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650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

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Foreword

This Technical Specification 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;
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  - 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.

1 Scope

The present document specifies the procedures used by the protocols for mobility management and session management between User Equipment (UE) and Mobility Management Entity (MME) in the Evolved Packet System (EPS). These protocols belong to the non-access stratum (NAS).

The EPS Mobility Management (EMM) protocol defined in the present document provides procedures for the control of mobility when the User Equipment (UE) is using the Evolved UMTS Terrestrial Radio Access Network (E-UTRAN). The EMM protocol also provides control of security for the NAS protocols.

The EPS Session Management (ESM) protocol defined in the present document provides procedures for the handling of EPS bearer contexts. Together with the bearer control provided by the access stratum, this protocol is used for the control of user plane bearers.

For both NAS protocols the present document specifies procedures for the support of inter-system mobility between E-UTRAN and other 3GPP or non-3GPP access networks:

- For inter-system mobility between E-UTRAN and GERAN or UTRAN, this includes rules for a mapping between parameters and procedures used by the NAS protocols defined in the present document and the NAS protocols specified in 3GPP TS 24.008 [13].

- For inter-system mobility between E-UTRAN and generic non-3GPP access networks, this includes specific NAS procedures to maintain IP connectivity to the PDN Gateway and to provide parameters needed by the UE when using mobility management based on Dual-Stack Mobile IPv6 (see 3GPP TS 24.303 [14]) or MIPv4 (see 3GPP TS 24.304 [15]).

The present document is applicable to the UE and to the Mobility Management Entity (MME) in the EPS.

The present document is also applicable to the relay node in the EPS (see 3GPP TS 23.401 [10]).

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".

[1A] 3GPP TS 22.011: "Service accessibility".

[1B] Void.

[1C] 3GPP TS 22.278: "Service requirements for the Evolved Packet System (EPS)".

[2] 3GPP TS 23.003: "Numbering, addressing and identification".

[3] 3GPP TS 23.038: "Alphabets and language-specific information".

[4] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service Description; Stage 2".

[5] 3GPP TS 23.107: "Quality of Service (QoS) concept and architecture".

[6] 3GPP TS 23.122: "Non-Access-Stratum functions related to Mobile Station (MS) in idle mode".