

Source: **WG3**
To: **RAN WG2, RAN WG1**
CC: **RAN WG4**
Title: **Eb/N0 range**

During R3#8, the usage of UL and DL Eb/N0 parameters over lur was discussed in more detail.

Two questions were risen on which WG3 would kindly like to request input from WG1/WG2.

1. DL Eb/N0 range

In the UL, R3 has considered the mapping of the (TFCS,BLER) to initial UL Eb/N0 target and UL Eb/N0 range to be cell specific. The mapping is assumed to be dependant on node-B/cell characteristics as well as environment characteristics. Therefore R3 agreed on a solution in which at each RL establishment the DRNC provides the UL Eb/N0 range for this RL to the SRNC. When setting the target for the UL innerloop power control, the SRNC shall take all ranges received for the different RL's into account.

As far as WG3 is aware, WG2 does not provide the possibility to update the DL Eb/N0 range when updating the active-set. It seems to be considered a UTRAN level setting. Therefore WG3 has taken as a working assumption that the SRNC can determine the DL Eb/N0 range and needs no information from the cell where the UE is camping or the DRNC concerning this setting.

WG3 would like to ask WG2 to confirm that WG3 has the correct understanding of WG2's intentions, or to indicate where it has to be adapted. If the DL Eb/N0 is cell specific, this will mean that the UE has to be informed about the new setting e.g. at every soft handover.

2. Eb/N0 range minimum

Currently WG3 has assumed that the UL innerloop power control is limited by an Eb/N0 range which is specified by a UL Eb/N0 minimum and UL Eb/N0 maximum. Also WG2 current assumes (25.331:Downlink DPCH power control information) that both a maximum and minimum Eb/N0 have to be indicated to the UE.

During R3#8, it was questioned why there is a limitation on the lower boundary of Eb/N0 target, and it is not sufficient to consider the range to be 0..Max Eb/N0 ?