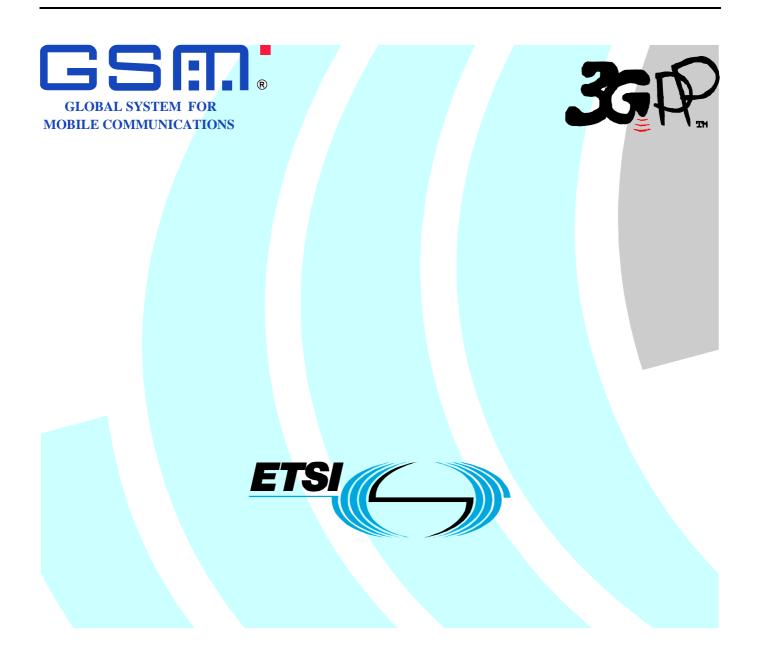# ETSI TS 101 855 V8.15.0 (2004-12)

Technical Specification

Digital cellular telecommunications system (Phase 2+);
Technical Specifications and Technical Reports
for a GERAN-based 3GPP system
(3GPP TS 01.01 version 8.15.0 Release 1999)

GLOBAL SYSTEM FOR
MOBILE COMMUNICATIONS

Reference

RTS/TSGS-000101v8f0

Keywords

GSM

ETSI

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Foreword

This Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under http://webapp.etsi.org/key/queryform.asp .

Contents

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

    x   the first digit:

        1   presented to TSG for information;

        2   presented to TSG for approval;

        3   or greater indicates TSG approved document under change control.

    y   the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

    z   the third digit is incremented when editorial only changes have been incorporated in the document.

1   Scope

The present document identifies the GSM system specifications for GSM Release 1999.

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]   GSM 01.04: "Abbreviations and acronyms".

[2]   3GPP TS 51.010-1 (version 4, Release 4): "Mobile Station (MS) conformance specification; Part 1: Conformance specification ".

[3]   3GPP TS 51.010-2 (version 4, Release 4): "Mobile station (MS) conformance specification; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

[4]   3GPP TS 51.010-3 (version 4, Release 4): " Mobile station (MS) conformance specification; Part 3: Layer3 (L3) Abstract Test Suite (ATS)".

[5]   3GPP TS 51.010-4 (version 4, Release 4): "Mobile Station (MS) Conformance Specification; Part 4: SIM Application Toolkit conformance specification".

Note: The above specification was not available at the time of issue of the present document.

3   Abbreviations

For the purposes of the present document, the terms and definitions given in GSM 01.04 apply.

4   General

GSM Release 1999 consists of GSM-only specifications and the GSM Core Network specifications developed for both GSM Release 1999 and Release 1999 of the 3rd Generation mobile system.

GSM Release 1999 also includes many enhanced features developed within the 3rd Generation Partnership Project.

The present document identifies the GSM system set of specifications required to implement GSM Release 1999.

4.1   Specification and report numbering

Specifications for GSM Release-1999-only can be identified by the "**ab.de**" numbering scheme.

Specifications for both GSM Release 1999 and Release 1999 of the 3rd Generation mobile system are identified by the "**ab.cde**" numbering scheme.

NOTE: A "**c**" digit equal to zero indicates a GSM heritage of a specification.

4.2 Specification series

In general the Specification series are identified as follows:

4.2.1 01 and 21-series

Requirements specifications

These specifications are often transient and contain requirements towards other specifications. They may become obsolete when technical solutions have been fully specified; they could then, e.g., be replaced by reports describing the performance of the system, they could be deleted without replacement or be kept for historical reasons but turned into background material. When found necessary and appropriate, the transient or permanent nature of a requirement specification may be expressed in its scope.

4.2.2 02 and 22-series

Service aspects

Specifications in this series specify services, service features, building blocks or platforms for services (a service feature or service building block may provide certain generic functionality for the composition of a service, including the control by the user; a platform may comprise one or more network elements, e.g. UIM, mobile terminal, auxiliary system to the core network etc.); stage 1 specifications that are felt appropriate belong into this series; reports defining services which can be realized by generic building blocks etc. also belong into this series.

4.2.3 03 and 23-series

Technical realization

This series mainly contains stage 2 specifications (or specifications of a similar nature describing interworking over several interfaces, the behaviour in non-exceptional cases, etc.).

4.2.4 04 and 24-series

Signalling protocols (UE-CN)

This series contains the detailed and bit exact stage 3 specifications of protocols between MS/UE and the core network.

4.2.5 05 series

GSM Radio aspects

4.2.6 06 series

Codecs

This series defines speech codecs and other codecs for GSM.

4.2.7 07 and 27-series

Data

This series defines the functions necessary to support data applications at the user equipment side.

4.2.8 08 and 28-series

Signalling protocols (RSS - network part)

This series contains the detailed and bit exact stage 3 specifications of protocols relevant for interfaces internal to the Radio Access Network and between this and the Core Network.

4.2.9   09 and 29-series

Signalling protocols (NSS)

This series contains the detailed and bit exact stage 3 specifications of protocols within the Core Network.

4.2.10   11 series

SIM and conformance test

This series specifies the Subscriber Identity Module (SIM) and the interfaces between SIM and other entities. and the conformance test specifications for GSM.

4.2.11   12 series

Operation and maintenance

This series defines the application of TMN for GSM and other functions for operation, administration and maintenance of a GSM network.

4.2.12   13 series

Access requirements

This series contains Access requirement specifications for GSM.

5   Content of GSM Release 1999

5.1   GSM-only Work Areas

WI Title
BSS co-ordination of Radio Resource allocation for class A GPRS services - GSM Radio Access
Enhanced Data rates for GSM Evolution (EDGE) - BSS
General Packet Radio Service Phase 2 (GPRS) - radio part
GSM on 400 MHz Frequency Band
BSS co-ordination of Core Network Resource allocation for class A GPRS services -GSM-UMTS Core Network

5.2 Common GSM/3G Work Areas

5.2.1 Work areas related to services

WI Title
Advanced Addressing
Automatic Establishment of Roaming Relations
CAMEL Phase 3
Follow Me
GSM Mobile Number Portability EURO MNP
Service Continuity and Provision of VHE via GSM/UMTS
Virtual Home Environment
Unstructured Supplementary Service Data (USSD) enhancements

5.2.2 Work areas related to the system architecture

WI Title
Enhanced QoS Support in GPRS
Location Services (LCS) for R99
Support of non-realtime Multimedia Messaging Service

5.2.3 Work areas related to security

WI Title
Fraud Information Gathering System applied to GPRS
Immediate Service Termination (IST) : CAMEL free solution
SS7 Security

5.2.4 Work areas related to codecs

WI Title
Codec for Low Bitrate Multimedia Telephony Service
Mandatory Speech Codec for Narrowband Telephony Service
AMR - Adaptive Multi-Rate codec (GSM 10.70)
QoS for Speech and Multimedia Codec
Tandem free operation in 3G systems and between 2G and 3G systems

5.2.5 Work areas related to network management

WI Title
Charging and Billing for GPRS – Advice of Charge
Charging and Billing for GPRS – Hot Billing
Charging and Billing for GPRS – Pre-Paid

5.2.6 Work areas related to the core network specification

Concerning N1 (layer MM/CM/SM)

WI Title
Pre-paging
Turbo-Charger: Feasibility Study
Unstructured Supplementary Service Data (USSD) enhancements
General Packet Radio Service Phase 2 (GPRS) - network part
Tandem Free Operation of speech codecs in Mobile-to-Mobile Calls (MMCs) in band (including AMR)
Tandem Free Operation of speech codecs in Mobile-to-Mobile Calls (MMCs) : out-band
Access to ISPs and Intranets in GPRS Phase 2 – Separation of GPRS Bearer Establishment and ISP Service Environment Setup

Concerning N2 (Camel)

None

Concerning N3 (Interworking with external networks)

WI Title
Enhanced Data rates for GSM Evolution (EDGE) - NSS

5.2.7 Work areas related to MS testing

WI Title
MS Protocol/RF/EMC conformance specification

5.2.8 Work areas related to data

WI Title
SMS Advanced Cell Broadcast
SMS Cell Broadcast
Messaging (Multimedia Messaging Service); Stage 2/3
Messaging (Short Message Service (SMS); Stage 2/3
Terminal interfaces (Alternatives to AT commands)
Access to ISPs and Intranets in GPRS Phase 2 – Wireless/Remote Access to LANs
Connecting an octet stream to a port on an Internet host
Mobile Station Execution Environment (MExE)
Modem and ISDN interworking for GPRS
Study on provision of facsimile services in GSM and UMTS
Unstructured octet stream GPRS PDP Type
Access to ISPs and Intranets in GPRS Phase 2 – Separation of GPRS Bearer Establishment and ISP Service Environment Setup
Support of non-realtime Multimedia Messaging Service

5.2.9 Work areas related to the User Card

WI Title
Specification of administrative commands and functions for IC cards
WAP WAE User Agent / SIM toolkit interworking
GSM-API for SIM-Toolkit
Specification of a bearer independent protocol for SAT applications to exchange data over the GSM network
SIM toolkit test specification
Generic Logical and Physical specification for IC card and terminal interface
Specification of administrative commands and functions for IC cards

5.2.10 Work areas related to the access network

Concerning the testing of the BSS

None

Concerning all the other groups

None

5.2.11 Work areas handled by other groups

WI Title
Location Services (LCS)
EDGE Compact
support for EGPRS in ANSI-136 networks

5.3 Release 99 work areas impacting other systems

None

6   Specifications and Reports

Specifications in the range 01.xx to 12.xx are 'pure' GSM specs - that is, those only required to build systems which are based on 3GPP specifications and which use a GSM/EDGE Radio Access Network (GERAN). Specifications in the range 21.xxx to 35.xxx are common to systems which are based on 3GPP specifications, and which use either a GSM/EDGE radio access network or a UTRA Radio Access Network (UTRAN) (or both).

Number	Title	WG prime	For publication?
01.01	Technical Specifications and Technical Reports for a GERAN-based 3GPP system	SP	Yes
01.04	Abbreviations and acronyms	GP	Yes
01.31	Fraud Information Gathering System (FIGS); Service requirements; Stage 0	S3	Yes
01.33	Lawful Interception requirements for GSM	S3	Yes
01.61	General Packet Radio Service (GPRS); GPRS ciphering algorithm requirements	S3	Yes
02.09	Security aspects	S3	Yes
02.17	Subscriber Identity Module (SIM); Functional characteristics	T3	Yes
02.19	Subscriber Identity Module Application Programming Interface (SIM API); Stage 1	T3	Yes
02.33	Lawful Interception (LI); Stage 1	S3	Yes
02.43	Support of Localised Service Area (SoLSA); Service description; Stage 1	S1	Yes
02.48	Security mechanisms for the SIM Application Toolkit; Stage 1	T3	Yes
02.53	Tandem Free Operation (TFO); Service description; Stage 1	S4	Yes
02.56	GSM Cordless Telephony System (CTS), Phase 1; Service description; Stage 1	S1	Yes
02.68	Voice Group Call Service (VGCS); Stage 1	S1	Yes
02.69	Voice Broadcast Service (VBS); Stage 1	S1	Yes
02.76	Noise Suppression for the AMR	S4	Yes
02.95	Support of Private Numbering Plan (SPNP); Service description; Stage 1	S1	Yes
03.05	Technical performance objectives	NP	Yes
03.10	GSM Public Land Mobile Network (PLMN) Connection Types	N3	Yes
03.13	Discontinuous Reception (DRX) in the GSM System	G1	Yes
03.19	Subscriber Identity Module Application Programming Interface (SIM API) for Java Card	T3	Yes
03.20	Security-related network functions	S3	Yes
03.22	Functions related to Mobile Station (MS) in idle mode and group receive mode	G1	Yes
03.26	Multiband operation of GSM/DCS 1800 by a single operator	G1	Yes
03.30	Radio Network Planning Aspects	GP	Yes
03.33	Lawful Interception; Stage 2	S3	Yes
03.45	Technical Realization of Facsimile Group 3 Service - transparent	N3	Yes
03.46	Technical Realization of Facsimile Group 3 Service - non transparent	N3	Yes
03.48	Security mechanisms for SIM application toolkit; Stage 2	T3	Yes
03.50	Transmission Planning Aspects of the Speech Service in the GSM Public Land Mobile Network (PLMN) System	S4	Yes
03.52	Lower layers of the GSM Cordless Telephony System (CTS) radio interface; Stage 2	G1	Yes
03.53	Tandem Free Operation (TFO); Service description; Stage 2	S4	Yes
03.55	Dual Transfer Mode (DTM); Stage 2	G1	Yes
03.58	Characterisation, test methods and quality assessment for handsfree Mobile Stations (MSs)	S4	Yes
03.64	General Packet Radio Service (GPRS); Overall description of the GPRS radio interface; Stage 2	G1	Yes
03.68	Voice Group Call Service (VGCS); Stage 2	N1	Yes
03.69	Voice Broadcast service (VBS); Stage 2	N1	Yes
03.71	Location Services (LCS); Functional description; Stage 2	S2	Yes
03.73	Support of Localised Service Area (SoLSA); Stage 2	N4	Yes
04.01	Mobile Station - Base Station System (MS - BSS) Interface General Aspects and Principles	N1	Yes

Number	Title	WG prime	For publication?
04.03	Mobile Station - Base Station System (MS - BSS) Interface Channel Structures and Access Capabilities	G2	Yes
04.04	Layer 1 - General Requirements	G2	Yes
04.05	Data Link (DL) Layer General Aspects	G2	Yes
04.06	Mobile Station - Base Stations System (MS - BSS) Interface Data Link (DL) Layer Specification	G2	Yes
04.08	Mobile radio interface layer 3 specification	N1	Yes
04.12	Short Message Service Cell Broadcast (SMSCB) Support on the Mobile Radio Interface	G2	Yes
04.13	Performance Requirements on Mobile Radio Interface	N1	Yes
04.14	Individual equipment type requirements and interworking; Special conformance testing functions	G2	Yes
04.18	Mobile radio interface layer 3 specification; Radio Resource Control (RRC) protocol	G2	Yes
04.21	Rate Adaption on the Mobile Station - Base Station System (MS-BSS) Interface	N3	Yes
04.31	Location Services (LCS); Mobile Station (MS) - Serving Mobile Location Centre (SMLC) Radio Resource LCS Protocol (RRLP)	G2	Yes
04.35	Location Services (LCS); Broadcast network assistance for Enhanced Observed Time Difference (E-OTD) and Global Positioning System (GPS) positioning methods	G2	Yes
04.56	GSM Cordless Telephony System (CTS), (Phase 1) CTS Radio Interface Layer 3 Specification	N1	Yes
04.57	GSM Cordless Telephony System (CTS), (Phase 1) CTS CTS supervising system Layer 3 Specification	N1	Yes
04.60	General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control/ Medium Access Control (RLC/MAC) protocol	G2	Yes
04.64	General Packet Radio Service (GPRS); Mobile Station - Serving GPRS Support Node (MS-SGSN) Logical Link Control (LLC) layer specification	N1	Yes
04.65	General Packet Radio Service (GPRS); Mobile Station (MS) - Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDCP)	N1	Yes
04.68	Group Call Control (GCC) Protocol	N1	Yes
04.69	Broadcast Call Control (BCC) protocol	N1	Yes
04.71	Location Services (LCS); Mobile radio interface layer 3 specification	G2	Yes
05.01	Physical Layer on the Radio Path (General Description)	G1	Yes
05.02	Multiplexing and Multiple Access on the Radio Path	G1	Yes
05.03	Channel coding	G1	Yes
05.04	Modulation	G1	Yes
05.05	Radio Transmission and Reception	G1	Yes
05.08	Radio subsystem link control	G1	Yes
05.09	Link adaptation	G1	Yes
05.10	Radio subsystem synchronization	G1	Yes
05.15	Release independent Downlink Advanced Receiver Performance (DARP); Implementation guidelines	G1	Yes
05.22	Radio link management in hierarchical networks	G1	Yes
05.50	Background for RF Requirements	G1	Yes
05.56	GSM Cordless Telephony System (CTS), Phase 1; CTS-Fixed Part (FP) radio subsystem	G1	Yes
06.01	Full Rate Speech Processing Functions	S4	Yes
06.02	Half Rate Speech Processing Functions	S4	Yes
06.06	Half Rate Speech: ANSI-C Code for GSM Half Rate Speech Codec	S4	Yes
06.07	Half Rate Speech: Test Sequence for GSM Half Rate Speech Codec	S4	Yes
06.08	Half Rate Speech; Performance Characterization of the GSM Half Rate speech codec	S4	Yes
06.10	Full Rate Speech Transcoding	S4	Yes
06.11	Substitution and Muting of Lost Frames for Full Rate Speech Channels	S4	Yes
06.12	Comfort Noise Aspects for Full Rate Speech Traffic Channels	S4	Yes
06.20	Half Rate Speech Transcoding	S4	Yes

Number	Title	WG prime	For publication?
06.21	Half rate speech; Substitution and muting of lost frames for half rate speech traffic channels	S4	Yes
06.22	Comfort Noise Aspects for Half Rate Speech Traffic Channels	S4	Yes
06.31	Discontinuous Transmission (DTX) for Full Rate Speech Traffic Channels	S4	Yes
06.32	Voice Activity Detection (VAD)	S4	Yes
06.41	Discontinuous Transmission (DTX) for Half Rate Speech Traffic Channels	S4	Yes
06.42	Voice Activity Detection (VAD) for Half Rate Speech Traffic Channels	S4	Yes
06.51	GSM Enhanced full rate speech processing functions: General description	S4	Yes
06.53	ANSI-C code for the GSM Enhanced Full Rate (EFR) speech codec	S4	Yes
06.54	Test sequences for the GSM Enhanced Full Rate (EFR)	S4	Yes
06.55	Performance characterisation of the GSM EFR Speech Codec	S4	Yes
06.60	Enhanced full rate speech transcoding	S4	Yes
06.61	Substitution and muting of lost frames for encanced full rate speech traffic channels	S4	Yes
06.62	Comfort noise aspects for Enhanced Full Rate (EFR) speech traffic channels	S4	Yes
06.76	Adaptive Multi-Rate (AMR) speech codec; Study phase report	S4	Yes
06.77	Minimum Performance Requirements for Noise Suppresser Application to the AMR Speech Encoder	S4	Yes
06.78	Results of the AMR noise suppression selection phase	S4	Yes
06.81	Discontinuous Transmission (DTX) for encanced full rate speech traffic channels	S4	Yes
06.82	Voice Activity Detection (VAD) for encanced full rate speech traffic channels	S4	Yes
06.85	Subjective tests on the interoperability of the HR/FR/EFR speech codecs; single, tandem and tandem free operation	S4	Yes
08.01	General Aspects on the BSS-MSC Interface	G2	Yes
08.02	Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface - Interface Principles	G2	Yes
08.04	Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface Layer 1 Specification	G2	Yes
08.06	Signalling Transport Mechanism Specification for the Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface	G2	Yes
08.08	Mobile-services Switching Centre - Base Station system (MSC-BSS) Interface Layer 3 Specification	G2	Yes
08.14	General Packet Radio Service (GPRS); Base Station System (BSS) - Serving GPRS Support Node (SGSN) interface; Gb Interface Layer 1	G2	Yes
08.16	General Packet Radio Service (GPRS); Base Station System (BSS) - Serving GPRS Support Node (SGSN) Interface; Network Service	G2	Yes
08.18	General Packet Radio Service (GPRS); Base Station System (BSS) - Serving GPRS Support Node (SGSN); BSS GPRS Protocol	G2	Yes
08.20	Rate Adaptation on the Base Station System - Mobile Service Switching Centre (BSS-MSC) Interface	N3	Yes
08.31	Location Services LCS: Serving Mobile Location Centre - Serving Mobile Location Centre (SMLC - SMLC); SMLCPP specification	G2	Yes
08.51	Base Station Controller - Base Tranceiver Station (BSC-BTS) Interface General Aspects	G2	Yes
08.52	Base Station Controller - Base Tranceiver Station (BSC-BTS) Interface - Interface Principles	G2	Yes
08.54	BSC-BTS Layer 1; Structure of Physical Circuits	G2	Yes
08.56	BSC-BTS Layer 2; Specification	G2	Yes
08.58	Base Station Controler - Base Transceiver Station (BCS-BTS) Interface Layer 3 Specification	G2	Yes
08.60	In-band control of remote transcoders and rate adaptors for Enhanced Full Rate (EFR) and full rate traffic channels	G1	Yes
08.61	In-band control of remote transcoders and rate adaptors for half rate traffic channels	G1	Yes
08.62	Inband Tandem Free Operation (TFO) of Speech Codecs; Service Description; Stage 3	S4	Yes
08.71	Location Services (LCS); Serving Mobile Location Centre - Base Station System	G2	Yes

Number	Title	WG prime	For publication?
	(SMLC-BSS) interface; Layer 3		
09.01	General Network Interworking Scenarios	N4	Yes
09.08	Application of the Base Station System Application Part (BSSAP) on the E-Interface	N1	Yes
09.31	Location Services (LCS); Base Station System Application Part LCS Extension (BSSAP-LE)	G2	Yes
10.56	Project scheduling and open issues: GSM Cordless Telephony System CTS, Phase 1	S2	No
10.59	Project scheduling and open issues for EDGE	G1	No
11.10-1	Mobile station (MS) conformance specification; Part 1: Conformance specification	G3new	Yes
11.10-4	Mobile Station (MS) conformance specification; Part 4: Subscriber Interface Module (SIM) application toolkit conformance specification	T3	Yes
11.11	Specification of the Subscriber Identity Module - Mobile Equipment (SIM-ME) Interface	T3	Yes
11.13	Test specification for Subscriber Interface Module (SIM) Application Programme Interface (API) for Java card	T3	Yes
11.14	Specification of the SIM Application Toolkit (SAT) for the Subscriber Identity Module - Mobile Equipment (SIM-ME) interface	T3	Yes
11.17	Subscriber Interface Module (SIM) test specification	T3	Yes
11.21	Base Station System (BSS) equipment specification; Radio aspects	G1	Yes
11.26	Base Station System (BSS) equipment specification; Part 4: Repeaters	G1	Yes
12.03	Security Management	S5	Yes
12.04	Performance data measurements	S5	Yes
12.21	Network Management (NM) procedures and messages on the A-bis interface	G1	Yes
12.71	Location Services (LCS); Location services management	S5	Yes
21.801	Specification drafting rules	SP	No
21.900	Technical Specification Group working methods	SP	Yes
21.905	Vocabulary for 3GPP Specifications	S1	Yes
21.978	Feasibility Technical Report; CAMEL Control of VoIP Services	N4	Yes
22.001	Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)	S1	Yes
22.002	Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)	S1	Yes
22.003	Circuit Teleservices supported by a Public Land Mobile Network (PLMN)	S1	Yes
22.004	General on supplementary services	S1	Yes
22.011	Service accessibility	S1	Yes
22.016	International Mobile Equipment Identities (IMEI)	S1	Yes
22.022	Personalisation of Mobile Equipment (ME); Mobile functionality specification	S3	Yes
22.024	Description of Charge Advice Information (CAI)	S1	Yes
22.030	Man-Machine Interface (MMI) of the User Equipment (UE)	S1	Yes
22.031	Fraud Information Gathering System (FIGS); Service description; Stage 1	S3	Yes
22.032	Immediate Service Termination (IST); Service description; Stage 1	S3	Yes
22.034	High Speed Circuit Switched Data (HSCSD); Stage 1	S1	Yes
22.038	USIM/SIM Application Toolkit (USAT/SAT); Service description; Stage 1	S1	Yes
22.041	Operator Determined Call Barring	S1	Yes
22.042	Network Identity and Time Zone (NITZ) service description; Stage 1	S1	Yes
22.057	Mobile Execution Environment (MExE) service description; Stage 1	S1	Yes
22.060	General Packet Radio Service (GPRS); Service description; Stage 1	S1	Yes
22.066	Support of Mobile Number Portability (MNP); Stage 1	S1	Yes
22.067	enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 1	S1	Yes
22.071	Location Services (LCS); Stage 1	S1	Yes
22.072	Call Deflection (CD); Stage 1	S1	Yes
22.078	Customized Applications for Mobile network Enhanced Logic (CAMEL); Service description; Stage 1	S1	Yes
22.079	Support of optimal routeing; Stage 1	S1	Yes
22.081	Line Identification supplementary services; Stage 1	S1	Yes

Number	Title	WG prime	For publication?
22.082	Call Forwarding (CF) Supplementary Services; Stage 1	S1	Yes
22.083	Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 1	S1	Yes
22.084	MultiParty (MPTY) supplementary service; Stage 1	S1	Yes
22.085	Closed User Group (CUG) supplementary services; Stage 1	S1	Yes
22.086	Advice of Charge (AoC) supplementary services; Stage 1	S1	Yes
22.087	User-to-user signalling (UUS); Stage 1	S1	Yes
22.088	Call Barring (CB) supplementary services; Stage 1	S1	Yes
22.090	Unstructured Supplementary Service Data (USSD); Stage 1	S1	Yes
22.091	Explicit Call Transfer (ECT) supplementary service; Stage 1	S1	Yes
22.093	Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1	S1	Yes
22.094	Follow Me service description - Stage 1	S1	Yes
22.096	Name identification supplementary services; Stage 1	S1	Yes
22.097	Multiple Subscriber Profile (MSP) Phase 1; Service description - Stage 1	S1	Yes
22.115	Service Aspects Charging and billing	S1	Yes
22.121	Service aspects; The Virtual Home Environment (VHE); Stage 1	S1	Yes
22.129	Handover requirements between UTRAN and GERAN or other radio systems	S1	Yes
22.945	Study of provision of fax service in GSM and UMTS	T2	Yes
23.002	Network architecture	S2	Yes
23.003	Numbering, addressing and identification	N4	Yes
23.007	Restoration procedures	N4	Yes
23.008	Organisation of subscriber data	N4	Yes
23.009	Handover procedures	N1	Yes
23.011	Technical realization of Supplementary Services	N4	Yes
23.012	Location management procedures	N4	Yes
23.014	Support of Dual Tone Multi Frequency (DTMF) signalling	N1	Yes
23.015	Technical realization of Operator Determined Barring (ODB)	N4	Yes
23.016	Subscriber data management; Stage 2	N4	Yes
23.018	Basic Call Handling; Technical realization	N4	Yes
23.031	Fraud Information Gathering System (FIGS); Service description; Stage 2	S3	Yes
23.032	Universal Geographical Area Description (GAD)	S2	Yes
23.034	High Speed Circuit Switched Data (HSCSD); Stage 2	N1	Yes
23.035	Immediate Service Termination (IST); Stage 2	S3	Yes
23.038	Alphabets and language-specific information	T2	Yes
23.039	Interface Protocols for the Connection of Short Message Service Centers (SMSCs) to Short Message Entities (SMEs)	T2	Yes
23.040	Technical realization of Short Message Service (SMS)	T2	Yes
23.041	Technical realization of Cell Broadcast Service (CBS)	T2	Yes
23.042	Compression algorithm for SMS	T2	Yes
23.057	Mobile Execution Environment (MExE); Functional description; Stage 2	T2	Yes
23.060	General Packet Radio Service (GPRS); Service description; Stage 2	S2	Yes
23.066	Support of GSM Mobile Number Portability (MNP) stage 2	N4	Yes
23.067	Enhanced Multi-Level Precedence and Pre-emption Service (eMLPP); Stage 2	N4	Yes
23.072	Call Deflection Supplementary Service; Stage 2	N4	Yes
23.078	customized Applications for Mobile network Enhanced Logic (CAMEL); Stage 2	N4	Yes
23.079	Support of Optimal Routeing (SOR); Technical realization; Stage 2	N4	Yes
23.081	Line Identification supplementary services; Stage 2	N4	Yes
23.082	Call Forwarding (CF) Supplementary Services; Stage 2	N4	Yes
23.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 2	N4	Yes
23.084	MultiParty (MPTY) Supplementary Service; Stage 2	N4	Yes
23.085	Closed User Group (CUG) Supplementary Service; Stage 2	N4	Yes
23.086	Advice of Charge (AoC) Supplementary Service; Stage 2	N4	Yes

Number	Title	WG prime	For publication?
23.087	User-to-User Signalling (UUS) supplementary service; Stage 2	N4	Yes
23.088	Call Barring (CB) Supplementary Service; Stage 2	N4	Yes
23.090	Unstructured Supplementary Service Data (USSD); Stage 2	N4	Yes
23.091	Explicit Call Transfer (ECT) Supplementary Service; Stage 2	N4	Yes
23.093	Technical realization of Completion of Calls to Busy Subscriber (CCBS); Stage 2	N4	Yes
23.094	Follow Me Stage 2	N4	Yes
23.096	Name Identification Supplementary Service; Stage 2	N4	Yes
23.097	Multiple Subscriber Profile (MSP) Phase 1; Stage 2	N4	Yes
23.108	Mobile radio interface layer 3 specification core network protocols; Stage 2 (structured procedures)	N1	Yes
23.110	UMTS Access Stratum Services and Functions	S2	Yes
23.116	Super-Charger technical realization; Stage 2	N4	Yes
23.119	Gateway Location Register (GLR); Stage2	N4	Yes
23.121	Architectural requirements for Release 1999	S2	Yes
23.122	Non-Access-Stratum functions related to Mobile Station (MS) in idle mode	N1	Yes
23.140	Multimedia Messaging Service (MMS); Functional description; Stage 2	T2	Yes
23.908	Technical report on Pre-Paging	N4	Yes
23.909	Technical report on the Gateway Location Register	N4	Yes
23.911	Technical report on Out-of-band transcoder control	N4	Yes
23.912	Technical report on Super-Charger	N4	Yes
23.923	Combined GSM and Mobile IP mobility handling in UMTS IP CN	S2	Yes
24.002	GSM-UMTS Public Land Mobile Network (PLMN) Access Reference Configuration	N1	Yes
24.007	Mobile radio interface signalling layer 3; General Aspects	N1	Yes
24.008	Mobile radio interface Layer 3 specification; Core network protocols; Stage 3	N1	Yes
24.010	Mobile Radio Interface Layer 3 - Supplementary Services Specification - General Aspects	N4	Yes
24.011	Point-to-Point (PP) Short Message Service (SMS) support on Mobile Radio Interface	N1	Yes
24.022	Radio Link Protocol (RLP) for circuit switched bearer and teleservices	N3	Yes
24.030	Location Services (LCS); Supplementary service operations; Stage 3	N4	Yes
24.067	Enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 3	N4	Yes
24.072	Call Deflection Supplementary Service; Stage 3	N4	Yes
24.080	Mobile radio Layer 3 supplementary service specification; Formats and coding	N4	Yes
24.081	Line Identification Supplementary Service; Stage 3	N4	Yes
24.082	Call Forwarding supplementary service; Stage 3	N4	Yes
24.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 3	N4	Yes
24.084	MultiParty (MPTY) Supplementary Service; Stage 3	N4	Yes
24.085	Closed User Group (CUG) Supplementary Service; Stage 3	N4	Yes
24.086	Advice of Charge (AoC) Supplementary Service; Stage 3	N4	Yes
24.087	User-to-User Signalling (UUS); Stage 3	N4	Yes
24.088	Call Barring (CB) Supplementary Service; Stage 3	N4	Yes
24.090	Unstructured Supplementary Service Data (USSD); Stage 3	N4	Yes
24.091	Explicit Call Transfer (ECT) Supplementary Service; Stage 3	N4	Yes
24.093	Call Completion to Busy Subscriber (CCBS); Stage 3	N4	Yes
24.096	Name Identification Supplementary Service; Stage 3	N4	Yes
26.071	AMR speech Codec; General description	S4	Yes
26.073	AMR speech Codec; C-source code	S4	Yes
26.074	AMR speech Codec; Test sequences	S4	Yes
26.090	AMR speech Codec; Transcoding Functions	S4	Yes
26.091	AMR speech Codec; Error concealment of lost frames	S4	Yes
26.092	AMR speech Codec; comfort noise for AMR Speech Traffic Channels	S4	Yes
26.093	AMR speech Codec; Source Controlled Rate operation	S4	Yes
26.094	AMR Speech Codec; Voice Activity Detector for AMR Speech Traffic Channels	S4	Yes

Number	Title	WG prime	For publication?
26.102	Adaptive Multi-Rate (AMR) speech codec; Interface to Iu and Uu	S4	Yes
26.103	Speech codec list for GSM and UMTS	S4	Yes
26.104	ANSI-C code for the floating-point Adaptive Multi-Rate (AMR) speech codec	S4	Yes
26.110	Codec for circuit switched multimedia telephony service; General description	S4	Yes
26.111	Codec for Circuit switched Multimedia Telephony Service; Modifications to H.324	S4	Yes
26.911	Codec for Circuit switched Multimedia Telephony Service;Terminal Implementor's Guide	S4	Yes
26.975	Performance characterization of the Adaptive Multi-Rate (AMR) speech codec	S4	Yes
27.001	General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)	N3	Yes
27.002	Terminal Adaptation Functions (TAF) for services using Asynchronous bearer capabilities	N3	Yes
27.003	Terminal Adaptation Functions (TAF) for services using Synchronous bearer capabilities	N3	Yes
27.005	Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE-DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)	T2	Yes
27.007	AT command set for User Equipment (UE)	T2	Yes
27.010	Terminal Equipment to User Equipment (TE-UE) multiplexer protocol	T2	Yes
27.060	Packet domain; Mobile Station (MS) supporting Packet Switched services	N3	Yes
27.103	Wide Area Network Synchronization	T2	Yes
29.002	Mobile Application Part (MAP) specification	N4	Yes
29.007	General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)	N3	Yes
29.010	Information Element Mapping between Mobile Station - Base Station System (MS - BSS) and Base Station System - Mobile-services Switching Centre (BSS - MCS) Signalling Procedures and the Mobile Application Part (MAP)	N4	Yes
29.011	Signalling Interworking for Supplementary Services	N4	Yes
29.013	Signalling interworking between ISDN supplementary services Application Service Element (ASE) and Mobile Application Part (MAP) protocols	N4	Yes
29.016	Serving GPRS Support Node SGSN - Visitors Location Register (VLR); Gs Interface Network Service Specification	N1	Yes
29.018	General Packet Radio Service (GPRS); Serving GPRS Support Node (SGSN) - Visitors Location Register (VLR); Gs interface layer 3 specification	N1	Yes
29.060	General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp interface	N4	Yes
29.061	Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)	N3	Yes
29.078	customized Applications for Mobile network Enhanced Logic (CAMEL); CAMEL Application Part (CAP) specification	N4	Yes
29.994	Recommended infrastructure measures to overcome specific Mobile Station (MS) and User Equipment (UE) faults	N1	Yes
31.111	Universal Subscriber Identity Module Application Toolkit (USAT)	T3	Yes
32.106-1	Telecommunication management; Configuration Management (CM); Part 1: Concept and requirements	S5	Yes
32.106-2	Telecommunication management; Configuration Management (CM); Part 2: Notification Integration Reference Point (IRP): Information Service (IS)	S5	Yes
32.106-3	Telecommunication management; Configuration Management (CM); Part 3: Notification Integration Reference Point (IRP); Common Object Request Broker Architecture (CORBA) Solution Set (SS)	S5	Yes
32.106-4	Telecommunication management; Configuration Management (CM); Part 4: Notification Integration Reference Poin (IRP); Common Management Information Protocol (CMIP) Solution Set (SS)	S5	Yes
32.106-5	Telecommunication management; Configuration Management (CM); Part 5: Basic CM Integration Reference Point (IRP): Information model (including Network Resource Model (NRM)	S5	Yes
32.106-6	Telecommunication management; Configuration Management (CM); Part 6: Basic CM Integration Reference Point (IRP): Common Object Request Broker Architecture	S5	Yes

Number	Title	WG prime	For publication?
	(CORBA) Solution Set (SS)		
32.106-7	Telecommunication management; Configuration Management (CM); Part 7: Basic CM Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)	S5	Yes
32.106-8	Telecommunication management; Configuration Management (CM); Part 8: Name convention for Managed Objects	S5	Yes
32.111-1	Telecommunication management; Fault Management; Part 1: 3G fault management requirements	S5	Yes
32.111-2	Telecommunication management; Fault Management; Part 2: Alarm Integration Reference Point (IRP): Information Service (IS)	S5	Yes
32.111-3	Telecommunication management; Fault Management; Part 3: Alarm Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)	S5	Yes
32.111-4	Telecommunication management; Fault Management; Part 4: Alarm Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)	S5	Yes
55.216	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 1: A5/3 and GEA3 specification	S3	Yes
55.217	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 2: Implementors' test data	S3	Yes
55.218	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 3: Design and conformance test data	S3	Yes
55.919	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 4: Design and evaluation report	S3	Yes

6.1   (void)

6.2   (void)

Annex A (informative):
Document change history

Status of GSM 01.01		
Date	**Version**	**Information about changes**
August 1999	version 0.0.0	1st draft created by MCC
August 1999	version 0.0.1	Comment from SMG6/S5 and N1 included. New LCS specs
September 1999	version 0.0.2	Transfer of 04.12 to 24.012 included, 22.121, 22.115, 22.129 included (SA1 comment)
September 1999	version 0.0.3	Joint SMG11/S4 Meeting decisions on AMR and TFO
September 1999	version 0.1.0	Joint SMG11/S4, S2 and WOME comments included
September 1999	version 0.2.0	03.41 transferred T2/SMG4
October 1999	version 0.3.0	Editorial changes
October 1999	version 0.4.0	Updated to align with 21.101
November	version 1.0.0	Updated to align with 21.101. For information to SMG#30
November	version 1.1.0	Updated to align with 21.101.
June 00	version 2.0.0	Updated and checked by SMG12 chairman and MCC. Approved by SMG#32
June 00	version 8.0.0	Cleaned up.

Change history							
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**
2000-12	SA#10	SP-000526	001		Corrections to table of specs which comprise GSM Release 1999	8.0.0	8.1.0
2001-06	SA#12	SP-010382	002	1	Correction to list of specs	8.1.0	8.2.0
2001-09	SA#13	SP-010586	003	2	Correction to list of specs	8.2.0	8.3.0
2001-12	SA#14	SP-010657	004		Correction to list of specs	8.3.0	8.4.0
2002-03	SA#15	SP-020178	005	1	Correction to list of specs Also eliminated 01.00 since this was withdrawn (from all Releases) by separate agreement of SA#15.	8.4.0	8.5.0
2002-06	SA#16	SP-020399	007	1	Correction to list of specs	8.5.0	8.6.0
2002-09	SA#17	SP-020614	008	1	Correction to list of specs; editorial correction to titles; removal of reference to wideband codecs in clause 5.2.4	8.6.0	8.7.0
2002-12	SA#18	SP-020832	009	1	Correction to list of specs	8.7.0	
		SP-020784	010	-	Correction to list of work items		8.8.0
2003-03	SA#19	SP-030077	011	-	Correction to list of work items	8.8.0	8.9.0
2003-06	SA#20	SP-030299	016	-	Change of title to render it independent of Release	8.9.0	
			017	-	Correction to list of specs		8.10.0
2003-09	SA#21	SP-030498	019	-	Correction to list of specifications and removal of redundant information	8.10.0	8.11.0
2003-09					Correction to change history table	8.11.0	8.11.1
2004-03	SA#23	SP-040221	020	1	Corrections to list of specifications	8.11.1	8.12.0
2004-06	SA#24	SP-040358	021	-	Corrections to list of specifications	8.12.0	8.13.0
2004-09	SA#25	SP-040604	022	-	Corrections to list of specifications	8.13.0	8.14.0
2004-12	SA#26	SP-040931	023	2	Corrections to list of specifications	8.14.0	8.15.0

History

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V8.3.0	September 2001	Publication
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V8.7.0	September 2002	Publication
V8.8.0	December 2002	Publication
V8.9.0	March 2003	Publication
V8.10.0	June 2003	Publication
V8.11.1	September 2003	Publication
V8.12.0	March 2004	Publication
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V8.15.0	December 2004	Publication