**3GPP TSG-SA3 Meeting #101-e *S3-203134***

**e-meeting, 9 -20 Novenber 2020** Revision of S3-20xxxx

**Source: China Mobile**

**Title: Adding evaluation and SCAS instantiation into clause 7**

**Document for: Approval**

**Agenda Item: 5.2**

# 1 Decision/action requested

***This contribution adds Evaluation and SCAS instantiation into clause 7.***

# 2 References

[X] 3GPP TR 33.117: "Catalogue of general security assurance requirements"

# 3 Rationale

According to gap analysisi in clause 4.3, the scope of SECAM evaluation for 3GPP physical network products applies to SECAM evaluation of 3GPP virtualized network products. For the decoupling scenario of GVNP for type 2 and type 3, each component of a 3GPP virtualized product and the interfaces between the decoupling components shall also be considered in the evaluation process. This contribution adds evaluation and SCAS instantiation into clause 7.

# 4 Detailed proposal

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Start of the change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

# 7 Evaluation and SCAS instantiation

## 7.1 Security Assurance Specification instantiation documents creation

According to gap analysisi in clause 4.3, the scope of SECAM evaluation for 3GPP physical network products applies to SECAM evaluation of 3GPP virtualized network products. The SCAS instantiation of the virtualized network product also consists of a set of documents provided by the vendor to give test laboratories and operators the relevant information to understand the critical parts of the network product to be evaluated. But the decoupling feature for the GVNP of type 2 and type 3 leads to some differences in the content of the SCAS instantiation between physical network product and virtualized network product.

The content of the SCAS instantiation of the GVNP is defined and it contains details on:

- Virtualized Network Product description (e.g. software version, documentation version). In the decoupling scenario, each component of a 3GPP virtualized product and the interfaces between the decoupling components shall be included in the virtualized network product description. In the coupling scenario, the interfaces between components of the virtualized network product are the internal interface and shall not be included in the virtualized network product description.

- Scope of evaluation: according to clause 4.3.2, the scope of evaluation includes Vendor Network Product Development process evaluation, the product lifecycle process evaluation and the Network Product evaluation. In the decoupling scenario for type 2 and type 3, more than one vendor development process and product lifecycle process may be evaluated for a 3GPP virtualized network product when each component of the virtualized network product is provided by the different vendors. In the coupling scenario for type 2 and type 3, vendor development process and product lifecycle process of the vendor who provides virtualized network product shall be evaluated.

- Mapping of SCAS security requirements to the virtualized network product and assets in the virtualized network product.

- References to the applicable document versions containing operational guidance in the documentation of the virtualized network product.

- Information needed to start the Security Compliance Testing, including Basic Vulnerability Testing.

- Details of licenses that are required for the product to operate in the scope of evaluation (if relevant).

The above document set is updated by the vendors until the testers (Security Compliance Testing, Basic Vulnerability Testing) consider they have enough and correct information to execute the required tests. Details on the content of these documents and of the update process are provided in clause 7.2.2.

## 7.2 Evaluation and evaluation report

### 7.2.1 Network product development process and network product lifecycle management

According to the descriptions in clause 4.3.2 and clause 4.5.2, the tasks and ultimate output of the GVNP evaluation is same with the physical network product evaluation. So, all text from TS 33.916, clause 7.2 basically applies to the GVNP. The following clauses will focus on the difference from clause 7.2 in TR 33.916.

### 7.2.2 SCAS instantiation evaluation

#### 7.2.2.1 Overview

Like the physical network product, SCAS instantiation evaluation of the virtualized network product is to check whether a SCAS instantiation written by a vendor is a correct instantiation of the SCAS of the network product class and whether it is a good basis for evaluating the network product. When the virtualized network product is a decoupling product, the SCAS instantiation is provided by more than one vendor if the decoupling components are provided by the different vendors.

The accredited evaluator (vendor or third-party evaluator) for security compliance testing is responsible for SCAS instantiation evaluation before it is used to evaluate virtualized network product. The evaluator confirms at least that the SCAS being instantiated for a given 3GPP virtualized network product and the virtualized network product for evaluation are consistent.

#### 7.2.2.2 Content

In the scope of evaluation of the SCAS instantiation document, the vendor provides a clear description of the virtualized network product that will be tested, i.e. a description of the version of the virtualized network product in the scope of SCAS. In addition to the description of the network product in clause 7.2.2.2.1.1 of TR 33.916, the decouping interface should be described in the descoupling scenario.

Adaptation of the SCAS instantiation to special circumstances described in TR 33.916 clause 7.2.2.2.1.2 applies to virtualized network products.

The exclusion of components from TR 33.916, in clause 7.2.2.2.1.3 applies to virtualized network products.

The mapping of SCAS security requirements to the network product and assets in the network product from TR 33.916, in clause 7.2.2.2.2 apply to virtualized network products.

The operational guidance documents and configuration of the network product for evaluation from TR 33.916, in clause 7.2.2.2.3 apply to virtualized network products. In addition, the operational guidance documents as part of the documentation may be created by more than one vendor in the decoupling scenario.

The information needed to execute the required tests for SCT and BVT activities from TR 33.916, in clause 7.2.2.2.4 applies to virtualized network products.

The process from TR 33.916, in clause 7.2.2.3 applies to virtualized network products. The difference is that there may be more than one vendor invloved in the decoupling scenario.

### 7.2.3 Security Compliance testing

The security compliance testing in clause 7.2.3 of TR 33.916 is a generic process, the inputs, outputs and activities from TR 33.916, in clause 7.2.3 apply to virtualized network products. For the decoupling scenario of GVNP for type 2 and type 3, the security compliance testing of each component for a 3GPP virtualized product and the interfaces between the decoupling components shall be implemented.

### 7.2.4 Basic Vulnerability Testing

According to the anylises of basic vulnerability testing requirements for GVNP, all text from TS 33.117 [4], clause 4.4 applied to all types of GVNPs. The process of BVT from TR 33.916, in clause 7.2.3 is generic and applies to the virtualized network products. For the decoupling scenario of GVNP for type 2 and type 3, the basic vulnerability testing of each component for a 3GPP virtualized product and the interfaces between the decoupling components shall be implemented.

## 7.3 Self-declaration

All text from TR 33.916, in clause 7.3 is generic and applies to the virtualized network products. For the decoupling scenario of GVNP for type 2 and type 3, all vendors who provided the components of the virtualized network product shall give a declaration of their evaluated component.

## 7.4 Partial compliance and use of SECAM requirements in network product development cycle

All text from TR 33.916, in clause 7.4 is generic and applies to the virtualized network products.

## 7.5 Comparison between two SECAM evaluations

All text from TR 33.916, in clause 7.5 applies to the virtualized network product.

## 7.6 The evaluation of a new version

All text from TR 33.916, in clause 7.6 applies to virtualized network products.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of the change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*