TP-030037

3GPP TSG-T (Terminals) Meeting #19 Birmingham, UK 12 - 14 March, 2003

Agenda Item:	5.2.3
--------------	-------

Source: T2

Title: Change Requests to AT +W46

Document for: Approval

Spec	CR	Rev	Rel	Subject	Cat	Vers-	Vers-	T2 doc	Workitem
07.07	A91	-	R98	Correction ATV0 result codes	F	770	780	T2-030140	TEI
27.007	094	-	R99	Clarification in the behaviour of AT+CGCLASS	F	3.12.0	3.13.0	T2-030118	TEI
27.007	095	-	Rel-4	Clarification in the behaviour of AT+CGCLASS	A	4.5.0	4.6.0	T2-030100	TI-ATC
27.007	096	-	Rel-5	Clarification in the behaviour of AT+CGCLASS	A	5.2.0	5.3.0	T2-030101	TEI5
27.007	097	-	Rel-6	Clarification in the behaviour of AT+CGCLASS	A	6.1.0	6.2.0	T2-030102	TEI6
27.007	098	-	R99	Correction ATV0 result codes	А	3.12.0	3.13.0	T2-030141	TEI
27.007	099	-	Rel-4	Correction ATV0 result codes	А	4.5.0	4.6.0	T2-030142	TI-ATC
27.007	100	-	Rel-5	Correction ATV0 result codes	А	5.2.0	5.3.0	T2-030143	TEI5
27.007	101	-	Rel-6	Correction ATV0 result codes	Α	6.1.0	6.2.0	T2-030144	TEI6
27.007	102	-	R99	Correction of AT+WS46 parameter values.	F	3.12.0	3.13.0	T2-030152	TEI
27.007	103	-	Rel-4	Correction of AT+WS46 parameter values.	A	4.5.0	4.6.0	T2-030153	TI-ATC
27.007	104	-	Rel-5	Correction of AT+WS46 parameter values.	A	5.2.0	5.3.0	T2-030154	TEI5
27.007	105	-	Rel-6	Correction of AT+WS46 parameter values.	A	6.1.0	6.2.0	T2-030155	TEI6
27.007	106	-	R99	AT +CGEQREQ - Required Parameters for Streaming / Conversational Traffic Class	F	3.12.0	3.13.0	T2-030157	TEI
27.007	107	-	Rel-4	AT +CGEQREQ - Required Parameters for Streaming / Conversational Traffic Class	A	4.5.0	4.6.0	T2-030158	TI-ATC
27.007	108	-	Rel-5	AT +CGEQREQ - Required Parameters for Streaming / Conversational Traffic Class	A	5.2.0	5.3.0	T2-030159	TEI5
27.007	109	-	Rel-6	AT +CGEQREQ - Required Parameters for Streaming / Conversational Traffic Class	A	6.1.0	6.2.0	T2-030180	TEI6

		С	HANGE	REQ	UE	ST				CR-Form-v7
æ	07.07	CR <mark>/</mark>	\91	жrev	-	Ħ	Current vers	ion:	7.7.0	ж
For <u>HELP</u> on	using this fo	rm, see l	bottom of this	s page or	look a	at the	e pop-up text	over	the	nbols.
Proposed change affects: UICC apps% ME X Radio Access Network Core Network										
Title:	Correctio	n ATV0	result codes							
Source:	₩ <mark>T2</mark>									
Work item code:	₩ <mark>TEI</mark>						<i>Date:</i> ೫	22/	01/2003	
Category:	₭ F Use <u>one</u> of F (cor A (cor B (add C (fur D (edd Detailed ex be found in	the follow rection) responds dition of fe totional mo torial mod planation 3GPP TF	ving categories to a correctic eature), odification of i dification) s of the above <u>21.900</u> .	s: on in an ear feature) e categories	r <i>lier re</i> . s can	lease	Release: # Use <u>one</u> of 2 () R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	R9 the fc (GSN (Rele (Rele (Rele (Rele (Rele	8 M Phase 2) ease 1996) ease 1997) ease 1998) ease 1999) ease 4) ease 5) ease 6)	eases:
Reason for chang	ge: [#] The	ATV0 co	mmand nun	neric resu	lt cod	es lis	ted in the no	rmat	ive Annex	B are a

	reference to the one listed in the V.25 ter (renamed as V.250 since 1998). But in the table included in Annex B, the values for NO DIALTONE, BUSY and NO ANSWER (5, 6, 7 respectively) are different from the the values listed in ITU-T V.250 (6, 7, 8 respectively).
Summary of change: ೫	ATV0 numeric result codes NO DIALTONE, BUSY and NO ANSWER: 5, 6, 7 respectively, have been replaced by the values listed in ITU-T V.250 (previously V.25ter): 6, 7, 8 respectively. A note has been added to highligh the change
Consequences if # not approved:	There is an inconsistency in some ATV0 numeric result codes, the values explicitly listed in the Annex B of the current specification are not the same as the referenced ITU-T V.25ter values.
Clauses affected: #	Annex B

Other specs affected:	Y N # Other core specifications # Test specifications Ø&M Specifications
Other comments:	# The reference [14] to V.25ter should be updated with V.250

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

Annex B (normative): Summary of result codes

V.25ter [14] result codes which can be used in GSM and codes defined in the present document:

Verbose result code (V 25ter command V1 set)	Numeric	Туре	Description
+CCCM: <ccm></ccm>	as verbose	unsolicited	refer subclause 7 15 \$(AT R97)\$
+CCWA: <number>.<type></type></number>	as verbose	unsolicited	refer subclause 7.11
<pre>,<class>[,<alpha>]</alpha></class></pre>		unsoneneu	
+CCWV	as verbose	unsolicited	refer subclause 8.28
+CDEV: <elem>,<text></text></elem>	as verbose	unsolicited	refer subclause 8.10
+CIEV: <ind>,<value></value></ind>	as verbose	unsolicited	refer subclause 8.10
+CKEV: <key>,<press></press></key>	as verbose	unsolicited	refer subclause 8.10
+CLAV: <code></code>	as verbose	unsolicited	refer subclause 8.
+CLIP: <number></number>	as verbose	unsolicited	refer subclause 7.6
, <type>[,<subaddr></subaddr></type>			
, <satype>[,<alpha>]]</alpha></satype>			
+CME ERROR: <err></err>	as verbose	Final	refer subclause 9.2
+COLP: <number></number>	as verbose	intermediate	refer subclause 7.8
, <type>[,<subaddr></subaddr></type>			
, <satype>[,<alpha>]]</alpha></satype>			
+CR: <type></type>	as verbose	intermediate	refer subclause 6.8
+CREG: <stat>[,<lac></lac></stat>	as verbose	unsolicited	refer subclause 7.2
, <ci>]</ci>			
+CRING: <type></type>	as verbose	unsolicited	refer subclause 6.11
+CSSI: <codel></codel>	as verbose	intermediate	refer subclause 7.16
[, <index>]</index>			
+CSSU: <code2></code2>	as verbose	unsolicited	refer subclause 7.16
[, <index>[,<number>,</number></index>			
<type>[,<subaddr>,</subaddr></type>			
<pre><satype>]]]</satype></pre>	1	1 1	
+CUSD: <m>[,<str>,<dcs>]</dcs></str></m>	as verbose	unsolicited	refer subclause 7.14
+DR: <type></type>	as verbose	intermediate	refer subclause 6.13
+ILRR: <rate></rate>	as verbose	intermediate	refer subclause 4.3
BUSY	<u>7</u> 6	Final	busy signal detected
CONNECT	1	intermediate	connection has been established
CONNECT <text></text>	manufacturer	intermediate	as CONNECT but manufacturer specific
	specific		<text> gives additional information (e.g.</text>
			connection data rate)
ERROR	4	Final	command not accepted
NO ANSWER	87	Final	connection completion timeout
NO CARRIER	3	Final	connection terminated
NO DIALTONE	<u>6</u> 5	Final	no dialtone detected
OK	0	Final	acknowledges execution of a command line
RING	2	unsolicited	incoming call signal from network

Table B.1: Result codes

Note: From v7.8.0 onwards, ATV0 numeric result codes 5, 6, 7 for NO DIALTONE, BUSY and NO ANSWER respectively, have been replaced by numeric result codes 6, 7, 8 respectively, to be aligned with the values listed in ITU-T V.250 (previously V.25ter).

			CHAN	GE R	EQI	JE	ST			С	R-Form-v7
ж	27.	<mark>007</mark> C	R <mark>094</mark>	жI	rev	-	ж	Current vers	^{ion:} 3.1	2.0	ж
For <u>HELP</u> on	using t	his form,	see bottom c	of this pa	ge or le	ook a	at the	e pop-up text	over the	¥ syml	bols.
Proposed chang	e affect	ts: UIC	C apps₩] N	ME <mark>X</mark>	Rad	io Ac	ccess Networ	k Co	ore Netv	work
Title:	ж <mark>Сla</mark>	rification	in the behavio	our of Al	r+cgc	CLAS	S				
Source:	ж <mark>Т2</mark>										
Work item code:	<mark>೫ TE</mark> I							<i>Date:</i> ೫	14-Jan-	2003	
Category:	米 F Use <u>c</u> Detai be fo	one of the F (correct A (corres B (addition C (function D (editorial led explar und in 3G	following categ tion) ponds to a com n of feature), anal modification al modification, nations of the a PP <u>TR 21.900</u> .	gories: rection in on of featu) bove cate	an earl ire) egories	ier rei can	lease	Release: % Use <u>one</u> of 2 9 R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	R99 the followi (GSM Pha (Release (Release (Release (Release (Release (Release	ng relea ase 2) 1996) 1997) 1998) 1999) 4) 5)	ses:

Reason for change: ೫	The current modes of operation listed under the AT+CGCLASS command are incompleted, only the names of the UE modes of operation in A/Gb mode are included. But the current values are also applicable to the UE modes of operation in lu mode, defined in the GPRS specification 23.060 sec. 5.4.6. A clarification is needed to explain that the modes of operation are applicable to A/Gb and lu modes. Furthermore, in +CGEREP command definition there is a reference to <class> parameter included in +CGCLASS. So <class> definition shall be complete and clear.</class></class>
Summary of change: ೫	References to 23.060, where the operation modes are described, has been included in the AT+CGCLASS Replacement of the term "class" with the more acurate term "modes of operation". Clarification that the <class> paramater values are also applicable for the UE modes of operation in lu mode. It is clarified that the read command shall return the set value independent of the capability in the current serving cell.</class>
Consequences if % not approved:	Since the command is applicable to UE modes of operation in A/Gb and Iu mode, the specification is incomplete leading to misunderstanding. Especially it is unclear which <class> is applicable to a dual mode UMTS GSM terminal which is not DTM capable, as this would behave a class A in a Iu mode cell and as class B in a A/Gb mode cell. Inconsistency inside 27.007</class>

Clauses affected: # 10.1.17

Other specs affected:	ж	Υ	N X X X	Other core specifications # Test specifications O&M Specifications	8	
Other comments:	ж					

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

10.1.17 GPRS mobile station class +CGCLASS (GPRS only)

Command	Possible Response(s)
+CGCLASS=[<class>]</class>	OK
	ERROR
+CGCLASS?	+CGCLASS: <class></class>
+CGCLASS=?	+CGCLASS: (list of supported <class>s)</class>

Table 1: CGCLASS parameter command syntax

Description

The set command is used to set the MT to operate according to the specified <u>GPRS mobile classmode of operation</u>, see <u>TS 23.060 [47]</u>. If the requested <u>classmode of operation</u> is not supported, an ERROR or +CME ERROR response is returned. Extended error responses are enabled by the +CMEE command.

The read command returns the <u>eurrent GPRS mobile class</u> mode of operation set by the TE, independent of the current serving cell capability. If no value has been set by the TE previously, the return value shall be the highest mode of operation that can be supported by the MT.

The test command is used for requesting information on the supported MT GPRS mobile classes mode of operation.

Defined Values

<class>: a string parameter which indicates the GPRS mobile class (in descending order of functionality)mode of <u>operation</u>

A <u>Class-Aclass A mode of operation (A/Gb mode), or CS/PS mode of operation (Iu mode)</u> (highest mode of operation)

B <u>Class-B</u>elass B mode of operation (A/Gb mode), (not applicable in Iu mode)

CG <u>Class-Celass C mode of operation in PS only mode (A/Gb mode)</u>, or PS mode of operation (Iu mode)in GPRS only mode

CC <u>Class-C</u> mode of operation in CS only mode (A/Gb mode), or CS (Iu mode) in circuit switched only mode (lowest mode of operation)

Note: <class> A means that the MT would operate simultaneous PS and CS service

<class> B means that the MT would operate PS and CS services but not simultaneously

<class> CG means that the MT would only operate PS services

<class> CC means that the MT would only operate CS services

Other values are reserved and will result in an ERROR response to the set command.

If the MT is $\frac{\text{GPRS}}{\text{class}}$ attached to the PS domain when the set command is issued with a <class> = CC specified, a $\frac{\text{PS}}{\text{class}}$ detach $\frac{\text{request}}{\text{request}}$ shall be performed by the MTsent to the network.

Implementation

Optional.

	(CHANGE	REQ	UES	ST				CR-Form-v7
					-				
Ħ	27.007 CR	095	жrev	-	Ħ	Current vers	sion:	4.5.0	ж
For <mark>HELP</mark> on L	ising this form, see	bottom of this	page or l	look a	at the	e pop-up text	over	the	nbols.
Proposed change affects: UICC apps# ME X Radio Access Network Core Network									
Title: #	Clarification in th	ne behaviour o	f AT+CG	CLAS	S				
Source: भ	T2								
Work item code: भ	TI-ATC					<i>Date:</i> ೫	14-,	Jan-2003	
Category: ₩	A Use <u>one</u> of the follo F (correction) A (correspond B (addition of C (functional D (editorial m Detailed explanation be found in 3GPP	owing categories ds to a correction feature), modification of fe odification) ns of the above <u>FR 21.900</u> .	:: n in an ear eature) categories	lier rel s can	lease	Release: % Use <u>one</u> of 2 8) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	Relative for the for (GSM) (Releation (Releation)) (Releation) (Re	-4 Ilowing rele 1 Phase 2) ase 1996) ase 1997) ase 1998) ase 1999) ase 4) ase 5) ase 6)	eases:
	be found in 3GPP	<u>FR 21.900</u> .				Rel-5 Rel-6	(Relea (Relea	ase 5) ase 6)	

Reason for change: ೫	The current modes of operation listed under the AT+CGCLASS command are incompleted, only the names of the UE modes of operation in A/Gb mode are included. But the current values are also applicable to the UE modes of operation in lu mode, defined in the GPRS specification 23.060 sec. 5.4.6. A clarification is needed to explain that the modes of operation are applicable to A/Gb and lu modes. Furthermore, in +CGEREP command definition there is a reference to <class> parameter included in +CGCLASS. So <class> definition shall be complete and clear.</class></class>
Summary of change: ₩	References to 23.060, where the operation modes are described, has been included in the AT+CGCLASS Replacement of the term "class" with the more acurate term "modes of operation". Clarification that the <class> paramater values are also applicable for the UE modes of operation in lu mode. It is clarified that the read command shall return the set value independent of the capability in the current serving cell.</class>
Consequences if # not approved:	Since the command is applicable to UE modes of operation in A/Gb and Iu mode, the specification is incomplete leading to misunderstanding. Especially it is unclear which <class> is applicable to a dual mode UMTS GSM terminal which is not DTM capable, as this would behave a class A in a Iu mode cell and as class B in a A/Gb mode cell. Inconsistency inside 27.007</class>

Clauses affected: % 10.1.17

Other specs affected:	ж	Υ	N X X X	Other core specifications # Test specifications O&M Specifications	8	
Other comments:	ж					

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

10.1.17 GPRS mobile station class +CGCLASS (GPRS only)

Command	Possible Response(s)
+CGCLASS=[<class>]</class>	OK
	ERROR
+CGCLASS?	+CGCLASS: <class></class>
+CGCLASS=?	+CGCLASS: (list of supported <class>s)</class>

Table 1: CGCLASS parameter command syntax

Description

The set command is used to set the MT to operate according to the specified <u>GPRS mobile classmode of operation</u>, see <u>TS 23.060 [47]</u>. If the requested <u>classmode of operation</u> is not supported, an ERROR or +CME ERROR response is returned. Extended error responses are enabled by the +CMEE command.

The read command returns the <u>eurrent GPRS mobile class</u> mode of operation set by the TE, independent of the current serving cell capability. If no value has been set by the TE previously, the return value shall be the highest mode of operation that can be supported by the MT.

The test command is used for requesting information on the supported MT GPRS mobile classes mode of operation.

Defined Values

<class>: a string parameter which indicates the GPRS mobile class (in descending order of functionality)mode of <u>operation</u>

A <u>Class-Aclass A mode of operation (A/Gb mode), or CS/PS mode of operation (Iu mode)</u> (highest mode of operation)

B <u>Class-B</u>elass B mode of operation (A/Gb mode), (not applicable in Iu mode)

CG <u>Class-Celass C mode of operation in PS only mode (A/Gb mode)</u>, or PS mode of operation (Iu mode)in GPRS only mode

CC <u>Class-C</u> mode of operation in CS only mode (A/Gb mode), or CS (Iu mode) in circuit switched only mode (lowest mode of operation)

Note: <class> A means that the MT would operate simultaneous PS and CS service

<class> B means that the MT would operate PS and CS services but not simultaneously

<class> CG means that the MT would only operate PS services

<class> CC means that the MT would only operate CS services

Other values are reserved and will result in an ERROR response to the set command.

If the MT is $\frac{\text{GPRS}}{\text{class}}$ attached to the PS domain when the set command is issued with a <class> = CC specified, a $\frac{\text{PS}}{\text{class}}$ detach $\frac{\text{request}}{\text{request}}$ shall be performed by the MTsent to the network.

Implementation

Optional.

	<i>,</i> –										CB Form VZ
	CHANGE REQUEST									CR-F Onn-VI	
æ		27.007	CR 0	96	жrev	-	ж	Current vers	ion: 5.	2.0	ж
For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.											
Proposed chang	ye a	affects: L	JICC app	s#	MEX	Rac	dio Ad	ccess Networ	k <mark>C</mark> C	ore Ne	twork
Title:	Ж	Clarificatio	on in the	<mark>behaviour c</mark>	of AT+CG	CLAS	SS				
Source:	Ħ	T2									
Work item code	:¥	TEI5						<i>Date:</i> ೫	14-Jan-	2003	
Category:	ж	A Use <u>one</u> of t F (corr A (corr B (ada C (fund D (edit Detailed exp be found in 3	he followi ection) responds a lition of fea ctional modi orial modi lanations 3GPP <u>TR</u>	ng categories to a correctio ature), dification of f fication) of the above <u>21.900</u> .	s: n in an ea feature) categorie:	rlier re	elease	Release: # Use <u>one</u> of 2 (*) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	Rel-5 the followi (GSM Pha (Release (Release (Release (Release (Release (Release	ng rele ase 2) 1996) 1997) 1998) 1999) 4) 5)	pases:

Reason for change: ೫	The current modes of operation listed under the AT+CGCLASS command are incompleted, only the names of the UE modes of operation in A/Gb mode are included. But the current values are also applicable to the UE modes of operation in Iu mode, defined in the GPRS specification 23.060 sec. 5.4.6. A clarification is needed to explain that the modes of operation are applicable to A/Gb and Iu modes. Furthermore, in +CGEREP command definition there is a reference to <class> parameter included in +CGCLASS. So <class> definition shall be complete and clear.</class></class>
Summary of change: ೫	References to 23.060, where the operation modes are described, has been included in the AT+CGCLASS Replacement of the term "class" with the more acurate term "modes of operation". Clarification that the <class> paramater values are also applicable for the UE modes of operation in lu mode. It is clarified that the read command shall return the set value independent of the capability in the current serving cell.</class>
Consequences if # not approved:	Since the command is applicable to UE modes of operation in A/Gb and Iu mode, the specification is incomplete leading to misunderstanding. Especially it is unclear which <class> is applicable to a dual mode UMTS GSM terminal which is not DTM capable, as this would behave a class A in a Iu mode cell and as class B in a A/Gb mode cell. Inconsistency inside 27.007</class>

Clauses affected: # 10.1.17

Other specs affected:	ж	Υ	N X X X	Other core specifications # Test specifications O&M Specifications	8	
Other comments:	ж					

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

10.1.17 GPRS mobile station class +CGCLASS (GPRS only)

Command	Possible Response(s)
+CGCLASS=[<class>]</class>	OK
	ERROR
+CGCLASS?	+CGCLASS: <class></class>
+CGCLASS=?	+CGCLASS: (list of supported <class>s)</class>

Table 1: CGCLASS parameter command syntax

Description

The set command is used to set the MT to operate according to the specified <u>GPRS mobile classmode of operation</u>, see <u>TS 23.060 [47]</u>. If the requested <u>classmode of operation</u> is not supported, an ERROR or +CME ERROR response is returned. Extended error responses are enabled by the +CMEE command.

The read command returns the <u>eurrent GPRS mobile class</u> mode of operation set by the TE, independent of the current serving cell capability. If no value has been set by the TE previously, the return value shall be the highest mode of operation that can be supported by the MT.

The test command is used for requesting information on the supported MT GPRS mobile classes mode of operation.

Defined Values

<class>: a string parameter which indicates the GPRS mobile class (in descending order of functionality)mode of <u>operation</u>

A <u>Class-Aclass A mode of operation (A/Gb mode), or CS/PS mode of operation (Iu mode)</u> (highest mode of operation)

B <u>Class-B</u>elass B mode of operation (A/Gb mode), (not applicable in Iu mode)

CG <u>Class-Celass C mode of operation in PS only mode (A/Gb mode)</u>, or PS mode of operation (Iu mode)in GPRS only mode

CC <u>Class-C</u> mode of operation in CS only mode (A/Gb mode), or CS (Iu mode) in circuit switched only mode (lowest mode of operation)

Note: <class> A means that the MT would operate simultaneous PS and CS service

<class> B means that the MT would operate PS and CS services but not simultaneously

<class> CG means that the MT would only operate PS services

<class> CC means that the MT would only operate CS services

Other values are reserved and will result in an ERROR response to the set command.

If the MT is $\frac{\text{GPRS}}{\text{class}}$ attached to the PS domain when the set command is issued with a <class> = CC specified, a $\frac{\text{PS}}{\text{class}}$ detach $\frac{\text{request}}{\text{request}}$ shall be performed by the MTsent to the network.

Implementation

Optional.

	<u> </u>										CD Form VZ
CHANGE REQUEST											
æ		27.007	CR 097		жrev	-	ж	Current vers	^{ion:} 6.1	.0	ж
For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.											
Proposed chang	ge a	affects:	JICC apps೫		ME <mark>X</mark>	Rac	A oib	ccess Networ	k Cor	e Ne	twork
Title:	ж	Clarificati	on in the beh	aviour o	f AT+CG	CLAS	SS				
Source:	ж	T2									
Work item code	:Ж	TEI6						<i>Date:</i> ೫	14-Jan-2	003	
Category:	æ	A Use <u>one</u> of F (cor A (cor B (add C (fun D (edi Detailed exp be found in	the following c rection) responds to a dition of feature ctional modific torial modificat planations of th 3GPP <u>TR 21.9</u>	ategories correction e), ation of fe tion) ne above 200.	s: n in an ear eature) categories	<i>lier re</i> s can	elease	Release: ₩ Use <u>one</u> of 2 9) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	Rel-6 the following (GSM Phas (Release 19 (Release 19 (Release 19 (Release 4) (Release 4) (Release 5) (Release 6)	g rele se 2) 996) 997) 998) 999))	ases:

Reason for change: ೫	The current modes of operation listed under the AT+CGCLASS command are incompleted, only the names of the UE modes of operation in A/Gb mode are included. But the current values are also applicable to the UE modes of operation in lu mode, defined in the GPRS specification 23.060 sec. 5.4.6. A clarification is needed to explain that the modes of operation are applicable to A/Gb and lu modes. Furthermore, in +CGEREP command definition there is a reference to <class> parameter included in +CGCLASS. So <class> definition shall be complete and clear.</class></class>
Summary of change: ₩	References to 23.060, where the operation modes are described, has been included in the AT+CGCLASS Replacement of the term "class" with the more acurate term "modes of operation". Clarification that the <class> paramater values are also applicable for the UE modes of operation in lu mode. It is clarified that the read command shall return the set value independent of the capability in the current serving cell.</class>
Consequences if % not approved:	Since the command is applicable to UE modes of operation in A/Gb and Iu mode, the specification is incomplete leading to misunderstanding. Especially it is unclear which <class> is applicable to a dual mode UMTS GSM terminal which is not DTM capable, as this would behave a class A in a Iu mode cell and as class B in a A/Gb mode cell. Inconsistency inside 27.007</class>

Clauses affected: # 10.1.17

Other specs affected:	ж	Υ	N X X X	Other core specifications # Test specifications O&M Specifications	8	
Other comments:	ж					

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

10.1.17 GPRS mobile station class +CGCLASS (GPRS only)

Command	Possible Response(s)
+CGCLASS=[<class>]</class>	OK
	ERROR
+CGCLASS?	+CGCLASS: <class></class>
+CGCLASS=?	+CGCLASS: (list of supported <class>s)</class>

Table 1: CGCLASS parameter command syntax

Description

The set command is used to set the MT to operate according to the specified <u>GPRS mobile classmode of operation</u>, see <u>TS 23.060 [47]</u>. If the requested <u>classmode of operation</u> is not supported, an ERROR or +CME ERROR response is returned. Extended error responses are enabled by the +CMEE command.

The read command returns the <u>eurrent GPRS mobile class</u> mode of operation set by the TE, independent of the current serving cell capability. If no value has been set by the TE previously, the return value shall be the highest mode of operation that can be supported by the MT.

The test command is used for requesting information on the supported MT GPRS mobile classes mode of operation.

Defined Values

<class>: a string parameter which indicates the GPRS mobile class (in descending order of functionality)mode of <u>operation</u>

A <u>Class-Aclass A mode of operation (A/Gb mode), or CS/PS mode of operation (Iu mode)</u> (highest mode of operation)

B <u>Class-B</u>elass B mode of operation (A/Gb mode), (not applicable in Iu mode)

CG <u>Class-Celass C mode of operation in PS only mode (A/Gb mode)</u>, or PS mode of operation (Iu mode)in GPRS only mode

CC <u>Class-C</u> mode of operation in CS only mode (A/Gb mode), or CS (Iu mode) in circuit switched only mode (lowest mode of operation)

Note: <class> A means that the MT would operate simultaneous PS and CS service

<class> B means that the MT would operate PS and CS services but not simultaneously

<class> CG means that the MT would only operate PS services

<class> CC means that the MT would only operate CS services

Other values are reserved and will result in an ERROR response to the set command.

If the MT is $\frac{\text{GPRS}}{\text{class}}$ attached to the PS domain when the set command is issued with a <class> = CC specified, a $\frac{\text{PS}}{\text{class}}$ detach $\frac{\text{request}}{\text{request}}$ shall be performed by the MTsent to the network.

Implementation

Optional.

CHANGE REQUEST									
ж	27.007 CR 098 #rev - ^{# C}	Current vers	^{ion:} 3.12.0 [#]						
For <u>HELP</u> or	using this form, see bottom of this page or look at the	pop-up text	over the X symbols.						
Proposed chang	e affects: UICC apps೫ ME Radio Acc	ess Networ	k Core Network						
Title:	Correction ATV0 result codes								
Source:	₭ T2								
Work item code:	₭ TEI	<i>Date:</i> ೫	22/01/2003						
Category:	 A A Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u>. 	Release: # Use <u>one</u> of 1 2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	R99 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)						
Rel-6 (Release 6) Reason for change: # The ATV0 command numeric result codes listed in the normative Annex B are a									

neuson for onange. 00	reference to the one listed in the V.25 ter (renamed as V.250 since 1998). But in the table included in Annex B, the values for NO DIALTONE, BUSY and NO ANSWER (5, 6, 7 respectively) are different from the the values listed in ITU-T V.250 (6, 7, 8 respectively).
Summary of change:	ATV0 numeric result codes NO DIALTONE, BUSY and NO ANSWER: 5, 6, 7 respectively, have been replaced by the values listed in ITU-T V.250 (previously V.25ter) : 6, 7, 8 respectively. A note has been added to highligh the change
Consequences if # not approved:	There is an inconsistency in some ATV0 numeric result codes, the values explicitly listed in the Annex B of the current specification are not the same as the referenced ITU-T V.25ter values.
Clauses affected: #	Annex B

Other specs affected:	ж Т	N	Other core specifications # Test specifications O&M Specifications
Other comments:	ж Т	The r	eference [14] to V.25ter should be updated with V.250

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

Annex B (normative): Summary of result codes

V.25ter [14] result codes which can be used in GSM/UMTS and codes defined in the present document:

Verbose result code (V.25ter command V1 set)	Numeric (V0 set)	Туре	Description
+CALV	as verbose	unsolicited	refer subclause 8.16
+CCCM: <ccm></ccm>	as verbose	unsolicited	refer subclause 7.16
+CCWA: <number>,<type></type></number>	as verbose	unsolicited	refer subclause 7.12
, <class>[,<alpha>]</alpha></class>			
+CCWV	as verbose	unsolicited	refer subclause 8.28
+CDEV: <elem>,<text></text></elem>	as verbose	unsolicited	refer subclause 8.10
+CDIP: <number>,<type>[,<</type></number>	as verbose	unsolicited	refer subclause 7.9
subaddr>, <satype>]</satype>			
+CIEV: <ind>,<value></value></ind>	as verbose	unsolicited	refer subclause 8.10
+CKEV: <key>,<press></press></key>	as verbose	unsolicited	refer subclause 8.10
+CLAV: <code></code>	as verbose	unsolicited	refer subclause 8.
+CLIP: <number></number>	as verbose	unsolicited	refer subclause 7.6
, <type>[,<subaddr></subaddr></type>			
, <satype>[,<alpha>]]</alpha></satype>			
+CME ERROR: <err></err>	as verbose	final	refer subclause 9.2
+COLP: <number></number>	as verbose	intermediate	refer subclause 7.8
, <type>[,<subaddr></subaddr></type>			
<pre>,<satype>[,<alpha>]]</alpha></satype></pre>			
+CR: <type></type>	as verbose	intermediate	refer subclause 6.9
+CREG: <stat>[,<lac></lac></stat>	as verbose	unsolicited	refer subclause 7.2
, <ci>]</ci>			
+CRING: <type></type>	as verbose	unsolicited	refer subclause 6.11
+CSSI: <codel></codel>	as verbose	intermediate	refer subclause 7.17
[, <index>]</index>			
+CSSU: <code2></code2>	as verbose	unsolicited	refer subclause 7.17
[, <index>[,<number>,</number></index>			
<type>[,<subaddr>,</subaddr></type>			
+CIZV: <lz></lz>	as verbose	unsolicited	refer subclause 8.40
+CUSD: <m>[,<str>,<dcs>]</dcs></str></m>	as verbose	unsolicited	refer subclause /.15
+DR: <type></type>	as verbose	intermediate	refer subclause 6.13
+1LRR: <rate></rate>	as verbose	intermediate	refer subclause 4.3
BUSY	<u>7</u> 6	final	busy signal detected
CONNECT	1	intermediate	connection has been established
CONNECT <text></text>	manufacturer	intermediate	as CONNECT but manufacturer specific
	specific		<text> gives additional information (e.g.</text>
			connection data rate)
ERROR	4	tinal	command not accepted
NO ANSWER	<u>8</u> 7	final	connection completion timeout
NO CARRIER	3	final	connection terminated
NO DIALTONE	<u>6</u> 5	final	no dialtone detected
OK	0	final	acknowledges execution of a command line
RING	2	unsolicited	incoming call signal from network

Table B.1: Result codes

Note: From v3.13.0 onwards, ATV0 numeric result codes 5, 6, 7 for NO DIALTONE, BUSY and NO ANSWER respectively, have been replaced by numeric result codes 6, 7, 8 respectively, to be aligned with the values listed in ITU-T V.250 (previously V.25ter).

							CR-Form-v7
		CHAN	GE REC	UES	т		
¥	27.007	CR <mark>099</mark>	ំដ e v	- *	Current vers	^{sion:} 4.5.0	ж
For <u>HELP</u> on u	using this fo	rm, see bottom o	f this page o	look at	the pop-up text	over the X sy	mbols.
Proposed change	affects:	UICC apps೫ <mark>–</mark>	ME	Radio	Access Networ	rk <mark>–</mark> Core Ne	etwork
Title: #	Correctio	n ATV0 result co	des				
Source: ¥	3 T2						
Work item code: ¥	TI-ATC				<i>Date:</i> ೫	22/01/2003	
Category: ₩	B A Use <u>one</u> of F (cor A (cor B (ad C (fur D (ed Detailed ex be found in	the following categ rection) responds to a corr dition of feature), actional modification itorial modification) planations of the a 3GPP <u>TR 21.900</u> .	gories: rection in an ea n of feature) bove categorie	arlier relea es can	Release: % Use <u>one</u> of 2 rse) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	Rel-4 the following rel (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)	eases:
Reason for change	e: X The refe	ATV0 command ence to the one able included in a	numeric resulisted in the V	ult codes (.25 ter (values f	listed in the no renamed as V.: or NO DIALTO	ormative Annex 250 since 1998 NE , BUSY an	B are a B). But in d NO

	reference to the one listed in the V.25 ter (renamed as V.250 since 1998). But in the table included in Annex B, the values for NO DIALTONE, BUSY and NO ANSWER (5, 6, 7 respectively) are different from the the values listed in ITU-T V.250 (6, 7, 8 respectively).
Summary of change: ೫	ATV0 numeric result codes NO DIALTONE, BUSY and NO ANSWER: 5, 6, 7 respectively, have been replaced by the values listed in ITU-T V.250 (previously V.25ter): 6, 7, 8 respectively. A note has been added to highligh the change
Consequences if 🛛 🕱	There is an inconsistency in some ATV0 numeric result codes, the values
not approved:	explicitly listed in the Annex B of the current specification are not the same as the referenced ITU-T V.25ter values.

Clauses affected:	# Annex B
Other specs affected:	Y N % Other core specifications % Test specifications % O&M Specifications
Other comments:	# The reference [14] to V.25ter should be updated with V.250

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

ERROR

OK

RING

NO ANSWER

NO CARRIER

NO DIALTONE

Annex B (normative): Summary of result codes

V.25ter [14] result codes which can be used in GSM/UMTS and codes defined in the present document:

Verbose result code Numeric Type Description (V.25ter command V1 set) (V0 set) +CALV unsolicited refer subclause 8.16 as verbose +CCCM: <ccm> as verbose unsolicited refer subclause 7.16 +CCWA: <number>, <type> unsolicited refer subclause 7.12 as verbose , <class>[, <alpha>] +CCWV unsolicited refer subclause 8.28 as verbose +CDEV: <elem>,<text> unsolicited refer subclause 8.10 as verbose +CDIP:<number>,<type>[,< as verbose refer subclause 7.9 unsolicited subaddr>,<satype>] +CIEV: <ind>,<value> unsolicited refer subclause 8.10 as verbose +CKEV: <key>, <press> unsolicited refer subclause 8.10 as verbose +CLAV: <code> as verbose unsolicited refer subclause 8. +CLIP: <number> unsolicited refer subclause 7.6 as verbose , <type>[, <subaddr> , <satype>[, <alpha>]] +CME ERROR: <err> refer subclause 9.2 as verbose final +COLP: <number> refer subclause 7.8 as verbose intermediate , <type>[, <subaddr> ,<satype>[,<alpha>]] as verbose intermediate refer subclause 6.9 +CR: <type> +CREG: <stat>[,<lac> as verbose unsolicited refer subclause 7.2 ,<ci>] refer subclause 6.11 +CRING: <type> as verbose unsolicited +CSSI: <codel> intermediate refer subclause 7.17 as verbose [,<index>] +CSSU: <code2> refer subclause 7.17 as verbose unsolicited [,<index>[,<number>, <type>[,<subaddr>, <satype>]]] +CTZV: <tz> unsolicited refer subclause 8.40 as verbose +CUSD: <m>[,<str>,<dcs>] unsolicited refer subclause 7.15 as verbose +CUUS1I: <messageI> refer subclause 7.25 as verbose intermediate +CUUS1U: <messageU> as verbose unsolicited refer subclause 7.25 +DR: <type> intermediate refer subclause 6.13 as verbose +ILRR: <rate> as verbose intermediate refer subclause 4.3 BUSY 76 final busy signal detected CONNECT 1 intermediate connection has been established intermediate CONNECT <text> manufacturer as CONNECT but manufacturer specific specific <text> gives additional information (e.g.

Table B.1: Result codes

unsolicited

final

final

final

final

final

4

3

0

2

87

65

connection data rate)

command not accepted

connection terminated

no dialtone detected

connection completion timeout

incoming call signal from network

acknowledges execution of a command line

Note: From v4.6.0 onwards, ATV0 numeric result codes 5, 6, 7 for NO DIALTONE, BUSY and NO ANSWER respectively, have been replaced by numeric result codes 6, 7, 8 respectively, to be aligned with the values listed in ITU-T V.250 (previously V.25ter).

		CHANGE REQUEST			CR-Form-v7
ж		<mark>27.007</mark> CR <mark>100 </mark>	urrent vers	ion: 5.2.0	ж
For <u>HELP</u> on	us	ing this form, see bottom of this page or look at the p	op-up text	over the X syr	nbols.
Proposed change	e a	f fects: UICC apps ೫ ME Radio Acce	ess Networ	k Core Ne	etwork
Title:	Ж	Correction ATV0 result codes			
Source:	Ħ	Т2			
Work item code:	Ж	TEI5	Date: Ж	22/01/2003	
Category:	₩	A R Jse <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u> .	Release: # Use <u>one</u> of 1 2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	Rel-5 the following reli (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)	eases:
Reason for chan	ae	# The ATV0 command numeric result codes liste	d in the no	rmative Annex	B are a

Reason for change: ೫	The ATV0 command numeric result codes listed in the normative Annex B are a reference to the one listed in the V.25 ter (renamed as V.250 since 1998). But in the table included in Annex B, the values for NO DIALTONE, BUSY and NO ANSWER (5, 6, 7 respectively) are different from the the values listed in ITU-T V.250 (6, 7, 8 respectively).
Summary of change: ¥	ATV0 numeric result codes NO DIALTONE, BUSY and NO ANSWER: 5, 6, 7 respectively, have been replaced by the values listed in ITU-T V.250 (previously V.25ter) : 6, 7, 8 respectively. A note has been added to highligh the change
Consequences if # not approved:	There is an inconsistency in some ATV0 numeric result codes, the values explicitly listed in the Annex B of the current specification are not the same as the referenced ITU-T V.25ter values.
Clauses offeeted:	Annox P

Clauses affected:	H Annex B
Other specs affected:	Y N % Other core specifications % Test specifications % O&M Specifications %
Other comments:	器 The reference [14] to V.25ter should be updated with V.250

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

ERROR

OK

RING

NO ANSWER

NO CARRIER

NO DIALTONE

Annex B (normative): Summary of result codes

V.25ter [14] result codes which can be used in GSM/UMTS and codes defined in the present document:

Verbose result code Numeric Type Description (V.25ter command V1 set) (V0 set) +CALV unsolicited refer subclause 8.16 as verbose +CCCM: <ccm> as verbose unsolicited refer subclause 7.16 +CCWA: <number>, <type> unsolicited refer subclause 7.12 as verbose , <class>[, <alpha>] +CCWV unsolicited refer subclause 8.28 as verbose +CDEV: <elem>,<text> unsolicited refer subclause 8.10 as verbose +CDIP:<number>,<type>[,< as verbose refer subclause 7.9 unsolicited subaddr>,<satype>] +CIEV: <ind>,<value> unsolicited refer subclause 8.10 as verbose +CKEV: <key>, <press> unsolicited refer subclause 8.10 as verbose +CLAV: <code> as verbose unsolicited refer subclause 8. +CLIP: <number> unsolicited refer subclause 7.6 as verbose , <type>[, <subaddr> , <satype>[, <alpha>]] +CME ERROR: <err> refer subclause 9.2 as verbose final +COLP: <number> refer subclause 7.8 as verbose intermediate , <type>[, <subaddr> ,<satype>[,<alpha>]] as verbose intermediate refer subclause 6.9 +CR: <type> +CREG: <stat>[,<lac> as verbose unsolicited refer subclause 7.2 ,<ci>] refer subclause 6.11 +CRING: <type> as verbose unsolicited +CSSI: <codel> intermediate refer subclause 7.17 as verbose [,<index>] +CSSU: <code2> refer subclause 7.17 as verbose unsolicited [,<index>[,<number>, <type>[,<subaddr>, <satype>]]] +CTZV: <tz> unsolicited refer subclause 8.40 as verbose +CUSD: <m>[,<str>,<dcs>] unsolicited refer subclause 7.15 as verbose +CUUS1I: <messageI> refer subclause 7.25 as verbose intermediate +CUUS1U: <messageU> as verbose unsolicited refer subclause 7.25 +DR: <type> intermediate refer subclause 6.13 as verbose +ILRR: <rate> as verbose intermediate refer subclause 4.3 BUSY 76 final busy signal detected CONNECT 1 intermediate connection has been established intermediate CONNECT <text> manufacturer as CONNECT but manufacturer specific specific <text> gives additional information (e.g.

Table B.1: Result codes

unsolicited

final

final

final

final

final

4

3

0

2

87

65

connection data rate)

command not accepted

connection terminated

no dialtone detected

connection completion timeout

incoming call signal from network

acknowledges execution of a command line

Note: From v5.3.0 onwards, ATV0 numeric result codes 5, 6, 7 for NO DIALTONE, BUSY and NO ANSWER respectively, have been replaced by numeric result codes 6, 7, 8 respectively, to be aligned with the values listed in ITU-T V.250 (previously V.25ter).

X	27.007	CR 101	ж геv	-	жC	urrent versi	^{on:} 6.1	.0	ж
For <u>HELP</u> on	using this fo	rm, see bottom of t	his page or	look a	t the p	oop-up text	over the ¥	sym	nbols.
Proposed change	affects:	UICC apps೫	ME	Radi	o Acce	ess Networ	k Core	e Nei	twork
Title: 3	Correctio	n ATV0 result code	es						
Source: ៖	t2								
Work item code: \$	E TEI6					<i>Date:</i> ೫	22/01/20	03	
Category: 3	B A Use <u>one</u> of F (cor A (col B (add C (fur D (edd Detailed ex be found in	the following catego rection) rresponds to a correc dition of feature), actional modification of itorial modification) planations of the abo 3GPP <u>TR 21.900</u> .	ries: ction in an ear of feature) ove categories	rlier rele s can	R ease)	Release: % Use <u>one</u> of a 2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	Rel-6 the following (GSM Phas (Release 19 (Release 19 (Release 19 (Release 4) (Release 5) (Release 6)	g rele e 2) 996) 997) 998) 999)	ases:
Reason for chang	e: [#] The	ATV0 command n	umeric resul	It code	es liste	d in the nor	mative An		B are a

Reason for change: њ	reference to the one listed in the V.25 ter (renamed as V.250 since 1998). But in the table included in Annex B, the values for NO DIALTONE, BUSY and NO ANSWER (5, 6, 7 respectively) are different from the the values listed in ITU-T V.250 (6, 7, 8 respectively).
Summary of change: ೫	ATV0 numeric result codes NO DIALTONE, BUSY and NO ANSWER: 5, 6, 7 respectively, have been replaced by the values listed in ITU-T V.250 (previously V.25ter): 6, 7, 8 respectively. A note has been added to highligh the change
Consequences if # not approved:	There is an inconsistency in some ATV0 numeric result codes, the values explicitly listed in the Annex B of the current specification are not the same as the referenced ITU-T V.25ter values.
Clauses affected: #	Annex B

Other specs affected:	Y N Y N Other core specifications % Test specifications 0&M Specifications
Other comments:	第 The reference [14] to V.25ter should be updated with V.250

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

ERROR

OK

RING

NO ANSWER

NO CARRIER

NO DIALTONE

Annex B (normative): Summary of result codes

V.25ter [14] result codes which can be used in GSM/UMTS and codes defined in the present document:

Verbose result code Numeric Type Description (V.25ter command V1 set) (V0 set) +CALV unsolicited refer subclause 8.16 as verbose +CCCM: <ccm> as verbose unsolicited refer subclause 7.16 +CCWA: <number>, <type> unsolicited refer subclause 7.12 as verbose , <class>[, <alpha>] +CCWV unsolicited refer subclause 8.28 as verbose +CDEV: <elem>,<text> unsolicited refer subclause 8.10 as verbose +CDIP:<number>,<type>[,< as verbose refer subclause 7.9 unsolicited subaddr>,<satype>] +CIEV: <ind>,<value> unsolicited refer subclause 8.10 as verbose +CKEV: <key>, <press> unsolicited refer subclause 8.10 as verbose +CLAV: <code> as verbose unsolicited refer subclause 8. +CLIP: <number> unsolicited refer subclause 7.6 as verbose , <type>[, <subaddr> , <satype>[, <alpha>]] +CME ERROR: <err> refer subclause 9.2 as verbose final +COLP: <number> refer subclause 7.8 as verbose intermediate , <type>[, <subaddr> ,<satype>[,<alpha>]] as verbose intermediate refer subclause 6.9 +CR: <type> +CREG: <stat>[,<lac> as verbose unsolicited refer subclause 7.2 ,<ci>] refer subclause 6.11 +CRING: <type> as verbose unsolicited +CSSI: <codel> intermediate refer subclause 7.17 as verbose [,<index>] +CSSU: <code2> refer subclause 7.17 as verbose unsolicited [,<index>[,<number>, <type>[,<subaddr>, <satype>]]] +CTZV: <tz> unsolicited refer subclause 8.40 as verbose +CUSD: <m>[,<str>,<dcs>] unsolicited refer subclause 7.15 as verbose +CUUS1I: <messageI> refer subclause 7.25 as verbose intermediate +CUUS1U: <messageU> as verbose unsolicited refer subclause 7.25 +DR: <type> intermediate refer subclause 6.13 as verbose +ILRR: <rate> as verbose intermediate refer subclause 4.3 BUSY 76 final busy signal detected CONNECT 1 intermediate connection has been established intermediate CONNECT <text> manufacturer as CONNECT but manufacturer specific specific <text> gives additional information (e.g.

Table B.1: Result codes

unsolicited

final

final

final

final

final

4

3

0

2

87

65

connection data rate)

command not accepted

connection terminated

no dialtone detected

connection completion timeout

incoming call signal from network

acknowledges execution of a command line

Note: From v6.2.0 onwards, ATV0 numeric result codes 5, 6, 7 for NO DIALTONE, BUSY and NO ANSWER respectively, have been replaced by numeric result codes 6, 7, 8 respectively, to be aligned with the values listed in ITU-T V.250 (previously V.25ter).

CHANGE REQUEST									
ж	27.007 CR	102	ж геv	-	ж	Current vers	ion: <mark>3.</mark> 1	¹ 2.0 ^۹	£
For <u>HELP</u> on	using this form, see	e bottom of this	s page or l	look a	at th	e pop-up text	over the	Ж symb	ools.
Proposed change	e affects: UICC a	apps#	ME X	Rad	io A	ccess Netwo	rk Co	ore Netw	vork
Title:	Correction of AT	+WS46 paran	neter value	es.					
Source:	€ <mark>T2</mark>								
Vork item code: 8	€ TEI					<i>Date:</i> ೫	23/1/20	003	
Category: ຈ	€ F Use <u>one</u> of the follo F (correction) A (correspond B (addition of C (functional D (editorial m Detailed explanation be found in 3GPP	owing categories ds to a correctio f feature), modification of f odification) ons of the above <u>TR 21.900</u> .	s: n in an ear eature) categories	lier rei s can	leas	Release: # Use <u>one</u> of 2 e) R96 R97 R98 R99 Rel-4 Rel-5 Pol-6	R99 the follow (GSM Ph (Release (Release (Release (Release (Release	ing releas ase 2) 1996) 1997) 1998) 1999) 4) 5)	ses:

Reason for change: ೫	The <n> parameter value 12 in +WS46 is applicable for all "3GPP systems" that includes "GSM digital cellular", "WCDMA", and there are no values which are applicable for each of them respectively. This means that when using the query command, it is not possible to distinguish the capabilities of the terminal.</n>
Summary of change: ೫	Correction in the <n> parameter value 12 in +WS46. Instead of being applicable for all "3GPP systems", the value shall be applicable for "GSM digital cellular systems" Value 22 shall be applicable for "WCDMA" and 25 shall be applicable for "3GPP Systems".</n>
Consequences if #	- There would be no way to distinguish between:
not approved:	a) Terminals that support only GSM
	b) Terminals that support only WCDMA
	c) Terminals that support both GSM and WCDMA
Clauses affected: #	5.9
	YN

Other specs affected:	Ħ	Y	Ν	Other core specifications H Test specifications O&M Specifications	B	
Other comments:	ж					

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

5.9 PCCA STD-101 [17] select wireless network +WS46

PCCA STD-101 [17] includes a command to select the cellular network (Wireless Data Service; WDS) to operate with the MT/TA. PCCA calls this as-WDS-Side Stack Selection. This command may be used when MT/TA is asked to indicate the networks in which it can operate.

Command	Possible response(s)
+WS46=[<n>]</n>	
+WS46?	<n></n>
+WS46=?	(list of supported $< n > s$)

Table 1: +WS46 parameter command syntax

Description

Set command selects to the WDS side stack <n> to be used by the MT/TA. Read command shows current setting and test command displays side stacks implemented in the MT/TA.

Defined values

<n>:

12 GSM Digital Cellular Systems (GERAN only)3GPP Systems

22 Wideband CDMA (UTRAN only)

25 3GPP Systems (both GERAN and UTRAN)

Note: These 3 values are mutually exclusive. e.g. if value "25" is implemented, value "12" and "22" shall not be implemented.

refer PCCA STD-101 [17] for other values., except for the values 22 WCDMA and 25 GPRS which shall be ignored

Implementation

Mandatory in PCCA STD-101, but optional for GSM/UMTS.

R <mark>103</mark>	жrev	_ 3	₩ Cu	rront voro								
					^{on:} 4.5	.0 [#]						
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the # symbols.												
C apps ೫	ME X	Radic	o Acces	ss Networ	k Core	e Network						
AT+WS46 param	neter value	es.										
				Date: ೫	23/1/200	3						
following categories on) onds to a correction of feature), nal modification of fe I modification) ations of the above P <u>TR 21.900</u> .	s: n in an ean eature) categories	rlier rele s can	Re U	lease: % Jse <u>one</u> of t 2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	R4 the following (GSM Phas (Release 19 (Release 19 (Release 19 (Release 4) (Release 4) (Release 5) (Release 6)	(releases: e 2) 196) 197) 198) 199)						
	C apps ℜ AT+WS46 param following categories ion bonds to a correction n of feature), nal modification of feature), nal modification) ations of the above P TR 21.900.	C apps ℜ ME X AT+WS46 parameter value following categories: on) bonds to a correction in an ear n of feature), nal modification of feature) il modification) ations of the above categories PP TR 21.900.	C apps ₩ ME X Radie AT+WS46 parameter values.	C apps ℜ ME X Radio Acces AT+WS46 parameter values. AT+WS46 parameter values. AT+WS46 parameter values. Re following categories: bonds to a correction in an earlier release) nof feature), nal modification of feature) I modification of feature) I modification) ations of the above categories can PP TR 21.900.	C apps# ME X Radio Access Network AT+WS46 parameter values. AT+WS46 parameter values. Date: # following categories: Use one of teature con) 2 ponds to a correction in an earlier release) R96 n of feature), R97 nal modification of feature) R98 Modification) R99 ations of the above categories can Rel-4 PP TR 21.900. Rel-5 Rel-6 Rel-6	C apps# ME X Radio Access Network Core AT+WS46 parameter values. AT+WS46 parameter values. Date: # 23/1/2003 Date: # 23/1/2003 Release: # R4 Use one of the following categories: Use one of the following 2 (GSM Phase) point of feature), R97 nodification of feature) R98 nodification) R99 ations of the above categories can Rel-4 P TR 21.900. Release 5)						

Reason for change: ೫	The <n> parameter value 12 in +WS46 is applicable for all "3GPP systems" that includes "GSM digital cellular", "WCDMA", and there are no values which are applicable for each of them respectively. This means that when using the query command, it is not possible to distinguish the capabilities of the terminal.</n>
Summary of change: ೫	Correction in the <n> parameter value 12 in +WS46. Instead of being applicable for all "3GPP systems", the value shall be applicable for "GSM digital cellular systems" Value 22 shall be applicable for "WCDMA" and 25 shall be applicable for "3GPP Systems".</n>
Consequences if ೫ not approved:	 There would be no way to distinguish between: a) Terminals that support only GSM b) Terminals that support only WCDMA c) Terminals that support both GSM and WCDMA
Clauses affected: #	5.9
	ΥΝ

Other specs affected:	¥ #	N	Other core specifications Test specifications O&M Specifications	Ħ	
Other comments:	ж				

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

5.9 PCCA STD-101 [17] select wireless network +WS46

PCCA STD-101 [17] includes a command to select the cellular network (Wireless Data Service; WDS) to operate with the MT/TA. PCCA calls this as-WDS-Side Stack Selection. This command may be used when MT/TA is asked to indicate the networks in which it can operate.

Command	Possible response(s)
+WS46=[<n>]</n>	
+WS46?	<n></n>
+WS46=?	(list of supported <n>s)</n>

Table 1: +WS46 parameter command syntax

Description

Set command selects to the WDS side stack <n> to be used by the MT/TA. Read command shows current setting and test command displays side stacks implemented in the MT/TA.

Defined values

<n>:

12 GSM Digital Cellular Systems (GERAN only)3GPP Systems

22 Wideband CDMA (UTRAN only)

25 3GPP Systems (both GERAN and UTRAN)

Note: These 3 values are mutually exclusive. e.g. if value "25" is implemented, value "12" and "22" shall not be implemented.

refer PCCA STD-101 [17] for other values., except for the values 22 WCDMA and 25 GPRS which shall be ignored

Implementation

Mandatory in PCCA STD-101, but optional for GSM/UMTS.

					CR-Form-v7
CHANGE	REQU	JEST	Г		
27.007 CR 104	жrev	- *	Current vers	^{ion:} 5.2.0	ж
ing this form, see bottom of this	page or lo	ok at tl	he pop-up text	over the ೫ sy	mbols.
ffects: UICC apps೫	MEX	Radio <i>I</i>	Access Networ	k 📃 Core N	etwork
Correction of AT+WS46 param	eter value	s.			
T2					
TEI5			Date: ೫	23/1/2003	
A Use <u>one</u> of the following categories F (correction) A (corresponds to a correction B (addition of feature), C (functional modification of fe D (editorial modification) Detailed explanations of the above be found in 3GPP <u>TR 21.900</u> .	: n in an earli eature) categories (er releas can	Release: Ж Use <u>one</u> of 2 se) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	R5 the following re (GSM Phase 2 (Release 1996) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)	leases:))))
	CHANGE 27.007 CR 104 ing this form, see bottom of this ing this form, see bottom of this ffects: UICC apps% Correction of AT+WS46 param T2 TEI5 A Jse one of the following categories F (correction) A (corresponds to a correction B (addition of feature), C (functional modification of feature), C (functional modification) Detailed explanations of the above be found in 3GPP TR 21.900.	CHANGE REQU 27.007 CR 104 $\#$ rev ing this form, see bottom of this page or loc ing this form, see bottom of this page or loc ffects: UICC apps $\#$ ME χ Correction of AT+WS46 parameter values T2 TEI5 A Jse one of the following categories: F (correction) A (corresponds to a correction in an earlie B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories of the found in 3GPP TR 21.900.	CHANGE REQUEST 27.007 CR 104 $\#$ rev $=$ $\#$ ing this form, see bottom of this page or look at the ffects: UICC apps# ME X Radio A Correction of AT+WS46 parameter values. TEI5 A Jse 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.	CHANGE REQUEST 27.007 CR 104 $\#$ rev - $\#$ Current vers ing this form, see bottom of this page or look at the pop-up text ffects: UICC apps# ME X Radio Access Networ Correction of AT+WS46 parameter values. TEI5 Date: $\#$ A Release: $\#$ Jse one of the following categories: Use one of F (correction) A (corresponds to a correction in an earlier release) R96 B (addition of feature), R97 R97 C (functional modification) R99 Release can be categories can call of the above categories can call of the above categories can call of the collowing categories can ca	CHANGE REQUEST 27.007 CR 104 \Re rev - \Re Current version: 5.2.0 ing this form, see bottom of this page or look at the pop-up text over the \Re sy iffects: UICC apps \Re ME X Radio Access Network Core N Correction of AT+WS46 parameter values. T2 TEI5 Date: \Re 23/1/2003 A Release: \Re R5 Jse one of the following categories: Use one of the following regories: 2 F (correction) R96 (Release 1996) A Release: R97 A (corresponds to a correction in an earlier release) R96 (Release 1996) B (addition of feature), R97 (Release 1996) C (functional modification of feature) R98 (Release 1997) D (editorial modification) R99 (Release 1996) Defendencing at the above categories can be found in 3GPP TR 21.900. Rel-4 (Release 6)

Reason for change: ೫	The <n> parameter value 12 in +WS46 is applicable for all "3GPP systems" that includes "GSM digital cellular", "WCDMA", and there are no values which are applicable for each of them respectively. This means that when using the query command, it is not possible to distinguish the capabilities of the terminal.</n>
Summary of change: #	Correction in the <n> parameter value 12 in +WS46. Instead of being applicable for all "3GPP systems", the value shall be applicable for "GSM digital cellular systems" Value 22 shall be applicable for "WCDMA" and 25 shall be applicable for "3GPP Systems".</n>
Consequences if 🛛 🕱	 There would be no way to distinguish between:
not approved:	a) Terminals that support only GSM
	b) Terminals that support only WCDMA
	c) Terminals that support both GSM and WCDMA
Clauses affected: #	5.9

Other specs affected:	Ħ	Υ	N	Other core specifications % Test specifications O&M Specifications	₩
Other comments:	ж				

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

5.9 PCCA STD-101 [17] select wireless network +WS46

PCCA STD-101 [17] includes a command to select the cellular network (Wireless Data Service; WDS) to operate with the MT/TA. PCCA calls this as-WDS-Side Stack Selection. This command may be used when MT/TA is asked to indicate the networks in which it can operate.

Command	Possible response(s)
+WS46=[<n>]</n>	
+WS46?	<n></n>
+WS46=?	(list of supported <n>s)</n>

Table 1: +WS46 parameter command syntax

Description

Set command selects to the WDS side stack <n> to be used by the MT/TA. Read command shows current setting and test command displays side stacks implemented in the MT/TA.

Defined values

<n>:

12 GSM Digital Cellular Systems (GERAN only)3GPP Systems

22 Wideband CDMA (UTRAN only)

25 3GPP Systems (both GERAN and UTRAN)

Note: These 3 values are mutually exclusive. e.g. if value "25" is implemented, value "12" and "22" shall not be implemented.

refer PCCA STD-101 [17] for other values., except for the values 22 WCDMA and 25 GPRS which shall be ignored

Implementation

Mandatory in PCCA STD-101, but optional for GSM/UMTS.

CHANGE REQUEST											
ж	27.007 CR	105	ж rev	-	ж	Current vers	ion:	<mark>6.1.0</mark>	ж		
For <u>HELP</u> on	using this form, se	ee bottom of thi	s page or l	look a	at the	e pop-up text	overt	the	nbols.		
Proposed chang	e affects: UICC	apps#	ME X	Radi	io A	ccess Networ	k	Core Ne	etwork		
Title:	発 <mark>Correction of A</mark>	T+WS46 parar	neter valu	es.							
Source:	<mark>ቻ T2</mark>										
Work item code:	ដ <mark>TEI6</mark>					<i>Date:</i> ೫	23/1	/2003			
Category:	 A Use <u>one</u> of the fo F (correction A (correspo B (addition C (functiona D (editorial Detailed explanat be found in 3GPF 	llowing categorie n) nds to a correction of feature), nl modification of the modification) ions of the above 2 <u>TR 21.900</u> .	s: on in an ear feature) e categories	lier rel s can	lease	Release: ¥ Use <u>one</u> of 2 (R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	R6 (GSM (Relea (Relea (Relea (Relea (Relea (Relea (Relea	lowing rek Phase 2) ase 1996) ase 1997) ase 1998) ase 1999) ase 4) ase 5) ase 5) ase 6)	eases:		

Reason for change: ೫	The <n> parameter value 12 in +WS46 is applicable for all "3GPP systems" that includes "GSM digital cellular", "WCDMA", and there are no values which are applicable for each of them respectively. This means that when using the query command, it is not possible to distinguish the capabilities of the terminal.</n>
Summary of change, 9	Correction in the any peremeter value 12 in JWS46 Instead of being applicable
Summary of change: њ	for all "3GPP systems", the value shall be applicable for "GSM digital cellular systems"
	Value 22 shall be applicable for "WCDMA" and 25 shall be applicable for "3GPP Systems".
Consequences if 🛛 🕱	 There would be no way to distinguish between:
not approved:	a) Terminals that support only GSM
	b) Terminals that support only WCDMA
	c) Terminals that support both GSM and WCDMA
Clauses affected: #	5.9

Other specs affected:	ж	Y	N	Other core specifications # Test specifications O&M Specifications	ж
Other comments:	ж				

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

5.9 PCCA STD-101 [17] select wireless network +WS46

PCCA STD-101 [17] includes a command to select the cellular network (Wireless Data Service; WDS) to operate with the MT/TA. PCCA calls this as-WDS-Side Stack Selection. This command may be used when MT/TA is asked to indicate the networks in which it can operate.

Command	Possible response(s)
+WS46=[<n>]</n>	
+WS46?	<n></n>
+WS46=?	(list of supported <n>s)</n>

Table 1: +WS46 parameter command syntax

Description

Set command selects to the WDS side stack <n> to be used by the MT/TA. Read command shows current setting and test command displays side stacks implemented in the MT/TA.

Defined values

<n>:

12 GSM Digital Cellular Systems (GERAN only)3GPP Systems

22 Wideband CDMA (UTRAN only)

25 3GPP Systems (both GERAN and UTRAN)

Note: These 3 values are mutually exclusive. e.g. if value "25" is implemented, value "12" and "22" shall not be implemented.

refer PCCA STD-101 [17] for other values., except for the values 22 WCDMA and 25 GPRS which shall be ignored

Implementation

Mandatory in PCCA STD-101, but optional for GSM/UMTS.

	CHANGE F	REQUES	ST	CR-Form-v7
ж	27.007 CR 106 ж	rev	# Current vers	^{ion:} 3.12.0 [#]
For <u>HELP</u> or	n using this form, see bottom of this pa	age or look a	t the pop-up text	over the X symbols.
Proposed chang	e affects: UICC apps೫	ME 🗙 Radi	o Access Networ	k Core Network
Title:	# AT +CGEQREQ - Required Para	meters for St	t <mark>reaming / Conve</mark>	rsational Traffic Class
Source:	₩ T2			
Work item code:	ж <mark>ТЕІ</mark>		Date: ೫	22/01/2003
Category:	 F Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in B (addition of feature), C (functional modification of feat D (editorial modification) Detailed explanations of the above cat be found in 3GPP <u>TR 21.900</u>. 	n an earlier rele ure) tegories can	Release: # Use <u>one</u> of 2 ease) R96 R97 R98 R99 Rel-4 Rel-5 Rel-2	R99 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5)

Reason for change:	A change was approved in 23.107 that requires the explicit selection of guaranteed and maximum bit rates when the QoS traffic class for a PDP context is specified as either streaming or conversational, i.e., "When the application in the UE requires streaming or conversational QoS, then the UE shall at least explicitly request the traffic class and should explicitly request the guaranteed bit rate and the maximum bit rate." To align with the change in 23.107, changes in 27.007 are proposed.
Summary of change: ₩	The impact of the modification to 23.107 was not reflected in the AT Command +CGQEREQ. Clarifications are added to the QoS parameter description for traffic class, guaranteed bit rate, and maximum bit rate in the AT Command.
Consequences if % not approved:	Implementers using the AT +CGQEREQ command may not provide the required guaranteed bit rate and maximum bit rate when streaming or conversational classes are specified. This would lead to inefficient resource utilization and PDP contexts would be rejected by the network with higher probability due to inconsistent QoS profile.

Clauses affected:	₩ 10.1.6 YN
Other specs affected:	# Other core specifications # Image: Construction of the second
Other comments:	ж

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

10.1.6 3G Quality of Service Profile (Requested) +CGEQREQ

Table 1: +CGEQREQ param	eter command syntax
-------------------------	---------------------

Command	Possible Response(s)
+CGEQREQ=[<cid> [,<traffic class=""> [,<maximum bitrate="" ul=""> [,<maximum bitrate DL> [,<guaranteed bitrate="" ul=""> [,<guaranteed bitrate="" dl=""> [,<delivery order> [,<maximum sdu="" size=""> [,<sdu error ratio> [,<residual bit="" error<br="">ratio> [,<delivery erroneous="" of="" sdus=""> [,<transfer delay=""> [,<traffic handling<br="">priority>]]]]]]]]]</traffic></transfer></delivery></residual></sdu </maximum></delivery </guaranteed></guaranteed></maximum </maximum></traffic></cid>	OK ERROR
+CGEQREQ?	+CGEQREQ: <cid>, <traffic class=""> ,<maximum bitrate="" ul=""> ,<maximum bitrate<br="">DL> ,<guaranteed bitrate="" ul=""> ,<guaranteed bitrate="" dl=""> ,<delivery order> ,<maximum sdu="" size=""> ,<sdu error<br="">ratio> ,<residual bit="" error="" ratio=""> ,<delivery erroneous="" of="" sdus=""> ,<transfer delay=""> ,<traffic handling<br="">priority> [<cr><lf>+CGEQREQ: <cid>, <traffic< td=""></traffic<></cid></lf></cr></traffic></transfer></delivery></residual></sdu></maximum></delivery </guaranteed></guaranteed></maximum></maximum></traffic></cid>
	<pre>class> ,<maximum bitrate="" ul=""> ,<maximum bitrate DL> ,<guaranteed bitrate="" ul=""> ,<guaranteed bitrate="" dl=""> ,<delivery order> ,<maximum sdu="" size=""> ,<sdu error<br="">ratio> ,<residual bit="" error="" ratio=""> ,<delivery erroneous="" of="" sdus=""> ,<transfer delay=""> ,<traffic handling<br="">priority> []]</traffic></transfer></delivery></residual></sdu></maximum></delivery </guaranteed></guaranteed></maximum </maximum></pre>
+CGEQREQ=?	<pre>+CGEQREQ: <pdp_type>, (list of supported <traffic class="">s) ,(list of supported <maximum bitrate="" ul="">s), (list of supported <maximum bitrate="" dl="">s), (list of supported <guaranteed bitrate<br="">UL>s), (list of supported <guaranteed bitrate DL>s),(list of supported <delivery order="">s) ,(list of supported <maximum sdu="" size="">s) ,(list of supported <sdu error="" ratio="">s) ,(list of supported <residual bit="" error="" ratio="">s) ,(list of supported <delivery of<br="">erroneous SDUs>s) ,(list of supported <traffic handling="" priority="">s) [<cr><lf>+CGEQREQ: <pdp_type>, (list of supported <maximum bitrate="" ul="">s), (list of supported <maximum bitrate="" dl="">s), (list of supported <guaranteed bitrate DL>s),(list of supported <traffic <guaranteed<br="" for="" supported="">bitrate DL>s),(list of supported <cuaranteed bitrate<br="">UL>s), (list of supported <guaranteed bitrate DL>s),(list of supported <delivery order="">s) ,(list of supported <sdu error="" ratio="">s) ,(list of supported <residual bit="" error="" ratio="">s)</residual></sdu></sdu></sdu></sdu></sdu></sdu></sdu></sdu></sdu></delivery></guaranteed </cuaranteed></traffic></guaranteed </maximum></maximum></pdp_type></lf></cr></traffic></delivery></residual></sdu></maximum></delivery></guaranteed </guaranteed></maximum></maximum></traffic></pdp_type></pre>

Command	Possible Response(s)
	,(list of supported <delivery of<="" th=""></delivery>
	erroneous SDUs>s) ,(list of supported
	<transfer delay="">s) ,(list of supported</transfer>
	<traffic handling="" priority="">s)</traffic>
	[]]

Description

This command allows the TE to specify a UMTS Quality of Service Profile that is used when the MT sends an Activate PDP Context Request message to the network.

The set command specifies a profile for the context identified by the (local) context identification parameter, <cid>. The specified profile will be stored in the MT and sent to the network only at activation or MS-initiated modification of the related context. Since this is the same parameter that is used in the +CGDCONT and +CGDSCONT commands, the +CGEQREQ command is effectively an extension to these commands. The QoS profile consists of a number of parameters, each of which may be set to a separate value.

A special form of the set command, +CGEQREQ= <cid> causes the requested profile for context number <cid> to become undefined.

The read command returns the current settings for each defined context.

The test command returns values supported as a compound value. If the MT supports several PDP types, the parameter value ranges for each PDP type are returned on a separate line.

Defined values

<cid>: a numeric parameter which specifies a particular PDP context definition (see +CGDCONT and +CGDSCONT commands).

The following parameters are defined in 3GPP TS 23.107 [46] -

- <Traffic class>: a numeric parameter that indicates the type of application for which the UMTS bearer service is optimised.
 - 0 conversational
 - 1 streaming
 - 2 interactive
 - 3 background
 - 4 subscribed value

If the Traffic class is specified as conversational or streaming, then the Guaranteed and Maximum bitrate parameters should also be provided. Other values are reserved.

- <Maximum bitrate UL>: a numeric parameter that indicates the maximum number of kbits/s delivered to
 UMTS (up-link traffic) at a SAP. As an example a bitrate of 32kbit/s would be specified as '32' (e.g.
 AT+CGEQREQ=...,32, ...). This parameter should be provided if the Traffic class is specified as
 conversational or streaming.
- <Maximum bitrate DL>: a numeric parameter that indicates the maximum number of kbits/s delivered by
 UMTS (down-link traffic) at a SAP. As an example a bitrate of 32kbit/s would be specified as '32' (e.g.
 AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested....). This
 parameter should be provided if the Traffic class is specified as conversational or streaming.

<Guaranteed bitrate UL>: a numeric parameter that indicates the guaranteed number of kbits/s delivered to UMTS (up-link traffic) at a SAP (provided that there is data to deliver). As an example a bitrate of 32kbit/s would be specified as '32' (e.g. AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested. ...). This parameter should be provided if the Traffic class is specified as conversational or streaming.

<Guaranteed bitrate DL>: a numeric parameter that indicates the guaranteed number of kbits/s delivered by UMTS (down-link traffic) at a SAP (provided that there is data to deliver). As an example a bitrate of 32kbit/s would be specified as '32' (e.g. AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested....). This parameter should be provided if the Traffic class is specified as conversational or streaming.

- <Delivery order>: a numeric parameter that indicates whether the UMTS bearer shall provide in-sequence SDU delivery or not.
 - 0 no
 - 1 yes

2 - subscribed value.

Other values are reserved.

- <Maximum SDU size>: a numeric parameter (1,2,3,...) that indicates the maximum allowed SDU size in octets. If the parameter is set to '0' the subscribed value will be requested.
- <SDU error ratio>: a string parameter that indicates the target value for the fraction of SDUs lost or detected as erroneous. SDU error ratio is defined only for conforming traffic. The value is specified as 'mEe'. As an example a target SDU error ratio of 5•10⁻³ would be specified as '5E3' (e.g. AT+CGEQREQ=...,"5E3",...). '0E0' means subscribed value.
- <Residual bit error ratio>: a string parameter that indicates the target value for the undetected bit error ratio in the delivered SDUs. If no error detection is requested, Residual bit error ratio indicates the bit error ratio in the delivered SDUs. The value is specified as 'mEe'. As an example a target residual bit error ratio of 5•10⁻³ would be specified as '5E3' (e.g. AT+CGEQREQ=...,"5E3",...). '0E0' means subscribed value.
- <Delivery of erroneous SDUs>: a numeric parameter that indicates whether SDUs detected as erroneous shall be delivered or not.
 - 0 no
 - 1 yes
 - 2 no detect
 - 3 subscribed value

Other values are reserved.

- <Transfer delay>: a numeric parameter (0,1,2,...) that indicates the targeted time between request to transfer an SDU at one SAP to its delivery at the other SAP, in milliseconds. If the parameter is set to '0' the subscribed value will be requested.
- <Traffic handling priority>: a numeric parameter (1,2,3,...) that specifies the relative importance for handling of all SDUs belonging to the UMTS bearer compared to the SDUs of other bearers. If the parameter is set to '0' the subscribed value will be requested.

<PDP_type>: (see +CGDCONT and +CGDSCONT commands).

If a value is omitted for a particular class then the value is considered to be unspecified.

Implementation

Optional. If the command is not implemented then all the values are considered to be unspecified.

	CHANGE REQU	JEST		CR-Form-v
æ	27.007 CR 107 # rev	۲ Cu	rrent version	4.5.0 [#]
For <u>HELP</u> or	using this form, see bottom of this page or lo	ok at the po	p-up text ove	er the 鈋 symbols.
Proposed chang	e affects: UICC apps೫ ME <mark>X</mark>	Radio Acces	ss Network	Core Network
Title:	# AT +CGEQREQ - Required Parameters f	or Streamin	<mark>g / Conversa</mark>	tional Traffic Class
Source:	₩ <mark>T2</mark>			
Work item code:	# TI-ATC		<i>Date:</i>	2/01/2003
Category:	 A Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlied B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories of be found in 3GPP <u>TR 21.900</u>. 	Re U er release) can	lease: % R lse <u>one</u> of the 2 (GS R96 (Re R97 (Re R98 (Re R99 (Re Rel-4 (Re Rel-5 (Re Rel-6 (Re	el-4 following releases: SM Phase 2) Flease 1996) Flease 1997) Flease 1998) Flease 1999) Flease 4) Flease 5)

Reason for change: ೫	A change was approved in 23.107 that requires the explicit selection of guaranteed and maximum bit rates when the QoS traffic class for a PDP context is specified as either streaming or conversational, i.e., "When the application in the UE requires streaming or conversational QoS, then the UE shall at least explicitly request the traffic class and should explicitly request the guaranteed bit rate and the maximum bit rate." To align with the change in 23.107, changes in 27.007 are proposed.
Summary of change: ೫	The impact of the modification to 23.107 was not reflected in the AT Command +CGQEREQ. Clarifications are added to the QoS parameter description for traffic class, guaranteed bit rate, and maximum bit rate in the AT Command.
Consequences if # not approved:	Implementers using the AT +CGQEREQ command may not provide the required guaranteed bit rate and maximum bit rate when streaming or conversational classes are specified. This would lead to inefficient resource utilization and PDP contexts would be rejected by the network with higher probability due to inconsistent QoS profile.

Clauses affected:	೫ 10.1.6 Y N
Other specs affected:	# Other core specifications # Test specifications 0&M Specifications
Other comments:	ж. Ж

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

10.1.6 3G Quality of Service Profile (Requested) +CGEQREQ

Table 1: +CGEQREQ param	eter command syntax
-------------------------	---------------------

Command	Possible Response(s)
+CGEQREQ=[<cid> [,<traffic class=""> [,<maximum bitrate="" ul=""> [,<maximum bitrate DL> [,<guaranteed bitrate="" ul=""> [,<guaranteed bitrate="" dl=""> [,<delivery order> [,<maximum sdu="" size=""> [,<sdu error ratio> [,<residual bit="" error<br="">ratio> [,<delivery erroneous="" of="" sdus=""> [,<transfer delay=""> [,<traffic handling<br="">priority>]]]]]]]]]</traffic></transfer></delivery></residual></sdu </maximum></delivery </guaranteed></guaranteed></maximum </maximum></traffic></cid>	OK ERROR
+CGEQREQ?	+CGEQREQ: <cid>, <traffic class=""> ,<maximum bitrate="" ul=""> ,<maximum bitrate<br="">DL> ,<guaranteed bitrate="" ul=""> ,<guaranteed bitrate="" dl=""> ,<delivery order> ,<maximum sdu="" size=""> ,<sdu error<br="">ratio> ,<residual bit="" error="" ratio=""> ,<delivery erroneous="" of="" sdus=""> ,<transfer delay=""> ,<traffic handling<br="">priority> [<cr><lf>+CGEQREQ: <cid>, <traffic< td=""></traffic<></cid></lf></cr></traffic></transfer></delivery></residual></sdu></maximum></delivery </guaranteed></guaranteed></maximum></maximum></traffic></cid>
	<pre>class> ,<maximum bitrate="" ul=""> ,<maximum bitrate DL> ,<guaranteed bitrate="" ul=""> ,<guaranteed bitrate="" dl=""> ,<delivery order> ,<maximum sdu="" size=""> ,<sdu error<br="">ratio> ,<residual bit="" error="" ratio=""> ,<delivery erroneous="" of="" sdus=""> ,<transfer delay=""> ,<traffic handling<br="">priority> []]</traffic></transfer></delivery></residual></sdu></maximum></delivery </guaranteed></guaranteed></maximum </maximum></pre>
+CGEQREQ=?	<pre>+CGEQREQ: <pdp_type>, (list of supported <traffic class="">s) ,(list of supported <maximum bitrate="" ul="">s), (list of supported <maximum bitrate="" dl="">s), (list of supported <guaranteed bitrate<br="">UL>s), (list of supported <guaranteed bitrate DL>s),(list of supported <delivery order="">s) ,(list of supported <maximum sdu="" size="">s) ,(list of supported <sdu error="" ratio="">s) ,(list of supported <residual bit="" error="" ratio="">s) ,(list of supported <delivery of<br="">erroneous SDUs>s) ,(list of supported <traffic handling="" priority="">s) [<cr><lf>+CGEQREQ: <pdp_type>, (list of supported <maximum bitrate="" ul="">s), (list of supported <maximum bitrate="" dl="">s), (list of supported <guaranteed bitrate DL>s),(list of supported <traffic <guaranteed<br="" for="" supported="">bitrate DL>s),(list of supported <cuaranteed bitrate<br="">UL>s), (list of supported <guaranteed bitrate DL>s),(list of supported <delivery order="">s) ,(list of supported <sdu error="" ratio="">s) ,(list of supported <residual bit="" error="" ratio="">s)</residual></sdu></sdu></sdu></sdu></sdu></sdu></sdu></sdu></sdu></delivery></guaranteed </cuaranteed></traffic></guaranteed </maximum></maximum></pdp_type></lf></cr></traffic></delivery></residual></sdu></maximum></delivery></guaranteed </guaranteed></maximum></maximum></traffic></pdp_type></pre>

Command	Possible Response(s)	
	,(list of supported <delivery of<="" th=""></delivery>	
	erroneous SDUs>s) ,(list of supported	
	<transfer delay="">s) ,(list of supported</transfer>	
	<traffic handling="" priority="">s)</traffic>	
	[]]	

Description

This command allows the TE to specify a UMTS Quality of Service Profile that is used when the MT sends an Activate PDP Context Request message to the network.

The set command specifies a profile for the context identified by the (local) context identification parameter, <cid>. The specified profile will be stored in the MT and sent to the network only at activation or MS-initiated modification of the related context. Since this is the same parameter that is used in the +CGDCONT and +CGDSCONT commands, the +CGEQREQ command is effectively an extension to these commands. The QoS profile consists of a number of parameters, each of which may be set to a separate value.

A special form of the set command, +CGEQREQ= <cid> causes the requested profile for context number <cid> to become undefined.

The read command returns the current settings for each defined context.

The test command returns values supported as a compound value. If the MT supports several PDP types, the parameter value ranges for each PDP type are returned on a separate line.

Defined values

<cid>: a numeric parameter which specifies a particular PDP context definition (see +CGDCONT and +CGDSCONT commands).

The following parameters are defined in 3GPP TS 23.107 [46] -

- <Traffic class>: a numeric parameter that indicates the type of application for which the UMTS bearer service is optimised.
 - 0 conversational
 - 1 streaming
 - 2 interactive
 - 3 background
 - 4 subscribed value

If the Traffic class is specified as conversational or streaming, then the Guaranteed and Maximum bitrate parameters should also be provided. Other values are reserved.

- <Maximum bitrate UL>: a numeric parameter that indicates the maximum number of kbits/s delivered to
 UMTS (up-link traffic) at a SAP. As an example a bitrate of 32kbit/s would be specified as '32' (e.g.
 AT+CGEQREQ=...,32, ...). This parameter should be provided if the Traffic class is specified as
 conversational or streaming.
- <Maximum bitrate DL>: a numeric parameter that indicates the maximum number of kbits/s delivered by
 UMTS (down-link traffic) at a SAP. As an example a bitrate of 32kbit/s would be specified as '32' (e.g.
 AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested....). This
 parameter should be provided if the Traffic class is specified as conversational or streaming.

<Guaranteed bitrate UL>: a numeric parameter that indicates the guaranteed number of kbits/s delivered to UMTS (up-link traffic) at a SAP (provided that there is data to deliver). As an example a bitrate of 32kbit/s would be specified as '32' (e.g. AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested. ...). This parameter should be provided if the Traffic class is specified as conversational or streaming.

<Guaranteed bitrate DL>: a numeric parameter that indicates the guaranteed number of kbits/s delivered by UMTS (down-link traffic) at a SAP (provided that there is data to deliver). As an example a bitrate of 32kbit/s would be specified as '32' (e.g. AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested....). This parameter should be provided if the Traffic class is specified as conversational or streaming.

- <Delivery order>: a numeric parameter that indicates whether the UMTS bearer shall provide in-sequence SDU delivery or not.
 - 0 no
 - 1 yes

2 - subscribed value.

Other values are reserved.

- <Maximum SDU size>: a numeric parameter (1,2,3,...) that indicates the maximum allowed SDU size in octets. If the parameter is set to '0' the subscribed value will be requested.
- <SDU error ratio>: a string parameter that indicates the target value for the fraction of SDUs lost or detected as erroneous. SDU error ratio is defined only for conforming traffic. The value is specified as 'mEe'. As an example a target SDU error ratio of 5•10⁻³ would be specified as '5E3' (e.g. AT+CGEQREQ=...,"5E3",...). '0E0' means subscribed value.
- <Residual bit error ratio>: a string parameter that indicates the target value for the undetected bit error ratio in the delivered SDUs. If no error detection is requested, Residual bit error ratio indicates the bit error ratio in the delivered SDUs. The value is specified as 'mEe'. As an example a target residual bit error ratio of 5•10⁻³ would be specified as '5E3' (e.g. AT+CGEQREQ=...,"5E3",...). '0E0' means subscribed value.
- <Delivery of erroneous SDUs>: a numeric parameter that indicates whether SDUs detected as erroneous shall be delivered or not.
 - 0 no
 - 1 yes
 - 2 no detect
 - 3 subscribed value

Other values are reserved.

- <Transfer delay>: a numeric parameter (0,1,2,...) that indicates the targeted time between request to transfer an SDU at one SAP to its delivery at the other SAP, in milliseconds. If the parameter is set to '0' the subscribed value will be requested.
- <Traffic handling priority>: a numeric parameter (1,2,3,...) that specifies the relative importance for handling of all SDUs belonging to the UMTS bearer compared to the SDUs of other bearers. If the parameter is set to '0' the subscribed value will be requested.

<PDP_type>: (see +CGDCONT and +CGDSCONT commands).

If a value is omitted for a particular class then the value is considered to be unspecified.

Implementation

Optional. If the command is not implemented then all the values are considered to be unspecified.

			CR-Form-v7
æ	27.007 CR 108 #rev #	Current vers	^{ion:} 5.2.0 [#]
For <u>HELP</u> or	using this form, see bottom of this page or look at the	e pop-up text	over the ೫ symbols.
Proposed chang	e affects: UICC apps೫ ME X Radio Ad	ccess Networ	k Core Network
Title:	# AT +CGEQREQ - Required Parameters for Strea	ming / Conve	rsational Traffic Class
Source:	発 T2		
Work item code:	¥ TEI5	<i>Date:</i> ೫	22/01/2003
Category:	 A Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u>. 	Release: ₩ Use <u>one</u> of 2 e) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	Rel-5 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)

Reason for change: ೫	A change was approved in 23.107 that requires the explicit selection of guaranteed and maximum bit rates when the QoS traffic class for a PDP context is specified as either streaming or conversational, i.e., "When the application in the UE requires streaming or conversational QoS, then the UE shall at least explicitly request the traffic class and should explicitly request the guaranteed bit rate and the maximum bit rate." To align with the change in 23.107, changes in 27.007 are proposed.
Summary of change: ೫	The impact of the modification to 23.107 was not reflected in the AT Command +CGQEREQ. Clarifications are added to the QoS parameter description for traffic class, guaranteed bit rate, and maximum bit rate in the AT Command.
Consequences if % not approved:	Implementers using the AT +CGQEREQ command may not provide the required guaranteed bit rate and maximum bit rate when streaming or conversational classes are specified. This would lead to inefficient resource utilization and PDP contexts would be rejected by the network with higher probability due to inconsistent QoS profile.

Clauses affected:	೫ 10.1.6 Y N
Other specs affected:	# Other core specifications # Image: Test specifications Image: Test specifications Image: O&M Specifications Image: Test specifications
Other comments:	ж.

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

10.1.6 3G Quality of Service Profile (Requested) +CGEQREQ

Table 1: +CGEQREQ param	eter command syntax
-------------------------	---------------------

Command	Possible Response(s)
+CGEQREQ=[<cid> [,<traffic class=""> [,<maximum bitrate="" ul=""> [,<maximum bitrate DL> [,<guaranteed bitrate="" ul=""> [,<guaranteed bitrate="" dl=""> [,<delivery order> [,<maximum sdu="" size=""> [,<sdu error ratio> [,<residual bit="" error<br="">ratio> [,<delivery erroneous="" of="" sdus=""> [,<transfer delay=""> [,<traffic handling<br="">priority>]]]]]]]]]</traffic></transfer></delivery></residual></sdu </maximum></delivery </guaranteed></guaranteed></maximum </maximum></traffic></cid>	OK ERROR
+CGEQREQ?	+CGEQREQ: <cid>, <traffic class=""> ,<maximum bitrate="" ul=""> ,<maximum bitrate<br="">DL> ,<guaranteed bitrate="" ul=""> ,<guaranteed bitrate="" dl=""> ,<delivery order> ,<maximum sdu="" size=""> ,<sdu error<br="">ratio> ,<residual bit="" error="" ratio=""> ,<delivery erroneous="" of="" sdus=""> ,<transfer delay=""> ,<traffic handling<br="">priority> [<cr><lf>+CGEQREQ: <cid>, <traffic< td=""></traffic<></cid></lf></cr></traffic></transfer></delivery></residual></sdu></maximum></delivery </guaranteed></guaranteed></maximum></maximum></traffic></cid>
	<pre>class> ,<maximum bitrate="" ul=""> ,<maximum bitrate DL> ,<guaranteed bitrate="" ul=""> ,<guaranteed bitrate="" dl=""> ,<delivery order> ,<maximum sdu="" size=""> ,<sdu error<br="">ratio> ,<residual bit="" error="" ratio=""> ,<delivery erroneous="" of="" sdus=""> ,<transfer delay=""> ,<traffic handling<br="">priority> []]</traffic></transfer></delivery></residual></sdu></maximum></delivery </guaranteed></guaranteed></maximum </maximum></pre>
+CGEQREQ=?	<pre>+CGEQREQ: <pdp_type>, (list of supported <traffic class="">s) ,(list of supported <maximum bitrate="" ul="">s), (list of supported <maximum bitrate="" dl="">s), (list of supported <guaranteed bitrate<br="">UL>s), (list of supported <guaranteed bitrate DL>s),(list of supported <delivery order="">s) ,(list of supported <maximum sdu="" size="">s) ,(list of supported <sdu error="" ratio="">s) ,(list of supported <residual bit="" error="" ratio="">s) ,(list of supported <delivery of<br="">erroneous SDUs>s) ,(list of supported <traffic handling="" priority="">s) [<cr><lf>+CGEQREQ: <pdp_type>, (list of supported <maximum bitrate="" ul="">s), (list of supported <maximum bitrate="" dl="">s), (list of supported <guaranteed bitrate DL>s),(list of supported <traffic <guaranteed<br="" for="" supported="">bitrate DL>s),(list of supported <cuaranteed bitrate<br="">UL>s), (list of supported <guaranteed bitrate DL>s),(list of supported <delivery order="">s) ,(list of supported <sdu error="" ratio="">s) ,(list of supported <residual bit="" error="" ratio="">s)</residual></sdu></sdu></sdu></sdu></sdu></sdu></sdu></sdu></sdu></delivery></guaranteed </cuaranteed></traffic></guaranteed </maximum></maximum></pdp_type></lf></cr></traffic></delivery></residual></sdu></maximum></delivery></guaranteed </guaranteed></maximum></maximum></traffic></pdp_type></pre>

Command	Possible Response(s)	
	,(list of supported <delivery of<="" th=""></delivery>	
	erroneous SDUs>s) ,(list of supported	
	<transfer delay="">s) ,(list of supported</transfer>	
	<traffic handling="" priority="">s)</traffic>	
	[]]	

Description

This command allows the TE to specify a UMTS Quality of Service Profile that is used when the MT sends an Activate PDP Context Request message to the network.

The set command specifies a profile for the context identified by the (local) context identification parameter, <cid>. The specified profile will be stored in the MT and sent to the network only at activation or MS-initiated modification of the related context. Since this is the same parameter that is used in the +CGDCONT and +CGDSCONT commands, the +CGEQREQ command is effectively an extension to these commands. The QoS profile consists of a number of parameters, each of which may be set to a separate value.

A special form of the set command, +CGEQREQ= <cid> causes the requested profile for context number <cid> to become undefined.

The read command returns the current settings for each defined context.

The test command returns values supported as a compound value. If the MT supports several PDP types, the parameter value ranges for each PDP type are returned on a separate line.

Defined values

<cid>: a numeric parameter which specifies a particular PDP context definition (see +CGDCONT and +CGDSCONT commands).

The following parameters are defined in 3GPP TS 23.107 [46] -

- <Traffic class>: a numeric parameter that indicates the type of application for which the UMTS bearer service is optimised.
 - 0 conversational
 - 1 streaming
 - 2 interactive
 - 3 background
 - 4 subscribed value

If the Traffic class is specified as conversational or streaming, then the Guaranteed and Maximum bitrate parameters should also be provided. Other values are reserved.

- <Maximum bitrate UL>: a numeric parameter that indicates the maximum number of kbits/s delivered to
 UMTS (up-link traffic) at a SAP. As an example a bitrate of 32kbit/s would be specified as '32' (e.g.
 AT+CGEQREQ=...,32, ...). This parameter should be provided if the Traffic class is specified as
 conversational or streaming.
- <Maximum bitrate DL>: a numeric parameter that indicates the maximum number of kbits/s delivered by
 UMTS (down-link traffic) at a SAP. As an example a bitrate of 32kbit/s would be specified as '32' (e.g.
 AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested....). This
 parameter should be provided if the Traffic class is specified as conversational or streaming.

<Guaranteed bitrate UL>: a numeric parameter that indicates the guaranteed number of kbits/s delivered to UMTS (up-link traffic) at a SAP (provided that there is data to deliver). As an example a bitrate of 32kbit/s would be specified as '32' (e.g. AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested. ...). This parameter should be provided if the Traffic class is specified as conversational or streaming.

<Guaranteed bitrate DL>: a numeric parameter that indicates the guaranteed number of kbits/s delivered by UMTS (down-link traffic) at a SAP (provided that there is data to deliver). As an example a bitrate of 32kbit/s would be specified as '32' (e.g. AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested....). This parameter should be provided if the Traffic class is specified as conversational or streaming.

- <Delivery order>: a numeric parameter that indicates whether the UMTS bearer shall provide in-sequence SDU delivery or not.
 - 0 no
 - 1 yes

2 - subscribed value.

Other values are reserved.

- <Maximum SDU size>: a numeric parameter (1,2,3,...) that indicates the maximum allowed SDU size in octets. If the parameter is set to '0' the subscribed value will be requested.
- <SDU error ratio>: a string parameter that indicates the target value for the fraction of SDUs lost or detected as erroneous. SDU error ratio is defined only for conforming traffic. The value is specified as 'mEe'. As an example a target SDU error ratio of 5•10⁻³ would be specified as '5E3' (e.g. AT+CGEQREQ=...,"5E3",...). '0E0' means subscribed value.
- <Residual bit error ratio>: a string parameter that indicates the target value for the undetected bit error ratio in the delivered SDUs. If no error detection is requested, Residual bit error ratio indicates the bit error ratio in the delivered SDUs. The value is specified as 'mEe'. As an example a target residual bit error ratio of 5•10⁻³ would be specified as '5E3' (e.g. AT+CGEQREQ=...,"5E3",...). '0E0' means subscribed value.
- <Delivery of erroneous SDUs>: a numeric parameter that indicates whether SDUs detected as erroneous shall be delivered or not.
 - 0 no
 - 1 yes
 - 2 no detect
 - 3 subscribed value

Other values are reserved.

- <Transfer delay>: a numeric parameter (0,1,2,...) that indicates the targeted time between request to transfer an SDU at one SAP to its delivery at the other SAP, in milliseconds. If the parameter is set to '0' the subscribed value will be requested.
- <Traffic handling priority>: a numeric parameter (1,2,3,...) that specifies the relative importance for handling of all SDUs belonging to the UMTS bearer compared to the SDUs of other bearers. If the parameter is set to '0' the subscribed value will be requested.

<PDP_type>: (see +CGDCONT and +CGDSCONT commands).

If a value is omitted for a particular class then the value is considered to be unspecified.

Implementation

Optional. If the command is not implemented then all the values are considered to be unspecified.

CHANGE REQUEST		
æ	27.007 CR 109 # rev # Current vers	^{ion:} 6.1.0 [#]
For <u>HELP</u> or	n using this form, see bottom of this page or look at the pop-up text	over the X symbols.
Proposed chang	<i>e affects:</i> UICC apps ೫ ME <mark>Ⅹ</mark> Radio Access Networ	k Core Network
Title:	# AT +CGEQREQ - Required Parameters for Streaming / Conve	rsational Traffic Class
Source:	<mark>ቻ T2</mark>	
Work item code:	: <mark># TEl6 Date:</mark>	22/01/2003
Category:	A Release: % Use <u>one</u> of the following categories: Use <u>one</u> of F (correction) 2 A (corresponds to a correction in an earlier release) R96 B (addition of feature), R97 C (functional modification of feature) R98 D (editorial modification) R99 Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u> . Rel-5	Rel-6 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)

Reason for change: Ж	A change was approved in 23.107 that requires the explicit selection of guaranteed and maximum bit rates when the QoS traffic class for a PDP context is specified as either streaming or conversational, i.e., "When the application in the UE requires streaming or conversational QoS, then the UE shall at least explicitly request the traffic class and should explicitly request the guaranteed bit rate and the maximum bit rate." To align with the change in 23.107, changes in 27.007 are proposed.
Summary of change: ₩	The impact of the modification to 23.107 was not reflected in the AT Command +CGQEREQ. Clarifications are added to the QoS parameter description for traffic class, guaranteed bit rate, and maximum bit rate in the AT Command.
Consequences if % not approved:	Implementers using the AT +CGQEREQ command may not provide the required guaranteed bit rate and maximum bit rate when streaming or conversational classes are specified. This would lead to inefficient resource utilization and PDP contexts would be rejected by the network with higher probability due to inconsistent QoS profile.

Clauses affected:	₩ 10.1.6 YN
Other specs affected:	# Other core specifications # Image: Construction of the system Test specifications Image: Construction of the system O&M Specifications
Other comments:	ж

- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

10.1.6 3G Quality of Service Profile (Requested) +CGEQREQ

Table 1: +CGEQREQ param	eter command syntax
-------------------------	---------------------

Command	Possible Response(s)
+CGEQREQ=[<cid> [,<traffic class=""> [,<maximum bitrate="" ul=""> [,<maximum bitrate DL> [,<guaranteed bitrate="" ul=""> [,<guaranteed bitrate="" dl=""> [,<delivery order> [,<maximum sdu="" size=""> [,<sdu error ratio> [,<residual bit="" error<br="">ratio> [,<delivery erroneous="" of="" sdus=""> [,<transfer delay=""> [,<traffic handling<br="">priority>]]]]]]]]]</traffic></transfer></delivery></residual></sdu </maximum></delivery </guaranteed></guaranteed></maximum </maximum></traffic></cid>	OK ERROR
+CGEQREQ?	+CGEQREQ: <cid>, <traffic class=""> ,<maximum bitrate="" ul=""> ,<maximum bitrate<br="">DL> ,<guaranteed bitrate="" ul=""> ,<guaranteed bitrate="" dl=""> ,<delivery order> ,<maximum sdu="" size=""> ,<sdu error<br="">ratio> ,<residual bit="" error="" ratio=""> ,<delivery erroneous="" of="" sdus=""> ,<transfer delay=""> ,<traffic handling<br="">priority> [<cr><lf>+CGEQREQ: <cid>, <traffic alaga> ,<maximum bitrate="" ul=""> ,<maximum< td=""></maximum<></maximum></traffic </cid></lf></cr></traffic></transfer></delivery></residual></sdu></maximum></delivery </guaranteed></guaranteed></maximum></maximum></traffic></cid>
	<pre>bitrate DL> ,<guaranteed bitrate="" ul=""> ,<guaranteed bitrate="" dl=""> ,<delivery order> ,<maximum sdu="" size=""> ,<sdu error<br="">ratio> ,<residual bit="" error="" ratio=""> ,<delivery erroneous="" of="" sdus=""> ,<transfer delay=""> ,<traffic handling<br="">priority> []]</traffic></transfer></delivery></residual></sdu></maximum></delivery </guaranteed></guaranteed></pre>
+CGEQREQ=?	<pre>+CGEQREQ: <pdp_type>, (list of supported <traffic class="">s) ,(list of supported <maximum bitrate="" ul="">s), (list of supported <maximum bitrate="" dl="">s), (list of supported <guaranteed bitrate<br="">UL>s), (list of supported <guaranteed bitrate DL>s),(list of supported <delivery order="">s) ,(list of supported <maximum sdu="" size="">s) ,(list of supported <sdu error="" ratio="">s) ,(list of supported <residual bit="" error="" ratio="">s) ,(list of supported <delivery of<br="">erroneous SDUs>s) ,(list of supported <traffic handling="" priority="">s) [<cr><lf>+CGEQREQ: <pdp_type>, (list of supported <maximum bitrate="" ul="">s), (list of supported <maximum bitrate="" dl="">s), (list of supported <guaranteed bitrate DL>s),(list of supported <traffic <guaranteed<br="" for="" supported="">bitrate DL>s),(list of supported <delivery order="">s) ,(list of supported <maximum sdu="" size="">s) ,(list of supported <sdu error="" ratio="">s) ,(list of supported <cuaranteed bitrate<br="">UL>s), (list of supported <delivery order="">s) ,(list of supported <maximum sdu="" size="">s) ,(list of supported <sdu error="" ratio="">s) ,(list of supported <residual bit="" error="" ratio="">s)</residual></sdu></sdu></sdu></sdu></sdu></sdu></maximum></delivery></cuaranteed></sdu></maximum></delivery></traffic></guaranteed </maximum></maximum></pdp_type></lf></cr></traffic></delivery></residual></sdu></maximum></delivery></guaranteed </guaranteed></maximum></maximum></traffic></pdp_type></pre>

Command	Possible Response(s)
	,(list of supported <delivery of<="" th=""></delivery>
	erroneous SDUs>s) ,(list of supported
	<transfer delay="">s) ,(list of supported</transfer>
	<traffic handling="" priority="">s)</traffic>
	[]]

Description

This command allows the TE to specify a UMTS Quality of Service Profile that is used when the MT sends an Activate PDP Context Request message to the network.

The set command specifies a profile for the context identified by the (local) context identification parameter, <cid>. The specified profile will be stored in the MT and sent to the network only at activation or MS-initiated modification of the related context. Since this is the same parameter that is used in the +CGDCONT and +CGDSCONT commands, the +CGEQREQ command is effectively an extension to these commands. The QoS profile consists of a number of parameters, each of which may be set to a separate value.

A special form of the set command, +CGEQREQ= <cid> causes the requested profile for context number <cid> to become undefined.

The read command returns the current settings for each defined context.

The test command returns values supported as a compound value. If the MT supports several PDP types, the parameter value ranges for each PDP type are returned on a separate line.

Defined values

<cid>: a numeric parameter which specifies a particular PDP context definition (see +CGDCONT and +CGDSCONT commands).

The following parameters are defined in 3GPP TS 23.107 [46] -

- <Traffic class>: a numeric parameter that indicates the type of application for which the UMTS bearer service is optimised.
 - 0 conversational
 - 1 streaming
 - 2 interactive
 - 3 background
 - 4 subscribed value

If the Traffic class is specified as conversational or streaming, then the Guaranteed and Maximum bitrate parameters should also be provided. Other values are reserved.

- <Maximum bitrate UL>: a numeric parameter that indicates the maximum number of kbits/s delivered to
 UMTS (up-link traffic) at a SAP. As an example a bitrate of 32kbit/s would be specified as '32' (e.g.
 AT+CGEQREQ=...,32, ...). This parameter should be provided if the Traffic class is specified as
 conversational or streaming.
- <Maximum bitrate DL>: a numeric parameter that indicates the maximum number of kbits/s delivered by
 UMTS (down-link traffic) at a SAP. As an example a bitrate of 32kbit/s would be specified as '32' (e.g.
 AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested....). This
 parameter should be provided if the Traffic class is specified as conversational or streaming.

<Guaranteed bitrate UL>: a numeric parameter that indicates the guaranteed number of kbits/s delivered to UMTS (up-link traffic) at a SAP (provided that there is data to deliver). As an example a bitrate of 32kbit/s would be specified as '32' (e.g. AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested. ...). This parameter should be provided if the Traffic class is specified as conversational or streaming.

<Guaranteed bitrate DL>: a numeric parameter that indicates the guaranteed number of kbits/s delivered by UMTS (down-link traffic) at a SAP (provided that there is data to deliver). As an example a bitrate of 32kbit/s would be specified as '32' (e.g. AT+CGEQREQ=...,32, ...). If the parameter is set to '0' the subscribed value will be requested....). This parameter should be provided if the Traffic class is specified as conversational or streaming.

- <Delivery order>: a numeric parameter that indicates whether the UMTS bearer shall provide in-sequence SDU delivery or not.
 - 0 no

1 - yes

2 - subscribed value.

Other values are reserved.

- <Maximum SDU size>: a numeric parameter (1,2,3,...) that indicates the maximum allowed SDU size in octets. If the parameter is set to '0' the subscribed value will be requested.
- <SDU error ratio>: a string parameter that indicates the target value for the fraction of SDUs lost or detected as erroneous. SDU error ratio is defined only for conforming traffic. The value is specified as 'mEe'. As an example a target SDU error ratio of 5•10⁻³ would be specified as '5E3' (e.g. AT+CGEQREQ=...,"5E3",...). '0E0' means subscribed value.
- <Residual bit error ratio>: a string parameter that indicates the target value for the undetected bit error ratio in the delivered SDUs. If no error detection is requested, Residual bit error ratio indicates the bit error ratio in the delivered SDUs. The value is specified as 'mEe'. As an example a target residual bit error ratio of 5•10⁻³ would be specified as '5E3' (e.g. AT+CGEQREQ=...,"5E3",...). '0E0' means subscribed value.
- <Delivery of erroneous SDUs>: a numeric parameter that indicates whether SDUs detected as erroneous shall be delivered or not.
 - 0 no
 - 1 yes
 - 2 no detect
 - 3 subscribed value

Other values are reserved.

- <Transfer delay>: a numeric parameter (0,1,2,...) that indicates the targeted time between request to transfer an SDU at one SAP to its delivery at the other SAP, in milliseconds. If the parameter is set to '0' the subscribed value will be requested.
- <Traffic handling priority>: a numeric parameter (1,2,3,...) that specifies the relative importance for handling of all SDUs belonging to the UMTS bearer compared to the SDUs of other bearers. If the parameter is set to '0' the subscribed value will be requested.

<PDP_type>: (see +CGDCONT and +CGDSCONT commands).

If a value is omitted for a particular class then the value is considered to be unspecified.

Implementation

Optional. If the command is not implemented then all the values are considered to be unspecified.