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.

[China Mobile]

Same as DT’s point of view, CMCC is also like to conclude the study in Nov meeting.

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

[Lenovo]

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).

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.

[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.

[China Mobile]

As mentioned several times, CMCC doesn’t agree any solution requiring NAS context transfer solution, no matter it is direct or indirect, in plain text or encrypted. As a result, CMCC does not agree with solution #2, #9, #10.

In another words, CMCC could be OK with other solutions, but slightly preference on solution #1, #3, #4, and #11. CMCC would like to see any conclusion based on those 4 solutions or potential merged solution.

**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*