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**Digital cellular telecommunications system (Phase 2+) (GSM);
Technical Specifications and Technical Reports for a GERAN-
based 3GPP system
(3GPP TS 41.101 version 12.0.2 Release 12)**

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Foreword

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1 Scope

The present document identifies the 3GPP system specifications for Release 12. The specifications and reports of this Release have a major version number 12 (i.e. 12.x.y). The listed Specifications are required to build a system based on GERAN radio technology.

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] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TR 21.900: "Technical Specification Group working methods".

3 Abbreviations

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 apply.

4 General

The numbering scheme for specifications is described in 3GPP TR 21.900 [2].

5 Specifications and Reports

NOTE 1: The "for publication?" column of the table below indicates whether or not the documents are intended for adoption by the partner Standards Development Organizations as their own publications. Those marked "no" are internal working documents of the 3GPP TSGs.

NOTE 2: For definition of "freezing" of specifications (last two columns), see 3GPP TS 21.900 [2].

Number	Title	WG prime	For publication?	freeze date	frozen
21.202	Technical Specifications and Technical Reports relating to the Common IP Multimedia Subsystem (IMS)	SP	Yes		
21.801	Specification drafting rules	SP	No	2014-09-17	yes
21.900	Technical Specification Group working methods	SP	Yes	2014-09-17	yes
21.905	Vocabulary for 3GPP Specifications	SP	Yes	2014-09-17	yes
22.001	Principles of circuit telecommunication services supported by a Public	S1	Yes	2014-	yes

Number	Title	WG prime	For publication?	freeze date	frozen
	Land Mobile Network (PLMN)			09-17	
22.002	Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)	S1	Yes	2014-09-17	yes
22.003	Circuit Teleservices supported by a Public Land Mobile Network (PLMN)	S1	Yes	2014-09-17	yes
22.004	General on supplementary services	S1	Yes	2014-09-17	yes
22.011	Service accessibility	S1	Yes	2014-09-17	yes
22.016	International Mobile station Equipment Identities (IMEI)	S1	Yes	2014-09-17	yes
22.022	Personalisation of Mobile Equipment (ME); Mobile functionality specification	S1	Yes	2014-09-17	yes
22.024	Description of Charge Advice Information (CAI)	S1	Yes	2014-09-17	yes
22.030	Man-Machine Interface (MMI) of the User Equipment (UE)	S1	Yes	2014-09-17	yes
22.031	3G Security; Fraud Information Gathering System (FIGS); Service description; Stage 1	S3	Yes	2014-09-17	yes
22.032	Immediate Service Termination (IST); Service description; Stage 1	S3	Yes	2014-09-17	yes
22.034	High Speed Circuit Switched Data (HSCSD); Stage 1	S1	Yes	2014-09-17	yes
22.038	(U)SIM Application Toolkit (USAT); Service description; Stage 1	S1	Yes	2014-09-17	yes
22.041	Operator Determined Barring (ODB)	S1	Yes	2014-09-17	yes
22.042	Network Identity and TimeZone (NITZ); Service description; Stage 1	S1	Yes	2014-09-17	yes
22.053	Tandem Free Operation (TFO); Service description; Stage 1	S4	Yes	2014-09-17	yes
22.057	Mobile Execution Environment (MExE); Service description; Stage 1	S1	Yes	2014-09-17	yes
22.060	General Packet Radio Service (GPRS); Service description; Stage 1	S1	Yes	2014-09-17	yes
22.066	Support of Mobile Number Portability (MNP); Service description; Stage 1	S1	Yes	2014-09-17	yes
22.067	enhanced Multi Level Precedence and Pre-emption service (eMLPP); Stage 1	S1	Yes	2014-09-17	yes
22.071	Location Services (LCS); Service description; Stage 1	S1	Yes	2014-09-17	yes
22.072	Call Deflection (CD) service description; Stage 1	S1	Yes	2014-09-17	yes
22.076	Noise suppression for the AMR codec; Service description; Stage 1	S4	Yes	2014-09-17	yes
22.078	Customised Applications for Mobile network Enhanced Logic (CAMEL); Service description; Stage 1	S1	Yes	2014-09-17	yes
22.079	Support of Optimal Routeing (SOR); Service definition; Stage 1	S1	Yes	2014-09-17	yes
22.081	Line Identification supplementary services; Stage 1	S1	Yes	2014-09-17	yes
22.082	Call Forwarding (CF) Supplementary Services; Stage 1	S1	Yes	2014-09-17	yes
22.083	Call Waiting (CW) and Call Holding (HOLD); Supplementary Services; Stage 1	S1	Yes	2014-09-17	yes
22.084	MultiParty (MPTY) supplementary service; Stage 1	S1	Yes	2014-09-17	yes

Number	Title	WG prime	For publication?	freeze date	frozen
22.085	Closed User Group (CUG) supplementary services; Stage 1	S1	Yes	2014-09-17	yes
22.086	Advice of Charge (AoC) supplementary services; Stage 1	S1	Yes	2014-09-17	yes
22.087	User-to-User Signalling (UUS); Service description; Stage 1	S1	Yes	2014-09-17	yes
22.088	Call Barring (CB) supplementary services; Stage 1	S1	Yes	2014-09-17	yes
22.090	Unstructured Supplementary Service Data (USSD); Stage 1	S1	Yes	2014-09-17	yes
22.091	Explicit Call Transfer (ECT) supplementary service; Stage 1	S1	Yes	2014-09-17	yes
22.093	Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1	S1	Yes	2014-09-17	yes
22.094	Follow Me service description; Stage 1	S1	Yes	2014-09-17	yes
22.096	Name identification supplementary services; Stage 1	S1	Yes	2014-09-17	yes
22.097	Multiple Subscriber Profile (MSP) Phase 2; Service description; Stage 1	S1	Yes	2014-09-17	yes
22.105	Services and service capabilities	S1	Yes	2014-09-17	yes
22.115	Service aspects; Charging and billing	S1	Yes	2014-09-17	yes
22.129	Service aspects; Handover requirements between UTRAN and GERAN or other radio systems	S1	Yes	2014-09-17	yes
22.140	Multimedia Messaging Service (MMS); Stage 1	S1	Yes	2014-09-17	yes
22.141	Presence service; Stage 1	S1	Yes	2014-09-17	yes
22.142	Value Added Services (VAS) for Short Message Service (SMS) requirements	S1	Yes	2014-09-17	yes
22.146	Multimedia Broadcast/Multicast Service (MBMS); Stage 1	S1	Yes	2014-09-17	yes
22.153	Multimedia priority service	S1	Yes	2014-09-17	yes
22.173	IP Multimedia Core Network Subsystem (IMS) Multimedia Telephony Service and supplementary services; Stage 1	S1	Yes	2014-09-17	yes
22.174	Push Service; Service aspects; Stage 1	S1	Yes	2014-09-17	yes
22.182	Customized Alerting Tones (CAT) requirements; Stage 1	S1	Yes	2014-09-17	yes
22.183	Customized Ringing Signal (CRS) requirements; Stage 1	S1	Yes	2014-09-17	yes
22.226	Global Text Telephony (GTT); Stage 1	S1	Yes	2014-09-17	yes
22.228	Service requirements for the Internet Protocol (IP) multimedia core network subsystem (IMS); Stage 1	S1	Yes	2014-09-17	yes
22.233	Transparent end-to-end packet-switched streaming service; Stage 1	S1	Yes	2014-09-17	yes
22.234	Requirements on 3GPP system to Wireless Local Area Network (WLAN) interworking	S1	Yes	2014-09-17	yes
22.240	Service requirements for 3GPP Generic User Profile (GUP); Stage 1	S1	Yes	2014-09-17	yes
22.243	Speech recognition framework for automated voice services; Stage 1	S1	Yes	2014-09-17	yes
22.246	Multimedia Broadcast/Multicast Service (MBMS) user services; Stage 1	S1	Yes	2014-09-17	yes

Number	Title	WG prime	For publication?	freeze date	frozen
22.250	IP Multimedia Subsystem (IMS) Group Management; Stage 1	S1	Yes	2014-09-17	yes
22.259	Service requirements for Personal Network Management (PNM); Stage 1	S1	Yes	2014-09-17	yes
22.268	Public Warning System (PWS) requirements	S1	Yes	2014-09-17	yes
22.340	IP Multimedia Subsystem (IMS) messaging; Stage 1	S1	Yes	2014-09-17	yes
22.368	Service requirements for Machine-Type Communications (MTC); Stage 1	S1	Yes	2014-09-17	yes
22.801	Study on non-MTC mobile data applications impacts	S1	No	2014-09-17	yes
22.805	Feasibility study on user plane congestion management	S1	No	2014-09-17	yes
22.852	Study on Radio Access Network (RAN) sharing enhancements	S1	No	2014-09-17	yes
22.903	Study on Videotelephony teleservice	S1	Yes	2014-09-17	yes
22.912	Study into network selection requirements for non-3GPP access	S1	Yes	2014-09-17	yes
22.934	Feasibility study on 3GPP system to Wireless Local Area Network (WLAN) interworking	S1	Yes	2014-09-17	yes
22.935	Feasibility study on Location Services (LCS) for Wireless Local Area Network (WLAN) interworking	S1	Yes	2014-09-17	yes
22.936	Multi-system terminals	S1	Yes	2014-09-17	yes
22.940	IP Multimedia Subsystem (IMS) messaging	S1	Yes	2014-09-17	yes
22.942	Study on Value Added Services (VAS) for Short Message Service (SMS)	S1	Yes	2014-09-17	yes
22.944	Report on service requirements for UE functionality split	S1	Yes	2014-09-17	yes
22.948	Study of requirements of IP-Multimedia Subsystem (IMS) convergent multimedia conferencing	S1	Yes	2014-09-17	yes
22.949	Study on a generalized privacy capability	S1	Yes	2014-09-17	yes
22.950	Priority service feasibility study	S1	Yes	2014-09-17	yes
22.951	Service aspects and requirements for network sharing	S1	Yes	2014-09-17	yes
22.952	Priority service guide	S1	Yes	2014-09-17	yes
22.953	Multimedia priority service feasibility study	S1	Yes	2014-09-17	yes
22.967	Transferring of emergency call data	S1	Yes	2014-09-17	yes
22.968	Study for requirements for a Public Warning System (PWS) service	S1	Yes	2014-09-17	yes
22.973	IMS Multimedia Telephony service; and supplementary services	S1	Yes	2014-09-17	yes
22.977	Feasibility study for speech-enabled services	S1	Yes	2014-09-17	yes
22.979	Feasibility study on combined Circuit Switched (CS) calls and IP Multimedia Subsystem (IMS) sessions	S1	Yes	2014-09-17	yes
22.980	Network composition feasibility study	S1	Yes	2014-09-17	yes
22.982	Study of Customised Alerting Tone (CAT) requirements	S1	Yes	2014-09-17	yes

Number	Title	WG prime	For publication?	freeze date	frozen
22.983	Services alignment and migration	S1	Yes	2014-09-17	yes
22.987	Study of haptic services requirements	S1	Yes	2014-09-17	yes
23.002	Network architecture	S2	Yes	2014-09-17	yes
23.003	Numbering, addressing and identification	C4	Yes	2014-09-17	yes
23.007	Restoration procedures	C4	Yes	2014-09-17	yes
23.008	Organization of subscriber data	C4	Yes	2014-09-17	yes
23.009	Handover procedures	C4	Yes	2014-09-17	yes
23.011	Technical realization of Supplementary Services	C4	Yes	2014-09-17	yes
23.012	Location management procedures	C4	Yes	2014-09-17	yes
23.014	Support of Dual Tone Multi-Frequency (DTMF) signalling	C1	Yes	2014-09-17	yes
23.015	Technical realization of Operator Determined Barring (ODB)	C4	Yes	2014-09-17	yes
23.016	Subscriber data management; Stage 2	C4	Yes	2014-09-17	yes
23.018	Basic call handling; Technical realization	C4	Yes	2014-09-17	yes
23.031	3G Security; Fraud Information Gathering System (FIGS); Technical realization; Stage 2	S3	Yes	2014-09-17	yes
23.032	Universal Geographical Area Description (GAD)	S2	Yes	2014-09-17	yes
23.034	High Speed Circuit Switched Data (HSCSD); Stage 2	C1	Yes	2014-09-17	yes
23.035	Immediate Service Termination (IST); Stage 2	S3	Yes	2014-09-17	yes
23.038	Alphabets and language-specific information	C1	Yes	2014-09-17	yes
23.040	Technical realization of the Short Message Service (SMS)	C1	Yes	2014-09-17	yes
23.041	Technical realization of Cell Broadcast Service (CBS)	C1	Yes	2014-09-17	yes
23.042	Compression algorithm for text messaging services	C1	Yes	2014-09-17	yes
23.053	Tandem Free Operation (TFO); Service description; Stage 2	S4	Yes	2014-09-17	yes
23.057	Mobile Execution Environment (MExE); Functional description; Stage 2	S2	Yes	2014-09-17	yes
23.060	General Packet Radio Service (GPRS); Service description; Stage 2	S2	Yes	2014-09-17	yes
23.066	Support of Mobile Number Portability (MNP); Technical realization; Stage 2	C4	Yes	2014-09-17	yes
23.067	enhanced Multi-Level Precedence and Pre-emption Service (eMLPP); Stage 2	C4	Yes	2014-09-17	yes
23.072	Call Deflection (CD) supplementary service; Stage 2	C4	Yes	2014-09-17	yes
23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 4; Stage 2	C4	Yes	2014-09-17	yes
23.079	Support of Optimal Routeing (SOR); Technical realization	C4	Yes	2014-09-17	yes

Number	Title	WG prime	For publication?	freeze date	frozen
23.081	Line Identification supplementary services; Stage 2	C4	Yes	2014-09-17	yes
23.082	Call Forwarding (CF) supplementary services; Stage 2	C4	Yes	2014-09-17	yes
23.083	Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 2	C4	Yes	2014-09-17	yes
23.084	Multi Party (MPTY) supplementary service; Stage 2	C4	Yes	2014-09-17	yes
23.085	Closed User Group (CUG) supplementary service; Stage 2	C4	Yes	2014-09-17	yes
23.086	Advice of Charge (AoC) supplementary services; Stage 2	C4	Yes	2014-09-17	yes
23.087	User-to-User Signalling (UUS) supplementary service; Stage 2	C4	Yes	2014-09-17	yes
23.088	Call Barring (CB) Supplementary Services; Stage 2	C4	Yes	2014-09-17	yes
23.090	Unstructured Supplementary Service Data (USSD); Stage 2	C4	Yes	2014-09-17	yes
23.091	Explicit Call Transfer (ECT) supplementary service; Stage 2	C4	Yes	2014-09-17	yes
23.093	Technical realization of Completion of Calls to Busy Subscriber (CCBS); Stage 2	C4	Yes	2014-09-17	yes
23.094	Follow-Me (FM); Stage 2	C4	Yes	2014-09-17	yes
23.096	Name identification supplementary services; Stage 2	C4	Yes	2014-09-17	yes
23.097	Multiple Subscriber Profile (MSP) (Phase X); Stage 2	C4	Yes	2014-09-17	yes
23.107	Quality of Service (QoS) concept and architecture	S2	Yes	2014-09-17	yes
23.108	Mobile radio interface layer 3 specification, core network protocols; Stage 2	C1	Yes	2014-09-17	yes
23.110	Universal Mobile Telecommunications System (UMTS) access stratum; Services and functions	S2	Yes	2014-09-17	yes
23.116	Super-Charger technical realization; Stage 2	C4	Yes	2014-09-17	yes
23.122	Non-Access-Stratum (NAS) functions related to Mobile Station (MS) in idle mode	C1	Yes	2014-09-17	yes
23.139	3GPP system - fixed broadband access network interworking; Stage 2	S2	Yes	2014-09-17	yes
23.142	Value-added Services for SMS (VAS4SMS); Interface and signalling flow	C4	Yes	2014-09-17	yes
23.153	Out of band transcoder control; Stage 2	C4	Yes	2014-09-17	yes
23.202	Circuit switched data bearer services	C3	Yes	2014-09-17	yes
23.203	Policy and charging control architecture	S2	Yes	2014-09-17	yes
23.205	Bearer-independent circuit-switched core network; Stage 2	C4	Yes	2014-09-17	yes
23.207	End-to-end Quality of Service (QoS) concept and architecture	S2	Yes	2014-09-17	yes
23.216	Single Radio Voice Call Continuity (SRVCC); Stage 2	S2	Yes	2014-09-17	yes
23.218	IP Multimedia (IM) session handling; IM call model; Stage 2	C1	Yes	2014-09-17	yes
23.221	Architectural requirements	S2	Yes	2014-09-17	yes