TSG-RAN Working Group1 meeting #7
30 August – 3 September 1999
Hanover, Germany

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Agenda Item: **15**

Source: **Ad Hoc 3**

Title: **Report of the Ad Hoc 3 meeting**

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1. Introduction

This document summarises conclusions in Physical Ad Hoc 3 meeting on day two morning.

2. Discussed Items

2.1. Incoming liaisons

R1-99c41 LS answering WG1's comments on 25.302 (R2)
Conclusions
AH3 accepted "Simultaneous AICH and SCCPCH" described in bullet #1 of c41. Ericsson made a LS to WG2 and it was accepted in AH3. Bullet #2 and #3 in c41 should be discussed in AH4.

R1-99c44 LS on status of the work on RACH model (R2)
Conclusions
AH3 did not find any serious problem concerning the efficiency of RACH partitioning into access slots. Nortel and Nokia will make a LS to WG2 and it will be presented in R1 plenary.

2.2. RACH preamble part structure

R1-99a85 Comments on RACH preamble design (Lucent)
R1-99c28 Clarifications on Golay-Hadamard Sequence Based RACH Preamble (Nortel)
R1-99c49 Additional performance results for Golay-Hadamard preamble sequences (Nortel)
Discussion
Advantage of Nortel proposal was not clear from complexity point of view. It was also unclear that performance of Nortel proposal is similar to the current scrambling code structure, described in 25.213, because the performance investigation results are different between Lucent and Nortel. There were some comments that this issue should be concluded in this R1 meeting toward not only WA but also agreement in R1.
Conclusins
AH3 concluded that the current scrambling code structure, described in 25.213, should be agreement of R1.

2.3. RACH message part structure

R1-99b19 Text proposal for RACH channelization code allocation (Ericsson)
Conclusions
AH3 accepted this text proposal.

2.4. AICH structure

R1-99a94 Text proposal for AICH codewords (Motorola)
Conclusions
AH3 accepted this text proposal.

R1-99b44 Modification to AICH – updated (Philips)
Discussions
Philips explained that performance degradation caused by use of QPSK modulation is not so serious. There were negative opinions that power usage for the high power channel should be considered and that advantage of OVSF code usage is not so effective in realistic system.
Conclusions
The proposal was withdrawn. Current scheme, SF=256 and BPSK, is kept in the specification.

2.5. Access slot structure

R1-99b83 Small modification to available PRACH/AICH access slots (Nokia)
Conclusions
AH3 accepted this text proposal.

R1-99b84 Liaison statement on available PRACH/AICH access slots (Nokia)
Conclusions
Nokia and Nortel will revise this LS according to R1-99c50. The revised LS will be presented it in R1 plenary.

R1-99c50 Method to provide RACH partitioning using access slots, compatible with sub channel approach (Nortel)
Conclusions
Concept of this proposal was accepted in AH3. However, it was needed to revise text proposal. Nortel will revise this text proposal in corporation with Nokia, and present it in R1 plenary.

2.6. Other RACH-related contributions

R1-99b82 Comparison of RACH and AMR speech coverage (Nokia)
Discussion
Nokia pointed out an issue on RACH coverage compared with that of AMR speech and proposed to change the minimum payload size for RACH to 12 octs as a solution of this issue. There were some objections to change the payload size because it is expected that this change will confuse WG2 activity. And there were some comments that it is needed to check calculation results on coverage described in R1-99b82.
Conclusions
AH3 concluded not to change the payload size for RACH. However, it was noted that this issue is very important. AH3 will check the calculation results on coverage described in R1-99b82 and will discuss another solution on the reflector.

R1-99xxx Text Proposal for Dynamic Persistence Part of the RACH Procedure (Motorola)
Conclusions
Concept of this proposal was accepted. Text proposal had been unclear, and Motorola revised it in the meeting. The revised text proposal was accepted in AH3.

2.7. Additional open issues to be discussed in R1 (Many companies)

R1-99c03 Additional open issues to be discussed in R1

#	Open issues	Status before this AH3 meeting	Results of this meeting
4	RACH: The details of preamble spreading are not clear.	The preamble structure of R1-99893 was accepted. The scrambling scheme of	Concluded as stated in section 2.2

		R1-99893 is WA. R1-99990 is FFS.	
5	RACH: How is the scramble code phase of a message part defined, based on the frame boundary or the head of the access slot?	Depends on Item #4.	Motorola will make a text proposal and present it in R1 plenary.
7	Whether UE needs to receive AICH and FACH from plural Node Bs simultaneously or not, in order to decide the best UL BTS at the initial transmission of RACH and CPCH.		Motorola withdrewed this proposal.
(6)	RACH: What's the relation of the TX powers between the preamble and the message parts?	Open item #15 of AH09 (R1-99a09).	DoCoMo will make a text proposal and present it in R1 plenary to clarify that this is a parameter informed from UTRAN to UE. Ericsson will contribute exact value of this parameter in the next R1 meeting.
	RACH: What's the range and step of P_0 and P_1 for preamble power ramping?	Open item #13 of AH09 (R1-99a09).	Ericsson will contribute exact value of this parameter in the next R1 meeting.

2.8. Comments on the reflector

(1) Value of Preamble_Retrans_Max
In section 6 of 25.214, Preamble_Retrans_Max is described. However, the value of this parameter is not determined. I hope this value will be determined in WG1#7.
Conclusions
This issue will be discussed on the AH3 reflector after WG1#7.

(2) TTI of RACH
I cannot find any description on TTI for RACH. I assume TTI for RACH is 10 ms only because;
- It seems to be complicated for node B to detect transport blocks which has TTI of longer than 10 ms. At least, I cannot find any description of the longer TTI in L1 specifications.
- RACH which has longer TTI than 10ms seems to be similar to CPCH. We do not need similar functions in a system. If my assumption is correct, I hope this is described in the specifications, clearly.
Conclusions
This issue is related to the issue of RACH coverage. This issue will be discussed on the AH3 reflector after WG1#7.

(3) RACHs multiplexing in a radio frame of PRACH
I assume that RACH transport channels are not multiplexed in a radio frame of PRACH, because there is no requirement for it. If my assumption is correct, I hope this is described in the specifications, clearly.
Conclusions
This issue should be discussed in AH4.

(4) Scrambling code for the message part
The text of Section 4.3.3.5 in TS 25.213 V2.1.2 is inconsistent. I recognize that the scrambling scheme has not been fixed yet. But, I think we at least agreed that the scrambling codes are different from those of the uplink DPCH. Then, how about the following sentences?
"The scrambling code ... has a one-to-one correspondence to the spreading code used for the preamble part."
"The scrambling codes used are from the same set of codes as is used for the other dedicated uplink channels ..."

"The first 256 of the long scrambling codes are used ..."
"The generation of these codes is explained in Section 4.3.2.2."
"The mapping of these codes ... is also the same as for the other dedicated uplink channels and is described in Section 4.3.2."

I hope the proponents review the text again.

Conclusions

This issue has been concluded.

(5) I also have another comment on 25.214, section 6. On bullet 7.1 the following is stated: "The selection scheme of this new access slot is TBD". However, as far as I understand, the 2nd and 3rd sentence of the same paragraph actually describes the selection scheme, i.e. ythe next available access slot, taking into account the 3/4 otpion. Furthermore, I see no reasons why this should not be a good selection scheme. Consequently, I would propose that the last sentence of 7.1 is erased. Comments?

Conclusions

This issue will be discussed on the AH3 reflector after WG1#7.