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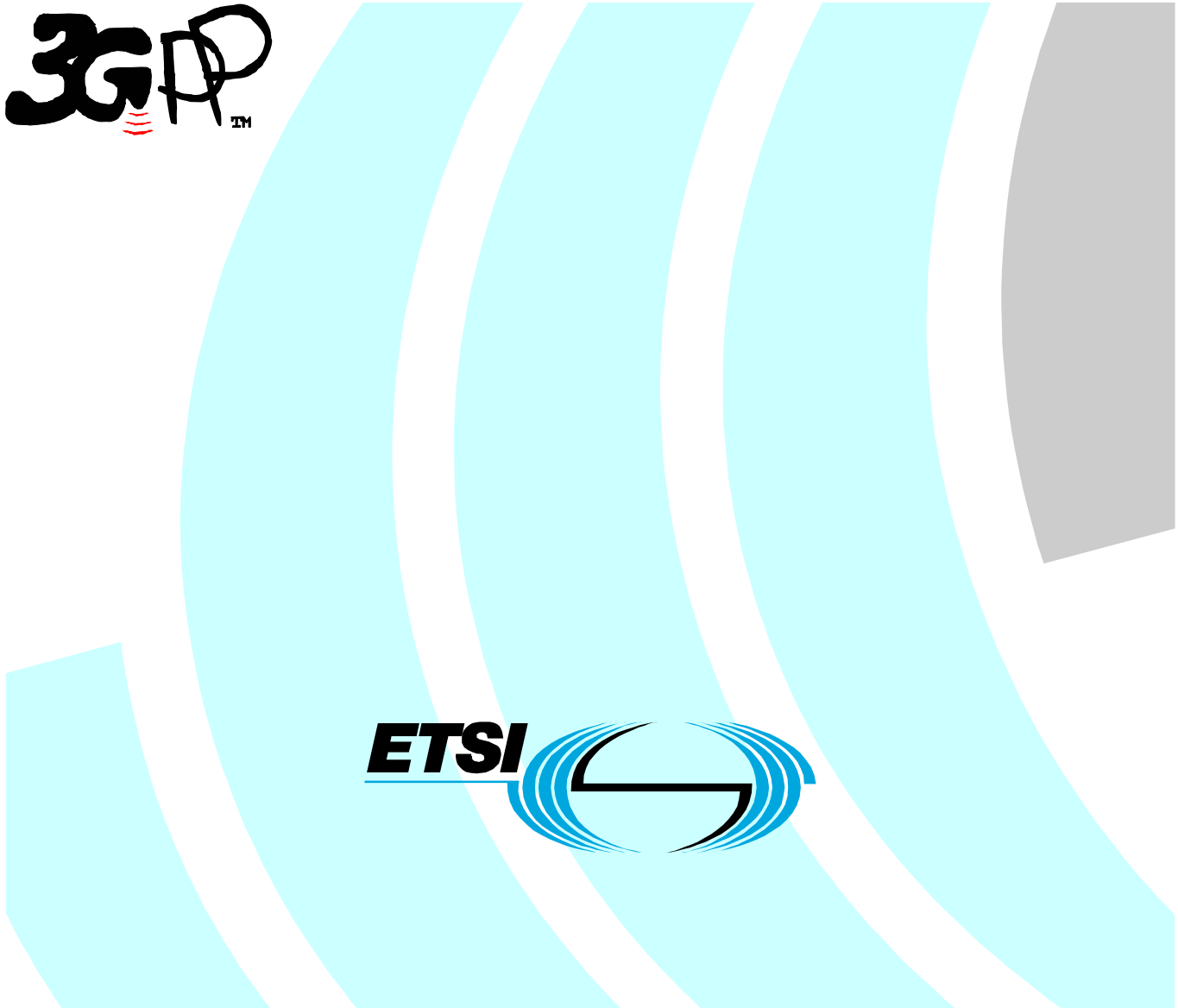
Technical Specification

Universal Mobile Telecommunications System (UMTS);
3rd Generation mobile system Release 4 specifications
(3GPP TS 21.102 version 4.6.0 Release 4)



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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 www.etsi.org/key .

Contents

Foreword

This Technical Specification (TS) 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 3rd 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).

Most of the core Release 4 Technical Specifications and Technical Reports were functionally frozen at the 11th Technical Specification Group meetings (TSG#11) in March 2001.

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 and beyond.

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] 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 3rd 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 3GPP TS 21.101 [3].

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

5 Specifications and Reports of 3G Release 4

NOTE 1: 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 2: Some of the algorithm specifications in the 35.-series are available only under licence.

NOTE 3: "Type" indicates Technical Specification (TS) or Technical Report (TR).

Type	Number	Title	WG prime	For publication?
TS	21.102	3rd Generation mobile system Release 4 specifications	SP	Yes
TS	21.111	USIM and IC card requirements	T3	Yes
TS	21.133	3G security; Security threats and requirements	S3	Yes
TR	21.801	Specification drafting rules	SP	No
TR	21.900	Technical Specification Group working methods	SP	Yes
TR	21.905	Vocabulary for 3GPP Specifications	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 (BS) supported by a Public Land Mobile Network (PLMN)	S1	Yes
TS	22.003	Circuit Teleservices supported by a Public Land Mobile Network (PLMN)	S1	Yes
TS	22.004	General on supplementary services	S1	Yes
TS	22.011	Service accessibility	S1	Yes
TS	22.016	International Mobile Equipment Identities (IMEI)	S1	Yes
TS	22.022	Personalisation of Mobile Equipment (ME); Mobile functionality specification	S3	Yes
TS	22.024	Description of Charge Advice Information (CAI)	S1	Yes
TS	22.030	Man-Machine Interface (MMI) of the User Equipment (UE)	S1	Yes
TS	22.032	Immediate Service Termination (IST); Service description; Stage 1	S3	Yes
TS	22.034	High Speed Circuit Switched Data (HSCSD); Stage 1	S1	Yes
TS	22.038	USIM/SIM Application Toolkit (USAT/SAT); Service description; Stage 1	S1	Yes
TS	22.041	Operator Determined Call Barring	S1	Yes
TS	22.042	Network Identity and Time Zone (NITZ) service description; Stage 1	S1	Yes
TS	22.048	Security Mechanisms for the (U)SIM application toolkit; Stage 1	T3	Yes
TS	22.053	Tandem Free Operation (TFO); Service description; Stage 1	S4	Yes
TS	22.057	Mobile Execution Environment (MExE) service description; Stage 1	S1	Yes
TS	22.060	General Packet Radio Service (GPRS); Service description; Stage 1	S1	Yes
TS	22.066	Support of Mobile Number Portability (MNP); Stage 1	S1	Yes
TS	22.067	enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 1	S1	Yes
TS	22.071	Location Services (LCS); Stage 1	S1	Yes
TS	22.072	Call Deflection (CD); Stage 1	S1	Yes
TS	22.076	Noise suppression for the AMR codec; Service description; Stage 1	S4	Yes
TS	22.078	Customized Applications for Mobile network Enhanced Logic (CAMEL); Service description; Stage 1	S1	Yes
TS	22.079	Support of optimal routeing; Stage 1	S1	Yes
TS	22.081	Line Identification supplementary services; Stage 1	S1	Yes
TS	22.082	Call Forwarding (CF) Supplementary Services; Stage 1	S1	Yes
TS	22.083	Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 1	S1	Yes
TS	22.084	MultiParty (MPTY) supplementary service; Stage 1	S1	Yes
TS	22.085	Closed User Group (CUG) supplementary services; Stage 1	S1	Yes
TS	22.086	Advice of Charge (AoC) supplementary services; Stage 1	S1	Yes
TS	22.087	User-to-user signalling (UUS); Stage 1	S1	Yes
TS	22.088	Call Barring (CB) supplementary services; Stage 1	S1	Yes
TS	22.090	Unstructured Supplementary Service Data (USSD); Stage 1	S1	Yes
TS	22.091	Explicit Call Transfer (ECT) supplementary service; Stage 1	S1	Yes
TS	22.093	Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1	S1	Yes
TS	22.094	Follow Me service description - Stage 1	S1	Yes
TS	22.096	Name identification supplementary services; Stage 1	S1	Yes
TS	22.097	Multiple Subscriber Profile (MSP) Phase 1; Service description - Stage 1	S1	Yes
TS	22.101	Service aspects; Service principles	S1	Yes
TS	22.105	Services and service capabilities	S1	Yes
TS	22.115	Service Aspects Charging and billing	S1	Yes

Type	Number	Title	WG prime	For publication?
TR	22.121	Service aspects; 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 UTRAN and GERAN or other radio systems	S1	Yes
TS	22.135	Multicall; Service description; Stage 1	S1	Yes
TS	22.140	Multimedia Messaging Service (MMS); Stage 1	S1	Yes
TS	23.002	Network Architecture	S2	Yes
TS	23.003	Numbering, Addressing and Identification	N4	Yes
TS	23.007	Restoration procedures	N4	Yes
TS	23.008	Organisation of subscriber data	N4	Yes
TS	23.009	Handover procedures	N1	Yes
TS	23.011	Technical realization of Supplementary Services	N4	Yes
TS	23.012	Location management procedures	N4	Yes
TS	23.014	Support of Dual Tone Multi Frequency (DTMF) signalling	N1	Yes
TS	23.015	Technical realisation of Operator Determined Barring (ODB)	N4	Yes
TS	23.016	Subscriber data management; Stage 2	N4	Yes
TS	23.018	Basic Call Handling; Technical realization	N4	Yes
TS	23.032	Universal Geographical Area Description (GAD)	S2	Yes
TS	23.034	High Speed Circuit Switched Data (HSCSD); Stage 2	N1	Yes
TS	23.035	Immediate Service Termination (IST); Stage 2	S3	Yes
TS	23.038	Alphabets and language-specific information	T2	Yes
TR	23.039	Interface Protocols for the Connection of Short Message Service Centers (SMSCs) to Short Message Entities (SMEs)	T2	Yes
TS	23.040	Technical realization of Short Message Service (SMS)	T2	Yes
TS	23.041	Technical realization of Cell Broadcast Service (CBS)	T2	Yes
TS	23.042	Compression algorithm for SMS	T2	Yes
TS	23.048	Security Mechanisms for the (U)SIM application toolkit; Stage 2	T3	Yes
TS	23.053	Tandem Free Operation (TFO); Service description; Stage 2	S4	Yes
TS	23.057	Mobile Execution Environment (MExE); Functional description; Stage 2	T2	Yes
TS	23.060	General Packet Radio Service (GPRS) Service description; Stage 2	S2	Yes
TS	23.066	Support of GSM Mobile Number Portability (MNP) stage 2	N4	Yes
TS	23.067	Enhanced Multi-Level Precedence and Preemption Service (EMLPP); Stage 2	N4	Yes
TS	23.072	Call Deflection Supplementary Service; Stage 2	N4	Yes
TS	23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL); Stage 2	N2	Yes
TS	23.079	Support of Optimal Routeing (SOR); Technical realization; Stage 2	N4	Yes
TS	23.081	Line Identification supplementary services; Stage 2	N4	Yes
TS	23.082	Call Forwarding (CF) Supplementary Services; Stage 2	N4	Yes
TS	23.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 2	N4	Yes
TS	23.084	MultiParty (MPTY) Supplementary Service; Stage 2	N4	Yes
TS	23.085	Closed User Group (CUG) Supplementary Service; Stage 2	N4	Yes
TS	23.086	Advice of Charge (AoC) Supplementary Service; Stage 2	N4	Yes
TS	23.087	User-to-User Signalling (UUS) supplementary service; Stage 2	N4	Yes
TS	23.088	Call Barring (CB) Supplementary Service; Stage 2	N4	Yes
TS	23.090	Unstructured Supplementary Service Data (USSD); Stage 2	N4	Yes
TS	23.091	Explicit Call Transfer (ECT) Supplementary Service; Stage 2	N4	Yes
TS	23.093	Technical realization of Completion of Calls to Busy Subscriber (CCBS); Stage 2	N4	Yes
TS	23.094	Follow Me Stage 2	N4	Yes
TS	23.096	Name Identification Supplementary Service; Stage 2	N4	Yes
TS	23.097	Multiple Subscriber Profile (MSP) Phase 1; Stage 2	N4	Yes
TS	23.101	General UMTS Architecture	S2	Yes
TS	23.107	Quality of Service (QoS) concept and architecture	S2	Yes
TS	23.108	Mobile radio interface layer 3 specification core network protocols; Stage 2 (structured procedures)	N1	Yes
TS	23.110	UMTS Access Stratum Services and Functions	S2	Yes
TS	23.116	Super-Charger technical realization; Stage 2	N4	Yes
TS	23.119	Gateway Location Register (GLR); Stage2	N4	Yes
TS	23.122	Non-Access-Stratum functions related to Mobile Station (MS) in idle mode	N1	Yes
TS	23.127	Virtual Home Environment (VHE) / Open Service Access (OSA); Stage 2	S2	Yes
TS	23.135	Multicall supplementary service; Stage 2	N4	Yes
TS	23.140	Multimedia Messaging Service (MMS); Functional description; Stage 2	T2	Yes
TS	23.146	Technical realisation of facsimile Group 3 service - non-transparent	N3	Yes

Type	Number	Title	WG prime	For publication?
TS	23.153	Out of Band Transcoder Control; Stage 2	N4	Yes
TS	23.205	Bearer-independent circuit-switched core network; Stage 2	N4	Yes
TS	23.221	Architectural requirements	S2	Yes
TS	23.227	Application and user interaction in the UE; Principles and specific requirements	T2	Yes
TS	23.271	Functional stage 2 description of location services (LCS)	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	No
TR	23.874	Feasibility study of architecture for network requested PDP context activation with User-ID	S2	No
TR	23.907	Quality of Service (QoS) concept	S2	Yes
TR	23.908	Technical report on Pre-Paging	N4	Yes
TR	23.909	Technical report on the Gateway Location Register	N4	Yes
TR	23.910	Circuit switched data bearer services	N3	Yes
TR	23.911	Technical report on Out-of-band transcoder control	N4	Yes
TR	23.912	Technical report on Super-Charger	N4	Yes
TR	23.925	UMTS Core network based ATM transport	S2	Yes
TR	23.930	Iu Principles	S2	Yes
TS	24.002	GSM-UMTS Public Land Mobile Network (PLMN) Access Reference Configuration	N1	Yes
TS	24.007	Mobile radio interface signalling layer 3; General Aspects	N1	Yes
TS	24.008	Mobile radio interface Layer 3 specification; Core network protocols; Stage 3	N1	Yes
TS	24.010	Mobile Radio Interface Layer 3 - Supplementary Services Specification - General Aspects	N4	Yes
TS	24.011	Point-to-Point (PP) Short Message Service (SMS) Support on Mobile Radio Interface	N1	Yes
TS	24.022	Radio Link Protocol (RLP) for circuit switched bearer and teleservices	N3	Yes
TS	24.030	Location Services (LCS); Supplementary service operations; Stage 3	N4	Yes
TS	24.067	Enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 3	N4	Yes
TS	24.072	Call Deflection Supplementary Service; Stage 3	N4	Yes
TS	24.080	Mobile radio Layer 3 supplementary service specification; Formats and coding	N4	Yes
TS	24.081	Line Identification Supplementary Service; Stage 3	N4	Yes
TS	24.082	Call Forwarding supplementary service; Stage 3	N4	Yes
TS	24.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 3	N4	Yes
TS	24.084	MultiParty (MPTY) Supplementary Service; Stage 3	N4	Yes
TS	24.085	Closed User Group (CUG) Supplementary Service; Stage 3	N4	Yes
TS	24.086	Advice of Charge (AoC) Supplementary Service; Stage 3	N4	Yes
TS	24.087	User-to-User Signalling (UUS); Stage 3	N4	Yes
TS	24.088	Call Barring (CB) Supplementary Service; Stage 3	N4	Yes
TS	24.090	Unstructured Supplementary Service Data (USSD); Stage 3	N4	Yes
TS	24.091	Explicit Call Transfer (ECT) Supplementary Service; Stage 3	N4	Yes
TS	24.093	Call Completion to Busy Subscriber (CCBS); Stage 3	N4	Yes
TS	24.096	Name Identification Supplementary Service; Stage 3	N4	Yes
TS	24.135	Multicall supplementary service; Stage 3	N4	Yes
TS	25.101	UE Radio transmission and reception (FDD)	R4	Yes
TS	25.102	UTRA (UE) TDD; Radio transmission and reception	R4	Yes
TS	25.104	UTRA (BS) FDD; Radio transmission and reception	R4	Yes
TS	25.105	UTRA (BS) TDD: Radio transmission and reception	R4	Yes
TS	25.106	UTRA Repeater; Radio transmission and reception	R4	Yes
TS	25.113	Base station and repeater electromagnetic compatibility (EMC)	R4	Yes
TS	25.123	Requirements for support of radio resource management (TDD)	R4	Yes
TS	25.133	Requirements for support of radio resource management (FDD)	R4	Yes
TS	25.141	Base station conformance testing (FDD)	R4	Yes
TS	25.142	Base station conformance testing (TDD)	R4	Yes
TS	25.143	UTRA repeater; Conformance testing	R4	Yes
TS	25.201	Physical layer - general description	R1	Yes
TS	25.211	Physical channels and mapping of transport channels onto physical channels (FDD)	R1	Yes
TS	25.212	Multiplexing and channel coding (FDD)	R1	Yes
TS	25.213	Spreading and modulation (FDD)	R1	Yes
TS	25.214	Physical layer procedures (FDD)	R1	Yes
TS	25.215	Physical layer; Measurements (FDD)	R1	Yes
TS	25.221	Physical channels and mapping of transport channels onto physical channels	R1	Yes

Type	Number	Title	WG prime	For publication?
		(TDD)		
TS	25.222	Multiplexing and channel coding (TDD)	R1	Yes
TS	25.223	Spreading and modulation (TDD)	R1	Yes
TS	25.224	Physical layer procedures (TDD)	R1	Yes
TS	25.225	Physical layer; Measurements (TDD)	R1	Yes
TS	25.301	Radio Interface Protocol Architecture	R2	Yes
TS	25.302	Services provided by the physical layer	R2	Yes
TS	25.303	Interlayer procedures in Connected Mode	R2	Yes
TS	25.304	UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode	R2	Yes
TS	25.305	User Equipment (UE) positioning in Universal Terrestrial Radio Access Network (UTRAN); Stage 2	R2	Yes
TS	25.306	UE Radio Access capabilities definition	R2	Yes
TS	25.307	Requirements on UEs supporting a release-independent frequency band	R2	Yes
TS	25.321	Medium Access Control (MAC) protocol specification	R2	Yes
TS	25.322	Radio Link Control (RLC) protocol specification	R2	Yes
TS	25.323	Packet Data Convergence Protocol (PDCP) specification	R2	Yes
TS	25.324	Broadcast/Multicast Control (BMC)	R2	Yes
TS	25.331	Radio Resource Control (RRC) protocol specification	R2	Yes
TS	25.401	UTRAN Overall Description	R3	Yes
TS	25.402	Synchronisation in UTRAN Stage 2	R3	Yes
TS	25.410	UTRAN Iu Interface: General Aspects and Principles	R3	Yes
TS	25.411	UTRAN Iu interface layer 1	R3	Yes
TS	25.412	UTRAN Iu interface signalling transport	R3	Yes
TS	25.413	UTRAN Iu interface RANAP signalling	R3	Yes
TS	25.414	UTRAN Iu interface data transport & transport signalling	R3	Yes
TS	25.415	UTRAN Iu interface user plane protocols	R3	Yes
TS	25.419	UTRAN Iu-BC interface: Service Area Broadcast Protocol (SABP)	R3	Yes
TS	25.420	UTRAN Iur Interface: General Aspects and Principles	R3	Yes
TS	25.421	UTRAN Iur interface Layer 1	R3	Yes
TS	25.422	UTRAN Iur interface signalling transport	R3	Yes
TS	25.423	UTRAN Iur interface RNSAP signalling	R3	Yes
TS	25.424	UTRAN Iur interface data transport & transport signalling for CCH data streams	R3	Yes
TS	25.425	UTRAN Iur interface user plane protocols for CCH data streams	R3	Yes
TS	25.426	UTRAN Iur and Iub interface data transport & transport signalling for DCH data streams	R3	Yes
TS	25.427	UTRAN Iur and Iub interface user plane protocols for DCH data streams	R3	Yes
TS	25.430	UTRAN Iub Interface: General Aspects and Principles	R3	Yes
TS	25.431	UTRAN Iub interface Layer 1	R3	Yes
TS	25.432	UTRAN Iub interface: signalling transport	R3	Yes
TS	25.433	UTRAN Iub interface NBAP signalling	R3	Yes
TS	25.434	UTRAN Iub interface data transport & transport signalling for CCH data streams	R3	Yes
TS	25.435	UTRAN Iub interface user plane protocols for CCH data streams	R3	Yes
TS	25.442	UTRAN implementation-specific O&M transport	R3	Yes
TR	25.832	Manifestations of Handover and SRNS relocation	R3	No
TR	25.834	UTRA TDD low chip rate option; Radio protocol aspects	R2	No
TR	25.836	Node B synchronization for TDD	R1	No
TR	25.837	Hybrid ARQ Type II/III (Iub/Iur aspects)	R3	No
TR	25.838	Node B Synchronisation for TDD (Iub/Iur aspects)	R3	No
TR	25.839	Uplink Synchronous Transmission Scheme (USTS) (Iur/Iub aspects)	R3	No
TR	25.840	Terminal power saving features	R1	No
TR	25.841	DSCH power control improvement in soft handover	R1	No
TR	25.842	Smart antenna	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	25.847	UE positioning enhancements	R2	No
TR	25.848	Physical Layer Aspects of UTRA High Speed Downlink Packet Access	R1	No
TR	25.849	DSCH power control improvement in soft handover	R3	No
TR	25.850	UE positioning in UTRAN Iub/Iur protocol aspects	R3	No
TR	25.851	RAB Quality of Service (QoS) Renegotiation over Iu	R3	No

Type	Number	Title	WG prime	For publication?
TR	25.852	Radio access bearer support enhancements for the Iu	R3	No
TR	25.853	Delay budget within the access stratum	R3	No
TR	25.921	Guidelines and principles for protocol description and error handling	R2	Yes
TR	25.922	Radio Resource Management Strategies	R2	Yes
TR	25.928	1,28 Mcps functionality for UTRA TDD physical layer	R1	Yes
TR	25.931	UTRAN Functions, examples on signalling procedures	R3	Yes
TR	25.934	AAL2 QoS optimization	R3	Yes
TR	25.935	RRM optimisation	R3	Yes
TR	25.936	Handover for realtime services from PS-domain	R3	Yes
TR	25.937	UTRAN TDD low chiprate	R3	Yes
TR	25.942	RF system scenarios	R4	Yes
TR	25.943	Deployment aspects	R4	Yes
TR	25.944	Channel coding and multiplexing examples	R1	Yes
TR	25.945	RF requirements for low chip rate TDD option	R4	Yes
TR	25.946	RAB Quality of Service (QoS) Negotiation over Iu	R3	Yes
TR	25.950	UTRA high speed downlink packet access	R2	Yes
TR	25.953	TrFO/TFO	R3	Yes
TR	25.954	Migration to modification procedure	R3	Yes
TR	25.956	UTRA repeater: Planning guidelines and system analysis	R4	Yes
TR	25.993	Typical examples of RABs and RBs supported by UTRA	R2	Yes
TS	26.071	AMR speech Codec; General description	S4	Yes
TS	26.073	AMR speech Codec; C-source code	S4	Yes
TS	26.074	AMR speech Codec; Test sequences	S4	Yes
TS	26.077	Minimum Performance Requirements for Noise Suppresser Application to the AMR Speech Encoder	S4	Yes
TS	26.090	AMR speech Codec; Transcoding Functions	S4	Yes
TS	26.091	AMR speech Codec; Error concealment of lost frames	S4	Yes
TS	26.092	AMR speech Codec; comfort noise for AMR Speech Traffic Channels	S4	Yes
TS	26.093	AMR speech Codec; Source Controlled Rate operation	S4	Yes
TS	26.094	AMR Speech Codec; Voice Activity Detector for AMR Speech Traffic Channels	S4	Yes
TS	26.101	Mandatory speech codec speech processing functions; Adaptive Multi-Rate (AMR) speech codec frame structure	S4	Yes
TS	26.102	AMR speech Codec; Interface to Iu and Uu	S4	Yes
TS	26.103	Speech codec list for GSM and UMTS	S4	Yes
TS	26.104	ANSI-C code for the floating-point Adaptive Multi-Rate (AMR) speech codec	S4	Yes
TS	26.110	Codec for circuit switched multimedia telephony service; General description	S4	Yes
TS	26.111	Codec for Circuit switched Multimedia Telephony Service; Modifications to H.324	S4	Yes
TS	26.115	Echo control for speech and multi-media services	S4	Yes
TS	26.131	Terminal acoustic characteristics for telephony; Requirements	S4	Yes
TS	26.132	Narrow band (3,1 kHz) speech and video telephony terminal acoustic test specification	S4	Yes
TS	26.233	End-to-end transparent streaming service; General description	S4	Yes
TS	26.234	End-to-end transparent streaming service; Protocols and codecs	S4	Yes
TR	26.901	AMR wideband speech codec; Feasibility study report	S4	Yes
TR	26.911	Codec for Circuit switched Multimedia Telephony Service;Terminal Implementor's Guide	S4	Yes
TR	26.912	Codec for Circuit switched Multimedia Telephony Service; Quantitative performance evaluation of H.324 Annex C over 3G	S4	Yes
TR	26.975	Performance characterization of the Adaptive Multi-Rate (AMR) speech codec	S4	Yes
TR	26.978	Results of the AMR noise suppression selection phase	S4	Yes
TS	27.001	General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)	N3	Yes
TS	27.002	Terminal Adaptation Functions (TAF) for services using Asynchronous bearer capabilities	N3	Yes
TS	27.003	Terminal Adaptation Functions (TAF) for services using Synchronous bearer capabilities	N3	Yes
TS	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
TS	27.007	AT command set for 3G User Equipment (UE)	T2	Yes
TS	27.010	Terminal Equipment to User Equipment (TE-UE) multiplexer protocol	T2	Yes
TS	27.060	Packet domain; Mobile Station (MS) supporting Packet Switched services	N3	Yes
TS	27.103	Wide Area Network Synchronization	T2	Yes

Type	Number	Title	WG prime	For publication?
TR	27.901	Report on Terminal Interfaces - An Overview	T2	Yes
TR	27.903	Discussion of synchronization standards	T2	Yes
TS	28.062	Inband Tandem Free Operation (TFO) of speech codecs; Service description; Stage 3	S4	Yes
TS	29.002	Mobile Application Part (MAP) specification	N4	Yes
TS	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
TS	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
TS	29.011	Signalling Interworking for Supplementary Services	N4	Yes
TS	29.013	Signalling interworking between ISDN supplementary services Application Service Element (ASE) and Mobile Application Part (MAP) protocols	N4	Yes
TS	29.016	Serving GPRS Support Node SGSN - Visitors Location Register (VLR); Gs Interface Network Service Specification	N1	Yes
TS	29.018	General Packet Radio Service (GPRS); Serving GPRS Support Node (SGSN) - Visitors Location Register (VLR); Gs interface layer 3 specification	N1	Yes
TS	29.060	General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp interface	N4	Yes
TS	29.061	Interworking between the Public Land Mobile Network (PLMN) supporting Packet Based services and Packet Data Networks (PDN)	N3	Yes
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL); CAMEL Application Part (CAP) specification	N2	Yes
TS	29.108	Application of the Radio Access Network Application Part (RANAP) on the E-interface	R3	Yes
TS	29.119	GPRS Tunnelling Protocol (GTP) specification for Gateway Location Register (GLR)	N4	Yes
TS	29.120	Mobile Application Part (MAP) specification for Gateway Location Register (GLR); Stage 3	N4	Yes
TS	29.198-01	Open Service Access (OSA) Application Programming Interface (API); Part 1: Overview	N5	Yes
TS	29.198-02	Open Service Access (OSA) Application Programming Interface (API); Part 2: Common data	N5	Yes
TS	29.198-03	Open Service Access (OSA) Application Programming Interface (API); Part 3: Framework	N5	Yes
TS	29.198-04	Open Service Access (OSA) Application Programming Interface (API); Part 4: Call control	N5	Yes
TS	29.198-05	Open Service Access (OSA) Application Programming Interface (API); Part 5: Generic user interaction	N5	Yes
TS	29.198-06	Open Service Access (OSA) Application Programming Interface (API); Part 6: Mobility	N5	Yes
TS	29.198-07	Open Service Access (OSA) Application Programming Interface (API); Part 7: Terminal capabilities	N5	Yes
TS	29.198-08	Open Service Access (OSA) Application Programming Interface (API); Part 8: Data session control	N5	Yes
TS	29.198-11	Open Service Access (OSA) Application Programming Interface (API); Part 11: Account management	N5	Yes
TS	29.198-12	Open Service Access (OSA) Application Programming Interface (API); Part 12: Charging	N5	Yes
TS	29.202	Signalling System No. 7 (SS7) signalling transport in core network; Stage 3	N4	Yes
TS	29.205	Application of Q.1900 series to bearer-independent circuit-switched core network architecture; Stage 3	N4	Yes
TS	29.232	Media Gateway Controller (MGC) - Media Gateway (MGW) interface; Stage 3	N4	Yes
TS	29.414	Core network Nb data transport and transport signalling	N3	Yes
TS	29.415	Core network Nb interface user plane protocols	N3	Yes
TR	29.993	Modifications to be incorporated in equipment to cater for errors in the standards	RP	Yes
TR	29.994	Recommended infrastructure measures to overcome specific Mobile Station (MS) and User Equipment (UE) faults	N1	Yes
TR	29.998-01	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 1: General Issues on API Mapping	N5	Yes
TR	29.998-04-1	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 4: Call Control Service Mapping; Subpart 1: API	N5	Yes

Type	Number	Title	WG prime	For publication?
		to CAP Mapping		
TR	29.998-05-1	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 5: User Interaction Service Mapping; Subpart 1: API to CAP Mapping	N5	Yes
TR	29.998-05-4	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 5: User Interaction Service Mapping; Subpart 4: API to SMS Mapping	N5	Yes
TR	29.998-06	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 6: User Location and User Status Service Mapping to MAP	N5	Yes
TR	29.998-08	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 8: Data Session Control Service Mapping to CAP	N5	Yes
TR	30.002	Guidelines for the modification of the Mobile Application Part (MAP)	N4	No
TR	30.504	Work Plan and Study Items - RAN WG4	R4	No
TS	31.048	Test specification for security mechanisms for the (U)SIM application toolkit	T3	Yes
TS	31.101	UICC-terminal interface; Physical and logical characteristics	T3	Yes
TS	31.102	Characteristics of the USIM Application	T3	Yes
TS	31.110	Numbering system for telecommunication IC card applications	T3	Yes
TS	31.111	USIM Application Toolkit (USAT)	T3	Yes
TS	31.120	UICC-terminal interface; Physical, electrical and logical test specification	T3	Yes
TS	31.121	UICC-terminal interface; USIM application test specification	T3	Yes
TS	31.122	USIM conformance test specification	T3	Yes
TS	32.101	3G Telecom Management principles and high level requirements	S5	Yes
TS	32.102	3G Telecom Management Architecture	S5	Yes
TS	32.111-1	Telecommunication management; Fault Management; Part 1: 3G fault management requirements	S5	Yes
TS	32.111-2	Telecommunication management; Fault Management; Part 2: Alarm Integration Reference Point: Information Service	S5	Yes
TS	32.111-3	Telecommunication management; Fault Management; Part 3: Alarm Integration Reference Point: CORBA solution set version 1:1	S5	Yes
TS	32.111-4	Telecommunication management; Fault Management; Part 4: Alarm Integration Reference Point: CMIP solution set	S5	Yes
TS	32.200	Telecommunication management; Charging management; Charging principles	S5	Yes
TS	32.205	Telecommunication management; Charging management; 3G charging data description for the CS domain	S5	Yes
TS	32.215	Telecommunications management; Charging management; Charging data description for the Packet Switched (PS) domain	S5	Yes
TS	32.235	Telecommunication management; Charging management; Charging data description for application services	S5	Yes
TS	32.300	Telecommunication management; Configuration Management (CM); Name convention for Managed Objects	S5	Yes
TS	32.301	Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): requirements	S5	Yes
TS	32.302	Telecommunication management; Configuration Management (CM); Notification Integration Reference Point; Information Service version 1	S5	Yes
TS	32.303	Telecommunication management; Configuration Management (CM); Notification Integration Reference Point; CORBA solution set version 1:1	S5	Yes
TS	32.304	Telecommunication management; Configuration Management (CM); Notification Integration Reference Point: CMIP Solution Set Version 1:1	S5	Yes
TS	32.311	Telecommunication management; Generic Integration Reference Point (IRP) management; Requirements	S5	Yes
TS	32.312	Telecommunication management; Generic Integration Reference Point (IRP) management; Information service	S5	Yes
TS	32.401	Telecommunication management; Performance Management (PM); Concept and requirements	S5	Yes
TS	32.403	Telecommunication management; Performance Management (PM); Performance measurements - UMTS and combined UMTS/GSM	S5	Yes
TS	32.600	Telecommunication management; Configuration Management (CM); Configuration Management (CM); Concept and main requirements	S5	Yes
TS	32.601	Telecommunication management; Configuration Management (CM); Basic CM Integration Reference Point (IRP): requirements	S5	Yes
TS	32.602	Telecommunication management; Configuration Management (CM); Basic Configuration Management Integration Reference Point (IRP) information	S5	Yes

Type	Number	Title	WG prime	For publication?
		model		
TS	32.603	Telecommunication management; Configuration Management (CM); Basic Configuration Management Integration Reference Point (IRP): CORBA solution set	S5	Yes
TS	32.604	Telecommunication management; Configuration Management (CM); Basic Configuration Management Integration Reference Point (IRP) CMIP solution set	S5	Yes
TS	32.611	Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); Requirements	S5	Yes
TS	32.612	Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); Information service	S5	Yes
TS	32.613	Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); Common Object Request Broker Architecture (CORBA) solution set	S5	Yes
TS	32.614	Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); Common Management Information Protocol (CMIP) solution set	S5	Yes
TS	32.615	Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); eXtensible Markup Language (XML) file format definition	S5	Yes
TS	32.621	Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): requirements	S5	Yes
TS	32.622	Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): Network Resource Model (NRM)	S5	Yes
TS	32.623	Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): CORBA solution set	S5	Yes
TS	32.624	Telecommunication management; Configuration Management (CM); Generic network resources: Integration Reference Point (IRP) CMIP solution set	S5	Yes
TS	32.631	Telecommunication management; Configuration Management (CM); Core network resources Integration Reference Point (IRP): requirements	S5	Yes
TS	32.632	Telecommunication management; Configuration Management (CM); Core Network Resources Integration Reference Point (IRP): Network Resource Model (NRM)	S5	Yes
TS	32.633	Telecommunication management; Configuration Management (CM); Core network resources Integration Reference Point (IRP): CORBA solution set	S5	Yes
TS	32.634	Telecommunication management; Configuration Management (CM); Core network resources Integration Reference Point (IRP): CMIP solution set	S5	Yes
TS	32.641	Telecommunication management; Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP): requirements	S5	Yes
TS	32.642	Telecommunication management; Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP): Network Resource Model (NRM)	S5	Yes
TS	32.643	Telecommunication management; Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP): CORBA solution set	S5	Yes
TS	32.644	Telecommunication management; Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP): CMIP solution set	S5	Yes
TR	32.800	Management level procedures and interaction with UTRAN	S5	No
TS	33.102	3G security; Security architecture	S3	Yes
TS	33.103	3G security; Integration guidelines	S3	Yes
TS	33.105	Cryptographic Algorithm requirements	S3	Yes
TS	33.106	Lawful interception requirements	S3	Yes
TS	33.107	3G security; Lawful interception architecture and functions	S3	Yes
TS	33.120	Security Objectives and Principles	S3	Yes
TS	33.200	3G Security; Network Domain Security (NDS); Mobile Application Part (MAP) application layer security	S3	Yes
TR	33.901	Criteria for cryptographic Algorithm design process	S3	Yes
TR	33.902	Formal Analysis of the 3G Authentication Protocol	S3	Yes
TR	33.903	Access Security for IP based services	S3	Yes
TR	33.904	Report on the Evaluation of 3GPP Standard Confidentiality and Integrity Algorithms	S3	Yes
TR	33.908	3G Security; General report on the design, specification and evaluation of 3GPP standard confidentiality and integrity algorithms	S3	Yes
TR	33.909	3G Security; Report on the design and evaluation of the MILENAGE algorithm	S3	Yes

Type	Number	Title	WG prime	For publication?
		set; Deliverable 5: An example algorithm for the 3GPP authentication and key generation functions		
TS	34.108	Common test environments for User Equipment (UE) conformance testing	T1	Yes
TS	34.109	Terminal logical test interface; Special conformance testing functions	R2	Yes
TS	34.121	Terminal Conformance Specification, Radio Transmission and Reception (FDD)	T1	Yes
TS	34.122	Terminal Conformance Specification, Radio Transmission and Reception (TDD)	T1	Yes
TS	34.123-1	User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	T1	Yes
TS	34.123-2	User Equipment (UE) conformance specification; Part 2: Implementation conformance statement (ICS) specification	T1	Yes
TS	34.123-3	User Equipment (UE) conformance specification; Part 3: Abstract test suites (ATSs)	T1	Yes
TS	34.124	Electromagnetic compatibility (EMC) requirements for Mobile terminals and ancillary equipment	R4	Yes
TR	34.910	Identification of test requirements for regulatory purposes in different regions/countries	T1	Yes
TR	34.926	Table of international EMC requirements	R4	Yes
TS	35.201	Specification of the 3GPP confidentiality and integrity algorithms; Document 1: f8 and f9 specifications	S3	Yes
TS	35.202	Specification of the 3GPP confidentiality and integrity algorithms; Document 2: Kasumi algorithm specification	S3	Yes
TS	35.203	Specification of the 3GPP confidentiality and integrity algorithms; Document 3: Implementors' test data	S3	Yes
TS	35.204	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data	S3	Yes
TS	35.205	3G Security; Specification of the MILENAGE Algorithm Set: An example algorithm set for the 3GPP authentication and key generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 1: General	S3	Yes
TS	35.206	3G Security; Specification of the MILENAGE algorithm set: An example algorithm Set for the 3GPP Authentication and Key Generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 2: Algorithm specification	S3	Yes
TS	35.207	3G Security; Specification of the MILENAGE algorithm set: An example algorithm Set for the 3GPP Authentication and Key Generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 3: Implementors' test data	S3	Yes
TS	35.208	3G Security; Specification of the MILENAGE algorithm set: An example algorithm Set for the 3GPP Authentication and Key Generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 4: Design conformance test data	S3	Yes
TR	35.909	3G Security; Specification of the MILENAGE algorithm set: an example algorithm set for the 3GPP authentication and key generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 5: Summary and results of design and evaluation	S3	Yes

Annex A (informative): Change history

Change history					
TSG SA#	**Version**	**CR**	**Tdoc SA**	**New Version**	**Subject/Comment**
SP-11	2.2.0	-	SP-010211	4.0.0	Approved and placed under TSG SA Change Control (Rel-4)
SP-12	4.0.0	001 r2	SP-010396	4.1.0	Correction to list of specs
SP-13	4.1.0	003 r1	SP-010534	4.2.0	Correction to list of specs
SP-14	4.2.0	004 r1	SP-010753	4.3.0	Correction to list of specs
SP-15	4.3.0	005 r1	SP-020176	4.4.0	Correction to list of specs
SP-16	4.4.0	007 r1	SP-020397	4.5.0	Correction to list of specs
SP-17	4.5.0	008 r1	SP-020612	4.6.0	Correction to list of specs; editorial corrections to titles.

History

Document history		
V4.0.0	March 2001	Publication
V4.1.0	July 2001	Publication
V4.2.0	September 2001	Publication
V4.3.0	December 2001	Publication
V4.4.0	March 2002	Publication
V4.5.0	June 2002	Publication
V4.6.0	September 2002	Publication