**3GPP TSG-CT WG4 Meeting #96eC4-200845**

**E-Meeting, 17th – 28th February 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.503** | **CR** | **0359** | **rev** | **1** | **Current version:** | **16.2.0** |  |
|  | | | | | | | | |
| *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:*** | PDN connectivity Status event | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eNAPI | | | | |  | ***Date:*** | | | 2020-02-07 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | In MonitoringEvent API, event of PDN connectivity status, which should applie for both 4G and 5G. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The revisions are in EventExposure Service including:   1. Add new event type PDN\_CONNECTIVITY\_STATUS in EventType 2. Add new PdnConnectivityStatusReport in Type Report. 3. Add “PDN\_CONNECTIVITY\_STATUS” in discription of attribute eventType and report in MonitoringReport 4. Define new structed type PdnConnectivityStatusReport which is used in Report. 5. Define new Enumeration PdnConnectivityStatus which indicates the Pdn Connectivity Status and NiddMechanism 6. Revise yaml file accordingly. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Exposure of PDN connectivity status will not be supported in 5G | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.4.6.3.3, A.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 will introduce backward compatibilty new feature in in the OpenAPI specification file of Nudm\_EE, Nudr\_DataRepository API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev1:  1., All these changes (except the one in 6.4.6.3.3 and the corresponding change in A.5) are not needed and removed because PDN Connectivity Status is reported by the SMF, not by the UDM, . | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*The start of changes\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.4.6.3.3 Enumeration: EventType

Table 6.4.6.3.3-1: Enumeration EventType

|  |  |
| --- | --- |
| Enumeration value | Description |
| "LOSS\_OF\_CONNECTIVITY" | Loss of connectivity |
| "UE\_REACHABILITY\_FOR\_DATA" | UE reachability for data |
| "UE\_REACHABILITY\_FOR\_SMS" | UE reachability for SMS |
| "LOCATION\_REPORTING" | Location Reporting |
| "CHANGE\_OF\_SUPI\_PEI\_ASSOCIATION" | Change of SUPI-PEI association |
| "ROAMING\_STATUS" | Roaming Status |
| "COMMUNICATION\_FAILURE" | Communication Failure |
| "AVAILABILITY\_AFTER\_DDN\_FAILURE" | Availability after DDN failure |
| "CN\_TYPE\_CHANGE" | CN type change |
| "DL\_DATA\_DELIVERY\_STATUS" | Downlink Data Delivery Status |
| "PDN\_CONNECTIVITY\_STATUS" | PDN\_CONNECTIVITY\_STATUS |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## A.5 Nudm\_EE API

openapi: 3.0.0

\*\*\*\*text skipped for clarity\*\*\*

# ENUMS:

EventType:

anyOf:

- type: string

enum:

- LOSS\_OF\_CONNECTIVITY

- UE\_REACHABILITY\_FOR\_DATA

- UE\_REACHABILITY\_FOR\_SMS

- LOCATION\_REPORTING

- CHANGE\_OF\_SUPI\_PEI\_ASSOCIATION

- ROAMING\_STATUS

- COMMUNICATION\_FAILURE

- AVAILABILITY\_AFTER\_DDN\_FAILURE

- CN\_TYPE\_CHANGE

- DL\_DATA\_DELIVERY\_STATUS

- PDN\_CONNECTIVITY\_STATUS

- type: string

LocationAccuracy:

anyOf:

- type: string

enum:

- CELL\_LEVEL

- TA\_LEVEL

- N3IWF\_LEVEL

- UE\_IP

- UE\_PORT

- type: string

CnType:

anyOf:

- type: string

enum:

- SINGLE\_4G

- SINGLE\_5G

- DUAL\_4G5G

- type: string

AssociationType:

anyOf:

- type: string

enum:

- IMEI\_CHANGE

- IMEISV\_CHANGE

- type: string

EventReportMode:

anyOf:

- type: string

enum:

- PERIODIC

- ON\_EVENT\_DETECTION

- type: string

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*The end of changes\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*