

Agenda Item: 16.4
Source: Alcatel
Title: Proposal for addition of DSCH parameters in the Radio Link Setup Request and Radio Link Reconfiguration messages
Document for: Decision

1 Introduction

This document proposes some changes related to the DSCH in the parameters of the Radio Link Setup Request, Radio Link Reconfiguration Prepare, and Radio Link Reconfiguration Request messages in NBAP (TS 25.433).

2 Discussion

Each Node B of the UE active set needs to be indicated through a Radio Link Setup or Radio Link Reconfiguration procedure, the DSCH ID, the DSCH transport format (including the DSCH TTI), and the Radio Link on which the DSCH is transmitted.

The DSCH ID identifies one DSCH, which has been set up in the cell and on the carrier identified by the radio link. The DSCH has been previously established by Common Transport Channel procedures. In most cases, there will be only one DSCH per carrier and per cell, but this DSCH ID will permit to establish several DSCH per carrier.

In case of soft handover, the UE is indeed receiving data from the DSCH from only one radio link.

It is assumed that the DL TFCS IE defined for the DCH will be extended to include combinations related the DSCH. To provide the necessary information, following parameters need to be added to the involved procedure messages:

- a) RL ID = The Radio Link ID of an already or simultaneously established radio link, identifying the cell and carrier on which the DSCH will be transmitted.
- b) DSCH ID = Identifies the DSCH on the cell and carrier (in case of multiple DSCH).
- c) DL Transport Format Set = DL TFS for the DSCH

3 Changes proposal in TS 25.433

Several changes are proposed in section 9 of TS 25.433, according to the discussion above :

9.1.2 RADIO LINK SETUP REQUEST

This message is sent from CRNC to Node B in order to start radio link setup for the UE in the Node B.

Information Element	Reference	Type
Message Discriminator		M
Message Type		M
CRNC Communication Context ID		M
Transaction ID		M
UL Scrambling Code		M

UL Channelization Code		M
Length of UL Channelization Code		M
DCH Information		M
DCH ID		M
DCH Combination Ind		O
DCH Priority		FFS
UL Transport Format Set		M
DL Transport Format Set		M
<u>DSCH Information</u>		<u>O</u>
<u>DSCH ID</u>		<u>M</u>
<u>DL Transport Format Set</u>		<u>M</u>
<u>RL ID</u>		<u>M</u>
UL Transport Format Combination Set		M
UL TFCI used flag		M
DL Transport Format Combination Set		M
DL TFCI used Flag		M
RL Information		M
RL ID		M
Cell ID		M
OFF		M
Chip Offset		M
Diversity Control Field		C ¹
DL Scrambling Code		M
DL Channelization Code		M
DL Channelization Code Number		M
(initial) DL transmission power		M
Maximum DL power		M
Minimum DL power		M
UL Eb/No Target		M
DL Reference Power		M

9.1.10 RADIO LINK RECONFIGURATION PREPARE

Information element	Reference	Type
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¹ This Information Element is present for all the radio links except the first radio link in the Node B.

Message Discriminator		M
Message type		M
Node B Communication Context ID		M
Transaction ID		M
DCHs to modify		O
DCH ID		M
DCH Priority		FFS
Transport format set (DL)		O
Transport format set (UL)		O
DCHs to add		O
DCH ID		M
DCH Combination Ind		O
DCH Priority		FFS
Transport format set (DL)		M
Transport format set (UL)		M
DCHs to delete		O
DCH ID		M
<u>DSCH to modify</u>		<u>O</u>
<u>DSCH ID</u>		<u>M</u>
<u>DL Transport Format Set</u>		<u>M</u>
<u>RL ID</u>		<u>M</u>
<u>DSCH to add</u>		<u>O</u>
<u>DSCH ID</u>		<u>M</u>
<u>DL Transport Format Set</u>		<u>M</u>
<u>RL ID</u>		<u>M</u>
<u>DSCH to delete</u>		<u>O</u>
<u>DSCH ID</u>		<u>M</u>
<u>RL ID</u>		<u>M</u>
TFCS (DL)		M
TFCS (UL)		M
Uplink Scrambling code		O
UL Channelisation Codes		O
Channelisation code (UL)		M
RL Information		O
RL ID		M
DL Scrambling Code		M
DL Channelisation Code		M
Channelisation code Number (DL)		M
DL reference power		FFS

9.1.15 RADIO LINK RECONFIGURATION REQUEST

Information element	Reference	Type
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Message Discriminator		M
Message type		M
Node B Communication Context ID		M
Transaction ID		M
DCHs to modify		O
DCH ID		M
DCH Priority		FFS
Transport format set (DL)		O
Transport format set (UL)		O
DCHs to add		O
DCH ID		M
DCH Combination Ind		O
DCH Priority		FFS
Transport format set (DL)		M
Transport format set (UL)		M
DCHs to delete		O
DCH ID		M
<u>DSCH to modify</u>		<u>O</u>
<u>DSCH ID</u>		<u>M</u>
<u>DL Transport Format Set</u>		<u>M</u>
<u>RL ID</u>		<u>M</u>
<u>DSCH to add</u>		<u>O</u>
<u>DSCH ID</u>		<u>M</u>
<u>DL Transport Format Set</u>		<u>M</u>
<u>RL ID</u>		<u>M</u>
<u>DSCH to delete</u>		<u>O</u>
<u>DSCH ID</u>		<u>M</u>
<u>RL ID</u>		<u>M</u>
TFCS (DL)		O
TFCS (UL)		O
DL reference power		FFS

4 Conclusion

It is proposed to include changes proposed in section 3 of this document into [1].

5 References

[1] UMTS 25.433 (v1.1.1.) NBAP Specifications