**3GPP TSG-CT WG4 Meeting #110-eC4-223053v1**

**E-Meeting, 12th – 20th May 2022 was C4-222334, 3053**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
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|  | **29.502** | **CR** | **0549** | **rev** | **3** | **Current version:** | **17.4.0** |  |
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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:***  | Clarification on hoPreparationIndication |
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| ***Source to WG:*** | ZTE |
| ***Source to TSG:*** | CT4 |
|  |  |
| ***Work item code:*** | SBIProtoc17 |  | ***Date:*** | 2022-05-04 |
|  |  |  |  |  |
| ***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 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:*** | In principle, the hoPreparationIndication shall only be present during HO procedure, e.g. EPS to 5GS HO, N2 based HO, etc. And, the hoPreparationIndication=false should be received at the H-SMF/SMF in subsequent step after it receives hoPreparationIndication=true from the V-SMF/I-SMF.If the H-SMF/SMF receives Update request from V-SMF/I-SMF with hoPreparationIndication=false, but there is no hoPreparationIndication=true received in previous steps, it should ignore the hoPreparationIndication. |
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| ***Summary of change:*** | Clarify that for a message sender (i.e. I-SMF/V-SMF) it shall not include hoPreparationIndication=false in other procedures than HO related procedure;Clarify that for a message receiver (i.e. anchor SMF) the H-SMF/SMF should simply ignore the hoPreparationIndication=false. |
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| ***Consequences if not approved:*** | If the anchor SMF receives hoPreparationIndication=false from procedures other than HO procedure, how to handle it is not clearly defined. And such unclear SMF behaviour may introduce issues if I-SMF/V-SMF and anchor SMF are provided by different vendors. |
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| ***Clauses affected:*** | 5.2.2.8.2.1 |
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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 doesn't introduces any change to the OpenAPI files. |
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| ***This CR's revision history:*** | Rev#3:- Clarify the receiver SMF will sliently ignore the hoPreparationIndication with false value if not within HO procedure;- Text improvements.Rev#2:- Clarify the behavior of the message receiving on receiving hoPreparationIndication=false in other procedures than HO procedure;Rev#1:- For the message sender, clarify that the hoPreparationIndication with false value shall be provide in the HsmfUpdateData structure only in the HO related procedures.- For the message receiver, make the receiver behaviour to an Editor’s Note. |

\* \* \* Begin of Changes \* \* \* \*

###### 5.2.2.8.2.1 General

The NF Service Consumer (i.e. the V-SMF for a HR PDU session, or the I-SMF for a PDU session with an I-SMF) shall update a PDU session in the H-SMF or SMF and/or provide the H-SMF or SMF with information received by the NF Service Consumer in N1 SM signalling from the UE, by using the HTTP POST method (modify custom operation) as shown in Figure 5.2.2.8.2-1.



Figure 5.2.2.8.2-1: PDU session update towards H-SMF or SMF

1. The NF Service Consumer shall send a POST request to the resource representing the individual PDU session resource in the H-SMF or SMF. The payload body of the POST request shall contain:

- the requestIndication IE indicating the request type. Unless specified otherwise in clause 5.2.2.8.2, the value of the requestIndication IE shall be set to NW\_REQ\_PDU\_SES\_MOD;

- the modification instructions and/or the information received by the NF Service Consumer in N1 signalling from the UE.

The NF service consumer shall not include the hoPreparationIndication IE with the value "false" in procedures other than handover execution, cancel and failure procedures.

2a. On success, "204 No Content" or "200 OK" shall be returned; in the latter case, the payload body of the POST response shall contain the representation describing the status of the request and/or information necessary for the NF Service Consumer to send N1 SM signalling to the UE.

2b. On failure or redirection, one of the HTTP status code listed in Table 6.1.3.3.3.2-3 shall be returned. For a 4xx/5xx response, the message body shall contain an HsmfUpdateError structure, including:

- a ProblemDetails structure with the "cause" attribute set to one of the application error listed in Table 6.1.3.3.3.2-3;

- the n1SmCause IE with the 5GSM cause the H-SMF or SMF proposes the NF Service Consumer to return to the UE, if the request included n1SmInfoFromUe;

- n1SmInfoToUe binary data, if the H-SMF or SMF needs to return NAS SM information which the NF Service Consumer does not need to interpret;

- the procedure transaction id that was received in the request, if this is a response sent to a UE requested PDU session modification.

If the H-SMF or SMF receives hoPreparationIndciation IE with the value "false" in step 1, while there is no hoPreparationIndication IE set to "true" received in previous steps (see clause 5.2.2.7.1), the H-SMF or SMF should simply ignore the hoPreparationIndication IE with "false" value.

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