**3GPP TSG-SA3 Meeting #106-e *S3-220322r1***

e-meeting, 14 – 25 February 2022 (revision of S3-yyxxxx)

Source: Qualcomm Incorporated, Deutsche Telekom AG, AT&T (to be SA3)

Title: New WID on Updates to gNB SCAS including split gNBs

Document for: Approval

Agenda Item: 4.18

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: SCAS for split gNBs product classes

Acronym: SCAS\_split\_gNB

Unique identifier: TBD

Potential target Release: Rel-18

# 1 Impacts

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

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

|  |  |
| --- | --- |
| X | Feature |
|  | Building Block |
|  | Work Task |
|  | Study Item |

## 2.2 Parent Work Item

For a brand-new topic, use “N/A” in the table below. Otherwise indicate the parent Work Item.

|  |  |  |  |
| --- | --- | --- | --- |
| Parent Work / Study Items | | | |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| N/A | N/A | N/A | N/A |

### 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work /Study Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| 870020 | Security Assurance Specification Enhancements for 5G | Contains updates for gNB relating to Rel-16 |
| 790015 | Security Assurance Specification for 5G | SCAS for 5G |

Dependency on non-3GPP (draft) specification: None

# 3 Justification

The current SCAS specifications do not specify test cases for split gNB architecture (e.g., CU – DU, CU-CP/CU-UP) as these have not been specified which makes testing such individual parts of split gNB deployments not possible. These should be specified to ease a deployment of split gNBs.

# 4 Objective

The objective is to create SCAS specifications for split gNB entities. Specifically, the objectives of this work item are to:

* identify threats and critical assets for split gNB entities not already identified in TR 33.926;
* identify specific security functional requirements and related test cases for split gNB entities;
* develop more vulnerability testing requirements and related test cases if deemed necessary;
* adopt corrections or potential new security assurance requirements identified during the course of testing practice of 5G SCAS;
* add the necessary test cases for split gNBs (i.e. CU, DU, CU-CP, CU-UP); and
* align with GSMA NESAS specifications as NESAS documents are developed.

# 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 |
| TS | 33.ABC | 5G Security Assurance Specification (SCAS); gNB Central Unit (gNB-CU) | SA #98  Dec 2022 | SA #99  Mar 2023 | Escott, Adrian, Qualcomm Incorporated, aescott@qti.qualcomm.com |
| TS | 33.DEF | 5G Security Assurance Specification (SCAS); gNB Distributed Unit (gNB-DU) | SA #98  Dec 2022 | SA #99  Mar 2023 | Escott, Adrian, Qualcomm Incorporated, aescott@qti.qualcomm.com |
| TS | 33.GHI | 5G Security Assurance Specification (SCAS); gNB-CU-Control Plane (gNB-CU-CP) | SA #98  Dec 2022 | SA #99  Mar 2023 | Escott, Adrian, Qualcomm Incorporated, aescott@qti.qualcomm.com |
| TS | 33.JKL | 5G Security Assurance Specification (SCAS); gNB-CU-User Plane (gNB-CU-UP) | SA #98  Dec 2022 | SA #99  Mar 2023 | Escott, Adrian, Qualcomm Incorporated, aescott@qti.qualcomm.com |

|  |  |  |  |
| --- | --- | --- | --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} | | | |
| TS/TR No. | Description of change | Target completion plenary# | Remarks |
|  |  |  |  |
| TS 33.926 | Add threats and critical assets for split gNB entities not already identified in TR 33.926 | SA #98  Dec 2022 |  |

# 6 Work item Rapporteur(s)

Escott, Adrian, Qualcomm Incorporated, aescott@qti.qualcomm.com

# 7 Work item leadership

SA3

# 8 Aspects that involve other WGs

None

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Qualcomm Incorporated |
| Deutsche Telekom AG |
| AT&T |
| Altiostar |
|  |
|  |