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**Liaison To** : TSG-S4  
**Copy** : TSG-R2, TSG-R3, TSG-R4  
**From** : TSG-R1  
**Title** : **Liaison statement on requirements for fast switching between AMR modes**

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RAN WG1 would like to thank SA WG4 for their liaison statement on Support of Speech Service in RAN (R1-99e51, S4-99279). RAN WG1 noted the comments from SA4 on the signalling for AMR mode adaptation.

RAN WG1 understands that the mode changes resulting from capacity adaptation and load are expected to be relatively infrequent and would not require fast signalling. However scenarios where a UTRA UE is in tandem Free operation with a GSM Mobile some fast signalling would be required so that e.g. the uplink mode on the UTRA side be changed quickly as a result of the downlink mode change in GSM and the other way round. RAN WG1 is not fully clear though as to whether fast adaptation is required in other scenarios. Is it the understanding of SA4 that fast mode is not required in UE-UE or UE- circuit switched situations, considering that the fast closed loop power control overcomes channel and interference conditions variations both in FDD and TDD. RAN WG1 is not fully sure to understand the sentence in the received liaison *"The scenarios which should be taken into account include also the case of UE - UE or UE - MS in GSM. In these cases the UTRAN signalling mechanism must be able to fully inter-operate with the symmetric in-band control used by GSM for rate adaptation."* Could SA4 clarify what is meant by UTRAN signalling must be able to inter-operate with the symmetric in-band control used by GSM ?

RAN WG1 would like to get some information on typical requirements for the AMR mode signalling in terms of the number of bits for the command, transmission delay and Block Error Rate. It is the understanding of RAN WG1 that this AMR mode fast signalling would be conveyed onto a separate transport channel configured by Higher layers. However RAN WG1 is currently discussing whether the currently defined channel coding schemes and mapping onto the air interface are appropriate or whether they need to be complemented by additional ones. So RAN WG1 would greatly appreciate further information on the fast signalling.

Considering the Tandem free operation between UTRA and GSM, RAN WG1 would like to know whether it possible to have prior knowledge of the presence of a Tandem free operation when configuring the transport format combination set. This would allow of avoid configurations with fast signalling, when not needed. However it is the understanding of RAN WG1 that this depends on whether Tandem Free operation relies on in-band or out-of band signalling.