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TECHNICAL SPECIFICATION

**Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Generic Network Resource Model (NRM)
Integration Reference Point (IRP);
Requirements
(3GPP TS 28.621 version 15.1.0 Release 15)**

Reference

RTS/TSGS-0528621vf10

Keywords

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Contents

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

x the first digit:

1 presented to TSG for information;

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:

28.621: Generic Network Resource Model (NRM) Integration Reference Point (IRP); Requirements

28.622: Generic Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)

28.623: Generic Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions

Configuration Management (CM), in general, provides the operator with the ability to assure correct and effective operation of the 3G network as it evolves. CM actions have the objective to control and monitor the actual configuration on the Network Elements (NEs) and network resources , and they may be initiated by the operator or by functions in the Operations Systems (OSs) or NEs.

CM actions may be requested as part of an implementation programme (e.g. additions and deletions), as part of an optimisation programme (e.g. modifications), and to maintain the overall Quality of Service (QoS). The CM actions are initiated either as single actions on single NEs of the 3G network, or as part of a complex procedure involving actions on many resources/objects in one or several NEs.

1 Scope

The present document defines, in addition to the requirements defined in [1], [2] and [3], the requirements for the present IRP: Generic Network Resource Model IRP.

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 TS 32.101: "Telecommunication management; Principles and high level requirements".

[2] 3GPP TS 32.102: "Telecommunication management; Architecture".

[3] 3GPP TS 32.600: "Telecommunication management; Configuration Management (CM); Concept and high-level requirements".

[4] Void

[5] Void

[6] Void

[7] 3GPP TS 28.620: "Telecommunication management; Fixed Mobile Convergence (FMC) Federated Network Information Model (FNIM) Umbrella Information Model (UIM)".

[8] 3GPP TS 28.622: "Telecommunication management; Generic Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)".

[9] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [9] 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 [9].

Element Manager (EM): provides a package of end-user functions for management of a set of closely related types of Network Elements (NEs). These functions can be divided into two main categories:

- *Element Management Functions* for management of NEs on an individual basis. These are basically the same functions as supported by the corresponding local terminals.
- *Sub-Network Management Functions* that are related to a network model for a set of NEs constituting a clearly defined sub-network, which may include relations between the NEs. This model enables additional functions on the sub-network level (typically in the areas of network topology presentation, alarm correlation, service impact analysis and circuit provisioning).

IRP: See 3GPP TS 32.101 [1].

IRP Information Service: See 3GPP TS 32.101 [1].

IRP Solution Set: See 3GPP TS 32.101 [1].

Information Object Class (IOC): See 3GPP TS 28.622 [8] clause 3.1 Information Object Class (IOC).

Network Element (NE): is a discrete telecommunications entity, which can be, managed over a specific interface e.g. the RNC.

Network resource: See definition in TS 28.622 [8].

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [9] 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 [9].

CM Configuration Management
IOC Information Object Class

4 Requirements

The following general and high-level requirements apply for the present IRP:

a) IRP-related requirements in 3GPP TS 32.101 [1].

b) IRP-related requirements in 3GPP TS 32.102 [2].

c) IRP-related requirements in 3GPP TS 32.600 [3].

In addition, the NRM defined by this IRP:

1) Shall be generic, i.e. not contain any domain specific definitions such as UTRAN or CN entities. Examples of generic entities are: High-level IOCs for containment of other more domain-specific IOCs, and abstract IOCs for sub-classing by other more domain-specific IOCs.

2) Shall support management of UMTS-GSM Inter-system handover.

3) Shall support communications for telecommunication network management purposes, including management of converged networks.

4) Is a member of the Federated Network Information Model (FNIM) [6] and its information is derived from FNIM Umbrella Information Model (UIM) [7].

5) Shall support management of networks that include virtualized network functions.

Annex A (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
2012-12					New version after approval	2.0.0	11.0.0
2014-06	SA#64	SP-140358	001	-	Move the feature support statements into a separate table	11.0.0	11.1.0
2014-09	-	-	-	-	Update to Rel-12 version (MCC)	11.1.0	**12.0.0**
2016-01	-	-	-	-	Update to Rel-13 version (MCC)	12.0.0	**13.0.0**

Change history							
Date	Meeting	TDoc	CR	Rev	Cat	Subject/Comment	New version
2016-12	SA#74	SP-160857	0003	1	B	Adding the generic configuration requirement to support management of VNFs	14.0.0
2018-06	-	-	-	-	-	Update to Rel-15 version (MCC)	**15.0.0**
2019-09	SA#85	SP-190751	0004	-	F	Correction of NR definition to avoid misalignment with RAN2	**15.1.0**