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Antwerpen, Belgium

Technical Specification Group Services and System Aspects

TSGS#6(99)622

Meeting #6, Nice, France, 15-17 December 1999

Source: Adhoc group¹ on open R'99 security issues

Title: Way forward for open R'99 security issues

Document for: Approval

During TSG SA#6 it became apparent that the full R'99 security features as defined and specified by SA3 are not fully implemented into the current set of 3GPP specifications. Open issues are:

- MAP security
- Enhanced user identity confidentiality
- Network-wide encryption
- Authentication failure notification

A brief discussion of those four items has led to the following results:

MAP security

This protects the integrity and confidentiality of MAP signalling in the case where both parties in the MAP dialogue support the function. The long term goal is to protect all MAP signalling, and in the short term only protecting MAP signalling carrying sensitive information (e.g. authentication vectors) is required. This needs to be done in a way which is compatible with parties which do not support the MAP security functions or with intermediate parties carrying SS7 signalling traffic and evaluating payload information.

The main contributions for an acceptable R'99 solution are expected from CN2 experts. Due to the circumstances of that ad-hoc meeting Mr. Ian Park could not be contacted, but nevertheless the ad-hoc group is of the firm believe that this gentleman should serve as the initial focal point for this activity.

Enhanced user identity confidentiality

The main contributions for an acceptable R'99 solution are expected from both N1 and N2 experts. Mr. Steffen Habermann is volunteering to propose a solution, and he will serve as the initial focal point for this activity.

Network-wide encryption

The necessary work here is to identify and to prepare all hooks and extensions required in R'99 to allow for a R'00 or later implementation.

Authentication failure notification

¹ Members of the ad-hoc group: M. Kanerva, Nokia; N. Tani, DoCoMo; S. Hayes, Ericsson; Iain Sharp, Nortel; Peter Kobriger, Ericsson; Edouard Issenmann, Alcatel; Peter Howard, Vodafone; Stefan Pütz, T-Mobil; Hans Hauser, T-Mobil.

This feature was broadly considered to be easily achievable within the R'99 timeframe.

The S3 and N2 experts meeting originally scheduled for Jan. 6/7 is now going to take place on Jan. 10/11, either in Darmstadt or in Bonn. It is considered to be very useful to invite in addition N1 experts to that meeting (although there is a N1 plenary in Japan in parallel).

TSG SA#6 has allowed until TSG SA#7 for a final attempt to include the above points into R'99 provided all parties involved are satisfied with the results achieved. Therefore all CRs required to implement these features must be tabled at the respective TSG meetings in March 2000.