

**Title:** LS on registration and SA lifetimes

**Response to:**

**Source:** SA3

**To:** CN1

**Cc:**

**Contact Person:**

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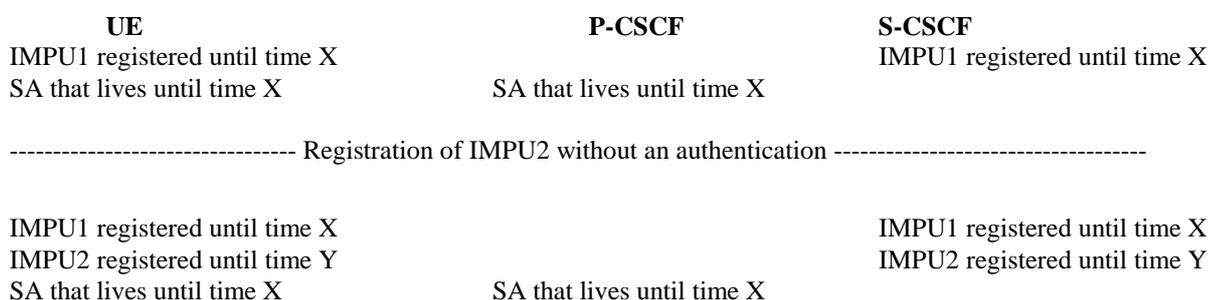
**Attachments:**

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### 1. Overall Description:

Every successful registration including an authentication sets up a new security association. SA3 have been using the expiry time of the registration to set the lifetime of the SA. SA3 have identified the below problem with registration without an authentication.

Suppose a subscriber has already registered IMPU1 until time X and the P-CSCF and UE contain a corresponding SA that will also expiry at time X. The subscriber then tries to register IMPU2. The S-CSCF accepts this registration attempt without an authentication and sets the registration of IMPU2 to expire at time Y (see below diagram).



If Y is later than X, then the SA will expire before the registration and a registered IMPU could become unreachable.

SA3 believes that the best way to avoid this problem is to apply the following rule;

For registrations without an authentication, the expiry timer of the registration shall be set to no longer than the longest remaining time of all the currently registered IMPUs for that IMPI.

If it is wished to register the IMPU for longer than the limit in the rule, it can be done by performing a user authentication and setting up a new pair of SAs.

An alternative that was considered was to increase the lifetime of the SA based on the expiry timer of the registration. This was rejected on security grounds, as it was felt inappropriate to continually increase the lifetime of an SA.

### 2. Actions:

**To CN1 group.**

**ACTION:** SA3 asks CN1 to review the above rule and inform SA3 if they have any issues with it.

### 3. Date of Next Meetings:

SA3#25	8 <sup>th</sup> – 11 <sup>th</sup> October 2002	Munich, Germany.
SA3#26	19 <sup>th</sup> – 22 <sup>nd</sup> November 2002	TBC.