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Interface between the Control plane Plane and the User Plane of EPC Nodes
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Contents

Foreword

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1 Scope

The present document specifies the Packet Forwarding Control Protocol (PFCP) used on the interface between the control plane and the user plane function in a split SGW, PGW and TDF architecture in EPC.

The architecture reference model and stage 2 information are specified in 3GPP TS 23.214 [2].

PFCP shall be used over the Sxa, Sxb, Sxc and the combined Sxa/Sxb reference points.

PFCP shall also be used over the Sxa' and Sxb' reference points specified in 3GPP TS 33.107 [20]. In the rest of this specification, no difference is made between Sxa and Sxa', or between Sxb and Sxb'. The Sxa' and Sxb' reference points reuse the protocol specified for the Sxa and Sxb reference points, but comply in addition with the security requirements specified in clause 8 of 3GPP 33.107 [20].

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

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[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.214: "Architecture enhancements for control and user plane separation of EPC nodes; Stage 2".

[3] 3GPP TS 29.281: "General Packet Radio System (GPRS) Tunnelling Protocol User Plane (GTPv1-U)".

[4] IETF RFC 768: "User Datagram Protocol".

[5] IETF RFC 791: "Internet Protocol".

[6] IETF RFC 2460: "Internet Protocol, Version 6 (IPv6) Specification".

[7] 3GPP TS 23.203: "Policy and charging control architecture; Stage 2".

[8] 3GPP TS 29.212: "Policy and Charging Control (PCC); Reference points".

[9] 3GPP TS 29.274: "3GPP Evolved Packet System. Evolved GPRS Tunnelling Protocol for EPS (GTPv2)".

[10] 3GPP TS 36.413: "Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 Application Protocol (S1AP)".

[11] 3GPP TS 29.213: "Policy and Charging Control signalling flows and Quality of Service (QoS) parameter mapping".

[12] IETF RFC 5905: "Network Time Protocol Version 4: Protocol and Algorithms Specification".

[13] IETF RFC 2474: "Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers".

[14] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".