**3GPP TSG-CT WG1 Meeting #136-eC1-223900**

**E-Meeting, 12th – 20th May 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | 24.502 | **CR** | 0203 | **rev** | 1 | **Current version:** | 17.5.0 |  |
|  | | | | | | | | |
| *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:*** | NSWO NAI corrections | | | | | | | | | |
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| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NSWO\_5G | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | *Rel-17* |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
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| ***Reason for change:*** | | S2-2203254 to TS 23.501 was agreed clarifying NSWO in 5GS requirements, indicating that authentication for NSWO is optional .  "If the WLAN network is configured to require the 5GS based access authentication of the UE for connecting to the WLAN, the UE performs authentication procedure for Non-seamless WLAN offload in 5GS defined in clause 4.2.15 and in Annex S of TS 33.501 [29]."  that the 5G NSWO may be used to access the WLAN  "If the WLAN is configured as Untrusted Non-3GPP access, in case that WLAN support IEEE 802.1x the 5G NSWO may be used to access the WLAN and any time after that the UE obtains the connection to WLAN network and the local IP address, the UE may initiate Untrusted Non-3GPP Access to obtain the access to 5GC."  and that a specific NAI for NSWO over trusted access from what is used for TNGF access to 5GS  "For the 5G NSWO access to WLAN access network using its 5GS credentials but without registration to 5GS, a specific NAI realm format is defined. When the UE wishes to use Trusted Non 3GPP (TNGF) access to 5GC the UE uses the NAI realm format defined in TS 23.003 [19] clause 28.7.6 and 28.7.7. When the UE wishes to use 5G NSWO to connect to the WLAN access network using its 5GS credentials but without registration to 5GS the NAI format for 5G NSWO access is used." | | | | | | | | |
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| ***Summary of change:*** | | 1) Add the optionality of authentication and  2) Clarify the NAI format in the cases of trusted and untrusted access | | | | | | | | |
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| ***Consequences if not approved:*** | | NSWO in 5GS cannot be used | | | | | | | | |
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| ***Clauses affected:*** | | 6.3a | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS/TR 23.501 CR 3617 | | |
| ***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 \* \* \* \*

## 6.3a Authentication for NSWO in 5GS

A UE that supports NSWO in 5GS and is configured to use NSWO in 5GS, shall not perform NSWO in EPS. NSWO in 5GS capability can be enabled and disabled via configuration on the USIM (see 3GPP TS 31.102 [35]) or on the ME. Configuration on the USIM shall take precedence over the ME.

In order to use NSWO in 5GS, and if the WLAN access network requires 5GS-based authentication of a UE to connect to the WLAN, the UE shall perform the EAP-AKA' authentication procedure as specified in 3GPP TS 33.501 [5] annex S.3. The UE shall use as its identity the SUCI in NAI format as defined in clause 28.7.3 of 3GPP TS 23.003 [8].

NOTE: The same NAI format is used over both trusted and untrusted non-3GPP access networks for NSWO in 5GS, which is different from the NAI format used for registration over trusted non-3GPP access specified in clause 28.7.6 of 3GPP TS 23.003 [8].

Upon receipt of an EAP-Request/AKA'-Challenge message the UE shall apply the rules for comparison of the locally determined ANID "5G:NSWO" (see table 8.1.1.2-2 of 3GPP TS 24.302 [7]) and the Network Name field of the AT\_KDF\_INPUT attribute received in the EAP-Request/AKA'-Challenge message as specified in IETF RFC 5448 [38].

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