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**Universal Mobile Telecommunications System (UMTS);  
LTE;  
Evolved Packet System (EPS);  
3GPP EPS AAA interfaces  
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## Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> 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

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- 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.

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## Introduction

The present specification details the stage 3 work related to all 3GPP AAA reference points used by the different non-3GPP accesses included in EPS; it will also cover H2 reference point defined in I-WLAN mobility.

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# 1 Scope

The present document defines the stage-3 protocol description for several reference points for the non-3GPP access in EPS.

The present document is applicable to:

- The SWa reference point between an un-trusted non-3GPP IP access and the 3GPP AAA Server/Proxy.
- The STa reference point between a trusted non-3GPP IP access and the 3GPP AAA Server/Proxy.
- The SWd reference point between the 3GPP AAA Proxy and 3GPP AAA Server.
- The SWx reference point between the 3GPP AAA Server and the HSS.
- The S6b reference point between the 3GPP AAA Server/Proxy and the PDN GW.
- The H2 reference point between the 3GPP AAA Server and the HA.
- The SWm reference point between the 3GPP AAA Server/Proxy and the ePDG.

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# 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] IETF RFC 5779: "Diameter Proxy Mobile IPv6: Mobility Access Gateway and Local Mobility Anchor Interaction with Diameter Server".
- [3] 3GPP TS 23.402: "Architecture enhancements for non-3GPP accesses".
- [4] IETF RFC 4005: "Diameter Network Access Server Application".
- [5] IETF RFC 4072: "Diameter Extensible Authentication Protocol (EAP) Application".
- [6] IETF RFC 5447: "Diameter Mobile IPv6: Support for Network Access Server to Diameter Server Interaction".
- [7] IETF RFC 3588: "Diameter Base Protocol".
- [8] IETF RFC 3748: "Extensible Authentication Protocol (EAP)".
- [9] IETF RFC 5777: "Traffic Classification and Quality of Service (QoS) Attributes for Diameter".
- [10] 3GPP TS 33.234: "3G security; Wireless Local Area Network (WLAN) interworking security".
- [11] IETF RFC 5778: "Diameter Mobile IPv6: Support for Home Agent to Diameter Server Interaction".
- [12] 3GPP TS 23.327: "Mobility between 3GPP-Wireless Local Area Network (WLAN) Interworking and 3GPP Systems".