TSGR1#9(99)j06

TSG-RAN Working Group 1 meeting #9 Dresden, Germany

November 30 - December 3, 1999

Agenda Item: Ad Hoc 8

Source: Siemens

To: RAN WG2, RAN WG4

Title: Draft response to WG2 LS on GSM measurement abilities for the UE

(R1#9(99)i25)

Document for: Discussion and Approval

RAN WG1 thanks RAN WG2 for the response to the liaison on GSM measurement abilities for the UE [2]. WG1 would like to provide some further information to the subject of reading the BSIC of the GSM frequency that is requested to be measured.

RAN WG2 mentioned, they discussed a proposal that the UTRAN should be able to control whether or not the UE shall read the BSIC of the GSM frequency that is requested to be measured.

WG1 is discussing a method for the GSM cell reconfirmation procedure that avoids reading the BSIC from the SCH, allowing more flexibility and shorter transmission gaps. This method is based on observing the training sequence of the Normal Burst of the downlink GSM broadcast and common control channel. It not only provides a power measurement but also an updated time difference to cell and quality estimate.

By selecting either Normal Burst or SCH for GSM cell reconfirmation upper layers can adapt the reconfirmation process to the specific needs and thus minimise the impact of compressed mode.

This method using the Normal Burst for the GSM cell reconfirmation was already approved at the TSG RAN WG1#8 meeting in New York as an optional method. But the change was not implemented yet, since the corresponding section A.2.3.4 of TS 25.215 has been deleted in response to the request from WG2 to move it into TS 25.922 - RRM strategies.

Please refer to the Appendix for the text proposal.

References:

- [1] TSGR1#7(99)A81; Hannover, Germany; 9-1999; Siemens; Method and Algorithm for the GSM cell reconfirmation
- [2] TSGR1#9(99)i25; Dresden, Germany; 11-1999; Response to liaison on GSM measurement abilities for the UE

Appendix: Text proposal for Changes to TS 25.215 V3.0.0

A.2.3.4: Setting of compressed mode parameters for SCH decoding for GSM cell reconfirmation BSIC reconfirmation and procedure at the UE

In this paragraph it is assumed that the UE has successfully decoded one SCH burst of a given neighbouring GSM cell during the call.

There are two possible methods for the GSM cell reconfirmation:

- SCH decoding for BSIC reconfirmation
- Using the normal burst of the GSM broadcast and common control channel

When a compressed mode pattern is available, then it is up to the UE to trigger and perform the <u>BSIC_GSM cell</u> reconfirmation procedure with the available transmission gaps. In this case, no specific signalling is needed between the UE and the UTRAN for <u>GSM cellBSIC</u> reconfirmation procedure.

When no compressed mode pattern is available then it is up to the UE to trigger and perform the <u>GSM cellBSIC</u> reconfirmation procedure. In that case, UE indicates to the upper layers the schedule of the SCH burst of that cell, and the size of the necessary transmission gap necessary to capture one SCH burst. The Network Operator decides the target time for <u>BSIC-GSM cell</u> reconfirmation and the upper layers uses this and the schedule indicated by the UE to determine the appropriate compressed mode parameters.

The compressed mode parameters for GSM cell reconfirmation are: shall be one of those described in section 8.2.3.3.

<u>TGL</u>	<u>SFN</u>	<u>SN</u>	GSM cell reconfirmation
			method
4	(calculated by	(calculated by	SCH*
	<u>UTRAN)</u>	<u>UTRAN)</u>	
<u>3</u>	(calculated by	(calculated by	Normal Burst**
	<u>UTRAN)</u>	<u>UTRAN)</u>	

^{*} Note, this TGL is in some special relative timing cases not always sufficient for the SCH method

^{**} Note, this TGL is in some special relative timing cases not always sufficient for the normal burst method