3GPP TSG-T (Terminals) Meeting #15 Jeju, Korea, 6 – 8 March 2002

Tdoc TP-020064

Source: T3

Title: Change Request to (U)SIM toolkit specifications (TS 11.14 / 31.111)

Document for: Approval

This document contains several change requests as follows:

T3 Doc	Spec	CR	Rel	Cat	Subject
T3-020110	11.14	A209	99	F	Correction of Channel Status Simple TLV Tag Value".
T3-020103	31.111	062	4	F	Usage of Simple TLV Tag Values
T3-020143	31.111	063	5	В	Extension of call control feature to GPRS
T3-020150	31.111	064	5	В	SAT Display Menues in Color and various text formats

3GPP T3 Meeting #22 Marbella, Spain, 22 - 25 Jan 2002

Tdoc T3-020110

supersedes T3-020106

CHANGE REQUEST				
¥	11.14 CR A209 # rev	# Current version: 8.9.0		
For <u>HELP</u> on usi	ing this form, see bottom of this page o	or look at the pop-up text over the % symbols.		
Proposed change at	fects: % (U)SIM X ME/UE X	Radio Access Network Core Network		
Title: 第(Correction of Channel Status Simple T	LV Tag Value		
Source: # 1	T3			
Work item code: ₩ 5	SAT	Date: 第 24.01.2002		
Category: #	F	Release: # R99		
[Use one of the following categories: F (correction) A (corresponds to a correction in an e B (Addition of feature), C (Functional modification of feature) D (Editorial modification) Detailed explanations of the above categorial of the count in 3GPP TR 21.900.	R97 (Release 1997) R98 (Release 1998) R99 (Release 1999)		
Reason for change:	# The reference to the tag value def correct.	inition of the Channel Status Simple TLV is not		
Summary of change	Corrected reference to the tag value Editorial changes to table in 13.3.	ue table in chapter 13.3.		
Consequences if not approved:	★ Incorrect usage of tag value for Ch	nannel Status TLV.		
Clauses affected:	# 12.56, 13.3			
Other specs Affected:	Other core specifications Test specifications O&M Specifications	*		
Other comments:	x			

12.56 Channel status

This subclause applies only if class "e" is supported.

Byte(s)	Description	Length
1	<u>Channel status</u> Data tag	1
2	Length (2)	1
3 to 4	Channel status	2

Contents:

The Channel status is a string of binary coded characters.

Coding of byte 3:

bit 1 to 3: Channel identifier: 1..7

Channel identifier 0 means "No channel available"

bit 4 to 7: RFU

bit 8: 0 = Link not established or PDP context not activated

1 = Link established or PDP context activated

Coding of byte 4:

- '00' = No further info can be given
- '01' = Not used
- '02' = Not used
- 03' = Not used
- '04' = Not used
- '05' = Link dropped

all other values are reserved for future use

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13.3 SIMPLE-TLV tags in both directions

8	7	6	5	4	3	2	1
CR			Ta	ag valı	ue		

CR: Comprehension required for this object.

Unless otherwise stated, for SIMPLE-TLV data objects it is the responsibility of the SIM application and the ME to decide the value of the CR flag for each data object in a given command.

Handling of the CR flag at the receiving entity is described in subclause 6.10.

CR	Value
Comprehension required	1
Comprehension not required	0

Description	Length of tag	Tag value, bits 1-7 (Range: '01' - '7E')	Tag (CR and Tag value)
Command details tag	1	'01'	'01' or '81'
Device identity tag	1	'02'	'02' or '82'
Result tag	1	'03'	'03' or '83'
Duration tag	1	'04'	'04' or '84'
Alpha identifier tag	1	'05'	'05' or '85'
Address tag	1	'06'	'06' or '86'
Capability configuration parameters tag	1	'07'	'07' or '87'
Subaddress tag	1	'08'	'08' or '88'
SS string tag	1	'09'	'09' or '89'
USSD string tag	1	'0A'	'0A' or '8A'
SMS TPDU tag	1	'0B'	'0B' or '8B'
Cell Broadcast page tag	1	'0C'	'0C' or '8C'
Text string tag	1 1	'0D'	'0D' or '8D'
Tone tag	1 1	'0E'	'0E' or '8E'
	1	'0F'	'0F' or '8F'
Item tag		'10'	'10' or '90'
Item identifier tag	1		
Response length tag	1	'11'	'11' or '91'
File List tag	1	'12'	'12' or '92'
Location Information tag	1	'13'	'13' or '93'
IMEI tag	1	'14'	'14' or '94'
Help request tag	1	'15'	'15' or '95'
Network Measurement Results tag	1	'16'	'16' or '96'
Default Text <u>tag</u>	1	'17'	'17' or '97'
Items Next Action Indicator tag	1	'18'	'18' only
Event list tag	1	'19'	'19' or '99'
Cause tag	1	'1A'	'1A' or '9A'
Location status tag	1	'1B'	'1B' or '9B'
Transaction identifier tag	1	'1C'	'1C' or '9C'
BCCH channel list tag	1	'1D'	'1D' or '9D'
Icon identifier tag	1	'1E'	'1E' or '9E'
Item Icon identifier list tag	1	'1F'	'1F' or '9F'
Card reader status tag class "a"	1	'20'	'20' or 'A0'
Card ATR tag class "a"	1	'21'	'21' or 'A1'
C-APDU tag class "a"	1	'22'	'22' or 'A2'
R-APDU tag class "a"	1	'23'	'23' or 'A3'
Timer identifier tag	1 1	'24'	'24' or 'A4'
Timer value tag	1 1	'25'	'25' or 'A5'
Date-Time and Time zone tag	1	'26'	'26' or 'A6'
Call control requested action tag	1	'27'	'27' or 'A7'
	1		
	1	'28' '29'	'28' or 'A8'
	1 4		'29' or 'A9'
BC Repeat Indicator tag	1	'2A'	'2A' or 'AA'
Immediate response tag	1	'2B'	'2B' or 'AB'
DTMF string tag	1	'2C'	'2C' or 'AC'
Language tag	1	'2D'	'2D' or 'AD'
Timing Advance tag	1	'2E'	'2E' or 'AE'
The '2F' tag is reserved for use in 3GPP TS 31.111		'2F'	
Browser Identity tag class "c"	1	'30'	'30' or 'B0'
URL tag class "c" or "e"	1	'31'	'31' or 'B1'
Bearer tag class "c"	1	'32'	'32' or 'B2'
Provisioning Reference File tag class "c"	1	'33'	'33' or 'B3'
Browser Termination Cause tag class "c"	1	'34'	'34' or 'B4'
Bearer description tag class "e"	1	'35'	'35' or 'B5'
Channel data tag class "e"	1	'36'	'36' or 'B6'
Channel data length tag class "e"	1	'37'	'37' or 'B7'
Channel status tag class "e"	1	'38'	'38' or 'B8'
Buffer size tag class "e"	1	'39'	'39' or 'B9'
IBUITEL SIZE 190 Class &			

Description	Length of tag	Tag value, bits 1-7 (Range: '01' - '7E')	Tag (CR and Tag value)
Card reader identifier tag class "a"	1	'3A'	'3A' or 'BA'
not used	1	'3B'	-
SIM/ME interface transport level tag class "e"	1	'3C'	'3C' or 'BC'
not used	1	'3D'	-
Other address (data destination address) tag class "e"	1	'3E'	'3E' or 'BE'
Network Access Name tag	1	'47'	'47' or 'C7'
Reserved for TIA/EIA-136	1	'60'	'60' or 'E0'
Reserved for TIA/EIA-136	1	'61'	'61' or 'E1'

3GPP T3 Meeting #22 Marbella, Spain, 22 - 25 Jan 2002

Tdoc T3-0200103

supersedes T3-020086

	CR-Form-v3 CHANGE REQUEST
*	31.111 CR 062
For <u>HELP</u> on t	using this form, see bottom of this page or look at the pop-up text over the X symbols.
Proposed change	affects: # (U)SIM ME/UE Radio Access Network Core Network
Title:	Usage of Simple TLV Tag Values
Source:	3 T3
Work item code: ₩	USAT1 Date: 第 23.01.2002
Category: भ	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: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1999) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)
Reason for chang	e: # The references to tag value definitions of some simple TLVs are not correct. The tag value for "Remote Entity Address" is missing.
Summary of chan	ge: Corrected references to tag value table in chapter 9.3. Addition of tag value for "Remote Entity Address" in chapter 9.3.
Consequences if not approved:	# Incorrect usage of tag values for some simple TLVs. "Remote Entity Address" TLV cannot be used due to unspecified tag value.
Clauses affected:	8.56 , 8.64, 8.65, 8.66, 8.68, 8.69, 9.3
Other specs Affected:	# Other core specifications # Test specifications O&M Specifications
Other comments:	x

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G Specs/CRs.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://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

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

8.56 Channel status

Byte(s)	Description	Length
1	Channel status Data tag	1
2	Length (2)	1
3 to 4	Channel status	2

- Contents:
 - the Channel status is a string of binary coded characters.
- Coding of byte 3:

- bit 1 to 3: Channel identifier: 1..7;

Channel identifier 0 means "No channel available".

- bit 4 to 7: RFU.

- bit 8: 0 = Link not established or PDP context not activated;

1 = Link established or PDP context not activated.

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8.64 Service Record

This service record can have different formats that are dependent on the technology they are associated with.

This object can be used in both directions (ME to UICC or UICC to ME), when a USAT application needs to declare a service that it supports (DECLARE SERVICE command) and when USAT application searches for a service (GET SERVICE INFORMATION).

Byte(s)	Description	Length
1	Service Record Item tag	1
2 to Y+1	Length (X+2)	Y
Y+2	Local Bearer technology identifier	1
Y+3	Service Identifier	1
Y+4 to	Service Record	X
Y+X+3		

Local Bearer Technology identifier:

- '00' = Technology independent: '00';
- '01' = Bluetooth;
- 02' = IrDA;
- 03' = RS232;
- '04' = USB;
- 05' to 'FF' = RFU.

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8.65 Device Filter

Byte(s)	Description	Length
1	<u>Device Filter</u> tag	1
2 to Y+1	Length (1+X1+X2++Xn)	Υ
Y+2	Local Bearer technology identifier	1
Y+3 to Y+2+X	Device Filter	X

Local Bearer Technology identifier: see clause 8.64.

Device filter:

If the Local Bearer Technology Identifier is different from '00', the device filter coding is technology dependent:

- Technology Independent: RFU;
- Bluetooth:

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8.66 Service Search

Byte(s)	Description	Length
1	Service Search Item tag	1
2 to Y+1	Length (X+1)	Y
Y+2	Local Bearer technology identifier	1
Y+3 to	Service Search	X
Y+X+1		

Local Bearer Technology identifier: see clause 8.64.

Service search:

If the Local Bearer Technology Identifier is different from '00', the Service search coding is technology dependent.

- Technology Independent: RFU;

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8.68 Service Availability

The Service Availability parameter contains a list of available services that the SERVICE SEARCH command returns. This object is formatted according to the local bearer technology identifier byte set in the SERVICE SEARCH command arguments.

Byte(s)	Description	Length
1	Service AvailabilityGeneral Information tag	1
2 to Y+1	Length='X1'+ 'X2' + 'X3' + 'Xn' (n maxi = 7)	Y
Y+2 to Y+X1+1	Service_1	X1
Y+X1+2 to	Service_2	X2
Y+X1+X2+1		
Y+X1++X(n-1)+2	Service_n	Xn
to Y+X1++Xn+1		

- Technology Independent: RFU;
- Bluetooth:

For Bluetooth, Service_i = BD_ADDR_i[6 bytes] + ServiceRecordHandle_i[4 bytes] + CoD_i[3 bytes] + Device_Name_i[20 bytes], those parameters being defined in [28]. Device Name parameter should be truncated to 20 bytes because of the T=0 protocol limitation (255 bytes) and because device name parameter length can be higher than 255 bytes.

Byte(s)	Description	Length
1	Service Availability General Information tag	1
2 to Y+1	Length='X1'+ 'X2' + 'X3' + 'Xn' (n maxi = 7)	Y
Y+2 to Y+X1+1	BD_ADDR + ServiceRecordHandle + CoD + Device_Name	X1
Y+X1+2 to	BD_ADDR + ServiceRecordHandle + CoD + Device_Name	X2
Y+X1+X2+1		
•••	···	
Y+X1++X(n-1)+2	BD_ADDR + ServiceRecordHandle + CoD + Device_Name	Xn
to Y+X1++Xn+1		

- IrDA: RFU;

- RS232: RFU;

- USB: RFU.

8.69 Remote Entity Address

Byte(s)	Description	Length
1	Remote Entity Address Item tag	1
2 to Y+1	Length (X+1)	Υ
Y+2	Coding Type	1
Y+3 to	Remote Entity address	X
Y+X+2		

Coding Type:

'00': IEEE-802 48-bit address;

01'to FF' are reserved values.

Remote Entity Address:

according to Coding Type.

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9.3 SIMPLE-TLV tags in both directions

Length of tag	Tag value, bits 1-7 (Range: '01' - '7E')	Tag (CR and Tag value)
1	'01'	'01' or '81'
1	'02'	'02' or '82'
1	'03'	'03' or '83'
1	'04'	'04' or '84'
1	'05'	'05' or '85'
1		'06' or '86'
1		'07' or '87'
1		'08' or '88'
		'09' or '89'
		'0A' or '8A'
		'0B' or '8B'
		'0C' or '8C'
		'0D' or '8D'
	_	'0E' or '8E'
		'0F' or '8F'
		'10' or '90'
		'11' or '91'
	:=	'12' or '92'
		'13' or '93'
		'14' or '94'
		'15' or '95'
1		'16' or '96'
1		'17' or '97'
1	'18'	'18' only
1	'19'	'19' or '99'
1	'1A'	'1A' or '9A'
1	'1B'	'1B' or '9B'
1	'1C'	'1C' or '9C'
1	'1D'	'1D' or '9D'
1	'1E'	'1E' or '9E'
1	'1F'	'1F' or '9F'
1	'20'	'20' or 'A0'
1		'21' or 'A1'
		'22' or 'A2'
		'23' or 'A3'
		'24' or 'A4'
		'25' or 'A5'
		'26' or 'A6'
		'27' or 'A7'
-		'28' or 'A8'
		'29' or 'A9'
		'2A' or 'AA'
		'2B' or 'AB'
		'2C' or 'AC'
		'2D' or 'AD'
		'2E' or 'AE'
		'2F' or 'AF'
		'30' or 'B0'
		'31' or 'B1'
		'32' or 'B2'
		'33' or 'B3'
-		'34' or 'B4'
1		'35' or 'B5'
1		'36' or 'B6'
1		'37' or 'B7'
1	'38'	'38' or 'B8'
1	'39'	'39' or 'B9'
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(Range: '01' - '7E') 1

Description	Length of tag	Tag value, bits 1-7 (Range: '01' - '7E')	Tag (CR and Tag value)
Card reader identifier tag	1	'3A'	'3A' or 'BA'
not used	-	'3B'	-
USIM/ME interface transport level tag	1	'3C'	'3C' or 'BC'
not used	-	'3D'	-
Other address (data destination address) tag	1	'3E'	'3E' or 'BE'
Access Technology tag	1	'3F'	'3F' or 'BF'
Display parameters tag	1	'40'	'40' or 'C0'
Service Record tag	1	'41'	'41' or 'C1'
Device Filter tag	1	'42'	'42' or 'C2'
Service Search tag	1	'43'	'43' or 'C3'
Attribute information tag	1	'44'	'44' or 'C4'
Service Availability tag	1	'45'	'45' or 'C5'
Reserved for ETSI SCP	1	'46'	
Network Access Name <u>tag</u>	1	'47'	'47' or 'C7'
Remote Entity Address tag	<u>1</u>	<u>'48'</u>	<u>'48' or 'C8'</u>
Reserved for TIA/EIA-136	1	'60'	'60' or 'E0'
Reserved for TIA/EIA-136	1	'61'	'61' or 'E1'

3GPP T3 Meeting #22 Marbella, Spain, 22– 24 January 2002

Tdoc T3-020143

							CR-Form-v3		
		CHAN	IGE REQ	UEST					
×	31.111	CR <mark>063</mark>	₩ rev	- #	Current vers	ion: 4.5.0	ж		
For <u>HELP</u> on t	using this fo	rm, see bottom	of this page or	look at the	e pop-up text	over the 兆 sy	mbols.		
Proposed change	affects: #	(U)SIM X	ME/UE X	Radio Ac	cess Network	Core N	etwork		
Title:	Extensio	n of Call Control	to GPRS						
Source:	T3								
Work item code: ₩	USAT1				Date: ♯	25 January 2	2002		
Category:	В				Release: ₩	REL-5			
	Use one of the following categories: F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) P (Editorial modification) D (Editorial modification) E (Release 1999) Detailed explanations of the above categories can BEL-4 (Release 4) E (Release 5)								
Reason for chang	e: 郑 Exter	nsion of the Call	Control comm	and with p	acket data pa	arameters			
Summary of chan	<i>ge:</i>	ition of a new pr	ocedure and o	f a new TL	_V data objec	t			
Consequences if not approved:	*								
Clauses affected:	₩ 4.5,	7.3.1.x (new), 7	.3.1.3, 7.3.1.6,	8.x (new)	, 9.3				
Other specs Affected:	ж <mark>х</mark> с	Other core specification Other core specification Other core specification	ications						
Other comments:	₩ See	CR 31.102 / 10	6.						

4.5 Call control by USIM

When this service is activated by the USIM, all dialled digit strings, supplementary service control strings and USSD strings or PDP context parameters are first passed to a USIM application before the ME sets up the call, the supplementary service operation or the USSD operation or establishes the PDP context. The ME shall also pass to the USIM application at the same time its current serving cell. The USIM application has the ability to allow, bar or modify the call, the supplementary service operation or PDP context activation.by another context activation. The USIM application also has the ability to replace a call request, a supplementary service operation or a USSD operation by another call request or supplementary service operation or USSD operation. For example, a call request can be replaced by a supplementary service operation or a USSD operation, and vice-versa.

5.2 Structure and coding of TERMINAL PROFILE

Direction: ME to UICC.

The command header is specified in TS 31.101 [13].

Command parameters/data:

Description	Subclause	M/O/C	Length
Profile	-	M	lgth

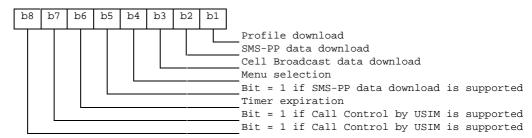
Profile:

Contents: The list of USAT facilities that are supported by the ME.

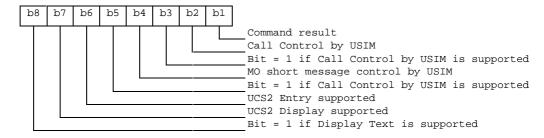
Coding:

1 bit is used to code each facility: bit = 1: facility supported by ME bit = 0: facility not supported by ME

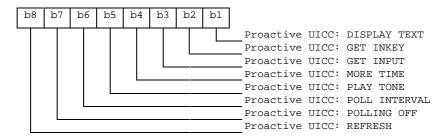
First byte (Download):



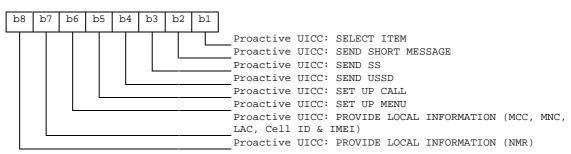
Second byte (Other):



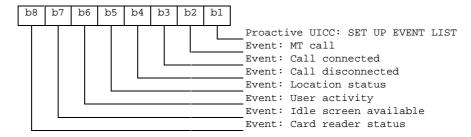
Third byte (Proactive UICC):



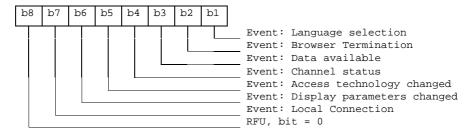
Fourth byte (Proactive UICC):



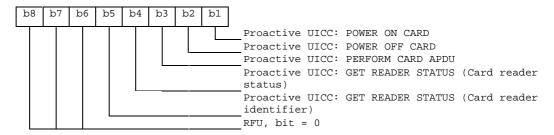
Fifth byte (Event driven information):



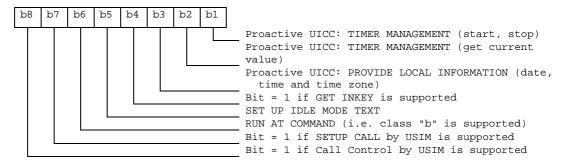
Sixth byte (Event driven information extensions):



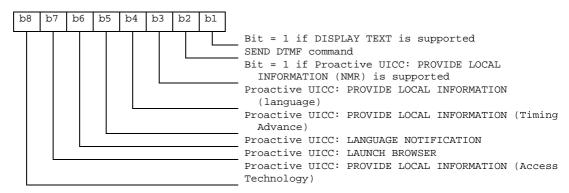
Seventh byte (Multiple card proactive commands) for class "a"



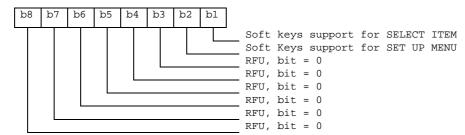
Eighth byte (Proactive UICC):



Ninth byte:



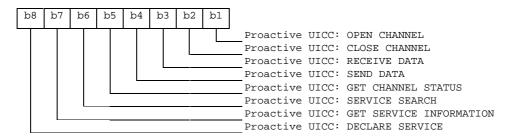
Tenth byte (Soft keys support) for class "d":



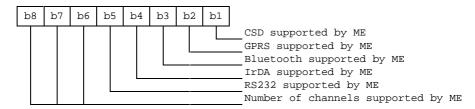
Eleventh byte: (Soft keys information)

b8	b7	ŀ	96	b5	k	54	b3	k	2	b	1						
															_	s availa future	

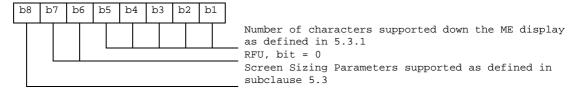
Twelfth byte:



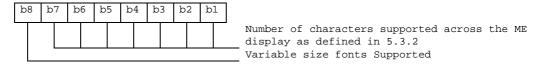
Thirteenth byte:



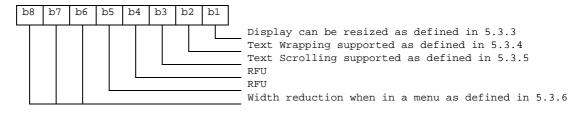
Fourteenth byte: (Screen height)



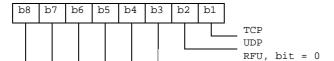
Fifteenth byte: (Screen width)



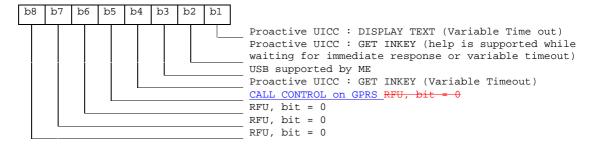
Sixteenth byte: (Screen effects)



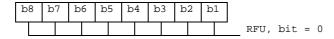
Seventeenth byte:



Eighteenth byte:



Subsequent bytes:



RFU bits, and all bits of subsequent bytes, are reserved to indicate future facilities. A SIM supporting only the features of SIM Application Toolkit defined here shall not check the value of RFU bits.

Response parameters/data: None.

7.3 Call Control and MO SMS control by USIM

7.3.1 Call Control by USIM

7.3.1.x Procedure for PDP Context Activation

If the service "call control on GPRS by USIM" is available in the USIM Service Table (see TS 31.102 [14]), then for all PDP Context activation (including those resulting from a OPEN CHANNEL proactive UICC command where GPRS is selected), the ME shall first pass the corresponding Activate PDP Context message (see 3G 24.008 [9]) to the UICC, using the ENVELOPE (CALL CONTROL) command defined below. The ME shall also pass to the UICC in the ENVELOPE (CALL CONTROL) command the current serving cell.

The UICC shall respond in the same way as for mobile originated calls. The ME shall interpret the response as follows:

- if the UICC responds with '90 00', the ME shall send the Activate PDP Context message with the information as sent to the UICC;
- if the UICC responds with '93 00', the ME shall not the Activate PDP Context message and may retry the command;
- if the UICC provides response data, then the response data from the UICC shall indicate to the ME whether to send the Activate PDP Context message as proposed, not send the Activate PDP Context message using the data supplied by the UICC. It is mandatory for the ME to perform the PDP Context Activation in accordance with the data from the UICC, if it is within the ME's capabilities to do so. If the UICC requires PDP Context

Activation that is beyond the ME's capabilities, then the ME shall not the perform PDP Context Activation at all.

In the case where the initial PDP Context Activation request results from a proactive command OPEN CHANNEL where GPRS is selected

- if the call control result is "not allowed", the ME shall inform the UICC using TERMINAL RESPONSE ("interaction with call control by UICC or MO short message control by UICC, action not allowed");
- if the PDP Context Activation data is changed by call control, then the ME shall activate the PDP context using the data given by the UICC, if it is within the ME's capabilities to do so. If the UICC requires a PDP Context Activation that is beyond the ME's capabilities (e.g. the UICC requests a QoS that the ME cannot handle), then the ME shall not activate the PDP context at all.

7.3.1.3 Indication to be given to the user

The UICC may optionally include an alpha-identifier in the response data to the ENVELOPE (CALL CONTROL) message, in order to inform the user at the time the response is received by the ME. The use of this alpha identifier by the ME is described below:

- if the UICC responds with "allowed, no modification", then:
 - if the alpha identifier is provided by the UICC and is not a null data object, the ME shall use it to inform the user during the <u>PDP contact activation or call set-up</u>;
 - if the alpha identifier is provided by the UICC and is a null data object (i.e. length = '00' and no value part), this is an indication that the ME should not modify the display corresponding to the initial user request;
 - if the alpha identifier is not provided by the UICC, the ME may give information to the user concerning what is happening;
- if the UICC responds with "not allowed", then:
 - if the alpha identifier is provided by the UICC and is not a null data object, the ME shall use it to inform the user. This is also an indication that the ME should not give any other information to the user on the reason of the barring;
 - if the alpha identifier is provided by the UICC and is a null data object (i.e. length = '00' and no value part), the ME may give information to the user concerning what is happening;
 - if the alpha identifier is not provided by the UICC, the ME may give information to the user concerning what is happening.
- if the UICC responds with "allowed, with modifications", and the modified request is within the ME's capabilities, then:
 - if the alpha identifier is provided by the UICC and is not a null data object, the ME shall use it to inform the user. The ME shall then not display the destination address or SS string given by the UICC. This is also an indication that the ME should not give any other information to the user on the changes made by the UICC to the initial user request;
 - if the alpha identifier is provided by the UICC and is a null data object (i.e. length = 00' and no value part), this is an indication that the ME should not give any information to the user on the changes made by the UICC to the initial user request. The ME shall not display the destination address or SS string given by the UICC. The ME should not modify the display corresponding to the initial user request;
 - if the alpha identifier is not provided by the UICC, the ME may indicate to the user that the initial user request has been changed.
- if the UICC responds with "allowed, with modifications" to a user-initiated request (i.e. a request
 not initiated by a proactive command), and the modified user request is beyond the ME's
 capabilities, then the ME may give information to the user on the modified request and the fact that

- the modified request is beyond the ME's capabilities, optionally using the alpha identifier, if one is provided by the UICC.
- if the UICC responds with "allowed, with modifications" to a request by a proactive command SET UP CALL, SEND SS-or-, SEND USSD or OPEN CHANNEL where GPRS is selected, and the modified request is beyond the ME's capabilities, then the ME shall not give any information to the user on the fact that the modified request is beyond the ME's capabilities, and shall give a TERMINAL RESPONSE to the proactive command (i.e. SET UP CALL, SEND SS, or SEND USSD or OPEN CHANNEL) as detailed in subclauses 7.3.1.1, and 7.3.1.2 and 7.3.1.x. The responsibility to inform the user in this case lies with the UICC application which sent the proactive command.

7.3.1.6 Structure of ENVELOPE (CALL CONTROL)

Direction: ME to UICC.

The command header is specified in TS 31.101 [13].

Command parameters/data.

Description	Subclause	M/O/C	Min	Length
Call control tag	9.1	М	Y	1
Length (A+B+C+D+E+F)	-	М	Y	1 or 2
Device identities	8.7	М	Υ	Α
Address or SS string or USSD string or PDP	8.1, 8.14 <u>. or</u>			
context activation parameters	8.17 <u>or 8.x</u>	M	Υ	В
Capability configuration parameters 1	8.4	0	N	С
Subaddress	8.3	0	N	D
Location information	8.19	М	N	Е
Capability configuration parameters 2	8.4	0	N	F

Device identities: the ME shall set the device identities to:

source: ME;destination: UICC.

- Address or SS string or USSD string or PDP context activation parameters: only one data object shall be sent to the UICC:
 - for a call set-up, the address data object is used and holds the Called Party Number, as defined in 3G 24.008 [9], to which the ME is proposing setting up the call;
 - for a supplementary service, the SS string data object is used and holds the corresponding supplementary service;
 - for a USSD operation, the USSD string data object is used and holds the corresponding USSD control string;
 - USIM Applications and MEs should take into account that early implementations of USAT use the SS string data object for coding of USSD control strings (instead of the USSD string data object). This behaviour is only possible for USSD control strings consisting of digits (0-9,*,#). The UICC can identify MEs having this early implementation by evaluating the indication "USSD string data object supported in Call Control" in the TERMINAL PROFILE. The ME can identify SIMs having this early implementation by evaluating the indication "USSD string data object supported in Call Control" in the UICC Service Table;
 - for a PDP context activation, the Activate PDP context request parameters are used, as defined in 3G 24.008 [9].
- Capability configuration parameters: Only used for a call set-up, this contains the Bearer capabilities that the ME is proposing to send to the network. The first capability configuration parameters corresponds to the bearer capability 1 information element of a mobile originating SETUP message, as defined in 3G 24.008 [9]. The second capability configuration parameters correspond to the bearer capability 2 information element of a mobile originating SETUP message, as defined in 3G 24.008 [9]. If no capability configuration parameters are present, this shall indicate a speech call.
- Subaddress: Only used for a call set-up, this contains the called party subaddress that the ME is proposing to send to the network. If one is not present, this shall indicate that the ME is proposing not to send this information element to the network.
- Location information: This data object contains the identification (MCC, MNC, LAC, Cell Identity) of the current serving cell of the UE. The comprehension required flag of this data object in this command shall be set to '0'.

Response parameters/data.

It is permissible for the UICC to provide no response data, by responding with SW1 / SW2 = 90 00'. If the UICC does not provide any response data, then this shall have the same meaning as "allowed, no modification".

Description	Subclause	M/O/C	Min	Length
Call control result	-	М	Υ	1
Length (A+B+C+D+E+F)	-	M	Υ	1 or 2
Address or SS string or USSD string or PDP	8.1, 8.14 <u>, or</u>			
context activation parameters	8.17 <u>or 8.x</u>	0	N	Α
Capability configuration parameters 1	8.4	0	N	В
Subaddress	8.3	0	N	С
Alpha identifier	8.2	0	N	D
BC repeat indicator	8.42	С	N	E
Capability configuration parameters 2	8.4	0	N	F

- Call control result:
 - contents: the command that the UICC gives to the ME concerning whether to allow, bar or modify the proposed call (or supplementary service operation);
 - Coding:
 - '00' = Allowed, no modification;
 - 01' = Not allowed;
 - '02' = Allowed with modifications.
- Address or SS string or USSD string or PDP context activation parameters: Only one data object
 may be included if the UICC requests the call (or supplementary service or USSD operation or
 PDP context activation) details to be modified:
 - for a call set-up, if the address data object is not present, then the ME shall assume the Dialling number is not to be modified;
 - for a supplementary service, if the SS string data object is not present, then the ME shall assume that SS is not to be modified;
 - for a USSD operation, if the USSD string data object is not present, then the ME shall assume that the USSD operation is not to be modified.
 - for a PDP context activation, if the PDP context activation parameters object is not present, then
 the ME shall assume that the PDP context activation is not to be modified.
- Capability configuration parameters: Only used for a call set-up, this data object is only required if the USIM application requests the call details to be modified. The first capability configuration parameters corresponds to the bearer capability 1 information element of a mobile originating SETUP message, as defined in 3G 24.008 [9]. The second capability configuration parameters corresponds to the bearer capability 2 information element of a mobile originating SETUP message, as defined in 3G 24.008 [9]. If the capability configuration parameters are not present, then the ME shall assume the parameters are not to be modified.
- Subaddress: Only used for a call set-up, this data object is only required if the USIM application requests the call details to be modified. If the subaddress is not present, then the ME shall assume the called party subaddress is not to be modified. If the subaddress supplied by the USIM application is a null data object, then the ME shall not provide a called party subaddress to the network. A null data object shall have length = '00' and no value part.
- Alpha identifier: this data object is only required if the UICC requests a particular indication to be given to the user. The handling of this data object by the ME is described in subclause 7.3.1.3. The comprehension required flag of this data object shall be set to '0'.

- BC repeat indicator: indicates how the 2 associated bearers shall be interpreted. The two modes to manage the bearers are the "alternate way" or "sequential way". The change of bearer occurs on a network event. This BC repeat indicator is conditioned to the presence of the second capability configuration parameters and is coded as defined in 3G 24.008 [9].

It is mandatory for the UICC to provide at least one of the optional data objects if it has set the Call control result to "allowed with modifications".

8.x PDP context Activation parameters

Byte(s)	<u>Description</u>	<u>Length</u>
<u>1</u>	PDP context Activation parameters tag	<u>1</u>
<u>2</u>	Length (X)	<u>1</u>
3 to X+2	PDP context Activation parameters	<u>X</u>

The PDP context Activation parameters are coded as the ACTIVATE PDP CONTEXT REQUEST message, refer to 3G 24.008 [9].

9.3 SIMPLE-TLV tags in both directions

Description	Length of tag	Tag value, bits 1-7 (Range: '01' - '7E')	Tag (CR and Tag value)
Command details tag	1	'01'	'01' or '81'
Device identity tag	1	'02'	'02' or '82'
Result tag	1	'03'	'03' or '83'
Duration tag	1	'04'	'04' or '84'
Alpha identifier tag	1	'05'	'05' or '85'
Address tag	1	'06'	'06' or '86'
Capability configuration parameters tag	1	'07'	'07' or '87'
Subaddress tag	1	'08'	'08' or '88'
SS string tag	1	'09'	'09' or '89'
USSD string tag	1	'0A'	'0A' or '8A'
SMS TPDU tag	1	'0B'	'0B' or '8B'
Cell Broadcast page tag	1	'0C'	'0C' or '8C'
Text string tag	1	'0D'	'0D' or '8D'
Tone tag	1	'0E'	'0E' or '8E'
Item tag	1	'0F'	'0F' or '8F'
Item identifier tag	1	'10'	'10' or '90'
Response length tag	1	'11'	'11' or '91'
File List tag	1	'12'	'12' or '92'
Location Information tag	1	'13'	'13' or '93'
IMEI tag	1	'14'	'14' or '94'
Help request tag	1	'15'	'15' or '95'
Network Measurement Results tag	1	'16'	'16' or '96'
Default Text	1	'17'	'17' or '97'
Items Next Action Indicator tag	1	'18'	'18' only
Event list tag	1	'19'	'19' or '99'
Cause tag	1	'1A'	'1A' or '9A'
Location status tag	1	'1B'	'1B' or '9B'
Transaction identifier tag	1	'1C'	'1C' or '9C'
BCCH channel list tag	1	'1D'	'1D' or '9D'
Icon identifier	1	'1E'	'1E' or '9E'
Item Icon identifier list	1	'1F'	'1F' or '9F'
Card reader status tag	1	'20'	'20' or 'A0'
Card ATR tag	1	'21'	'21' or 'A1'
C-APDU tag	1	'22'	'22' or 'A2'
R-APDU tag	1	'23'	'23' or 'A3'
Timer identifier tag	1	'24'	'24' or 'A4'
Timer value tag	1	'25'	'25' or 'A5'
Date-Time and Time zone tag	1	'26'	'26' or 'A6'
Call control requested action tag	1	'27'	'27' or 'A7'
AT Command tag	1	'28'	'28' or 'A8'
AT Response tag	1	'29'	'29' or 'A9'
BC Repeat Indicator tag	1	'2A'	'2A' or 'AA'
Immediate response tag	1	'2B'	'2B' or 'AB'
DTMF string tag	1	'2C'	'2C' or 'AC'
Language tag	1	'2D'	'2D' or 'AD'
Timing Advance tag	1 1	'2E'	'2E' or 'AE'
AID tag	1	'2F'	'2F' or 'AF'
Browser Identity tag	1	'30'	'30' or 'B0'
URL tag	1	'31'	'31' or 'B1'
Bearer tag	1	'32'	'32' or 'B2'
Provisioning Reference File tag	1	'33'	'33' or 'B3'
Browser Termination Cause tag	1	33 '34'	'34' or 'B4'
Bearer description tag	1	3 4 '35'	'35' or 'B5'
· •	1	'36'	35 01 B5
Channel data length tag	1	'37'	'37' or 'B7'
Channel data length tag	1	'38'	
Channel status tag Buffer size tag	1	'39'	'38' or 'B8' '39' or 'B9'
IDUITEL SIZE 180	1 1	.59	39 OF B9

Description	Length of tag	Tag value, bits 1-7 (Range: '01' - '7E')	Tag (CR and Tag value)
Card reader identifier tag	1	'3A'	'3A' or 'BA'
not used	-	'3B'	-
USIM/ME interface transport level	1	'3C'	'3C' or 'BC'
not used	-	'3D'	•
Other address (data destination address)	1	'3E'	'3E' or 'BE'
Access Technology tag	1	'3F'	'3F' or 'BF'
Display parameters tag	1	'40'	'40' or 'C0'
Service Record	1	'41'	'41' or 'C1'
Device Filter	1	'42'	'42' or 'C2'
Service Search	1	'43'	'43' or 'C3'
Attribute information	1	'44'	'44' or 'C4'
Service Availability	1	'45'	'45' or 'C5'
Reserved for ETSI SCP	1	'46'	
Reserved for TIA/EIA-136	1	'60'	'60' or 'E0'
Reserved for TIA/EIA-136	1	'61'	'61' or 'E1'
PDP context Activation parameters	<u>1</u>	<u>'XX'</u>	<u>'xx' or 'xx'</u>

3GPP T3 Meeting #22

Marbelle, Spain, 22-25 January 2002 (after email discussion)

revised version of T3-020134

Tdoc T3-020150

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How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G Specs/CRs.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://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

5. Profile download

5.1 Procedure

The profile download instruction is sent by the ME to the UICC as part of the UICC initialization procedure. This procedure is specified in TS 31.101 [13]. The profile sent by the ME shall state the facilities relevant to USAT that are supported by the ME.

This procedure is important, as it is by this that the UICC knows what the ME is capable of, and the UICC can then limit its instruction range accordingly. If no command is sent by the ME, the UICC shall assume that the ME does not support USAT.

5.2 Structure and coding of TERMINAL PROFILE

Direction: ME to UICC.

The command header is specified in TS 31.101 [13].

Command parameters/data:

Description	Clause	M/O/C	Length
Profile	1	M	lgth

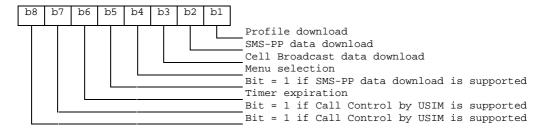
- Profile:

Contents: The list of USAT facilities that are supported by the ME.

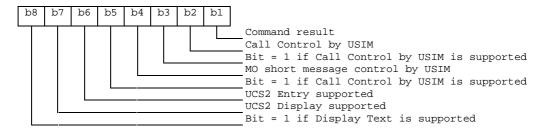
Coding:

1 bit is used to code each facility: bit = 1: facility supported by ME bit = 0: facility not supported by ME

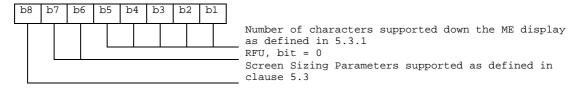
First byte (Download):



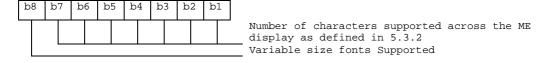
Second byte (Other):



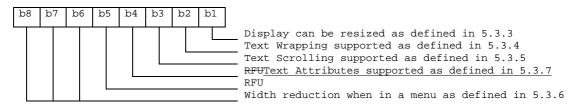
Fourteenth byte: (Screen height)



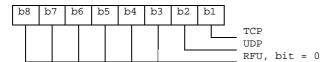
Fifteenth byte: (Screen width)



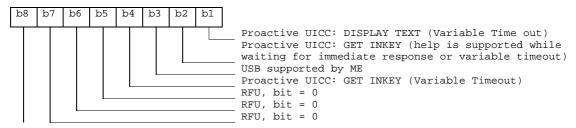
Sixteenth byte: (Screen effects)



Seventeenth byte:



Eighteenth byte:





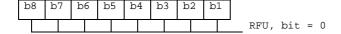
Nineteenth byte: (reserved for TIA/EIA-136 facilities):

b8	b7	b6	b5	b4	b3	b2	b1	
								Protocol Version, coded as indicated in TIA/EIA- _ 136-123 [29]
								RFU, bit = 0

Twentieth byte: (reserved for TIA/EIA/IS-820 facilities):

b8	b7	b6	b5	b4	b3	b2	b1

Subsequent bytes:



RFU bits, and all bits of subsequent bytes, are reserved to indicate future facilities. A SIM supporting only the features of SIM Application Toolkit defined here shall not check the value of RFU bits.

Response parameters/data: None.

5.3 Definition of display parameters in Profile download

This clause defines the terms used for defining the passing of the ME's screen parameters from the ME to the SIM.

5.3.1 Number of characters supported down the ME display

This is the guaranteed number of characters supported down the ME display without scrolling (using the default character set specified in 3G TS 23.038 [4]) as a result of a Display Text Proactive command.

If the screen resized as defined in clause 5.3.3 then this value shall be the initial number of characters supported before the display can be resized.

5.3.2 Number of characters supported across the ME display

This is the guaranteed number of characters supported across the ME display without scrolling (using the default character set specified in 3G TS 23.038 [4]) as a result of a Display Text Proactive command that can be viewed in one instance.

If the screen resized as defined in clause 5.3.3 then this value shall be the initial number of characters supported before the display can be resized.

5.3.3 Display can be resized

Display can be resized is supported if either:

- the user can change the number of characters supported across the display, down the display or both;
- the ME can dynamically change the number of characters supported across the display, down the display or both.

5.3.4 Text Wrapping

Text wrapping is supported if the ME puts words that would be split across two lines, due to the display size, at the beginning of the next line down.

5.3.5 Text Scrolling

Text scrolling is supported if the ME scrolls, on one line, words that would be split across two lines, due to the display size.

5.3.6 Width reduction when in a menu

This value is the number of characters available across the display due to a DISPLAY TEXT proactive command without scrolling (using the default character set specified in 3G TS 23.038 [4]) minus the number of characters available across the display due to a SELECT ITEM proactive command without scrolling (using the default character set specified in 3G TS 23.038 [4]).

If the screen resized as defined in clause 5.3.3 then this value shall be calculated using the initial number of characters supported before the display can be resized.

5.3.7 Text Attributes

Text that is displayed on the ME screen can be displayed in various formats if the ME supports it. A description of the various text formats are defined in 3GPP TS 23.040 "Technical Realization of the Short Message Service (SMS)"[5]

6.5.2 Device identities

This data object gives the devices which are the source and destination for the instruction. Only certain combinations of source and destination devices are allowed for each proactive command. These are given in clause 10 of the present document.

6.5.3 Alpha identifier

Many of the commands include an alpha identifier data object. The text it contains shall be displayed on screen by the ME at the same time as the UICC command is performed.

6.5.4 Icon identifiers

Some commands may provide an icon identifier. Icons are intended to enhance the MMI by providing graphical information to the user. The display of icons is optional for the ME. If icons are provided by the UICC, the related alpha identifier or text string shall be present and not a null string.

The UICC indicates to the ME whether the icon replaces an alpha identifier or text string, or whether it accompanies it (see clause 8.32).

If both an alpha identifier or text string, and an icon are provided with a proactive command, and both are requested to be displayed, but the ME is not able to display both together on the screen, then the alpha identifier or text string takes precedence over the icon.

If the UICC provides an icon identifier with a proactive command, then the ME shall inform the UICC if the icon could not be displayed by sending the general result "Command performed successfully, but requested icon could not be displayed".

If the ME receives an icon qualifier with bit 1 set to 0, meaning "an alpha identifier or text string related to the icon may be displayed together with the icon by the ME" (see clause 8.32), and no alpha identifier/text string is given by the UICC, than the ME shall reject the command with general result "Command data not understood by ME".

NOTE: Application designers should be aware that icons provided by the application may not be displayed by the ME.

6.5.5 Text Attribute

Some commands may provide a text attribute. Text attributes are intended to enhance the MMI when providing information to the user. The display of various text formats as described in 3GPP TS 23.040 "Technical Realization of the Short Message Service (SMS)"[5] are optional for the ME.

6.6 Structure of proactive UICC commands

The general structure of proactive UICC commands using TLV objects is described in annex C.

6.6.1 DISPLAY TEXT

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Y	1
Length (A+B+C+D+E+F+G)	-	M	Y	1 or 2
Command details	8.6	М	Υ	Α
Device identities	8.7	М	Υ	В
Text string	8.15	М	Υ	С
Icon identifier	8.31	0	N	D
Immediate response	8.43	0	N	E
Duration	8.8	0	N	F
Text attribute	8.70	0	N	G

- Duration:

- Contents: the required duration for execution of the command before the timeout expires. Resolution and the precision of the time value are in accordance with clause 6.4.21 Timer Management.
- Text attribute applies to the Text String.

6.6.2 GET INKEY

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D+E+F)	-	M	Y	1 or 2
Command details	8.6	M	Y	Α
Device identities	8.7	M	Y	В
Text string	8.15	M	Y	С
Icon identifier	8.31	0	N	D
Duration	8.8	0	N	E
Text attribute	<u>8.70</u>	0	<u>N</u>	<u>F</u>

- Text string:

- Contents: text for the ME to display in conjunction with asking the user to respond.

- Duration:

- Contents: the duration for execution of the command before the timeout expires. Resolution and the precision of the time value are in accordance with clause 6.4.21 Timer Management.
- Text attribute applies to the Text String.

6.6.3 GET INPUT

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D+E+F+G)	-	M	Y	1 or 2
Command details	8.6	M	Y	Α
Device identities	8.7	M	Y	В
Text string	8.15	M	Y	С
Response length	8.11	M	Y	D
Default Text	8.23	0	N	Е
Icon identifier	8.31	0	N	F
Text attribute	8.70	0	N	G

Text string:

- —Contents: text for the ME to display in conjunction with asking the user to respond.
- Text attribute applies to Text string when supported
- Response length:
 - Contents: the minimum and maximum acceptable lengths in characters (see clause 6.4.3) for the response from the user.
- Default Text:
 - —Contents: text for the ME to display, corresponds to a default text string offered by the UICC.
 - Text attribute does not apply to Default text.

6.6.4 MORE TIME

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B)	-	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device identities	8.7	M	Y	В

6.6.5 PLAY TONE

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D+E+F+G)	-	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device identities	8.7	M	Υ	В
Alpha identifier	8.2	0	N	С
Tone	8.16	0	N	D
Duration	8.8	0	N	Е
Icon identifier	8.31	0	N	F
Text attribute	<u>8.70</u>	<u>CO</u>	N	<u>G</u>

- Tone:

- Contents: the standard supervisory tone or proprietary ME tone that the ME shall generate, either on its own or on top of the downlink audio path. If no tone is specified, then the ME shall default to "general beep".

NOTE: Some supervisory tones are optional for mobile equipment (see TS 22.001 [22]).

- Duration:

- Contents: the length of time for which the ME shall generate the tone, if the tone is continuous or repeatable. For single tones, the value of this data object shall be ignored by the ME. If no duration is specified, the ME shall default to a duration determined by the ME manufacturer.
- Text attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier data object is present.

6.6.6 POLL INTERVAL

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C)	-	M	Υ	1 or 2
Command details	8.6	M	Y	Α
Device identities	8.7	M	Y	В
Duration	8.8	М	Y	С

- Duration:

- Contents: the maximum interval between two STATUS commands related to Proactive Polling.

6.6.7 SET-UP MENU

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D1+D2+Dn+E+F+G+H+I)	•	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device identities	8.7	M	Υ	В
Alpha identifier	8.2	M	Υ	С
Item data object for item 1	8.9	M	Υ	D1
Item data object for item 2	8.9	0	N	D2
	8.9	0	N	Dx
Item data object for last item in list	8.9	0	N	Dn
Items Next Action Indicator	8.24	0	N	Е
Icon identifier	8.31	0	N	F
Item Icon identifier list	8.32	0	N	G
<u>Text Attribute</u>	<u>8.70</u>	<u>O</u>	<u>N</u>	<u>H</u>
Item text attribute list	<u>8.71</u>	0	<u>N</u>	<u> </u>

The SET-UP MENU command BER-TLV data object shall contain Item SIMPLE-TLV data objects. Each Item data object contains an item in the list, for the user to choose. The length of each Item data object may be different. Within a list, each Item shall have a unique item identifier.

If the "Item data object for item 1" is a null data object (i.e. length = '00' and no value part), this is an indication to the ME to remove the existing menu from the menu system in the ME.

If the UICC provides an Items Next Action Indicator data object, the comprehension required flag shall be set to 0'.

The UICC may provide a title icon identifier data object and/or an item icon identifier list data object. The item icon identifier data object contains an icon identifier for each item.

The UICC provides a title (Alpha Identifier) with a text attribute data object and/or an item text attribute list data object. The item text attribute list data object contains a text attribute for each item.

6.6.8 SELECT ITEM

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	М	Υ	1
Length (A+B+C+D1+D2+Dn+E+F+G+H+I+J)	-	M	Υ	1 or 2
Command details	8.6	M	Y	Α
Device identities	8.7	M	Y	В
Alpha identifier	8.2	0	N	С
Item data object for item 1	8.9	M	Y	D1
Item data object for item 2	8.9	0	N	D2
	8.9	0	N	Dx
Item data object for last item in list	8.9	0	N	Dn
Items Next Action Indicator	8.24	0	N	E
Item Identifier	8.10	0	N	F
Icon identifier	8.31	0	N	G
Item Icon identifier list	8.32	0	N	Н
Text attribute	<u>8.70</u>	<u>CO</u>	<u>N</u>	<u> </u>
Item text attribute list	<u>8.71</u>	0	<u>N</u>	<u>J</u>

The SELECT ITEM command BER-TLV data object shall contain Item SIMPLE-TLV data objects. Each Item data object contains an item in the list, for the user to choose. The length of each Item data object may be different. Within a list, each Item shall have a unique item identifier. The SELECT ITEM command BER-TLV data object may contain a single Item Identifier data object as an indication of the default item. The Comprehension Required flag in the Item Identifier data object shall be set to 0, indicating that it is not mandatory for the ME to support indication of the default item.

If the UICC provides an Items Next Action Indicator data object, the comprehension required flag shall be set to '0'.

The UICC may provide a title icon identifier data object and/or an item icon identifier list data object. The item icon identifier data object contains an icon identifier for each item.

The Text attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier is present. The item text attribute list data object contains a text attribute for each item

6.6.9 SEND SHORT MESSAGE

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	М	Y	1
Length (A+B+C+D+E+F+G)	-	М	Y	1 or 2
Command details	8.6	М	Y	Α
Device identities	8.7	М	Y	В
Alpha identifier	8.2	0	N	С
Address	8.1	0	N	D
SMS TPDU (SMS-SUBMIT or SMS-COMMAND)	8.13	M	Y	Е
Icon identifier	8.31	0	N	F
Text attribute	<u>8.70</u>	<u>CO</u>	<u>N</u>	<u>G</u>

The address data object holds the RP_Destination_Address of the Service Centre. If no RP_Destination_Address is transferred, then the ME shall insert the default Service Centre address.

The Text attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier is present.

6.6.10 SEND SS

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D+E+F)	-	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device identities	8.7	M	Υ	В
Alpha identifier	8.2	0	N	С
SS string	8.14	M	Υ	D
Icon identifier	8.31	0	N	E
Text attribute	8.70	CO	N	F

The Text attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier is present.

6.6.11 SEND USSD

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Y	1
Length (A+B+C+D+E+F)	-	M	Y	1 or 2
Command details	8.6	M	Y	Α
Device identities	8.7	M	Υ	В
Alpha identifier	8.2	0	N	С
USSD String	8.17	M	Y	D
Icon identifier	8.31	0	N	Е
Text attribute	<u>8.70</u>	<u>CO</u>	N	<u>F</u>

The Text attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier is present.

6.6.12 SET UP CALL

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Y	1
Length (A+B+C+D+E+F+G+H+I+J+K+L)	-	M	Υ	1 or 2
Command details	8.6	М	Υ	Α
Device identities	8.7	М	Υ	В
Alpha identifier (user confirmation phase)	8.2	0	N	С
Address	8.1	М	Υ	D
Capability configuration parameters	8.4	0	N	E
Subaddress	8.3	0	N	F
Duration	8.8	0	N	G
Icon identifier (user confirmation phase)	8.31	0	N	Н
Alpha identifier (call set up phase)	8.2	0	N	
Icon identifier (call set up phase)	8.31	0	N	J
Text attribute (user confirmation phase)	8.70	<u>CO</u>	N	<u>K</u>
Text attribute -(call set up phase)	8.70	<u>CO</u>	<u>N</u>	<u>L</u>

If the capability configuration parameters are not present, the ME shall assume the call is a speech call.

If the subaddress is not present, the ME shall not provide a called party subaddress to the network.

If the duration is not present, the UICC imposes no restrictions on the ME of the maximum duration of redials.

The Text attribute (user confirmation phase) applies to the Alpha Identifier (user confirmation phase). The Text attribute (call set up phase) applies to the Alpha identifier (call set up call phase). One Text attribute may be present only if at least one Alpha Identifier is present. Both Text attributes may be present only if both Alpha Identifiers are present. If only one Text attribute data object is present, it shall apply to the first or unique Alpha identifier present in the command.

6.6.13 REFRESH

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D)	-	M	Y	1 or 2
Command details	8.6	M	Y	Α
Device identities	8.7	M	Y	В
File List	8.18	С	N	С
AID	8.60	0	N	D

6.6.19 POWER ON CARD

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B)	-	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device Identities	8.7	M	Υ	В

6.6.20 GET READER STATUS

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B)	1	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device Identities	8.7	M	Υ	В

6.6.21 TIMER MANAGEMENT

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D)	-	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device Identities	8.7	M	Υ	В
Timer Identifier	8.37	M	Υ	С
Timer value	8.38	С	N	D

- Timer Identifier:

- Contents: identifier of the timer to which the command applies.

- Timer value:

- Contents: length of time during which the timer has to run. The UICC shall supply this data object only when a timer has to be started.

6.6.22 SET UP IDLE MODE TEXT

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	8.2	M	Y	1
Length (A+B+C+D+E)	-	M	Y	1 or 2
Command details	7.5.6	M	Y	Α
Device identities	7.5.7	M	Y	В
Text string	7.5.15	M	Y	С
Icon identifier	8.31	0	N	D
Text attribute	<u>8.70</u>	<u>0</u>	<u>N</u>	<u>E</u>

If the "Text string" is a null data object (i.e. length = '00' and no value part), the ME shall remove the existing idle mode text in the ME.

The Text Attibute applies to the Text String.

6.6.23 RUN AT COMMAND

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D+E <u>+F</u>)	-	M	Y	1 or 2
Command details	8.6	M	Υ	Α
Device Identities	8.7	M	Υ	В
Alpha Identifier	8.2	0	N	С
AT Command	8.40	M	Υ	D
Icon identifier	8.31	0	N	E
Text attribute	8.70	CO	N	<u>F</u>

The Text attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier is present.

6.6.24 SEND DTMF COMMAND

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D+E+F)	-	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device Identities	8.7	M	Υ	В
Alpha Identifier	8.2	0	N	С
DTMF String	8.44	M	Υ	D
Icon identifier	8.31	0	N	Е
Text attribute	8.70	<u> </u>	N	<u>F</u>

The Text attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier is present.

6.6.25 LANGUAGE NOTIFICATION

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C)	-	M	Υ	1
Command details	8.6	M	Υ	Α
Device identities	8.7	M	Υ	В
Language	8.45	С	Y/N	С

- Language:

- Contents: Currently used language. The UICC shall include a Language object, when a specific language is being notified.

6.6.26 LAUNCH BROWSER

Description	Clause	M/O	Min	Length
Proactive UICC command Tag	9.2	М	Y	1
Length (A+B+C+D+E+F1+	-	M	Υ	1 or 2
F2++FN+G+H+I <u>+J</u>)				
Command details	8.6	M	Υ	Α
Device Identities	8.7	M	Υ	В
Browser Identity	8.47	0	N	С
URL	8.48	M	Υ	D
Bearer	8.49	0	N	E
Provisioning File Reference 1	8.50	0	N	F1
Provisioning File Reference 2	8.50	0	N	F2
	8.50	0	N	Fx
Provisioning File Reference N	8.50	0	N	FN
Text String (Gateway/Proxy Identity)	8.15	0	N	G
Alpha identifier (user confirmation phase)	8.2	0	N	Н
Icon identifier (user confirmation phase)	8.31	0	N	I
Text attribute	8.70	CO	<u>N</u>	J

If the URL data object is provisioned the URL value shall take precedence over any other URL value.

If Provisioning File Reference data object is present in the command then it shall take precedence over Bearer and Proxy Identity. If several Provisioning File References are present in the same command the information in the first reference shall take precedence.

Gateway/Proxy Identity is a text string which gives to the mobile the name/identity of the Gateway/Proxy to be used for connecting to the URL. This Gateway/Proxy Identity is required when the bearer data object is present.

<u>Text attribute applies to the alpha identifier (user confirmation phase)</u>. It may be present only if the Alpha Identifier (user confirmation phase) is present.

6.6.27 OPEN CHANNEL

6.6.27.1 OPEN CHANNEL related to CS bearer

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	М	Υ	1
Length (A+B+C+D+E+F+G+H+I+J+K+L+M+N+O+P)	-	М	Υ	1 or 2
Command details	8.6	М	Υ	Α
Device identities	8.7	М	Υ	В
Alpha identifier	8.2	0	Ν	С
Icon identifier	8.31	0	Ν	D
Address	8.1	М	Υ	Е
Subaddress	8.3	0	N	F
Duration 1	8.8	С	N	G
Duration 2	8.8	0	Ν	Н
Bearer description	8.52	М	Υ	I
Buffer size	8.55	М	Υ	J
Other address (local address)	8.58	0	Ν	K
Text String (User login)	8.15	0	Ν	L
Text String (User password)	8.15	0	Ν	M
SIM/ME interface transport level	8.59	0	N	N
Data destination address	8.58	С	Υ	0
Text attribute	<u>8.70</u>	<u>CO</u>	<u>N</u>	<u>P</u>

The subaddress may be requested. If the subaddress is not present, the ME shall not provide a called party subaddress to the network.

Duration 1 indicates the duration of reconnection tries. If Duration 1 is not present or is null, the UICC imposes no restrictions on the ME. Duration 1 shall be present if Duration 2 is present.

Duration 2 indicates the timeout value before the ME releases the link if there is no data exchanged on the link. If duration 2 is not present the link is never released automatically by the ME.

The local address parameter (see 8.58) provides information to the ME necessary to identify the local device (i.e. it provides an IP address). If local address length is null, dynamic local address is required. If parameter is not present, the mobile may use the mobile default local address configuration.

The ME may support a remote access login feature (e.g. PPP login). If supported by the ME, the UICC may provide "User login" and "User password" parameters which allow the ME to answer an access authentication challenge. If only one parameter is present, it is considered as the User Login and the ME shall use default Password configuration if any. If the parameters are not present, the ME shall use default Login/Password configuration if any. If no authentication challenge is requested, the user login and password parameters shall be ignored.

If the SIM/ME interface transport level is present in the command, then the ME shall provide the requested transport layer protocols under the channel and shall use this object containing a set of parameters required to make the transport connection. The data that is exchanged at the SIM/ME interface in the RECEIVE DATA/SEND DATA commands are SDUs. When the USAT application sends an SDU, the transport layer within the ME is in charge to add the transport header to the SDU in order to build the Transport-PDU. When the USAT application requests to receive an SDU, the transport layer within the ME is in charge to remove the transport header of the Transport-PDU, and to forward the SDU to the USAT. If the parameter is not present, the SIM/ME interface is the bearer level (serial link or packet link as defined in TS 27.007 [12]) and the USAT application is in charge of the network and transport layer.

The Data destination address is the end point destination address of sent data. This data destination address is requested when a SIM/ME interface transport is present, otherwise it is ignored. The data destination address is a data network address.

Text attribute applies to the alpha identifier. It may be present only if the Alpha Identifier is present.

6.6.27.2 OPEN CHANNEL related to GPRS

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	М	Y	1
Length (A+B+C+D+E+F+G+H+I+J+K)	-	М	Υ	1 or 2
Command details	8.6	М	Υ	Α
Device identities	8.7	M	Υ	В
Alpha identifier	8.2	0	Ν	С
Icon identifier	8.31	0	Ν	D
Bearer description	8.52	М	Υ	E
Buffer size	8.55	М	Υ	F
Network Access Name	8.61	0	Ν	G
Other address (local address)	8.58	0	Ν	Н
SIM/ME interface transport level	8.59	0	Ν	1
Data destination address	8.58	С	Υ	J
Text attribute	<u>8.70</u>	<u>CO</u>	<u>N</u>	<u>K</u>

The Network Access Name parameter may be requested. The Network Access Name parameter contains an Access Point Name (APN) identifying the Gateway GSN (GGSN) which provides interworking with an external packet data network. If the parameter is not present, the mobile may use the default Access Point Namein the mobile configuration or the default subscription value.

The local address parameter (see 8.58) provides information to the ME necessary to identify the local device. If the parameter is present and length is not null, it provides an IP address that identifies the USAT application in the address area applicable to the PDN. If local address length is null, dynamic local address allocation is required for the SAT application. If parameter is not present, the mobile may use the mobile default local address configuration.

If the SIM/ME interface transport level is present in the command, then the ME shall provide the requested transport layer protocols under the channel and shall use this object containing a set of parameters required to make the transport connection. The data that is exchanged at the SIM/ME interface in the RECEIVE DATA/SEND DATA commands are SDUs. When the USAT application sends an SDU, the transport layer within the ME is in charge to add the transport header to the SDU in order to build the Transport-PDU. When the SAT application requests to receive an SDU, the

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transport layer within the ME is in charge to remove the transport header of the Transport-PDU, and to forward the SDU to the USAT. If the parameter is not present, the SIM/ME interface is the bearer level (serial link or packet link as defined in TS 27.007 [12]), and the USAT application is in charge of the network and transport layer.

The Data destination address is the end point destination address of sent data. This data destination address is requested when a SIM/ME interface transport is present, otherwise it is ignored. The data destination address is a data network address (e.g. IP address).

Text attribute applies to the alpha identifier. It may be present only if the Alpha Identifier is present.

6.6.27.3 OPEN CHANNEL for local links

Description	Clause	M/O/C	Min	Length
Proactive UICC command Tag	9.2	М	Υ	1
Length (A+B+C+D+E+F+G+H+I+J+K+L+M)	-	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device identities	8.7	М	Υ	В
Alpha identifier	8.2	0	N	С
Icon identifier	8.31	0	N	D
Duration 1	8.8	С	N	E
Duration 2	8.8	0	N	F
Bearer description	8.52	M	Υ	G
Buffer size	8.55	M	N	Н
Text String (User password)	8.15	0	N	I
SIM/ME interface transport level	8.59	0	N	J
Data destination address	8.58	С	Υ	K
Remote Entity Address	8.69	0	N	Ĺ
<u>Text attribute</u>	<u>8.70</u>	<u>CO</u>	<u>N</u>	<u>M</u>

Duration 1 indicates the duration of reconnection tries. If Duration 1 is not present or is null, the UICC imposes no restrictions on the ME. Duration 1 shall be present if Duration 2 is present.

Duration 2 indicates the timeout value before the ME releases the link if there is no data exchanged on the link. If duration 2 is not present the link is never released automatically by the ME.

Bearer Description gives detailed information characterising the bearer. When the UICC acts as a server, local information (local service record data) is included in Bearer Description; in addition, if the UICC provides a Service Record field (which is part of the Bearer Description TLV) different from '00', the ME shall ignore it and proceed with the command. When the UICC acts as a client, remote information (remote service record data) is included in Bearer Description; in addition, if the UICC provides a Service Identifier field (which is part of the Bearer Description TLV) different from 'FF', the ME shall ignore it and proceed with the command.

The UICC may optionally provide a user password that should be used by the ME for authentication. For the Bluetooth local bearer, the user password corresponds to the passkey/PIN as defined in [28].

If the SIM/ME interface transport level is present in the command, then the ME shall provide the requested transport layer protocols under the channel and shall use this object containing a set of parameters required to make the transport connection. If the parameter is not present, the SIM/ME interface is the bearer level. The data that will be received/sent from the SAT to the transport layer is a SDU that will be received/transmitted in the Transport-PDU.

The Data destination address is the end point destination address of sent data. This data destination address is requested when a SIM/ME interface transport is present, otherwise it is ignored. The data destination address is a data network address (e.g. IP address).

The Remote Entity Address parameter provides information to the ME necessary to identify the entity which provides access to the requested resource. Depending on the local technology, this parameter is necessary or not. For Bluetooth, it shall be the BD_ADDR of the remote device.

Text attribute applies to the alpha identifier. It may be present only if the Alpha Identifier is present.

6.6.28 CLOSE CHANNEL

Description	Clause	M/O	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D+E)	-	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device Identities	8.7	M	Υ	В
Alpha identifier	8.2	0	N	С
Icon identifier	8.31	0	N	D
Text attribute	8.70	<u>CO</u>	<u>N</u>	<u>E</u>

The Text Attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier is present.

6.6.29 RECEIVE DATA

Description	Clause	M/O	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D+E+F)	-	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device Identities	8.7	M	Υ	В
Alpha identifier	8.2	0	Ν	С
Icon identifier	8.31	0	N	D
Channel data length	8.54	M	Υ	Ē
<u>Text attribute</u>	<u>8.70</u>	<u>CO</u>	N	<u>F</u>

The Text Attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier is present.

6.6.30 SEND DATA

Description	Clause	M/O	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B+C+D+E+F)	-	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device identities	8.7	M	Υ	В
Alpha identifier	8.2	0	N	С
Icon identifier	8.31	0	N	D
Channel data	8.53	M	Υ	E
Text attribute	<u>8.70</u>	<u>CO</u>	<u>N</u>	<u>F</u>

The Text Attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier is present.

6.6.31 GET CHANNEL STATUS

Description	Clause	M/O	Min	Length
Proactive UICC command Tag	9.2	M	Υ	1
Length (A+B)	-	M	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device identities	8.7	М	Y	В

6.6.32 SERVICE SEARCH

Description	Section	M/O	Min	Length
Proactive SIM command Tag	9.3	М	Υ	1
Length (A+B+C+D+E+F+G)	-	М	Y	1 or 2
Command details	8.6	М	Υ	Α
Device Identities	8.7	М	Y	В
Alpha identifier	8.2	0	N	С
Icon identifier	8.31	0	N	D
Service search	8.66	М	Υ	Е
Device filter	8.65	0	N	F
Text attribute	<u>8.70</u>	CO	N	G

The Text Attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier is present.

6.6.33 GET SERVICE INFORMATION

Description	Clause	M/O	Min	Length
Proactive SIM command Tag	9.3	М	Υ	1
Length (A+B+C+D+E+F)	-	М	Υ	1 or 2
Command details	8.6	M	Υ	Α
Device Identities	8.7	М	Υ	В
Alpha identifier	8.2	0	N	С
Icon identifier	8.31	0	N	D
Attribute information	8.67	М	Υ	Е
Text attribute	<u>8.70</u>	CO	N	<u>F</u>

The Text Attribute applies to the Alpha Identifier. It may be present only if the Alpha Identifier is present.

8 SIMPLE-TLV data objects

This clause specifies the coding of the SIMPLE-TLV data objects, which are contained in a BER-TLV data object. SIMPLE-TLV data objects may be transferred across the interface in either direction. A SIMPLE-TLV data object consists of a tag of length one byte, a length indicator, which gives the number of bytes in the value field, and a value part of variable length, whose contents, meaning and coding are given below.

Tag codings are given in clause 9.3 for all SIMPLE-TLV data objects.

'00' and 'FF' are never used as tag values for SIMPLE-TLVs. This is in alignment with ISO/IEC 7816-6 [18]. Padding characters are not allowed.

For some of the SIMPLE-TLV data objects described, the length field shall be coded on 1 or 2 bytes (Y value) according to annex C, depending on the value of byte 1.

All bits and bytes indicated as RFU within all SIMPLE-TLV data objects shall be respectively set to 0 and '00' by the sending entity.

The handling of reserved values and RFU bits or bytes within all SIMPLE-TLV data objects at the receiving entity is described in clause 6.10.

8.1 Address

Byte(s)	Description	Length
1	Address tag	1
2 to (Y-1)+2	Length (X)	Υ
(Y-1)+3	TON and NPI	1
(Y-1)+4 to	Dialling number string	X-1
(Y-1)+X+2	•	

8.68 Service Availability

The Service Availability parameter contains a list of available services that the SERVICE SEARCH command returns. This object is formatted according to the local bearer technology identifier byte set in the SERVICE SEARCH command arguments.

Byte(s)	Description	Length
1	Service General Information tag	1
2 to Y+1	Length='X1'+ 'X2' + 'X3' + 'Xn' (n maxi = 7)	Υ
Y+2 to Y+X1+1	Service_1	X1
Y+X1+2 to	Service_2	X2
Y+X1+X2+1		
Y+X1++X(n-1)+2	Service_n	Xn
to Y+X1++Xn+1		

- Technology Independent: RFU;
- Bluetooth:

For Bluetooth, Service_i = BD_ADDR_i[6 bytes] + ServiceRecordHandle_i[4 bytes] + CoD_i[3 bytes] + Device_Name_i[20 bytes], those parameters being defined in [28]. Device Name parameter should be truncated to 20 bytes because of the T=0 protocol limitation (255 bytes) and because device name parameter length can be higher than 255 bytes.

Byte(s)	Description	Length
1	Service General Information tag	1
2 to Y+1	Length='X1'+ 'X2' + 'X3' + 'Xn' (n maxi = 7)	Υ
Y+2 to Y+X1+1	BD_ADDR + ServiceRecordHandle + CoD + Device_Name	X1
Y+X1+2 to	BD_ADDR + ServiceRecordHandle + CoD + Device_Name	X2
Y+X1+X2+1		
	···	
Y+X1++X(n-1)+2	BD_ADDR + ServiceRecordHandle + CoD + Device_Name	Xn
to Y+X1++Xn+1		

- IrDA: RFU;
- RS232: RFU;
- USB: RFU.

8.69 Remote Entity Address

Byte(s)	Description	Length
1	Item tag	1
2 to Y+1	Length (X+1)	Υ
Y+2	Coding Type	1
Y+3 to	Remote Entity address	X
Y+X+2	·	

Coding Type:

'00': IEEE-802 48-bit address;

'01' to 'FF' are reserved values.

Remote Entity Address:

according to Coding Type.

8.70 Text Attribute

Byte(s)	<u>Description</u>	<u>Length</u>
<u>1</u>	Text Attribute Tag	<u>1</u>
<u>2</u>	Length (4X)	<u>1</u>
3 to 6	Text Formatting	<u>4</u>

Text Formatting:

- Coding:
- The text formatting scheme used is the same as Text Formatting defined in 3GPP TS 23.040 "Technical Realization of the Short Message Service (SMS)"[5]

8.71 Item Text Attribute List

Byte(s)	<u>Description</u>	<u>Length</u>
<u>1</u>	Item text attribute tag	<u>1</u>
<u>2</u>	Length (X)-of bytes following	<u>1</u>
3 to (2+X)	Text attribute list	<u>X</u>

All text attributes in the list shall be treated in the same manner by the ME, i.e. either none of the text attributes in this list are displayed, or for each item its related text format is displayed.

- Text attribute list:

- contents:
 - each item of a list of items has an text attribute coded on 4 bytes. The length of the Items text attribute list shall be the number of items of the list of items multiplied by 4. The order of each item text attribute, shall reflect the order of the items in the list of items;

EXAMPLE: For the following list of items:

- item #1;
- item #2;
- item #3;
- <u>-;</u>
- item #n.

The Items text attribute list shall be as follows.

Ī	Tag	Length	<u>Text</u>	<u>Text</u>	<u>Text</u>	<u></u>	<u>Text</u>
			attribute #1	attribute #2	attribute #3		attribute #n

9.3 SIMPLE-TLV tags in both directions

Description	Length of tag	Tag value, bits 1-7 (Range: '01' - '7E')	Tag (CR and Tag value)
Command details tag	1	'01'	'01' or '81'
Device identity tag	1	'02'	'02' or '82'
Result tag	1	'03'	'03' or '83'
Duration tag	1	'04'	'04' or '84'
Alpha identifier tag	1	'05'	'05' or '85'
Address tag	1	'06'	'06' or '86'
Capability configuration parameters tag	1	'07'	'07' or '87'
Subaddress tag	1	'08'	'08' or '88'
SS string tag	1	'09'	'09' or '89'
USSD string tag	1	'0A'	'0A' or '8A'
SMS TPDU tag	1	'0B'	'0B' or '8B'
Cell Broadcast page tag	1	,0C,	'0C' or '8C'
Text string tag	1	'0D'	'0D' or '8D'
Tone tag	1	'0E'	'0E' or '8E'
Item tag	1	'0F'	'0F' or '8F'
Item identifier tag	1	'10'	'10' or '90'
	•		
Response length tag	1	'11'	'11' or '91'
File List tag	1	'12'	'12' or '92'
Location Information tag	1	'13'	'13' or '93'
IMEI tag	1	'14'	'14' or '94'
Help request tag	1	'15'	'15' or '95'
Network Measurement Results tag	1	'16'	'16' or '96'
Default Text	1	'17'	'17' or '97'
Items Next Action Indicator tag	1	'18'	'18' only
Event list tag	1	'19'	'19' or '99'
Cause tag	1	'1A'	'1A' or '9A'
Location status tag	1	'1B'	'1B' or '9B'
Transaction identifier tag	1	'1C'	'1C' or '9C'
BCCH channel list tag	1	'1D'	'1D' or '9D'
Icon identifier	1	'1E'	'1E' or '9E'
Item Icon identifier list	1 1	'1F'	'1F' or '9F'
Card reader status tag	1 1	'20'	'20' or 'A0'
Card ATR tag	1	'21'	'21' or 'A1'
C-APDU tag	1	'22'	'22' or 'A2'
R-APDU tag	1	'23'	'23' or 'A3'
Timer identifier tag	1	'24'	'24' or 'A4'
<u> </u>	1	'25'	'25' or 'A5'
Timer value tag			'26' or 'A6'
Date-Time and Time zone tag	1	'26'	
Call control requested action tag	1	'27'	'27' or 'A7'
AT Command tag	1	'28'	'28' or 'A8'
AT Response tag	1	'29'	'29' or 'A9'
BC Repeat Indicator tag	1	'2A'	'2A' or 'AA'
Immediate response tag	1	'2B'	'2B' or 'AB'
DTMF string tag	1	'2C'	'2C' or 'AC'
Language tag	1	'2D'	'2D' or 'AD'
Timing Advance tag	1	'2E'	'2E' or 'AE'
AID tag	1	'2F'	'2F' or 'AF'
Browser Identity tag	1	'30'	'30' or 'B0'
URL tag	1	'31'	'31' or 'B1'
Bearer tag	1	'32'	'32' or 'B2'
Provisioning Reference File tag	1	'33'	'33' or 'B3'
Browser Termination Cause tag	1	'34'	'34' or 'B4'
Bearer description tag	1	'35'	'35' or 'B5'
Channel data tag	1	'36'	'36' or 'B6'
Channel data length tag	1 1	'37'	'37' or 'B7'
Channel status tag	1 1	'38'	'38' or 'B8'
Buffer size tag	1	'39'	'39' or 'B9'
Danoi dizo tag	<u>'</u>	- 55	50 01 D3
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Description	Length of tag	Tag value, bits 1-7 (Range: '01' - '7E')	Tag (CR and Tag value)
Card reader identifier tag	1	'3A'	'3A' or 'BA'
Not used	-	'3B'	-
USIM/ME interface transport level	1	'3C'	'3C' or 'BC'
Not used	-	'3D'	-
Other address (data destination address)	1	'3E'	'3E' or 'BE'
Access Technology tag	1	'3F'	'3F' or 'BF'
Display parameters tag	1	'40'	'40' or 'C0'
Service Record	1	'41'	'41' or 'C1'
Device Filter	1	'42'	'42' or 'C2'
Service Search	1	'43'	'43' or 'C3'
Attribute information	1	'44'	'44' or 'C4'
Service Availability	1	'45'	'45' or 'C5'
Reserved for ETSI SCP	1	'46'	
Network Access Name	1	'47'	'47' or 'C7'
Text attribute tag	<u>1</u>	<u>'48'</u>	'48' or 'C8'
Item text attribute list tag	1	<u>'49'</u>	'49' or 'C9'
Reserved for TIA/EIA-136	1	·60'	'60' or 'E0'
Reserved for TIA/EIA-136	1	'61'	'61' or 'E1'

Annex B (informative): Example of DISPLAY TEXT Proactive UICC Command

Example of DISPLAY TEXT Proactive UICC Command (BER-TLV Data Object).

Byte#	Value (Hex)	Description
1	D0	Proactive UICC command tag
2	10 <u>16</u>	Length
3	81	Command details tag
4	03	Length
5	01	Command number
6 – 7	21 00	Display text (normal priority, clear message after a delay)
8	82	Device identities tag
9	02	Length
10	81	Source: UICC
11	02	Destination: Display
12	8D	Text string tag
13	05	Length
14	04	Data coding scheme ('04'=8-bit default SMS)
15 -18	55,53,41,54	text string ("USAT")
<u>19</u>	<u>C8</u>	Text attribute tag
<u>20</u>	<u>4</u>	<u>Length</u>
<u>21 – 24</u>	01,03,31,23	Text Formatting

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