
Source: SA1
Title: CR 22.038 on Extention of the USAT bearers (Rel-7)
Document for: Approval
Agenda Item: 7.1.3

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-26	SP-040734	22.038	025	-	Rel-7	B	Extention of the USAT bearers	7.1.0	7.2.0	S1-040985

CHANGE REQUEST

22.038 CR 025 # rev - # Current version: 7.1.0

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 ME Radio Access Network Core Network

Title:	# Extention of the USAT bearers		
Source:	# SA1 (Axalto)		
Work item code:	# WLAN	Date:	# 21/09/2004
Category:	# B	Release:	# Rel-7
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	Ph2 (GSM Phase 2)	
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)	
	B (addition of feature),	R97 (Release 1997)	
	C (functional modification of feature)	R98 (Release 1998)	
	D (editorial modification)	R99 (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-4 (Release 4)	
		Rel-5 (Release 5)	
		Rel-6 (Release 6)	
		Rel-7 (Release 7)	

Reason for change:	# The USAT takes advantage of the data channels available on the ME to exchange data with external entities. With the WLAN being available on certain terminals, this new data channel should be added to the USAT capabilities.
Summary of change:	# WLAN is added as a bearer for data exchange
Consequences if not approved:	#

Clauses affected:	# 6.2 – 6.3 – 9.1										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">Y</td> <td style="padding: 2px 5px;">N</td> </tr> <tr> <td style="padding: 2px 5px;">X</td> <td style="padding: 2px 5px;"></td> </tr> <tr> <td style="padding: 2px 5px;"></td> <td style="padding: 2px 5px;">X</td> </tr> <tr> <td style="padding: 2px 5px;"></td> <td style="padding: 2px 5px;">X</td> </tr> </table>	Y	N	X			X		X	Other core specifications	# 31.111
	Y	N									
	X										
	X										
	X										
		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 USAT proactive capability

The USAT proactive capability is a mechanism whereby the UICC can request specific actions to be taken by the ME by issuing "proactive commands" thus establishing and maintaining an interactive dialogue with the user and/or communicating with the network or an external device.

The ME shall inform the UICC of the success or otherwise of each command issued to it by the UICC, and also indicate the command details and if applicable add more specific information.

The proactive command set allows the USAT to instruct the ME to:

- 1 display text supplied by the USAT on the ME's display, with an indication of priority (normal or high), and a defined action (user activity or timeout) to terminate the text display.
- 2 display a text string and obtain the response in the form of a single user keystroke or a string of keys entered by the user and pass the response to the UICC. If the response is designated as private by the UICC the ME shall not display the users response on the screen.
- 3 set up a voice call to an address with a specific priority as indicated by the UICC with all parameters indicated by the UICC.
- 4 set up a data call to an address with specific bearer capability and priority, all parameters are indicated by the UICC.
- 5 set up and manage a data channel (using CSD, GPRS, SMS, ~~or~~ USSD or WLAN) between the UICC and an address using information provided by the UICC.
- 6 send data through a previously set up data channel. The UICC informs the ME if the data is to be sent immediately.
- 7 retrieve data from the ME that has previously been received via a data channel set up using (5) above. The UICC informs the ME as to how much data it expects to retrieve.
- 8 send a short message to the network. The short message text is supplied by the UICC to the ME in either packed or unpacked SMS 7-bit alphabet, or UCS2 alphabet.
- 9 send a SS control, SS MMI string or USSD string, indicating which alphabet is used where applicable.
- 10 play a tone in the appropriate audio device.
- 11 negotiate, within reasonable tolerances, a periodic "polling" of the USIM Toolkit.
- 12 refresh the image (if applicable) of the USIM data contained in the ME memory, either entirely, or partially, or instruct the ME to re-initialize completely.
- 13 set up an event list in the ME such that the UICC is informed by the ME when a indicated event has occurred.
- 14 set up an additional menu in the ME, by issuing the ME with a menu list, and allow indication back to the UICC of the user selected menu item.
- 15 provide requested information from the ME to the UICC, for example the MCC, MNC and IMEI.
- 16 communicate bi-directionally with an auxiliary device, e.g. a second card reader.
- 17 set up, refresh and interrogate several timers, and inform the UICC when these expire, within reasonable tolerances.
- 18 display additional MMI information such as display information or tones with commands that employ network resources, with an indication to the ME as to the required level of ME generated MMI as a result of the interaction with the network.

- 19 allow the ME to display help information with the commands, by providing the associated text, related to the user action (e.g. menu selection).
- 20 Provide indication from the ME to the USAT when a key on the MMI has been pressed in a "menu" (response to prompt) or and event (independent action) methods, with key identification. This indication shall be done in a secure manner.
- 21 send a MM to the network, using a data channel as (5) above. The MM content is supplied by the ME or the UICC.
- 22 start an ME-based application that the USAT application knows about. For example USAT applications have the ability to launch a micro-browser if provided by the ME as already described in this document (see Interactions with MExE), or may ask the ME to initiate a data synchronisation process.

Note: addressing of ME applications and other relevant parameters if needed, shall be properly defined by the corresponding USAT specifications.

Unless otherwise stated the following shall apply:

- The format of text to be displayed is designated by the UICC and is either SMS default alphabet (packed or unpacked) or UCS2 alphabet.
- The format of the response from the ME is designated by the UICC and is either keypad digit (0-9, *, #, +), SMS default alphabet characters or UCS2 alphabet characters.

6.3 ME Capability for support of bearer independent protocol

The ME supporting bearer independent protocol shall provide to the USIM a common interface for any type of data bearer. This interface is in addition to dedicated commands (e.g. SMS, SS and USSD) for USAT application to exchange data with entities outside the UICC.

The communication is initiated by the UICC. The ME negotiates with the UICC and the addressed entity to establish the optimum channel considering the UICC request, the network and ME capabilities.

The ME is responsible for maintaining and restoring the link should there be a link error.

[...]

9 USAT data exchange capabilities requirements

9.1 Data exchange capabilities supported

USAT shall support the transmission (mobile originated) and the reception (mobile terminated) of data by means of one of the following data exchange capabilities, either using dedicated commands or managed by the ME (using the Bearer Independent Protocol) ;

Data exchange capability
SMS
CSD

GPRS
SS (MO only)
USSD (MO only)
Cell Broadcast (MT only)
SMS via GPRS
WLAN
Local Bearer (Bluetooth, IrDA, RS232, USB)