

Source: TSG CN WG 3
Title: CRs to R99 (with mirror CRs) Work Item GPRS
Agenda item: 7.3
Document for: APPROVAL

Introduction:

This document contains 3 CRs on R99 (including mirror CRs) Work Item "GPRS", that have been agreed by TSG CN WG3, and are forwarded to TSG CN Plenary meeting #17 for approval.

Doc-2nd-	Spec	CR	Rev	Subject	Cat	Phase	Version-	Workitem
N3-020657	27.060	025	-	QoS in case of Streaming and Conversational	F	R99	3.6.0	GPRS
N3-020658	27.060	026	-	QoS in case of Streaming and Conversational	A	Rel-4	4.1.0	GPRS
N3-020659	27.060	027	-	QoS in case of Streaming and Conversational	A	Rel-5	5.1.0	GPRS

CR-Form-v7

CHANGE REQUEST

⌘ **27.060 CR 025** ⌘ rev **-** ⌘ Current version: **3.6.0** ⌘

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:	⌘ QoS attributes requested in case of real-time QoS		
Source:	⌘ TSG_CN WG3		
Work item code:	⌘ TEI	Date:	⌘ 29/07/2002
Category:	⌘ F	Release:	⌘ R99
	<p>Use <u>one</u> of the following categories:</p> <p>F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p>Use <u>one</u> of the following releases:</p> <p>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)</p>

Reason for change:	⌘ CR 111r3 to 23.107 introduces a description of how a QoS request with the traffic class set to 'subscribed' shall be handled (in the SGSN), i.e. in that case the QoS negotiated will be Interactive at maximum.
	<p>A subscriber with a subscription allowing streaming or conversational traffic class will therefore be able to get a traffic class higher than Interactive only if the MS explicitly requests the traffic class. Also the subscription in the HLR, which can contain only one QoS profile for a given APN, will indicate the maximum values allowed for each QoS attribute for all possible cases. Consequently, the Maximum Bit Rate is likely to reflect the maximum value allowed for the Interactive or Background class, which is normally higher than what can be allowed for Streaming or Conversational, leading to an over-reservation of resources or to a higher probability to have the QoS request rejected if the subscribed value is taken. Likewise, the Guaranteed Bit Rate is likely higher for Streaming than for Conversational and could therefore also lead to similar problems.</p>
Summary of change:	⌘ It is clarified that when the application in the TE requires streaming or conversational QoS, then the MS shall at least explicitly request the traffic class and should explicitly request the guaranteed bit rate and the maximum bit rate.
Consequences if not approved:	⌘ Over-reservation of resources in the network, as well as increased probability of QoS requests being rejected, when the subscription allows Streaming or Conversational and the MS does not specify the critical QoS attributes.

Clauses affected:	⌘		
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">Y</td> <td style="padding: 2px 5px;">N</td> </tr> </table>	Y	N
Y	N		

Other specs affected:	⌘	<input checked="" type="checkbox"/>	Other core specifications	⌘	23.060, 23.107
		<input checked="" type="checkbox"/>	Test specifications		
		<input checked="" type="checkbox"/>	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.

12.1.2 Use of default context parameter values

The activate context request message sent by the MT to the network contains a number of parameters whose values can usefully be set by the TE. Under certain circumstances the values for some or all of the parameters need not be provided by the TE, either via AT commands or the PDP startup procedure. The storage of context information in the SIM is not considered in the present document. Rules concerning what values shall be sent by the MT to the network under various circumstances are given in 3GPP TS 23.060.

One particular rule that is designed to simplify operation in modem compatibility mode is that if there is only one PDP context subscription in the HLR then all of PDP type, PDP address and APN may be omitted.

12.1.2.1 PDP type

This may be omitted:

- when the MT supports only one PDP type (it will be provided by the MT); or
- according to the rules given in 3GPP TS 23.060.

12.1.2.2 PDP address (of the MS)

This shall be omitted when:

- a dynamic address is required; or
- according to the rules given in 3GPP TS 23.060.

12.1.2.3 Access Point Name

This may be omitted:

- according to the rules given in 3GPP TS 23.060.

12.1.2.4 QoS Requested

This may be omitted when:

- the default subscribed QoS is acceptable.

When the application in the TE requires streaming or conversational QoS, then the MS shall at least explicitly request the traffic class and should explicitly request the guaranteed bit rate and the maximum bit rate.

12.1.2.5 PDP Configuration Options

These shall be omitted:

- when none are required for the PDP concerned; or
- according to the rules given for the PDP.

CR-Form-v7

CHANGE REQUEST

⌘ **27.060 CR 026** ⌘ rev **-** ⌘ Current version: **4.1.0** ⌘

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

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

Title:	⌘ QoS attributes requested in case of real-time QoS		
Source:	⌘ TSG_CN WG3		
Work item code:	⌘ TEI	Date:	⌘ 29/07/2002
Category:	⌘ A	Release:	⌘ Rel-4
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900.		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ CR 112r3 to 23.107 introduces a description of how a QoS request with the traffic class set to 'subscribed' shall be handled (in the SGSN), i.e. in that case the QoS negotiated will be Interactive at maximum.
	A subscriber with a subscription allowing streaming or conversational traffic class will therefore be able to get a traffic class higher than Interactive only if the MS explicitly requests the traffic class. Also the subscription in the HLR, which can contain only one QoS profile for a given APN, will indicate the maximum values allowed for each QoS attribute for all possible cases. Consequently, the Maximum Bit Rate is likely to reflect the maximum value allowed for the Interactive or Background class, which is normally higher than what can be allowed for Streaming or Conversational, leading to an over-reservation of resources or to a higher probability to have the QoS request rejected if the subscribed value is taken. Likewise, the Guaranteed Bit Rate is likely higher for Streaming than for Conversational and could therefore also lead to similar problems.
Summary of change:	⌘ It is clarified that when the application in the TE requires streaming or conversational QoS, then the MS shall at least explicitly request the traffic class and should explicitly request the guaranteed bit rate and the maximum bit rate.
Consequences if not approved:	⌘ Over-reservation of resources in the network, as well as increased probability of QoS requests being rejected, when the subscription allows Streaming or Conversational and the MS does not specify the critical QoS attributes.

Clauses affected:	⌘
	<input type="checkbox"/> Y <input type="checkbox"/> N

Other specs affected:	⌘	<input checked="" type="checkbox"/>	Other core specifications	⌘	23.060, 23.107
		<input checked="" type="checkbox"/>	Test specifications		
		<input checked="" type="checkbox"/>	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.

12.1.2 Use of default context parameter values

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One particular rule that is designed to simplify operation in modem compatibility mode is that if there is only one PDP context subscription in the HLR then all of PDP type, PDP address and APN may be omitted.

12.1.2.1 PDP type

This may be omitted:

- when the MT supports only one PDP type (it will be provided by the MT); or
- according to the rules given in 3GPP TS 23.060.

12.1.2.2 PDP address (of the MS)

This shall be omitted when:

- a dynamic address is required; or
- according to the rules given in 3GPP TS 23.060.

12.1.2.3 Access Point Name

This may be omitted:

- according to the rules given in 3GPP TS 23.060.

12.1.2.4 QoS Requested

This may be omitted when:

- the default subscribed QoS is acceptable.

When the application in the TE requires streaming or conversational QoS, then the MS shall at least explicitly request the traffic class and should explicitly request the guaranteed bit rate and the maximum bit rate.

12.1.2.5 PDP Configuration Options

These shall be omitted:

- when none are required for the PDP concerned; or
- according to the rules given for the PDP.

CHANGE REQUEST

⌘ **27.060 CR 027** ⌘ rev **-** ⌘ Current version: **5.1.0** ⌘

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

Title:	⌘ QoS attributes requested in case of real-time QoS		
Source:	⌘ TSG_CN WG3		
Work item code:	⌘ TEI	Date:	⌘ 29/07/2002
Category:	⌘ A	Release:	⌘ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2	(GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R96	(Release 1996)
	B (addition of feature),	R97	(Release 1997)
	C (functional modification of feature)	R98	(Release 1998)
	D (editorial modification)	R99	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-4	(Release 4)
		Rel-5	(Release 5)
		Rel-6	(Release 6)

Reason for change:	⌘ CR 113r3 to 23.107 introduces a description of how a QoS request with the traffic class set to 'subscribed' shall be handled (in the SGSN), i.e. in that case the QoS negotiated will be Interactive at maximum.
	A subscriber with a subscription allowing streaming or conversational traffic class will therefore be able to get a traffic class higher than Interactive only if the MS explicitly requests the traffic class. Also the subscription in the HLR, which can contain only one QoS profile for a given APN, will indicate the maximum values allowed for each QoS attribute for all possible cases. Consequently, the Maximum Bit Rate is likely to reflect the maximum value allowed for the Interactive or Background class, which is normally higher than what can be allowed for Streaming or Conversational, leading to an over-reservation of resources or to a higher probability to have the QoS request rejected if the subscribed value is taken. Likewise, the Guaranteed Bit Rate is likely higher for Streaming than for Conversational and could therefore also lead to similar problems.
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Clauses affected:	⌘
	<input type="checkbox"/> Y <input type="checkbox"/> N

Other specs affected:	⌘	<input checked="" type="checkbox"/>	Other core specifications	⌘	23.060, 23.107
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Other comments:	⌘				

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12.1.2.2 PDP address (of the MS)

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12.1.2.3 Access Point Name

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