TSG-RAN Meeting #26 **RP- 040431**
Athens, Greece
December, 8th – 10th, 2004

Agenda item: **8.11.2**
Title: **Status Report for SI on Uplink enhancements for UTRA TDD**
Source: **Rapporteur**

Status Report for SI for TSG RAN

Study Item Name: Uplink enhancements for UTRA TDD

SOURCE: Rapporteur Marian Rudolf/InterDigital **TSG:** RAN **WG**: 1

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Ref. to SI sheet: `ftp://ftp.3gpp.org/tsg_ran/TSG_RAN/Work_Item_sheets/`

Progress Report since the last TSG (for all involved WGs):

The Uplink enhancements for UTRA TDD was not on the agenda of RAN1 meeting #39, thus there were no contributions.
During the RAN3 meeting #44 one contribution was submitted, discussed and approved, the text proposal in R3-041384 "Text Proposal for RAN3 Impacts for TDD Enhanced Uplink". The text proposal describes the impact on Iub/Iur application protocols and impacts on Iub/Iur application.

Current candidate techniques for potential enhancements now described in the TR are:

- Hybrid ARQ
- Node-B controlled scheduling (rate scheduling, physical resource scheduling)\
- Physical layer enhancements
    - Intra-frame Code Hopping
    - Power control scheme

List of Completed elements (for complex work items):

– Description of reference techniques in earlier Releases
– Description of Hybrid ARQ and Node - B controlled scheduling as candidate techniques for potential enhancements
– Proposed transport channel structure
– Description of proposed physical layer enhancement techniques
– Evaluation of proposed physical layer enhancements
– HARQ performance evaluation
– Impact on RAN3 Protocols

List of open issues:

- Compatibility of some of the enhancements with the existing system
- Interaction of some of the enhancement techniques
- Complexity analysis of some of the enhancements
- Impact on RAN2 Protocols
- Feasibility study conclusion and recommendations for work item

Estimates of the level of completion (when possible): 70 %

SI completion date: RAN #27 (March 2005)

References to WG's internal documentation and/or TRs:

RP-040516, “3GPP TR 25.804 V1.0.0 (2004-11) Feasibility Study on Uplink Enhancements for UTRA TDD; (Release 6)”