TSG-RAN Working Group 2 (Radio layer 2 and Radio layer 3) ***TSGR2#3(99) 214***
Yokohama 13th to 16th April 1999

Agenda Item: 8.2

Source: Alcatel

Title: Change request to S2.21 related to 'Dynamic Resource Allocation Control of Uplink DCH'

Document for: Decision

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1 Introduction

This document presents change request to S2.21, and more specifically to section 11.1 in order to include details related to the Dynamic Resource Allocation Control (DRAC) procedure of uplink DCH, as agreed at the RAN WG2#2 meeting.

2 Change to S2.21

2.1 Changes to 11.1:Dynamic radio bearer control in UE

This procedure is applicable only in case of optimisation of established radio bearers
The algorithm exist in the UE and is controlled by the network. The algorithm requests to RRC for a reconfiguring of radio resources,-.

1. For the set-up procedure, UE waits for a MAC_configure_req message with $T_{validity}$,T_{out},T_{retry}, p_{tr} and TFS-subset
2. Once this message is received, UE stores $T_{validity}$,T_{out},T_{retry}, p_{tr} and TFS-subset..
3. UE randomly picks up p ? [0,1].
4. UE checks its permission: if $p<p_{tr}$ it goes to 5, otherwise it goes to 8
5. SET N=0
6. If N = $T_{validity}$, it goes back to 3, otherwise it goes to 7
7. SET TFI according to TFS-subset. MAC sends corresponding TBS to L1 for this TTI. N=N+(TTI/0.01), Then It goes back to 5. If the UE has nothing to transmit, DPCCH radio frames are sent until T_{out} expires.
8. SET N=0
9. If N = T_{retry}, it goes to 3, otherwise it goes to 10
10. DPCCH frame transmission in L1 (no TBS sent to L1), N=N+1, and goes back to 9.

$T_{validity}$,T_{out},T_{retry} are signalled only once at DCH establishment, through BCCH or RAB establishment message.. These parameters may eventually be changed during transmission and sent to MAC within the MAC_configure_req message.

Since the dynamic part of the Transport Format (which define the data rate for a given transport channel) can only be changed every Transmission Time Interval, updating the TFS-subset on a shorter period basis than a Transmission Time Interval is impossible. Setting the $T_{validity}$ period as an entire multiple of the TTI of all the DCH allows the UE to listen to broadcast information only every $T_{validity}$ frames, during the last frame before 3.

In parallel with the procedure from 3 to 10, UE waits for a MAC_configure_req message in order to update p_{tr} and the new subset of TFS. These parameters will be updated every $T_{validity}$ period.

This procedure shall be mandatory for all UEs supporting high bit rate NRT services.

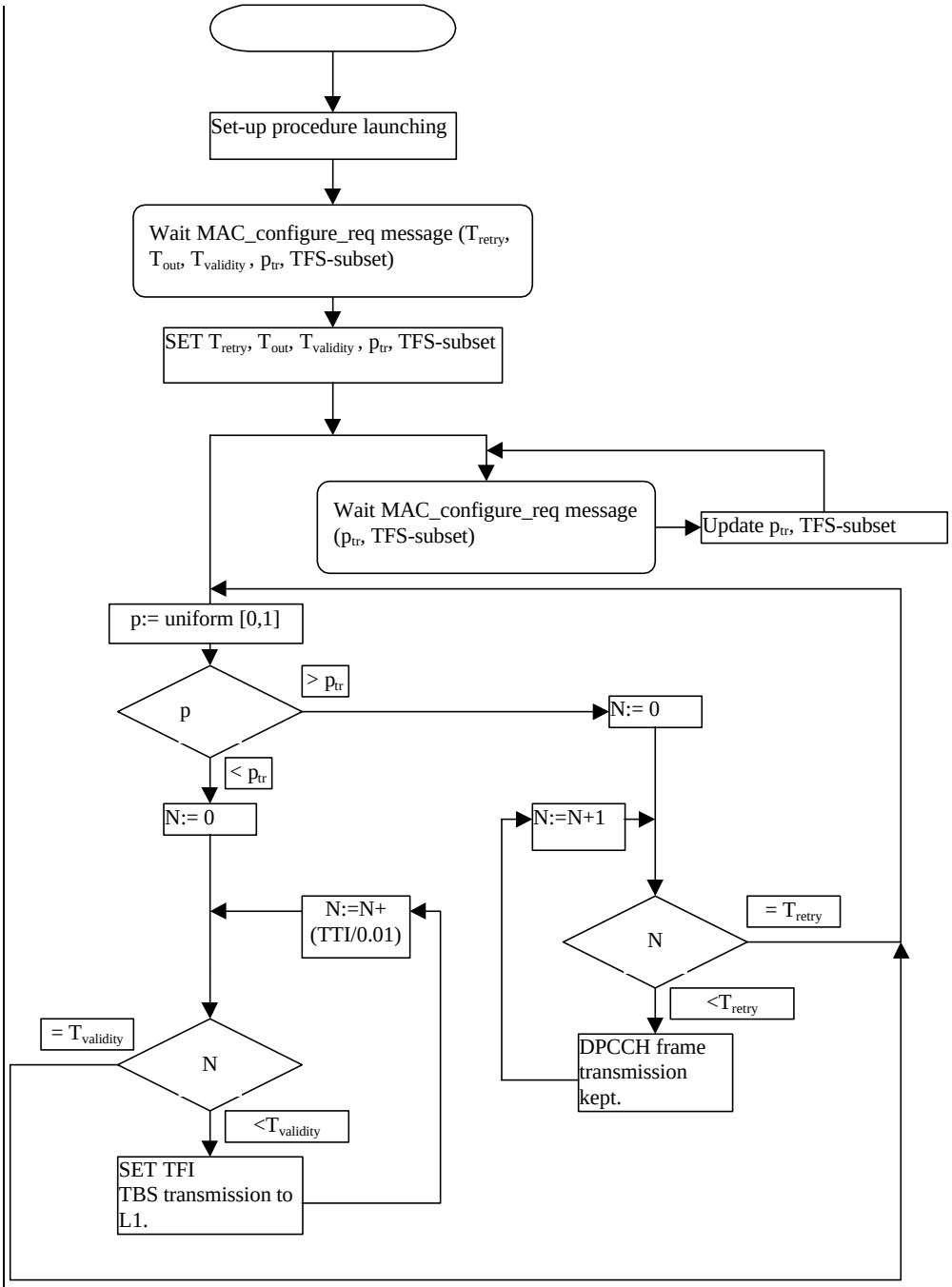

Figure 11.1.1: Dynamic Radio Bearer control in UE

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