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Foreword

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1 Scope

The present specification adds detailed flows of Policy and Charging Control (PCC) over the Diameter-based Rx, Gx, Gxx, Sd, Sy, S9, Nt, Diameter-based St and Np reference points and their relationship with the bearer level signalling flows over the Gn/Gp, S4, S5/S8, S2a and S2c interfaces.

The calls flows depicted in this Technical Specification represent usual cases, i.e. not all situations are covered. Detailed information provided in 3GPP TS 29.212 [9], 3GPP TS 29.214 [10], 3GPP TS 29.215 [22], 3GPP TS 29.217 [36] , 3GPP TS 29.154 [56] and 3GPP TS 29.219 [28] shall be taken into consideration.

The present specification also describes the binding and the mapping of QoS parameters among SDP, UM3GPP TS QoS parameters, and QoS authorization parameters.

The present specification also describes the PCRF addressing using DRA.

The present specification also describes Diameter race condition handling for Gx based applications, i.e Gx, Gxx, Sd and S9.

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 and/or edition number or version number) 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 23.203: 'Policy Control and charging architecture'.

[3] 3GPP TS 23.060: 'General Packet Radio Service (GPRS); Service description; Stage 2'.

[4] 3GPP TS 23.107: 'Quality of Service (QoS) concept and architecture'.

[5] 3GPP TS 24.229: 'IP Multimedia Call Control Protocol based on SIP and SDP; Stage 3'.

[6] 3GPP TS 26.234: 'End-to-end transparent streaming service; Protocols and codecs'.

[7] Void.

[8] Void

[9] 3GPP TS 29.212: 'Policy and Charging Control (PCC); Reference points'.

[10] 3GPP TS 29.214: 'Policy and Charging Control over Rx reference point'.

[11] IETF RFC 2327: 'SDP: Session Description Protocol'.

[12] IETF RFC 3264: 'An Offer/Answer model with the Session Description Protocol (SDP)'.

[13] IETF RFC 3556: 'Session Description Protocol (SDP) Bandwidth Modifiers for RTP Control Protocol (RTCP) Bandwidth'.

[14] IETF RFC 3588: 'Diameter Base Protocol'.