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**Group Specification**

Network Functions Virtualisation (NFV) Release 5;

Security;

Security Assurance Specification (SCAS) for VNFM

Release 5

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# Foreword

This Group Specification (GS) has been produced by ETSI Industry Specification Group (ISG) Network Functions Virtualisation (NFV).

# Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](https://portal.etsi.org/Services/editHelp%21/Howtostart/ETSIDraftingRules.aspx) (Verbal forms for the expression of provisions).

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# 1 Scope

The present document defines the security assurance of VNFM products, which is part of MANO system. The outcome of this WI expects the security assets, security threats, security requirements and test cases for evaluating the security VNFM products. In this work item, the security assurance methodology introduced in 3GPP specifications will be leveraged. Security test cases including testing goals, testing steps, and evidence of testing results will be produced for evaluating whether the security requirements are implemented by VNFM based products.

# 2 References

## 2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non‑specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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The following referenced documents are necessary for the application of the present document.

 [1] ETSI GS NFV-SEC 028: "Network Functions Virtualisation (NFV) Release 4; Security; Security Assurance Specification (SCAS) for Generic NFV-MANO".

## 2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non‑specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] ETSI GS NFV 003: "Network Functions Virtualisation (NFV); Terminology for Main Concepts in NFV".

# 3 Definition of terms, symbols and abbreviations

## 3.1 Terms

For the purposes of the present document, the terms given in ETSI GS NFV 003 [i.1] apply.

## 3.2 Symbols

Void

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in ETSI GS NFV 003 [i.1] apply.

# 4 Catalogue of security requirements and related test cases for VNFM product

Editor’s Note: The structure of sub-clause follows the structure of ETSI NFV SEC 028 [1]...This clause will describe requirements and test cases for VNFM.

## 4.1 Introduction

The present clause describes security functional requirements and the corresponding test cases for VNFM products.

## 4.2 Security functional requirements and related test cases

All test cases in clause 4.2 of ETSI NFV SEC 028 [1] can be applied to VNFM products with the exceptions listed in the following clauses.

## 4.3 Security requirements and related test cases related to hardening

### 4.3.1 Introduction

All test cases in clause 4.4 of ETSI NFV SEC 028 [1] can be applied to VNFM products with the exceptions listed in the following clauses.

## 4.4 Baseline vulnerability testing requirements

### 4.4.1 Introduction

All test cases in clause 4.4 of ETSI NFV SEC 028 [1] can be applied to NFVM products with the exceptions listed in the following clauses.

# Annex A (normative or informative):Aspects specific to the network product class VNFM

## A.1 Network product class description for the VNFM

### A.1.1 Introduction

This annex captures the aspects specific to network product class VNFM.

### A.1.2 Minimum set of functions defining the VNFM network product class

As part of the VNFM network product, it is expected the VNFM to contain VNFM application, a set of running processes (typically more than one) executing the software package for the VNFM functions and OAM functions that is specific to the VNFM network product model. Functionalities specific to the VNFM network product introduce additional threats and/or critical assets as described below. Related security requirements and test cases have been captured in present document.

## A.2 Assets and threats specific to the VNFM

### A.2.1 Critical assets

In addition to the critical assets of a generic NFV-MANO product described in clause B.2 of NFV SEC 028 [1], the critical assets specific to the VNFM to be protected are:

- VNFM Application;

- The interfaces of VNFM product to be protected and which are within SECAM scope:

- Interface between VNFM and NFVO

- Interface between VNFM and VIM

### A.2.2 Threats related to management procedures

No specific threats are identified for VNFM in addition to the generic threats identified in clause B.3 of NFV SEC 028 [1].

Annex (informative):
Bibliography

Annex (informative):
Change History

| Date | Version | Information about changes |
| --- | --- | --- |
| 10-2023 | V0.1.0 | First draft as baseline |