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**Universal Mobile Telecommunications System (UMTS);  
LTE;  
General Packet Radio System (GPRS)  
Tunnelling Protocol User Plane (GTPv1-U)  
(3GPP TS 29.281 version 14.1.0 Release 14)**



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# Foreword

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# 1 Scope

The present document defines the user plane of GTP used on:

- the Gn and Gp interfaces of the General Packet Radio Service (GPRS);
- the Iu, Gn and Gp interfaces of the UMTS system;
- the S1-U, S11-U, S2a, S2b, X2, S4, S5, S8, S12, M1 and Sn interfaces of the Evolved Packet System (EPS);

This definition ensures full backwards compatibility with RNC, SGSN and GGSN implementations according to release 7 of 3GPP TS 29.060 [6].

NOTE: Releases previous to Release-8 have used 3GPP TS 29.060 [6] as normative definition of the user plane of GTP. This shall be considered when essential corrections are included in the present document or in pre-release-8 version of 3GPP TS 29.060 [6].

Fallback from GTPv1-U to GTPv0-U shall not be supported. Therefore, 3GPP Rel-8 and onwards GTPv1-U entity should not listen to the well-known GTPv0 port 3386. If GTPv1 entity listens to the GTPv0 port, the entity shall silently discard any received GTPv0-U message.

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# 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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- 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 23.003: "Numbering, addressing and identification".
- [3] 3GPP TS 23.007: "Restoration procedures".
- [4] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".
- [5] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".
- [6] 3GPP TS 29.060: "General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp interface".
- [7] 3GPP TS 29.274: "3GPP Evolved Packet System; Evolved GPRS Tunnelling Protocol for EPS (GTPv2)".
- [8] 3GPP TS 32.295: "Telecommunication management; Charging management; Charging Data Record (CDR) transfer".
- [9] IETF RFC 768 (STD 0006): "User Datagram Protocol", J. Postel.
- [10] IETF RFC 791 (STD 0005): "Internet Protocol", J. Postel.
- [11] IETF RFC 4291: "IP Version 6 Addressing Architecture".
- [12] 3GPP TS 33.210: "3G security; Network Domain Security (NDS); IP network layer security".
- [13] 3GPP TS 23.121: "Architectural requirements for Release 1999".