



**Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Evolved Universal Terrestrial
Radio Access Network (E-UTRAN)
Network Resource Model (NRM)
Integration Reference Point (IRP);
Requirements
(3GPP TS 28.657 version 13.1.0 Release 13)**



Reference

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Foreword

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

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Version x.y.z

where:

- x the first digit:
 - 1 presented to TSG for information;
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- 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 28.657	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP); Requirements
TS 28.658	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP): Information Service (IS)
TS 28.659	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) 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 E-UTRAN Network Resource Model (NRM) 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] 3GPP TS 32.150: "Telecommunication management; Integration Reference Point (IRP) Concept and definitions".
- [5] 3GPP TS 21.905: "Vocabulary for 3GPP Specifications".
- [6] 3GPP TS 32.511: "Telecommunication management; Automatic Neighbour Relation (ANR) management; Concepts and requirements".
- [7] 3GPP TS 32.107: "Telecommunication management; Fixed Mobile Convergence (FMC) Federated Network Information Model (FNIM)".
- [8] 3GPP TS 28.620: "Telecommunication management; Fixed Mobile Convergence (FMC) Federated Network Information Model (FNIM) Umbrella Information Model (UIM)".
- [9] 3GPP TS 32.130: "Telecommunication management; Network sharing; Concepts and requirements".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 32.150 [4], TS 32.101 [1], TS 32.102 [2] and TS 21.905 [5] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TS 32.150 [4], TS 32.101 [1], TS 32.102 [2] and TS 21.905 [5], in this order.

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in TS 32.150 [4], TS 32.101 [1], TS 32.102 [2] and TS 21.905 [5] and the following apply. An abbreviation defined in the present document takes precedence over the

definition of the same abbreviation, if any, in TS 32.150 [4], TS 32.101 [1], TS 32.102 [2] and TS 21.905 [5], in this order.

CM	Configuration Management
E-UTRAN	Evolved Universal Terrestrial Radio Access Network
IRP	Integration Reference Point
NB-IoT	NarrowBand Internet of Things
NRM	Network Resource Model

4 Requirements

The following general and high-level requirement applies for the present IRP:

- IRP-related requirements in 3GPP TS 32.101 [1];
- IRP-related requirements in 3GPP TS 32.102 [2];
- IRP-related requirements in 3GPP TS 32.600 [3];
- ANR management related requirements in 3GPP TS 32.511 [6];
- E-UTRAN sharing related requirements in 3GPP TS 32.130 [9].

The NRM defined by this IRP:

- Shall support communications for telecommunication network management purposes, including management of converged networks.
- Is a member of the Federated Network Information Model (FNIM) [7] and its information is derived from FNIM Umbrella Information Model (UIM) [8]

In addition to the above, the following more specific requirements apply:

REQ-EUTRAN_NRM-CON-001: The NRM defined by this IRP shall contain E-UTRAN specific IOCs and related definitions, supporting E-UTRAN network entities.

REQ-EUTRAN_NRM-CON-002: The NRM defined by this IRP shall support management of inter-system handover between EPS and UMTS, between EPS and GSM, and between EPS and CDMA2000.

REQ-EUTRAN_NRM-CON-003: The NRM defined by this IRP shall support management of Inter-Radio Access Technology Automatic Neighbour Relation (IRAT ANR) from E-UTRAN to UTRAN, from E-UTRAN to GERAN, and from E-UTRAN to CDMA2000.

REQ-EUTRAN_NRM-CON-004: The NRM defined by this IRP shall support management of Intra-E-UTRAN handover.

REQ-EUTRAN_NRM-CON-005: The NRM defined by this IRP shall support management of Intra-E-UTRAN Automatic Neighbour Relation (ANR).

REQ-EUTRAN_NRM-CON-006: The NRM defined by this IRP shall support management of E-UTRAN relaying by having a Relay Node (RN) wirelessly connect to a Donor eNB (DeNB).

REQ-EUTRAN_NRM-CON-007: The NRM defined by this IRP shall support the management of designation of individual cells as reserved for special use, i.e. such that only UEs with an operator-specified subset of Access Classes 10 to 15 can use those cells.

REQ-EUTRAN_NRM-CON-008: The NRM defined by this IRP shall support the management of shared E-UTRAN.

REQ-EUTRAN_NRM-CON-009: The NRM defined by this IRP shall support the management of NB-IoT.

Annex A (informative): Change history

Change history								
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Cat	Old	New
2014-06	SA#64	SP-140359	002	-	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
2014-12	SA#66	SP-140800	003	-	Add requirement for the management of shared E-UTRAN	B	12.0.0	12.1.0
2016-01	-	-	-	-	Update to Rel-13 version (MCC)		12.1.0	13.0.0

Change history							
Date	Meeting	TDoc	CR	Rev	Cat	Subject/Comment	New version
2016-06	SA#72	SP-160419	000 5	2	B	Adding NB-IoT management requirement	13.1.0

History

Document history		
V13.0.0	January 2016	Publication
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