Security of the AMF re-allocation study poll

**Background**

The rapporteur (Ericsson) asked the opinion of the SA3 companies in an e-mail to the SA3 reflector on Oct 20, 2021. The e-mail can be found below in this document. The answers to the questions could help companies decide what contributions to submit to the SA3#105e meeting or compromise during the meeting to make progress. The following responses were received.

**Responses**

**Q1) Whether companies would like to continue the study in Rel-18 if no progress is made in November meeting.**

[DT]

DT would prefer to conclude the study at the November meeting and resolve the remaining issues (potential merge of a few different preferred solutions) within the phase of normative work.

[Lenovo]

Lenovo prefers to complete the study by November meeting.

[Ericsson]

Ericsson’s preference is to complete the study in November but would be ok to continue the study in Rel-18 if SA3 would prefer this.

**Q2) For each solution in the study, whether companies support or object to the solution.**

[Lenovo]

If Sharing of NAS security context between initial AMF and reallocated AMF is acceptable in protected manner, then Lenovo supports solution 12, 10 and 9.

If sharing of NAS security context is not acceptable between initial AMF and reallocated AMF, then Lenovo supports solution 4 and certain aspects from solution 1 and 3 (i.e., Rel.17 UE sending AMF reallocation support). Further, if full registration request have to be routed via RAN (based on SA2 LS), then full registration in clear text can be protected using the principle of solution 9,10 and 12 to enable reroute via RAN.

[DT]

* 1. As from security point of view DT doesn’t see any advantage with solutions that:
     1. need NAS security to be shared among the isolated network slices;
     2. require the UE to accept (and process) unprotected NAS message (e.g., authentication request and ID request) after the establishment of a secured NAS connection;

DT won’t (fully) support #1 and #3

DT won’t support (or potentially object to) #2, #5, #8, #9, #10, #11, #12

* 1. In addition, the mandatory NAS SMC run to fetch Requested NSSAI (as clarified in S2-2106686 (response to S3-212124)) rules out solutions that skip NAS SMC run at the initial AMF, thus:

DT won’t support #6 and #7 (in contrast to my earlier statement from the #104e meeting)

* 1. **DT fully supports solution #4**
  2. DT partly supports #1 and #3 to be merged with our preferred solution #4

[Ericsson]

Ericsson supports solutions #2, #9, #10 for the conclusion of the study.

**Request e-mail**

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From: Vlasios Tsiatsis   
Sent: den 20 oktober 2021 14:07  
To: 3GPP\_TSG\_SA\_WG3@LIST.ETSI.ORG  
Subject: [SA3#105e] AMF re-allocation security study poll

*Dear SA3,*

*In the August meeting, in the context of the study of the security of AMF re-allocation there was a fragmentation of support for solutions in the TR 33.864.*

*In my understanding there are a few solutions with a few supporters each and the chairman suggested that I should check as a rapporteur if companies would like to continue the study in Rel-18 or not.*

*As a result I would like to measure again the opinion of SA3 with respect to two questions:*

1. *Whether companies would like to continue the study in Rel-18 if no progress is made in November meeting.*
2. *For each solution in the study, whether companies support or object to the solution.*

*I will collect this information and record the information on the 3GPP portal in the e-mail discussion folder for our common understanding. But of course the information captured in such document would be indicative and not a formal SA3 position and I guess companies may choose not to provide such information. I guess formal SA3 positions/decisions could be given/taken during the November meeting.*

*I would appreciate it if companies could respond to this e-mail directly to me or the exploder about these questions until end of this week (Oct 22).*

*Thank you in advance.*

*Regards,*

*Vlasios - Ericsson*