**3GPP TSG-CT WG1 Meeting #133-bis-eC1-220596**

**E-Meeting, 17th – 21st January 2022**

**3GPP TSG-CT WG4 Meeting #107-bis-eC4-220xxx**

**E-Meeting, 17th – 21st January 2022**

**3GPP TSG-CT WG6 Meeting #109-bis-eC6-220xxx**

**E-Meeting, 18th – 21st January 2022**

**Source: Nokia, Nokia Shanghai Bell**

**Title: New WID on Non-Seamless WLAN offload** **Authentication in 5GS**

**Document for: Approval**

**Agenda Item: 5 / 17.1.1**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

Title: Non-Seamless WLAN offload authentication in 5GS

Acronym: NSWO\_5G

Unique identifier:

{A number to be provided by MCC at the plenary}

Potential target Release: *Rel-17*

# 1 Impacts

{For Normative work, identify the anticipated impacts. For a Study, identify the scope of the study}

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes | x | x |  | x |  |
| No |  |  | x |  |  |
| Don't know |  |  |  |  |  |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

|  |  |
| --- | --- |
|  | Feature |
| x | Building Block |
|  | *Work Task* |
|  | Study Item |

## 2.2 Parent Work Item

|  |
| --- |
| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| NSWO\_5G | SA3 | 940011 | Security aspects of Non-Seamless WLAN offload in 5GS |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 9100091 | Study on non-seamless WLAN offload in 5GS using 3GPP credentials |  |

# 3 Justification

SA has approved a work item on Security aspects of Non-Seamless WLAN offload in 5GS (NSWO\_5G) in Rel-17. The building block is to realize the CT aspects of protocol impacts for NSWO\_5G based on the approved SA WID.

# 4 Objective

The objective of the work is to enhance the necessary CT specifications to support the stage 2 requirements on Non-Seamless WLAN offload Authentication in 5GS as defined in TS 33.501.

The following areas of work are expected to be covered but will be adjusted to the final conclusions of the SA3 normative requirements.

For CT1, the expected work includes:

* add support of SUCI-based EAP-AKA' authentication for 5G NSWO;
* add ME configuration indicating the use of 5G NSWO for the HPLMN;
* potentially add the handling of UICC/ME configuration for 5G NSWO and their precedence.

For CT4, the expected work includes:

* Addition to AUSF and UDM APIs allowing the NSWO NF consumer to retrieve authentication information for the EAP-AKA' authentication method.
* Updates to SWa

For CT6, the expected work includes:

* add UICC configuration indicating the use of 5G NSWO for the HPLMN

# 5 Expected Output and Time scale

|  |
| --- |
| New specifications {One line per specification. Create/delete lines as needed} |
| Type  | TS/TR number | Title | For info at TSG#  | For approval at TSG# | Rapporteur |
|  |  |  |  |  |  |

|  |
| --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| 24.302 | Update Access Network Identity definition to support EAP-AKA' for 5G NSWO authentication as per RFC5448 | CT#95 (March 2022) | CT1 responsibility |
| 24.368 | Potential addition of NAS MOs to configure the use of 5G NSWO for the HPLMN | CT#95 (March 2022) | CT1 responsibility |
| 24.501 | Potential impacts on handling ME and UICC configuration for 5G NSWO | CT#95 (March 2022) | CT1 responsibility |
| 24.502 | Add support of SUCI-based EAP-AKA' authentication method for 5G NSWO | CT#95 (March 2022) | CT1 responsibility |
| 29.503 | Add NSWO indicator to Nudm\_UEAuthentication\_Get request to indicate that the EAP-AKA' authentication method is applicable or define new service operation(see editor's note in 33.501 v17.4.1 annex S.3 step 6) | CT#95 (March 2022) | CT4 responsibility |
| 29.509 | Add NSWO indicator to Nausf\_UEAuthentication\_Authenticate request | CT#95 (March 2022) | CT4 responsibility |
| 29.273 | Potential impacts to Swa | CT#95 (March 2022) | CT4 responsibility |
| 29.510 | Add new NF type for NSWO NF | CT#95 (March 2022) | CT4 responsibility |
| 31.102 | Possible impacts to support UICC configuration for 5G NSWO | CT#95 (March 2022) | CT6 responsibility |
| 31.111 | Possible impacts to support UICC configuration for 5G NSWO | CT#95 (March 2022) | CT6 responsibility |

# 6 Work item Rapporteur(s)

Wiehe, Ulrich, Nokia, ulrich.wiehe@nokia.com

# 7 Work item leadership

CT4

# 8 Aspects that involve other WGs

None

# 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| Nokia |
| Nokia Shanghai Bell |
| Ericsson |
| Samsung |
| AT&T |
| Charter Communications |
| Lenovo |
| Motorola Mobility |