TSG RAN Meeting #18 **RP-020770**
New Orleans, Louisiana, USA, 3 - 6 December, 2002

Title **CRs (Rel-5 only) to 25.425 and 25.435 on Clarification for the initial capacity allocation of HS-DSCH**
Source **TSG RAN WG3**
Agenda Item **7.3.5**

RAN3 Tdoc	Spec	curr. Vers.	new Vers.	REL	CR	Rev	Cat	Title	Work item
R3-022570	25.425	5.2.0	5.3.0	REL-5	055	1	F	Clarification for the initial capacity allocation of HS-DSCH	HSDPA-IublIur
R3-022571	25.435	5.2.0	5.3.0	REL-5	089	1	F	Clarification for the initial capacity allocation of HS-DSCH	HSDPA-IublIur

3GPP TSG-RAN3 Meeting #33
Sophia Antipolis, France, 11th – 15th November 2002

Tdoc R3-022570

CR-Form-v7

CHANGE REQUEST

⌘ **25.425** **CR** **055** ⌘ **rev** **1** ⌘ Current version: **5.2.0** ⌘

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

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

Title:	⌘	Clarification for the initial capacity allocation of HS-DSCH
Source:	⌘	RAN WG3
Work item code:	⌘	HSDPA-Iublur
Date:	⌘	11/11/2002
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:	⌘	The *HS-DSCH Initial Capacity Allocation* IE has been introduced into RL Setup Response and Synchronised RL Reconfiguration Ready messages in order to avoid the delay due to the exchange of HS-DSCH CAPACITY frames. However, this IE does not include "HS-DSCH Interval" and "HS-DSCH Repetition Period". Therefore, it is unclear how long/many transmissions the capacity granted by the *HS-DSCH Initial Capacity Allocation* IE is valid, e.g. is it valid for only one transmission of HS-DSCH DATA FRAME or until the CRNC receives HS-DSCH CAPACITY ALLOCATION FRAME? Note that this issue is also applied for DSCH Data Transfer.
Summary of change:	⌘	Rev.1 - The proposed text is refined (highlighted in yellow). - The proposed text is also added to the DSCH Data Transfer. Rev.0 It is clarified that the capacity granted by the *HS-DSCH Initial Capacity Allocation* IE is valid for only one transmission of HS-DSCH DATA FRAME.
Consequences if not approved:	⌘	If this CR is not approved, the ambiguity of the *HS-DSCH Initial Capacity Allocation* still remains. As a result, if the SRNC believes that it is the capacity is granted until the reception of HS-DSCH CAPACITY ALLOCATION FRAME, but the DRNS believes that the capacity is valid for only one HS-DSCH DATA FRAME; the buffer in the DRNS might overflow. Impact Analysis: Impact assessment towards the previous version of the specification (same release): This CR has [isolated impact] with the previous version of the specification (same release) because it might affect implementations supporting the capacity

	allocation by the *HS-DSCH Initial Capacity Allocation* IE. This CR has an impact under [functional] point of view. The impact [can] be considered isolated because the change affects [one] [system function] namely the capacity allocation by the *HS-DSCH Initial Capacity Allocation* IE.

Clauses affected:	⌘	5.1.4 and 5.1.5			
Other specs affected:	⌘	**Y** / **N** **X** / ( ) ( ) / **X** ( ) / **X**	Other core specifications Test specifications O&M Specifications	⌘	CR089 on TS25.435v5.2.0
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/specs/CR.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://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 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.

5.1.4 DSCH Data Transfer

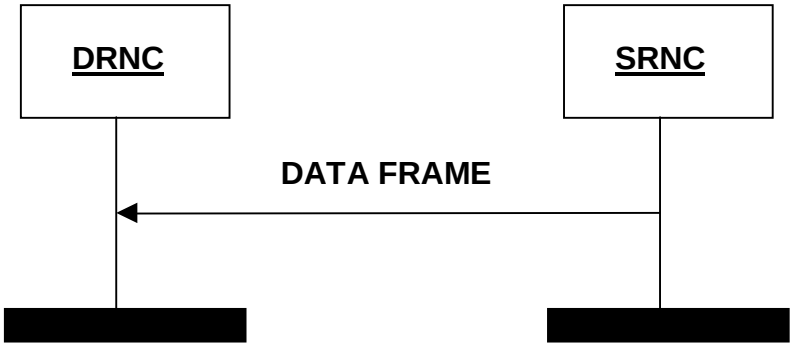

Figure 4: DSCH Data Transfer procedure

When the SRNC has been granted capacity by the DRNC via the DSCH CAPACITY ALLOCATION Control Frame or via the DSCH initial capacity allocation as described in [8] and the SRNC has data waiting to be sent, then the DSCH DATA FRAME is used to transfer the data. If the SRNC has been granted capacity by the DRNC via the DSCH initial capacity allocation as described in [8], this capacity is valid for only the first DSCH DATA FRAME transmission. When data is waiting to be transferred, and a CAPACITY ALLOCATION is received, a DATA FRAME will be transmitted immediately according to allocation received.

Multiple MAC-c/sh SDUs of same length and same priority level (CmCH-PI) may be transmitted in the same DSCH DATA FRAME.

The DSCH DATA FRAME includes a *User Buffer Size* IE to indicate the amount of data pending for the respective UE for the indicated priority level. Within one priority level and size the MAC-c/sh SDUs shall be transmitted by the DRNS on the Uu interface in the same order as they were received from the SRNC.

5.1.5 HS-DSCH Data Transfer

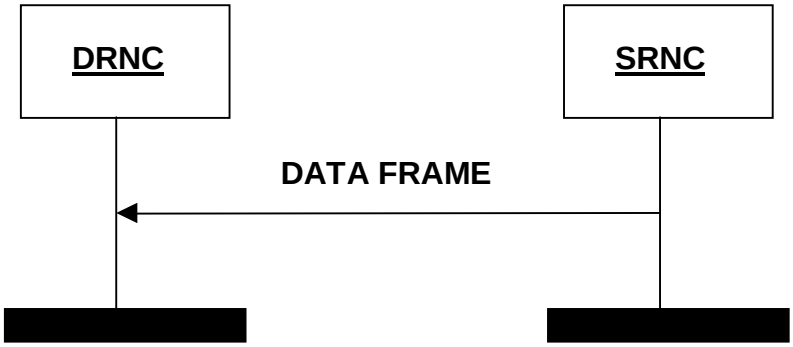

Figure 4AA: HS-DSCH Data Transfer procedure

When the SRNC has been granted capacity by the DRNC via the HS-DSCH CAPACITY ALLOCATION Control Frame or via the HS-DSCH initial capacity allocation as described in [8] and the SRNC has data waiting to be sent, then the HS-DSCH DATA FRAME is used to transfer the data. If the SRNC has been granted capacity by the DRNC via the HS-DSCH initial capacity allocation as described in [8], this capacity is valid for only the first HS-DSCH DATA FRAME transmission. When data is waiting to be transferred, and a CAPACITY ALLOCATION is received, a DATA FRAME will be transmitted immediately according to allocation received.

Multiple MAC-d PDUs of same length and same priority level (CmCH-PI) may be transmitted in one MAC-d flow in the same HS-DSCH DATA FRAME.

The HS-DSCH DATA FRAME includes a *User Buffer Size* IE to indicate the amount of data pending for the respective MAC-d flow for the indicated priority level. Within one priority level and size the MAC-d PDUs shall be transmitted by the DRNS on the Uu interface in the same order as they were received from the SRNC.

3GPP TSG-RAN3 Meeting #33 ***Tdoc R3-022571***
Sophia Antipolis, France, 11th – 15th November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.435** **CR** **089** ⌘ **rev** **1** ⌘ Current version: **5.2.0** ⌘

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

Title:	⌘	Clarification for the initial capacity allocation of HS-DSCH
Source:	⌘	RAN WG3
Work item code:	⌘	HSDPA-Iublur
Date:	⌘	11/11/2002
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
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Reason for change:	⌘	The *HS-DSCH Initial Capacity Allocation* IE has been introduced into RL Setup Response and Synchronised RL Reconfiguration Ready messages in order to avoid the delay due to the exchange of HS-DSCH CAPACITY frames. However, this IE does not include "HS-DSCH Interval" and "HS-DSCH Repetition Period". Therefore, it is unclear how long/many transmissions the capacity granted by the *HS-DSCH Initial Capacity Allocation* IE is valid, e.g. is it valid for only one transmission of HS-DSCH DATA FRAME or until the CRNC receives HS-DSCH CAPACITY ALLOCATION FRAME?
Summary of change:	⌘	Rev.1 The proposed text is refined (highlighted in yellow). Rev.0 It is clarified that the capacity granted by the *HS-DSCH Initial Capacity Allocation* IE is valid for only one transmission of HS-DSCH DATA FRAME.
Consequences if not approved:	⌘	If this CR is not approved, the ambiguity of the *HS-DSCH Initial Capacity Allocation* still remains. As a result, if the CRNC believes that it is the capacity is granted until the reception of HS-DSCH CAPACITY ALLOCATION FRAME, but the Node B believes that the capacity is valid for only one HS-DSCH DATA FRAME; the buffer in the Node B might overflow. Impact Analysis: Impact assessment towards the previous version of the specification (same release): This CR has [isolated impact] with the previous version of the specification (same release) because it might affect implementations supporting the capacity allocation by the *HS-DSCH Initial Capacity Allocation* IE.

	This CR has an impact under [functional] point of view. The impact [can] be considered isolated because the change affects [one] [system function] namely the capacity allocation by the *HS-DSCH Initial Capacity Allocation* IE.

Clauses affected:	⌘	5.1.6			
		Y	**N**		
Other specs affected:	⌘	**X**		Other core specifications	⌘ CR055 on TS25.425v5.2.0
			X	Test specifications	
			X	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.

5.1.6 High Speed Downlink Shared Channels

The Data Transfer procedure is used to transfer a HS-DSCH DATA FRAME from the CRNC to a Node B.

When the CRNC has been granted capacity by the Node B via the HS-DSCH CAPACITY ALLOCATION Control Frame or via the HS-DSCH initial capacity allocation as described in [6] and the CRNC has data waiting to be sent, then the HS-DSCH DATA FRAME is used to transfer the data. If the CRNC has been granted capacity by the Node B via the HS-DSCH initial capacity allocation as described in [6], this capacity is valid for only the first HS-DSCH DATA FRAME transmission. When data is waiting to be transferred, and a CAPACITY ALLOCATION is received, a DATA FRAME will be transmitted immediately according to allocation received.

Multiple MAC-d PDUs of same length and same priority level (CmCH-PI) may be transmitted in one MAC-d flow in the same HS-DSCH DATA FRAME.

The HS-DSCH DATA FRAME includes a *User Buffer Size* IE to indicate the amount of data pending for the respective MAC-d flow for the indicated priority level. Within one priority level and size the MAC-d PDUs shall be transmitted by the Node B on the Uu interface in the same order as they were received from the CRNC.

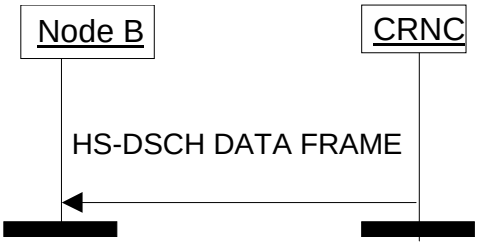

Figure 6A: DSCH Data Transfer procedure