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Policy and charging control architecture
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Contents

Foreword

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Introduction

Policy and Charging Control functionality encompasses two main functions:

- Flow Based Charging, including charging control and online credit control, for service data flows and application traffic;
- Policy control (e.g. gating control, QoS control, QoS signalling, etc.).

The present document specifies the generic PCC aspects within the body, while the specifics for each type of IP-CAN are specified in Annexes. For one type of IP-CAN the corresponding clause in an Annex shall be understood to be a realization of the TS main body. The Annexes are therefore not stand-alone specifications for an IP-CAN. Annexes may specify additional restrictions to the specification body.

1 Scope

The present document specifies the overall stage 2 level functionality for Policy and Charging Control that encompasses the following high level functions for IP-CANs (e.g. GPRS, Fixed Broadband, etc.):

- Flow Based Charging for network usage, including charging control and online credit control, for service data flows and application traffic;
- Policy control (e.g. gating control, QoS control, QoS signalling, etc.).

The present document specifies the Policy and Charging Control functionality for Evolved 3GPP Packet Switched domain, including both 3GPP accesses (GERAN/UTRAN/E-UTRAN) and Non-3GPP accesses, according to TS 23.401 [17] and TS 23.402 [18].

The present document specifies functionality for unicast bearers. Broadcast and multicast bearers, such as MBMS contexts for GPRS, are out of scope for the present release of this document.

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 TS 41.101: "Technical Specifications and Technical Reports for a GERAN-based 3GPP system".

[2] Void.

[3] 3GPP TS 32.240: "Telecommunication management; Charging management; Charging architecture and principles".

[4] IETF RFC 4006: "Diameter Credit-Control Application".

[5] 3GPP TS 23.207: "End-to-end Quality of Service (QoS) concept and architecture".

[6] 3GPP TS 23.246: "Multimedia Broadcast/Multicast Service (MBMS); Architecture and functional description".

[7] 3GPP TS 23.125: "Overall high level functionality and architecture impacts of flow based charging; Stage 2".

[8] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[9] 3GPP TS 32.251: "Telecommunication management; Charging management; Packet Switched (PS) domain charging".

[10] 3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)".

[11] 3GPP TR 33.919: "3G Security; Generic Authentication Architecture (GAA); System description".

[12] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[13] Void.