TSG-RAN Working Group 2 (Radio layer 2 and Radio layer 3)   *TSGR2#4(99)42*

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To: **TSG RAN WG2**

Source: **TSG RAN WG3**

Title: **LS to TSG RAN WG2 on Common Transport Channel management over Iur**

Document for: Comment

3GPP TSG RAN WG3 would like to inform 3GPP TSG RAN WG2 on a certain number of agreements on the high level concepts subtending the management of RACH/FACH over Iur. 3GPP TSG RAN WG3 would also like to request 3GPP TSG RAN WG2 their opinion and comments on those concepts:

1. RACH/FACH over Iur is used for best effort services and the QoS management in this case is based on priority handling.
2. Over Iur, some mechanism is foreseen to be required to manage the interaction between MAC-d and MAC-c. This mechanism has to meet the following criteria :
    - Minimising the amount of buffering required in the overall system.
    - Minimising the transmission delay over Iur of the first MAC-d PDU. This is related to the kind of mechanism that can be envisaged : Some credit or window based mechanism for instance can introduce some time before being able to transmit the first PDU of a data burst. This delay is introduced by the need to obtain some credit or the windows information. What is foreseen is some kind of mechanism with initial default value that would be later adjusted.
    - Minimising the signalling traffic over Iur.
    - Minimising the conditions where the CNRC enters in overload situation.
3. No specific reservation mechanism between MAC-d an MAC-c is required over Iur because the effect of admission control can be achieved by other means although they are not specified yet. It is believed that reservation can occur in MAC-d and in MAC-c in an independent way, thus not requiring specification over Iur.
4. When switching cell, even in the same RNC, from a logical point of view the Iur connection is a new connection between MAC-d and an new MAC-c. This means that the interaction mechanism described in 2 must be re-initialised to initial value. No value can be inherited from the previous MAC-d to old MAC-c interaction.
    Although this is a logical new Iur connection, the same Iur transport bearer can be reused : There occurs a kind of "switching" in the CRNC.
5. There is a Frame Protocol level multiplexing of different UE to avoid frequent set-up tear down and high number of connections. This means that between a pair of RNCs, multiple MAC-d / MAC-c interactions are multiplexed on the same Iur transport bearer. Whether one transport bearer per priority will be required or all priorities can be handled on the same transport bearer is FFS. It is also FFS whether this/these transport bearer(s) will use AAL-5 or AAL-2.
6. The delay to establish the relation between MAC-d and MAC-c over Iur should be minimised.

3GPP TSG RAN WG3 would also like 3GPP TSG RAN WG2 to provide more detailed information on the interaction between MAC-d and MAC-c or MAC-d and MAC-sh. 3GPP TSG RAN WG3 would specifically like to get more information on how the multiplexing of services for one UE in Mac-d is used when in RACH/FACH mode or when the UE is using DSCH (is the multiplexing completely done in MAC-d or is MAC-c participating) and how priority handling is managed.