TSG-RAN Meeting #10
Bangkok, Thailand, 6 - 8 December 2000

TSGRP#10(00)0623

Title: **Agreed CRs to TS 25.425**

Source: **TSG-RAN WG3**

Agenda item: **5.3.3**

Tdoc_Num	Specification	CR_Num	Revision_Nu	CR_Subject	CR_Categor	WG_Status	Cur_Ver_Nu	New_Ver_Nu
R3-002803	25.425	018	1	Correction of Iur FACH data frame header	F	agreed	3.2.0	3.3.0
R3-002806	25.425	019	1	FACH Capacity Request control frame	F	agreed	3.4.0	3.3.0
R3-003141	25.425	021	1	Removal of the S-CCPCH Indicator (S-CI)	F	agreed	3.3.0	3.4.0

TSG-RAN Working Group 3 Meeting #16
Windsor, UK, 16th – 20th October 2000

R3-002803
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.425	CR	18 R1	Current Version:	3.2.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN #10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [ ] UTRAN / Radio [X] Core Network [ ]

Source: R-WG3 **Date:** October 2000

Subject: Correction of Iur FACH data frame header; erroneous spare bits.

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

Due to overlapping CRs (tdoc 189 and 504 approved at R3-11 and R3-12, respectively) on the same version of 25.425 (v.3.0.0) there are too many spare bits in figure 10 of the FACH data frame header in the current version of the specification (v.3.2.0) resulting in incorrect length of the MAC-c/sh SDU Length IE. The length of the MAC-c/sh SDU Length IE in figure 10 is 11 bits while the correct length is 13 bits (see IE description). The position of the *UE-ID Type Indicator, SC-I and MAC-c/sh SDU Length* IEs is also incorrect. This CR corrects the figure of the FACH data frame according to the previously approved CRs (189 and 504).

Consequences if not accepted:

- interoperability problems in a multivendor Iur.

Clauses affected: 6.2.2

Other specs affected:

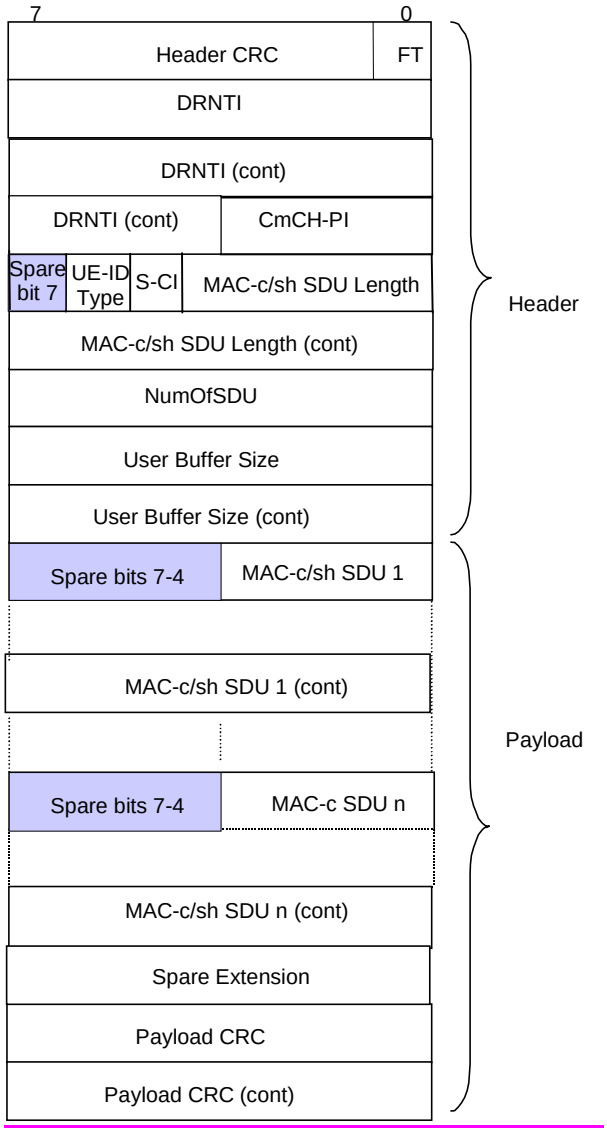
Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

6.2.2 FACH Channels



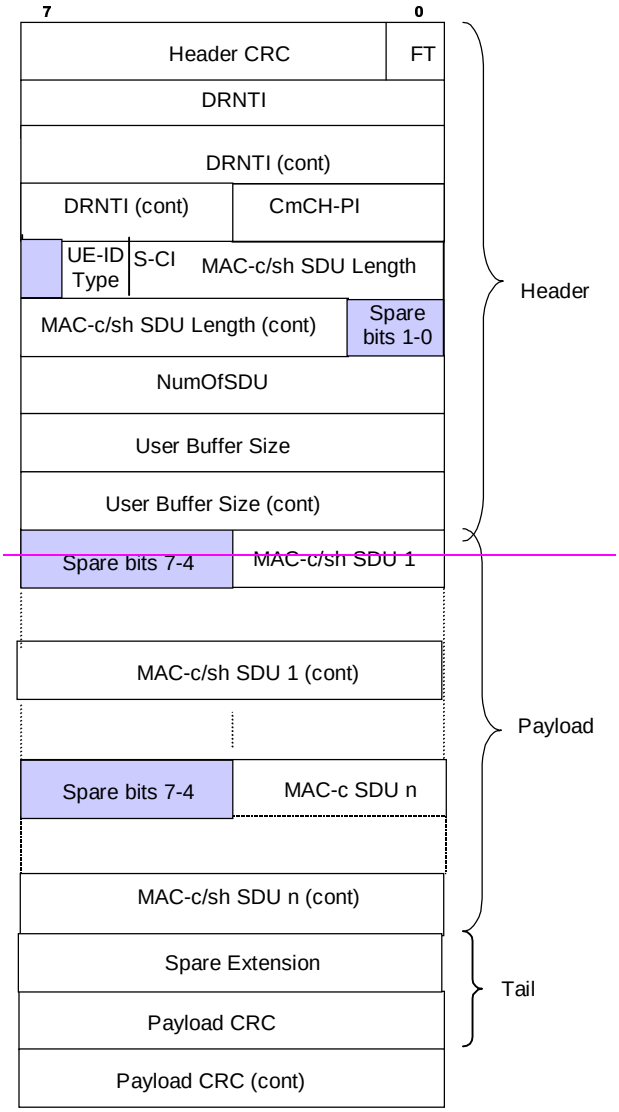


Figure 10: FACH Data Frame structure

Spare bits shall be set to 0 and ignored by the receiver.

TSG-RAN Working Group 3 Meeting #16
Windsor, UK, 16th – 20th October 2000

R3-002806
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.425	CR	19 R1	Current Version:	3.2.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN #10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [ ] UTRAN / Radio [X] Core Network [ ]

Source: R-WG3 **Date:** October 2000

Subject: FACH Capacity Request control frame

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

FACH data- and/or flow control frames may be lost on Iur which may cause deadlock in the Iur FACH data transmission. Currently there exists no standardised mechanism to resolve such deadlock situations. This contribution proposes to introduce a FACH user plane procedure similar to the DSCH Capacity Request procedure as a means for the SRNC to resolve user plane deadlocks.

Consequences if not accepted:

- interoperability problems in a multivendor Iur and potentially zero throughput in the Iur FACH data streams.

Clauses affected: 5.2.1, 5.2.x (new), 6.3.2.3, 6.3.3

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

5.2 Flow Control

5.2.1 FACH Flow Control

The FACH flow control frame is used by the DRNC to control the user data flow. It may be generated in response to a FACH Capacity Request or at any other time. The *Credits* IE indicates the number of MAC-c/sh SDUs the SRNC is allowed to transmit for the UE identified by the *SRNTI* IE and the associated priority class indicated by the *Common Transport Channel Priority Indicator* IE.

The *Credits* IE indicates the total amount of credits granted. Any credits previously granted are withdrawn.

If *Credits* IE = 0 (e.g. due to congestion in the DRNC), the SRNC shall immediately stop transmission of MAC-c/sh SDUs.

Credits IE = 'unlimited' indicates that the SRNC may transmit an unlimited number of MAC-c/sh SDUs.

5.2.x FACH Capacity Request

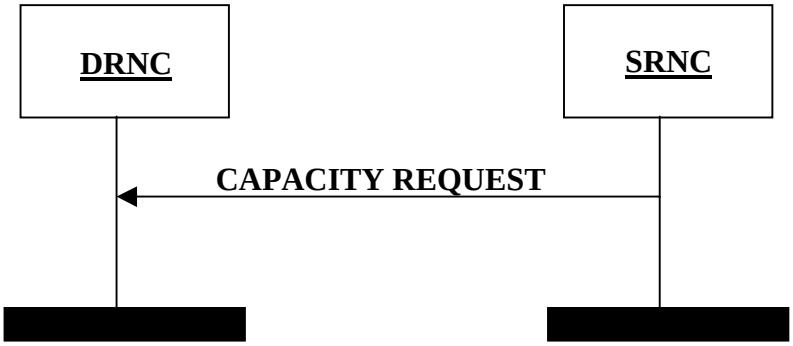


Figure X: FACH Capacity Request

The FACH Capacity Request provides the means for the SRNC to notify the DRNC about the user buffer size for a given priority class. It may be sent if no FACH Flow Control frame has been received within an appropriate time threshold, or to signal an event such as data arrival or user buffer discard.

6.3.2.3 Control Frame Type

Description: Indicates the type of the control information (information elements and length) contained in the payload (=type of control frame).

Value: values of the *Control Frame Type* IE parameter are defined in the following table 1:

Table 1: Control Frame Type

Type of control frame	Value
FACH Flow Control	0000 0010
FACH Capacity Request	0000 0011
DSCH Capacity Request	0000 0100
DSCH Capacity Allocation	0000 0101

6.3.3 Payload structure and information elements

6.3.3.x FACH Capacity Request

Figure 17 shows the payload structure when the control frame is used for the above mentioned purpose. This control information is sent in the DL only.

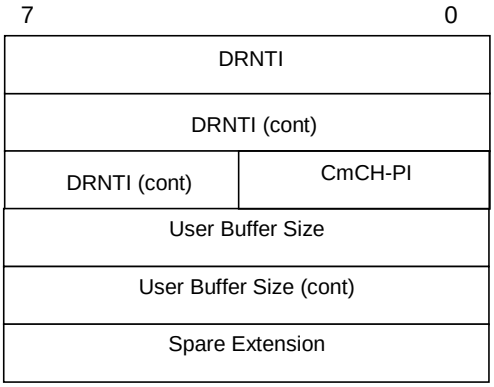


Figure 17: FACH Capacity Request Control Frame

6.3.3.x.1 DRNTI

Refer to subclause 6.2.5.3.

6.3.3.x.2 Common Transport Channel Priority Indicator (CmCH-PI)

Refer to subclause 6.2.5.7.

6.3.3.x.3 User Buffer Size

Refer to subclause 6.2.5.12.

6.3.3.x.4 Spare extension

Refer to subclause 6.3.3.14.

3GPP TSG-RAN3 Meeting #17
Chicago, USA, 20th – 24th November 2000

Tdoc R3-003141

CR-Form-v3

CHANGE REQUEST

⌘ **25.425** **CR** **21** ⌘ rev **1** ⌘ Current version: **3.2.0** ⌘

*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 ☐

Title:	⌘	Removal of the S-CCPCH Indicator (S-CI)
Source:	⌘	R-WG3
Work item code:	⌘	***Date:*** ⌘ November 2000
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:	⌘	In order to reduce RRC complexity the option of DRNC to select the S-CCPCH is removed.
Summary of change:	⌘	In RAN WG2 the option for the network to explicitly assign a Secondary CCPCH and thus select another Secondary CCPCH than the UE would select have been removed. This option has been removed since there was no identified where this feature would bring much benefit. The option on selecting a Secondary CCPCH has thus been removed to reduce the complexity of the RRC specification (without too much drawback). This means that the DRNC cannot select the Secondary CCPCH to be used. In this CR the S-CCPCH indicator (S-CI) has been removed from FACH data frame since it has no function when the DRNC cannot select the Secondary CCPCH to be used.
Consequences if not approved:	⌘	If this error case is not defined there might be interoperability problems between Node B and RNC.

Clauses affected:	⌘	2, 5.1.2, 6.2.2, 6.2.5.6		
Other specs affected:	⌘	**X** Other core specifications	⌘	TS 25.331 part of CR597, TS 25.331 part of CR602, TS 25.423 CR247
		☐ Test specifications		
		☐ O&M Specifications		
Other comments:	⌘	The base used for this CR is the WG3# 16 approved CR18, which has not yet been approved by TSG-RAN. The implementation order: CR18 shall be implmented first, then this CR.		

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.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

For a specific reference, subsequent revisions do not apply.

For a non-specific reference, the latest version applies.

[1] ITU-T Recommendation I.361 (11/95): "B-ISDN ATM Layer Specification".

[2] ITU-T Recommendation I.363.2 (9/97): "B-ISDN ATM Adaptation Layer type 2".

[3] ITU-T Recommendation I.366.1 (6/98): "Segmentation and Reassembly Service Specific Convergence Sublayer for the AAL type 2".

[4] 3G TS 25.427: "Iub/Iur User Plane Protocols for DCH Data Streams".

[5] 3G TS 25.401: "UTRAN overall description".

[6] 3G TS 25.990: "UTRAN vocabulary".

~~[7] 3G TS 25.331: "RRC Protocol Specification".~~

5.1.2 FACH data transfer

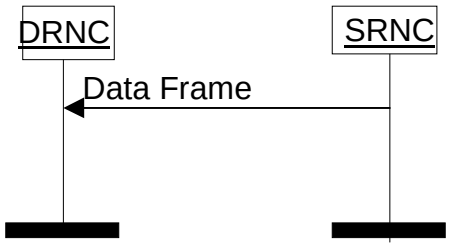


Figure 2: FACH data transfer

Data to be transmitted on the FACH transport channel is transmitted from the SRNC to the DRNC using FACH data frames. Multiple MAC-c/sh SDUs of same length and same priority (CmCH-PI) may be transmitted in the same FACH data frame. Within one priority and size the SDUs shall be transmitted by the DRNS on the Uu interface in the same order as they were received from the SRNC.

The *UE-ID Type Indicator* IE indicates which UE-ID type MAC-c/sh shall include in the MAC header.

~~The *S-CCPCH Indicator* IE indicates if the data in the payload shall be sent on either the S-CCPCH selected by the UE based on U-RNTI as defined in ref. [7] subclause 8.5.7.6.3, or the S-CCPCH selected by the DRNC for subsequent user data. The S-CCPCH selected for subsequent user data may be the S-CCPCH selected by the UE or the S-CCPCH selected by the DRNC.~~

6.2.2 FACH Channels

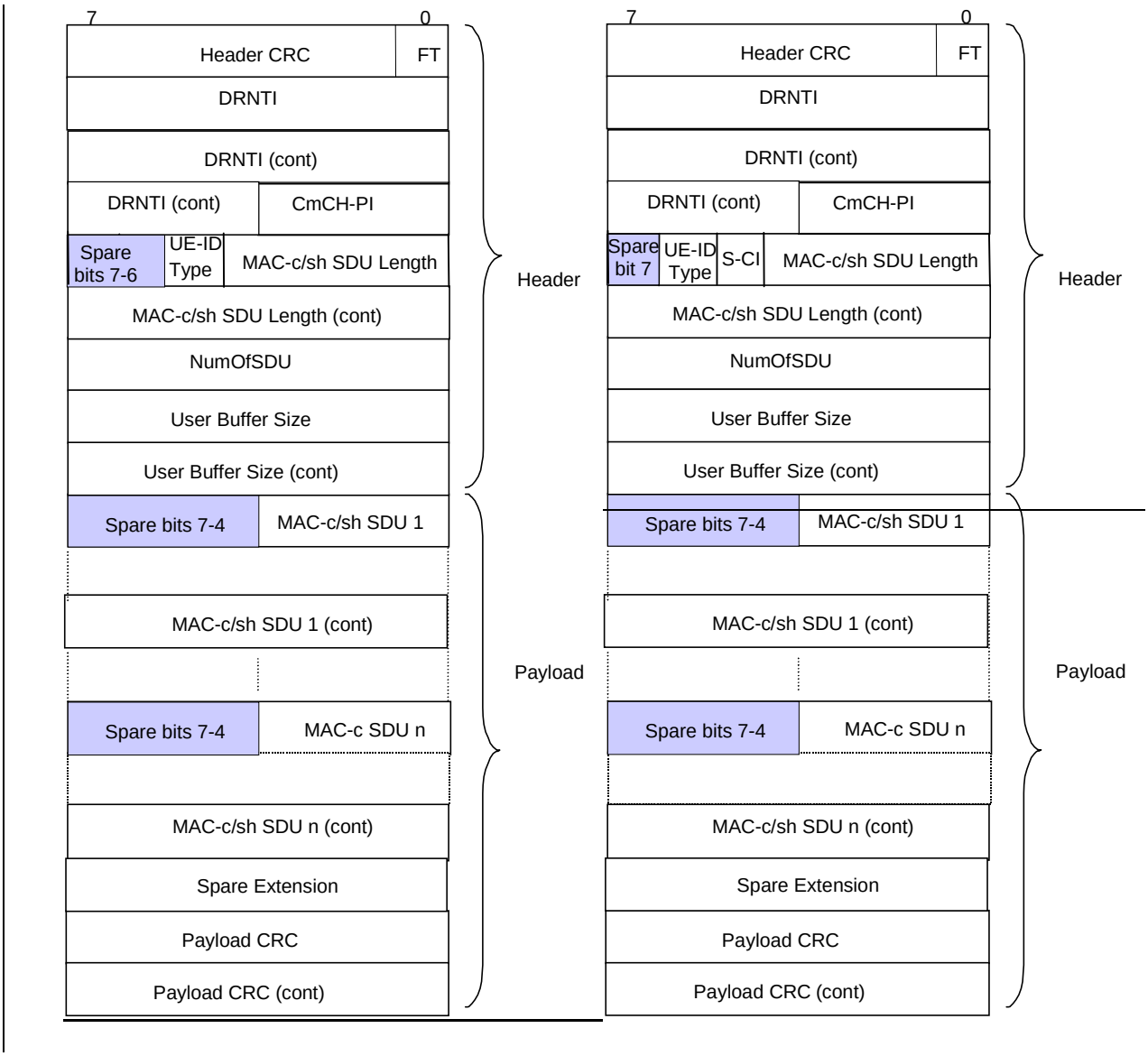


Figure 10: FACH Data Frame structure

Spare bits shall be set to 0 and ignored by the receiver.

6.2.5.6 S-CCPCH Indicator (S-CI)

Void.

~~**Description:** Indicates the S-CCPCH to be used for transmission of the user data.~~

~~**Value range:** {0=S-CCPCH selected by the UE based on U-RNTI as defined in ref. [7] subclause 8.5.7.6.3, 1=S-CCPCH selected by the DRNC}.~~

~~**Field Length:** 1 bit.~~