



Network Functions Virtualisation (NFV) Release 5; Testing; API Conformance Testing Specification

Document Preview

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Reference

RGS/NFV-TST010ed511

Keywords

API, conformance, NFV, testing

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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

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Introduction

The interoperability among the functional entities which supports the requirements and functionalities specified in ETSI NFV deliverables is one of the key and most important aspect to develop and deploy the NFV environment. In order to achieve such interoperability, ETSI GR NFV-TST 007 [i.1] specifies the methodologies and test scenario for the testing of interoperability mainly based on the ETSI NFV IFA specification series which specifies the reference point/interface and functional requirements. At the same time, the validation of the NFV specification compliance of each functional entities is also key aspects to be ensured for the interoperability, in particular protocol solution/API level. Therefore, the present document specifies the API conformance testing.

1 Scope

The present document specifies methodologies of conformance test including Test Descriptions for NFV implementations with interfaces specified in NFV specifications: ETSI GS NFV-SOL 002 [2] for the *Ve-Vnfm* reference point, ETSI GS NFV-SOL 003 [1] for the *Or-Vnfm* reference point and ETSI GS NFV-SOL 005 [3] for the *Os-Ma-Nfvo* reference point. Furthermore, the following specifications are also supported for conformance: ETSI GS NFV-SOL 009 [7] for the management of NFV-MANO, ETSI GS NFV-SOL 011 [8] for the *Or-Or* reference point, and ETSI GS NFV-SOL 012 [i.4] for the policy management interface.

Each ETSI NFV-SOL deliverable specifies a set of interfaces built on the RESTful approach and meant to be used over the HTTP protocol. The aim of the present document is to define the methodologies and the procedures with Test Descriptions to test conformance of the exchanged HTTP payloads and the implementation of required actions for one or more of the available interfaces within a reference point.

Since the targets of the testing are functionality (semantic checks) and the HTTP payloads (syntax checks), methodologies, including test suite(s) and/or any technologies from any organizations (in particular Open Source Initiatives) that can improve or help the (automated) test execution are also considered as being in the scope of the present document.

NOTE: The full set of functionalities supported by ETSI NFV Release 5 (V5.1.1) can be found in ETSI GS NFV-IFA 010 [i.5].

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 in the [ETSI docbox](https://standards.iteh.ai/catalog/standards/etsi/1ecce948-8667-46e6-9627-02fd47e7868b/etsi-gs-nfv-tst-010-v5-1-1-2025-04).

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 GS NFV-SOL 003 \(V5.1.1\)](#): "Network Functions Virtualisation (NFV) Release 5; Protocols and Data Models; RESTful protocols specification for the Or-Vnfm Reference Point".
- [2] [ETSI GS NFV-SOL 002 \(V5.1.1\)](#): "Network Functions Virtualisation (NFV) Release 5; Protocols and Data Models; RESTful protocols specification for the Ve-Vnfm Reference Point".
- [3] [ETSI GS NFV-SOL 005 \(V5.1.1\)](#): "Network Functions Virtualisation (NFV) Release 5; Protocols and Data Models; RESTful protocols specification for the Os-Ma-nfvo Reference Point".
- [4] [ETSI GS NFV-TST 002 \(V1.1.1\)](#): "Network Functions Virtualisation (NFV); Testing Methodology; Report on NFV Interoperability Testing Methodology".
- [5] [ETSI GS NFV-SOL 013 \(V5.1.1\)](#): "Network Functions Virtualisation (NFV) Release 5; Protocols and Data Models; Specification of common aspects for RESTful NFV MANO APIs".
- [6] [ETSI GS NFV-SOL 001 \(V5.1.1\)](#): "Network Functions Virtualisation (NFV) Release 5; Protocols and Data Models; NFV descriptors based on TOSCA specification".
- [7] [ETSI GS NFV-SOL 009 \(V5.1.1\)](#): "Network Functions Virtualisation (NFV) Release 5; Protocols and Data Models; RESTful protocols specification for the management of NFV-MANO".
- [8] [ETSI GS NFV-SOL 011 \(V4.5.1\)](#): "Network Functions Virtualisation (NFV) Release 4; Protocols and Data Models; RESTful protocols specification for the Or-Or Reference Point".