



**Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Transport Network (TN) interface
Network Resource Model (NRM)
Integration Reference Point (IRP);
Requirements
(3GPP TS 28.731 version 14.0.0 Release 14)**



Reference

RTS/TSGS-0528731ve00

Keywords

LTE,UMTS

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Important notice

The present document can be downloaded from:

<http://www.etsi.org/standards-search>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the only prevailing document is the print of the Portable Document Format (PDF) version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status.

Information on the current status of this and other ETSI documents is available at

<https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx>

If you find errors in the present document, please send your comment to one of the following services:

<https://portal.etsi.org/People/CommiteeSupportStaff.aspx>

Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2017.

All rights reserved.

DECT™, PLUGTESTS™, UMTS™ and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.

3GPP™ and LTE™ are Trade Marks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

oneM2M logo is protected for the benefit of its Members

GSM® and the GSM logo are Trade Marks registered and owned by the GSM Association.

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<https://ipr.etsi.org>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

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

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under <http://webapp.etsi.org/key/queryform.asp>.

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**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).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Contents

Intellectual Property Rights	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	4
Introduction	4
1 Scope	5
2 References	5
3 Definitions and abbreviations.....	5
3.1 Definitions	5
3.2 Abbreviations	5
4 Requirements.....	6
Annex B (informative): Change history	7
History	8

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:

28.731 Transport Network (TN) interface Network Resource Model (NRM) Integration Reference Point (IRP); Requirements.

28.732 Transport Network (TN) interface Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS).

28.733 Transport Network (TN) interface Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions.

1 Scope

The present document defines, in addition to the requirements defined in [1], [2] and [3], the requirements for the present IRP: Transport Network (TN) interface Network Resource Model (NRM).

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] 3GPP TS 32.107: "Telecommunication management; Fixed Mobile Convergence (FMC) Federated Network Information Model (FNIM)".
 - [5] 3GPP TS 28.620: "Telecommunication management; Fixed Mobile Convergence (FMC) Federated Network Information Model (FNIM) Umbrella Information Model (UIM)".
 - [6] 3GPP TS.28.622: "Generic Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)".
-

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

IRP: see 3GPP TS 32.101 [1]

Network Resource Model (NRM): See definition in TS 32.622 [6].

3.2 Abbreviations

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

CM	Configuration Management
GSM	Global System for Mobile communication
IRP	Integration Reference Point
NRM	Network Resource Model

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].

The NRM defined by this IRP:

- d) Shall support communications for telecommunication network management purposes, including management of converged networks.
- e) Is a member of the Federated Network Information Model (FNIM) [4] and its information is derived from FNIM Umbrella Information Model (UIM) [5]

In addition, the following more specific requirements apply:

REQ-TN_NRM-CON-001: The NRM specified by this IRP shall allow for the configuration of the ATM Termination Points of the UTRAN inter element links (Iub-link, Iur-link, Iu-link), which are residing in a Node B or RNC. More specifically, the NRM:

- 1) shall allow for the viewing of the physical layer used by the ATM network (e. g. E1);
- 2) shall allow for the viewing of parameters of the virtual circuits associated with each link (e.g. VPI/VCI, ATM Service Category, AAL type, Peak Cell Rate, Sustainable Cell Rate, Maximum Burst Size);
- 3) shall allow the assigning of a UTRAN interface logical channel (e.g. Iub-NBAP) to a virtual circuit and configuration of parameters of the virtual circuit (e.g. VPI/VCI, ATM Service Category, AAL type, Peak Cell Rate, Sustainable Cell Rate, Maximum Burst Size);
- 4) shall allow to relate the ATM Termination Point easily to the associated link;
- 5) shall allow to relate the ATM Termination Point easily to the network element and the type of network element it is connected to.

REQ-TN_NRM-CON-002: The NRM defined by this IRP shall be generic in the sense to allow support for multiple transport technologies (e.g. IP) in the future;

REQ-TN_NRM-CON-003: The NRM defined by this IRP shall be generic in the sense to allow support for the management of termination points of other interface links (e. g. links between network elements of the CN) in the future.

Annex B (informative): Change history

Change history								
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Cat	Old	New
2014-06	SA#64	SP-140358	001	-	remove the feature support statements	F	11.0.0	11.1.0
2014-10	-	-	-	-	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
2017-03	SA#75	-	-	-	Promotion to Release 14 without technical change		13.0.0	14.0.0

History

Document history		
V14.0.0	April 2017	Publication