CR-Form-v7

CHANGE REQUEST

✎   **25.423 CR 837**   ✎ **rev 2** ✎   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 **X**   Core Network ☐

Title: ✎	Clarification for the handling of the HS-DSCH	
Source: ✎	NEC	
Work item code: ✎	HSDPA-Iublur	***Date:*** ✎ 19/05/2003

Category: ✎ **F**	***Release:*** ✎ Rel-5

Use <u>one</u> of the following categories: Use <u>one</u> of the following releases:

F	*(correction)*	2	*(GSM Phase 2)*
A	*(corresponds to a correction in an earlier release)*	R96	*(Release 1996)*
B	*(addition of feature),*	R97	*(Release 1997)*
C	*(functional modification of feature)*	R98	*(Release 1998)*
D	*(editorial modification)*	R99	*(Release 1999)*
Detailed explanations of the above categories can		Rel-4	*(Release 4)*
be found in 3GPP TR 21.900.		Rel-5	*(Release 5)*
		Rel-6	*(Release 6)*

Reason for change: ✎	In the current RNSAP, since the SRNC functional behaviour is left unspecified, a few mechanisms are allowed to handle the HS-DSCH, e.g. - The SRNC sends the HS-DSCH related IEs to all cells included in an active set. - The SRNC sends the HS-DSCH related IEs to only the relevant cell where the HS-DSCH is established or released. Therefore, if the behaviour of the DRNS is not clearly specified, an inter-operability problem might happen, e.g. 1. The SRNC sends HS-DSCH related IEs to all cells included in an active set and believes that the DRNS stores the received HS-DSCH related IEs. 2. However, the DRNS ignores HS-DSCH related IEs when the HS-DSCH is not established in the DRNS. 3. When the HS-DSCH is moved to the DRNS, the SRNC sends the minimum IEs to the DRNS since the SRNC believes that the DRNS already has received another IEs which are necessary to establish the HS-DSCH. In the above case, the serving HS-DSCH cell change will fail.
Summary of change: ✎	<u>Rev.2</u> Already existing text is deleted with a revision mark (highlighted in yellow). <u>Rev.1</u> The proposed text is rephrased. <u>Rev.0</u> This CR proposes to specify the behaviour of the DRNS as follows.

	HS-DSCH is established on the cell controlled by the DRNS
	- The DRNS adds/modifies/deletes the indicated HS-DSCH resources to/from the radio link.
	HS-DSCH is NOT established on the cell controlled by the DRNS
	- The DRNS stores the configuration of the indicated HS-DSCH related IEs until all radio links belonging to the DRNS are deleted.
	- The DRNS always updates the configuration of the HS-DSCH related IEs when receiving *HS-DSCH To Add* IE or *HS-DSCH To Modify* IE or *HS-DSCH To Delete* IE.
Consequences if not approved:	✍ If this CR is not approved, HS-DSCH handling might not work in the multi-vendor environment.
	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 HSDPA.
	This CR has an impact under [protocol & functional] point of view. The impact [can] be considered isolated because the change affects [one] [system function] namely HSDPA.

Clauses affected:	✍	8.3.4.2		

		Y	**N**		
Other specs affected:	✍	X		Other core specifications	✍ CR856 on TS25.433v5.4.0
			X	Test specifications	
			X	O&M Specifications	
Other comments:	✍				

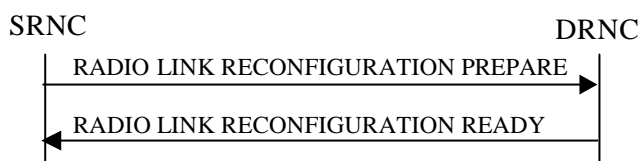## 8.3.4   Synchronised Radio Link Reconfiguration Preparation

8.3.4.1   General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of Radio Link(s) related to one UE-UTRAN connection within a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.4.2   Successful Operation

SRNC   DRNC

RADIO LINK RECONFIGURATION PREPARE →

← RADIO LINK RECONFIGURATION READY

Figure 10: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION PREPARE message to the DRNC.

Upon receipt, the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

The DRNS shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

\<partly omitted\>

HS-DSCH Information Addition/Modification/Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH Information To Modify*, *HS-DSCH Information To Add* or *HS-DSCH Information to Delete* IEs, then the DRNS shall use this information to add/modify/delete the indicated HS-DSCH resources to/from the radio link when the radio link on which the HS-PDSCH is mapped is in the DRNS. Otherwise, the DRNS shall update the configuration of the HS-DSCH according to the received any *HS-DSCH Information To Modify*, *HS-DSCH Information To Add* or *HS-DSCH Information to Delete* IEs. DRNS shall store the latest HS-DSCH configuration until the UE context is deleted, in the same way as the DCH info is used to add/modify/release DCHs.

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH Information to Delete* IE requesting the deletion of all HS-DSCH resources for the UE Context, then the DRNC shall release the HS-DSCH-RNTI allocated to the UE Context, if there was one.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL ID* IE and there is a HS-DSCH existing in the UE Context after reconfiguration, then:

- If the indicated HS-PDSCH RL ID is in the DRNS and there was no HS-DSCH-RNTI allocated to the UE Context, the DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.

- If the indicated HS-PDSCH RL ID is in the DRNS and there was an HS-DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a new HS-DSCH-RNTI to the UE Context, release the old HS-DSCH-RNTI and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.

- If the indicated HS-PDSCH RL ID is not in the DRNS and there was an HS-DSCH-RNTI allocated to the UE Context, the DRNC shall release this HS-DSCH-RNTI.

- If a reset of the MAC-hs is not required the DRNC shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION READY message.

- [FDD – If the indicated HS-PDSCH RL ID is in the DRNS and is different from previous one, then the DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH Information To Add* IE or *HS-DSCH Information To Modify* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related MAC-d flows.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *CQI Feedback Cycle k* IE, the *CQI Repetition Factor* IE , the *ACK-NACK ~~Repetiton~~Repetition Factor* IE, *the ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated CQI Feedback Cycle k value, the CQI Repetition Factor or the ACK-NACK Repetition Factor, ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

[FDD – If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Add* IE or *HS-DSCH Information To Modify* IE, the DRNS may use this value to determine the HS-SCCH power. If there are multiple HS-SCCHs assigned for one UE then the same power offset is applied to each of the HS-SCCH channel.]

If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Window Size* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated MAC-hs window size value in the new configuration.

The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION READY message for each MAC-d flow, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].

<partly omitted>

General

If the requested modifications are allowed by the DRNC and the DRNC has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message. When this procedure has been completed successfully there exists a Prepared Reconfiguration, as defined in subclause 3.1.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Layer Address* IE and *Binding ID* IE in the *DSCHs To Modify* , *DSCHs To Add*, [TDD - *USCHs To Modify* , *USCHs To Add*], *HS-DSCH To Modify*, *HS-DSCH To Add* or in the *RL Specific DCH Information* IEs, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

The DRNC shall include <u>in the RADIO LINK RECONFIGURATION READY message</u> the *Transport Layer Address* IE and the *Binding ID* IE ~~in the *DCH Information Response* IE~~ for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iur interface, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included for only one of the DCHs in the set of co-ordinated DCHs.