TSG-RAN meeting # 14 **RP-010825**
Kyoto, Japan. December 11-14, 2001

Status Report for WI to TSG

Work Item Name: "High Speed Downlink Packet Access (HSDPA)" and "High Speed Downlink Packet Access (HSDPA): Layer 2 and 3 Aspects"

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Ref. to WI sheet: 43: High Speed Downlink Packet Access (HSDPA)
and 45: High Speed Downlink Packet Access (HSDPA) - *layer 2 and 3 aspects*

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

WG1 :

Two meetings, a three day AdHoc meeting in Sophia Antipolis, partly in a joint session with RAN WG2 and the RAN WG1#22 in Jeju, Korea, focussed primarily on HSDPA.

- Many details of the physical layer aspects of the HARQ functionality have been agreed
- Some progress has been made on UE capabilities though many open issues remain.
- Agreements were reached on almost all the downlink signalling parameters and uplink signalling parameters.
- The channel coding and modulation aspects of the HS-DSCH channel have been agreed.
- Significant progress was made on the shared control channel structure both separately and in joint meetings with WG2.
  - Details of control channel structure for FDD is under evaluation.
- Details on the shared control channel structure and timing aspects for 1.28 Mcps TDD have been agreed and work is progressing on 3.84 Mcps TDD.
- Most details of the uplink control channel structure and feedback aspects have been agreed for both FDD and TDD.

WG2 :

- Significant progress has been made on aspects relating to the protocol model. The protocol model is now 90% complete with a few details (e.g. related to MAC multiplexing) to be resolved in January 2002.
- Details of the MAC-hs functionality have been agreed.
- The Stage 2 details of the hard handover (HS-PDSCH Cell Change) mechanism have been agreed.
- The open issue related to the involvement of MAC-c/sh involved in the radio interface protocol has been resolved.
- Work on the Stall avoidance mechanism at the receiver is 80% complete. Proposals for closing the remaining issues have been discussed and resolution is expected in January 2002.
- Significant progress was made on the issue of transport format and resource signalling in the joint meeting with RAN WG1. CR proposals to the relevant specifications are expected to formalize the understanding between the two groups in the January 2002 meetings.
- Initial discussions with RAN WG1 was started on the topic of UE capabilities

- Work has been initiated on drafting of CRs to the relevant specifications. The January 2002 meeting is focussed towards Release 5 topics and therefore significant progress is expected to be made on the CRs to the WG2 specifications for presentation to the RAN#15 plenary meeting.

WG3:

- Meeting time to discuss the relevant contributions is still an issue given the significant time that is still being spent on R99.
- Contributions addressing flow control for MAC-hs SDUs between two UTRAN elements, resource allocation, other impacts to the NBAP protocol, and HSDPA transport bearer efficiency over the Iub and Iur interfaces have been discussed.

WG4:

- Two contributions addressing working assumptions to enable progress on UE performance requirements were presented and discussed. It is expected that the two proposals tabled will be discussed on the WG4 reflector so the assumption could be agreed at the next meeting enabling simulation work to start.
- Contributions on Base Station transmission requirements were also discussed without any decisions being taken.

List of Completed elements (for complex work items):

Stage 2, TS 25.308 is complete.

List of open issues:

1. UE Capabilities
2. Coding aspects of Downlink Signalling (shared control channel)
3. Details of Channel Timing aspects
4. Stall avoidance in HARQ
5. Minor details of MAC multiplexing impacts on signalling
6. All Iub/Iur issues
7. All WG4 related issues

Estimates of the level of completion (when possible):
Overall 65% (weighted completion estimate)

WI completion date review resulting from the discussion at the working group:
Work in RAN WG1, WG2 and WG3 is targeted for completion in March 2002 with RAN WG4 completing its work in June 2002.

References to WG's internal documentation and/or TRs:
TS 25.308 v5.0.0 was approved in RAN#13. A CR to the specification capturing all the modifications agreed in WG1 and WG2 is presented in RP- 010774 for approval.
TR 25.848 is a WG1 internal TR capturing all agreements related to the Physical Layer Aspects and the current version is presented in RP-010823.
TR 25.877 is a WG3 internal TR capturing all agreements related to Iub/Iur aspects.