**3GPP TSG-SA5 Meeting #142-e *S5-222444***

**e-meeting, 4 - 12 April 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **32.255** | **CR** | **draftCR** | **rev** | **-** | **Current version:** | **17.5.0** |  |
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| *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:***  | CHF selection when interaction with two CHFs |
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| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | S5 |
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| ***Work item code:*** | CHROAM |  | ***Date:*** | 2022-03-21 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 canbe 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)* |
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| ***Reason for change:*** | For the roaming local breakout scenario, the visited network V-SMF needs to select two CHF one in the VPLMN and one in the HPLMN. Using PCF or UDM based would not be applicable since that would require interaction with the HPLMNs PCF and UDM, that leaves the NRF and local configuration. Local configuration wouldn’t be feasible since it would require a lot of CHF addresses to be configured in the V-SMF.Using VPLMN id to select H-CHF at home routing is not preferred since this would mean that the H-CHF could change at inter-PLMN change. |
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| ***Summary of change:*** | Addition of CHF selection for roaming local breakout and use removing use of VPLMN id for H-CHF selection. |
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| ***Consequences if not approved:*** | The selection of CHF from the VPLMN will be undefined for local breakout. |
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| ***Clauses affected:*** | 5.1.9.2 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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| **First change** |

#### 5.1.9.2 CHF selection

In roaming, at PDU session establishment, the CHF selection mechanism specified in clause 5.1.8 applies to:

- The V-SMF for V-CHF selection (home routed and local breakout scenario), with the following differences:

- CHF address(es) selection mechanisms based on PCF and UDM are not applicable.

- when charging characteristics is used it will be based on local configuration.

- when NRF is used, the V-CHF can be selected based on the H-PLMN of the UE.

- The V-SMF for H-CHF selection (local breakout scenario), with the following differences:

- CHF address(es) selection mechanisms based on PCF, UDM, and local configuration are not applicable.

- when NRF is used, the H-CHF can be selected based on the H-PLMN of the UE.

- The H-SMF for H-CHF selection (home routed scenario), without any difference.

NOTE: For local breakout scenario the V-CHF correspond to CHF-1 and H-CHF correspond to CHF-2 as per TS 32.290 [57] and interaction with two CHFs.

In roaming, at PDU session V-SMF change, the CHF selection for mechanism specified in clause 5.1.8 applies to:

- intra-PLMN: CHF address(es) supplied by the old V-SMF shall be used.

- inter-PLMN: CHF selection mechanism at PDU session establishment shall be used.

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| **End of changes** |