ETSI TS 102 338 V1.0.0 (2004-08)

Technical Specification

**Digital cellular telecommunications system (Phase 2 & Phase 2+);
Global System for Mobile communication (GSM);
System definition**

Reference
DTS/MSG-00002

Keywords
GSM, PLMN, mobile, radio

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

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 Technical Specification (TS) has been produced by ETSI Technical Committee Mobile Standards Group (MSG).

1 Scope

The present document provides a complete definition of the GSM mobile system by referencing the compendium documents of the suite of technical specifications for each Release. Harmonized Standards used in the European Union to show conformity to European regional regulations are beyond the scope of the present document.

The GSM specification numbering scheme and Release mechanism is described.

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 101 855: "Digital cellular telecommunications system (Phase 2+); Technical Specifications and Technical Reports for a GERAN-based 3GPP system (3GPP TS 01.01)".

[2] ETSI TS 141 101: "Digital cellular telecommunications system (Phase 2+); Technical Specifications and Technical Reports for a GERAN-based 3GPP system (3GPP TS 41.101)".

3 Abbreviations

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

3GPP	Third Generation Partnership Project
CEPT	Conférence Européenne des Administrations des Postes et des Télécommunications
CN	Core Network
GSM	Global System for Mobile communication
ISDN	Integrated Services Digital Network
PSTN	Public Switching Telephone Networks
RAN	Radio Access Network
SIM	Subscriber Identity Module
SMG	Special Mobile Group

4 GSM background information

GSM is a fully digital Public Land Mobile Network intended to be connected to Public Switching Telephone Networks (PSTN) supporting Integrated Services Digital Network (ISDN) connection types. It comprises elements such as a Radio Access Network (RAN) and a Core Network (CN).

From the radio access perspective, the early design was devoted to circuit switched services including speech and data. Several improvements have been introduced to enhance the data rate supported as well as new speech encoding techniques. New modulation schemes have been added allowing enhanced data rates ranging from 32 kbit/s to more than 400 kbit/s.

From the Core Network perspective, in addition to circuit switched services, the capability has been introduced from 1997 to allow the provision of new service types based on Internet protocols.

To meet new market requirements, 3GPP specifications covering GSM are continually being improved to provide new features. In order to provide developers with a stable platform for implementation while at the same time allowing the addition of new features, the 3GPP uses a system of parallel "Releases".

The numbering scheme used in 3GPP for classifying the Technical Specifications is shown in table 1. Translation from the 3GPP numbering scheme to the ETSI publications scheme can be accomplished via the tool at http://webapp.etsi.org/key/queryform.asp.

The numbering scheme was originally devised by the Groupe Spécial Mobile of CEPT, continued by ETSI Technical Committee Special Mobile Group (SMG) when the work was transferred to ETSI in 1992, and thence transferred to the 3rd Generation Partnership Project (3GPP) when SMG was closed in 2000.

Table 1: GSM Technical Specification numbering system

Subject of specification series	Up to and including Release 1999	Release 4 onwards
Requirements	01 series	21 series and 41 series
Service aspects ("stage 1")	02 series	22 series and 42 series
Technical realization ("stage 2")	03 series	23 series and 43 series
Signalling protocols ("stage 3") - user equipment to network	04 series	24 series and 44 series
Radio aspects	05 series	45 series
CODECs	06 series	26 series and 46 series
Data	07 series	27 series and 47 series
Signalling protocols ("stage 3") -(radio subsystem to core network)	08 series	28 series and 48 series
Signalling protocols ("stage 3") - intra-core-network and core network to (external) fixed network	09 series	29 series and 49 series
Programme management	10 series	30 series and 50 series
Subscriber Identity Module (SIM) and test specifications	11 series	31 series and 51 series
Operations, Administration and Management	12 series	32 series and 52 series
Security algorithms (see note 1)	See note 2	33 series and 55 series
NOTE 1: Algorithms may be subject to export licensing conditions. See the relevant ETSI web pages: http://portal.etsi.org/dvbandca/home.asp.		
NOTE 2: The original GSM algorithms are not published by ETSI, and are controlled by the GSM Association. They are, however, available from ETSI via the link in note 1 above.		

5 GSM system technical definition

The lists of 3GPP Technical Specifications which comprise a given Release are given in TS 101 855 [1] for Phase 2+ Release 1999; and in TS 141 101 [2] for Phase 2+ Release 4 onwards.

History

Document history		
V1.0.0	August 2004	Publication