

Source : RAN WG1
Title : Liaison Statement on UTRAN SIR measurement
To : RAN WG2, RAN WG4
Cc : RAN WG3
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RAN WG1 would like to inform RAN WG2 , WG3 and WG4 about the corrections that were made to the definition of UTRAN SIR measurement during WG1 #15 meeting. The approved CR, contained in tdoc R1-00-1028, is attached to this LS.

Two clarifications were made to the UTRAN SIR measurement definition:

- 1) It was clarified that the RSCP measurement is an unbiased measurement.

The reasoning for this clarification was following:

There are commonly known to be two main categories of signal estimation methods : biased and unbiased methods. Biased measurement means that the average value of the measurement is not correct. This is due to the fact that each allocated RAKE finger collects noise + interference to the RSCP. Unbiased measurement means that the bias is estimated and removed from the RSCP. This is possible, since it is known how many fingers have been allocated. All the NodeB's should use the same kind of SIR measurement method, otherwise the performance optimisation becomes impossible in soft handover. Unbiased measurement allows e.g. a correct estimation of the uplink loading based on the correct SIR measurement values. The unbiased measurement also makes sure that in soft handover approximately the same SIR target in outer loop is used by all NodeB's.

Since it is a common knowledge to categorise the signal estimation methods into two categories: biased and unbiased it was felt that the term "unbiased" should give a clear enough definition, what the measurement should be like. However, since "unbiased measurement" when performed under various channel condition may incur different estimation error it might be beneficial to specify an allowed error (bias) in the estimation. This could be discussed further in WG4.

Since WG4 will define the accuracy requirements for this measurement, WG1 of course welcomes any further comments or questions on this issue from WG4.

- 2) The following sentence was deleted from the definition of the ISCP : "Only the non-orthogonal part of the interference is included in the measurement".

The reasoning for this clarification was following:

It was felt that since the feature of USTS (=Uplink synchronous transmission scheme), which proposes to create orthogonality also in uplink, is not included in Release99, and is only just a study item in release 00, this sentence is not needed in release99 specifications. It might just lead into some misunderstandings.

RAN WG1 kindly asks RAN WG2, WG3 and WG4 to update their relevant specifications according to these changes.