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

TP-030037

Agenda Item: 5.2.3

Source: T2

Title: Change Requests to AT +W46

Document for: Approval

Spec	CR	Rev	Rel	Subject	Cat	Vers-Current	Vers-New	T2 doc	Workitem
07.07	A91	-	R98	Correction ATV0 result codes	F	7.7.0	7.8.0	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	A	3.12.0	3.13.0	T2-030141	TEI
27.007	099	-	Rel-4	Correction ATV0 result codes	A	4.5.0	4.6.0	T2-030142	TI-ATC
27.007	100	-	Rel-5	Correction ATV0 result codes	A	5.2.0	5.3.0	T2-030143	TEI5
27.007	101	-	Rel-6	Correction ATV0 result codes	A	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

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030140

CR-Form-v7

CHANGE REQUEST

⌘ **07.07** **CR** **A91** ⌘ **rev** **-** ⌘ Current version: **7.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction ATV0 result codes
Source:	⌘	T2
Work item code:	⌘	TEI
Date:	⌘	22/01/2003
Category:	⌘	**F**
Release:	⌘	R98

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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 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			

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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:

Table B.1: Result codes

Verbose result code (V.25ter command V1 set)	Numeric (V0 set)	Type	Description
+CCCM: <ccm>	as verbose	unsolicited	refer subclause 7.15 $(AT R97)$
+CCWA: <number>,<type>,<class>[,<alpha>]	as verbose	unsolicited	refer subclause 7.11
+CCWV	as verbose	unsolicited	refer subclause 8.28
+CDEV: <elem>,<text>	as verbose	unsolicited	refer subclause 8.10
+CIEV: <ind>,<value>	as verbose	unsolicited	refer subclause 8.10
+CKEV: <key>,<press>	as verbose	unsolicited	refer subclause 8.10
+CLAV: <code>	as verbose	unsolicited	refer subclause 8.
+CLIP: <number>,<type>[,<subaddr>,<satype>[,<alpha>]]	as verbose	unsolicited	refer subclause 7.6
+CME ERROR: <err>	as verbose	Final	refer subclause 9.2
+COLP: <number>,<type>[,<subaddr>,<satype>[,<alpha>]]	as verbose	intermediate	refer subclause 7.8
+CR: <type>	as verbose	intermediate	refer subclause 6.8
+CREG: <stat>[,<lac>,<ci>]	as verbose	unsolicited	refer subclause 7.2
+CRING: <type>	as verbose	unsolicited	refer subclause 6.11
+CSSI: <code1>[,<index>]	as verbose	intermediate	refer subclause 7.16
+CSSU: <code2>[,<index>[,<number>,<type>[,<subaddr>,<satype>]]]	as verbose	unsolicited	refer subclause 7.16
+CUSD: <m>[,<str>,<dcs>]	as verbose	unsolicited	refer subclause 7.14
+DR: <type>	as verbose	intermediate	refer subclause 6.13
+ILRR: <rate>	as verbose	intermediate	refer subclause 4.3
BUSY	7~~6~~	Final	busy signal detected
CONNECT	1	intermediate	connection has been established
CONNECT <text>	manufacturer specific	intermediate	as CONNECT but manufacturer specific <text> gives additional information (e.g. connection data rate)
ERROR	4	Final	command not accepted
NO ANSWER	8~~7~~	Final	connection completion timeout
NO CARRIER	3	Final	connection terminated
NO DIALTONE	6~~5~~	Final	no dialtone detected
OK	0	Final	acknowledges execution of a command line
RING	2	unsolicited	incoming call signal from network

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).

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030118

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **094** ⌘ **rev** **-** ⌘ Current version: **3.12.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Clarification in the behaviour of AT+CGCLASS
Source:	⌘	T2
Work item code:	⌘	TEI
Date:	⌘	14-Jan-2003
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change:	⌘	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.
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 Iu mode. It is clarified that the read command shall return the set value independent of the capability in the current serving cell.
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

Clauses affected:	⌘	10.1.17

		Y	N			
Other specs affected:	⌘		X	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

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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)~~

Table 1: CGCLASS parameter command syntax

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

Description

The set command is used to set the MT to operate according to the specified ~~GPRS mobile class~~mode of operation, see TS 23.060 [47]. If the requested ~~class~~mode of operation 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 ~~current GPRS mobile class~~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 operation

A Class-A~~class A~~ mode of operation (A/Gb mode), or CS/PS mode of operation (Iu mode) (highest mode of operation)

B Class-B~~class B~~ mode of operation (A/Gb mode), (not applicable in Iu mode)

CG Class-C~~class C~~ mode of operation in PS only mode (A/Gb mode), or PS mode of operation (Iu mode) ~~in GPRS only mode~~

CC Class-C~~class C~~ 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 ~~GPRS~~ attached to the PS domain when the set command is issued with a <class> = CC specified, a PS detach ~~request~~ shall be performed by the MT~~sent to the network~~.

Implementation

Optional.

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030100

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **095** ⌘ **rev** **-** ⌘ Current version: **4.5.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Clarification in the behaviour of AT+CGCLASS
Source:	⌘	T2
Work item code:	⌘	TI-ATC
Date:	⌘	14-Jan-2003
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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.
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 Iu mode. It is clarified that the read command shall return the set value independent of the capability in the current serving cell.
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

Clauses affected:	⌘	10.1.17

		Y	N			
Other specs affected:	⌘		X	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

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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)~~

Table 1: CGCLASS parameter command syntax

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

Description

The set command is used to set the MT to operate according to the specified ~~GPRS mobile class~~mode of operation, see TS 23.060 [47]. If the requested ~~class~~mode of operation 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 ~~current GPRS mobile class~~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 operation

A Class-A~~class A~~ mode of operation (A/Gb mode), or CS/PS mode of operation (Iu mode) (highest mode of operation)

B Class-B~~class B~~ mode of operation (A/Gb mode), (not applicable in Iu mode)

CG Class-C~~class C~~ mode of operation in PS only mode (A/Gb mode), or PS mode of operation (Iu mode) ~~in GPRS only mode~~

CC Class-C~~class C~~ 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 ~~GPRS~~ attached to the PS domain when the set command is issued with a <class> = CC specified, a PS detach ~~request~~ shall be performed by the MT~~sent to the network~~.

Implementation

Optional.

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030101

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **096** ⌘ **rev** **-** ⌘ Current version: **5.2.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Clarification in the behaviour of AT+CGCLASS
Source:	⌘	T2
Work item code:	⌘	TEI5
Date:	⌘	14-Jan-2003
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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.
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 Iu mode. It is clarified that the read command shall return the set value independent of the capability in the current serving cell.
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

Clauses affected:	⌘	10.1.17

		Y	N			
Other specs affected:	⌘		X	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

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10.1.17 GPRS mobile station class +CGCLASS ~~(GPRS only)~~

Table 1: CGCLASS parameter command syntax

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

Description

The set command is used to set the MT to operate according to the specified ~~GPRS mobile class~~mode of operation, see TS 23.060 [47]. If the requested ~~class~~mode of operation 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 ~~current GPRS mobile class~~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 operation

A Class-A~~class A~~ mode of operation (A/Gb mode), or CS/PS mode of operation (Iu mode) (highest mode of operation)

B Class-B~~class B~~ mode of operation (A/Gb mode), (not applicable in Iu mode)

CG Class-C~~class C~~ mode of operation in PS only mode (A/Gb mode), or PS mode of operation (Iu mode) ~~in GPRS only mode~~

CC Class-C~~class C~~ 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 ~~GPRS~~ attached to the PS domain when the set command is issued with a <class> = CC specified, a PS detach ~~request~~ shall be performed by the MT~~sent to the network~~.

Implementation

Optional.

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030102

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **097** ⌘ **rev** **-** ⌘ Current version: **6.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Clarification in the behaviour of AT+CGCLASS
Source:	⌘	T2
Work item code:	⌘	TEI6
Date:	⌘	14-Jan-2003
Category:	⌘	**A**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
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R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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.
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 Iu mode. It is clarified that the read command shall return the set value independent of the capability in the current serving cell.
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

Clauses affected:	⌘	10.1.17

		Y	N			
Other specs affected:	⌘		X	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

10.1.17 GPRS mobile station class +CGCLASS ~~(GPRS only)~~

Table 1: CGCLASS parameter command syntax

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

Description

The set command is used to set the MT to operate according to the specified ~~GPRS mobile class~~mode of operation, see TS 23.060 [47]. If the requested ~~class~~mode of operation 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 ~~current GPRS mobile class~~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 operation

A Class-A~~class A~~ mode of operation (A/Gb mode), or CS/PS mode of operation (Iu mode) (highest mode of operation)

B Class-B~~class B~~ mode of operation (A/Gb mode), (not applicable in Iu mode)

CG Class-C~~class C~~ mode of operation in PS only mode (A/Gb mode), or PS mode of operation (Iu mode) ~~in GPRS only mode~~

CC Class-C~~class C~~ 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 ~~GPRS~~ attached to the PS domain when the set command is issued with a <class> = CC specified, a PS detach ~~request~~ shall be performed by the MT~~sent to the network~~.

Implementation

Optional.

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030141

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **098** ⌘ **rev** **-** ⌘ Current version: **3.12.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction ATV0 result codes
Source:	⌘	T2
Work item code:	⌘	TEI
Date:	⌘	22/01/2003
Category:	⌘	**A**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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 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

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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:

Table B.1: Result codes

Verbose result code (V.25ter command V1 set)	Numeric (V0 set)	Type	Description
+CALV	as verbose	unsolicited	refer subclause 8.16
+CCCM: <ccm>	as verbose	unsolicited	refer subclause 7.16
+CCWA: <number>,<type>,<class>[,<alpha>]	as verbose	unsolicited	refer subclause 7.12
+CCWV	as verbose	unsolicited	refer subclause 8.28
+CDEV: <elem>,<text>	as verbose	unsolicited	refer subclause 8.10
+CDIP:<number>,<type>[,<subaddr>,<satype>]	as verbose	unsolicited	refer subclause 7.9
+CIEV: <ind>,<value>	as verbose	unsolicited	refer subclause 8.10
+CKEV: <key>,<press>	as verbose	unsolicited	refer subclause 8.10
+CLAV: <code>	as verbose	unsolicited	refer subclause 8.
+CLIP: <number>,<type>[,<subaddr>,<satype>[,<alpha>]]	as verbose	unsolicited	refer subclause 7.6
+CME ERROR: <err>	as verbose	final	refer subclause 9.2
+COLP: <number>,<type>[,<subaddr>,<satype>[,<alpha>]]	as verbose	intermediate	refer subclause 7.8
+CR: <type>	as verbose	intermediate	refer subclause 6.9
+CREG: <stat>[,<lac>,<ci>]	as verbose	unsolicited	refer subclause 7.2
+CRING: <type>	as verbose	unsolicited	refer subclause 6.11
+CSSI: <code1>[,<index>]	as verbose	intermediate	refer subclause 7.17
+CSSU: <code2>[,<index>[,<number>,<type>[,<subaddr>,<satype>]]]	as verbose	unsolicited	refer subclause 7.17
+CTZV: <tz>	as verbose	unsolicited	refer subclause 8.40
+CUSD: <m>[,<str>,<dcs>]	as verbose	unsolicited	refer subclause 7.15
+DR: <type>	as verbose	intermediate	refer subclause 6.13
+ILRR: <rate>	as verbose	intermediate	refer subclause 4.3
BUSY	7~~6~~	final	busy signal detected
CONNECT	1	intermediate	connection has been established
CONNECT <text>	manufacturer specific	intermediate	as CONNECT but manufacturer specific <text> gives additional information (e.g. connection data rate)
ERROR	4	final	command not accepted
NO ANSWER	8~~7~~	final	connection completion timeout
NO CARRIER	3	final	connection terminated
NO DIALTONE	6~~5~~	final	no dialtone detected
OK	0	final	acknowledges execution of a command line
RING	2	unsolicited	incoming call signal from network

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).

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030142

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **099** ⌘ **rev** **-** ⌘ Current version: **4.5.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction ATV0 result codes
Source:	⌘	T2
Work item code:	⌘	TI-ATC
Date:	⌘	22/01/2003
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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 affected:	⌘	Annex B

		Y	N		
Other specs affected:	⌘			Other core specifications	⌘
				Test specifications	
				O&M Specifications	

Other comments:	⌘	The reference [14] to V.25ter should be updated with V.250

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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:

Table B.1: Result codes

Verbose result code (V.25ter command V1 set)	Numeric (V0 set)	Type	Description
+CALV	as verbose	unsolicited	refer subclause 8.16
+CCCM: <ccm>	as verbose	unsolicited	refer subclause 7.16
+CCWA: <number>,<type>,<class>[,<alpha>]	as verbose	unsolicited	refer subclause 7.12
+CCWV	as verbose	unsolicited	refer subclause 8.28
+CDEV: <elem>,<text>	as verbose	unsolicited	refer subclause 8.10
+CDIP:<number>,<type>[,<subaddr>,<satype>]	as verbose	unsolicited	refer subclause 7.9
+CIEV: <ind>,<value>	as verbose	unsolicited	refer subclause 8.10
+CKEV: <key>,<press>	as verbose	unsolicited	refer subclause 8.10
+CLAV: <code>	as verbose	unsolicited	refer subclause 8.
+CLIP: <number>,<type>[,<subaddr>,<satype>[,<alpha>]]	as verbose	unsolicited	refer subclause 7.6
+CME ERROR: <err>	as verbose	final	refer subclause 9.2
+COLP: <number>,<type>[,<subaddr>,<satype>[,<alpha>]]	as verbose	intermediate	refer subclause 7.8
+CR: <type>	as verbose	intermediate	refer subclause 6.9
+CREG: <stat>[,<lac>,<ci>]	as verbose	unsolicited	refer subclause 7.2
+CRING: <type>	as verbose	unsolicited	refer subclause 6.11
+CSSI: <code1>[,<index>]	as verbose	intermediate	refer subclause 7.17
+CSSU: <code2>[,<index>[,<number>,<type>[,<subaddr>,<satype>]]]	as verbose	unsolicited	refer subclause 7.17
+CTZV: <tz>	as verbose	unsolicited	refer subclause 8.40
+CUSD: <m>[,<str>,<dcs>]	as verbose	unsolicited	refer subclause 7.15
+CUUS1I: <messageI>	as verbose	intermediate	refer subclause 7.25
+CUUS1U: <messageU>	as verbose	unsolicited	refer subclause 7.25
+DR: <type>	as verbose	intermediate	refer subclause 6.13
+ILRR: <rate>	as verbose	intermediate	refer subclause 4.3
BUSY	7~~6~~	final	busy signal detected
CONNECT	1	intermediate	connection has been established
CONNECT <text>	manufacturer specific	intermediate	as CONNECT but manufacturer specific <text> gives additional information (e.g. connection data rate)
ERROR	4	final	command not accepted
NO ANSWER	8~~7~~	final	connection completion timeout
NO CARRIER	3	final	connection terminated
NO DIALTONE	6~~5~~	final	no dialtone detected
OK	0	final	acknowledges execution of a command line
RING	2	unsolicited	incoming call signal from network

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).

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030143

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **100** ⌘ **rev** **-** ⌘ Current version: **5.2.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction ATV0 result codes
Source:	⌘	T2
Work item code:	⌘	TEI5
Date:	⌘	22/01/2003
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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 affected:	⌘	Annex B

		Y	N		
Other specs affected:	⌘			Other core specifications	⌘
				Test specifications	
				O&M Specifications	

Other comments:	⌘	The reference [14] to V.25ter should be updated with V.250

How to create CRs using this form:
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Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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:

Table B.1: Result codes

Verbose result code (V.25ter command V1 set)	Numeric (V0 set)	Type	Description
+CALV	as verbose	unsolicited	refer subclause 8.16
+CCCM: <ccm>	as verbose	unsolicited	refer subclause 7.16
+CCWA: <number>,<type>,<class>[,<alpha>]	as verbose	unsolicited	refer subclause 7.12
+CCWV	as verbose	unsolicited	refer subclause 8.28
+CDEV: <elem>,<text>	as verbose	unsolicited	refer subclause 8.10
+CDIP:<number>,<type>[,<subaddr>,<satype>]	as verbose	unsolicited	refer subclause 7.9
+CIEV: <ind>,<value>	as verbose	unsolicited	refer subclause 8.10
+CKEV: <key>,<press>	as verbose	unsolicited	refer subclause 8.10
+CLAV: <code>	as verbose	unsolicited	refer subclause 8.
+CLIP: <number>,<type>[,<subaddr>,<satype>[,<alpha>]]	as verbose	unsolicited	refer subclause 7.6
+CME ERROR: <err>	as verbose	final	refer subclause 9.2
+COLP: <number>,<type>[,<subaddr>,<satype>[,<alpha>]]	as verbose	intermediate	refer subclause 7.8
+CR: <type>	as verbose	intermediate	refer subclause 6.9
+CREG: <stat>[,<lac>,<ci>]	as verbose	unsolicited	refer subclause 7.2
+CRING: <type>	as verbose	unsolicited	refer subclause 6.11
+CSSI: <code1>[,<index>]	as verbose	intermediate	refer subclause 7.17
+CSSU: <code2>[,<index>[,<number>,<type>[,<subaddr>,<satype>]]]	as verbose	unsolicited	refer subclause 7.17
+CTZV: <tz>	as verbose	unsolicited	refer subclause 8.40
+CUSD: <m>[,<str>,<dcs>]	as verbose	unsolicited	refer subclause 7.15
+CUUS1I: <messageI>	as verbose	intermediate	refer subclause 7.25
+CUUS1U: <messageU>	as verbose	unsolicited	refer subclause 7.25
+DR: <type>	as verbose	intermediate	refer subclause 6.13
+ILRR: <rate>	as verbose	intermediate	refer subclause 4.3
BUSY	7~~6~~	final	busy signal detected
CONNECT	1	intermediate	connection has been established
CONNECT <text>	manufacturer specific	intermediate	as CONNECT but manufacturer specific <text> gives additional information (e.g. connection data rate)
ERROR	4	final	command not accepted
NO ANSWER	8~~7~~	final	connection completion timeout
NO CARRIER	3	final	connection terminated
NO DIALTONE	6~~5~~	final	no dialtone detected
OK	0	final	acknowledges execution of a command line
RING	2	unsolicited	incoming call signal from network

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).

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030144

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **101** ⌘ **rev** **-** ⌘ Current version: **6.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction ATV0 result codes
Source:	⌘	T2
Work item code:	⌘	TEI6
Date:	⌘	22/01/2003
Category:	⌘	**A**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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 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			

How to create CRs using this form:
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Below is a brief summary:

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2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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:

Table B.1: Result codes

Verbose result code (V.25ter command V1 set)	Numeric (V0 set)	Type	Description
+CALV	as verbose	unsolicited	refer subclause 8.16
+CCCM: <ccm>	as verbose	unsolicited	refer subclause 7.16
+CCWA: <number>,<type>,<class>[,<alpha>]	as verbose	unsolicited	refer subclause 7.12
+CCWV	as verbose	unsolicited	refer subclause 8.28
+CDEV: <elem>,<text>	as verbose	unsolicited	refer subclause 8.10
+CDIP:<number>,<type>[,<subaddr>,<satype>]	as verbose	unsolicited	refer subclause 7.9
+CIEV: <ind>,<value>	as verbose	unsolicited	refer subclause 8.10
+CKEV: <key>,<press>	as verbose	unsolicited	refer subclause 8.10
+CLAV: <code>	as verbose	unsolicited	refer subclause 8.
+CLIP: <number>,<type>[,<subaddr>,<satype>[,<alpha>]]	as verbose	unsolicited	refer subclause 7.6
+CME ERROR: <err>	as verbose	final	refer subclause 9.2
+COLP: <number>,<type>[,<subaddr>,<satype>[,<alpha>]]	as verbose	intermediate	refer subclause 7.8
+CR: <type>	as verbose	intermediate	refer subclause 6.9
+CREG: <stat>[,<lac>,<ci>]	as verbose	unsolicited	refer subclause 7.2
+CRING: <type>	as verbose	unsolicited	refer subclause 6.11
+CSSI: <code1>[,<index>]	as verbose	intermediate	refer subclause 7.17
+CSSU: <code2>[,<index>[,<number>,<type>[,<subaddr>,<satype>]]]	as verbose	unsolicited	refer subclause 7.17
+CTZV: <tz>	as verbose	unsolicited	refer subclause 8.40
+CUSD: <m>[,<str>,<dcs>]	as verbose	unsolicited	refer subclause 7.15
+CUUS1I: <messageI>	as verbose	intermediate	refer subclause 7.25
+CUUS1U: <messageU>	as verbose	unsolicited	refer subclause 7.25
+DR: <type>	as verbose	intermediate	refer subclause 6.13
+ILRR: <rate>	as verbose	intermediate	refer subclause 4.3
BUSY	7~~6~~	final	busy signal detected
CONNECT	1	intermediate	connection has been established
CONNECT <text>	manufacturer specific	intermediate	as CONNECT but manufacturer specific <text> gives additional information (e.g. connection data rate)
ERROR	4	final	command not accepted
NO ANSWER	8~~7~~	final	connection completion timeout
NO CARRIER	3	final	connection terminated
NO DIALTONE	6~~5~~	final	no dialtone detected
OK	0	final	acknowledges execution of a command line
RING	2	unsolicited	incoming call signal from network

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).

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030152

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **102** ⌘ **rev** **-** ⌘ Current version: **3.12.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction of AT+WS46 parameter values.
Source:	⌘	T2
Work item code:	⌘	TEI
Date:	⌘	23/1/2003
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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.
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”.
Consequences if 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

Other specs affected:	⌘	Y	N		⌘	
		☐	☐	Other core specifications		
		☐	☐	Test specifications		
		☐	☐	O&M Specifications		

Other comments:	⌘	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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.

Table 1: +WS46 parameter command syntax

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

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.

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030153

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **103** ⌘ **rev** **-** ⌘ Current version: **4.5.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction of AT+WS46 parameter values.
Source:	⌘	T2
Work item code:	⌘	TI-ATC
Date:	⌘	23/1/2003
Category:	⌘	**A**
Release:	⌘	R4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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.
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”.
Consequences if 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

		Y	N			
Other specs affected:	⌘	☐	☐	Other core specifications	⌘	
		☐	☐	Test specifications		
		☐	☐	O&M Specifications		

Other comments:	⌘	

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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.

Table 1: +WS46 parameter command syntax

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+WS46=[<n>]	
+WS46?	<n>
+WS46=?	(list of supported <n>s)

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.

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030154

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **104** ⌘ **rev** **-** ⌘ Current version: **5.2.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction of AT+WS46 parameter values.
Source:	⌘	T2
Work item code:	⌘	TEI5
Date:	⌘	23/1/2003
Category:	⌘	**A**
Release:	⌘	R5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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.
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”.
Consequences if 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

		Y	N			
Other specs affected:	⌘	☐	☐	Other core specifications	⌘	
		☐	☐	Test specifications		
		☐	☐	O&M Specifications		

Other comments:	⌘	

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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.

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Defined values

<n>:

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22 Wideband CDMA (UTRAN only)

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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.

3GPP TSG-T2 #20
San Francisco, CA, USA
20 -24 January 2003

T2-030155

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **105** ⌘ **rev** **-** ⌘ Current version: **6.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction of AT+WS46 parameter values.
Source:	⌘	T2
Work item code:	⌘	TEI6
Date:	⌘	23/1/2003
Category:	⌘	**A**
Release:	⌘	R6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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.
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”.
Consequences if 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

Other specs affected:	⌘	Y	N		⌘
		☐	☐	Other core specifications	
		☐	☐	Test specifications	
		☐	☐	O&M Specifications	

Other comments:	⌘	

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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.

Table 1: +WS46 parameter command syntax

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

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)

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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.

3GPP TSG-T2 Meeting #20
San Francisco, CA, U.S.A., 20 – 24, January 2003

Tdoc ⌘T2-030157

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **106** ⌘**rev** ⌘ Current version: **3.12.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	AT +CGEQREQ - Required Parameters for Streaming / Conversational Traffic Class
Source:	⌘	T2
Work item code:	⌘	TEI
Date:	⌘	22/01/2003
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

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			
Other specs affected:	⌘	**Y**	**N**		
		☐	☐	Other core specifications	⌘
		☐	☐	Test specifications	
		☐	☐	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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

Table 1: +CGEQREQ parameter 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 ratio> [,<Delivery of erroneous SDUs> [,<Transfer delay> [,<Traffic handling priority>]]]]]]]]]]]]	OK ERROR
+CGEQREQ?	+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 ratio> ,<Delivery of erroneous SDUs> ,<Transfer delay> ,<Traffic handling priority> [<CR><LF>+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 ratio> ,<Delivery of erroneous SDUs> ,<Transfer delay> ,<Traffic handling priority> […]]
+CGEQREQ=?	+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 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 erroneous SDUs>s) ,(list of supported <Transfer delay>s) ,(list of supported <Traffic handling priority>s) [<CR><LF>+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 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)

Command	Possible Response(s)
	,(list of supported <Delivery of erroneous SDUs>s) ,(list of supported <Transfer delay>s) ,(list of supported <Traffic handling priority>s) […]]

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 $5 \cdot 10^{-3}$ 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 $5 \cdot 10^{-3}$ 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.

3GPP TSG-T2 Meeting #20
San Francisco, CA, U.S.A., 20 – 24, January 2003

Tdoc ⌘T2-030158

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **107** ⌘**rev** ⌘ Current version: **4.5.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	AT +CGEQREQ - Required Parameters for Streaming / Conversational Traffic Class
Source:	⌘	T2
Work item code:	⌘	TI-ATC
Date:	⌘	22/01/2003
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

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			
Other specs affected:	⌘	**Y**	**N**		
		☐	☐	Other core specifications	⌘
		☐	☐	Test specifications	
		☐	☐	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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

Table 1: +CGEQREQ parameter 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 ratio> [,<Delivery of erroneous SDUs> [,<Transfer delay> [,<Traffic handling priority>]]]]]]]]]]]]	OK ERROR
+CGEQREQ?	+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 ratio> ,<Delivery of erroneous SDUs> ,<Transfer delay> ,<Traffic handling priority> [<CR><LF>+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 ratio> ,<Delivery of erroneous SDUs> ,<Transfer delay> ,<Traffic handling priority> […]]
+CGEQREQ=?	+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 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 erroneous SDUs>s) ,(list of supported <Transfer delay>s) ,(list of supported <Traffic handling priority>s) [<CR><LF>+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 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)

Command	Possible Response(s)
	,(list of supported <Delivery of erroneous SDUs>s) ,(list of supported <Transfer delay>s) ,(list of supported <Traffic handling priority>s) […]]

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 $5 \cdot 10^{-3}$ 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 $5 \cdot 10^{-3}$ 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.

3GPP TSG-T2 Meeting #20
San Francisco, CA, U.S.A., 20 – 24, January 2003

Tdoc ⌘T2-030159

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **108** ⌘**rev** ⌘ Current version: **5.2.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	AT +CGEQREQ - Required Parameters for Streaming / Conversational Traffic Class
Source:	⌘	T2
Work item code:	⌘	TEI5
Date:	⌘	22/01/2003
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

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			
Other specs affected:	⌘	**Y**	**N**		⌘
		☐	☐	Other core specifications	
		☐	☐	Test specifications	
		☐	☐	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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

Table 1: +CGEQREQ parameter 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 ratio> [,<Delivery of erroneous SDUs> [,<Transfer delay> [,<Traffic handling priority>]]]]]]]]]]]]	OK ERROR
+CGEQREQ?	+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 ratio> ,<Delivery of erroneous SDUs> ,<Transfer delay> ,<Traffic handling priority> [<CR><LF>+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 ratio> ,<Delivery of erroneous SDUs> ,<Transfer delay> ,<Traffic handling priority> […]]
+CGEQREQ=?	+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 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 erroneous SDUs>s) ,(list of supported <Transfer delay>s) ,(list of supported <Traffic handling priority>s) [<CR><LF>+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 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)

Command	Possible Response(s)
	,(list of supported <Delivery of erroneous SDUs>s) ,(list of supported <Transfer delay>s) ,(list of supported <Traffic handling priority>s) […]]

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 $5 \cdot 10^{-3}$ 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 $5 \cdot 10^{-3}$ 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.

3GPP TSG-T2 Meeting #20
San Francisco, CA, U.S.A., 20 – 24, January 2003

Tdoc ⌘T2-030180

CR-Form-v7

CHANGE REQUEST

⌘ **27.007** **CR** **109** ⌘**rev** ⌘ Current version: **6.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	AT +CGEQREQ - Required Parameters for Streaming / Conversational Traffic Class
Source:	⌘	T2
Work item code:	⌘	TEI6
Date:	⌘	22/01/2003
Category:	⌘	**A**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

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			
Other specs affected:	⌘	**Y**	**N**		
		☐	☐	Other core specifications	⌘
		☐	☐	Test specifications	
		☐	☐	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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

Table 1: +CGEQREQ parameter 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 ratio> [,<Delivery of erroneous SDUs> [,<Transfer delay> [,<Traffic handling priority>]]]]]]]]]]]]	OK ERROR
+CGEQREQ?	+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 ratio> ,<Delivery of erroneous SDUs> ,<Transfer delay> ,<Traffic handling priority> [<CR><LF>+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 ratio> ,<Delivery of erroneous SDUs> ,<Transfer delay> ,<Traffic handling priority> […]]
+CGEQREQ=?	+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 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 erroneous SDUs>s) ,(list of supported <Transfer delay>s) ,(list of supported <Traffic handling priority>s) [<CR><LF>+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 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)

Command	Possible Response(s)
	,(list of supported <Delivery of erroneous SDUs>s) ,(list of supported <Transfer delay>s) ,(list of supported <Traffic handling priority>s) […]]

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 $5 \cdot 10^{-3}$ 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 $5 \cdot 10^{-3}$ 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.