TSG RAN Working Group 1#10 Beijing, China January 18-21 TSGR1 (00)0185

From WG1? To WG2?

Title: DRAFT Response to WG2 liaison on CPCH model and

emergency stop for CPCH

WG1 would like to thank WG2 on providing a CPCH model. The only issue that is unresolved at the WG1 level is the issue of Channel Assignment. WG1 has advised WG2 of the status of this issue in the previous liaison statement on this topic.

There are some questions regarding the model, which are outlined here. WG1 would like clarifications on these issues:

- 1. "All CPCH transport channels of one CPCH set shall employ the same Transport Format Set".
- 2. "When Channel Assignment is not active, then UE Channel Selection is employed. In this case the status information provides indication of the availability of each defined PCPCH. In either case, the channel status information is converted into a set of transport formats, which are allowed to be employed at that given time. Whether channel assignment is active or not shall be indicated via System Information. Current assumption is that the conversion of CPCH status information into Transport Formats is a L1 internal function. "

Given the above quotes from the attachment to the liaison statement, WG1 has the following clarification question and comment:

Q1: WG1 assumes that the Status Indicators from the CSICH indicate the availability of each PCPCH channel and not Transport Format. Is this true?

Comment: WG1 believes that the conversion of Status indicators to Transport format should occur at L2.

WG1 would also like to see flexibility in dimensioning the number PCPCH resources such as Access Signatures and subchannels to the extent of reducing the number of PCPCH channels to one if required. Is this compatible with the definition of CPCH Set and the number of CPCH channels in the set?

WG1 would also like to respond to WG2's request in R2-000-211rev (R1-00-0163) regarding the Emergency Stop of CPCH transmission and CPCH control signaling.

"Emergency stop of CPCH transmission

WG2 has agreed that a procedure is needed to stop CPCH transmission based on a request from RRC at the network side, for example, for reacting on temporary overload conditions. WG2 would like to ask WG1 to consider using the DL DPCH unused capacity for this purpose. The signalling should be implemented in such a way that the UE may response to the emergency stop command very quickly, e.g. within a single radio frame."

Contribution number R1-000125 on the issue of "CPCH control method for abnormal situations" was considered by WG1. There were some concerns on the change of the current slot format and the change of the current TFCI concept. Currently WG1's specifications support a mechanism for "emergency stop" which is reflected in 25.214 specifications. This method requires the Base Node to stop transmission of the DL-DPCCH associated with uplink CPCH. The specifications indicate that the absence of DL-DPCCH will trigger the UE to stop Uplink CPCH transmission within a TBD slots. However, the current emergency stop method may not support the fast stop of uplink CPCH within a single radio frame. Hence, WG1 agreed that the fast emergency stop concept raised by contribution R1-000125 may be needed if less than 10 ms response time is required.

Given that there is already a mechanism for Release 99 and WG1 might introduce additional mechanism depending on the requirements, WG1 would like to ask WG2 to provide the higher layer RRC signalling from UTRAN for this emergency shut down.

Furthermore the WG2 liaison requested the following from WG1:

"CPCH control signalling

WG2 has also has agreed that a signalling procedure would be desirable to provide the UE with RRC control commands during CPCH transmission. This control signalling is intended to be used for rate reduction for congestion control, and other purposes tbd. WG2 would like to ask WG1 to consider using the TFCI bits which are currently unused on the DL DPCCH to provide a robust means of sending respective control commands which are not as time-critical as eg. the emergency stop commands (cf. reference Tdoc R2-000145 "CPCH control method for abnormal situations", source: LGIC, GBT)."

WG1 considered using the TFCI for non-time critical commands. There were some concerns on the reliability of such transmissions over the TFCI and the required power levels. Also, WG1 considers this a late change in the WG1 Specifications. WG1 would like to request WG2 to consider using the FACH since the UEs are required to monitor FACH while transmitting uplink CPCH messages.

WG1 would like to thank WG2 for this liaison letter and would like to request a quick response within by the end of RAN2 meeting in San Diego if possible.