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1 Scope

The present document contains deployment guidelines for the use of direct tunnelling of user plane data between the RNC and the GGSN (earlier known as the One Tunnel approach).

This report highlights the impacts of the 3GPP Release 7 Direct Tunnel solution to the current UMTS system in order to guide equipment development and network deployment.

2 References

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[1] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[2] 3GPP TS 23.107: " Quality of Service (QoS) concept and architecture".

[3] 3GPP TS 23.203: "Policy and charging control architecture".

[4] 3GPP TS 33.106: "Lawful interception requirements".

[5] 3GPP TS 33.107: "3G security; Lawful interception architecture and functions".

[6] 3GPP TS 33.108: "3G security; Handover interface for Lawful Interception (LI)".

3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

DT Direct Tunnel
LI Lawful Interception

4 Direct Tunnel Feature

4.1 General

Direct Tunnel is an optional feature in Iu mode that allows the SGSN to establish a direct user plane tunnel between RAN and GGSN within the PS domain.

The SGSN handles the control plane signalling and makes the decision when to establish a Direct Tunnel. In case of Direct Tunnel, the SGSN provides the RAN with the TEID and user plane address of the GGSN, and provides the GGSN with the TEID and user plane address of the RAN. The detailed procedures are specified in TS 23.060 [1].