**3GPP TSG-CT WG3 Meeting #108-eC3-201096**

[**E-Meeting**](https://www.3gpp.org/ftp/tsg_ct/WG3_interworking_ex-CN3/TSGC3_108_Sophia_Antipolis/)**, 19th -28th February 2020 (Revision of C3-201xyz)**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **29.522** | **CR** | **0119** | **rev** | **-** | **Current version:** | **16.2.0** |  |
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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:*** | Update of the Availability after DDN Failure event | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_CIOT | | | | |  | ***Date:*** | | | 2020-02-28 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | 1. Stage 2 agrees that multiple traffic filters can be provided by the AF. 2. It is proposed to support the update of the subscription. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. The identifier(s) of the downlink data descriptors impacted by the downlink data delivery status change is included in the notification. Remove the editor’s node. 2. Define the update procedure to support Availability after DDN Failure event. | | | | | | | | |
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| ***Consequences if not approved:*** | | The Availability after DDN Failure event is not supported. | | | | | | | | |
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| ***Clauses affected:*** | | 4.4.2 | | | | | | | | |
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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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | This CR does not impact the OpenAPI file. | | | | | | | | |

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

### 4.4.2 Procedures for Monitoring

The procedures for monitoring as described in subclause 4.4.2 of 3GPP TS 29.122 [4] shall be applicable in 5GS with the following differences:

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

- description of the SCEF applies to the NEF;

- description of the HSS applies to the UDM, and the NEF shall interact with the UDM by using Nudm\_EventExposure service as defined in 3GPP TS 29.503 [17];

- description of the MME/SGSN applies to the AMF, and the NEF shall interact with the AMF by using Namf\_EventExposure service as defined in 3GPP TS 29.518 [18];

- description about the PCRF is not applicable.

- description about the change of IMSI-IMEI(SV) association monitoring event applies to the change of SUPI-PEI association monitoring event; and

- when sending the UDM/AMF event report to the AF, the NEF may store the event data in the report in the UDR as part of the data for exposure as specified in 3GPP TS 29.519 [23] by using Nudr\_DataRepository service as specified in 3GPP TS 29.504 [20].

- If the "Downlink\_data\_delivery\_status\_5G" as defined in subclause 5.3.4 of 3GPP TS 29.122 [4] is supported, in order to support the downlink data delivery status notification,

- the AF shall send an HTTP POST message to the NEF to the resource "Monitoring Event Subscriptions" as defined in 5.3.3.2 of 3GPP TS 29.122 [4] with the following difference:

- within the MonitoringEventSubscription data structure the AF may additionally include packet filter descriptions within the "dddTraDes" attribute and the list of monitoring downlink data delivery status event(s) within the "dddStati" attribute;

- the NEF shall subscribe the events to the appropriate UDM(s) within the network by invoking the Nudm\_EventExposure\_Subscribe service operation as defined in subclause 5.5.2.2 of 3GPP TS 29.503 [17].

Editor's note: It is FFS whether the update of the subscription is supported.

Editor's note: references of TS 29.503 need to be updated later.

- when the NEF receives the event notification as defined in subclause 4.4.2 of 3GPP TS 29.508 [26], the NEF shall send an HTTP POST message to the AF as defined in subclause 4.4.2.3 of 3GPP TS 29.122 [4] with the difference that within each MonitoringEventReport data structure, the NEF shall include:

- the downlink data delivery status within the "dddStatus" attribute;

- the estimated buffering time within the "maxWaitTime" attribute if the downlink data delivery status is set to "BUFFERED";

Editor´s note: If multiple traffic filters are permissable in the subscription, Flow IDs may be required.

- If the "Availability\_after\_DDN\_failure\_notification\_enhancement" feature as defined in subclause 5.3.4 of 3GPP TS 29.122 [4] is supported, in order to support the availability after DDN failure notification, the AF shall send an HTTP POST message to the NEF to the resource "Monitoring Event Subscriptions" as defined in 5.3.3.2 of 3GPP TS 29.122 [4] for creating an subscription or send an HTTP PUT message to the NEF to the resource "Individual Monitoring Event Subscription" as defined in 5.3.3.3 of 3GPP TS 29.122 [4] for updating the subscription with the difference that within the MonitoringEventSubscription data structure, the AF shall include packet filter descriptions within the "dddTraDescriptors" attribute.

\*\*\* End of Change \*\*\*