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Title: Integrity protection for SIP messages in the IMS at network or application layer?

Document for: Discussion

Agenda Item: 6.1

Abstract

Due to the situation at the IETF and the state of Annex C of TS 33.102 currently no candidate for an application layer solution for SIP integrity is specified in sufficient detail. It is therefore not possible for 3GPP S3 to assess such a solution at present. On the other hand, the value of having an IMS solution for SIP integrity which is in line with solutions for SIP integrity in other usage scenarios of SIP is recognised. It is therefore suggested that a decision on the alternative whether SIP message integrity in the IMS should be provided at the network or at the application layer is postponed until a specification for an application layer solution for SIP integrity is available in sufficient detail or until 3GPP deadlines force a decision. It is believed that 3GPP S3 should only opt for alternatives it knows and can assess with respect to their suitability for the IMS.

The situation at the last IETF meeting was characterized by the existence of three competing drafts proposing enhancements to the http digest (rfc2617). Currently an activity is under way to come up with a single proposal for an enhanced http digest. No result of this activity has become publicly known, however. It is also not known when such a result will be available.

Annex C of TS 33.203 also contains text describing an application layer solution for SIP integrity. However, as a companion contribution shows, considerably more work would have to be done to advance this text to a specification that can be approved by SA. Furthermore, it is likely that this text will change when the IETF comes up with a new solution.

It is therefore not possible at present for 3GPP S3 to evaluate an application layer solution for SIP integrity with respect to its suitability for the IMS.

The specification of the network layer solution for SIP integrity seems to be relatively stable and complete (according to the humble opinion of the author). However, the value of having the IMS solution for SIP integrity, which is in line with solutions for SIP integrity in other usage scenarios of SIP, is recognised. It is therefore suggested that a decision on the alternative is postponed until a specification for an application layer solution for SIP integrity is available in sufficient detail or until 3GPP deadlines force a decision. It is believed that 3GPP S3 should only opt for alternatives it knows and can assess with respect to their suitability for the IMS.