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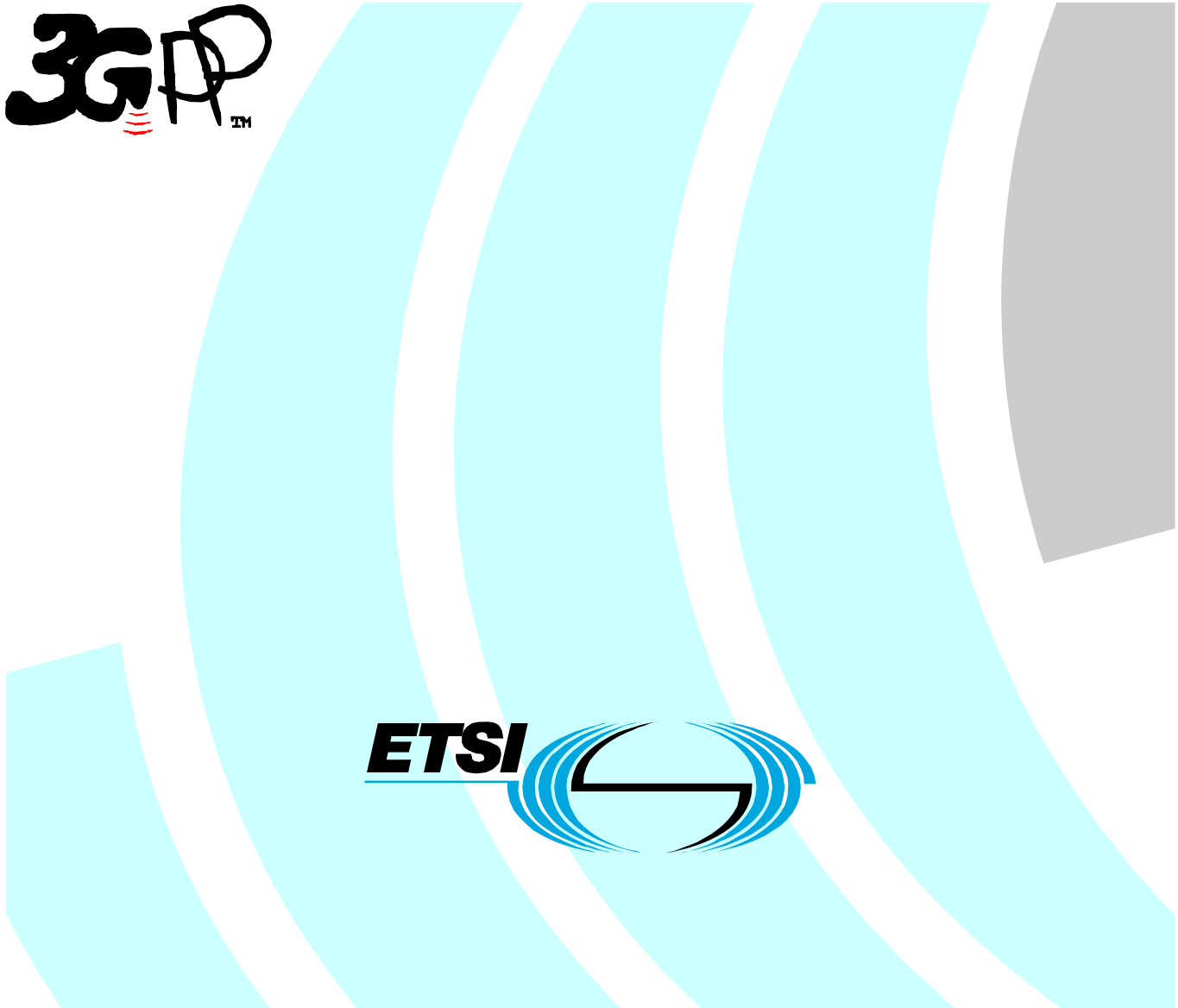
Technical Report

**Universal Mobile Telecommunications System (UMTS);
Guidelines and principles for
protocol description
and error handling
(3GPP TR 25.921 version 7.0.0 Release 7)**



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Foreword

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1 Scope

The present document provides a guideline for protocol specification of UMTS stage 2 and 3 including the usage of formal languages and rules for error handling. The present document covers control-plane and user-plane protocols specified in TSG-RAN such as RRC, RLC, RANAP, RNSAP, NBAP, PCAP, and SABP.

2 References

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[1] ITU-T Recommendation X.680: "Information technology - Abstract Syntax Notation One (ASN.1): Specification of the basic notation".

[2] ITU-T Recommendation X.681: "Information technology - Abstract Syntax Notation One (ASN.1): Information object specification".

[3] ITU-T Recommendation X.682: "Information technology - Abstract Syntax Notation One (ASN.1): Constraint specification".

[4] ITU-T Recommendation X.690: "Information technology - ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)".

[5] ITU-T Recommendation X.691: "Information technology - ASN.1 encoding rules: Specification of Packed Encoding Rules (PER)".

[6] CSN.1: "specification, version 2.0".

[7] ITU-T Recommendation Z.100: "Specification and description language (SDL)".

[8] ITU-T Recommendation Z.105: "SDL Combined with ASN.1 modules (SDL/ASN.1)".

[9] ITU-T Recommendation Z.120: "Message Sequence Chart (MSC)".

[10] ISO/IEC 9646-3: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)".

[11] 3GPP TR 21.801: "Specification drafting rules".

[12] ETSI EG 202 106 (DEG/MTS-00050): "Methods for Testing and Specification (MTS); Guidelines for the use of formal SDL as a descriptive tool".

[13] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network Protocols; Stage 3".

3 Void