Technical Specification Group Services and System Aspects
Meeting #22, Maui, Hawaii, USA, 15-18 December 2003

TSGS#22(03)0654

Source: TSG SA WG2
Title: CRs on 23.107 (QoS Concept and Architecture)
Agenda Item: 7.2.3

The following Change Requests (CRs) have been approved by TSG SA WG2 and are requested to be approved by TSG SA plenary #22.
Note: the source of all these CRs is now S2, even if the name of the originating company(ies) is still reflected on the cover page of all the attached CRs.

Tdoc #	Title	Spec	CR #	cat	Version in	REL	WI	S2 meeting	Clauses affected
S2-033709	Radio Access Bearer Service Attributes for GERAN	23.107	144	F	5.10.0	5	E2EQoS	S2-35	6.5.2
S2-033710	Radio Access Bearer Service Attributes for GERAN	23.107	145	F	5.10.0	6	E2EQoS	S2-35	6.5.2

Note 1. As there is no R6 version of 23.107 it is proposed that MCC does not implement CR 145 until the R6 version of 23.107 is created.

3GPP TSG-SA2 Meeting #35
Bangkok, Thailand, 27th – 31st October, 2003

Tdoc ⌘S2-033709

CR-Form-v7

CHANGE REQUEST

⌘ **23.107** **CR** **144** ⌘**rev** **-** ⌘ Current version: **5.a.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:	⌘	Radio Access Bearer Service Attributes for GERAN
Source:	⌘	Siemens AG
Work item code:	⌘	E2EQoS
Date:	⌘	27/10/2003
Category:	⌘	**F**
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:	⌘	Section 6.5.2 describes ranges of radio access bearer service attributes. The parameters ARP and SDU format information are not available on GERAN Gb interface which is currently not reflected in 6.5.2.
Summary of change:	⌘	It is indicated in section 6.5.2 by a note that parameters ARP and SDU format information are not applicable for GERAN when the Gb Bearer Service is used.
Consequences if not approved:	⌘	GERAN is not correctly reflected in the generic QoS architecture in TS 23.107.

Clauses affected:	⌘	6.5.2

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

Other comments:	⌘	Further to the CR in S2-032690, this CR contains additional changes to reflect GERAN characteristics in the generic QoS architecture in TS 23.107.

6.5.2 Ranges of Radio Access Bearer Service Attributes for UTRAN and for GERAN

The following table lists the value ranges of the radio access bearer service attributes for UTRAN and for GERAN. The value ranges reflect the capability of both UTRAN and GERAN.

Table 5: Value ranges for Radio Access Bearer Service Attributes for UTRAN and for GERAN

Traffic class	Conversational class	Streaming class	Interactive class	Background class
Maximum bitrate (kbps)	<= 16 000 (2) (7)	<= 16 000 (2) (7)	<= 16 000 - overhead (2) (3) (7)	<= 16 000 - overhead (2) (3) (7)
Delivery order	Yes/No	Yes/No	Yes/No	Yes/No
Maximum SDU size (octets)	<=1 500 or 1 502 (4)	<=1 500 or 1 502 (4)	<=1 500 or 1 502 (4)	<=1 500 or 1 502 (4)
SDU format information (1)	(5)	(5)		
Delivery of erroneous SDUs	Yes/No/-	Yes/No/-	Yes/No/-	Yes/No/-
Residual BER	$5*10^{-2}$, 10^{-2}, $5*10^{-3}$, 10^{-3}, 10^{-4}, 10^{-5}, 10^{-6}	$5*10^{-2}$, 10^{-2}, $5*10^{-3}$, 10^{-3}, 10^{-4}, 10^{-5}, 10^{-6}	$4*10^{-3}$, 10^{-5}, $6*10^{-8}$ (6)	$4*10^{-3}$, 10^{-5}, $6*10^{-8}$ (6)
SDU error ratio	10^{-2}, $7*10^{-3}$, 10^{-3}, 10^{-4}, 10^{-5}	10^{-1}, 10^{-2}, $7*10^{-3}$, 10^{-3}, 10^{-4}, 10^{-5}	10^{-3}, 10^{-4}, 10^{-6}	10^{-3}, 10^{-4}, 10^{-6}
Transfer delay (ms)	80 – maximum value	250 – maximum value		
Guaranteed bit rate (kbps)	<= 16 000 (2) (7)	<= 16 000 (2) (7)		
Traffic handling priority			1,2,3	
Allocation/Retention priority (1)	1,2,3	1,2,3	1,2,3	1,2,3
Source statistic descriptor	Speech/unknown	Speech/unknown		
Signalling Indication			Yes/No	

1) ~~Void~~This parameter is not applicable for GERAN when the Gb Bearer Service is used.

2) The granularity of the bit rate attributes shall be studied. Although the UMTS network has capability to support a large number of different bitrate values, the number of possible values shall be limited not to unnecessarily increase the complexity of for example terminals, charging and interworking functions. Exact list of supported values shall be defined together with S1, N1, N3 and R2.

3) Impact from layer 2 protocols on maximum bitrate in non-transparent RLC protocol mode shall be estimated.

4) In case of PDP type = PPP, maximum SDU size is 1502 octets. In other cases, maximum SDU size is 1 500 octets.

5) Definition of possible values of exact SDU sizes for which UTRAN can support transparent RLC protocol mode, is the task of RAN WG3.

6) Values are derived from CRC lengths of 8, 16 and 24 bits on layer 1.

7) In case of GERAN the highest bitrate value is 473.6 kbps.

3GPP TSG-SA2 Meeting #35
Bangkok, Thailand, 27th – 31st October, 2003

Tdoc ⌘S2-033710

CR-Form-v7

CHANGE REQUEST

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

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Work item code:	⌘	E2EQoS
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Category:	⌘	**F**
Release:	⌘	Rel-6

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