**3GPP TSG-CT WG3 Meeting #130**

**Xiamen, China, 9 - 13 October, 2023 *(Revision of C3-234xxx)***

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **29.565** | **CR** | **0086** | **rev** | **-** | **Current version:** | **18.3.0** |  |
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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:*** | Reslove the EN about AF requested QoS for a UE or group of UE(s) | | | | | | | | | |
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| ***Source to WG:*** | Huawei, SIA | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | GMEC | | | | |  | ***Date:*** | | | 2023-09-25 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Following EN exists in clause 5.3.2.5.9:  *Editor’s note: Further description and attributes is FFS.*  Stage 2 simply removes the EN without additional requirements for other attributes. Hence, the EN could be removed, and the description of the existing relevant parameters defined in clauses 5.3.2.2.8 and 5.3.2.3.8 could be updated in clause 5.3.2.5.9. | | | | | | | | |
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| ***Summary of change:*** | | Remove the EN in clause 5.3.2.5.9 and add the description of the existing attributes. | | | | | | | | |
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| ***Consequences if not approved:*** | | Open issue is not resolved. | | | | | | | | |
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| ***Clauses affected:*** | | 5.3.2.2.8, 5.3.2.5.9 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

\*\*\* 1st Change \*\*\*

5.3.2.2.8 Initial provisioning of AF requested QoS for a UE or group of UE(s) not identified by UE address

When the "GMEC" feature is supported, if the NF service consumer includes in the HTTP POST request message described in clause 5.3.2.2.2 the targeted UE identified by its GPSI, within the "ueId" attribute, or the targeted group of UE(s) identified by its External Group ID, within the "externalGroupId" attribute, the provisions of clause 5.3.2.2.2 shall apply with the following differences:

- the AF request information may include:

a. the Temporal invalidity conditions, within the "tempInValidity" attribute;

b. the traffic characteristics information, within the "evSubsc" attribute;

c. the QoS parameters for monitoring, within the "tscQosReq" attribute;

d. the QoS parameters, within either the "qosReference" attribute, the "altQosReferences" attribute or the "altQosReqs" attribute; and/or

e. the flow description, within either the "flowInfo" attribute or the "enEthFlowInfo" attribute.

The TSCTSF shall reply to the NF service consumer as described in clause 5.3.2.2.2 with the following differences:

- upon reception of the HTTP request from the NF service consumer, and if the request is authorized, the TSCTSF shall:

- create a new "Individual TSC Application Session Context" resource;

- if the "externalGroupId" attribute is received from the NF service consumer, interact with the UDM to retrieve the list of SUPI(s) identifying the UE(s) constituting the targeted group of UE(s) using the Nudm\_SDM service as defined in 3GPP TS 29.503 [24];

- if the "ueId" attribute is received from the NF service consumer, interact with the UDM to retrieve the SUPI that corresponds to the targeted GPSI using the Nudm\_SDM service as defined in 3GPP TS 29.503 [24];

- use the parameters received from the NF service consumer (i.e., DNN, S-NSSAI and, if available, the identifier of the targeted UE or group of UE(s) to determine the corresponding AF-session(s) (i.e., to which they macth); and

- for each matching AF-session interact with the PCF by invoking the Npcf\_PolicyAuthorization\_Create/Update service operation as defined in 3GPP TS 29.514 [20] to create/update the AF session based on the provided requested QoS parameters; and

NOTE 1: If the PCF determines that an existing PDU Session is potentially impacted by the time synchronization service (based on local configuration or SM Policy Association), the PCF invokes Npcf\_PolicyAuthorization\_Notify service operation towards the TSCTSF as defined in clause 4.2.5.16 of 3GPP TS 29.514 [20] to send the received TSC User Plane Node information. The TSCTSF then retrieves from the BSF the PCF binding information (including the UE Identities for the notified PDU session), as specified in 3GPP TS 29.521 [23], and can create the AF-session by invoking the Npcf\_PolicyAuthorization\_Create service operation towards the PCF.

- the TSCTSF shall handle the AF session(s) associated with a given "Individual TSC Application Session Context" resource as follows:

- For the association of the AF session(s) at the PCF to the "Individual TSC Application Session Context" resource:

a. Upon PDU Session establishment, i.e. when the TSCTSF receives a Npcf\_PolicyAuthorization\_Notify service operation following the establishment of a new PDU session, the TSCTSF shall retrieve from the BSF, as specified in 3GPP TS 29.521 [23], the PCF binding information to complete the necessary AF-Session information. The TSCTSF shall then trigger the Npcf\_PolicyAuthorization\_Create service operation towards the PCF to create an AF-session to subscribe to TSC user plane node related events. The TSCTSF shall use the parameters of the existing "Individual TSC Application Session Context" resources to determine whether they shall be associated to this newly created AF session. The TSCTSF associates the new AF session to the "Individual TSC Application Session Context" resource to which these parameters match.

b. Upon "Individual TSC Application Session Context" resource creation, the TSCTSF uses the parameters of the created resource to determine which existing AF session(s) it matches. The TSCTSF then associates the new "Individual TSC Application Session Context" resource to the corresponding AF session(s).

- To remove an AF session from the list of AF session(s) associated to an "Individual TSC Application Session Context" resource, when the TSCTSF receives the Npcf\_PolicyAuthorization\_Notify service operation from the PCF indicating the termination of the corresponding existing PDU session, the TSCTSF triggers the Npcf\_PolicyAuthorization\_Delete service operation towards the PCF and determines if the corresponding AF session is associated with the "Individual TSC Application Session Context" resource. If it is so, the TSCTSF shall remove the AF session from the list of AF session(s) associated with the "Individual TSC Application Session Context" resource.

NOTE 2: After the TSCTSF retrieves from the BSF the PCF binding information (including the UE Identities for the notified PDU session), as specified in 3GPP TS 29.521 [23], the TSCTSF can store internally the information required to invoke Npcf\_PolicyAuthorization\_Create service operation and delay the Npcf\_PolicyAuthorization\_Create service operation (the creation of the AF session) till a request is received for the concerned UE (time synchronization capability exposure or QoS provisioning request). In this case, when the TSCTSF receives the request, the TSCTSF interacts with the PCF by triggering Npcf\_PolicyAuthorization\_Create service operation as defined in 3GPP TS 29.514 [20].

NOTE 3: When the TSCTSF receives the Npcf\_PolicyAuthorization\_Notify service operation indicating the termination of an existing PDU session associated to an AF session that it is not associated with any "Individual Time Synchronization Exposure Subscription" resource and "Individual TSC Application Session Context resource" resource, the TSCTSF removes the AF-session and triggers the Npcf\_PolicyAuthorization\_Delete service operation towards the PCF.

\*\*\* Next Change \*\*\*

5.3.2.5.9 Notification about AF requested QoS for a UE or group of UE(s) not identified by UE address.

When the TSCTSF receives a notification about the requested QoS, traffic characteristics information and/or QoS Monitoring information from the PCF as described in 3GPP TS 29.514 [20] for an AF-session associated with an existing "Individual TSC Application Session Context" resource, the TSCTSF shall inform the NF service consumer accordingly if the NF service consumer has previously subscribed as described in clauses 5.3.2.2.8 and 5.3.2.3.8.

The TSCTSF shall notify the NF service consumer by including the EventsNotification data type in the body of the HTTP POST request as described in clause 5.3.2.5.2. The TSCTSF notification of the specific events is described in the related clauses of the current specification (e.g. notification about service data flow QoS monitoring when the AF requested QoS for a UE or group of UE(s) is as described in clause 5.3.2.5.7).

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