

Agenda item: Ad hoc 14
Source: AH14 chairman & WG1 Chairman
Title: AH14 report
Document for: Approval

Ad-Hoc 14 met on Thursday evening from 8:30 to 11:30 P.M. The meeting agenda is shown in appendix A.

The following issues were discussed in the meeting:

1. Issues related to other Ad-Hocs or WGs

1a. CRs related to CPCH from WG2

CR003 and CR011 from WG2 were postponed by RAN since there had been some WG1 implications. The CRs were reviewed by AH14. It was generally agreed that the CRs should be revised to reflect the latest agreements on CPCH in WG1. The proponents are expected to revise the CRs accordingly and re-submit to WG2 and RAN.

Conclusions: Not specific actions needed in WG1, in WG2 revised CRs to be prepared depending on WG1 outcome.

1b. CPCH Power Control preamble (AH9)

Philips, Nokia: Tdoc H02: Text proposal and change request for CPCH power control preamble length.

H02 proposed that the length of the preamble should take one of two values [0 or 8 slots].

Conclusion:

The text and the change request were agreed. **This closes an open item in the CPCH specifications in 25.211.**

Philips: Tdoc H03: Text proposal and change request for CPCH power control preamble.

This contribution proposed setting the power control step size in the power control preamble in a similar way to compressed mode.

Conclusion:

The text and change request were agreed subject to some minor editorial changes.

2. CPCH contributions

4a. Channel Assignment

R1-99f49 Enhanced CPCH with Channel Assignment, SAMSUNG and Philips

This document had been presented in the previous meeting. There was no agreement on this contribution.

R1-99f50 Text proposal for Channel Assignment in CPCH, SAMSUNG and Philips

This document was presented briefly. There was no agreement on the Channel Assignment scheme and therefore the text was not accepted.

Samsung H14: Advantages of Channel Assignment for CPCH

This contribution was presented for discussion purposes. The contribution outlined the advantages of use of Channel Assignment for CPCH. There were some discussions following the presentation of this contribution. It was pointed out that CA scheme is not useful for a single CPCH channel per cell and single CPCH channel per data rate. Samsung maintained that there are advantages associated with use of CA as compared to monitoring method due to errors on the aich channel in the forward link.

There was no decision on this contribution.

Samsung H15: Performance Evaluation of CPCH

This contribution had been presented in the previous meeting. It was noted that after presentation of that paper in the previous meeting, there was an agreement on use of monitoring to enhance the CPCH performance. Philips had mentioned that both Philips paper and GBT simulations point in the same direction.

Channel Assignment Discussions and agreements:

There was no resolution on the Channel Assignment method after presentation of all CA-related contributions. It was pointed out that monitoring method improves the CPCH performance and it is not clear if there is more gain by using the CA-scheme alongside with some form of monitoring method.

4b. Monitoring-related contributions

Several contributions had been presented in WG1#7bis meeting in Korea in this category. There was an agreement in the AH14 meeting to use some kind of monitoring method to enhance the CPCH performance. However, there was no closure on the specific method in WG1#7bis meeting, so the discussions continued in WG1#8 meeting.

R1-99G71 LGIC: Status monitoring text proposal

This contribution was a text proposal associated with the use of DL-DPCCH to send status information to a specific UE. This scheme and the text proposal were not accepted.

R1-99f11 CPCH Simulations to support use of idle-aich, GBT

This contribution entailed detailed system level simulations of three CPCH Channel access algorithms called: Simple method, recency method and idle-random method.

The recency method corresponded to imperfect monitoring whereas the results of idle-random method corresponded to perfect monitoring case. The results were noted and Philips commented that their performance evaluations are in agreement with the results presented in this contribution. However, there was no agreement to use real time monitoring.

R1-99f44 Idle Aich for CPCH, GBT

This contribution was briefly reviewed by GBT. There was no agreement on use of idle-aich.

R1-99G68 Comparison contribution, GBT

This contribution reviewed the advantages and disadvantages of the three monitoring methods: idle method [GBT], Status Broadcast method [Philips], Status monitoring [LGIC]. GBT presented its views on Channel Assignment method as well.

It was noted that this contribution was a good information source on various methods. Although there was no agreement on the conclusions of this contribution. GBT did not reject the three monitoring methods and noted that these methods are mutually exclusive and could all be used. Philips and LGIC agreed. However, there was no other support from other parties on such a thing. Some concerns were raised on the use of real time monitoring method and the power consumption associated with those schemes. GBT argued that the real time monitoring only adds .66% in terms of power consumption of the UE [Annex in the contribution]. Nokia raised concern on the UE power consumption in combined sleep mode operation and CPCH real time monitoring.

After some discussions, there was an agreement on using the non-real time monitoring methods since they seem to be less costly from power consumption perspective. It was agreed to use a “Status Broadcast scheme” and transmit CPCH channel information on a periodic basis. However, the decision on exact method was postponed since Samsung had a new contribution in that area.

R1-99H16 Status information for CPCH assignment, Samsung

This contribution presented a new method to broadcast status information on availability of CPCH channels. This method entails use of nak-aich to inform UEs on availability of each data rate. When the data rate is available, nothing is broadcast [OFF-keying] and when the data rate is not available, nak-aich is broadcast [ON-keying].

There was no agreement on Samsung’s method.

Channel Monitoring Discussions and agreements:

There was agreed not to include real time monitoring methods [GBT, LGIC’s method].

There was no decision on either Samsung or Philip’s methods, which are in the non-real time monitoring category. Non-real time monitoring methods were preferred due to better UE power consumption attribute with packet data operation.

The proponents agreed to provide details on their methods to allow other to compare the methods. This information will be provided on the reflector and text proposals are to be made available prior the next WG1 meeting. The possibility of making unified proposals was not excluded either for the non-relatime monitoring purposes.

It was clearly stated that the status broadcast methods are to be devised primarily for the basic CPCH scheme. However it should not exclude the use of Channel Assignment (CA) method in the future.

It was agreed that the discussion on CA should continue over the reflector once the status broadcast method was stabilized. At that point the use of CA in conjunction with the agreed upon Monitoring method can be evaluated to determine if it provides additional gains.

Other issues:

Philips: H04: Text proposal and change request for rapid DCH initialization:

This contribution proposed setting the power control step size in the power control preamble in a similar way to compressed mode.

The text and change request was agreed.

The liaison was asking WG1 whether the RACH/FACH response time had been considered during the discussions of the rapid DCH initialization. Motorola clarified that paper from earlier WG1 meeting showed that RACH/FACH delays are consistent with the rapid DCH initialization. Motorola will write a response to WG2 to be handled in plenary.

The meeting ended at 11:30 P.M.

Appendix A

Proposed AH14 agenda Thursday October 14, 1999

3. Approve agenda
4. Receive contributions
5. Issues related to other Ad-Hocs or WGs
 - CRs related to CPCH from WG2
 - CPCH Power Control preamble (AH9)
Tdoc H02 & H03 Philips, Nokia

6. CPCH contributions

4a. Channel Assignment

R1-99f49 Enhanced CPCH with Channel Assignment, SAMSUNG and Philips

R1-99f50 Text proposal for Channel Assignment in CPCH, SAMSUNG and Philips

Samsung H14: Advantages of Channel Assignment for CPCH

Samsung H15: Performance Evaluation of CPCH

4b. Monitoring-related contributions

R1-99G71 LGIC: Status monitoring text proposal

R1-99f11 CPCH Simulations to support use of idle-aich, GBT (not treated)

R1-99f44 Idle Aich for CPCH, GBT

R1-99G68 Comparison contribution, GBT

R1-99H16 Status information for CPCH assignment, Samsung

4c. Other CPCH contributions

R1-99G69 & G70 LGIC: Secondary collision detection

R1-99820 Improved performance and downlink code use for CPCH

R1-99b39 Benefits of packet header for CPCH
R1-99b40 Dynamic Allocation of AP Signatures for CPCH
R1-99f45 Firm Handover for CPCH (Resubmission)

7. Liaison

WG2 liaison (F70) + H04 from Philips

8. Other business

9. Closing