**3GPP TSG-CT WG3 Meeting #116e C3-213229**

**E-Meeting, 19th – 28th May 2021 (Revision of C3-212486)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **29.522** | **CR** | **0271** | **rev** | **4** | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *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:*** | Update DNN and S-NSSAI in AsSessionWithQoS procedure | | | | | | | | | |
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| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17, 5GS\_Ph1-CT, Vertical\_LAN | | | | |  | ***Date:*** | | | 2021-05-10 |
|  |  | | | |  | |  | | |  |
| ***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 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:*** | | For Ethernet type PDU Session extending to support TSN and 5G LAN, current AsSessionWithQoS API provide only UE MAC address and ethernet flow info, these two attributes are not enough for NEF to discover the serving BSF to find the serving PCF in a dynamic way similar as the one for IP PDU session, since NEF is not able to find the right BSF via NRF by using UE MAC address which is not defined and not effective to be managed like IP Address in NF Registration and Discovery.  Meanwhile TrafficInfluence API already include DNN and S-NSSAI information, in which we can consider for NEF to also add DNN and S-NSSAI of the Ethernet type PDU Session to solve the issue.  TS 23.502 CR 2491 was agreed to introduce DNN and S-NSSAI for AsSessionWithQoS API, not limited to Ethernet PDU Session applicability. | | | | | | | | |
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| ***Summary of change:*** | | Add the AF session corresponding "dnn" attribute , "snssai" attribute in the HTTP POST request. | | | | | | | | |
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| ***Consequences if not approved:*** | | For Ethernet type PDU Session, NEF can not dynamically discovery the corresponding servering BSF for the serving PCF with the AF request information, can not completely support the related application session QoS handling for the Ethernet PDU Session. | | | | | | | | |
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| ***Clauses affected:*** | | 4.4.9 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 23.502 CR 2491 | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
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| ***Other comments:*** | | This CR does not impact the OpenAPI files. | | | | | | | | |
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| ***This CR's revision history:*** | | Updates in CT3#116e for Rev.4: remove the DNN and S-NSSAI description in the EthAsSessionQoS\_5G \_5G feature upon stage 2 DNN and S-NSSAI applicability not limited to Ethernet PDU Session. | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

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

### 4.4.9 Procedures for setting up an AF session with required QoS

The procedures for setting up an AF session with required QoS in 5GS are described in subclause 4.4.13 of 3GPP TS 29.122 [4] with the following differences:

- description of the SCS/AS applies to the AF;

- description of the SCEF applies to the NEF;

- description of the PCRF applies to the PCF;

- the NEF may interact with BSF by using Nbsf\_Management\_Discovery service as defined in 3GPP TS 29.521 [9] to retrieve the PCF address;

- the NEF shall interact with the PCF by using Npcf\_PolicyAuthorization service as defined in 3GPP TS 29.514 [7];

- in the HTTP POST request, the AF may include the AF session subscribed "dnn" attribute and/or "snssai" attribute; and in the HTTP PUT request, the AF shall keep the same subscribed "dnn" attribute and/or "snssai" attribute as set in the HTTP POST request;

- if the EthAsSessionQoS\_5G feature as defined in subclause 5.14.4 of 3GPP TS 29.122 [4] is supported and the request is for Ethernet UE:

- in the HTTP POST/PUT request, the AF shall include the UE MAC address within the "macAddr" attribute instead of the UE IP address and the Ethernet Flow description within the "ethFlowInfo" attribute instead of the IP Flow description;

- in the HTTP PATCH request, the AF may update the Ethernet Flow description within the "ethFlowInfo" attribute;

- if the "QoSMonitoring\_5G" feature as defined in subclause 5.14.4 of 3GPP TS 29.122 [4] is supported, in order to support the QoS Monitoring, the AF shall include "qosMonInfo" attribute. Within the QosMonitoringInformation data structure, the AF shall include:

- one or more requested QoS Monitoring Parameter(s) within the "reqQosMonParams"; and

- one or more report frequency within the "repFreqs" attribute; and

- when the "repFreqs" attribute includes the value "PERIODIC", the reporting period within the "repPeriod" attribute; and

- when the "repFreqs" attribute includes the value "EVENT\_TRIGGERED", the AF shall include:

- the delay threshold for downlink with the "repThreshDl" attribute;

- the delay threshold for uplink with the "repThreshUl" attribute; and/or

- the delay threshold for round trip with the "repThreshRp" attribute; and

- the minimum waiting time between subsequent reports within the "waitTime" attribute.

- when the NEF receives the event notification as defined in subclause 4.2.2 of 3GPP TS 29.508 [26] or subclause 4.2.5.14 of 3GPP TS 29.514 [7], the NEF shall include one or more QoS monitoring reports within the "qosMonReports" attribute. Within the QosMonitoringReport data structure, the NEF shall include:

- one or two uplink packet delays within the "ulDelays" attribute;

- one or two downlink packet delays within the "dlDelays" attribute; and/or

- one or two round trip packet delays within the "rtDelays" attribute; and

- if the "AlternativeQoS\_5G" feature is supported, the AF may include an ordered list of QoS references within the "altQosReferences" attribute. The NEF shall transfer them to the PCF in the Npcf\_PolicyAuthorization service. The NEF shall also subscribe to PCF events "QOS\_NOTIF" and "SUCCESSFUL\_RESOURCES\_ALLOCATION" in the Npcf\_PolicyAuthorization service. When the NEF receives the notification of PCF event "QOS\_NOTIF", it shall notify the AF with "QOS\_GUARANTEED" event; or "QOS\_NOT\_GUARANTEED" event with the currently applied QoS reference or the indication that the lowest priority Alternative QoS parameter set cannot be fulfilled. When the NEF receives the notification of PCF event "SUCCESSFUL\_RESOURCES\_ALLOCATION", it shall notify the AF the event together with the currently applied QoS reference if received.

NOTE: Based on the operator configuration, the QoS reference identifiers received from the AF can be the same or different as the QoS reference identifiers known at the PCF. The NEF can perform a mapping for the QoS reference identifier.

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