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1 Scope

The present document defines a transport protocol for use in the IP multimedia (IM) Core Network (CN) subsystem based on Diameter.

The present document is applicable to:

- The Sh interface between an AS and the HSS.
- The Sh interface between an SCS and the HSS.

Whenever it is possible this document specifies the requirements for this protocol by reference to specifications produced by the IETF within the scope of Diameter. Where this is not possible, extensions to Diameter are defined within this document.

2 References

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- 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 29.328 "IP Multimedia (IM) Subsystem Sh interface; signalling flows and message contents".

[2] 3GPP TS 33.210 "3G Security; Network Domain Security; IP Network Layer Security".

[3] IETF RFC 2960 "Stream Control Transmission Protocol".

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

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

[6] 3GPP TS 29.229 "Cx and Dx Interfaces based on the Diameter protocol; protocol details".

[7] IETF RFC 3589 "Diameter Command Codes for Third Generation Partnership Project (3GPP) Release 5".

[8] ITU-T Recommendation E.164: "The international public telecommunication numbering plan".

[9] 3GPP TR 33.978 "Security aspects of early IP Multimedia Subsystem (IMS) (Release 6)".

[10] 3GPP TS 29.364 "IMS Application Server Service Data Descriptions for AS interoperability".

[11] 3GPP TS 29.002 "Mobile Application Part (MAP) specification".

[12] IETF RFC 7683: "Diameter Overload Indication Conveyance".

3 Definitions, symbols and abbreviations

3.1 Definitions

Refer to IETF RFC 3588 [4] for the definitions of some terms used in this document.

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