
Title: Reply LS on security recommendations for the protection of Kc in the Uplink TDOA location method

Response to: GP- 040561

Source: SA3

To: TSG GERAN

Cc: -

Attachments: none.

Contact Person:
Name: Per Christoffersson, TeliaSonera
Tel. Number: +46 705 925 100
E-mail Address: per.christoffersson@teliasonera.com

1 Introduction

SA3 would like to thank GERAN for the LS in GP-040561 "Protection of Kc in the Uplink TDOA location method". SA3 has considered this LS together with a related presentation from TruePosition and Andrew Corporation provided to SA3 in S3-040146.

SA3 has studied the Uplink TDOA method where the Kc is distributed from the SMLC to co-operating LMUs so that bursts from the mobile can be decrypted to enable the location of MS using AMR, increased location accuracy and reduced data volume. SA3's security recommendations for the protection of Kc are described in section 2.

2 Security recommendations for the protection of Kc in the Uplink TDOA location method

Use of the Kc in the Uplink TDOA location method requires protection of the Kc during transport from the SMLC to the LMUs and physical protection of the LMUs.

2.1 Protection of Kc during transport

The Kc must be encrypted during the transport from the SMLC to all LMUs. The SMLC and LMUs must be mutually authenticated. These requirements can be met using, as a minimum, a security mechanism such as the Zb interface of NDS/IP (TS 33.210) or TLS (RFC 2246).

2.2 Physical protection of Kc

The LMU installation must meet, as a minimum, the same physical security requirements as a BTS installation.

3 Summary

It is suggested that additional security measures are needed to compensate for the increased exposure of the Kc as described in Section 2 of this document.

4 Actions for GERAN

GERAN is asked to implement the above security recommendations for the Uplink TDOA method by including them in the appropriate GERAN specification(s).

GERAN is asked to send the related CRs to SA3 for review and endorsement before TSG GERAN final approval for inclusion in the specifications.

5 Next SA3 Meetings

Meeting	Date	Location
SA3 #33	11-14 May 2004	Beijing, China, Samsung
SA3 #34	6-9 July 2004	TBD North American Friends'