TSG-RAN meeting #18 RP-020878
New Orleans, USA
December 3 – 6 2002

HS-DPCCH Power Control

HSDPA: HS-DPCCH Power Control

SOURCE: Motorola, Samsung

In the RAN1#29 meeting in Shanghai a liaison statement on HS-DPCCH performance [1] was sent to RAN2 and RAN3 with a copy to RAN by RAN1. The LS stated :
"RAN1 has reviewed the attached CR's in [3] and although not fully approving them has endorsed them as "technically correct" and as such, suitable for submitting to RAN#18 in December for final approval (providing the further studies confirm satisfactory performance). The CR's are indicated as sourced by the proposing companies."
However, we have the following reservations in approving the CR's at the RAN#18 meeting:

1. The proposed modifications on ACK/NACK signalling was introduced by Philips on 15th October 2002 and the modified scheme and the corresponding CR's were discussed in the RAN1#29 meeting in Shanghai held from 5th-9th November. Further, Philips proposed additional corrections to the CR as recent as November 27th. Although the Philips proposal looked attractive we didn't have enough time to evaluate the proposal.
2. We have concerns about increased complexity and error propagation effect in Node B receiver due to this modified proposal. Furthermore, we also have concerns about impact of extra PRE/POST-amble transmission on system performance, since PRE/POST-amble may affect Node B scheduler operation.
3. The proposal does not solve the ACK/NACK performance under soft-handoff condition as was shown in [2].
4. The proposal does not address on how to improve the CQI performance under difficult radio conditions [2].

We believe that a comprehensive solution is needed for solving the HS-DPCCH problem under various scenarios. There are couple of proposals in RAN1 along with the Philips proposal [3] for a total solution. We believe all these proposals should be thoroughly analysed so that we can recommend a solution for HS-DPCCH to operate efficiently under all radio conditions.
In view of the above we are opposed to CR's on HS-DPCCH performance [4] being approved at the RAN#18 meeting.

References:

[1] R1-02-1457, RAN1, "LS on HS-DPCCH Performance", RAN1#29, Shanghai, 5th-8th November.
[2] R1-02-1352, Motorola, Samsung and Lucent, "HS-DPCCH Power Control in Soft-Handoff", RAN1#29, Shanghai, 5th-8th November.
[3] R1-02-1334, Philips, "Scheme for meeting HS-DPCCH performance requirements for Release-5", RAN1#29, Shanghai, 5th-8th November.
[4] R1-02-1422, Philips and Nokia, "CR25.214-295r2 (Rel-5)/ CR25.212-161r1 (Rel-5)", RAN1#29, Shanghai, 5th-8th November.