

Source : Siemens
Title : Clarification on Liaison statement on UTRAN BER measurement
To : TSG RAN WG2, WG3 & WG4

The liaison statement attached below was sent out by WG1 during its 11th meeting. Concerns were raised in other groups about the applicability of this LS for TDD.

WG1 wants to clarify, that the technical concept described below is applicable to TDD as well. A similar CR as the one for 25.215 attached to the original LS is necessary and will be issued for 25.225 soon.

Original liaison statement:

During its 11th meeting, RAN WG1 agreed on the principles in TSGR1#11(00)0215, "CR 25.215-037 Uplink transport channel BER", which updates the definitions for the UTRAN BER measurement. The CR is attached to this liaison.

Until now the reference point in the multiplexing chain for the BER measurement has not been defined clearly. The agreed CR defines the reference point and defines that there are two separate measurements:

- Transport channel BER, which is measured on DPDCH after RL combination. The measurement is done from the data considering only non-punctured bits at the input of the channel decoder in Node B. This measurement used to be called "Physical channel BER, type 1".
- Physical channel BER, which is measured on DPCCH after RL combination. This measurement used to be called "Physical channel BER, type 2".

The reason for the change into Transport channel BER, is to reduce the complexity of the BER measurement on DPDCH. In order to calculate raw BER estimate one needs to first decode the received bits, re-encode these bits and compare the re-encoded bits to the received bits. The further down one needs to go in the multiplexing chain to do this comparison the more complex the measurement becomes. Hence, it is easier to do measure the BER at the input of the channel decoder, after rate-matching, compared to do it on the raw channel bits before rate-matching. At the proposed new reference point, the measurement becomes transport channel dependent since rate matching may be different for different transport channels, hence the proposed name change.

RAN WG1 kindly asks RAN WG2, WG3 & WG4 to include this change into their relevant specifications.

Although no CR has been presented yet, a similar approach is expected for TDD.