**3GPP TSG-CT WG1 Meeting #124-eC1-203796**

**Electronic meeting, 2-10 June 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **24.501** | **CR** | **2398** | **rev** | **-** | **Current version:** | **16.4.1** |  |
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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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | N5CW device registration and IP assignment |
|  |  |
| ***Source to WG:*** | Motorola Mobility, Lenovo |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | 5WWC |  | ***Date:*** | 2020-06-02 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***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)* |
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| ***Reason for change:*** | Current description of N5CW device registration over trusted WLAN access network is not complete. It is not clear how the N5CW device registers to the 5GCN and how it is assigned an IP address by the TWLAN. These procedures are described in step 3 and step 20 in subclause 4.12b.2 in TS 23.502:3. The TWIF creates a 5GC Registration Request message on behalf of the N5CW device. The TWIF uses default values to populate the parameters in the Registration Request message, which are the same for all N5CW devices. The Registration type indicates "Initial Registration".20. The TWIF creates a PDU Session Establishment Request message on behalf of the N5CW device and sends this message to AMF. This may be triggered by receiving an IP configuration request (e.g. DHCP Offer/Request) from the N5CW device. The TWIF may use default values to populate the parameters in the PDU Session Establishment Request message, but may also skip some PDU session parameters and let the AMF or the SMF determine these parameters based on the N5CW device subscription information received during the registration procedure. This way, default PDU session parameters can be used per N5CW device. The value of the PDU Session id provided by TWIF in step 20c shall always be the same. It will be a value reserved for the PDU sessions requested by the TWIF and it will be different from the values that can be used by the N5CW device when requesting a PDU session over 3GPP access. This way, the PDU session id provided by the TWIF cannot be the same with the PDU Session Id of any PDU session established by the N5CW device over 3GPP access. |
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| ***Summary of change:*** | The CR adds more details for the N5CW device registration and the IP assignment.  |
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| ***Consequences if not approved:*** | Stage 3 of N5CW device is not complete. |
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| ***Clauses affected:*** | 4.7.5 |
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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:*** |  |

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## 4.7.5 NAS signalling using trusted WLAN access network

A trusted WLAN interworking function (TWIF) provides functionalities for a non-5G capable over WLAN (N5CW) device to access 5GCN, including:

a) NAS signalling over N1 NAS signalling connection with AMF; and

b) PDU session establishment, modification and release on behalf of the N5CW device, over N2 connection with the AMF.

The TWIF registers on behalf of the N5CW device to an AMF according to subclause 5.5.1.3 by populating the parameters for the registration by using implementation specific default values which are the same for N5CW devices

The TWIF may request to establish a PDU session on behalf of the N5CW device upon receipt of an IP configuration request from the N5CW device by populating the parameters for the PDU session establishment by using partially the N5CW device's subscription information and partially implementation specific default values from the TWIF's configuration.

Upon loss of the IP address of the N5CW device, the TWIF acting on behalf of the N5CW device shall initiate the UE-requested PDU session release procedure as defined in subclause 6.4.3.

NOTE: The established PDU session on behalf of the N5CW device can be modified by the TWIF or the network.

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