRRC1: if the EditHandler buffer is too small to append the requested data, a ToolkitException is thrown with reason code HANDLER_OVERFLOW.
- CRRC2: if the EditHandler buffer is busy, a ToolkitException is thrown with reason code HANDLER_NOT_AVAILABLE.

6.2.5.16.2 Test suite files

Specific triggering: Unrecognized Envelope

Test Script: API_2_ERH_APTLBB_1.scr

Test Applet: API_2_ERH_APTLBB_1.java

Load Script: API_2_ERH_APTLBB_1.ldr

Cleanup Script: API_2_ERH_APTLBB_1.clr

Parameter File: API_2_ERH_APTLBB_1.par

6.2.5.16.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**Call appendArray()** `length = 253` **Handler Overflow: Call twice the appendTLV()method**	ToolkitException.HANDLER_OVERFLOW is thrown by one of the two.	

2	**append the handler with TLVs:**
	`81 03 11 22 33`
	`82 02 99 77`
	Select Command Details TLV
	Call the appendTLV() method
	Verify Current TLV: Call getValueLength()
		Result is 03h	

3	**Clear the handler**
	Successful call
	`tag = 84h`
	`value = 00h`
	Call copy() method
	Compare handler
	`compareBuffer = 84 01 00`
		Result is 00h	

4	**Successful call**
	`tag = 01h`
	`value = FEh`
	Call copy() method
	Compare handler
	`compareBuffer = 84 01 00 01 01 FE`
		Result is 00h	

5	**Call post() method then appendTLV()**
	`tag = 01h`
	`value = FEh`
		A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

NOTE: Test case 1 call twice appendTLV because the current 3GPP TS 43.019 [7] is not clear enough on this point. So this test allows the two possible implementations.			

6.2.5.16.4 Test Coverage

CRR number	Test case number
N1	3, 4
N2	2
C1	1
C2	~~Does not apply for EnvelopeResponseHandler~~5

6.2.5.17 Method appendTLV(byte tag, byte value1, byte value2)

Test Area Reference: API_2_ERH_APTLBBB

6.2.5.17.1 Conformance requirements:

The method with following header shall be compliant to its definition in the API.

```
void appendTLV(byte tag, byte value1,byte value2)
        throws ToolkitException
```

6.2.5.17.1.1 Normal execution

- CRRN1: Appends a TLV element to the current TLV list (2-byte element).
- CRRN2: A successful append does not modify the TLV selected.

6.2.5.17.1.2 Parameters error

No requirements

6.2.5.17.1.3 Context errors

- CRRC1: if the EditHandler buffer is too small to append the requested data, a ToolkitException is thrown with reason code HANDLER_OVERFLOW.
- CRRC2: if the EditHandler buffer is busy, a ToolkitException is thrown with reason code HANDLER_NOT_AVAILABLE.

6.2.5.17.2 Test suite files

Specific triggering: Unrecognized Envelope

Test Script:	API_2_ERH_APTLBBB_1.scr
Test Applet:	API_2_ERH_APTL BBB_1.java
Load Script:	API_2_ERH_APTL BBB_1.ldr
Cleanup Script:	API_2_ERH_APTLBBB_1.clr
Parameter File:	API_2_ERH_APTLBBB_1.par

6.2.5.17.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**Call the appendArray with length of 253 Handler Overflow: Call the appendTLV() method**	ToolkitException.HANDLER_OVERFLOW is thrown	
2	**clear the handler, append the handler with TLVs:** 81 03 11 22 33 82 02 99 77 **Select Command Details TLV** **Call the appendTLV() method** **Verify Current TLV: Call getValueLength()**	Result is 03h	
3	**Clear the handler** **Successful call** tag = 84h value1 = 00h value2 = 01h **Call copy() method** **Compare handler** compareBuffer = 84 02 00 01	Result is 00h	

Id	Description	API Expectation	APDU Expectation
4	**Successful call** tag = 01h value1 = FEh value2 = FDh **Call copy() method** **Compare handler** compareBuffer = 84 02 00 01 01 02 FE FD	Result is 00h	
5	**Call post() method then appendTLV()** tag = 01h value1 = FEh value2 = FDh	A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.17.4 Test Coverage

CRR number	Test case number
N1	3, 4
N2	2
C1	1
C2	~~Does not apply for EnvelopeResponseHandler~~5

6.2.5.18 Method appendTLV(byte tag, byte[ ] value, short valueoffset, short valuelength)

Test Area Reference: API_2_ERH_APTLB_BSS

6.2.5.18.1 Conformance requirement:

The method with following header shall be compliant to its definition in the API.

```
void appendTLV(byte tag,
               byte[] value,
               short valueoffset,
               short valuelength)
        throws java.lang.NullPointerException,
               java.lang.ArrayIndexOutOfBoundsException,
               ToolkitException
```

6.2.5.18.1.1 Normal execution

- CRRN1: Appends a TLV element to the current TLV list (byte-array element).
- CRRN2: A successful append does not modify the TLV selected.

6.2.5.18.1.2 Parameters error

- CRRP1: if value is null, a java.lang.NullPointerException is thrown
- CRRP2: if valueoffset or valuelength or both would cause access outside the array bounds, or if length is negative, a java.lang.ArrayIndexOutOfBoundsException is thrown.

6.2.5.18.1.3 Context errors

- CRRC1: if the EditHandler buffer is too small to append the requested data, a ToolkitException is thrown with reason code HANDLER_OVERFLOW.
- CRRC2: if the EditHandler buffer is busy, a ToolkitException is thrown with reason code HANDLER_NOT_AVAILABLE.
- CRRC3: if valuelength is greater than 255, a ToolkitException is thrown with reason code BAD_INPUT_PARAMETER.

6.2.5.18.2 Test suite files

Specific triggering: Unrecognized Envelope

Test Script: API_2_ERH_APTLB_BSS_1.scr

Test Applet: API_2_ERH_APTLB_BSS_1.java

Load Script: API_2_ERH_APTLB_BSS_1.ldr

Cleanup Script: API_2_ERH_APTLB_BSS_1.clr

Parameter File: API_2_ERH_APTLB_BSS_1.par

6.2.5.18.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**Null value**	NullPointerException is thrown	
2	**valueOffset ≥ value.length** value.length = 5 valueOffset = 5 valueLength = 1	ArrayIndexOutOfBoundsException is thrown	
3	**valueOffset < 0** value.length = 5 valueOffset = -1 valueLength = 1	ArrayIndexOutOfBoundsException is thrown	
4	**valueLength > value.length** value.length = 5 valueOffset = 0 valueLength = 6	ArrayIndexOutOfBoundsException is thrown	
5	**ValueOffset + valueLength > value.length** value.length = 5 valueOffset = 3 valueLength = 3	ArrayIndexOutOfBoundsException is thrown	
6	**valueLength < 0** value.length = 5 valueOffset = 0 valueLength = -1	ArrayIndexOutOfBoundsException is thrown	
7	**Handler overflow** value.length = 254 valueOffset = 0 valueLength = 254	ToolkitException.HANDLER_OVERFLOW is thrown	
8	**Bad parameter** value.length = 256 valueOffset = 0 valueLength = 256	ToolkitException.BAD_INPUT_PARAMETER is thrown	
9	**clear the handler, append the handler with TLVs:** 81 03 11 22 33 82 02 99 77 **Select Command Details TLV** **Successful call** tag = 04 value = FF FE … F8 valueOffset = 0 valueLength = 8 **Verify Current TLV: Call getValueLength()**	Result is 03h	

Id	Description	API Expectation	APDU Expectation
10	**Clear the handler** **Successful call** tag = 04 value = FF FE … F8 valueOffset = 0 valueLength = 8 **Call copy() method** **Compare handler** CompareBuffer = 04 08 FF FE … F8	Result is 00	
11	**Successful call** tag = 85h value = 00 01 … 07 valueOffset = 2 valueLength = 6 **Call copy() method** **Compare handler** compareBuffer = 04 08 FF FE … F8 85 06 02 03 … 07	Result is 00	
12	**Successful call** tag = 01 value = 11 22 … 88 valueOffset = 2 valueLength = 4 **Call copy() method** **Compare handler** compareBuffer = 04 08 FF FE … F8 85 06 02 03 … 07 01 04 33 44 55 66	Result is 00	
13	**Clear the handler** **Successful call** tag = 04 value = 00 01 … 7F valueOffset = 0 valueLength = 80h **Call copy() method** **Compare handler** compareBuffer = 04 81 80 00 01…7F	Result is 00	
14	**Call post() method then appendTLV()** tag = 04 value = 00 01 … 7F valueOffset = 0 valueLength = 80h	A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.18.4 Test Coverage

CRR number	Test case number
N1	10, 11, 12, 13
N2	9
P1	1
P2	2, 3, 4, 5, 6
C1	7
C2	~~Does not apply for EnvelopeResponseHandler~~14
C3	8

6.2.5.19 Method appendTLV(byte tag, byte value1, byte[ ] value2, short value2offset, short value2length)

Test Area Reference: API_2_ERH_APTLBB_BSS

6.2.5.19.1 Conformance requirement:

The method with following header shall be compliant to its definition in the API.

```
void appendTLV(byte tag,
               byte value1
               byte[] value2,
```

```
        short value2offset,
        short value2length)
  throws java.lang.NullPointerException,
        java.lang.ArrayIndexOutOfBoundsException,
        ToolkitException
```

6.2.5.19.1.1 Normal execution

- CRRN1: Appends a TLV element to the current TLV list (1 byte and a byte-array element).
- CRRN2: A successful append does not modify the TLV selected.

6.2.5.19.1.2 Parameters error

- CRRP1: if value2 is null, a java.lang.NullPointerException is thrown
- CRRP2: if value2offset or value2length or both would cause access outside the array bounds, or if length is negative, a java.lang.ArrayIndexOutOfBoundsException is thrown.

6.2.5.19.1.3 Context errors

- CRRC1: if the EditHandler buffer is too small to append the requested data, a ToolkitException is thrown with reason code HANDLER_OVERFLOW.
- CRRC2: if the EditHandler buffer is busy, a ToolkitException is thrown with reason code HANDLER_NOT_AVAILABLE.
- CRRC3: if valuelength is greater than 255, a ToolkitException is thrown with reason code BAD_INPUT_PARAMETER.

6.2.5.19.2 Test suite files

Specific triggering: Unrecognized Envelope

Test Script:	API_2_ERH_APTLBB_BSS_1.scr
Test Applet:	API_2_ERH_APTLBB_BSS_1.java
Load Script:	API_2_ERH_APTLBB_BSS_1.ldr
Cleanup Script:	API_2_ERH_APTLBB_BSS_1.clr
Parameter File:	API_2_ERH_APTLBB_BSS_1.par

6.2.5.19.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**Null value2**	NullPointerException is thrown	
2	**value2Offset ≥ value2.length** value2.length = 5 value2Offset = 5 value2Length = 1	ArrayIndexOutOfBoundsException is thrown	
3	**value2Offset < 0** value2.length = 5 value2Offset = -1 value2Length = 1	ArrayIndexOutOfBoundsException is thrown	
4	**value2Length > value2.length** value2.length = 5 value2Offset = 0 value2Length = 6	ArrayIndexOutOfBoundsException is thrown	
5	**value2Offset + value2Length > value2.length** value2.length = 5 value2Offset = 3 value2Length = 3	ArrayIndexOutOfBoundsException is thrown	
6	**value2Length < 0** value2.length = 5 value2Offset = 0	ArrayIndexOutOfBoundsException is thrown	

Id	Description	API Expectation	APDU Expectation
	value2Length = -1		
7	**Handler overflow** value2.length = 254 value2Offset = 0 value2Length = 254	ToolkitException.HANDLER_OVERFLOW is thrown	
8	**Bad parameter** value2.length = 256 value2Offset = 0 value2Length = 256	ToolkitException.BAD_INPUT_PARAMETER is thrown	
9	**clear the handler, append the handler with TLVs:** 81 03 11 22 33 82 02 99 77 **Select Command Details TLV** **Successful call** tag = 04 value1 = 05 value2 = FF FE … F8 value2Offset = 0 value2Length = 8 **Verify Current TLV: Call getValueLength()**	Result is 03h	
10	**Clear the handler** **Successful call** tag = 04 value1 = 05 value2 = FF FE … F8 value2Offset = 0 value2Length = 8 **Call copy() method** **Compare handler** CompareBuffer = 04 09 05 FF FE … F8	Result is 00	
11	**Successful call** tag = 85h value1 = 55h value2 = 00 01 … 07 value2Offset = 2 value2Length = 6 **Call copy() method** **Compare handler** compareBuffer = 04 09 05 FF FE … F8 85 07 55 02 03 … 07	Result is 00	
12	**Successful call** tag = 01 value1 = 44h value2 = 11 22 … 88 value2Offset = 2 value2Length = 4 **Call copy() method** **Compare handler** CompareBuffer = 04 09 05 FF FE … F8 85 07 55 02 03 … 07 01 05 44 33 44 55 66	Result is 00	
13	**Clear the handler** **Successful call** tag = 04 value1 = 00 value2 = 01 … 7F value2Offset = 0 value2Length = 7Fh **Call copy() method** **Compare handler** compareBuffer = 04 81 80 00 01…7F	Result is 00	
14	**Call post() method then appendTLV()** tag = 04 value1 = 00 value2 = 01 … 7F value2Offset = 0 value2Length = 7Fh	A toolkit Exception with HANDLER_NOT_AVAILABLE reason is thrown.	

6.2.5.19.4 Test Coverage

CRR number	Test case number
N1	10, 11, 12, 13
N2	9
P1	1
P2	2, 3, 4, 5, 6
C1	7
C2	~~Does not apply for EnvelopeResponseHandler~~14
C3	8

6.2.5.20 Method clear

Test Area Reference: API_2_ERH_CLER

6.2.5.20.1 Conformance requirement:

The method with following header shall be compliant to its definition in the API.

```
void clear()
        throws ToolkitException
```

6.2.5.20.1.1 Normal execution

- CRRN1: Clears the TLV list of an EditHandler and resets the current TLV selected.

6.2.5.20.1.2 Parameters error

No requirements

6.2.5.20.1.3 Context errors

- CRRC1: if the EditHandler buffer is busy, a ToolkitException is thrown with reason code HANDLER_NOT_AVAILABLE.

6.2.5.20.2 Test suite files

Specific triggering: Unrecognized Envelope

Test Script: API_2_ERH_CLER_1.scr

Test Applet: API_2_ERH_CLER_1.java

Load Script: API_2_ERH_CLER_1.ldr

Cleanup Script: API_2_ERH_CLER_1.clr

Parameter File: API_2_ERH_CLER_1.par

6.2.5.20.3 Test procedure

Id	Description	API Expectation	APDU Expectation

1	**append the handler with TLVs:**
	`81 03 11 22 33`
	`82 02 99 77`
	`Select Command Details TLV`
	`Call the getLength() method`
	Clear the handler
	`Call the getLength() method`
		Result of getLength() is not null
		
		Result of getLength() is 0	

2	**Call the getValueLength() method**	ToolkitException.UNAVAILABLE_ELEMENT ~~is~~ shall be thrown	
3	**Call post() method then clear()**	A toolkit Exception with HANDLER_NOT_AVAILABLE	

		reason is thrown.	

6.2.5.20.4 Test Coverage

CRR number	Test case number
N1	1, 2
C1	~~Does not apply for EnvelopeResponseHandler~~3

3GPP TSG-T3 #33
Sophia Antipolis, France
16-19 November 2004

T3-040879

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **009** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Correction to updateRecord() method test in access package.
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	11/10/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	In access package part, updateRecord() method test 23, the method is called to throw an INVALIDATION_STATUS_CONTRADICTION SimViewException with SIMView.REC_ACC_MODE_ABSOLUTE_CURRENT mode; but the mode used can throw both INVALIDATION_STATUS_CONTRADICTION and INVALID_MODE exceptions.
Summary of change:	⌘	For test 23, change mode from SIMView.REC_ACC_MODE_ABSOLUTE_CURRENT to SIMView.REC_ACC_MODE_PREVIOUS.
Consequences if not approved:	⌘	The test is not in accordance with the API specification.

Clauses affected:	⌘	Annex E source code (API_1_SVW_UPDRSBS_BSS_1 java, ldr and clr files)

Other specs affected: ⌘	Y	N		⌘
	[ ]	[ ]	Other core specifications	
	[ ]	[ ]	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.

6.1.1.8 Method updateRecord

Test Area Reference: API_1_SVW_UPDRSBS_BSS

6.1.1.8.3 Test Procedure

Id	Description	API Expectation	APDU Expectation
0	**SIM Initialization**	Responses ignored.	
1	**No EF selected** recNumber = 1 mode = REC_ACC_MODE_ABSOLUTE_CURRENT recOffset = 0 byte[] data = new byte[20] dataOffset = 0 dataLength = 10 updateRecord()	Shall throw sim.access.SIMViewException with reason code NO_EF_SELECTED.	
2	**Update Absolute and Current from Linear Fixed EF** 1 - fid = DFSIMTEST select() 2 - fid = EFLARU select() // Record pointer not set. 3 - recNumber = 2 mode = REC_ACC_MODE_ABSOLUTE_CURRENT data[0:3] = '11' recOffset = 0 dataOffset = 0 dataLength = 4 updateRecord() respOffset = 0 respLength = 0 readRecord()	1 - No exception shall be thrown. 2 - No exception shall be thrown. 3 - No exception shall be thrown. Resp shall be: Resp[0] = '11' Resp[1] = '11' Resp[2] = '11' Resp[3] = '11'	= 4

3	**Update Current from Linear Fixed EF**
	1 - fid = DFSIMTEST
	select()
	2 - fid = EFLARU
	select()
	// Set record pointer with mode "next".
	3 - recNumber = 0
	mode = REC_ACC_MODE_NEXT
	recOffset = 0
	data[0:3] = '00'
	dataOffset = 0
	dataLength = 4
	updateRecord()
	// write data with mode "current"
	4 - recNumber = 0
	data[0:3] = '22'
	mode = REC_ACC_MODE_ABSOLUTE_CURRENT
	updateRecord()
	// read result with mode "absolute"
	respOffset = 0
	respLength = 4
	recNumber = 1
	mode = REC_ACC_MODE_ABSOLUTE_CURRENT
	readRecord()
		1 - No exception shall be thrown.
		2 - No exception shall be thrown.
		3 - No exception shall be thrown.
		4 - No exception shall be thrown.
		resp shall be:
		resp[0] = '22'
		resp[1] = '22'
		resp[2] = '22'
		resp[3] = '22'	

4	**Update Next from Linear Fixed EF, no record pointer set** 1 - fid = FID_DF_SIMTEST select() 2 - fid = FID_EF_LARU select 3 - recNumber = 0 mode = REC_ACC_MODE_NEXT recOffset = 0 data[0:3] = '33' dataOffset = respOffset = 0 dataLength = respLength = 4 updateRecord() mode = REC_ACC_MODE_ABSOLUTE_CURRENT readRecord()	1 - No exception shall be thrown. 2- No exception shall be thrown. 3 - No exception shall be thrown. Resp shall be: Resp[0] = '33' Resp[1] = '33' Resp[2] = '33' Resp[3] = '33'	

Id	Description	API Expectation	APDU Expectation
5	**Update Next from Linear Fixed EF, record pointer set** 1 - recNumber = 0 mode = REC_ACC_MODE_NEXT recOffset = 0 data[0:3] = '44' dataOffset = 0 dataLength = 4 updateRecord() 2 - mode = REC_ACC_MODE_ABSOLUTE_CURRENT readRecord()	1 - No exception shall be thrown. 2 - No exception shall be thrown. resp shall be: resp[0] = '44' resp[1] = '44' resp[2] = '44' resp[3] = '44'	
6	**Update Next from Linear Fixed EF, no more records** recNumber = 0 mode = REC_ACC_MODE_NEXT recOffset = 0 data[0:3] = '55' dataOffset = 0 dataLength = 4 updateRecord()	Shall throw sim.access.SIMViewException with reason code RECORD_NUMBER_NOT_AVAILABLE.	
7	**Update Previous from Linear Fixed EF, no record pointer set** 1 - fid = DFSIMTEST select() 2 - fid = EFLARU select() 3 - recNumber = 0 mode = REC_ACC_MODE_PREVIOUS recOffset = 0 data[0:3] = '66' dataOffset = respOffset = 0 dataLength = respLength = 4 updateRecord() 4 - mode = REC_ACC_MODE_ABSOLUTE_CURRENT readRecord()	1 - No exception shall be thrown. 2 - No exception shall be thrown. 3 - No exception shall be thrown. 4 - No exception shall be thrown. resp shall be: resp[0] = '66' resp[1] = '66' resp[2] = '66' resp[3] = '66'	
8	**Update Previous from Linear Fixed EF, record pointer set** 1 - recNumber = 0 mode = REC_ACC_MODE_PREVIOUS recOffset = 0 data[0:3] = '77' dataOffset = respOffset = 0 dataLength = respLength = 4 updateRecord() readRecord() 2 - mode = REC_ACC_MODE_ABSOLUTE_CURRENT	1 - No exception shall be thrown 2 - No exception shall be thrown. Resp shall be: Resp[0] = '7744' Resp[1] = '7744' Resp[2] = '7744' Resp[3] = '7744'	
9	**Update Previous from Linear Fixed EF , no more records** recNumber = 0 mode = REC_ACC_MODE_PREVIOUS recOffset = 0 data[0:3] = '88' dataOffset = respOffset = 0 dataLength = respLength = 4 updateRecord()	Shall throw sim.access.SIMViewException with reason code RECORD_NUMBER_NOT_AVAILABLE.	
10	**Update Previous from Cyclic EF** 1 - fid = FID_DF_SIMTEST select() 2 - fid = FID_EF_CARU select() 3 - recNumber = 2 mode = REC_ACC_MODE_ABSOLUTE_CURRENT recOffset = 0 respOffset = 0 respLength = 3 readRecord() 4 - recNumber = 2 mode = REC_ACC_MODE_PREVIOUS data[0:2] = resp[0:2] ^ 'FF' dataOffset = 0 dataLength = 3 updateRecord() 5 - recNumber = 0 mode = REC_ACC_MODE_ABSOLUTE_CURRENT respOffset = 0	1 - No exception shall be thrown. 2 - No exception shall be thrown. 3 - No exception shall be thrown. 4 - No exception shall be thrown. 5 - No exception shall be thrown. resp shall be: resp[0] = data[0] resp[1] = data[1] resp[2] = data[2]	

Id	Description	API Expectation	APDU Expectation
	respLength = 3 readRecord()		
11	**Update Absolute from Linear Fixed EF beyond Records** 1 - fid = EFLARU select() 2 -recNumber = -1 mode = REC_ACC_MODE_ABSOLUTE_CURRENT recOffset = 0 dataOffset = 0 dataLength = 4 updateRecord() 2 - recNumber = 3 updateRecord()	1 - No exception shall be thrown. 2 - Shall throw sim.access.SIMViewException with reason code RECORD_NUMBER_NOT_AVAILABLE. 3 - Shall throw sim.access.SIMViewException with reason code RECORD_NUMBER_NOT_AVAILABLE.	

12	**No current record in linear fixed EF, update current**
	1 - fid = EFLARU
	select() // No curr rec
	2 - recNumber = 0 // curr rec
	mode = REC_ACC_MODE_ABSOLUTE_CURRENT
	recOffset = 0
	dataOffset = 0
	dataLength = 4
	updateRecord()
		1 - No exception shall be thrown.
		2 - Shall throw sim.access.SIMViewException with reason code RECORD_NUMBER_NOT_AVAILABLE.	

13	**recOffset < 0**
	1 - fid = EFLARU
	select()
	2 - recNumber = 1 // rec 1
	mode = REC_ACC_MODE_ABSOLUTE_CURRENT
	recOffset = -1
	dataOffset = 0
	dataLength = 4
	updateRecord()
		1 - No exception shall be thrown.
		2 - Shall throw sim.access.SIMViewException with reason code OUT_OF_RECORD_BOUNDARIES.	

14	**recOffset + dataLength > Record Length** 1 - fid = EFLARU select() 2 - recNumber = 1 mode = REC_ACC_MODE_ABSOLUTE_CURRENT recOffset = 2 dataOffset = 0 dataLength = 4 updateRecord()	1 - No exception shall be thrown. 2 - Shall throw sim.access.SIMViewException with reason code OUT_OF_RECORD_BOUNDARIES.	
15	**Updating with invalid mode** 1 - fid = EFLARU select() 2 - recNumber = 0 mode = 1 recOffset = 0 dataOffset = 0 dataLength = 4 updateRecord() 3 - mode = 5 updateRecord()	1 - No exception shall be thrown. 2 - Shall throw sim.access.SIMViewException with reason code INVALID_MODE. 3 - Shall throw sim.access.SIMViewException with reason code INVALID_MODE.	
16	**Updating Cyclic EF with invalid mode** 1 - fid = DFSIMTEST select() 2 - fid = EFCARU select() 3 - recNumber = 0 mode = REC_ACC_MODE_NEXT recOffset = 0 data[0:2] = '00' dataOffset = 0 dataLength = 3 updateRecord() 4 - recNumber = 0 mode = REC_ACC_MODE_ABSOLUTE_CURRENT updateRecord() 5 - recNumber = 2 mode = REC_ACC_MODE_ABSOLUTE_CURRENT updateRecord()	1 - No exception shall be thrown. 2 - No exception shall be thrown. 3 - Shall throw sim.access.SIMViewException with reason code INVALID_MODE. 4 - Shall throw sim.access.SIMViewException with reason code INVALID_MODE. 5 - Shall throw sim.access.SIMViewException with reason code INVALID_MODE.	
17	**data is null** byte[] nullBuffer = null dataOffset = 0 dataLength = 10	Shall throw java.lang.NullPointerException.	

Id	Description	API Expectation	APDU Expectation
	updateRecord()		
18	**dataOffset < 0** dataOffset = -1 dataLength = 10 updateRecord()	Shall throw java.lang. ArrayIndexOutOfBoundsException.	
19	**dataLength < 0** dataOffset = 0 dataLength = -1 updateRecord()	Shall throw java.lang. ArrayIndexOutOfBoundsException.	
20	**dataOffset + dataLength > data.length** dataOffset = 10 dataLength = 11 updateRecord()	Shall throw java.lang. ArrayIndexOutOfBoundsException.	
21	**EF is neither Cyclic nor Linear Fixed** 1 - fid = DFSIMTEST select() 2 - fid = EFTNR select() 3 - dataOffset = 0 dataLength = 4 updateRecord()	1 - No exception shall be thrown. 2 - No exception shall be thrown. 3 - Shall throw sim.access.SIMViewException with reason code FILE_INCONSISTENT.	
22	**Access condition not fulfilled** 1 - fid = EFCNU select() 2 - recOffset = 0 dataOffset = 0 dataLength = 1 mode = REC_ACC_MODE_PREVIOUS updateRecord() 3 - fid = EFLNU select() 4 - recNumber = 1 mode = REC_ACC_MODE_ABSOLUTE_CURRENT recOffset = 0 dataOffset = 0 dataLength = 1 updateRecord()	1 - No exception shall be thrown. 2 - Shall throw sim.access.SIMViewException with reason code AC_NOT_FULFILLED. 3 - No exception shall be thrown. 4 - Shall throw sim.access.SIMViewException with reason code AC_NOT_FULFILLED.	
23	**EF is invalidated** 1 - fid = EFCNR mode = REC_ACC_MODE_PREVIOUS invalidate() 2 - updateRecord() 3 - rehabilitate()	1 - No exception shall be thrown. 2 - Shall throw sim.access.SIMViewException with reason code INVALIDATION_STATUS_CONTRADICTION. 3 - No exception shall be thrown.	

3GPP TSG-T3 #33
Sophia Antipolis, France
16-19 November 2004

T3-040878

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **008** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Correction to dstBuffer length and dstLength in ProactiveResponseHandler copyChannelData() method tests.
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	11/10/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	In ProactiveResponseHandler part, copyChannelData() method, test 5, dstBuffer length is not large enough. The test is done with dstLength parameter larger than dstBuffer length AND than the value field of the available TLV. Then both ArrayIndexOutOfBoundsException and ToolkitException.OUT_OF_TLV_BOUNDARIES can be thrown.
Summary of change:	⌘	Increase dstBuffer length from 6 to 8 bytes. Decrease dstLength from 10 to 7. In test case 4, change dstLength to be compliant with conformance requirement P3. In test case 5, dstLength and dstBuffer are modified to have dstLength smaller than dstBuffer and larger than the value field of the available TLV. In test case 6, decrease dstLength from 10 to 6, to be smaller than dstBuffer length.
Consequences if not approved:	⌘	Inconsistency between 43.019 specification and 51.013 specification.

Clauses affected:	⌘	§6.2.8.22.3, Annex E source code (API_2_PRH_CCHD_BSS java, ldr and clr files)

		Y	N			
Other specs affected:	⌘	[ ]	[ ]	Other core specifications	⌘	
		[ ]	[ ]	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.

6.2.8.22 Method copyChannelData

Test Area Reference: API_2_PRH_CCHD_BSS

6.2.8.22.3 Test Procedure

Id	Description	API Expectation	APDU Expectation
0	1- Applet1 is installed with maximum number of channel = 01. 2- Applet1 builds proactive commands OPEN CHANNEL with init() method in order to open one channel. ProactiveHandler.send() method is called.		2- OPEN CHANNEL proactive command is fetched TERMINAL RESPONSE is issued with Channel Id = 01
1	**CopyChannelData() with NULL dstBuffer** Build and send a RECEIVE DATA command Call ProactiveResponseHandler.copyChannelData dstBuffer = NULL ~~DstOffset~~ dstOffset = 0 ~~DstLength~~ dstLength = 1	NullPointerException is thrown	RECEIVE DATA Proactive command is fetched. TERMINAL RESPONSE with not empty Channel Data TLV is issued.
2	**CopyChannelData() with negative dstOffset** 1- call init() method for the RECEIVE DATA proactive command. 2- call ProactiveResponseHandler.copyChannelData() ~~DstBuffer~~dstBuffer.length = ~~6~~8 ~~DstOffset~~ dstOffset = -1 ~~DstLength~~ dstLength = 1 3- check dstBuffer is empty.	2- an ArrayIndexOutOfBoundsException exception is thrown. 3- no copy is performed.	1- RECEIVE DATA proactive command is fetched. TERMINAL RESPONSE with 6 bytes avalaible (‘Hello1’)
3	**CopyChannelData() with negative dstLength** 1- call ProactiveResponseHandler.copyChannelData() ~~DstBuffer~~dstBuffer.length = ~~6~~8 ~~DstOffset~~ dstOffset = 0 ~~DstLength~~ dstLength = -1 2- check dstBuffer is empty.	1- an ArrayIndexOutOfBoundsException exception is thrown. 2- no copy is performed.	
4	**CopyChannelData() with dstOffset+dstLength greater than dstBuffer.length** 1- call ProactiveResponseHandler.copyChannelData() with dstOffset+dstLength greater than dstBuffer.length. ~~DstBuffer~~dstBuffer.length = ~~6~~8 ~~DstOffset~~ dstOffset = 5 ~~DstLength~~ dstLength = ~~2~~5 2- check dstBuffer is empty.	1- an ArrayIndexOutOfBoundsException exception is thrown. 2- no copy is performed.	
5	**CopyChannelData() with dstLength too large** Call ProactiveResponseHandler.copyChannelData() with dstLength greater than the value field of the available TLV. ~~DstBuffer~~dstBuffer.length = ~~6~~8 ~~DstOffset~~ dstOffset = 0 ~~DstLength~~ dstLength = ~~10~~7	a OUT_OF_TLV_BOUNDARIES ToolkitException is thrown.	
6	**CopyChannelData() without Channel Data TLV element** 1- call init() method for the RECEIVE DATA proactive command. Call send() method. 2- call ProactiveResponseHandler.copyChannelData() ~~DstBuffer~~dstBuffer.length = ~~10~~8 ~~DstOffset~~ dstOffset = 0	2- an UNAVAILABLE_ELEMENT ToolkitException is thrown.	1- RECEIVE DATA proactive command is fetched TERMINAL RESPONSE without ChannelData TLV element.

	~~DstLength~~ dstLength = ~~10~~6		

7	**Successful copyChannelData()** Call init() method for the RECEIVE DATA proactive command. Call send() method. 2- Call findTLV() with TAG of DEVICE IDENTITY. 3- Call ProactiveResponseHandler.copyChannelData() ~~DstBuffer~~dstBuffer.length = ~~6~~8 ~~DstOffset~~ dstOffset = 0 ~~DstLength~~ dstLength = 6 ~~DstBuffer~~ dstBuffer is the whole Buffer.	3- the Channel Data TLV is copied into dstBuffer. The applet checks the returned value is dstOffset + dstLength = 6.	1- RECEIVE DATA proactive command is fetched TERMINAL RESPONSE with one Channel data TLV element. (6 bytes available = 'Hello2')
8	**Compare copied Buffer** Check dstBuffer.	The applet checks that dstBuffer contains the channel data from the TERMINAL RESPONSE.	
9	**Check the Channel Data TLV is selected** Call the ViewHandler.getValueByte(0) method	The returned byte is the same than the first byte of the Channel data TLV (i.e. 'H')	
10	**Successful copyChannelData()** Call ProactiveResponseHandler.copyChannelData() ~~DstBuffer~~dstBuffer.length = ~~6~~8 ~~DstOffset~~ dstOffset = 2 ~~DstLength~~ dstLength = 3 DstBuffer is a part of Buffer.	The Channel Data TLV is copied into dstBuffer. The applet checks the returned value is dstOffset + dstLength = 5.	
11	**Compare copied Buffer** Check dstBuffer.	The applet checks that bytes from 2 to 4 of dstBuffer contain the first 3 bytes of channel data TLV from the TERMINAL RESPONSE.	
12	**Successful copyChannelData()** 1- Initialise dstBuffer to [00, 01…] 2- Call ProactiveResponseHandler.copyChannelData() ~~DstBuffer~~dstBuffer.length = ~~6~~8 ~~DstOffset~~ dstOffset = 2 ~~DstLength~~ dstLength = 3 DstBuffer is a part of buffer.	2- The Channel Data TLV is copied into dstBuffer. The returned value is dstOffset + dstLength = 5.	
13	**Compare copied Buffer** Check dstBuffer.	The applet checks that only bytes from 2 to 4 of dstBuffer have been updated with the first 3 bytes of channel data TLV from the TERMINAL RESPONSE.	
14	**Successful copyChannelData(), with 2 TLV** 1- call init() method for the RECEIVE DATA proactive command. Call send() method. 2- call ProactiveResponseHandler.copyChannelData() with dstLength lower than the value field of the available TLV. ~~DstBuffer~~dstBuffer.length = ~~6~~8 ~~DstOffset~~ dstOffset = 0 ~~DstLength~~ dstLength = 6	2- the first Channel Data TLV is copied into dstBuffer. The returned value is dstOffset+dstLength =0x06	1- RECEIVE DATA proactive command is fetched TERMINAL RESPONSE with two Channel data TLV element 1st TLV : 6 bytes available = 'Hello3' 2nd TLV : 6 bytes available = 'Hello4'
15	**Compare copied Buffer**	Check that dstBuffer contains the	

	Check dstBuffer.	first Channel Data TLV from the TERMINAL RESPONSE.	

3GPP TSG-T3 #33
Sophia Antipolis, France
16-19 November 2004

T3-040877

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **007** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Correction to ProactiveHandler appendTLV(byte tag, byte[] value, short valueOffset, short valueLength) method test
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	11/10/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	Test case 7 is incorrect and not in accordance with test script.
Summary of change:	⌘	Update test case 7 valueLength and value.length parameters, according to java source file.
Consequences if not approved:	⌘	Inconsistency between test specification and test script.
Clauses affected:	⌘	§6.2.7.21.3 appendTLV method, test procedure case 7

		Y	N			
Other specs affected:	⌘			Other core specifications	⌘	
				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.

6.2.7.21 Method appendTLV(byte tag, byte[ ] value, short valueoffset, short valuelength)

6.2.7.21.3 Test procedure

Id	Description	API Expectation	APDU Expectation
1	**Null value**	NullPointerException is thrown	

2	**valueOffset > value.length**
	`value.length = 5`
	`valueOffset = 6`
	`valueLength = 0`
		ArrayIndexOutOfBoundsException is thrown	

3	**valueOffset < 0**
	`value.length = 5`
	`valueOffset = -1`
	`valueLength = 1`
		ArrayIndexOutOfBoundsException is thrown	

4	**valueLength > value.length**
	`value.length = 5`
	`valueOffset = 0`
	`valueLength = 6`
		ArrayIndexOutOfBoundsException is thrown	

5	**valueOffset + valueLength > value.length**
	`value.length = 5`
	`valueOffset = 3`
	`valueLength = 3`
		ArrayIndexOutOfBoundsException is thrown	

6	**valueLength < 0**
	`value.length = 5`
	`valueOffset = 0`
	`valueLength = -1`
		ArrayIndexOutOfBoundsException is thrown	

7	**Handler overflow**
	`value.length = 2564`
	`valueOffset = 0`
	`valueLength = 2514`
		ToolkitException.HANDLER_OVERFLOW is thrown	

8	**Bad parameter**
	`value.length = 256`
	`valueOffset = 0`
	`valueLength = 256`
		ToolkitException.BAD_INPUT_PARAMETER is thrown	

9	**Initialise handler**		
	Select Command Details TLV		

	Successful call
	`tag = 04`
	`value = FF FE … F8`
	`valueOffset = 0`
	`valueLength = 8`		

	Verify Current TLV: Call `getValueLength()`	Result is 03h	
10	**Clear the handler**		

	Successful call
	`tag = 04`
	`value = FF FE … F8`
	`valueOffset = 0`
	`valueLength = 8`		

	Call copy() method		
	Compare the arrays `compareBuffer = 04 08 FF FE … F8`	Result of javacard.framework.Util.arrayCompare() is 00h	

11	**Successful call**
	`tag = 85h`
	`value = 00 01 … 07`
	`valueOffset = 2`
	`valueLength = 6`		

	Call copy() method		
	Compare the arrays `compareBuffer = 04 08 FF FE … F8 85 06 02 03 … 07`	Result of javacard.framework.Util.arrayCompare() is 00h	

12	**Successful call**
	`tag = 01`
	`value = 11 22 … 88`
	`valueOffset = 2`
	`valueLength = 4`		

	Call copy() method		
	Compare the arrays `compareBuffer = 04 08 FF FE … F8 85 06 02`	Result of javacard.framework.Util.arrayCom	

Id	Description	API Expectation	APDU Expectation
	03 … 07 01 04 33 44 55 66	pare() is 00h	
13	**Clear the handler**		
	Successful call tag = 04 value = 00 01 … 7F valueOffset = 0 valueLength = 80h		
	Call copy() method		
	Compare the arrays compareBuffer = 04 81 80 00 01…7F	Result of javacard.framework.Util.arrayCompare() is 00h	
14	Clear the handler **Successful call** tag = 04 value = 00 01 … F9 valueOffset = 0 valueLength = 250 Call getLength() method **Call copy() method** **Compare handler** compareBuffer = 04 81 FA 00 01…F9	result = 253 Result of javacard.framework.Util.arrayCompare() is 00h	

3GPP TSG-T3 #33
Sophia Antipolis, France
16-19 November 2004

T3-040876

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **006** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	ProactiveHandler appendTLV(byte tag, byte value1, byte value2) method conformance requirement.
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	11/10/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	appendTLV(byte tag, byte value1, byte value2) method is defined as AppendTLV(byte tag, byte value) method
Summary of change:	⌘	In conformance requirement of appendTLV(byte tag, byte value1, byte value2) method, replace appendTLV(byte, byte) declaration with appendTLV(byte, byte, byte).
Consequences if not approved:	⌘	Inconsistency between TS 43.019 specification and TS 51.013 specification.

Clauses affected:	⌘	§6.2.7.20 appendTLV() method conformance requirement

Other specs affected: ⌘	Y	N		⌘
			Other core specifications	
			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.

6.2.7.20 Method appendTLV(byte tag, byte value1, byte value2)

Test Area Reference: API_2_PAH_APTLBBB

6.2.7.20.1 Conformance requirements:

The method with following header shall be compliant to its definition in the API.

```
public void appendTLV(byte tag,
                      byte value1,
                      byte value2)
               throws ToolkitExceptionvoid appendTLV    (byte tag,
                  byte value)
      throws ToolkitException
```

3GPP TSG-T3 Meeting #33
Sophia Antipolis, France, 16-19 Nov. 2004

Tdoc ⌘ T3-040870
revised from T3-040649

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **005** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Correction of release references.
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	19/11/2004
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	Many 3GPP TS document references are not set in the correct release.
Summary of change:	⌘	Change release numbers to correct values for 3GPP TS 51.011, 3GPP TS 11.14, 3GPP TS 11.17, 3GPP TS 43.019, 3GPP TS 23.048, 3GPP TS 51.010-1 documents.
Consequences if not approved:	⌘	Release of many TS references is erroneous.
Clauses affected:	⌘	§2 References.

	Y	N		
Other specs Affected: ⌘			Other core specifications	⌘
			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.

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] Void.

[2] Void.

[3] 3GPP TS 51.011: "Specification of the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface (Release 4)".

[4] 3GPP TS 11.14: "Specification of the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface (Release 99)".

[5] 3GPP TS 11.17: "Digital cellular telecommunications system (Phase 2+); Subscriber Identity Module (SIM) test specification (Release 99)".

[6] Void.

[7] 3GPP TS 43.019: "Subscriber Identity Module Application Programming Interface (SIM API) for Java Card™; Stage 2 ~~(Release 5)~~".

[8] 3GPP TS 23.048: "Security Mechanisms for the (U)SIM application toolkit; Stage 2 ~~(Release 5)~~".

[9] ISO/IEC 7816-3 (1997): "Information technology - Identification cards - Integrated circuit(s) cards with contacts - Part 3: Electronic signals and transmission protocols".

[10] 3GPP TS 42.019: "Subscriber Identity Module Application Programming Interface (SIM API); Stage 1".

[11] SUN Java Card Specification "Java Card 2.1 API Specification".

[12] SUN Java Card Specification "Java Card 2.1 Runtime Environment Specification".

[13] SUN Java Card Specification "Java Card 2.1 VM Architecture Specification".

NOTE: SUN Java Card Specifications can be downloaded at http://java.sun.com/products/javacard.

[14] ETSI TS 101 220: "Smart Cards; ETSI numbering system for telecommunication application providers".

[15] 3GPP TS 5~~1~~1.010-1: "Mobile Station (MS) conformance specification; Part 1: Conformance specification".

3GPP TSG-T3 #33
Sophia Antipolis, France
16-19 November 2004

T3-040886

CR-Form-v7.1

CHANGE REQUEST

⌘ **51.013** **CR** **016** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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⌘ [X] ME [ ] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Cross references insertion.
Source:	⌘	T3
Work item code:	⌘	TEI
Date:	⌘	11/10/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	Cross references are missing in the specification.
Summary of change:	⌘	Insert cross references in coverage tables.
Consequences if not approved:	⌘	References to tests are missing.

Clauses affected:	⌘	§6.2.4.5, §6.2.5.1, §6.2.5.2, §6.2.7.1, §6.2.7.6, §6.2.8.8, §6.2.9.2

Other specs affected:	⌘	Y	N		⌘	
		[ ]	[ ]	Other core specifications		
		[ ]	[ ]	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.

6.2.4.5 Method getTheHandler

Test Area Reference: API_2_ENH_GTHD

6.2.4.5.4 Test Coverage

CRR number	Test case number
N1	1, 2, 3
N2	~~To be~~C ~~c~~hecked in Framework tests: FWK_API_HEPO (test case 1) ~~and insert here cross reference~~
C1	~~To be c~~Checked in Framework tests: FWK_MHA_ENHD ~~and insert here cross reference~~

6.2.5.1 Method getTheHandler

Test Area Reference: API_2_ERH_GTHD

6.2.5.1.4 Test Coverage

CRR number	Test case number
N1	1, 2, 3
N2	~~To be c~~Checked in Framework tests: FWK_API_HEPO (test case 2) ~~and insert here cross reference~~
C1	~~To be c~~Checked in Framework tests: FWK_MHA_ERHD ~~and insert here cross reference~~
C2	4

6.2.5.2 Method post

Test Area Reference: API_2_ERH_POSTB

6.2.5.2.1 Conformance requirement

The method with following header shall be compliant to its definition in the API.

```
public void post(byte statusType)
          throws ToolkitException
```

6.2.5.2.1.1 Normal execution

- CRRN1: When the method is called, the toolkit applet can continue it's processing (e.g. prepare a proactive command).
- CRRN2: The byte statusType is SW1 of the status.
- CRRN3: If the send method is called after a post method, the posted data are the first sent to the ME.
- CRRN4: The SIM Toolkit Framework shall take the optional Application Data posted by the triggered toolkit applet if present, secure and send the response packet. T~~t~~he SIM Toolkit Framework will return the response APDU defined by the toolkit applet.

6.2.5.2.4 Test Coverage

CRR number	Test case number
N1	3, 4, 7
N2	1, 2, 4, 7
N3	4, 5
N4	~~To be c~~Checked in Framework tests: FWK_FWS_OUDA ~~and insert here cross reference~~
C1	6

6.2.7.1 Method getTheHandler

Test Area Reference: API_2_PAH_GTHD

6.2.7.1.4 Test Coverage

CRR number	Test case number
N1	1, 2, 3
N2	~~To be c~~Checked in Framework tests: FWK_API_HEPO (test case 3) ~~and insert here cross reference~~
C1	~~To be c~~Checked in Framework tests: FWK_MHA_PAHD ~~and insert here cross reference~~

6.2.7.6 Method send

Test Area Reference: API_2_PAH_SEND

6.2.7.6.4 Test Coverage

CRR number	Test case number
N1	1, 3, 5, 7, 9, 10, 11, 12, 13, 14
N2	2, 4, 6, 8, 14
N3	12
N4	13
N5	~~To be c~~Checked in Framework tests: FWK_API_TRAN ~~and insert here cross reference~~
C1	15
C2	16
C3	checked in the Framework test : FWK_PCS_PCCO (test case 1)
C4	checked in the Framework test : FWK_PCS_PCCO (test cases 2 to 3)

6.2.8.8 Method getTheHandler

Test Area Reference: API_2_PRH_GTHD

6.2.8.8.4 Test Coverage

CRR number	Test case number
N1	1, 2, 3
N2	~~To be c~~Checked in Framework tests: : FWK_API_HEPO (test case 4) ~~and insert here cross reference~~
C1	~~To be c~~Checked in Framework tests: FWK_MHA_PRHD ~~and insert here cross reference~~

6.2.9.2 Method changeMenuEntry

Test Area Reference: API_2_TKR_CMETB_BSSBZBS

6.2.9.2.4 Test Coverage

CRR number	Test case number
N1	1, 2, 3, 4, 6, 8, 9, 20
N2	9
N3	1, 2, 3, 4, 6, 8, 9, 20
N4	6
N5	7,5
N6	6
N7	1, 2, 3, 4, 8, 9, 20
N8	~~To be c~~Checked in framework tests: FWK_APT_EMSH ~~and insert cross reference here~~
N9	8, 9
N10	8
N11	4
P1	10
P2	11, 12, 13
P3	14, 15
P4	16
C1	17, 18
C2	19