

Source: Rapporteur
Title: Study item: Re-introduction of the downlink SIR measurement
Agenda Item: 9.9.8
Document for: Decision

1. INTRODUCTION

In the Stockholm RAN plenary meeting #12 in June 2001 the study item regarding "*Re-introduction of the downlink SIR measurement*" was approved. The Study Item completion date is by September 2001 (RAN #13).

The reason behind the measurement was that some operators want a fast physical measurement showing the received quality in the UE.

2. PRESENTED CONTRIBUTIONS

In the RAN WG4 meeting #18 in Berlin two contributions regarding this study item were presented,

~~/~~ R4-010895: *Discussion on SIR measurement* by Ericsson and

~~/~~ R4-011013: Consideration on the introduction of the SIR measurement in the downlink by TIM/ Telecom Italia Lab, Telefonica, Blu, One2One.

In the first document, R4-010895, pros and cons of the measurement were discussed and the conclusion was that more results were needed both from operators and terminal vendors before an evaluation could be performed.

In document R4-011013 the operators discussed some areas where the SIR measurement can be used. The areas discussed was Radio network optimization., to measure "reserved" capacity in network and that a faster physical measurement than the BLER measurement can be useful.

During RAN WG4 meeting #19 in Edinburgh one further contribution was presented,

~~/~~ R4-011203 *Discussion on the re-introduction of SIR measurement* by Nokia

In this document simulation results were presented showing that the SIR measurement with a short measurement period can not be used. With 200 ms averaging period however the results seemed to be more feasible. In the discussion after the presentation of the contribution it was suggested from TILAB that the SIR measurement, or if any alternative measurement is more feasible, would be very useful from the operators point of view.

3. Conclusion

In the documents presented above, no quantified results showing the need of the SIR measurement are shown. Neither is any analysis of the complexity, performance or any other drawbacks of a measurement with relatively long averaging period presented. During the last RAN WG4 meeting no conclusion on the continuation of the study item was discussed.

Therefore it is proposed by the rapporteur to postpone the completion date for the study item "*Re-introduction of the downlink SIR measurement*" until next RAN meeting #14 in December 2001. Thereby there is time to present more thorough studies on the advantages and disadvantages of adding the downlink SIR measurement.

References

- [1] R4-010895, "Discussion on SIR Measurement", Ericsson
- [2] R4-011013, "Consideration on the reintroduction of the SIR measurement on the Downlink", TIM/ Telecom Italia Lab, Telefonica, Blu, One2One
- [3] R4-011203, "Discussion on the re-introduction of SIR measurement", Nokia