

**TSG RAN Meeting #20**  
**Hämeenlinna, Finland, 3 - 6 June, 2003**

**RP-030317**

**Title** CRs (Rel-5 and Rel-6 Category A) to TS 25.401 on Correction to HS-DSCH transport in case of SRNC not coincident with DRNC and without flow control in the DRNC

**Source** TSG RAN WG3

**Agenda Item** 7.3.5

RAN3 Tdoc	Spec	curr. Vers.	new Vers.	REL	CR	Rev	Cat	Title	Work item
R3-030785	25.401	5.5.0	5.6.0	REL-5	067	1	F	Correction to HS-DSCH transport in case of SRNC not coincident with DRNC and without flow control in the DRNC.	HSDPA-lublur
R3-030786	25.401	6.0.0	6.1.0	REL-6	068	1	A	Correction to HS-DSCH transport in case of SRNC not coincident with DRNC and without flow control in the DRNC.	HSDPA-lublur

## CHANGE REQUEST

⌘ **25.401 CR 067** ⌘ rev **1** ⌘ Current version: **5.5.0** ⌘

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

<b>Title:</b>	⌘	Correction to HS-DSCH transport in case of SRNC not coincident with CRNC and without flow control in the CRNC.
<b>Source:</b>	⌘	RAN WG3
<b>Work item code:</b>	⌘	HSDPA-lublur
		<b>Date:</b> ⌘ 19/05/2003
<b>Category:</b>	⌘	<b>F</b>
		Use <u>one</u> of the following categories:
		<b>F</b> (correction)
		<b>A</b> (corresponds to a correction in an earlier release)
		<b>B</b> (addition of feature),
		<b>C</b> (functional modification of feature)
		<b>D</b> (editorial modification)
		Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .
		Use <u>one</u> 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)

<b>Reason for change:</b>	⌘	Description of HS-DSCH transport in case of SRNC not coincident with CRNC and without flow control in CRNC is not correct in the specification. The CRNC does not perform any User plane RNL function but it performs User Plane TNL functions. The current text excludes second aspect (TNL function).
<b>Summary of change:</b>	⌘	- Section 11.2.7 has been corrected to clarify that although there is no User Plane RNL function involved in the CRNC in the case described above, the CRNC performs TNL functions over the HS-DSCH user plane.
<b>Consequences if not approved:</b>	⌘	The HS-DSCH transport will be described incorrectly leading to possible misinterpretations and incompatible implementations.  <u>Impact Analysis:</u>  This CR has isolated impact with the previous version of the specification (same release) because this affects only HSDPA function.

<b>Clauses affected:</b>	⌘	11.2.7								
<b>Other specs affected:</b>	⌘	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td>X</td> <td></td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </table> Other core specifications ⌘ CR-068r1, TS 25.401 v6.0.0. Test specifications O&M Specifications	Y	N	X			X		X
Y	N									
X										
	X									
	X									
<b>Other comments:</b>	⌘	.								

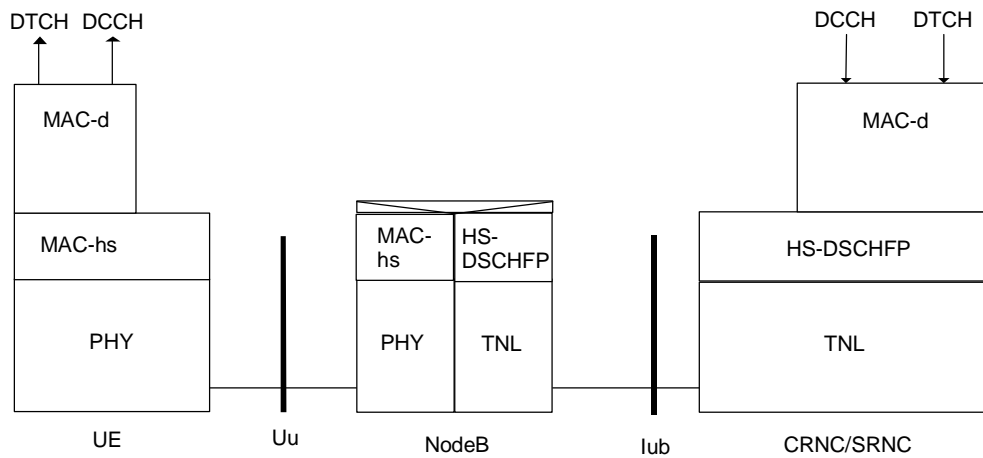
### **How to create CRs using this form:**

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

### 11.2.7 HS-DSCH Transport Channel

Figure 23 shows the protocol model for the HS-DSCH transport channel when the Controlling and Serving RNC are co-incident.

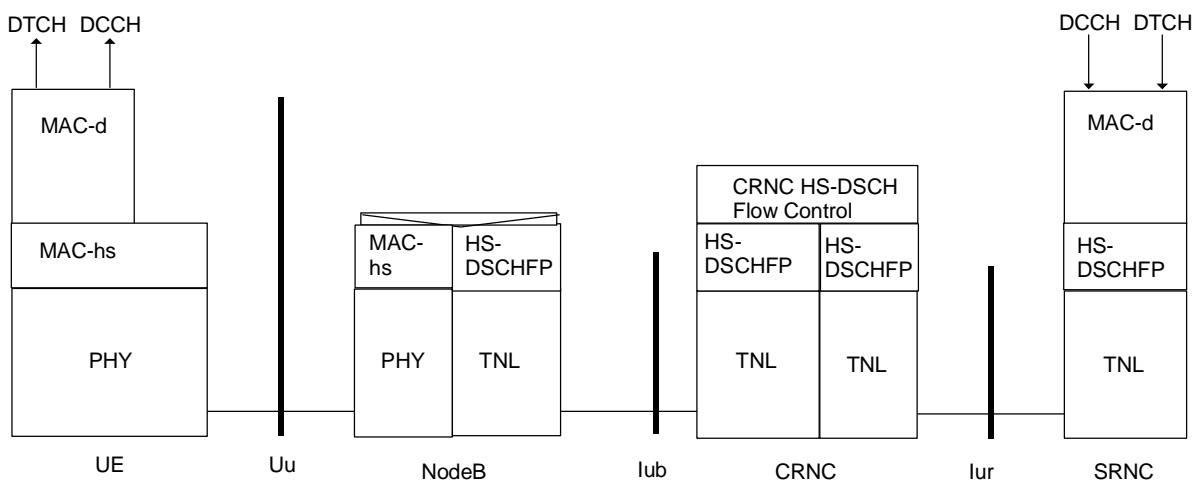


**Figure 23: HS-DSCH Co-incident Controlling and Serving RNC**

The High Speed MAC (MAC-hs) entity in the Node B transfers MAC-hs PDU to the peer MAC-hs entity in the UE over the Uu interface. The Dedicated MAC (MAC-d) entity in the RNC transfers MAC-d PDUs to the MAC-hs in the Node B using the services of the HS-DSCH Frame Protocol (HS-DSCH FP) entity. The HS-DSCH FP entity adds header information to form a HS-DSCH FP PDU that is transported to the Node B over a transport bearer.

A Relaying Function in the Node B relays the HS-DSCH frame received by HS-DSCH FP entity to the MAC-hs entity. HS-DSCH scheduling is performed by MAC-hs in the Node B.

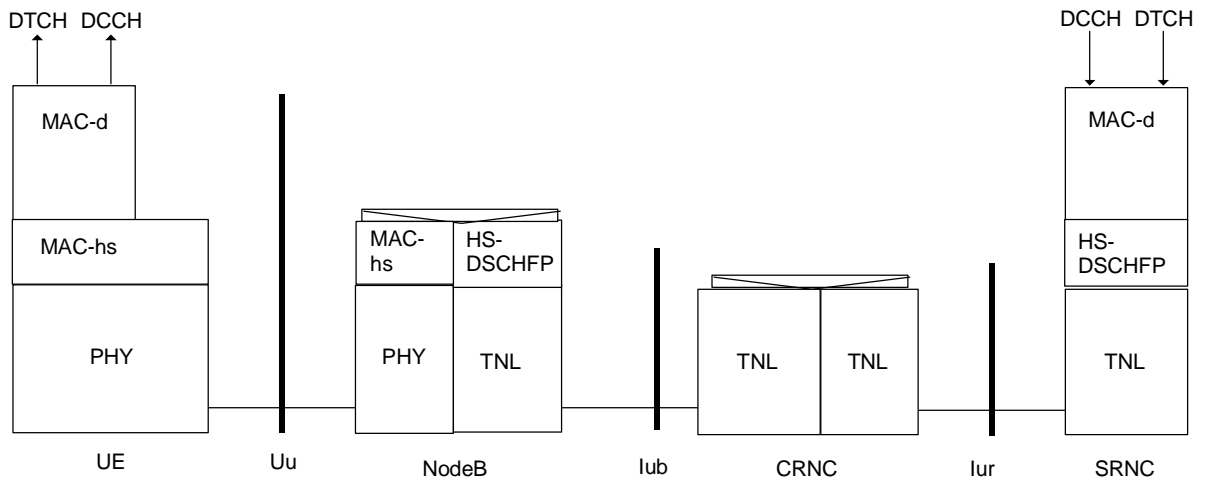
Figure 24 shows the protocol model for the HS-DSCH transport channel with separate Controlling and Serving RNC. In this case, Iur HS-DSCH Frame Protocol is used to interwork the Flow Control function at the Controlling RNC with the MAC-d at the Serving RNC. Also in this case, Iub HS-DSCH Frame Protocol is used to interwork the MAC-hs at the Node B with the Flow Control function at the Controlling RNC.



**Figure 24: HS-DSCH: Separate Controlling and Serving RNC (configuration with CRNC flow control)**

Figure 25 shows the protocol model for the HS-DSCH transport channel with the [Controlling RNC user plane Radio-Network-Layer](#) being bypassed. In this case, the CRNC does not have any user plane [Radio-Network-Layer](#) function for the HS-DSCH. MAC-d in SRNC is located directly above MAC-hs in Node B, i.e. in the HS-DSCH user

plane Radio-~~Network-Layer~~, the SRNC is directly connected to the Node B, thus bypassing the CRNC user plane RNL.  
The CRNC performs only user plane ~~Transport-Network-Layer~~ functions.



**Figure 25: HS-DSCH: Serving RNC with bypassed Controlling RNC (configuration without CRNC flow control)**

## CHANGE REQUEST

⌘ **25.401 CR 068** ⌘ rev **1** ⌘ Current version: **6.0.0** ⌘

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**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘	Correction to HS-DSCH transport in case of SRNC not coincident with CRNC and without flow control in the CRNC.
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<b>Work item code:</b>	⌘	HSDPA-lublur
		<b>Date:</b> ⌘ 19/05/2003
<b>Category:</b>	⌘	<b>A</b>
		Use <u>one</u> of the following categories:
		<b>F</b> (correction)
		<b>A</b> (corresponds to a correction in an earlier release)
		<b>B</b> (addition of feature),
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		<b>Release:</b> ⌘ Rel-6
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		2 (GSM Phase 2)
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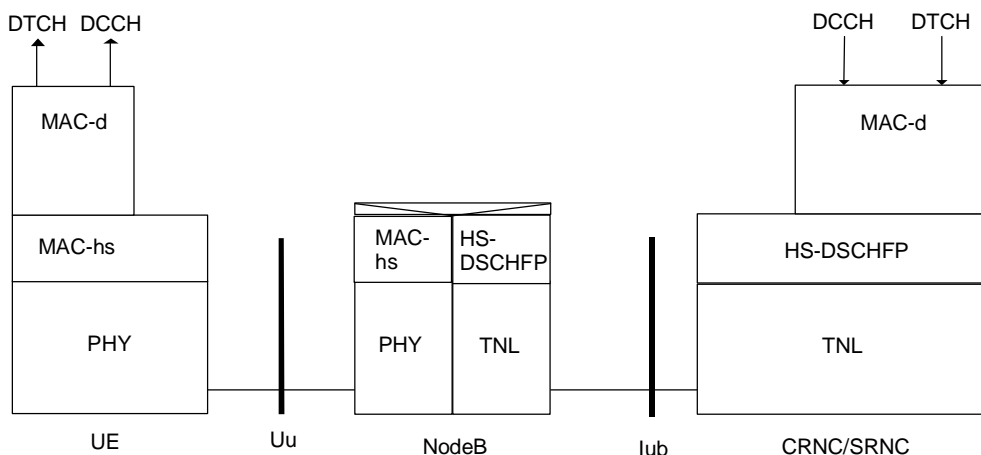
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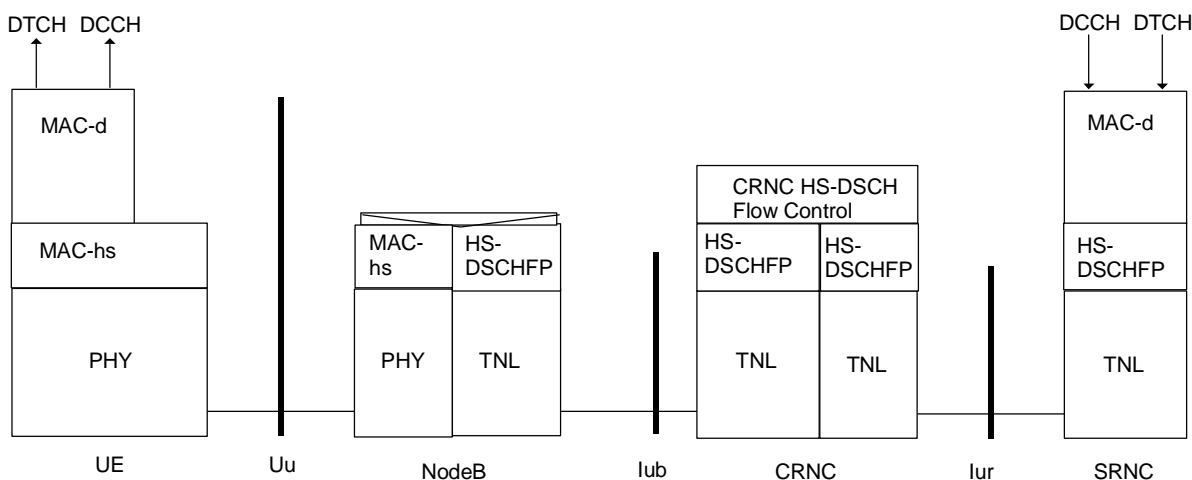


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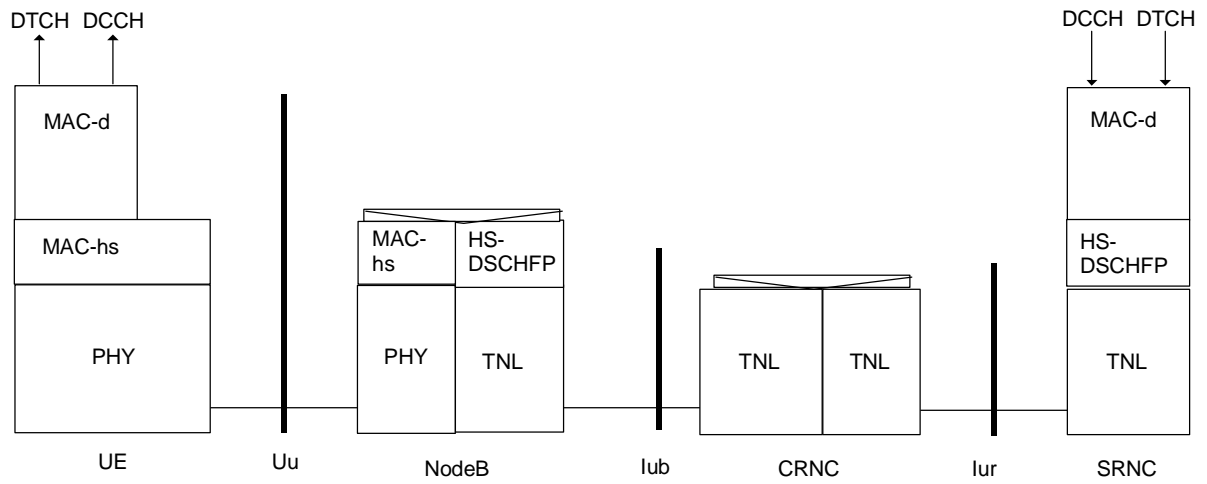


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is directly connected to the Node B, thus bypassing the CRNC [user plane RNL](#). The CRNC performs only [user plane TNL functions](#).



**Figure 25: HS-DSCH: Serving RNC with bypassed Controlling RNC (configuration without CRNC flow control)**