

**TSG-RAN WG3 meeting #7**  
**Sophia Antipolis, 20-24 September 1999**

**TSGR3#7(99)b12**

TSG-RAN Working Group 1 (Radio layer 1)  
Hannover (Germany), August 30<sup>th</sup> - September 3<sup>rd</sup> 1999

*TSGR1#7(99)e13*

**Source:** TSG RAN WG1  
**To:** TSG RAN WG3, TSG RAN WG4  
**Title:** Liaison statement on L1 timing issues

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TSG RAN WG1 would like to thank TSG RAN WG3 for its liaison statement TSGR3#6(99)a48 on L1 timing issues. The issues have been investigated during this meeting and the conclusion is summarized below for UTRA/FDD.

TSG RAN WG1 believes that there is a need for a procedure where the UE or NB requests an adjustment of the NB DPCH TX timing by a certain number of symbol in a synchronized way. Appropriate signaling to enable such synchronized reconfiguration of  $T_d$  triggered by the UE or NB seems therefore needed in WG3 specifications.

TSG RAN WG1 also agreed to have a maximum tolerable difference between time of arrivals of DPDCH/DPCCH from different cells at the UE. It was agreed as a working assumption that “the UTRAN must start the transmission of the downlink dedicated physical channels DPCCH/DPDCH at a frame timing such that the frame timing received at the UE will be within  $T_0 \pm [148]$  chips prior the frame timing of the uplink DPCCH/DPDCH at the UE”.

It is also believed that in some cases the UE needs to be allowed to change its transmission timing in order to cope with the previous issue. In case of soft-handover, this is restricted to the situation where all cells in the active set are known to have the same timing reference. The maximum timing adjustment of the UE DPDCH/DPCCH still needs to be determined. TSG RAN WG1 kindly asks TSG RAN WG4 for their guidance on this issue.