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Presented for:	Approval

Abstract of document:

This document identifies the 3rd Generation mobile system specifications for Release 1999 and provides a simple overview of the work completed for Release 1999. The specifications and Reports of 3G Release 1999 listed in the document have a major version number 3 (e.g. 3.x.y). The document also provides information on the 3G documentation structure.

Additionally an informative annex describes the model for the technical management and project co-ordination for 3GPP Release 2000.

Changes since last presentation to TSG-SA Meeting # 5

- Update and clarification of the specifications lists in clause 6
- Review of work areas listed in clause 5.
- Addition of an informative annex

Outstanding Issues:

CRs expected at TSG#7 to finalize the content of R99 (revision and update of clause 5 and 6) following the decisions of the TSGs on delayed Release 1999 work.

Contentious Issues:

none identified

3G TS 21.101 V2.0.0 (1999-12)

Technical Specification

3rd Generation Partnership Project;
Technical Specification Group Services and System Aspects;
3rd Generation mobile system Release 1999 Specifications
(3G TS 21.101 version 2.0.0)

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Foreword

This Technical Specification has been produced by the 3GPP.

This TS identifies the 3G system specifications for Release 1999.

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 this TS, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version 3.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 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 specification;

1 Scope

The present document identifies the 3rd Generation mobile system specifications for Release 1999. The specifications and Reports of 3G Release 1999 have a major version number 3 (e.g. 3.x.y).

3G Release 1999 is a consistent set of Specifications and Reports targeted for finalisation in December 1999. Release 1999 Specifications were functionally frozen at TSG#6.

NOTE 1: Functionally frozen means that no further functionality/feature can be incorporated into the set of specifications and that only corrective Change Requests (CRs) can be accepted and agreed.

NOTE 2: It can be expected that corrective CRs will be introduced into the Release 1999 version 3.x.y specifications throughout 2000.

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.
- For this Release 1999 document, references to documents are for Release 1999 versions.

[1] TR 21.905: "Vocabulary for 3GPP Specifications".

3 Abbreviations

For the purposes of the present document, the terms and definitions given in TS 21.905 apply.

4 General

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

The present document identifies the 3G system set of specifications required to implement Release 1999.

NOTE: GSM Release 1999 also consist of many enhanced features developed within the 3rd Generation Partnership Project. GSM Specification GSM 01.01 identifies the specifications and Reports of GSM release 1999.

4.1 Specification and report numbering

The numbering scheme described is similar to the GSM numbering scheme. The numbering scheme is designed on the experience of GSM in document structure and to create a structure that is easy to understand and remember.

To allow for more flexibility in the 3GPP numbering scheme and to allow for expansion, it has been decided to increase the numbering scheme by one digit to a 2+3 digit system (ab.**c**de). This permits a maximum number of 999 specifications in one series. It should be noted that the GSM system numbering has almost been completely used up.

The numbering scheme applies to specifications and reports for the 3GPP 3rd Generation Mobile System.

Where existing GSM Specifications are enhanced/modified by the TSGs for the 3rd Generation Mobile System the specification title and version should change (title reflecting 3rd Generation Mobile System). The GSM number (ab) should be increased by 20 and a "**c**" digit equal to zero added (e.g. GSM 07.07 becomes 3GTS 27.007) indicating the GSM heritage of the Specification.

For newly created 3GPP Specifications the "c" digit should not be equal to zero.

Existing 3rd Generation specifications transferred from ETSI SMG should have a "c" digit equal to one e.g. SMG UMTS TS 22.00 becomes 3G TS 22.100.

For newly created 3GPP Technical reports the "c" digit should normally be equal to nine e.g. A report in the 23 series will have a number 23.9de. The "c" digit equal to eight may be used for over-spill of the ab.9de range, or allocated to reports not intended for external circulation.

Specification numbers will be allocated on request by a centralised point within the 3GPP support group (see section 4.1 of TR 21.900). A particular Series will not necessarily remain within, or be the sole responsibility of a particular TSG or WG.

The following Series titles and descriptions should be used for guidance only and may be further developed with experience.

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

4.2 Specification series

In general the Specification series is identified as follows:

4.2.1 21-series

Requirements specifications

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

4.2.2 22-series

Service aspects

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

4.2.3 23-series

Technical realisation

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

4.2.4 24-series

Signalling protocols (UE - CN network)

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

4.2.5 25-series

UTRA aspects

4.2.5.1 25.100-series

UTRA radio performance aspects

This series defines the radio performance of UTRAN.

4.2.5.2 25.200-series

UTRA radio aspects

This series defines the (Physical) layer 1 of UTRA.

4.2.5.3 25.300-series

UTRA radio interface architecture, layer 2 and layer 3 aspects.

This series defines the layer 2/3 of the UMTS radio.

4.2.5.4 25.400-series

UTRA Network aspects

This series defines the Iub, Iur and Iu interfaces within UTRAN

4.2.6 26-series

Codecs (speech, video, etc.)

This series defines speech codecs and other codecs (video etc., to be identified) for the 3GPP 3rd Generation Mobile System.

4.2.7 27-series

Data

This series defines the functions necessary to support data applications.

4.2.8 28-series

Signalling protocols (RSS - network part)

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

4.2.9 29-series

Signalling protocols (NSS)

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

4.2.10 30-series

Program management

This series contains the 3GPP 3rd Generation Mobile System, Project plans/project work programme and stand alone documents for major work items.

4.2.11 31-series

UIM

This series specifies the User Identity Module (UIM) and the interfaces between UIM and other entities.

4.2.12 32-series

Operation and maintenance

This series defines the application of TMN for the 3GPP 3rd Generation Mobile System and other functions for operation, administration and maintenance of a 3rd Generation Mobile System network.

4.2.13 33-series

Security aspects

This series contains specifications of security functions for the 3GPP 3rd Generation Mobile System.

4.2.14 34-series

Test specifications

This series contains the test specifications for the 3GPP 3rd Generation Mobile System.

5 Content of 3G Release 1999

Table 1: Content of 3G Release 1999

Advanced Addressing
Automatic Establishment of Roaming Relations
CAMEL Phase 3
Follow Me
Service Continuity and Provision of VHE via GSM/UMTS
UMTS Charging & Billing
UMTS Numbering, Addressing and Identities
Virtual Home Environment
MS and Network-Resident Execution Environments (MS/N-RExE)
Enhanced QoS Support in GPRS
IP-in-IP tunneling in GPRS backbone for UMTS, phase 1
UMTS Open Service Architecture
Architecture of the GSM-UMTS Platform
Architecture overview of the GSM-UMTS System
End to End UMTS QoS Management
Multimedia in UMTS
Study on Combined GSM and Mobile IP Mobility Handling in UMTS IP CN
Support for real time services in the Packet domain for GSM/GPRS/UMTS R99
UMTS Core based on ATM Transport (Feasibility study)
Location Services (LCS) for R99
Support of non-realtime Multimedia Messaging Service
Fraud Information Gathering System applied to GPRS
Immediate Service Termination (IST) : CAMEL free solution
3G audio-visual terminal characteristics
Codec for Low Bitrate Multimedia Telephony Service
Mandatory Speech Codec for Narrowband Telephony Service
AMR - Adaptive Multi-Rate codec (GSM 10.70)
AMR - NS (Noise Suppression)
QoS for Speech and Multimedia Codec
Tandem free operation in 3G systems and between 2G and 3G systems
3G charging management
3G system configuration management
3G system fault management
3G system performance management
Charging and Billing for GPRS – Advice of Charge
Charging and Billing for GPRS – Hot Billing
Charging and Billing for GPRS – Pre-Paid
Unstructured Supplementary Service Data (USSD) enhancements
L3 Segmentation
General Packet Radio Service Phase 2 (GPRS) – network part
Tandem Free Operation of speech codecs in Mobile-to-Mobile Calls (MMCs) in band (including AMR)
Tandem Free Operation of speech codecs in Mobile-to-Mobile Calls (MMCs) : out-band
Access to ISPs and Intranets in GPRS Phase 2 – Separation of GPRS Bearer Establishment and ISP Service Environment Setup
Gateway Location Register (GLR) -
Super Charger
Out-of-Band Transcoder Control
CAMEL control of VOIP services Feasibility Study
Enhanced Data rates for GSM Evolution (EDGE) - NSS
PIAFS - PHS Internet Access Forum Specification
Circuit Switched Bearer Services
Frame Tunnelling Mode
Access to ISPs and Intranets in GPRS Phase 2 – Wireless/Remote Access to LANs
Connecting an octet stream to a port on an Internet host
GPRS Mobile IP Interworking
Modem and ISDN interworking for GPRS
Unstructured octet stream GPRS PDP Type
Access to ISPs and Intranets in GPRS Phase 2 – Separation of GPRS Bearer Establishment and ISP Service Environment Setup
GPRS - Point-To-Multipoint Services

Follow me
MS Protocol/RF/EMC conformance specification
Cell Broadcast Service (CBS)
Short Message Service (SMS)
Terminal interfaces (AT commands)
Mobile Station Execution Environment (MExE) R99
Multimedia Messaging Service
Terminal interfaces (physical interfaces)
UE Capability Requirements
Electrical Safety
SAR (Specific Absorption Rate) Requirements
Synchronisation
Multimode UE issues
WAP WAE User Agent / SIM toolkit interworking
Separation of Radio Resource (RR) and Mobility Management (MM) specific parts of the Mobile Station Classmark (MS CM)
NodeB O&M Functional Descriptions
Definition of the UMTS Terrestrial Radio Access (UTRA)
New Access Network to Core Network (RNS-NSS) interface
Mobile Station (MS) Protocol/RF/EMC conformance specification; (3G TS 34.123 family)
UICC-Terminal Interface; Physical and Logical Characteristics
USIM application toolkit
UICC application Identifiers
UICC Test Specification and Terminal tests for the UICC Interface

6 Specifications and Reports of 3G Release 1999

Specification/Report Number and Specification/Report Title

Number	Title
21.101	3rd Generation mobile system Release 1999 Specifications
21.111	USIM and IC card requirements
21.133	Security Threats and Requirements
21.900	3GPP Working methods
21.904	UE Capability Requirements (UCR)
21.905	3G Vocabulary
21.910	Multi-mode UE issues
21.978	Feasibility Technical Report – CAMEL Control of VoIP Services
22.001	Principles of Telecommunication Services Supported by a GSM Public Land Mobile Network(PLMN)
22.002	Bearer Services Supported by a GSM PLMN
22.003	Teleservices Supported by a GSM Public Land Mobile Network (PLMN)
22.004	General on Supplementary Services
22.011	Service accessibility
22.016	International Mobile Equipment Identities (IMEI)
22.022	Personalisation of GSM ME Mobile functionality specification - Stage 1
22.024	Description of Charge Advice Information (CAI)
22.030	Man-Machine Interface (MMI) of the Mobile Station (MS)
22.034	High Speed Circuit Switched Data (HSCSD) - Stage 1
22.038	SIM application toolkit (SAT); Stage 1
22.041	Operator Determined Call Barring
22.042	Network Identity and Time Zone (NITZ), stage 1
22.043	Support of Localised Service Area (SoLSA) - Stage 1
22.053	Tandem Free Operation of speech codecs; Stage 1 service description
22.057	Mobile Station Application Execution Environment (MExE); Stage 1
22.060	General Packet Radio Service (GPRS); Stage 1
22.066	Support of Mobile Number Portability (MNP); Stage 1
22.067	enhanced Multi-Level Precedence and Pre-emption service (eMLPP) - Stage 1
22.071	Location Services (LCS); Stage 1 (T1P1)
22.072	Call Deflection (CD); Stage 1

22.078	CAMEL phase 3; Stage 1
22.079	Support of Optimal Routing; Stage 1
22.081	Line Identification Supplementary Services; Stage 1
22.082	Call Forwarding (CF) Supplementary Services; Stage 1
22.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Services; Stage 1
22.084	MultiParty (MPTY) Supplementary Service; Stage 1
22.085	Closed User Group (CUG) Supplementary Services; Stage 1
22.086	Advice of Charge (AoC) Supplementary Services; Stage 1
22.087	User-to-user signalling (UUS); Stage 1
22.088	Call Barring (CB) Supplementary Services; Stage 1
22.090	Unstructured Supplementary Service Data (USSD); Stage 1
22.091	Explicit Call Transfer (ECT) Supplementary Service; Stage 1
22.093	Call Completion to Busy Subscriber (CCBS); Stage 1
22.094	Follow Me Stage 1
22.096	Calling Name Presentation (CNAP); Stage 1 (T1P1)
22.097	Multiple Subscriber Profile (MSP); Stage 1
22.100	UMTS Phase 1
22.101	UMTS Service principles
22.105	Services & Service capabilities
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
22.135	Multicall Stage1
22.140	Multimedia Messaging Service Stage 1
22.924	Charging and accounting mechanisms
22.925	Quality of service and network performance
22.945	Study of provision of fax service in GSM and UMTS
22.960	Mobile multimedia services
22.970	Virtual Home Environment Report
22.971	Automatic establishment of roaming relationships
22.972	Multimedia
22.975	Advanced addressing
23.002	Network Architecture
23.003	Numbering, Addressing and Identification

23.007	Restoration procedures
23.008	Organisation of subscriber data
23.009	Handover procedures
23.011	Technical Realization of Supplementary Services - General Aspects
23.012	Location registration procedures
23.014	Support of Dual Tone Multi Frequency (DTMF) signalling
23.015	Technical realisation of Operator Determined Barring (ODB)
23.016	Subscriber data management - Stage 2
23.018	Basic Call Handling - Technical realisation
23.032	Universal Geographical Area Description (GAD)
23.034	High Speed Circuit Switched Data (HSCSD) - Stage 2
23.038	Alphabets & Language
23.039	Interface Protocols for the Connection of Short Message Service Centers (SMSCs) to Short Message Entities (SMEs)
23.040	Technical realisation of SMS Point to Point
23.041	Technical Realization of Short Message Service Cell Broadcast (SMSCB)
23.042	Compression algorithm for SMS
23.054	Shared Interworking Functions - Stage 2
23.057	Mobile Station Application Execution Environment (MExE)
23.060	General Packet Radio Service (GPRS) Service description; Stage 2
23.066	Support of GSM Mobile Number Portability (MNP) stage 2
23.067	Enhanced Multi-Level Precedence and Preemption Service (EMLPP) - Stage 2
23.072	Call Deflection Supplementary Service - Stage 2
23.073	Support of Localised Service Area (SoLSA) - Stage 2
23.078	CAMEL Stage 2
23.079	Support of Optical Routeing - Phase 1 - Stage 2
23.081	Line Identification Supplementary Services - Stage 2
23.082	Call Forwarding (CF) Supplementary Services - Stage 2
23.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service - Stage 2
23.084	MultiParty (MPTY) Supplementary Service - Stage 2
23.085	Closed User Group (CUG) Supplementary Service - Stage 2
23.086	Advice of Charge (AoC) Supplementary Service - Stage 2
23.087	User-to-User Signalling (UUS) - Stage 2
23.088	Call Barring (CB) Supplementary Service - Stage 2

23.090	Unstructured Supplementary Service Data (USSD) - Stage 2
23.091	Explicit Call Transfer (ECT) Supplementary Service - Stage 2
23.093	Call Completion to Busy Subscriber (CCBS) - Stage 2
23.096	Name Identification Supplementary Service - Stage 2
23.097	Multiple Subscriber Profile (MSP); Stage 2
23.101	General UMTS Architecture
23.107	Quality of Service, Concept and Architecture
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
23.122	Non Access Stratum functions related to Mobile Station (MS) in idle mode
23.127	Virtual Home Environment / Open Service Architecture
23.146	Technical realisation of facsimile Group 3 service- non-transparent
23.153	Out of Band Transcoder Control - Stage 2
23.171	Functional stage 2 description of location services in UMTS
23.908	Technical report on Pre-Paging
23.909	Technical report on the Gateway Location Register
23.910	Circuit Switched Data Bearer Services
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
23.927	VHE, Open Service Architecture
23.930	Iu Principles
23.972	Multimedia Telephony
24.007	Mobile Radio Interface Signalling Layer 3 - General Aspects
24.008	Mobile Radio Interface Layer 3 specification; Core Network Protocols-Stage 3
24.010	Mobile Radio Interface Layer 3 - Supplementary Services Specification - General Aspects
24.011	Point-to-Point (PP) Short Message Service (SMS) Support on Mobile Radio Interface
24.012	Short Message Service Cell Broadcast (SMSCB) Support on the Mobile Radio Interface

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
24.067	Enhanced Multi-Level Precedence and Pre-emption service (eMLPP) - Stage 3
24.072	Call Deflection Supplementary Service - Stage 3
24.080	Mobile radio Layer 3 Supplementary Service specification - Formats and coding
24.081	Line Identification Supplementary Service - Stage 3
24.082	Call Forwarding Supplementary Service - Stage 3
24.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service - Stage 3
24.084	MultiParty (MPTY) Supplementary Service - Stage 3
24.085	Closed User Group (CUG) Supplementary Service - Stage 3
24.086	Advice of Charge (AoC) Supplementary Service - Stage 3
24.087	User-to-User Signalling (UUS) - Stage 3
24.088	Call Barring (CB) Supplementary Service - Stage 3
24.090	Unstructured Supplementary Service Data (USSD) - Stage 3
24.091	Explicit Call Transfer (ECT) Supplementary Service - Stage 3
24.093	Call Completion to Busy Subscriber (CCBS) - Stage 3
24.096	Name Identification Supplementary Service - Stage 3
25.101	UE Radio transmission and reception (FDD)
25.102	UE Radio transmission and reception (TDD)
25.103	RF parameters in support of RRM
25.104	BTS Radio transmission and reception (FDD)
25.105	BTS Radio transmission and reception (TDD)
25.113	BTS EMC
25.123	RF parameters in support of RRM (TDD)
25.133	RF parameters in support of RRM (FDD)
25.141	Base station conformance testing (FDD)
25.142	Base station conformance testing (TDD)
25.201	Physical layer -General Description
25.211	Physical channels and mapping of transport channels onto physical channels (FDD)
25.212	Multiplexing and channel coding (FDD)
25.213	Spreading and modulation (FDD)
25.214	FDD; physical layer procedures
25.215	Physical layer; Measurements (FDD)
25.221	Physical channels and mapping of transport channels onto physical channels (TDD)

25.222	Multiplexing and channel coding (TDD)
25.223	Spreading and modulation (TDD)
25.224	TDD; physical layer procedures
25.225	Physical layer; Measurements (TDD)
25.301	Radio Interface Protocol Architecture
25.302	Services provided by the physical layer
25.303	UE functions and inter-layer procedures in connected mode
25.304	UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode
25.305	Location Services (LCS) features
25.321	Medium Access Control (MAC) Protocol Specification
25.322	Radio Link Control (RLC) Protocol Specification
25.323	Description of the Packet Data Convergence Protocol (PDCP) protocol
25.324	Description of the Broadcast/Multicast Control BMC protocol
25.331	Radio Resource Control (RRC) Protocol Specification
25.401	UTRAN Overall Description
25.402	Synchronisation in UTRAN Stage 2
25.410	UTRAN Iu Interface: General Aspects and Principles
25.411	UTRAN Iu interface Layer 1
25.412	UTRAN Iu interface signalling transport
25.413	UTRAN Iu interface RANAP signalling
25.414	UTRAN Iu interface data transport & transport signalling
25.415	UTRAN Iu interface user plane protocols
25.419	UTRAN Iu interface: Cell broadcast protocols between SMS-CBC and RNC
25.420	UTRAN Iur Interface: General Aspects and Principles
25.421	UTRAN Iur interface Layer 1
25.422	UTRAN Iur interface signalling transport
25.423	UTRAN Iur interface RNSAP signalling
25.424	UTRAN Iur interface data transport & transport signalling for CCH data streams
25.425	UTRAN Iur interface user plane protocols for CCH data streams
25.426	UTRAN Iur and Iub interface data transport & transport signalling for DCH data streams
25.427	UTRAN Iur and Iub interface user plane protocols for DCH data streams
25.430	UTRAN Iub Interface: General Aspects and Principles
25.431	UTRAN Iub interface Layer 1
25.432	UTRAN Iub interface signalling transport

25.433	UTRAN Iub interface NBAP signalling
25.434	UTRAN Iub interface data transport & transport signalling for CCH data streams
25.435	UTRAN Iub interface user plane protocols for CCH data streams
25.442	UTRAN Implementation Specific O&M Transport
25.921	Guidelines and principles for protocol description and error handling
25.922	Radio Resource Management Strategies
25.925	Radio Interface for Broadcast/Multicast Services
25.926	UE Radio Access capabilities definition
25.931	UTRAN Functions, examples on signalling procedures
25.941	Document structure
25.942	RF system scenarios
25.943	Deployment aspects
25.990	Vocabulary for UTRAN
26.071	AMR speech Codec; General description
26.073	AMR speech Codec; C-source code
26.074	AMR speech Codec; Test sequences
26.090	AMR speech Codec; Transcoding Functions
26.091	AMR speech Codec; Error concealment of lost frames
26.092	AMR speech Codec; comfort noise for AMR Speech Traffic Channels
26.093	AMR speech Codec; Source Controlled Rate operation
26.094	AMR Speech Codec; Voice Activity Detector for AMR Speech Traffic Channels
26.101	AMR speech Codec; Frame Structure
26.102	AMR speech Codec; Interface to Iu and Uu
26.103	Codec lists
26.104	AMR speech Codec; Floating point C-Code
26.110	Codec for Circuit switched Multimedia Telephony Service; General Description
26.111	Codec for Circuit switched Multimedia Telephony Service; Modifications to H.324
26.121	Technical Specification for Tandem Free Operation within 3G networks
26.122	Technical Specification for Tandem Free Operation between 3G and 2G networks
26.131	Narrow Band (3.1kHz) Speech & Video Telephony Terminal Acoustic Characteristics
26.132	Narrow Band (3.1kHz) Speech & Video Telephony Terminal Acoustic Test Specification.
26.911	Codec for Circuit switched Multimedia Telephony Service;Terminal Implementor’s Guide
26.912	Codec for Circuit switched Multimedia Telephony Service;Quantitative performance evaluation of H.324 Annex C over 3G

26.915	Transmission planning aspects of the services in 3G PLMN System
26.920	Architectural Model for the 3G Transcoders
26.975	AMR speech Codec; Performance Characterization of the GSM AMR Speech Codec
27.001	General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)
27.002	Terminal Adaptation Functions (TAF) for services using Asynchronous bearer capabilities
27.003	Terminal Adaptation Functions (TAF) for services using Synchronous bearer capabilities
27.005	Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE - DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)
27.007	AT command set for 3G User Equipment (UE)
27.010	Terminal Equipment to User Equipment (TE-UE) multiplexer protocol User Equipment (UE)
27.060	GPRS Mobile Stations supporting GPRS
27.103	Wide Area Network Synchronisation
27.901	Report on Terminal Interfaces - An Overview
27.903	Discussion of Synchronisation Standards
28.062	Inband Tandem Free Operation (TFO) of Speech Codecs; Service Description; Stage 3
29.002	Mobile Application Part (MAP)
29.006	Interworking between a PLMN and the ISDN or PSTN for support of Packet Switched data transmission services
29.007	General requirements on Interworking between the PLMN and the ISDN or PSTN
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)
29.011	Signalling Interworking for Supplementary Services
29.013	Signalling interworking between ISDN supplementary services Application Service Element (ASE) and Mobile Application Part (MAP) protocols
29.016	Serving GPRS Support Mode SGSN - Visitors Location Register (VLR); Gs Interface Network Service Specification
29.018	Serving GPRS Support Mode SGSN - Visitors Location Register (VLR); Gs Interface Layer 3 Specification
29.060	GPRS Tunnelling protocol (GPT) across the Gn and Gp interface
29.061	General Packet Radio Service (GPRS); Interworking between the Public Land Mobile Network (PLMN) supporting GPRS and Packet
29.078	CAMEL phase 3; Stage 3
29.119	GPRS Tunnelling Protocol (GTP) specification for Gateway Location Register (GLR)
29.120	Mobile Application Part (MAP) specification for Gateway Location Register (GLR)- stage 3
31.101	UICC / Terminal Interface; Physical and Logical Characteristics
31.102	Characteristics of the USIM Application

31.110	UICC Application Identifiers
31.111	USIM Application Toolkit (USAT)
31.120	Terminal tests for the UICC Interface
31.121	UICC Test Specification
32.005	GSM charging CS domain
32.015	GSM charging PS domain
32.101	3G Telecom Management principles and high level requirements
32.102	3G Telecom Management architecture
32.104	3G Performance Management
32.105	3G charging call event data
32.106	3G Configuration Management
32.111	3G Fault Management
33.102	Security Architecture
33.103	Security Integration Guidelines
33.105	Cryptographic Algorithm requirements
33.106	Lawful interception requirements
33.107	Lawful interception architecture and functions
33.120	Security Objectives and Principles
33.900	Guide to 3G security
33.901	Criteria for cryptographic Algorithm design process
33.902	Formal Analysis of the 3G Authentication Protocol with Modified Sequence number Management
34.109	Logical Test Interface (TDD and FDD)
34.121	Terminal Conformance Specification, Radio Transmission and Reception (FDD)
34.122	Terminal Conformance Specification, Radio Transmission and Reception (TDD)
34.123-1	Mobile Station (MS) Conformance Specification, Part 1 – Conformance specification
34.123-2	Mobile Station (MS) Conformance Specification, Part 2 – ICS
34.123-3	Mobile Station (MS) Conformance Specification, Part 3 – Abstract Test suites
34.124	Electro-Magnetic Compatibility (EMC) for Terminal equipment - stage 1
34.907	Report on electrical safety requirements and regulations
34.925	Specific Absorption Rate (SAR) requirements and regulations in different regions

Annex B (informative): Model for the technical management and project co-ordination for 3GPP Release 2000

The model is thought as a reference model for structuring the work. It is not the intention to rigorously enforce the usage of the model on all ongoing work, but merely to use the model as the common reference model across the TSGs and to structure future work.

TSG SA is through S1 responsible for defining the features and services required in the 3GPP specifications. S1 is responsible of producing the stage 1 descriptions (requirement) for the relevant features and pass them to S2. S1 can also forward their considerations on possible architecture and implementation to S2, but is not responsible for this part of the work.

S2 should then define the architecture for the features and the system, and then divide the features into building blocks based on the architectural decisions made in S2. S2 will then forward the building blocks to the relevant TSGs for the detailed work. These proposals will be reviewed and discussed in an interactive way together with TSGs/WGs, until a common understanding of the required work is reach. During the detailed the work of the TSGs and their working groups, S2 is kept informed about the progress.

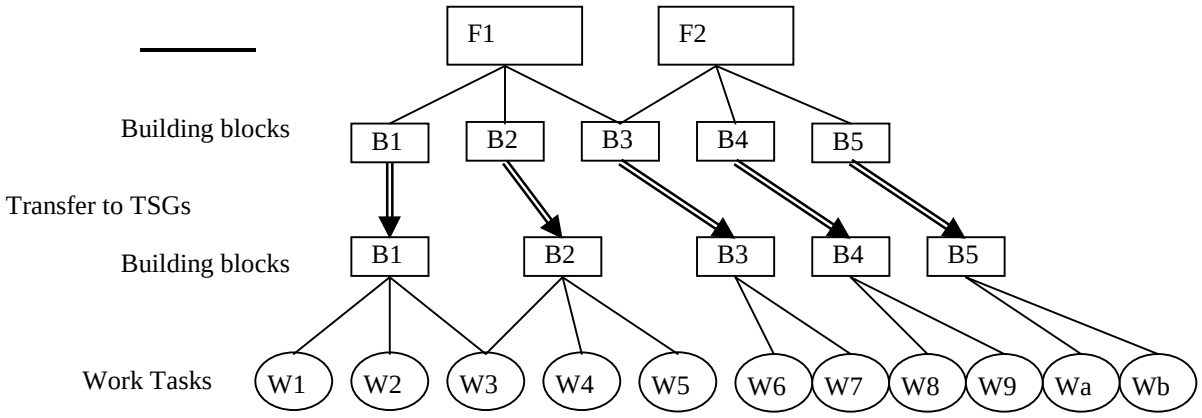
The TSGs and their WGs treats the building block as one or several dedicated Work Tasks (WT). Typical output of a given Work Task would be new specification(s), updated specification(s), technical report(s) or the conclusion that the necessary support already is provided in the existing specifications.

S2's role is in corporation with the TSGs and their WGs to identify if synergy can be obtained by using some of the building blocks or extended building blocks for more than one feature. Part of S2's task is to verify, that all required work for a full system specification of the features relevant will take place within 3GPP without overlap between groups. In order for S2 to be successful, this has to be done in co-operation with other TSGs/WGs.

About the project scheduling, it is proposed the following: S1 sets a target, S2 performs a first technical review and comment on the target. S2 indicates target for time schedule together with allocation of the defined building blocks. The TSGs and their WGs comment back on these targets. S2 tries if necessary to align the new target between the involved parties. S1 and SA is kept informed on the overall schedule.

It is the task of TSG SA, S1 and S2 to ensure early involvement of S3 to ensure that the potential security requirements, service requirements and the architectural requirements are aligned and communicated to the TSGs and their WGs

In order for TSG T and its subgroups to plan and perform its horizontal tasks on conformance testing and mobile station capabilities, S2 should invite TSG T to evaluate the potential impact of a new feature. If work on the horizontal task are required this should be included in the overall work plan.



Annex B (informative): Document change history

Status of GSM 21.101		
Date	**Version**	**Information about changes**
August 1999	version 0.0.0	1st draft created by MCC
August 1999	version 0.0.1	Comment from SMG6/S5 and N1 included. New LCS specs
September 1999	version 0.0.2	Transfer of 04.12 to 24.012 included
September 1999	version 0.0.3	Joint SMG11/S4 Meeting decisions on AMR and TFO
September 1999	version 0.1.0	Joint SMG11/S4, S2 (incomplete) and comments included
September 1999	version 0.2.0	03.41 transferred T2/SMG4 and S2 new specs and reports
October 1999	version 0.3.0	Editorial changes and addition of new specifications and reports identified in WGs
October 1999	version 1.0.0	Reviewed by TSG CN, T and RAN #5 changes implemented and raised to V1.0.0 for information to TSG SA
November 1999	version 1.1.0	Updated after decisions of TSG SA#5
November 1999	version 1.2.0	Updated to align with GSM 01.01 after SMG#30
December 1999	version	review by SA2
December 1999	version 2.0.0	Presented to TSG#6 for approval

History

Document history		