



**LTE;
Telecommunication management;
Performance Management (PM) for mobile networks that
include virtualized network functions;
Stage 3
(3GPP TS 28.523 version 19.0.0 Release 19)**



ReferenceRTS/TSGS-0528523vj00

KeywordsLTE

ETSI

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Foreword

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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
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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 28.520: Telecommunication management; Performance Management (PM) for mobile networks that include virtualized network functions; Requirements
- TS 28.521: Telecommunication management; Performance Management (PM) for mobile networks that include virtualized network functions; Procedures
- TS 28.522: Telecommunication management; Performance Management (PM) for mobile networks that include virtualized network functions; Stage 2
- TS 28.523: Telecommunication management; Performance Management (PM) for mobile networks that include virtualized network functions; Stage 3**

1 Scope

The present document is the Performance Management stage 3 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; Management concept, architecture and requirements for mobile networks that include virtualized network functions".
- [3] 3GPP TS 32.416: "Telecommunication management; Performance Management (PM) Integration Reference Point (IRP); Solution Set (SS) definitions".
- [4] ETSI GS NFV SOL 002 (V0.0.2) (2016-05): "Network Functions Virtualisation; Protocols and Data Models; RESTful protocols specification for the Ve-Vnfm Reference Point; Release 2".

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], in 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], in 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 General descriptions

The stage 3 solution over Itf-N reuses the solution sets for PM IRP as specified in 3GPP TS 32.416 [3]. The stage 3 solution over Ve-Vnfm-em reuses the solutions for performance management interface as specified in ETSI GS NFV SOL 002 [4].

5 Interface Solution Sets

5.1 Itf-N

For the stage 3 solution of Performance Management for mobile networks that include virtualized network functions over Itf-N, the solution sets for PM IRP specified in 3GPP TS 32.416 [3] are reused.

5.2 Os-Ma-nfvo

None.

5.3 Ve-Vnfm-em

For the stage 3 solution of Performance Management for mobile networks that include virtualized network functions over Ve-Vnfm-em, the following shall be used:

- the RESTful API resource structure and methods specified in clause 4.2 of ETSI GS NFV-SOL 002 [4], and
- the RESTful API sequence diagrams specified in clause 6.3 of ETSI GS NFV-SOL 002 [4], and
- the RESTful API resources specified in clause 6.4 of ETSI GS NFV-SOL 002 [4], and
- the RESTful API data model specified in clause 6.5 of ETSI GS NFV-SOL 002 [4].

5.4 Ve-Vnfm-vnf

None.

Annex A (informative):

Change history

Change history							
Date	Meeting	TDoc	CR	Rev	Cat	Subject/Comment	New version
2017-06	SA#76	SP-170468				Presented for information and approval	1.0.0
2017-06	SA#76					Upgrade to change control version	14.0.0
2018-06	SA#80	SP-180417	0001	1	B	Scope extension to cover RAN	15.0.0
2020-07	-	-	-	-	-	Update to Rel-16 version (MCC)	16.0.0
2022-03	-	-	-	-	-	Update to Rel-17 version (MCC)	17.0.0
2024-04	-	-	-	-	-	Update to Rel-18 version (MCC)	18.0.0
2025-09	SA#109	-	-	-	-	Update to Rel-19 version (MCC)	19.0.0

History

Document history		
V19.0.0	October 2025	Publication