

Agenda item:

Source: Nokia

Title: Dedicated NBAP Measurement Control and Reporting procedures

Document for: Approval

1 Introduction

Dedicated NBAP Measurement reporting procedure accepted for NBAP Specification in the RAN WG3 #5 provides means for flexible radio link specific measurement reporting. However, introduced procedure has also drawbacks and thus this contribution proposes modifications to the [1].

2 Rationale

Given justification for the radio link specific measurement control was possibility to reduce Iub load, as fewer measurements have to be sent. Radio link specific measurement control was also considered more future proof solution.

Radio link specific measurement control may reduce amount of measurement reports in some cases, but it also increases amount of required control signaling. The radio reporting is needed e.g. each time the UE enters soft HO and respectively the reporting may be switched off when leaving soft HO. That kind of functionality is required to be carried out very often and thus it is not obvious that radio link specific measurement control actually reduces the Iub load. Each time radio links are being modified, also reporting must be adjusted accordingly. Amount of increased signaling overhead may easily cancel out capacity saved by the unsent measurement reports.

At the BS side the fully separate reporting control for each radio link consumes relatively much processing resources while it is not really necessary as long as RNC receives all required measurements. From the RNC point of view additional measurements are not a problem, because they can be always discarded.

Even if the RNC has possibility to triggered reporting on a radio link basis, separate measurement reports for each radio link are not required. More efficient solution is to combine all radio link specific reports to a one message that is e.g. periodically transmitted by the Dedicated NBAP.

Possibility to introduce other measurements in the later phase can be maintained, even if the procedure is modified to overcome above-mentioned problems.

3 Proposal

3.1 Measurement control

Proposal is to introduce two modes for the measurement control: one for Dedicated NBAP specific measurement control and another for RL specific measurement control. Since the latter one is more complex and can be considered procedure for signaling optimization, it is here proposed that it is excluded from the release –99 and included as a study item for the next release.

In the release –99 the *Measurement Object* description in chapter 8.2.6.1 of [1] should be replaced by the following:

Measurement Object: The value of this field shall point out to all radio links of the traffic termination point (all radio link controlled by the Dedicated NBAP).

3.2 Measurement reporting

Proposal is to use one Dedicated Measurement Report message to report all requested measurements for all radio links of the Dedicated NBAP.

In the release –99 the *Value* description in chapter 8.2.6.4 of [1] should be replaced by the following:

CRNC communication context specific reports: This field includes multiple CRNC communication context specific reports, each of the containing CRNC context identifier, Radio link identifier and values for the requested measurements.

4 References

[1] 25.433: NBAP Specification v.1.1.2