TSG-RAN meeting #22 RP-030577
Hawaii, US, 9th – 12th December 2003

Status Report for SI to TSG

Study Item Name: Uplink Enhancements for Dedicated Transport Channels

SOURCE: Rapporteur (Karri Ranta-aho, Nokia) **TSG:** RAN **WG:** 1

E-mail address rapporteur: Karri.Ranta-aho@nokia.com

Ref. to SI sheet: RAN_Study_Items.doc

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

Two RAN WG1 meetings took place between TSG RAN meetings #21 and #22.

In both meetings the SI 'Uplink Enhancements for Dedicated Transport Channels' was the most active topic both measured by the number of contributions and meeting time spent.

A total of over 150 contributions were submitted for the SI in RAN WG1 meetings #34 and 35. In total roughly 130 of them were treated in the meetings and 13 revised text proposals were email reviewed after the meetings. In meeting #34 HARQ was not discussed and in meeting #35 fast DCH setup was not discussed due to lack of time.

RAN1 agreed in meeting #34 and subsequent email reviews 9 text proposals for inclusion to the TR.
RAN1 agreed in meeting #35 and subsequent email reviews 15 text proposals for inclusion to the TR.

The 24 agreed text proposals contained
- HARQ performance results in SHO and short term link performance
- Scheduling overview and scheduling strategies
- Relationship of scheduling and HARQ
- Rate scheduling by persistence control, scheduling weight usage in SHO
- Transport channel structures
- Downlink and uplink signalling overview and uplink scheduling signalling
- Physical layer structure alternatives in code and time domain
- Enhanced uplink channel estimation
- Analysis on peak to average power ratio of the UE
- R'99 system level reference results
- Comparison of R'99 and E-DCH schedulers and initial system level results

List of Completed elements (for complex work items):
- Simulation assumptions
- Traffic model descriptions
- Reference technique descriptions
- Overview of techniques to be studied
- HARQ link level performance results
- Transport channel and physical channel structures

List of open issues:
- Compatibility of the enhancements with the existing system
- Interaction of the enhancement techniques (Covered for HARQ and scheduling)
- Simulation results of the enhancement techniques (Link level partially covered for HARQ)
- Complexity analysis of the enhancements (PAR analysis started in the TR, everything else still missing)
- Feasibility study conclusion and recommendations for work item

Estimates of the level of completion (when possible):
Estimated level of completion is 60-70%

SI completion date review resulting from the discussion at the working group:

The latest estimate for the SI completion date is RAN#23 (March 2004).

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

[1] R1-031423, TR25.896, Feasibility Study for Enhanced Uplink for UTRA FDD, v1.1.2 updated according to agreements in RAN1 #35 and subsequent email review.