3GPP TSG CN Plenary **Tdoc NP-010040**
Meeting #11, Palm Springs, U.S.A
14th - 16th March 2001

Source: **TSG_CN WG 3**

Title: **CRs to <R99 Work Item HSCSD**

Agenda item: **7.23**

Document for: **APPROVAL**

Introduction:

This document contains **4** CRs on **R99** Work Item **"HSCSD"**, 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
N3-010097	08.20	A011		A	Correction to downgrading procedure for HSCSD	R97	6.0.0	HSCSD
N3-010096	08.20	A010		F	Correction to downgrading procedure for HSCSD	R96	5.3.0	HSCSD
N3-010098	08.20	A012		A	Correction to downgrading procedure for HSCSD	R98	7.0.1	HSCSD
N3-010099	08.20	A013		A	Correction to downgrading procedure for HSCSD	R99	8.3.0	HSCSD

3GPP TSG CN WG3 Meeting #16 ***Tdoc N3-010096***
Sophia, France. 26th Feb - 2nd March 2001

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CHANGE REQUEST

⌘ **08.20** **CR** **A010** ⌘ **rev** **-** ⌘ **Current vers** **5.3.0** ⌘

*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 **X** Core Network **X**

Title:	⌘	Correction to downgrading procedure for HSCSD
Source:	⌘	TSG_CN WG3
Work item code:	⌘	HSCSD
Date:	⌘	16.02.2001
Category:	⌘	**F**
Release:	⌘	R96

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:	⌘	As a consequence of the way the downgrading procedure is now described, it is allowed, that after downgrading the usage of the subcircuits in uplink direction and in downlink direction is different. Certain BSS equipment may not be able to handle this situation and expect in each case the same usage of the uplink and downlink datastreams.
Summary of change:	⌘	The released downlink subcircuit shall correspond to the released uplink subcircuit.
Consequences if not approved:	⌘	If this part of the procedure remains unspecified, downgrading may fail due to different behavour in BSS and MSC.

Clauses affected:	⌘	Clause 13
Other specs affected:	⌘	☐ 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/3G_Specs/CRs.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://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

13 The Multiplexing Function

The multiplexing function is only applicable for AIUR up to and including 38,4 kbit/s for multislot operations.

The multiplexing function is based on the CCITT I.460. The multiplexing function is used to combine n (n=2 to 4) substreams of multislot intermediate rate of 8 kbit/s or n substreams of multislot intermediate rate of 16 kbit/s on one 64 kbit/s stream by using subcircuits in each octet to each substream such that:

i) An 8 kbit/s substream is allowed to occupy subcircuits with positions 1,3,5 or 7 of each octet of the 64 kbit/s stream; a 16 kbit/s stream occupies bit positions (1,2) or (3,4) or (5,6) or (7,8).

ii) The order of the bits at each substream is identical before and after multiplexing.

iii) All unused bit positions shall be set to binary “1”.

iv) For transparent multislot configurations the lowest allowed subcircuits are always used.

v) For non-transparent multislot configurations, the lowest allowed subcircuits shall be used at call set up and after change of channel configuration except at downgrading. At downgrading any of the used subcircuits ~~can~~ may be released in uplink direction. Always, the released subcircuit(s) in downlink direction shall be the same as the released subcircuit(s) in uplink direction. At a possible subsequent upgrading, the lowest available bit positions shall be used for the added substreams.

NOTE: The rules given here are almost identical to those of I.460, Section ‘Fixed format multiplexing’, except for the rule i) is stricter in that 8 kbit/s substreams cannot occupy any positions, iv) and v) are added.

3GPP TSG CN WG3 Meeting #16 ***Tdoc N3-010097***
Sophia, France. 26th Feb - 2nd March 2001

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CHANGE REQUEST

⌘ **08.20** **CR** **A011** ⌘ **rev** **-** ⌘ **Current vers** **6.0.0** ⌘

*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 **X** Core Network **X**

Title:	⌘	Correction to downgrading procedure for HSCSD
Source:	⌘	TSG_CN WG3
Work item code:	⌘	HSCSD
Date:	⌘	16.02.2001
Category:	⌘	**A**
Release:	⌘	R97

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:	⌘	As a consequence of the way the downgrading procedure is now described, it is allowed, that after downgrading the usage of the subcircuits in uplink direction and in downlink direction is different. Certain BSS equipment may not be able to handle this situation and expect in each case the same usage of the uplink and downlink datastreams.
Summary of change:	⌘	The released downlink subcircuit shall correspond to the released uplink subcircuit.
Consequences if not approved:	⌘	If this part of the procedure remains unspecified, downgrading may fail due to different behavour in BSS and MSC.

Clauses affected:	⌘	Clause 13
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.

13 The Multiplexing Function

The multiplexing function is only applicable for AIUR up to and including 38,4 kbit/s for multislot operations.

The multiplexing function is based on the CCITT I.460. The multiplexing function is used to combine n (n=2 to 4) substreams of multislot intermediate rate of 8 kbit/s or n substreams of multislot intermediate rate of 16 kbit/s on one 64 kbit/s stream by using subcircuits in each octet to each substream such that:

i) An 8 kbit/s substream is allowed to occupy subcircuits with positions 1,3,5 or 7 of each octet of the 64 kbit/s stream; a 16 kbit/s stream occupies bit positions (1,2) or (3,4) or (5,6) or (7,8).

ii) The order of the bits at each substream is identical before and after multiplexing.

iii) All unused bit positions shall be set to binary "1".

iv) For transparent multislot configurations the lowest allowed subcircuits are always used.

v) For non-transparent multislot configurations, the lowest allowed subcircuits shall be used at call set up and after change of channel configuration except at downgrading. At downgrading any of the used subcircuits ~~can~~ may be released in uplink direction. Always, the released subcircuit(s) in downlink direction shall be the same as the released subcircuit(s) in uplink direction. At a possible subsequent upgrading, the lowest available bit positions shall be used for the added substreams.

NOTE: The rules given here are almost identical to those of I.460, Section 'Fixed format multiplexing', except for the rule i) is stricter in that 8 kbit/s substreams cannot occupy any positions, iv) and v) are added.

3GPP TSG CN WG3 Meeting #16 ***Tdoc N3-010098***
Sophia, France. 26th Feb - 2nd March 2001

CR-Form-v3

CHANGE REQUEST

⌘ **08.20** **CR** **A012** ⌘ **rev** **-** ⌘ **Current vers** **7.0.1** ⌘

*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 **X** Core Network **X**

Title:	⌘	Correction to downgrading procedure for HSCSD
Source:	⌘	TSG_CN WG3
Work item code:	⌘	HSCSD
Date:	⌘	16.02.2001
Category:	⌘	**A**
Release:	⌘	R98

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:	⌘	As a consequence of the way the downgrading procedure is now described, it is allowed, that after downgrading the usage of the subcircuits in uplink direction and in downlink direction is different. Certain BSS equipment may not be able to handle this situation and expect in each case the same usage of the uplink and downlink data streams.
Summary of change:	⌘	The released downlink subcircuit shall correspond to the released uplink subcircuit.
Consequences if not approved:	⌘	If this part of the procedure remains unspecified, downgrading may fail due to different behavour in BSS and MSC.

Clauses affected:	⌘	Clause 13
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.

13 The Multiplexing Function

The multiplexing function is only applicable for AIUR up to and including 38,4 kbit/s for multislot operations.

The multiplexing function is based on the CCITT I.460. The multiplexing function is used to combine n (n=2 to 4) substreams of multislot intermediate rate of 8 kbit/s or n substreams of multislot intermediate rate of 16 kbit/s on one 64 kbit/s stream by using subcircuits in each octet to each substream such that:

i) An 8 kbit/s substream is allowed to occupy subcircuits with positions 1,3,5 or 7 of each octet of the 64 kbit/s stream; a 16 kbit/s stream occupies bit positions (1,2) or (3,4) or (5,6) or (7,8).

ii) The order of the bits at each substream is identical before and after multiplexing.

iii) All unused bit positions shall be set to binary "1".

iv) For transparent multislot configurations the lowest allowed subcircuits are always used.

v) For non-transparent multislot configurations, the lowest allowed subcircuits shall be used at call set up and after change of channel configuration except at downgrading. At downgrading any of the used subcircuits ~~can~~ may be released in uplink direction. Always, the released subcircuit(s) in downlink direction shall be the same as the released subcircuit(s) in uplink direction. At a possible subsequent upgrading, the lowest available bit positions shall be used for the added substreams.

NOTE: The rules given here are almost identical to those of I.460, Section 'Fixed format multiplexing', except for the rule i) is stricter in that 8 kbit/s substreams cannot occupy any positions, iv) and v) are added.

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

Tdoc N3-010099

CR-Form-v3

CHANGE REQUEST

⌘ **08.20** **CR** **A013** ⌘ **rev** **-** ⌘ **Current vers** **8.3.0** ⌘

*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 **X** Core Network **X**

Title:	⌘	Correction to downgrading procedure for HSCSD
Source:	⌘	TSG_CN WG3
Work item code:	⌘	HSCSD
Date:	⌘	16.02.2001
Category:	⌘	**A**
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)*
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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:	⌘	As a consequence of the way the downgrading procedure is now described, it is allowed, that after downgrading the usage of the subcircuits in uplink direction and in downlink direction is different. Certain BSS equipment may not be able to handle this situation and expect in each case the same usage of the uplink and downlink data streams.
Summary of change:	⌘	The released downlink subcircuit shall correspond to the released uplink subcircuit.
Consequences if not approved:	⌘	If this part of the procedure remains unspecified, downgrading may fail due to different behavour in BSS and MSC.

Clauses affected:	⌘	Clause 14
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.

14 The A-interface Multiplexing Function

The multiplexing function shall be applied only for AIUR up to and including 57.6 kbit/s for multislot operations.

The multiplexing function is based on the ITU-T I.460. The multiplexing function is used to combine n (n=2 to 4) substreams of multislot intermediate rate of 8 kbit/s or n substreams of multislot intermediate rate of 16 kbit/s on one 64 kbit/s stream by using subcircuits in each octet to each substream such that:

i) An 8 kbit/s substream is allowed to occupy subcircuits with positions 1,3,5 or 7 of each octet of the 64 kbit/s stream; a 16 kbit/s stream occupies bit positions (1,2) or (3,4) or (5,6) or (7,8).

ii) The order of the bits at each substream is identical before and after multiplexing.

iii) All unused bit positions shall be set to binary “1".

iv) For transparent multislot configurations the lowest allowed subcircuits are always used.

v) For non-transparent multislot configurations, the lowest allowed subcircuits shall be used at call set up and after change of channel configuration except at downgrading. At downgrading any of the used subcircuits ~~can~~ may be released in uplink direction. Always, the released subcircuit(s) in downlink direction shall be the same as the released subcircuit(s) in uplink direction. At a possible subsequent upgrading, the lowest available bit positions shall be used for the added substreams.

NOTE: The rules given here are almost identical to those of I.460, Section ‘Fixed format multiplexing’, except for the rule i) is stricter in that 8 kbit/s substreams cannot occupy any positions, iv) and v) are added.