3GPP TSG CN Plenary **Tdoc NP-010043**
Meeting #11, Palm Springs, U.S.A
14th - 16th March 2001

Source: **TSG_CN WG 3**

Title: **CRs to R99 Work Item "CS Data Bearers"**

Agenda item: **7.21**

Document for: **APPROVAL**

Introduction:

This document contains **4** CRs on **R99** Work Item **"CS Data Bearers"**, that have been agreed by **TSG_CN WG3**, and are forwarded to TSG CN Plenary meeting **#11** for approval.

Doc-2nd-Level	Spec	CR	Rev	Cat	Subject	Phase	Version-Current	Workitem
N3-010137	23.910	022		F	Correction of service's scope	R99	3.3.0	CS Data Bearers
N3-010149	23.910	025		A	Correction of service's scope	REL-4	4.1.0	CORRECT
N3-010150	27.001	054		F	Correction of service's scope	R99	3.7.0	CS Data Bearers
N3-010151	27.001	055		A	Correction of service's scope	REL-4	4.2.0	CORRECT

3GPP TSG CN WG3 Meeting #16
Sophia, France. 26th Feb - 2nd March 2001

Tdoc N3-010137

CR-Form-v3

CHANGE REQUEST

⌘ **23.910** **CR** **022** ⌘ **rev** **-** ⌘ **Current vers** **3.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☐ Core Network ☒

Title:	⌘	Correction of service's scope
Source:	⌘	TSG_CN WG3
Work item code:	⌘	CS Bearers
Date:	⌘	19.02.2001
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
- ***F*** *(essential 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)*

Reason for change:	⌘	Refinement and correction of the definition of the scope of circuit switched Bearer Services in alignment with TS 22.002
Summary of change:	⌘	
Consequences if not approved:	⌘	Inconsistency between 22.002, 27.001 and 23.910

Clauses affected:	⌘	5.1		
Other specs affected:	⌘	☒ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	22.002, 27.001
Other comments:	⌘			

How to create CRs using this form:

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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 UMTS Bearer Services

The UMTS bearer services are described by the UMTS BC-IE. Five services (or services categories) are currently distinguishable from the UMTS BC-IE:

- Speech.
- Transparent Data for support of Multimedia.
- Transparent Data.
- Non-transparent data.

Speech is currently not in the scope of the present document.

Each UMTS bearer service is supported by a Radio Access Bearers (RAB). The RABs in turn are described by the QoS parameters. There may be one or several RAB candidates for supporting a UMTS bearer service. The possible candidates are described by a mapping of the BC-IE to RAB QoS described in subclause 5.2.

5.1 UMTS Bearer Services in Release 99

5.1.1 Transparent Data

This service is distinguished by the following BC-IE parameters:

- ITC = UDI or 3.1 kHz audio or Other ITC = RDI.
- CE = transparent.

~~This service may also be used for multimedia, in which case:~~

~~□ Other rate adaptation = H.223 and H.245.~~

For this service the FNUR at the setup is restricted to:

- 64 kbit/s, in case ITC = UDI.
- 56 kbit/s in case ITC = UDI or Other ITC = RDI.

~~□ 33,6 kbit/s, in case ITC = 3,1 kHz audio.~~

- 28,8 kbit/s, in case ITC = 3,1 kHz audio.

~~□ 32 kbit/s, in case ITC = UDI.~~

NOTE~~1~~: ITU-T V.90 [16] is not supported in transparent mode, because asymmetric user rates are not supported in transparent mode.

~~NOTE 2: Transmission rates 31.2 and 28.8 kbit/s negotiated by the modems in a 3.1 kHz multimedia call may be used with a rate adaptation to 33.6 kbit/s between the UE and the IWF (ref. to 3GTS 27.001 and 29.007). The negotiated values shall be provided by the MSC by way of a MODIFY message.~~

5.1.2 Non-Transparent Fax

Void.

5.1.3 NT Data

This service is distinguished by the following BC-IE parameters:

- ITC = UDI or 3.1 kHz audio or Other ITC = RDI.
- CE = non-transparent.

The possible AIURs are limited to 14,4 kbit/s, 28,8 kbit/s and 57,6 kbit/s.

5.1.4 Transparent Data for Support of Multimedia

This service is distinguished by the following BC-IE parameters:

- ITC = UDI or 3.1 kHz audio or Other ITC = RDI.
- CE = transparent.
- Other rate adaptation = H.223 and H.245.

For this service the FNUR at the setup is restricted to:

- 64 kbit/s, in case ITC = UDI.
- 56 kbit/s in case Other ITC = RDI.
- 33,6 kbit/s, in case ITC = 3,1 kHz audio.
- 32 kbit/s, in case ITC = UDI.
- 28,8 kbit/s, in case ITC = 3,1 kHz audio.

NOTE: Transmission rates 31.2 and 28.8 kbit/s negotiated by the modems in a 3.1 kHz multimedia call may be used with a rate adaptation to 33.6 kbit/s between the UE and the IWF (ref. to 3GPP TS 27.001 and 29.007). The negotiated values shall be provided by the MSC by way of a MODIFY message.

*** Next section modified ***

10.2.3 Handover within 3G PLMNs

After a handover from a 3G MSC to another 3G MSC the user plane between the anchor MSC and the visited MSC shall comply to

- the Iu UP protocol if both MSC are connected via an ATM interface.
- the A-TRAU' protocol if both MSC are connected via a TDM interface except for the transparent cases FNUR = 32 kbit/s (ITC = UDI ~~or RDI~~), FNUR = 56 kbit/s (ITC=RDI) and FNUR = 64 kbit/s (ITC=UDI). For these exceptions a plain 64 kbit/s channel is used between the MSCs. The rate adaptation between 64kbit/s and 32kbit/s is based on ITU-T I.460.

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Sophia, France. 26th Feb - 2nd March 2001

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CHANGE REQUEST

⌘ **23.910** **CR** **025** ⌘ **rev** **-** ⌘ **Current vers** **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: ⌘ (U)SIM [ ] ME/UE [X] Radio Access Network [ ] Core Network [X]

Title:	⌘	Correction of service's scope
Source:	⌘	TSG_CN WG3
Work item code:	⌘	CORRECT
Date:	⌘	19.02.2001
Category:	⌘	**A**
Release:	⌘	REL-4

Use one of the following categories:
F *(essential 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)*

Reason for change:	⌘	Refinement and correction of the definition of the scope of circuit switched Bearer Services in alignment with TS 22.002
Summary of change:	⌘	
Consequences if not approved:	⌘	Inconsistency between 22.002, 27.001 and 23.910

Clauses affected:	⌘	5.1		
Other specs affected:	⌘	[X] Other core specifications [ ] Test specifications [ ] O&M Specifications	⌘	22.002, 27.001
Other comments:	⌘			

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- Speech.
- Transparent Data for support of Multimedia.
- Transparent Data.
- Non-transparent Fax.
- Non-transparent data.

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Each UMTS bearer service is supported by a Radio Access Bearers (RAB). The RABs in turn are described by the QoS parameters. There may be one or several RAB candidates for supporting a UMTS bearer service. The possible candidates are described by a mapping of the BC-IE to RAB QoS described in subclause 5.2.

~~5.1 UMTS Bearer Services in Release 99~~5.1 Bearer Capabilities for UMTS Data Services

5.1.1 Transparent Data

This service is distinguished by the following BC-IE parameters:

- ITC = UDI or 3.1 kHz audio or Other ITC = RDI.
- CE = transparent.

~~This service may also be used for multimedia, in which case:~~

~~□Other rate adaptation = H.223 and H.245.~~

For this service the FNUR at the setup is restricted to:

- 64 kbit/s, in case ITC = UDI.
- 56 kbit/s in case ITC = UDI or Other ITC = RDI.

~~□33,6 kbit/s, in case ITC = 3,1 kHz audio.~~

- 28,8 kbit/s, in case ITC = 3,1 kHz audio.

~~□32 kbit/s, in case ITC = UDI.~~

NOTE~~1~~: ITU-T V.90 [16] is not supported in transparent mode, because asymmetric user rates are not supported in transparent mode.

~~NOTE 2: Transmission rates 31.2 and 28.8 kbit/s negotiated by the modems in a 3.1 kHz multimedia call may be used with a rate adaptation to 33.6 kbit/s between the UE and the IWF (ref. to 3GTS 27.001 and 29.007). The negotiated values shall be provided by the MSC by way of a MODIFY message.~~

5.1.2 Non-Transparent Fax

This service is distinguished by the following BC-IE parameters:

- ITC = Fax Group 3 (ITU-T T.30 [17]).

- CE = non-transparent.

WAIUR shall not be more than 28.8 kbit/s. The possible AIURs are limited to 14,4 kbit/s and 28,8 kbit/s.

5.1.3 NT Data

This service is distinguished by the following BC-IE parameters:

- ITC = UDI or 3.1 kHz audio or Other ITC = RDI.
- CE = non-transparent.

The possible AIURs are limited to 14,4 kbit/s, 28,8 kbit/s and 57,6 kbit/s.

5.1.4 Transparent Data for Support of Multimedia

This service is distinguished by the following BC-IE parameters:

- ITC = UDI or 3.1 kHz audio or Other ITC = RDI.
- CE = transparent.
- Other rate adaptation = H.223 and H.245.

For this service the FNUR at the setup is restricted to:

- 64 kbit/s, in case ITC = UDI.
- 56 kbit/s in case Other ITC = RDI.
- 33,6 kbit/s, in case ITC = 3,1 kHz audio.
- 32 kbit/s, in case ITC = UDI.
- 28,8 kbit/s, in case ITC = 3,1 kHz audio.

NOTE: Transmission rates 31.2 and 28.8 kbit/s negotiated by the modems in a 3.1 kHz multimedia call may be used with a rate adaptation to 33.6 kbit/s between the UE and the IWF (ref. to 3GTS 27.001 and 29.007). The negotiated values shall be provided by the MSC by way of a MODIFY message.

*** Next section modified ***

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CHANGE REQUEST

⌘ **27.001** **CR** **054** ⌘ **rev** **-** ⌘ **Current vers** **3.7.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☐ Core Network ☒

Title:	⌘	Correction of service's scope
Source:	⌘	TSG_CN WG3
Work item code:	⌘	CS Bearers
Date:	⌘	19.02.2001
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
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Use one of the following releases:

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REL-4	*(Release 4)*
REL-5	*(Release 5)*

Reason for change:	⌘	Correction of the definition of the scope of circuit switched Bearer Services in alignment with TS 22.002
Summary of change:	⌘	
Consequences if not approved:	⌘	Inconsistency between 22.002, 27.001 and 23.910

Clauses affected:	⌘	Table B.5a			
Other specs affected:	⌘	☒ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	22.002, 23.910	
Other comments:	⌘				

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Table B.5a: Differences in parameter value validity in GSM and UMTS

Parameter / *value*	GSM	UMTS
Radio Channel Requirements / *any*	valid	ignored
User rate / *any*	valid	ignored
Intermediate Rate / *any*	valid	ignored
NIC on transmission / *any*	valid	ignored
NIC on reception / *any*	valid	ignored
Negotiation of IR requested / *any*	valid	ignored
Acceptable Channel Codings / *any*	valid	ignored (note 1)
Maximum number of traffic channels / *any*	valid	ignored (note 1)
User initiated modification indication / *any*	valid	ignored
Asymmetry preference indication/ *any*	valid	ignored
Modem type /		
V.21, V.22, V.22bis, V.26ter	valid	invalid
V.32	valid	invalid for CE=T
Fixed Network User Rate /		
32 kbit/s	Invalid for CE = NT	valid
33.6 kbit/s	invalid	valid
9.6, 14.4, 19.2, 38.4, 48.0	valid	invalid for CE=T
28.8	valid	invalid for CE=T in the case of ITC=UDI
~~*48.0*~~	~~valid~~	~~invalid~~
Other Rate adaptation /		
~~*H.223 and H.245*~~	~~valid~~	~~valid~~
PIAFS	invalid	valid

NOTE: Although a parameter value is marked as "valid", the validity may be restricted by rules given elsewhere in the present document.

NOTE 1: This parameter is relevant in UMTS for NT calls for deciding which RLP version to negotiate in order to avoid renegotiation of RLP version in case of handover, see 3GPP TS 24.022 [9]. It is otherwise irrelevant for specifying the UTRAN radio access bearer.

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Sophia, France. 26th Feb - 2nd March 2001

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CHANGE REQUEST

⌘ **27.001** **CR** **055** ⌘ **rev** **-** ⌘ **Current vers** **4.2.0** ⌘

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Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☐ Core Network ☒

Title:	⌘	Correction of service's scope
Source:	⌘	TSG_CN WG3
Work item code:	⌘	CORRECT
Date:	⌘	19.02.2001
Category:	⌘	**A**
Release:	⌘	REL-4

Use one of the following categories:
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A *(corresponds to a correction in an earlier release)*
B *(Addition of feature),*
C *(Functional modification of feature)*
D *(Editorial modification)*
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Use one of the following releases:

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R97	*(Release 1997)*
R98	*(Release 1998)*
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REL-4	*(Release 4)*
REL-5	*(Release 5)*

Reason for change:	⌘	Correction of the definition of the scope of circuit switched Bearer Services in alignment with TS 22.002
Summary of change:	⌘	
Consequences if not approved:	⌘	Inconsistency between 22.002, 27.001 and 23.910

Clauses affected:	⌘	Table B.5a			
Other specs affected:	⌘	☒ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	22.002, 23.910	
Other comments:	⌘				

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Table B.5a: Differences in parameter value validity in GSM and UMTS

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Radio Channel Requirements / *any*	valid	ignored
User rate / *any*	valid	ignored
Intermediate Rate / *any*	valid	ignored
NIC on transmission / *any*	valid	ignored
NIC on reception / *any*	valid	ignored
Negotiation of IR requested / *any*	valid	ignored
Acceptable Channel Codings / *any*	valid	ignored (Note 1)
Maximum number of traffic channels / *any*	valid	ignored (Note 1)
User initiated modification indication / *any*	valid	ignored
Asymmetry preference indication/ *any*	valid	ignored
Modem type /		
V.21, V.22, V.22bis, V.26ter	valid	invalid
V.32	valid	invalid for CE=T
Fixed Network User Rate /		
32 kbit/s	Invalid for CE = NT	valid
33.6 kbit/s	invalid	valid
9.6, 14.4, 19.2, 38.4, 48.0	valid	invalid for CE=T
~~*48.0*~~	~~valid~~	~~invalid~~
28.8	valid	invalid for CE=T in the case of ITC=UDI
Other Rate adaptation /		
~~*H.223 and H.245*~~	~~valid~~	~~valid~~
PIAFS	invalid	valid

NOTE: Although a parameter value is marked as "valid", the validity may be restricted by rules given elsewhere in the present document.

NOTE 1: This parameter is relevant in UMTS for NT calls for deciding which RLP version to negotiate in order to avoid renegotiation of RLP version in case of handover, see 3GPP TS 24.022 [9]. It is otherwise irrelevant for specifying the UTRAN radio access bearer.