3GPP TSG SA WG3 Security — S3#26 **S3-020646**

19 – 22 November 2002

Oxford, UK

Source: **Nokia**

Title: **Securing UTRAN/GERAN IP Transport interfaces and specifically the Iu interface with NDS/IP mechanisms in Rel6**

Document for: **Discussion and approval**

Agenda Item: **7.2**

1. INTRODUCTION

S3-020536 Security need evaluation of UTRAN and GERAN IP transport interfaces discussion paper was presented in SA3#25. This paper evaluated the security need of these interfaces and proposed to have encryption and integrity protection on Iu [1] interface. Also a lower priority proposal was to use integrity checking for control plane interfaces that are IP based, which are namely Iur [2], Iub [3], Iupc [4], Iur-g [5], Iu-BC [6] and Gb [7].

SA3#25 meeting agreed on an working assumption that the RANAP over Iu interface should be encrypted and integrity checked. CRs on this topic were requested. First for the higher priority Iu interface and then for the lower priority Iur, Iub, Iupc, Iur-g, Iu-BC and Gb interfaces.

2. DISCUSSION

TS 33.210 NDS/IP does not need so radical changes, since the considered interfaces can be seen as operator internal Zb interfaces according to 33.210 notation. However, if the Iu interface exists between different operator domains (e.g. network sharing case), then it can be categorized as a Za interface.

It has been found feasible to insert the security protection of UTRAN/GERAN IP transport protocols as an normative Annex of TS 33.210. The respective CR is provided to this SA3 Oxford meeting by Nokia.

Other alternative is to make this reference in the corresponding TSG RAN WG3 specifications, which in this Iu case mean the Iu [1] specification. This could be also reasonable, since it might be more clear to mandate something in the corresponding interface specification.

3.PROPOSAL

The proposal is to either approve the CR to TS 33.210 presented for this SA3#26 meeting by Nokia or to inform TSG RAN WG3 that they should make the relevant reference to TS 33.210 from their Iu [1] specification.

References:

[1] 3GPP TS 25.412 UTRAN Iu interface signalling transport

[2] 3GPP TS 25.422 UTRAN Iur interface signalling transport

[3] 3GPP TS 25.432 UTRAN Iub interface: signalling transport

[4] 3GPP TS 25.452 UTRAN Iupc interface signalling transport

[5] 3GPP TS 43.930 Iur-g interface, Stage-2

[6] 3GPP TS 25.419 UTRAN Iu-BC interface: Service Area Broadcast Protocol (SABP)

[7] 3GPP TS General Packet Radio Service (GPRS); Base Station System (BSS) - Serving GPRS Support Node (SGSN) interface; Gb Interface Layer 1