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**Technical Specification Group Radio Access Network** *TSGR#10(00)0600*  
**Technical Specification Group Terminals** *TSGT#10(00)0230*  
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**Source:** **MCC**  
<mailto:john.meredith@etsi.fr>

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**SA: 8.8**

The latest draft of the specification is attached for information. It is anticipated that a revised version will be presented for approval to come under change control at the spring 2001 SA meeting (no. 11).

# 3GPP TR 41.001 V0.0.24 (2000-11)

*Technical Specification*

**3rd Generation Partnership Project;**  
**Technical Specification Group Services and System**  
**Aspects;**~~Technical Specification Group GSM EDGE Radio~~  
~~Access Network;~~  
**GSM ~~Release~~ specifications set**  
**(Release 4)**



The present document has been developed within the 3<sup>rd</sup> Generation Partnership Project (3GPP™) and may be further elaborated for the purposes of 3GPP.

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Keywords

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**3GPP**

Postal address

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3GPP support office address

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650 Route des Lucioles - Sophia Antipolis  
Valbonne - FRANCE  
Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Internet

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<http://www.3gpp.org>

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# Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> 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 4.

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## 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.
- A non-specific reference to a pre-Release-4 GSM specification shall be taken to refer to the Release 4 (or later) version where that later version exists. Conversion from the pre-Release-4 number to the Release 4 (onwards) number is given in clause 6.1 below.

[1] GSM 01.04: "Abbreviations and acronyms".

[2] 3GPP TR 21.900: "3GPP working methods".

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## 3 Abbreviations

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

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## 4 General

GSM Release 4 consists of GSM-only specifications and the GSM Core Network specifications developed for both GSM Release 4 and Release 1999 of the 3<sup>rd</sup> Generation mobile system.

The present document identifies the GSM system set of specifications required to implement GSM Release 4.

Specifications for GSM-only Release 1999 and earlier can be identified by the "**ab.de**" numbering scheme. Certain pre-Release-4 specifications remain unchanged in Release 4, and the latest previous Release specification applies.

Specifications for GSM-only Release 4 can be identified by the "**ab.cde**" numbering scheme where "ab" is in the range 41 to 52.

Specifications for both GSM Release 4 and Release 4 of the 3<sup>rd</sup> Generation mobile system are identified by the "**ab.cde**" numbering scheme where "ab" is in the range 21 to 35.

A more detailed description of the specification numbering scheme is given in 3GPP TR 21.900.

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## 5 (void)

## 6 Specifications and Reports

### 6.1 GSM Only

See the fourth bullet point in clause 2 concerning references to GSM specifications from other 3GPP Technical Specifications and Reports.

Example: A non-specific reference from a Release 4 3GPP TS to GSM 02.68 shall be taken to refer to 3GPP TS 44.068.

Number		Title
Release 1999 or earlier	Release 4	
01.01		GSM Release 1999 Specifications
01.02		General Description of a GSM Public Land Mobile Network (PLMN)
01.04		Abbreviations and Acronyms
01.31		Fraud Information Gathering System (FIGS); Service requirements - Stage 0
01.33		Lawful Interception requirements for GSM
01.48		ISDN-based DECT/GSM interworking; Feasibility Study
01.56		GSM Cordless Telephony System (CTS) (Phase 1); CTS Authentication and Key Generation Algorithms Requirements
01.60		GPRS requirements
01.61		General Packet Radio Service (GPRS)
02.06		Types of Mobile Stations (MS)
02.07		Mobile Station (MS) Features
02.09		Security aspects
02.17		Subscriber Identity Modules, Functional Characteristics
02.19		Subscriber Identity Module Application Programming Interface (SIM API); Service description; Stage 1
02.31		Fraud Information Gathering System (FIGS) Service description - Stage 1
02.32		Immediate Service Termination (IST); Service description - Stage 1
02.33		Lawful intercept Stage 1
02.40		Procedures for Call Progress Indications
02.48		Security mechanisms for the SIM Application Toolkit; Stage 1
02.56		GSM Cordless Telephony System (CTS), Phase 1; Service description; Stage 1
02.63		Packet Data on Signalling channels Service (PDS) - Stage 1
02.68	42.068	Voice Group Call Service (VGCS); Stage 1(ASCI spec)
02.69	42.069	Voice Broadcast Service (VBS); Stage 1(ASCI spec)
02.76		Noise Suppression for the AMR
02.95		Digital cellular telecommunications system (Phase 2+); Support of Private Numbering Plan (SPNP); Service description, Stage 1
03.01		Network Functions
03.04		Signalling requirements relating to routing of calls to mobile subscribers
03.05		Technical Performance Objectives
03.10		Public Land Mobile Network (PLMN) Connection Types
03.13		Discontinuous Reception (DRX) in the GSM System
03.19		GSM API for SIM toolkit stage 2
03.20		Security-related Network Functions
03.22	43.022	Functions related to Mobile Station (MS) in idle mode
03.26		Multiband operation of GSM/DCS 1800 by a single operator
03.30	43.030	Radio Network Planning Aspects
03.31		Fraud Information Gathering System (FIGS); Service description - Stage 2
03.33		Lawful Interception - stage 2
03.35		Immediate Service Termination (IST); Stage 2
03.43		Support of Videotext
03.44		Support of Teletext in a Public Land Mobile Network (PLMN)
03.45		Technical realization of facsimile Group 3 service- transparent
03.46		Technical realization of facsimile group 3 service - non-transparent
03.47		Example Protocol Stacks for Interconnecting Service Centre(s) (SC) and Mobile Services Switching Centre(s) (MSC)

Number		Title
Release 1999 or earlier	Release 4	
03.48		Tool Kit Security Stage 2
03.49		Example Protocol Stacks for Interconnecting Cell Broadcast Centre (CBC) and Base Station Controller (BSC)
03.50		Transmission Planning Aspects of the Speech Service in the GSM Public Land Mobile Network (PLMN) System
	43.051	GERAN overall description; stage 2
03.52		Lower layers of the GSM Cordless Telephony System (CTS) radio interface - Stage 2
03.53		Tandem Free Operation (TFO); Service description
<a href="#">03.55</a>		<a href="#">Dual Transfer Mode (DTM); Stage 2</a>
03.56		GSM Cordless Telephony System (CTS), Phase 1; CTS Architecture Description; Stage 2
03.58		Characterization, test methods and quality assessment for handsfree Mobile Stations (MSs)
	43.059	Location services (LCS) GERAN; Stage 2
03.63		PDS Stage 2
03.64		Overall description of the GPRS radio interface; Stage 2
03.68	43.068	Voice Group Call Service (VGCS) - Stage 2
03.69	43.069	Voice Broadcast service (VBS) - Stage 2
03.70		Routeing of calls to/from Public Data Network (PDN)
03.71		Location Services (LCS) Stage 2
03.79		Support of Optimal Routeing
04.01		Mobile Station - Base Station System (MS - BSS) Interface General Aspects and Principles
04.02		GSM Public Land Mobile Network (PLMN) Access Reference Configuration
04.03		Mobile Station - Base Station System (MS - BSS) Interface Channel Structures and Access Capabilities
04.04		Layer 1 - General Requirements
04.05		Data Link (DL) Layer General Aspects
04.06		Mobile Station - Base Stations System (MS - BSS) Interface Data Link (DL) Layer Specification
04.08		Mobile Radio Interface Layer 3 specification Core Network Protocols stage 2 (structured procedures)
04.13		Performance Requirements on Mobile Radio Interface
04.14		Individual equipment type requirements and interworking; Special conformance testing functions
04.18	44.018	Mobile Radio Interface Layer 3 specification; Radio Resource Control Protocol
04.21		Rate Adaption on the Mobile Station - Base Station System (MS-BSS) Interface
04.30		Location Services (LCS); Mobile radio interface layer 3 supplementary services specification; Mobile Originating Location Request (MO-LR).
04.31		Location Services (LCS); Mobile Station (MS) - Serving Mobile Location Centre (SMLC); Radio Resource LCS Protocol (RRLP)
04.33		Lawful intercept Stage 3 ??? NO RECORD OF ANY SUCH SPEC
04.35		Location Services (LCS); Broadcast Network Assistance for Enhanced Observed Time Difference (E-OTD) and Global Positioning System (GPS) Positioning Methods
04.53		Inband Tandem Free Operation of Speech codecs, Service Description, stage 3
04.56		GSM Cordless Telephony System (CTS), (Phase 1) CTS Radio Interface Layer 3 Specification
04.57		GSM Cordless Telephony System (CTS), (Phase 1) CTS supervising system Layer 3 Specification
04.60		General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control/ Medium Access Control (RLC/MAC) protocol
04.63		Packet Data on Signalling channels Service (PDS) Service Description, Stage 3
04.64		Mobile Station - Serving GPRS Support Node (MS-SGSN) Logical Link Control (LLC) Layer Specification



Number		Title
Release 1999 or earlier	Release 4	
04.65		Mobile Station (MS) - Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDCP)
04.68	44.068	Group Call Control (GCC) Protocol
04.69	44.069	Broadcast Call Control (BCC) Protocol - Stage 3
04.71		Location Services (LCS) Stage 3
05.01	44.001	Physical Layer on the Radio Path (General Description)
05.02	45.002	Multiplexing and Multiple Access on the Radio Path
05.03		Channel Coding
05.04	45.004	Modulation
05.05	45.005	Radio Transmission and Reception
05.08	45.008	Radio Subsystem Link Control
05.09		Link Adaptation
05.10		Radio Subsystem Synchronization
<a href="#">05.14</a>		<a href="#">Release Independent Frequency Bands; Implementation Guidelines</a>
05.22		Radio Link management in hierarchical networks
05.50		Background for RF Requirements
05.56		CTS-FP Radio Sub-system
06.01		Full Rate Speech Processing Functions
06.02		Half Rate Speech Processing Functions
06.06		Half Rate Speech - Part 7: ANSI-C Code for GSM Half Rate Speech Codec
06.07		Half Rate Speech - Part 8: Test Sequence for GSM Half Rate Speech Codec
06.08		Half Rate Speech; Performance Characterization of the GSM half rate speech codec
06.10		Full Rate Speech Transcoding
06.11		Substitution and Muting of Lost Frames for Full Rate Speech Channels
06.12		Comfort Noise Aspects for Full Rate Speech Traffic Channels
06.20		Half Rate Speech Transcoding
06.21		Substitution and Muting of Lost Frames for Half Rate Speech Traffic Channels
06.22		Comfort Noise Aspects for Half Rate Speech Traffic Channels
06.31		Discontinuous Transmission (DTX) for Full Rate Speech Traffic Channels
06.32		Voice Activity Detection (VAD)
06.41		Discontinuous Transmission (DTX) for Half Rate Speech Traffic Channels
06.42		Voice Activity Detection (VAD) for Half Rate Speech Traffic Channels
06.51		Enhanced full rate speech processing functions: General description
06.53		ANSI-C code for the enhanced full rate speech codec
06.54		Test sequences for the GSM Enhanced Full Rate (EFR)
06.55		Performance characterization of the GSM EFR Speech Codec
06.60		Enhanced full rate speech transcoding
06.61		Substitution and muting of lost frames for enhanced full rate speech traffic channels
06.62		Comfort noise aspects for Enhanced Full Rate (EFR) speech traffic channels
06.76		ANSI-C code of the selected AMR-NS algorithm.
06.81		Discontinuous Transmission (DTX) for enhanced full rate speech traffic channels
06.82		Voice Activity Detection (VAD) for enhanced full rate speech traffic channels
06.85		Subjective tests on the interoperability of the HR/FR/EFR speech codecs; single, tandem and tandem free operation
07.07		AT Command set for GSM Mobile Equipment
07.08		GSM Application Programming Interface
08.04		Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface Layer 1 Specification
08.06		Signalling Transport Mechanism Specification for the Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface
08.08		Mobile Switching Centre - Base Station system (MSC-BSS) Interface Layer 3 Specification
08.14		General Packet Radio Service (GPRS); Base Station System (BSS) - Serving GPRS Support Node (SGSN) interface; Gb Interface Layer 1

Number		Title
Release 1999 or earlier	Release 4	
08.16		General Packet Radio Service (GPRS); Base Station System (BSS) - Serving GPRS Support Node (SGSN) Interface; Network Service
08.18		General Packet Radio Service (GPRS); Base Station System (BSS) - Serving GPRS Support Node (SGSN); BSS GPRS Protocol
08.20		Rate Adaptation on the BSS-MSC Interface
08.31		Location Services (LCS); Serving Mobile Location Centre (SMLC) - Serving Mobile Location Centre (SMLC); SMLC Peer Protocol (SMLCPP) Location Centre (SMLC); Radio Resource LCS Protocol (RRLP)
08.51		Base Station Controller - Base Transceiver Station (BSC-BTS) Interface General Aspects
08.52		Base Station Controller - Base Transceiver Station (BSC-BTS) Interface - Interface Principles
08.54		Base Station Controller - Base Transceiver Station (BSC-BTS) Interface Layer 1 Structure of Physical Circuits
08.56		Base Station Controller - Base Transceiver Station (BSC-BTS) Interface Layer 2 Specification
08.58		Base Station Controller - Base Transceiver Station (BCS-BTS) Interface Layer 3 Specification
08.59		BSC-BTS O&M Signalling Transport
08.60		Inband Control of Remote Transcoders and Rate Adaptors
08.61		Inband Control of Remote Transcoder and Rate Adaptors;(Half Rate)
08.71		Location services (LCS) SMLC-BSS interface L 3
09.09		General Network Interworking scenarios
09.03		Signalling Requirements on Interworking between the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN) and the Public Land Mobile Network (PLMN)
09.04		Interworking between the Public Land Mobile Network and the CSPDN
09.05		Interworking between PLMN and PAD access
09.06		Interworking between a Public Land Mobile Network (PLMN) and a Packet Switched Public Data Network/Intergrated Services digital Network (PSPDN/ISDN) for Support of Packet Switched Data Transmission Services
09.08		Application of the Base Station System Application Part (BSSAP) on the E-Interface
09.09		Detailed Signalling Interworking within the PLMN with the PSTN/ISDN
09.12		Application of ISUP Version 2 for the ISDN-PLMN (GSM) signalling
09.14		Application of ISUP Version 3 for the ISDN-PLMN Signalling
09.31		Location Services (LCS); Base Station System Application Part LCS Extension (BSSAP-LE)
09.90		Interworking between Phase 1 Infrastructure and Phase 2 Mobile Stations (MS)
09.91		Interworking Aspects of the SIM/ME Interface Between Phase 1 and Phase 2
11.10-1	51.010-1	<a href="#">Mobile station (MS) conformance specification; Part1:</a> Conformance Specification
11.10-2		Mobile Station (MS) Conformance Specification, Part 2 – ICS
11.10-3	51.010-3	Mobile Station (MS) Conformance Specification, Part 3 – Abstract Test suites
11.10-4		<a href="#">Mobile Station (MS) Conformance Specification; Part 4:</a> SIM Application Toolkit conformance Specification
11.11		Specification of the Subscriber Identity Module - Mobile Equipment (SIM-ME) Interface
11.14		Phase 2+ SIM Application Tool kit
11.17		SIM test specification
11.18		Specification of the 1.8 Volt Subscriber Identity Module - Mobile Equipment (SIM - ME) Interface
11.19		CTS SIM Fixed Part
11.21		GSM Radio Aspects Base Station System Equipment Specification
11.23		GSM Signalling Aspects Base Station System equipment Specification
11.24		GSM transcoding and rate adaptation: Base station
11.26		GSM Repeater Equipment Specification
11.30		Mobile Services Switching Centre

Number		Title
Release 1999 or earlier	Release 4	
11.31		Home Location Register specification
11.32		Visitor Location Register specification
12.00		Objectives and structure of GSM Public Land Mobile Network (PLMN) management
12.01		Common Aspects of Public Land Mobile Network (PLMN) Management
12.02		Subscriber, Mobile Equipment (ME) and Services Data Administration
12.03		Security Management
12.04		Performance Management and Measurements for a GSM Public Land Mobile Network (PLMN)
12.06		Network Configuration Management and Administration
12.08		Subscriber and Equipment trace
12.11		Fault management of the Base Station System (BSS)
13.01		Attachment requirements for Global System for Mobile communications (GSM) mobile stations; Access
13.01-1		Attachment requirements for Global System for Mobile communications (GSM) mobile stations; Access
13.01-2		Attachment requirements for mobile stations in the DCS 1800 band and additional GSM 900 band; Access
13.02		Attachment requirements for mobile stations in the DCS 1800 band and additional GSM 900 band; Access
13.11		Terminal essential requirements (RTTE)
13.34		Attachment requirements for Global System for Mobile communications (GSM); High Speed Circuit Switched Data (HSCSD) Multislot Mobile Stations; Access
13.55		Attachment requirements for Cordless Telephony System Fixed Part (CTS-FP); Access
13.56		Cordless Telephony System Mobile Stations (CTS-MS); Access
13.60		Attachment requirements for Global System for Mobile communications (GSM); General Packet Radio Service (GPRS); Mobile stations; Access
13.67		Attachment requirements for Global System for Mobile communications (GSM); Railways Band (R-GSM); Mobile Stations; Access
13.68		Attachment requirements for Global System for Mobile communications (GSM); Advanced Speech Call Items (GSM-ASCI) Mobile Stations; Access
13.21		BSS Radio aspects requirements (RTTE)

## 6.2 Common GSM and UMTS

Number		Title
Release 1999 or earlier GSM number	UMTS success or	
	21.978	Feasibility Technical Report – CAMEL Control of VoIP Services
02.02	22.002	Bearer Services Supported by a GSM PLMN
02.03	22.003	Circuit Teleservices supported by a PLMN
02.04	22.004	General on Supplementary Services
02.11	22.011	Service accessibility
02.16	22.016	International Mobile Equipment Identities (IMEI)
02.22	22.022	Personalization of GSM ME Mobile functionality specification - Stage 1
02.24	22.024	Description of Charge Advice Information (CAI)
02.30	22.030	Man-Machine Interface (MMI) of the Mobile Station (MS)
02.34	22.034	High Speed Circuit Switched Data (HSCSD) - Stage 1
02.38	22.038	SIM application toolkit (SAT); Stage 1
02.41	22.041	Operator Determined Call Barring
02.42	22.042	Network Identity and Time Zone (NITZ), stage 1
02.43	22.043	Support of Localized Service Area (SoLSA) - Stage 1
02.57	22.057	Mobile Station Application Execution Environment (MExE); Stage 1
02.60	22.060	General Packet Radio Service (GPRS); Stage 1
02.66	22.066	Support of Mobile Number Portability (MNP); Stage 1
02.67	22.067	enhanced Multi-Level Precedence and Pre-emption service (eMLPP) - Stage 1
02.71	22.071	Location Services (LCS); Stage 1 (T1P1)
02.72	22.072	Call Deflection (CD); Stage 1
02.78	22.078	CAMEL phase 3; Stage 1
02.79	22.079	Support of Optimal routing; Stage 1
02.81	22.081	Line Identification Supplementary Services; Stage 1
02.82	22.082	Call Forwarding (CF) Supplementary Services; Stage 1
02.83	22.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Services; Stage 1
02.84	22.084	MultiParty (MPTY) Supplementary Service; Stage 1
02.85	22.085	Closed User Group (CUG) Supplementary Services; Stage 1
02.86	22.086	Advice of Charge (AoC) Supplementary Services; Stage 1
02.87	22.087	User-to-user signalling (UUS); Stage 1
02.88	22.088	Call Barring (CB) Supplementary Services; Stage 1
02.90	22.090	Unstructured Supplementary Service Data (USSD); Stage 1
02.91	22.091	Explicit Call Transfer (ECT) Supplementary Service; Stage 1
02.93	22.093	Call Completion to Busy Subscriber (CCBS); Stage 1
02.96	22.096	Calling Name Presentation (CNAP); Stage 1 (T1P1)
02.97	22.097	Multiple Subscriber Profile (MSP); Stage 1
	22.115	Service Aspects Charging and billing
	22.121	Provision of Services in UMTS - The Virtual Home Environment
	22.129	Handover Requirements between UMTS and GSM or other Radio Systems
	22.945	Study of provision of fax service in GSM and UMTS
03.02	23.002	Network Architecture
03.03	23.003	Numbering, Addressing and Identification
03.07	23.007	Restoration procedures
03.08	23.008	organization of subscriber data
03.09	23.009	Handover procedures
03.11	23.011	Technical Realization of Supplementary Services - General Aspects
03.12	23.012	Location registration procedures
03.14	23.014	Support of Dual Tone Multi Frequency (DTMF) signalling?
03.15	23.015	Technical realization of Operator Determined Barring (ODB)
03.16	23.016	Subscriber data management - Stage 2
03.18	23.018	Basic Call Handling - Technical realization
03.32	23.032	Universal Geographical Area Description (GAD)
03.34	23.034	High Speed Circuit Switched Data (HSCSD) - Stage 2
03.38	23.038	Alphabets & Language
03.39	23.039	Interface Protocols for the Connection of Short Message Service Centres (SMSCs) to Short Message Entities (SMEs)
03.40	23.040	Technical realization of SMS Point to Point

Number		Title
Release 1999 or earlier GSM number	UMTS success or	
03.41	23.041	Technical Realization of Short Message Service Cell Broadcast (SMSCB)
03.42	23.042	Compression algorithm for SMS
03.46	23.046	Technical realization of facsimile Group 3 service- non-transparent
03.53	23.053	Tandem Free Operation (TFO); Service description; Stage 2
03.54	23.054	Shared Interworking Functions - Stage 2
03.57	23.057	Mobile Station Application Execution Environment (MExE)
03.60	23.060	General Packet Radio Service (GPRS) Service description; Stage 2
03.66	23.066	Support of GSM Mobile Number Portability (MNP) stage 2
03.67	23.067	Enhanced Multi-Level Precedence and Pre-emption Service (EMLPP) - Stage 2
03.72	23.072	Call Deflection Supplementary Service - Stage 2
03.73	23.073	Support of localized Service Area (SoLSA) - Stage 2
03.78	23.078	CAMEL Stage 2
03.79	23.079	Support of Optical Routeing - Phase 1 - Stage 2
03.81	23.081	Line Identification Supplementary Services - Stage 2
03.82	23.082	Call Forwarding (CF) Supplementary Services - Stage 2
03.83	23.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service - Stage 2
03.84	23.084	MultiParty (MPY) Supplementary Service - Stage 2
03.85	23.085	Closed User Group (CUG) Supplementary Service - Stage 2
03.86	23.086	Advice of Charge (AoC) Supplementary Service - Stage 2
03.87	23.087	User-to-User Signalling (UUS) - Stage 2
03.88	23.088	Call Barring (CB) Supplementary Service - Stage 2
03.90	23.090	Unstructured Supplementary Service Data (USSD) - Stage 2
03.91	23.091	Explicit Call Transfer (ECT) Supplementary Service - Stage 2
03.93	23.093	Call Completion to Busy Subscriber (CCBS) - Stage 2
03.96	23.096	Name Identification Supplementary Service - Stage 2
03.97	23.097	Multiple Subscriber Profile (MSP); Stage 2
	23.108	Mobile Radio Interface Layer 3 specification Core Network Protocols stage 2 (structured procedures)
	23.110	UMTS Access Stratum Services and Functions
	23.116	Super Charger - Stage 2
	23.119	Gateway Location Register (GLR) - Stage2
	23.121	Architecture Requirements for release 99
	23.104	Multimedia Messaging Service (MMS)
	23.908	Technical report on Pre-Paging
	23.909	Technical report on the Gateway Location Register
	23.911	Technical report on Out-of-band transcoder control
	23.912	Technical report on Super-Charger
	23.923	Combined GSM and Mobile IP mobility handling in UMTS IP CN
	23.925	UMTS Core network based ATM transport
04.07	24.007	Mobile Radio Interface Signalling Layer 3 - General Aspects
04.08	24.008	Mobile Radio Interface Layer 3 specification; Core Network Protocols- Stage 3
04.10	24.010	Mobile Radio Interface Layer 3 - Supplementary Services Specification - General Aspects
04.11	24.011	Point-to-Point (PP) Short Message Service (SMS) Support on Mobile Radio Interface
04.12	24.012	Short Message Service Cell Broadcast (SMSCB) Support on the Mobile Radio Interface?
04.22	24.022	Radio Link Protocol (RLP) for Data and Telematic Services on the (MS-BSS) Interface and the Base Station System - Mobile-services Switching Centre (BSS-MSC) Interface?
04.67	24.067	Enhanced Multi-Level Precedence and Pre-emption service (eMLPP) - Stage 3
04.72	24.072	Call Deflection Supplementary Service - Stage 3
04.80	24.080	Mobile radio Layer 3 Supplementary Service specification - Formats and coding
04.81	24.081	Line Identification Supplementary Service - Stage 3
04.82	24.082	Call Forwarding Supplementary Service - Stage 3
04.83	24.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service - Stage 3

Number		Title
Release 1999 or earlier GSM number	UMTS success or	
04.84	24.084	MultiParty (MPTY) Supplementary Service - Stage 3
04.85	24.085	Closed User Group (CUG) Supplementary Service - Stage 3
04.86	24.086	Advice of Charge (AoC) Supplementary Service - Stage 3
04.87	24.087	User-to-User Signalling (UUS) - Stage 3
04.88	24.088	Call Barring (CB) Supplementary Service - Stage 3
04.90	24.090	Unstructured Supplementary Service Data (USSD) - Stage 3
04.91	24.091	Explicit Call Transfer (ECT) Supplementary Service - Stage 3
04.93	24.093	Call Completion to Busy Subscriber (CCBS) - Stage 3
04.96	24.096	Name Identification Supplementary Service - Stage 3
05.53	25.053	Tandem Free Operation (TFO); Service description; Stage 2
07.01	27.001	General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)
07.02	27.002	Terminal Adaptation Functions (TAF) for services using Asynchronous bearer capabilities
07.03	27.003	Terminal Adaptation Functions (TAF) for services using Synchronous bearer capabilities
07.05	27.005	Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE - DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)
07.07	27.007	AT command set for 3G User Equipment (UE)
07.10	27.010	Terminal Equipment to User Equipment (TE-UE) multiplexer protocol User Equipment (UE)
07.60	27.060	GPRS Mobile Stations supporting GPRS
	27.103	Wide Area Network Synchronization
08.62	28.062	Inband Tandem Free Operation (TFO) of Speech Codecs; Service Description; Stage 3
09.02	29.002	Mobile Application Part (MAP)
09.07	29.007	General requirements on Interworking between the PLMN and the ISDN or PSTN
09.10	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)?
09.11	29.011	Signalling Interworking for Supplementary Services
09.13	29.013	Signalling interworking between ISDN supplementary services Application Service Element (ASE) and Mobile Application Part (MAP) protocols
09.16	29.016	Serving GPRS Support Mode SGSN - Visitors Location Register (VLR); Gs Interface Network Service Specification
09.18	29.018	Serving GPRS Support Mode SGSN - Visitors Location Register (VLR); Gs Interface Layer 3 Specification
09.60	29.060	GPRS Tunnelling protocol (GPT) across the Gn and Gp interface
09.61	29.061	General Packet Radio Service (GPRS); Interworking between the Public Land Mobile Network (PLMN) supporting GPRS and Packet
09.78	29.078	CAMEL phase 3; Stage 3

## Annex A (informative): Document change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
<del>2000-10-17</del>					Derived from 01.01 v8.0.0		0.0.0
<del>2000-10-19</del>					Minor editorials		0.0.1
<del>2000-11-16</del>					<del>Addition of recently created specs</del>		<del>0.0.2</del>