

**Source: TSG RAN WG3**

**Destination: TSG RAN WG1**

**Copy:**

**Title: Response to LS on TDD Node B synchronisation**

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TSG-RAN WG3 thanks TSG-RAN WG1 for their liaison on Node B Synchronisation for TDD (R1-000964 / R3-002004).

In order to support WG1, WG3 prepares a TR that considers the requirements and the study areas on this work item for WG3 and gather the associated Change Requests on the procedures and the impact to the WG3-Specifications.

Thus, TR 25.xxx in WG3 will study mechanisms needed on Iub and if necessary on Iur as:

- ?? functionality to measure the timing differences between neighbouring cells
- ?? timing adjustment functionality for synchronisation
- ?? handle alarming functionality to aware the RNC about out-of-sync situations, so that re-synchronisation procedures can be initiated or the cell can be disabled if necessary in order to limit the impact to the network operation.

Since the synchronisation method will probably have an impact on the procedures defined in WG3, WG3 already asks WG1 to keep WG3 informed about the progress on the synchronisation method at the radio interface.

**Cell or Node B Synchronisation:**

The question about Cell or Node B synchronisation is answered from WG3 as follows:  
To allow a high flexibility in support of different synchronisation scenarios, the RNC should be able to synchronise on cell level. In this way solutions are possible without any hardware functions within the Node B for cell synchronisation. Another benefit of cell synchronisation is that in case of cell synchronisation and in an out-of-sync situation the affected units may be limited to single cells and do not impact the Node B completely.

**Sync Port:**

The Sync Port delay compensation between Node Bs in a daisy chain configuration will be considered as well and is therefore an additional item within the study area.

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