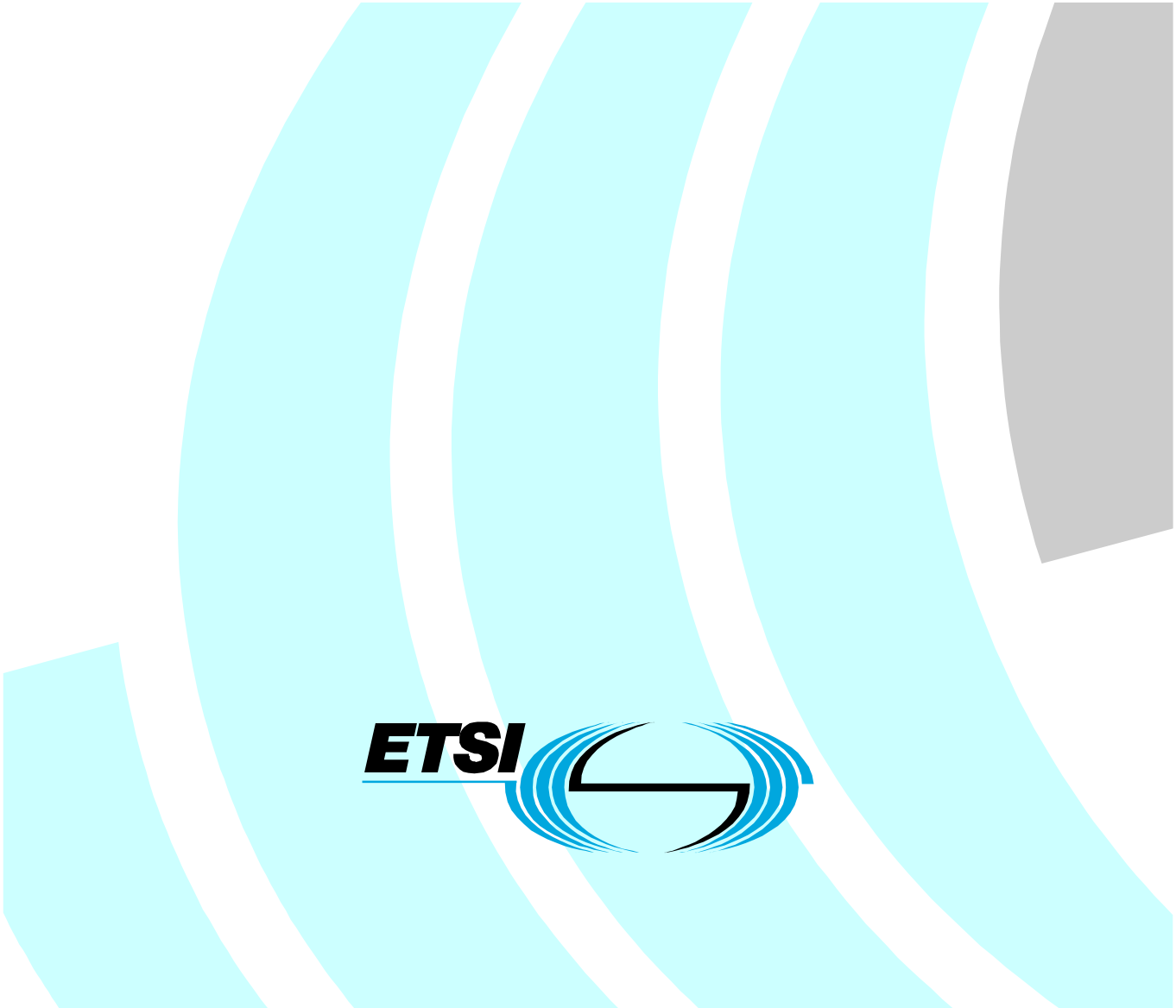
ETSI ES 201 912 V1.2.1 (2004-08)

ETSI Standard

**Access and Terminals (AT);
Short Message Service (SMS) for PSTN/ISDN;
Short Message Communication between a fixed network Short Message Terminal Equipment and a Short Message Service Centre**



Reference
RES/AT-030032

Keywords
SMS, point-to-point, PSTN, ISDN

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Important notice

Individual copies of the present document can be downloaded from:
http://www.etsi.org

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at
http://portal.etsi.org/tb/status/status.asp

If you find errors in the present document, please send your comment to one of the following services:
http://portal.etsi.org/chaircor/ETSI_support.asp

Copyright Notification

Contents

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (http://webapp.etsi.org/IPR/home.asp).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This ETSI Standard (ES) has been produced by ETSI Technical Committee Access and Terminals (AT).

Introduction

The Short Message Service (SMS) is a service that allows text messages to be sent and received. The present document specifies protocols to provide this service on the fixed network. The transmission of messages of up to 160 characters is guaranteed, although much longer messages are possible.

The protocols specified in the present document support a User Based Solution (UBS), where messages are transported via a Short Message Service Centre (SM-SC) using a normal voice band call through the network using in band signalling. SMS messages are sent via the SM-SC using a store and forward principle.

The protocols specified in the present document provide a reliable service that ensures correct delivery of SMS messages and also allows the originating user to verify that an SMS has been correctly received by the receiving terminal.

The provider of the short message service does not necessarily have to be the operator of the public telecommunications network. The Short Message Service does require the CLIP function to be implemented in PSTN/ISDN.

It is noted that EN 300 659-3 [6] specifies a set of parameters for PSTN that describes a method of delivering Short Messages, however this is a different protocol from the SMS protocols specified in the present document.

The present document specifies two different protocols to provide the SMS over PSTN/ISDN. Both protocols offer the opportunity to exchange Short Messages with other networks, e.g. GSM and with other services, e.g. Email, Fax.

Each protocol has its advantages; the service provider can select which protocol to implement:

- Protocol 1 has the advantage of being fully compliant with the GSM SMS service.
- Protocol 2 has the advantage that it specifically focuses on the residential fixed network environment.

1 Scope

The present document deals with two different protocols to provide the Short Message Service for PSTN/ISDN using a User Based Solution (UBS). For both protocols it specifies the protocol layers used to transmit Short Message Information between Short Message Terminal Equipment connected to PSTN/ISDN and a Short Message Service Centre. It is up to the service provider to choose which protocol to use.

It does not specify the dial-in systems and the architecture of the short message service centres.

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 and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

[1] ETSI TS 123 038: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Alphabets and language-specific information (3GPP TS 23.038 Release 5)".

[2] ETSI TS 123 040: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Technical realization of Short Message Service (SMS) (3GPP TS 23.040 Release 5)".

[3] ETSI TS 124 011:"Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Point-to-Point (PP) Short Message Service (SMS) Support on Mobile Radio Interface (3GPP TS 24.011 Release 5)".

[4] ETSI EN 300 659-1: "Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Subscriber line protocol over the local loop for display (and related) services; Part 1: On-hook data transmission".

[5] ETSI EN 300 659-2: "Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Subscriber line protocol over the local loop for display (and related) services; Part 2: Off-hook data transmission".

[6] ETSI EN 300 659-3: "Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Subscriber line protocol over the local loop for display (and related) services; Part 3: Data link message and parameter codings".

[7] ETSI ES 200 778-2: "Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Protocol over the local loop for display and related services; Terminal Equipment requirements; Part 2: Off-hook data transmission".

[8] ITU-T Recommendation V.25: "Automatic answering equipment and general procedures for automatic calling equipment on the general switched telephone network including procedures for disabling of echo control devices for both manually and automatically established calls".

[9] ETSI EN 300 403-1: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".