



**Universal Mobile Telecommunications System (UMTS);
LTE;**

**3GPP Evolved Packet System (EPS);
Evolved General Packet Radio Service (GPRS)
Tunnelling Protocol for Control plane (GTPv2-C);
Stage 3**

(3GPP TS 29.274 version 13.5.0 Release 13)



Reference

RTS/TSGC-0429274vd50

Keywords

LTE,UMTS

ETSI

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Foreword

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1 Scope

The present document specifies the stage 3 of the control plane of the GPRS Tunnelling Protocol, Version 2 for Evolved Packet System interfaces (GTPv2-C).

In this document, unless otherwise specified, the S2a, S2b, S5 and S8 interfaces refer always to the GTP-based S2a, S2b, S5 and S8 interfaces respectively.

GTPv2-C shall be used across the following EPC signalling interfaces: S2a, S2b, S3, S4, S5, S8, S10, S11 and S16.

GTPv2-C shall be used across the Sm and Sn interfaces for MBMS in EPS.

GTPv2-C based protocols shall also be used across Sv (3GPP TS 29.280 [15]) and S101/S121 (3GPP TS 29.276 [14]) interfaces.

The procedures supported between the TWAN and the PGW on the S2a interface, and between the ePDG and the PGW on the S2b interface are specified in 3GPP TS 23.402 [45].

The present document specifies functions, procedures and information which apply to GERAN Iu mode. However, functionality related to GERAN Iu mode is neither maintained nor enhanced.

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.
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- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 23.003: "Numbering, addressing and identification".
- [3] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".
- [4] 3GPP TS 29.060: "General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp interface".
- [5] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".
- [6] IETF RFC 791 (STD 0005): "Internet Protocol", J. Postel.
- [7] IETF RFC 768 (STD 0006): "User Datagram Protocol", J. Postel.
- [8] 3GPP TS 32.251: "Telecommunication Management; Charging Management; Packet Switched (PS) domain charging".
- [9] 3GPP TS 32.298: "Telecommunication Management; Charging Management; Charging Data Record (CDR) parameter classification".
- [10] 3GPP TS 36.413: "Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 Application Protocol (S1AP)".
- [11] 3GPP TS 33.102: "3G security; Security architecture".