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Technical Specification

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Foreword

This Technical Report 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:

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

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

32.786: 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".

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].

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

Change history							
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**
Sep 2009	SA-45	SP-090550	--	--	Presentation to SA for information	---	1.0.0
Dec 2009	SA-46	SP-090740	--	--	Presentation to SA for approval	1.0.0	2.0.0
Dec 2009	--	--	--	--	Publication	2.0.0	9.0.0
Mar 2010	SA-47	SP-100038	001	--	Addition of concepts and background statements in TS 32.781	9.0.0	9.1.0
2011-03	-	-	-	-	Update to Rel-10 version (MCC)	9.1.0	10.0.0
2012-09	-	-	-	-	Update to Rel-11 version (MCC)	10.0.0	**11.0.0**