

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

1 Introduction

This document proposes some changes in the parameters of the Radio Link Set Up Request, Radio Link Addition Request and Radio Link Reconfiguration messages in NBAP (TS 25.433).

2 Discussion

The following changes are proposed :

- a) The support of blind transport detection may depend on the UE class and on the TFCS configuration. There is thus a need to indicate the DL TFCI Used Flag and the UL TFCI Used Flag in each Radio Link Set Up Request message. It is therefore proposed to put the DL TFCI Used Flag and the UL TFCI Used Flag as Mandatory IE in the Radio Link Set Up Request message.
- b) In order to allow the implementation of multi-carriers cell, it is proposed to add a information element identifying the carrier frequency, in the Radio Link Set Up Request message. This parameter shall also be added to the Radio Link Addition Request message.
- c) It is necessary to indicate the parameters ToAWE and ToAWS for each DCH, as defined in TS 25.427 for synchronisation purposes. It is therefore proposed to add these parameters as mandatory in the RL set up request message.
- d) It may not always be needed to update the DL transmission power parameters when adding a Radio link in an existing Node B, because they have already been provided in the Radio Link Set Up message. It is therefore proposed to have these parameters as optional in the Radio Link Addition Request message.
- e) As proposed in Tdoc R3 949/99, a new parameter is needed in the Radio Link Setup, Radio Link Reconfiguration Request and Radio Link Reconfiguration Prepare messages, to indicate to the priority to be given at AAL2 layer to each of the transport bearer associated to each DCH which has to be setup.

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
<u>ToAWS</u>		<u>M</u>
<u>ToAWE</u>		<u>M</u>
UL Transport Format Set		M
DL Transport Format Set		M
UL Transport Format Combination Set		M
UL TFCI used flag		(FFS) M
DL Transport Format Combination Set		M
DL TFCI used Flag		(FFS) M
<u>DCH transport priority</u>		<u>M</u>
RL Information		M
RL ID		M
Cell ID		M
<u>Frequency ID</u>		<u>M</u>
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

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

9.1.5 RADIO LINK ADDITION REQUEST

This message is sent from CRNC to Node B in order to add radio link(s) for the UE in the Node B.

Information Element	Reference	Type
Message Discriminator		M
Message Type		M
Node B Communication Context ID		M
Transaction ID		M
RL Information		M
RL ID		M
Cell ID		M
<u>Frequency ID</u>		<u>M</u>
OFF		M
Chip Offset		M
Diversity Control Field		M
DL Scrambling Code		M
DL Channelization Code		M
DL Channelization Code Number		M
(initial) DL transmission power		M <u>Q</u>
Maximum DL power		M <u>Q</u>
Minimum DL power		M <u>Q</u>
DL Reference Power		M <u>Q</u>

9.1.10 RADIO LINK RECONFIGURATION PREPARE

Information element	Reference	Type
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
<u>DCH transport priority</u>		<u>M</u>
DCHs to add		O
DCH ID		M
DCH Combination Ind		O

Information element	Reference	Type
Message Discriminator		M
DCH Priority		FFS
Transport format set (DL)		M
Transport format set (UL)		M
<u>DCH transport priority</u>		<u>M</u>
DCHs to delete		O
DCH ID		M
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
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
<u>DCH transport priority</u>		<u>M</u>
DCHs to add		O
DCH ID		M
DCH Combination Ind		O
DCH Priority		FFS
Transport format set (DL)		M
Transport format set (UL)		M
<u>DCH transport priority</u>		<u>M</u>
DCHs to delete		O
DCH ID		M
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