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

## 3GPP TSG-CN1 Meeting #25 Helsinki, Finland, 29 July – 2 August

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Reason for change: ₩

be found in 3GPP TR 21.900.

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.

Rel-5

Rel-6

(Release 5)

(Release 6)

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:

Streaming or Conversational and the MS does not specify the critical QoS attributes.

Clauses affected:	<b>X</b>
	YN

Other specs affected:	# 7	X	Other core specifications Test specifications O&M Specifications	ĸ	23.060, 23.107
Other comments:	H				

#### How to create CRs using this form:

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

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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

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.

(Release 6)

Rel-6

## 3GPP TSG-CN1 Meeting #25 Helsinki, Finland, 29 July – 2 August

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Reason for change: # CR 1

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:

Wer-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:	<b>X</b>	
	YN	

Other specs affected:	# 7	X	Other core specifications Test specifications O&M Specifications	ĸ	23.060, 23.107
Other comments:	H				

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### 12.1.2.2 PDP address (of the MS)

This shall be omitted when:

- a dynamic address is required; or
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#### 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.

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### 12.1.2.5 PDP Configuration Options

These shall be omitted:

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Consequences if

not approved:

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Clauses affected: #

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**Solution** 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.

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