3GPP TSG SA WG3 Security — MAP Security ad-hoc

S3z010117

13 September, 2001

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Source: Hutchison 3G UK

Title: SA and Security header

Document for: Discussion/Decision

Agenda Item:

This contribution suggest three modifactions to TS 33.200. The first is to plug a security hole. The other two are to remove redundant data from the security header.

Sending PLMN-Id

The sending PLMN-Id must be included in each SA to bind the SA to the PLMN-Id. It is not enough for the Sending PLMN-Id to be put only in the security header, as any Sending PLMN-Id could be given. If the Sending PLMN-Id is included in the SA, it does not need to be included in the security header of a protected MAP message as it can be obtained by looking in the relevant SA. If it is included in security header, it should be checked against the PLMN-Id given in the SA to ensure it is the correct one. Removing the Sending PLMN-Id from the security header saves 3 bytes on every message sent by MAPsec.

Therefore it is proposed to include the Sending PLMN-Id in the SA. Additionally it is proposed to remove the Sending PLMN-Id from the security header.

Protection Mode 0

TVP, NE-Id and Prop are not used to process a MAP message transmitted with Protection Mode 0. These means there are 14 unused bytes transmitted

Therefore it is proposed to remove TVP, NE-Id and Prop from the security header of Protection Mode 0 messages.