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Source: SA3

Title: HE initiated cancellation of AV in SN

Document for: Decision

Agenda Item: (tbd)

Introduction

At the recent SA3 meeting in Stockholm there was a joint session between SA3 and TIA TR45 AHAG on harmonization of 3GPP and 3GPP2 security standards. In particular, the two groups discussed how to make 3GPP AKA the common international Authentication and Key Agreement standard for 3G.

During the meeting a few issues was identified that would be advantageous to include in the 3GPP AKA mechanism. In particular, there was identified a need for the HE to be able to cancel Authentication Vectors at the SN.

SA3 therefore asks CN4 to undertake the task of implementing a mechanism for cancellation/revocation of Authentication Vectors for roaming subscribers.

HE initiated revocation of AV in SN

SA3 recognizes the need for the HE to have fine-grained control over the authentication data of roaming subscribers. In particular, there is a need for the HE to be able to cancel the current authentication vectors.

It seems to SA3 that the general mechanisms for deleting subscriber data that is found in TS 29.002 chapter 20.3 "Subscriber Data Management procedures" could be extended to also allow for the Authentication Vectors to be selectively deleted. This seems to be possible to achieve by including the option to delete Authentication Vectors¹ in the MAP-DELETE-SUBSCRIBER-DATA operation.

The deletion order should apply to all Authentication Vectors stored at the SGSN/VLR.

SA3 acknowledges that CN4 may find this approach inappropriate and will of course leave it to CN4 to decide exactly how to implement this mechanism in the MAP specification.

¹ Referred to as Authentication Set or Authentication Quintuple in TS 29.002