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Network Functions Virtualisation (NFV); Proof of Concepts; Framework

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Contents

Intellectual Property Rights 5
Foreword 5
Modal verbs terminology 5
1 Scope 6
2 References 6
2.1 Normative references 6
2.2 Informative references 6
3 Definitions and abbreviations 7
3.1 Definitions 7
3.2 Abbreviations 7
4 NFV ISG PoC Framework 8
4.1 Rationale 8
4.2 Call for PoCs 8
4.3 NFV ISG PoC Proposal Submission 8
4.4 NFV ISG PoC Proposal Review 8
4.4.1 Accepted NFV ISG PoC Proposals 8
4.4.2 Rejected NFV ISG PoC Proposals 9
4.5 NFV ISG PoC Proposal Acceptance Criteria 9
4.6 NFV ISG PoC Report 9
5 ETSI Support for NFV ISG PoC Teams 9
Annex A (normative): NFV ISG PoC Proposal Template 11
A.1 NFV ISG PoC Proposal Template 11
A.1.1 PoC Team Members 11
A.1.2 PoC Project Goals 11
A.1.3 PoC Demonstration 11
A.1.4 (optional) Publication 11
A.1.5 PoC Project Timeline 11
A.2 NFV PoC Technical Details (optional) 12
A.2.1 PoC Overview 12
A.2.2 PoC Scenarios 12
A.2.3 Mapping to NFV ISG Work 12
A.2.4 PoC Success Criteria 13
A.2.5 Expected PoC Contribution 13
Annex B (normative): NFV ISG PoC Report Template 14
B.1 NFV ISG PoC Report 14
B.1.1 PoC Project Completion Status 14
B.1.2 NFV PoC Project Participants 14
B.1.3 Confirmation of PoC Event Occurrence 14
B.1.4 PoC Goals Status Report 14
B.1.5 PoC Feedback Received from Third Parties (Optional) 15
B.2 NFV PoC Technical Report (Optional) 15
B.2.1 PoC Scenario Report 15
B.2.2 PoC Contribution to NFV ISG 16
B.2.3 Gaps identified in NFV standardization 16
B.2.4 PoC Suggested Action Items 16
B.2.5 Any Additional messages the PoC Team wishes to convey to the NFV ISG as a whole? 16
B.2.6 Any Additional messages the PoC Team wishes to convey to Network Operators and Service Providers? 16

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https://standards.iteh.ai/catalog/standards/sist/779c3531-ff12-4183-a643-50d06332cff1/etsi-gs-nfv-per-002-v1.1.2-2014-12

History 17

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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**", "**may not**", "**need**", "**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 a framework for use within ETSI NFV ISG to coordinate and promote public demonstrations of Proofs of Concept (PoC) illustrating key aspects of NFV.

The objective for the PoCs is to build commercial awareness and confidence and encourage development of an open ecosystem by integrating components from different players.

This framework outlines:

- rationale for NFV ISG PoCs;
- NFV ISG PoC process;
- format and criteria for NFV ISG PoC Proposals;
- NFV ISG PoC Report format and requirements.

2 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 http://docbox.etsi.org/Reference.

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2.1 Normative references

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

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

[2] ETSI GS NFV 001: "Network Functions Virtualisation (NFV); Use Cases".

[3] ETSI GS NFV 004: "Network Functions Virtualisation (NFV) Virtualisation Requirements".

[4] ETSI GS NFV 002: "Network Functions Virtualisation (NFV); Architectural Framework".

[5] ETSI Directives (October 2013).

NOTE: Available at http://portal.etsi.org/directives/32_directives_oct_2013.pdf.

2.2 Informative references

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-PER 001: "Network Functions Virtualisation (NFV); NFV Performance & Portability Best Practices".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document the terms and definitions given in ETSI GS NFV 003 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in ETSI GS NFV 003 [1].

manufacturer: company having a substantial capacity to develop and/or produce and/or install and/or maintain products to be used in, or directly or indirectly connected to, an electronics communications network

NOTE: An association or organization of such manufacturers also falls within this category. *(Membership category from ETSI directives [5]).*

network operator: operator of an electronics communications network or part thereof

NOTE: An association or organization of such network operators also falls within this category. *(Membership category from ETSI directives [5]).*

NFV ISG PoC proposal: initial description of a PoC Project, submitted as a contribution for review and acceptance by the NFV ISG before the PoC Project starts

NFV ISG PoC report: detailed description of the results and findings of a PoC project, submitted once the PoC Project has finished

PoC demo objective: detailed description of one particular aspect that the PoC Team intends to demonstrate and how it will be achieved

NOTE: See annex A: NFV ISG PoC Report Template.

PoC project: activity oriented to perform a PoC according to the framework described in the present document

PoC scenario report: collection of PoC Demo Objectives

NOTE: See annex B: NFV ISG PoC Report Template.

PoC team: organizations participating in the PoC Project

service provider: company or organization, making use of an electronics communications network or part thereof to provide a service or services on a commercial basis to third parties

NOTE: An association or organization of such service providers also falls within this category. *(Membership category from ETSI directives [5]).*

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

EG	Expert Group
EPC	Evolved Packet Core
INF	INFrastructure
ISG	Industry Specification Group
MME	Mobility Management Entity
NFV ISG TST WG	NFV WG responsible of the PoC Framework
NFV	Network Function Virtualisation
PoC	Proof of Concept
UC	Use Case
WG	Working Group
WI	Work Item

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4 NFV ISG PoC Framework

4.1 Rationale

NFV proposes a new approach to the implementation and operation of network functions, and may inspire the development and deployment of new types of network functions. Proof of Concepts are an important tool to demonstrate NFV as a viable technology. Results from PoCs may guide the work in the NFV ISG by providing feedback on interoperability and other technical challenges. The public demonstration of these NFV concepts helps to build commercial awareness and confidence in this NFV approach, and helps to develop a diverse, open, NFV ecosystem. Any given PoC demonstration event impacts its immediate audience, but the cumulative set of PoC demonstration events provides a measure of industry impact from these NFV concepts.

The PoCs shall be scoped around the NFV use cases and address the technical challenges and approaches being progressed by the Working Groups (WGs).

4.2 Call for PoCs

The ETSI NFV ISG calls for PoC proposals during the life of the ISG. Details will be made publicly available on the ETSI NFV ISG portal.

4.3 NFV ISG PoC Proposal Submission

PoC Team formation is beyond the scope of the NFV ISG. The PoC Team shall prepare an NFV ISG PoC Proposal according to the NFV ISG PoC Proposal template in clause A.1. The PoC Proposal shall be submitted to the NFV ISG as a contribution uploaded on the ETSI Portal and a link to the contribution shall be sent to the dedicated e-mail distribution list 'NFV_POC@LIST.ETSI.ORG' with [NFV ISG PoC Proposal] in the subject line.

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4.4 NFV ISG PoC Proposal Review

The NFV ISG WG responsible of the PoC Framework (TST WG) Chair(s) are responsible for administering this NFV ISG PoC process.During interim periods with no elected Chair(s) for NFV TST WG, the TSC will assume this role in order to guarantee the continuity of the NFV ISG PoC process.

The NFV ISG TST WG Chair(s) shall collect and distribute the NFV ISG PoC Proposals and announce the accepted NFV ISG PoC Proposal based on the review against the NFV ISG PoC acceptance criteria of clause 4.5.

ETSI Centre for Testing and Interoperability (CTI) will provide the NFV ISG TST WG Chair(s) with a confirmation of whether the required elements of the NFV ISG PoC Proposal have been completed as required by clause 4.5.

The NFV ISG TST WG Chair(s) will provide a response to the PoC Team within 14 business days after receipt of the NFV ISG PoC proposal.

4.4.1 Accepted NFV ISG PoC Proposals

The NFV ISG TST WG Chair(s) will send an email to the PoC Team to confirm the acceptance of the NFV ISG PoC Proposal.

The NFV ISG TST WG Chair(s) will send an email to the 'NFV_POC@LIST.ETSI.ORG' list to announce accepted NFV ISG PoC Proposals to the NFV ISG community.

The NFV ISG TST WG Chair(s) will post accepted NFV ISG PoC Proposals on a publicly accessible ETSI NFV ISG portal.

The NFV ISG TST WG Chair(s) will bring accepted NFV ISG PoC Proposals to the attention of NFV ISG WG/EG Chairs through the Technical Steering Committee to publicize the PoC to the relevant NFV ISG WGs/EGs/WIs.

Accepted NFV ISG PoC Proposals are expected to be executed by the PoC Team and an NFV ISG PoC Report is expected to be submitted at completion.

4.4.2 Rejected NFV ISG PoC Proposals

The NFV ISG TST WG Chair(s) will send an email to the PoC Team to notify them that the NFV ISG PoC Proposal has been rejected with the reason based on the criteria of clause 4.5.

No further action will be taken by the NFV ISG on rejected proposals. PoC Teams may submit revised NFV ISG PoC Proposals for future consideration.

4.5 NFV ISG PoC Proposal Acceptance Criteria

The criteria for acceptance of NFV ISG PoC Proposals are:

1) The NFV ISG PoC Proposal shall contain the information requested in the format of the NFV ISG PoC Proposal Template of clause A.1.

2) The organizations participating in an PoC Project shall include at least two Manufacturers and at least one Network Operator or one Service Provider, where at least the one Network Operator or the one Service Provider shall be a member of the NFV ISG (refer clause A.1.1).

3) The NFV ISG PoC Proposal shall address at least one goal relevant to an NFV Use Case, NFV Requirement or NFV Architectural Framework reference point (refer clause A.1.2).

4) The NFV ISG PoC Proposal shall indicate the venue where the PoC will be demonstrated (e.g. PoC Team member lab, industry trade show, etc.) (refer clause A.1.3).

5) A PoC Project timeline shall be provided (refer clause A.1.5).

Any NFV ISG PoC Proposal which meets these required elements will be accepted.

4.6 NFV ISG PoC Report

Once an NFV ISG PoC Project is concluded, a NFV ISG PoC Report with the PoC results is expected to be provided to NFV ISG as a contribution to the NFV ISG participants section of the ETSI portal and be announced on the 'NFV_POC@list.etsi.org' mailing list.

An NFV ISG PoC Report should contain the information requested in the NFV ISG PoC Report Template of clause B.1 to notify the NFV ISG that the PoC Team has completed their PoC Project. PoC Teams are encouraged to provide additional technical details on the results of their PoC Project using the report format provided in clause B.2.

The NFV ISG TST WG Chair(s) will present a list of all the NFV ISG PoC Reports to the ISG Plenary.

PoC Team members who are participants of ISG NFV may bring technical proposals based on PoC results to NFV ISG as regular contributions.

5 ETSI Support for NFV ISG PoC Teams

NFV ISG Participants activities in forming PoC Teams and executing PoC Projects are outside the scope of the NFV ISG. The NFV ISG shall not project manage individual PoC Projects nor get involved in forming PoC Teams or executing NFV ISG PoC Proposals.

The ETSI Centre for Testing and Interoperability (CTI) has experience in supporting the organization of technology evaluations and interoperability events (in many ways similar to PoCs). This experience may be useful in assisting the PoC Teams with administration and project management support including:

- Formation of the PoC Team
- Preparation of the NFV ISG PoC proposal
- Development of the NFV ISG PoC Scenario Report
- Providing feedback to the ISG

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