**3GPP TSG-CT WG4 Meeting #99eC4-204xxx**

**E-Meeting, 18th – 28th August 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **29.518** | **CR** | **0391** | **rev** | **1** | **Current version:** | **15.7.0** |  |
|  | | | | | | | | |
| *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:*** | Clarification of Registration Status Update for PCF for UE Policy | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | NTT DOCOMO | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GS\_Ph1-CT | | | | |  | ***Date:*** | | | 2020-08-07 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-15 |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | It is unclear what the source AMF and the target AMF have to do, if the target AMF selects a new PCF for UE Policy other than the one which was included in the UeContext by the source AMF.  Considering that AMF selects the same PCF instance for AM policy and for UE policy as described in clause 6.3.7.1, TS 23.501, the existing “pcfReselectedInd” is sufficient to show the judgment of the target AMF, but description needs clarification. | | | | | | | | |
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| ***Summary of change:*** | | To clarify pcfReselectedInd can be used also for the UE policy case. | | | | | | | | |
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| ***Consequences if not approved:*** | | The target AMF cannot select a new PCF for UE Policy other than the one which was included in the UeContext by the source AMF, in case PCF for AM Policy is not used. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2.2.2.2.1, 6.1.6.2.39 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This CR does not impact any OpenAPI specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

---Start of the 1st Change---

5.2.2.2.2.1 General

The RegistrationStatusUpdate service operation is used during the following procedure:

- General Registration procedure (see 3GPP TS 23.502 [3], clause 4.2.2.2.2)

- Registration with AMF re-allocation procedure (see 3GPP TS 23.502 [3], clause 4.2.2.2.3)

The RegistrationStatusUpdate service operation is invoked by a NF Service Consumer, e.g. the target AMF, towards the NF Service Producer, i.e. the source AMF, to update the status of UE registration at the target AMF, thereby indicating the result of previous UE Context transfer for a given UE (see clause 5.2.2.2.1.1).

The target AMF shall update the NF Service Producer (i.e. source AMF) the status of the UE registration at the target AMF due to a previous UE Context transfer. The NF Service Consumer (e.g. target AMF) shall use the HTTP method POST to invoke the "transfer-update" custom operation on the URI of an "Individual ueContext" resource, see clause 6.1.3.2.4. See also Figure 5.2.2.2.2.1-1.

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**Figure 5.2.2.2.2.1-1 Registration Status Update**

1. The NF service consumer (e.g. target AMF), shall send a POST request to invoke the "transfer-update" custom operation on the URI of an "Individual ueContext" resource, to update the source AMF of the status of the UE registration at the target AMF. The UE's 5G-GUTI is included as the UE identity.

If any network slice(s) become no longer available and there are PDU Session(s) associated with them, the target AMF shall include these PDU session(s) in the toReleaseSessionList attribute in the payload.

If the target AMF selects a new PCF for AM Policy and/or UE policy other than the one which was included in the UeContext by the old AMF, the target AMF shall set pcfReselectedInd to true.

NOTE: AMF selects the same PCF instance for AM policy and for UE policy, as described in clause 6.3.7.1, 3GPP TS 23.501 [2].

Once the update is received, the source AMF shall:

- remove the individual ueContext resource and release any PDU session(s) in the toReleaseSessionList attribute, if the transferStatus attribute included in the POST request body is set to "TRANSFERRED". The source AMF may choose to start a timer to supervise the release of the UE context resource and may keep the individual ueContext resource until the timer expires. If the pcfReselectedInd is set to true, the source AMF shall terminate the AM Policy Association and/or the UE Policy Association that the source AMF has to the old PCF.

- shall keep the UE Context as if the context transfer procedure had not happened if the transferStatus attribute included in the POST request body is set to "NOT\_TRANSFERRED".

2a. On Success: The source AMF shall respond with the status code "200 OK" if the request is accepted.

2b. On failure, one of the HTTP status code listed in Table 6.1.3.2.4.5.2-2 shall be returned. For a 4xx/5xx response, the message body shall contain a ProblemDetails structure with the "cause" attribute set to one of the application error listed in Table 6.1.3.2.4.5.2-2, where applicable.

---Start of the 2nd Change---

6.1.6.2.39 Type: UeRegStatusUpdateReqData

**Table 6.1.6.2.39-1: Definition of type UeRegStatusUpdateReqData**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute name** | **Data type** | **P** | **Cardinality** | **Description** |
| transferStatus | UeContextTransferStatus | M | 1 | This IE shall indicate if the previous UE context transfer was completed. |
| toReleaseSessionList | array(PduSessionId) | C | 1..N | This IE shall be present during UE Context Transfer procedure, if there are any PDU session(s) associated with Network Slice(s) which become no longer available.  When present, this IE shall include all the PDU session(s) associated with no longer available S-NSSAI(s). |
| pcfReselectedInd | boolean | C | 0..1 | This IE shall be present and set to true if the target AMF has decided to select a new PCF for AM Policy and/or UE Policy other than the one which was included in the UeContext by the old AMF. |

---End of the Changes---