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Universal Mobile Telecommunications System (UMTS);
LTE;
Evolved Packet System (EPS);
Mobility Management Entity (MME)
and Serving GPRS Support Node (SGSN)
related interfaces based on Diameter protocol
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Foreword

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1 Scope

The present document describes the Mobility Management Entity (MME) and Serving GPRS Support Node (SGSN) related diameter-based interfaces towards the Home Subscriber Server (HSS) or the CSG Subscriber Server (CSS), and the MME and the SGSN related diameter-based interface towards the Equipment Identity Register (EIR).

This specification defines the Diameter application for the MME-HSS, S6a reference point, for the MME-CSS, S7a reference point, for the SGSN-HSS, S6d reference point, and for the SGSN-CSS, S7d reference point. The interactions between the HSS/CSS and the MME/SGSN are specified, including the signalling flows.

This specification defines the Diameter application for the MME-EIR, S13 reference point, and for the SGSN-EIR, S13' reference point. The interactions between the MME/SGSN and the EIR are specified, including the signalling flows.

In this specification, if there is no specific indication, the following principles apply:

- "SGSN" refers to an SGSN which at least supports the S4 interface and may support Gn and Gp interfaces.
- "S4-SGSN" refers to an SGSN which supports the S4 interface and does not support Gn and Gp interfaces.
- Gn/Gp-SGSN refers to an SGSN which supports the Gn and Gp interfaces and does not support S4 interface.
- "GPRS subscription data" refers to the parameters in the HLR column in Table 5.2. in 3GPP TS 23.008 [30].
- "EPS subscription data" refers to the parameters in the HSS column in Table 5.2A-1 in 3GPP TS 23.008 [30].

The Evolved Packet System stage 2 description (architecture and functional solutions) is specified in 3GPP TS 23.401 [2] and in 3GPP TS 23.060 [12].

SGSN CAMEL Subscription Data are not supported over S6d interface.

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 TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.401: "GPRS enhancements for E-UTRAN access ".

[3] 3GPP TS 23.003: "Numbering, addressing and identification".

[4] IETF RFC 3588: "Diameter Base Protocol".

[5] 3GPP TS 33.401: "3GPP System Architecture Evolution: Security Architecture".

[6] IETF RFC 4005: "Diameter Network Access Server Application".

[7] IETF RFC 2234: "Augmented BNF for syntax specifications".

[8] 3GPP TS 32.299: "Charging management; Diameter charging applications".

[9] 3GPP TS 29.229: "Cx and Dx interfaces based on the Diameter protocol".

[10] 3GPP TS 29.212: "Policy and Charging Control (PCC); Reference points".