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Title:	Lifetime of SA between UE and P-CSCF
Agenda item:	TBD
Document for:	Discussion and Decision

1   Introduction

The current assumption that was agreed in Sydney is that only one SA is needed between the UE and the P-CSCF.

The aim of this contribution is to discuss the need for a separate timer to control the SA lifetime between the UE and the P-CSCF and proposes that no SA lifetime shall be defined for the SA between the UE and the P-CSCF. The decision to re-authenticate is instead based on operator policy applied in the S-CSCF.

2   Discussion

In SIP there exist timers to keep the valid registration time for each address sent in the "contact" header in the registration, i.e. the physical address of the UE. That is, the registration timer is not per IMPU. The registration timers will exist in the UE, P-CSCF and in the S-CSCF. When the UE register the registration timers will be negotiated between the UE, P-CSCF and the S-CSCF. The S-CSCF will be able to decrease or increase the expiration time of the registration and the final value will be sent in the response to the UE. The timer in the UE will be shorter, for the UE to be able to re-register. When the UE re-register the registration timers will be reset. The first register will always cause an authentication to be performed and a SA to be set-up between the UE and the P-CSCF. For each new authentication the SA will be updated. Authentication can only occur together with registrations, i.e. a re-authentication request sent to the UE will cause the UE to re-register.

Chapter 7.1 in TS 33.203 list the "SA lifetime" as a parameter related to the SA that possibly can be negotiated or exchanged.

This contribution proposes that there is no need for a separate timer to control the handling of SA lifetime for the SA between the UE and the P-CSCF if the following is applied:

- The S-CSCF will align the expiration of subsequent registrations with any existing registration timer
- The SA is lost if the registration timer expires in the P-CSCF or in the S-CSCF
- The decision to perform authentication on a registration is done based on operator policy in the S-CSCF and could be triggered by an external event
- The S-CSCF can at any time request the UE to initiate a re-registration that will lead to an authentication

3   Proposal

It is proposed that the TS 33.203 is modified to reflect that:
- There is no need to have any additional SA lifetime in the UE or in the P-CSCF
- The decision to initiate authentication can be done internally in the entity that initiates the authentication. The decision can be based on operator policy or triggered by an external event