**3GPP TSG-SA WG6 Meeting #48-e S6-220626**

**e-meeting, 5th – 14th April 2022 (revision of S6-22xxxx)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.558** | **CR** | **0090** | **rev** | **-** | **Current version:** | **17.3.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Fix S-EAS decided ACR | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | EDGEAPP | | | | |  | ***Date:*** | | | 2022-03-23 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | S-EAS may utilize UE location change event notifications from S-EES to detect ACR need. This is not described in cl.8.8.2.4.  Step 3 textbox in figure 8.8.2.4-1 should include T-EES. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add missing description for EES offered UE location change service to EAS.  Update figure 8.8.2.4-1 for step 3. | | | | | | | | |
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| ***Consequences if not approved:*** | | Incorrect figure and incomplete description. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.8.2.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **N** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **N** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **N** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* First Change \* \* \* \*

#### 8.8.2.4 S-EAS decided ACR scenario

In this scenario, the S-EAS may detect the need of ACR locally or is notified by the S-EES via ACR management notifications or location change notifications. The S-EAS make the decision about whether to perform the ACR, and starts the ACR at a proper time.

Pre-conditions:

1. The S-EAS may depend on the receipt of ACR management events from the S-EES, e.g. "user plane path change" events or "ACR monitoring" events as described in clause 8.6.3, to detect the need for an ACR. The S-EAS may also depend on the receipt of location change notification from the S-EES as described in clause 8.6.2.2.3, to detect the need for an ACR. For the following procedure it is assumed that the S-EAS has subscribed to continuously receive the respective events from the S-EES; and

2. The EEC has subscribed to receive ACR information notifications for target information notification events and ACR complete events from the S-EES, as described in clause 8.8.3.5.2.



Figure 8.8.2.4-1: S-EAS decided ACR

S-EAS decided ACR is outlined with four main phases: detection, decision, execution and clean up.

Phase I: ACR Detection

1. The S-EAS either receives ACR management notifications from source Edge Enabler Sever indicating that ACR may be required ("ACR monitoring" event), or self detects the need for ACR (e.g. upon receipt of a "user plane path change" event or location change notification). If the ACR management notification indicates "ACR monitoring" event, then the notification will also contain the T-EAS information (see clause 8.6.3.2.3). The S-EAS may detect that ACR may be required for an expected or predicted UE location in the future as described in clause 8.8.1.1.

NOTE 1: How the S-EAS self detects the local need for ACR is outside the scope of this specification.

Phase II: ACR Decision

2. The S-EAS makes the decision to perform the ACR

NOTE 2: How the S-EAS determines when to start the ACR is outside the scope of this specification.

Phase III: ACR Execution

3. The S-EAS discovers the T-EAS as described in clause 8.8.3.2. When in step 1 the ACR has been triggered for service continuity planning, then UE Location and Target DNAI values in the Retrieve T-EES procedure contain the expected UE Location and expected Target DNAI. After S-EAS determines the T-EAS to use, the S-EAS may apply the AF traffic influence with the N6 routing information of the T-EAS in the 3GPP Core Network (if applicable).

4. The S-EAS sends selected T-EAS declaration message to S-EES, to inform S-EES the determined T-EAS to use as described in clause 8.8.3.7.

5. If the T-EES is different than the S-EES and the EEC Context at the S-EES is not stale, the S-EES initiates EEC Context Push relocation with the T-EES as described in clause 8.9.2.3. Otherwise, if the T-EES is the same as the S-EES, EEC Context Push relocation is skipped.

6. Based on the T-EAS selection information received from the S-EAS, the S-EES sends the target information notification to the EEC as described in clause 8.8.3.5.3.

7. The S-EAS transfers the application context to the T-EAS selected in step 3. This process is out of scope of the present specification.

When in step 1 the ACR has been triggered for service continuity planning, if the UE does not move to the predicted location, the EEC does not connect to T-EES, the AC does not connect to the T-EAS. Post-ACR Clean up is skipped.

NOTE 3: The S-EAS or T-EAS can further decide to terminate the ACR, and the T-EAS can discard the application context based on information received from EEL and/or other methods (e.g. monitoring the location of the UE). It is up to the implementation of the S-EAS and T-EAS whether and how to make such a decision.

NOTE 4: When in step 1 the ACR has been triggered for service continuity planning, Post-ACR Clean up is performed after the UE moves to the expected location.

Phase IV: Post-ACR clean up

8. The S-EAS sends the ACR status update message to the S-EES as specified in clause 8.8.3.8.

9. The T-EAS sends the ACR status update message to the T-EES as specified in clause 8.8.3.8. If the status indicates a successful ACT, and that the EEC Context relocation procedure was attempted but failed, then the T-EES indicates the failure to the T-EAS with the ACR status update response.

NOTE 5: If the EDGE-3 subscription initialization result indicates failure, then the EAS can perform the required EDGE-3 subscriptions at the T-EES.

NOTE 6: Steps 8 and 9 can occur in any order.

10. If the status in step 8 indicates a successful ACT, the S-EES sends the ACR information notification (ACR complete) message to the EEC to confirm that the ACR has completed as specified in clause 8.8.3.5.3. If the EEC Context relocation procedure was attempted, then the notification includes EEC context relocation status IE, indicating the result of the EEC context relocation procedure. If the EEC context relocation status indicates that the EEC context relocation was not successful, then the EEC may perform the required EDGE-1 operations such as create subscriptions at the T-EES.

\* \* \* End of Changes \* \* \* \*