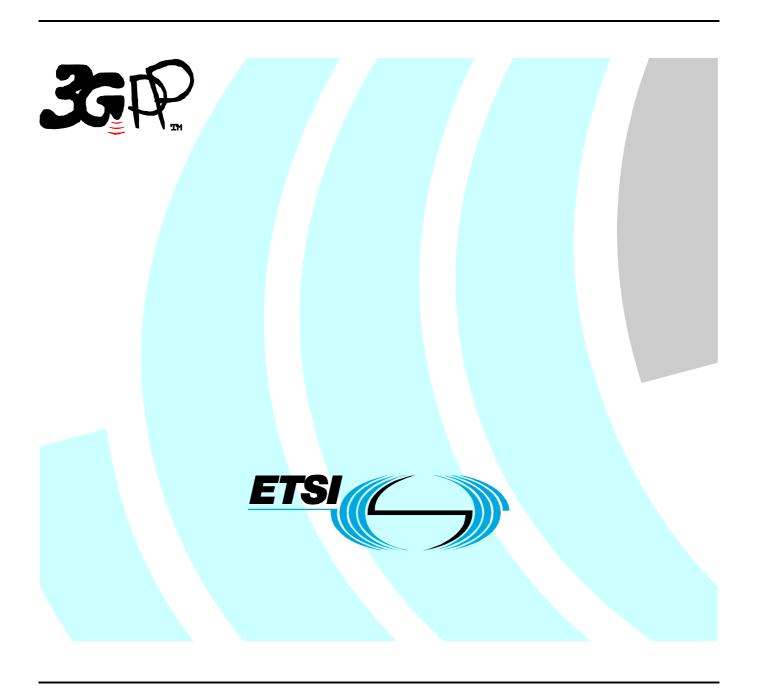
# ETSITS 125 452 V9.0.0 (2010-01)

Technical Specification

Universal Mobile Telecommunications System (UMTS); UTRAN lupc interface: signalling transport (3GPP TS 25.452 version 9.0.0 Release 9)



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### Foreword

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- x the first digit:
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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
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# 1 Scope

The present document specifies the signalling transport related to PCAP signalling to be used across the Iupc interface. The Iupc interface is a logical interface for the interconnection of Stand-Alone SMLC (SAS) and Radio Network Controller (RNC) components of the Universal Terrestrial Radio Access Network (UTRAN) for the UMTS system. The radio network control signalling between these nodes is based upon the Position Calculation Application Part (PCAP).

### 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 25.422: "UTRAN Iur Interface Signalling Transport". [2] ITU-T Recommendation Q.711 (1996): "Functional description of the signalling connection control part". [3] ITU-T Recommendation Q.712 (1996): "Definition and function of Signalling connection control part messages". [4] ITU-T Recommendation Q.713 (1996): "Signalling connection control part formats and codes". ITU-T Recommendation Q.714 (1996): "Signalling connection control part procedures". [5] [6] ITU-T Recommendation Q.715 (1996): "Signalling connection control part user guide". ITU-T Recommendation Q.716 (1993): "Signalling Connection Control Part (SCCP) [7] performance". [8] 3GPP TS 25.305: "Stage 2 functional specification of UE positioning in UTRAN"

# 3 Definitions and abbreviations

#### 3.1 Definitions

For the purposes of the present document, the following definition applies:

Stand-Alone SMLC (SAS): As defined in [8].

#### 3.2 Abbreviations

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

AAL5 ATM Adaptation Layer type 5
A-GPS Assisted GPS
ATM Asynchronous Transfer Mode
CRNC Controlling Radio Network Controller
GPS Global Positioning System

GT Global Title
IP Internet Protocol

M3UA SS7 MTP3 User Adaptation Layer

MTP Message Transfer Part

PCAP Position Calculation Application Part

RNC Radio Network Controller SAP Service Access Point SAS Stand-Alone SMLC

SCCP Signalling Connection Control Part
SCTP Stream Control Transmission Protocol
SMLC Serving Mobile Location Centre

SPC Signalling Point Code

SRNC Serving Radio Network Controller

SS7 Signalling System N° 7

SSCF-NNI Service Specific Co-ordination Function – Network Node Interface

SSCOP Service Specific Connection Oriented Protocol

SSN Sub-System Number UE User Equipment

UMTS Universal Mobile Telecommunication System UTRAN UMTS Terrestrial Radio Access Network

# 4 PCAP Signalling Bearer

#### 4.1 Introduction

This clause specifies the Signalling Bearer protocol stack that supports the PCAP signalling protocol.

The following requirements on the Signalling Bearer can be stated:

- provide reliable transfer of control plane signalling messages in both connectionless mode and connectionoriented mode;
- provide separate independent connections for distinguishing individual transactions;
- provide networking and routing functions;
- provide redundancy in the signalling network;
- provide load sharing.

## 4.2 Signalling Bearer

The Iupc signalling bearer shall comply with the requirements of clause 5.2 in [1].

# 4.3 Services Provided by the Signalling Bearer

When considering the requirements that the upper layers, i.e. PCAP, have on the Signalling Bearer, there are a number of services it has to provide and a number of functions to perform. These numbers of services that the signalling bearer shall provide, to the upper layers, are stated in references [2] to [7].

# Annex A (informative): Change history

Date /	TSG Doc.	CR	Rev	Subject/Comment	New
TSG					
12/2008	-	-	-	Creation of Rel-8 version based on v7.1.0	8.0.0
12/2009	-	-	-	Creation of Rel-9 version based on v8.0.0	9.0.0

# History

Document history								
V9.0.0	January 2010	Publication						