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Network Functions Virtualisation (NFV)
Release 3;
Security;
System architecture specification
for execution of sensitive NFV components

Disclaimer

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Contents

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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 (Verbal forms for the expression of provisions).

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1 Scope

The present document defines requirements for host system elements on which sensitive workloads are to be run. The present document defines requirements to ensure isolation of sensitive workloads from non-sensitive workloads sharing a platform. The present document discusses a wide range of different technologies which aim to increase the security of a host system for the workloads which will be executing on it.

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.

Referenced documents which are not found to be publicly available in the expected location might be found at https://docbox.etsi.org/Reference.

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 necessary for the application of the present document.

[1] ETSI TS 133 310: "Universal Mobile Telecommunications System (UMTS); LTE; Network Domain Security (NDS); Authentication Framework (AF) (3GPP TS 33.310)".

[2] ETSI TS 133 210: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; 3G security; Network Domain Security (NDS); IP network layer security (3GPP TS 33.210)".

[3] ISO/IEC 18031:2001: "Information technology -- Security techniques -- Random bit generation or equivalent specification".

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] NIST Publication (SP) 800-90B: "Recommendation for the Entropy Sources Used for Random Bit Generation".

[i.2] NIST Publication (SP) 800-88 revision 1: "Guidelines for Media Sanitization".

[i.3] ETSI GS NFV-SEC 009: "Network Functions Virtualisation (NFV); NFV Security; Report on use cases and technical approaches for multi-layer host administration".

[i.4] Greg Hoglund, Gary McGraw (2007): "Exploiting Online Games: Cheating Massively Distributed Systems", Addison-Wesley, New Jersey.

[i.5] ETSI TS 103 487 "CYBER; Baseline security requirements regarding sensitive functions for NFV and related platforms".

[i.6] ETSI TR 103 309: "CYBER; Secure by Default - platform security technology".