**3GPP TSG-CT WG4 Meeting #XC4-xxxxxx**

**Place, Date, Year**

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| --- |
| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **29.571** | **CR** | **xxxx** | **rev** | **1** | **Current version:** | **16.4.0** |  |
|  |
| *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** |

|  |
| --- |
|  |
| ***Title:***  | Extend value of RAT Type to add NR(LEO), NR(MEO), NR(GEO), NR(OTHERSAT) |
|  |  |
| ***Source to WG:*** | TNO |
| ***Source to TSG:*** | CT4 |
|  |  |
| ***Work item code:*** | xx |  | ***Date:*** | 2020-07-16 |
|  |  |  |  |  |
| ***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 canbe 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 order to provide CN awarness of satellite access RAT Type needs to be extended to include NR(LEO), NR(MEO), NR(GEO), NR(OTHERSAT). These new RAT Types for satellite access are only known in the CN. They are used by the AMF for any mobility procedures that need RAT Type awareness (such as RAT Restrictions) and can be passed to any NF that needs it for other reasons, such as Policy Control, charging or exclusion of specific QoS values.  |
|  |  |
| ***Summary of change:*** | This CR updates and introduces the following changes:1. The RAT Type is extended to include NR(LEO), NR(MEO), NR(GEO), NR(OTHERSAT). |
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| ***Consequences if not approved:*** | 5GS would not be capable to distinguish different satellite orbits for QoS and policy control purposes. |
|  |  |
| ***Clauses affected:*** |  |
|  |  |
|  | **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:*** |  |

\* \* \* First Change \* \* \* \*

#### 5.4.3.2 Enumeration: RatType

Table 5.4.3.2-1: Enumeration RatType

|  |  |
| --- | --- |
| Enumeration value | Description |
| "NR" | New Radio |
| "NR (LEO)" | New Radio based on LEO satellite constellations (see NOTE 3) |
| "NR (MEO)" | New Radio based on MEO satellite constellations (see NOTE 3) |
| "NR (GEO)" | New Radio based on GEO satellite constellations (see NOTE 3) |
| "NR (OTHERSAT)" | New Radio based on other type of satellites (not identified yet) (see NOTE 3) |
| "EUTRA" | (WB) Evolved Universal Terrestrial Radio Access  |
| "WLAN" | Untrusted Wireless LAN (IEEE 802.11) access |
| "VIRTUAL" | Virtual (see NOTE 1) |
| "NBIOT" | NB IoT |
| "WIRELINE" | Wireline access |
| "WIRELINE\_CABLE" | Wireline Cable access |
| "WIRELINE\_BBF" | Wireline BBF access |
| "LTE-M" | LTE-M (see NOTE 2) |
| "NR\_U" | New Radio in unlicensed bands |
| "EUTRA\_U" | (WB) Evolved Universal Terrestrial Radio Access in unlicensed bands |
| "TRUSTED\_N3GA" | Trusted Non-3GPP access |
| "TRUSTED\_WLAN" | Trusted Wireless LAN (IEEE 802.11) access  |
| "UTRA" | UMTS Terrestrial Radio Access |
| "GERA" | GSM EDGE Radio Access Network |
| NOTE 1: Virtual shall be used if the N3IWF does not know the access technology used for an untrusted non-3GPP access.NOTE 2: This RAT type value is used only in the Core Network; it shall be used when a Category M UE using E-UTRA has provided a Category M indication to the NG-RAN.NOTE 3: The RAT Types for satellite access are only known in the CN. |

\* \* \* Second Change \* \* \* \*

## A.2 Data related to Common Data Types

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

#

# ENUMERATED DATA TYPES

#

 AccessType:

 type: string

 enum:

 - 3GPP\_ACCESS

 - NON\_3GPP\_ACCESS

 AccessTypeRm:

 anyOf:

 - $ref: '#/components/schemas/AccessType'

 - $ref: '#/components/schemas/NullValue'

 RatType:

 anyOf:

 - type: string

 enum:

 - NR

 - NR\_LEO

 - NR\_MEO

 - NR\_GEO

 - NR\_OTHERSAT

 - EUTRA

 - WLAN

 - VIRTUAL

 - NBIOT

 - WIRELINE

 - WIRELINE\_CABLE

 - WIRELINE\_BBF

 - LTE-M

 - NR\_U

 - EUTRA\_U

 - TRUSTED\_N3GA

 - TRUSTED\_WLAN

 - UTRA

 - GERA

 - type: string

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

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