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**LTE;
Telecommunication management;
Life Cycle Management (LCM) for mobile networks
that include virtualized network functions;
Stage 2
(3GPP TS 28.527 version 15.0.0 Release 15)**



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Foreword

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Version x.y.z

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- x the first digit:
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 - 2 presented to TSG for approval;
 - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

The present document is part of a TS-family covering the 3rd Generation Partnership Project Technical Specification Group Services and System Aspects, Telecommunication Management; as identified below:

TS 28.525: Telecommunication management; Life Cycle Management (LCM) for mobile networks that include virtualized network functions; Requirements.

TS 28.526: Telecommunication management; Life Cycle Management (LCM) for mobile networks that include virtualized network functions; Procedures.

TS 28.527: Telecommunication management; Life Cycle Management (LCM) for mobile networks that include virtualized network functions; Stage 2.

TS 28.528: Telecommunication management; Life Cycle Management (LCM) for mobile networks that include virtualized network functions; Stage 3.

1 Scope

The present document is the Life Cycle Management (LCM) stage 2 specification for mobile networks that include virtualized network functions.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
 - [2] 3GPP TS 28.500: "Telecommunication management; Concept, architecture and requirements for mobile networks that include virtualized network functions".
 - [3] ETSI GS NFV-IFA 008 (V2.1.1): "Network Functions Virtualisation (NFV); Management and Orchestration; Ve-Vnfm reference point – Interface and Information Model Specification".
 - [4] ETSI GS NFV-IFA 013 (V2.1.1): "Network Functions Virtualisation (NFV); Management and Orchestration; Os-Ma-nfvo reference point – Interface and Information Model Specification".
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3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1], 3GPP TS 28.500 [2] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1] or in 3GPP TS 28.500 [2].

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1], 3GPP TS 28.500 [2] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1] or in 3GPP TS 28.500 [2].

4 Information model definition

4.1 Os-Ma-nfvo

For Os-Ma-nfvo NS lifecycle management (LCM) and VNF lifecycle as part of NS LCM, the information elements and notifications related to NS lifecycle management which are specified in clause 8.3 of ETSI GS NFV-IFA 013 [4] shall be used.

4.2 Ve-Vnfm-em

For Ve-Vnfm-em VNF lifecycle management, the following shall be used:

- the information elements related to VNF lifecycle management which are specified in clause 9.4 of ETSI GS NFV-IFA 008 [3],

- the information elements and notifications related to VNF lifecycle changes which are specified in clause 9.5 of ETSI GS NFV-IFA 008 [3], and
 - the information elements and notifications related to multiple interfaces which are specified in clause 9.8 of ETSI GS NFV-IFA 008 [3].
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5 Interface definitions

5.1 Os-Ma-nfvo

For NS lifecycle management the operations of the NS Lifecycle Management interface specified in clause 7.3 of ETSI GS NFV-IFA 013 [4] shall be used.

For NS lifecycle change notifications and notification subscription management, the operations of the NS Lifecycle Change Notification interface specified in clause 7.4 of ETSI GS NFV-IFA 013 [4] shall be used.

5.2 Ve-Vnfm-em

For VNF lifecycle management the operations of the VNF Lifecycle Management interface specified in clause 7.2 of ETSI GS NFV-IFA 008 [3] shall be used.

For VNF lifecycle change notifications and notification subscription management, the operations of the VNF Lifecycle Change Notification interface specified in clause 7.3 of ETSI GS NFV-IFA 008 [3] shall be used.

Annex A (informative): Change history

| Change history | | | | | | | |
|----------------|---------|-----------|----------|-----|-----|--|-------------|
| Date | Meeting | TDoc | CR | Rev | Cat | Subject/Comment | New version |
| 2017-03 | SA#75 | SP-170122 | | | | Presented for information and approval | 1.0.0 |
| 2017-03 | SA#75 | | | | | Upgrade to change control version | 14.0.0 |
| 2018-06 | SA#80 | SP-180417 | 000 1 | 1 | B | Scope extension to cover RAN | 15.0.0 |

History

| Document history | | |
|-------------------------|-----------|-------------|
| V15.0.0 | June 2018 | Publication |
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