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TECHNICAL SPECIFICATION

**Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Home enhanced Node B (HeNB) Subsystem (HeNS)
Network Resource Model (NRM)
Integration Reference Point (IRP);
Requirements
(3GPP TS 28.674 version 12.0.0 Release 12)**

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Contents

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;

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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:

28.674:   **Telecommunication management; Home enhanced Node B Subsystem (HeNS) Network Resource Model (NRM) Integration Reference Point (IRP); Requirements**

28.675:   Telecommunication management; Home enhanced Node B Subsystem (HeNS) Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)

28.676:   Telecommunication management; Home enhanced Node B Subsystem (HeNS) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions

1   Scope

The document describes the requirements for Home eNodeB Subsystem (HeNS), which include Home eNodeB (HeNB) and Home eNodeB gateway (HeNB GW). The HeNS NRM IRP requirements are targeted on both HeNB and HeNB GW 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 25.905: "Vocabulary for 3GPP Specifications".

[2]   3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".

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

[4]   3GPP TS 32.600: "Telecommunication management; Configuration Management (CM); Concept and high-level requirements".

[5]   3GPP TS 32.150: "Telecommunication management; Integration Reference Point (IRP) Concept and definitions".

[6]   3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".

[7]   3GPP TS 36.300: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access (E-UTRAN); Overall description; Stage 2".

[8]   3GPP TS 32.107: "Telecommunication management; Fixed Mobile Convergence (FMC) Federated Network Information Model (FNIM)".

[9]   3GPP TS 28.620: "Telecommunication management; Fixed Mobile Convergence (FMC) Federated Network Information Model (FNIM) Umbrella Information Model (UIM)".

3   Definitions, symbols and abbreviations

3.1   Definitions

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

Integration Reference Point (IRP): See 3GPP TS 32.150 [5].

Information Service (IS): See 3GPP TS 32.150 [5].

Solution Set (SS): See 3GPP TS 32.150 [5].

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

3.1 Abbreviations

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

HeNB	Home eNodeB
GW	Gateway
HeNB	Home enhanced Node B
HeNS	Home enhanced Node B Subsystem
IRP	Integration Reference Point
IOC	Information Object Class
NRM	Network Resource Model

4 Concepts and background

HeNB Subsystem is defined in TS 23.401[6]. According to the definition, a HeNB Subsystem consists of a HeNB and optionally a HeNB GW. The HeNB Subsystem is connected by means of the standard S1 interface to the EPC (Evolved Packet Core), more specifically to the MME (Mobility Management Entity) by means of the S1-MME interface and to the Serving Gateway (S-GW) by means of the S1-U interface.

Detailed functions of HeNB and HeNB GW are described in TS 36.300 [7]. To be more specific, HeNB is a Customer Premise Equipment that offers the LTE-Uu Interface to the UE. And it could discovery a suitable Serving HeNB GW over S1 interface. A HeNB GW can relay UE-associated S1 application part messages between the MME serving the UE and the HeNB serving the UE. It could terminate non-UE associated S1 application part procedures towards the HeNB and towards the MME and optionally terminate S1-U interface with the HeNB and with the S-GW.

Based on the above characteristics, this specification defines respective HeNS NRM IRP requirements.

5 Requirements

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

  A. IRP-related requirements in 3GPP TS 32.101 [2].

  B. IRP-related requirements in 3GPP TS 32.102 [3].

  C. IRP-related requirements in 3GPP TS 32.600 [4].

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) [8] and its information is derived from FNIM Umbrella Information Model (UIM) [9]

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

REQ-HeNS_GW-CON-001   The Network Resource Model defined by this IRP shall contain HeNB GW specific IOCs and related definitions..

REQ-HeNS_GW-CON-002   The Network Resource Model defined by this IRP shall provide support for enabling consistency between HeNB GW, HeNB and related EPC nodes.

Annex A (informative): Change history

<table>
<tr><th colspan="9">Change history</th></tr>
<tr><th>Date</th><th>TSG #</th><th>TSG Doc.</th><th>CR</th><th>Rev</th><th>Subject/Comment</th><th>Cat</th><th>Old</th><th>New</th></tr>
<tr><td>2014-06</td><td>SA#64</td><td>SP-140360</td><td>001</td><td>-</td><td>remove the feature support statements</td><td>F</td><td>11.0.0</td><td>11.1.0</td></tr>
<tr><td>2014-10</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>Update to Rel-12 version (MCC)</td><td>11.1.0</td><td>**12.0.0**</td></tr>
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History

Document history		
V12.0.0	October 2014	Publication