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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 TS 21.102 V1.1.0 (2000-06)

**Technical Specification** 

3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; 3rd Generation mobile system Release 4 Specifications (Release 4)



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Specifications and reports for implementation of the 3GPP<sup>TM</sup> system should be obtained via the 3GPP Organisational Partners' Publications Offices.

Keywords Architecture

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### Foreword

This Technical Specification (TS) 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:

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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  $3^{rd}$  generation mobile system specifications for Release 4. The specifications and reports of 3G Release 4 have a major version number 4 (e.g. 4.x.y).

Release 4 Technical Specifications and Technical Reports will be functionally frozen at the 10<sup>th</sup> Technical Specification Group meetings (TSG#10) in December 2000.

- NOTE 1: Functionally frozen means that no further functionality/features may be incorporated into the set of specifications, and that only corrective Change Requests (CRs) are to be accepted and agreed.
- NOTE 2: It can be expected that corrective CRs will be introduced into the Release 4 version 4.x.y specifications throughout 2001.

## 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.

[1]	3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
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- [2] (void)
- [3] 3GPP TS 21.100: "3G specification handling procedures".
- [4] (void)
- [5] 3GPP TS 21.101: "3rd Generation mobile system Release 1999 Specifications".

#### 3 Abbreviations

For the purposes of the present document, the terms and definitions given in 3GPP TS 21.905 [1] apply.

### 4 General

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

The present document identifies the 3G system set of specifications required to implement Release 4.

NOTE: The corresponding list of specifications for Release 1999 can be found in 3G TS 21.101 [5].

The numbering scheme for specifications is described in 3G TS 21.100 [3].

#### 5

Specifications and Reports of 3G Release 4

NOTE 1: (void)

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- NOTE 2: The final 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 3: The algorithm specifications in the 35-series are available only under licence.
- NOTE 4: "Type" indicates Technical Specification (TS) or Technical Report (TR).

Туре	Number	WG prime	For publication	
TS	21.102	SP	Yes	
TR	21.801	3GPP drafting rules	SP	Yes
TR	21.905	3G Vocabulary	S1	Yes
TS	22.001	Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)	S1	Yes
TS	22.002	Circuit Bearer Services Supported by a PLMN	S1	Yes
TS	22.003	Circuit Teleservices supported by a Public Land Mobile Network (PLMN)	S1	Yes
TS	22.011	Service accessibility	S1	Yes
TS	22.038	SIM application toolkit (SAT); Stage 1	S1	Yes
TS	22.053	Tandem Free Operation of speech codecs; Stage 1 service description	S4	Yes
TS	22.057	Mobile Station Application Execution Environment (MExE); Stage 1	S1	Yes
TS	22.060	General Packet Radio Service (GPRS); Stage 1	S1	Yes
TS	22.071	Location Services (LCS); Stage 1	S1	Yes
TS	22.078	CAMEL; Stage 1	S1	Yes
TS	22.101	UMTS Service principles	S1	Yes
TS	22.105	Services & Service capabilities	S1	Yes
TS	22.121	Provision of Services in UMTS - The Virtual Home Environment ; Stage 1	S1	Yes
TS	22.127	Service Requirement for the Open Services Access (OSA) ; Stage 1	S1	Yes
TS	22.129	Handover Requirements between UMTS and GSM or other Radio Systems	S1	Yes
TS	22.140	Multimedia Messaging Service; Stage 1	S1	Yes
TS	22.226	Global text telephony; Stage 1: Service description	S1	Yes
TR	22.976	Study on PS domain services and capabilities	S1	Yes
TS	23.002	Network Architecture	S2	Yes
TS	23.018	Basic Call Handling - Technical realisation	N4	Yes
TS	23.038	Alphabets & Language	T2	Yes
TS	23.040	Technical realisation of Short Message Service	T2	Yes
TS	23.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service ; Stage 2	N4	Yes
TS	23.127	Virtual Home Environment; Stage 2	S2	Yes
TS	23.135	Multicall ; Stage 2	N4	Yes
TS	23.140	Multimedia Messaging Service (MMS)	T2	Yes
TS	23.146	Technical realisation of facsimile Group 3 service - non-transparent	N3	Yes
TS	23.205	Bearer-independent circuit-switched core network; Stage 2	N4	Yes
TS	23.221	Architectural requirements	S2	Yes
TS	23.226	Global text telephony; Stage 2: Architecture	N4	Yes
TS	23.227	Terminal local model	T2	Yes
TS	23.228	IP multimedia subsystem; Stage 2	S2	Yes
TS	23.271	Functional stage 2 description of location services	S2	Yes
TR	23.821	Architecture Principles for Relase 2000	S2	No
TR	23.873	Feasibility study fro transport and control separation in the PS CN domain	S2	Yes
TR	23.874	Feasibility study of architecture for network requested PDP context activation with User-ID	S2	No
TR	23.910	Circuit switched data bearer services	N3	Yes
TS	24.008	Mobile Radio Interface Layer 3 specification; Core Network Protocols ; Stage 3	N1	Yes
TS	25.106	UTRA Repeater; Radio transmission and reception	R4	Yes
TS	25.143	UTRA Repeater; Conformance testing	R4	Yes
TR	25.834	UTRA TDD low chip rate option; Radio protocol aspects	R2	Yes
TR	25.835	Report on hybrid ARQ type II/III	R2	Yes
TR	25.836	Node B synchronization for TDD	R1	No
TR	25.837	Hybrid ARQ Type II/III (lub/lur aspects)	R3 R3	No
TR	25.838	Node B Synchronisation for TDD (lub/lur aspects)		No
TR	25.839	Uplink Synchronous Transmission Scheme (USTS) (lur/lub aspects)		No
TR	25.840	Terminal power saving features	R1	No
TR	25.841	DSCH power control improvement in soft handover	R1	No
TR	25.843	1.28 Mcps TDD UE Radio Access Capabilities	R2	No
TR	25.844	Radio Acces Bearer Support Enhancements	R2	No
TR	25.845	FDD RACH and AICH performance requirements	R4	No
TR	25.846	CPCH performance	R4	No
TR	25.847	UE positioning enhancements	R2	No
TR	25.848	Physical Layer Aspects of UTRA High Speed Downlink Packet Access	R1	Yes
TR	25.849	DSCH power control improvement in soft handover	R3	No
TR	25.850	UE positioning in UTRAN lub/lur protocol aspects	R3	No

TR	25.924	Opportunity Driven Multiple Access (ODMA)	R2	Yes		
ſR	25.928	1,28Mcps UTRA TDD Physical Layer	R1	Yes		
R	25.932	Delay budget within the access stratum	R3	Yes		
R	25.933	IP Transport in UTRAN	R3	Yes		
R	25.934	AAL2 QoS optimization	R3	Yes		
R	25.935	RRM optimisation	R3	Yes		
R	25.936	Handover for realtime services from PS-domain	R3	Yes		
R	25.937	UTRAN TDD low chiprate	R3	Yes		
R	25.938	Terminal power saving features	R3	Yes		
R	25.945	RF requirements for low chip rate TDD option	R4	Yes		
R	25.946	RAB Quality of Service Negotiation over lu	R3	Yes		
R	25.950	UTRA high speed downlink packet access	R2	Yes		
R	25.951	BS classification (FDD)	R4	Yes		
R	25.952	BS classification (TDD)	R4	Yes		
R	25.953	TrFO/TFO	R3	Yes		
R	25.954	Migration to modification procedure	R3	Yes		
S	26.110	Codec for Circuit switched Multimedia Telephony Service; General Description	S4	Yes		
S	26.171	AMR speech codec, wideband; General description	S4	Yes		
S	26.173	AMR speech codec, wideband; C-source code	S4	Yes		
S	26.174	AMR speech odec, wideband; Test sequences	S4	Yes		
S	26.190	Mandatory Speech Codec speech processing functions AMR Wideband speech codec; Transcoding functions	S4	Yes		
S	26.191	AMR speech codec, wideband; Error concealment of lost frames	S4	Yes		
S	26.192	Mandatory Speech Codec speech processing functions AMR Wideband Speech Codec; Comfort noise aspects	S4	Yes		
S	26.193	AMR speech codec, wideband; Source Controlled Rate operation	S4	Yes		
S	26.194	Mandatory Speech Codec speech processing functions AMR Wideband speech codec; Voice Activity Detector (VAD)	S4	Yes		
S	26.201	AMR speech codec, wideband; Frame structure	S4	Yes		
S	26.202	AMR speech codec, wideband; Interface to Iu and Uu	S4	Yes		
S	26.226	Global text telephony;Transport of text in the voice channel	S4	Yes		
ſS	26.230	Global text telephony; Cellular text telephone modem transmitter C-code description description	S4	Yes		
ſS	26.231	Global text telephony; Cellular text telephone modem minimum performance requirements	S4	Yes		
S	26.233	End-to-end transparent streaming service; General description	S4	Yes		
S	26.234	End-to-end transparent streaming service; Protocols and codecs	S4	Yes		
S	26.235	Packet switched conversational multimedia applications; Default codecs	S4	Yes		
R	26.901	AMR Wideband Speech Codec Feasibility Study Report	S4	Yes		
R	26.920	Architectural Model for the 3G Transcoders	S4	Yes		
S	27.001	General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)	N3	Yes		
ſS	27.002	Terminal Adaptation Functions (TAF) for services using Asynchronous bearer capabilities	N3	Yes		
S	27.007	AT command set for 3G User Equipment (UE)	T2	Yes		
s	27.226	Global Text telephony;Terminal aspects	T2	Yes		
S	28.062	Inband Tandem Free Operation (TFO) of Speech Codecs; Service S4 Yes   Description; Stage 3 S4 Yes				
S	29.002	Mobile Application Part (MAP)	N4	Yes		
TS	29.007	General requirements on Interworking between the PLMN and the ISDN or PSTN	N3	Yes		
S	29.232	Media gateway controller - media gateway interface; Stage 3	N4	Yes		
S	29.415	No user plane protocols		Yes		
R	30.802	Project plan on Bearer Services and QoS		No		
S	31.111	USIM Application Toolkit (USAT)		Yes		
S	32.140	3G Service Management Requirements & Framework	T3 S5	Yes		
R	32.800	Management level procedures and interaction with UTRAN	S5	Yes		
S	33.200	Network Domain Security	S3	Yes		
R	33.800	Principles for Network Domain Security	S3	No		
R	33.903	Access Security for IP based services	S3	Yes		
ſR	33.904	Report on the Evaluation of 3GPP Standard Confidentiality and Integrity Algorithms	S3	Yes		
	34.910	Conformance Test specifications – Relevant for Regulatory use	T1	Yes		

TR 34.926 Table of International EMC requirements T1 Yes					
	IR	34.926	Table of International EMC requirements	T1	

# Annex A (void)

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## Annex B (informative): Document change history

Date	Version	Information about changes
June 2000	0.0.0	1 <sup>st</sup> draft created by MCC
June 2000	1.0.0	Minor corrections, presentation to SA#8.
December 2000	1.1.0	Table of specs refreshed; change from
		"Release 2000" terminology to "Release 4".
		Presentation to SA#10

				Cha	ange history
TSG SA #	Version	CR	Tdoc SA	New Version	Subject/Comment