**3GPP TSG-WG SA2 Meeting #165S2-2410754**

**Hyderabad, IN, 14th Oct – 18th Oct, 2024 (revision of S2-2410281)**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **23.501** | **CR** | **5750** | **rev** | **1** | **Current version:** | **19.0.0** |  |
|  |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | Support of N3GPP device behind UE/5G-RG as concluded in TS 23.700-66 KI#4 |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon, InterDigital Inc. |
| ***Source to TSG:*** | SA2 |
|  |  |
| ***Work item code:*** | UIA\_ARC |  | ***Date:*** | 2024-08-09 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-19 |
|  | *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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
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| ***Reason for change:*** | To add the support of Non-3GPP device connecting behind a UE as concluded in the TR 23.700-32 KI#4.  |
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| ***Summary of change:*** | To support Non-3GPP device connecting behind the UE the following changes are needed:1. Introduction of new definition (in clause 3.1) of Non-3GP device behind UE/5G-RG.
2. Session management
3. QoS differentiation
4. Restriction of the number of simultaneously activate Non-3GPP device identifiers.
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| ***Consequences if not approved:*** |  |
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| ***Clauses affected:*** | 5.x(new) |
|  |  |
|  | **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.x Non-3GPP device connecting behind the UE/5G-RG

### 5.x.1 General

This clause specifies the scenario of a Non-3GPP device connecting through the UE or a 5G-RG that does not use NAS and that it is not authenticated by 5GC, but the 5GS is able to identify and manage traffic that originates from or is directed to the non-3GPP device, ensuring proper traffic handling within the 5G network.

This clause does not apply to the Non Authenticable Non-3GPP Device connected behind the 5G\_RG defined in TS 23.316.

The support of identification of traffic for Non-3GPP devices connecting behind a 5G-RG is further specified specified in TS 23.316 [84]. The identification of traffic from Non-3GPP device connecting behind a FN-RG is not supported.

### 5.x.2 Identification of a Non-3GPP Device connected behind a UE/5G-RG.

When a Non-3GPP device is connecting to the UE or 5G-RG, the UE or the 5G-RG identifies the Non-3GPP device via a procedure outside the 3GPP scope and binds a suitable Non-3GPP Device Identifier to the non-3GPP device. This association enables the 5G System to distinguish between the traffic generated by different Non-3GPP devices connected through the same UE or 5G-RG. How the UE binds the traffic from a non-3GPP device connecting behind the UE or 5G-RG to an associated Non-3GPP Device Identifier is implementation specific.

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Based on implementation specific procedure outside the 3GPP scope, the UE or 5G-RG may bind the same Non-3GPP Device Identifier to different Non-3GPP Device connected behind the it at different time, or always to the same Non-3GPP device, but at any point in time the Non-3GPP Device Identifier can be bind to only one single Non-3GPP device.

NOTE 1: This behaviour is different from the Connecticity Group Identifierd used for the NAUN3 device which can be associated to all Non-3GPP devices which are connected behind a 5G-RG via a port, e.g. via a WLAN SSID.

### 5.x.3 Session management enhancement

For Ethernet PDU Session Type, the UE send the Non-3GPP Device Identifier and may also send MAC address and/or the VLAN tag ID that is associated with the Non-3GPP Device Identifier to the SMF in PDU session modification procedure.

For IPv4 PDU Session Type, the UE sends the Non-3GPP Device Identifier and it may send the IP Address and/ Port ranges associated with the Non-3GPP Device Identifier to the SMF in PDU Session Modification procedure.

For IPv6 PDU Session Type, the UE sends the the Non-3GPP Device Identifier and it may send the IPv6 Address that is associated with the Non-3GPP Device Identifier to the SMF in PDU Session Modification procedure.

### 5.x.4 QoS differentiation

QoS differentiation and policy control is defined in TS 23.503 clause 6.1.3.xx

\* \* \* \* End of changes \* \* \* \*