

# UMTS 30.00 V3.5.0 (1998-06)

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*Technical Specification*

## **Universal Mobile Telecommunications System; SMG Work Programme for UMTS (UMTS 30.00 version 3.5.0 Approved by SMG#26)**

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The UMTS logo consists of the letters 'UMTS' in a bold, blue, sans-serif font. It is positioned in the upper right quadrant of the page, overlaid on a background of light blue curved bands that resemble radio waves. To the right of the logo is a grey rectangular area.

**UMTS**

Universal Mobile  
Telecommunications System



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Reference

REPORT 02 JUNE 20 JUNE 1997  
(rs001jo3.PDF)

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Keywords

Universal Mobile Telecommunications System  
(UMTS), Global Multimedia Mobility (GMM), Third  
Generation Global System for Mobile  
Communications

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# 1 Scope

The UMTS work programme describes the work items and specifications of UMTS. It is detailed for 1997 and will be elaborated for the years after 1997. The overall UMTS development plan is given in Table 1 and 2 of section 2.

This document is under direct responsibility of SMG; there is no prime responsible subgroup of SMG responsible for it. It is managed and edited by STF SMG and directly approved by SMG. It shows the updated SMG work programme for UMTS and will hence be typically updated after each SMG plenary, presented to SMG and all STCs for improvement, and interim versions will be created between and during SMG plenaries. For approval at SMG, a version with revision marks to the last approved version and a clean version (in electronic form) are presented.

## 1.1 Responsibility for UMTS standardisation

SMG is responsible in ETSI for:

- GSM evolution
- UMTS standardisation:
  - UMTS radio access definition,
  - UMTS services (with broad participation of other ETSI groups)
  - UMTS Core Network as evolved from GSM.

UMTS radio access definition is elaborated in the Project GRAN (...) within SMG.

UMTS Core Network as evolved from GSM is elaborated in the Project GSM-UMTS (...) within SMG. Specific responsibilities of each project are marked at each work item and each section covering deliverables.

NOTE 1: NA is responsible for ISDN-UMTS, the project of ISDN evolution towards UMTS.

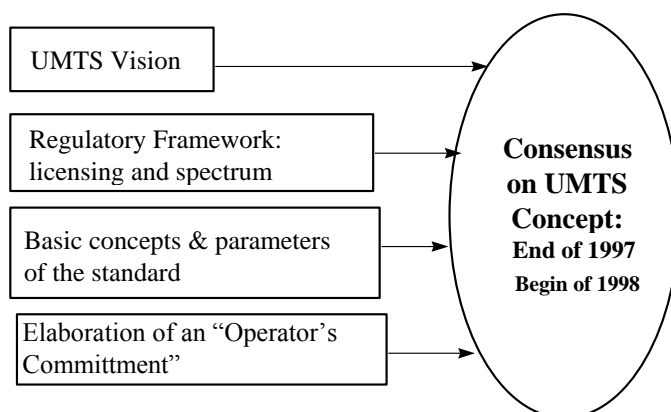
NOTE 2: Some SMG5 documents that may be used as background material can be found on ETSI www;  
DOCBASE/Technical Organisation/smg/Document/smg5

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# 2 Overview on the UMTS development

The focus of UMTS work for 1997 and overall schedule for the UMTS development are shown in figure 2.1/UMTS 30.00 and table 2.1/UMTS30.00.

Figure 2.1/UMTS 30.00: Focus of the UMTS work for 1997/1998



Task Name	1996	1997	1998	1999	2000	2001	2002
GSM900 Phase 2+ implementation							
UMTS Vision							
Co-operative research: ACTS							
Regulation: framework (report UMTS Forum)							
Regulation: CEC, ECTRA, ERC decisions							
Regulation: national licence conditions							
Regulation: licence awards							
Operators' commitment: elaboration of draft							
Operators' commitment: signature							
ETSI: basic UMTS standards studies							
ETSI: freezing basic parameters of standard							
ETSI: UMTS Phase 1 standards							
Regulation: conformity assessment conditions							
Pre-operational trials							
UMTS Phase 1: commercial operation							

Table 2.2/UMTS 30.00: Overall schedule for the UMTS Phase 1 development

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## 3 UMTS work items

*Editorial note: Responsibilities of projects and STCs especially SMG3 and SMG12 should be revised.*

Work on UMTS is organised in a work item oriented way: Introduction of features, prepared by feasibility studies, accompanied by reports describing applications, typically on demand of customers. One work item will often touch several specifications. Also, the work item oriented working style helps concentrating on the necessary amount of specifications.

All details of the WI Work Item descriptions are to be provided by responsible STC and given in Annex A.

The following work items (including responsible STCs) have been identified:

### 3.1 Mobile multimedia services including mobile Internet and Intranet services

Project GSM-UMTS , SMG1 , ( secondary resp. SMG3, SMG11 )

[tbd]

### 3.2 Service Continuity and Provision of VHE via GSM/UMTS

Project GSM-UMTS , SMG1, ( secondary resp. SMG3)

[see Annex A2]

### 3.3 Addressing

Project GSM-UMTS, SMG1, ( secondary resp. SMG3)

[tbd]

### 3.4 Charging and accounting mechanism

Project GSM-UMTS, SMG1, ( secondary resp. SMG3 and SMG6)

[tbd]

### 3.5 Terminal concepts

Project GSM-UMTS, SMG1, ( secondary resp. SMG2 and SMG3)

[tbd]

### 3.6 Service principles

Project GSM UMTS, SMG1, ( secondary resp. SMG4)

[tbd]

### 3.7 UMTS security concept

Project GSM-UMTS, SMG10, ( secondary resp. SMG1)

[tbd]

## 3.8 Definition of UTRA

Horizontal Task UMTS GRAN, SMG2

[tbd]

## 3.9 Services provided by UTRAN

Horizontal Task UMTS GRAN, SMG2, (secondary resp. SMG3)

[tbd]

## 3.10 UMTS roaming concepts

Project GSM-UMTS, SMG3,

[tbd]

## 3.11 O&M requirements for UMTS

Project GSM-UMTS, SMG6

[tbd]

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# 4 UMTS documents

In the following, three types of documents are distinguished:

- Specifications, containing normative and indicative parts defining and describing the UMTS system. These documents are under change control (see GSM/UMTS 01.00);
- Reports, describing essential facts, solutions and background material for UMTS. These documents are under change control (see GSM/UMTS 01.00);
- Position papers: there are two sub-kinds:
  - \* position papers indicating (possibly controversial) positions identified in SMG during the UMTS definition process
  - \* position papers describing positions approved by SMG.

These documents are under version control; new versions of the papers are produced in STF SMG after SMG plenaries, incorporating the decisions, and approved at the next plenary.

These UMTS documents will be subject to ETSI procedures like OAP etc. when and as found appropriate by SMG and will be classified in the ETSI schemes at the appropriate time.

NOTE: UMTS documents may have a permanent or transient structure. For example, requirement specifications 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 an UMTS document may be expressed in its scope. The three types of documents defined above do not directly correspond to a transient or permanent nature of an UMTS document.

## 4.1 General documents, responsibility of Project GSM - UMTS

Identity (UMTS xx.xx)	Type	TITLE	Resp. in STF SMG	Prime/2nd resp. group in SMG	Rapporteur	Actual status and date	Approval status: planned or approved
30.00	report	SMG - UMTS Work programme	AS	SMG	Antun Samukic	v 3.5.0 SMG#26	app. v.3.5.0 SMG#26 <sup>1)</sup>
30.01	position paper	UMTS Baseline document: Collection of the SMG's positions on the UMTS	AS	SMG	Antun Samukic	v 3.3.0 SMG#26	app. v.3.3.0, SMG#26 <sup>1)</sup>
30.02	report	Experience from GSM standardisation to be applied at UMTS standardisation	AB	SMG	NN		plan. v.3.0.0 when needed
30.05	report	UMTS terminology	AS	SMG	NN		plan. v.3.0.0 when needed
30.20	report	Technical characteristics, capabilities and limitations of mobile satellite systems applicable to the UMTS	AS	SMG	Juha Rapeli		app. v.3.1.0 SMG#24

1) Typically updated at each plenary



## 4.2 UMTS services, responsibility of Project GSM UMTS

Identity (UMTS xx.xx)	Type	TITLE	Resp. in STF SMG	Prime/2nd resp. group in SMG	Rapporteur	Actual status and date	Approval status: planned or approved
22.01	specification	UMTS Service principles	RT	SMG1	Paul Dwyer	v.3.2.1 SMG#24	to be appr. v. 3.3.0 SMG#26
22.05	specification	Services and service capabilities	RT	SMG1	Emmanuel Puga Pereira	v. 3.1.0, SMG#26	app. v.3.1.0 SMG#26
22.07	report	UMTS Terminal and Smart Card Concepts	RT	SMG1 [SMG2 ,SMG9]	Tom Leskinen	v.3.0.0, SMG#25	app. v.3.0.0 SMG#25
22.10	specification	Service aspects of UMTS terminals and IC cards	RT	SMG1 [SMG9]	Tom Leskinen		On Hold
22.15	specification	Service aspects: Charging and Billing	RT	SMG1, [SMG10, SMG6]	David Chambers	v.1.2.2, SMG#25	
22.20	specification	Service management	RT	SMG1, [SMG3, SMG6]	Paul Dwyer	v.0.0.3	on hold
22.24	report	Charging and Accounting Mechanism	RT	SMG1, [SMG6]	David Chambers	v.3.0.0 SMG#25	app. v.3.0.0 SMG#25
22.25	report	Quality of service and network performance	RT	SMG1, [SMG6]	Seppo Tianen	v.3.1.0	app. v.3.1.0 SMG#25 to be app. v.3.2.0 at SMG#26
22.60	report	Mobile multimedia services including mobile Intranet and Internet services	RT	SMG1, [SMG3]	Thomas Ahnberg	v.3.0.0 SMG#25	app. v.3.0.0 SMG#25
22.70	report	Virtual Home Environment	RT	SMG1	Jumoke Ogunbekun	v.3.0.0, SMG#25	app. v. 3.0.0 SMG#25
22.71	report	Automatic establishment of roaming relations	RT	SMG1, [SMG3]	David Chambers	v.3.0.0 SMG#25	app. v.3.0.0 SMG#25
22.75	report	Advanced addressing	RT	SMG1, [SMG3]	Stephan Kleier	v.2.0.0 SMG#25	to be app. V.3.0.0 SMG#26
22.80	report	UMTS relationship with other standards	RT	SMG1 [SMG]	Bo Axerud	v.2.0.1 SMG#24	On hold
22.77	report	UMTS Service scenarios	RT	SMG1, [SMG]	Jumoke Ogunbekun		plan. V.1.0.0 SMG#25
xx.xx	specification	UMTS phase 1 capabilities	RT	SMG1	Emmanuel Puga Perreira		plan v.1.0.0 SMG#27

NOTE: The services specifications should be elaborated as "pilots"

### 4.3 UMTS radio aspects, responsibility of Horizontal Task UMTS GRAN

Identity (UMTS xx.xx)	Type	TITLE	Resp. in STF SMG	Prime/2 <sup>nd</sup> resp. group in SMG	Rapporteur	Actual status and date	Approval status: planned or approved
21.01	report	Overall requirements on the radio interface(s) of the UMTS	PU	SMG2	Tim Mousley Simon Pike		app. V.3.0.0 SMG#22; v.3.0.1 published as TR101111 after SMG#23
30.03	report	Selection procedures for the choice of radio transmission technologies for the UMTS	PU	SMG2	Patric Blanc		app. V.3.2.0 SMG#25
21.02	report	High level requirements relevant for the definition of the UMTS Terrestrial Radio Access UTRA concept	PU	SMG2	Niels P. S. Andersen		app. V. 3.0.0 SMG#22; published as TR101112 after SMG#23
30.04	report	Definition of the limited number of UTRA concepts	PU	SMG2	Niels P. S. Andersen		app. V.3.0.0 SMG#22
30.06	report	UTRA Concept Evaluation Reports	PU	SMG2	Paolo Usai		app. V.3.0.0, SMG#24
25.01	specification	Description of the selected UTRA concept	PU	SMG2	Niels P. S. Andersen		plan. v.3.0.0 SMG#26

## 4.4 UMTS network aspects, responsibility of Project GSM-UMTS

*Editorial note: Responsibilities of SMG12 and SMG3 should be clarified.*

Identity (UMTS xx.xx)	Type	TITLE	Resp. in STF SMG	Prime/2nd resp. group in SMG	Rapporteur	Actual status and date	Approval status: planned or approved
23.01	specification	General UMTS architecture	AS	SMG12	Roland Bodin	0.6.0 1998-06	to be approved at SMG#27
23.05	specification	UMTS Network principles	AS	SMG12	Alain Sultan	0.10.0 1997-09	completion for 12/98
23.10	specification	UMTS Access Stratum - services and functions	AS	SMG12 [SMG2]	Michael Schönborn	0.6.1 1998-06	completion for 12/98
23.20	report	Evolution of the GSM platform towards UMTS	AS	SMG12 [SMG1]	André Jarvis	0.5.6 1998-06	completion for 12/98
23.30	report	Principles for the Iu Interface	AS	SMG12	Heikki Lindstrom	0.1.1 98-04	To be approved v.3.0.0, SMG#27
23.60	report	Framework of network functions to support multimedia services in UMTS	AS	SMG12 [SMG4, SMG1]	Axel Gabe		on hold
23.xx	specification	GSM/UMTS Core Network Architecture	AS	SMG12		0.0.0 1997-09	
27.00	report	Principles for handling of data services in the UMTS	AS	SMG12 [SMG4]	Axel Gabe		on hold

## 4.5 UMTS network management aspects, responsibility of Project GSM-UMTS

Editorial note: Should UMTS 32.01 be part of this Work programme?

Identity (UMTS xx.xx)	Type	TITLE	Resp. in STF SMG	Prime/2nd resp. group in SMG	Rapporteur	Actual status and date	Approval status: planned or approved
21.06	report	O&M requirements for the UMTS	MS	SMG6	Bill Szelazek		appr. v.3.0.0 SMG#25
32.01	report	Overall principles of the OAM for the UMTS	MS	TC TMN	NN		transferred to TC TMN

## 4.6 UMTS security aspects, responsibility of Project GSM-UMTS

Identity (UMTS xx.xx)	Type	TITLE	Resp. in STF SMG	Prime/2 <sup>nd</sup> resp. group in SMG	Rapporteur	Actual status and date	Approval status: planned or approved
33.20	report	Security principles for the UMTS	PvdA	SMG10	Michael Walker	v.3.0.1 July 1997	app. V3.0.0 SMG#19  (report is being revised, many relevant changes expected)
33.21	specification	Security Requirement Specification	PvdA	SMG10			version 1.0.0 at SMG10, July 98
33.22	specification	UMTS Security features	PvdA	SMG10	Michael Walker		
33.23	specification	UMTS Security Mechanism	PrdA	SMG10	Mart Vinck  Siemens ATEA		

## 4.7 UMTS Satellite aspects

Subcontracting agreement between SMG and EP SES is under preparation.

Note: TR 30.20 related to satellite is approved ( see chapter 4.1 )

## 4.8 UMTS card aspects, responsibility of Project GSM -UMTS

Identity (UMTS xx.xx)	Type	TITLE	Resp. in STF SMG	Prime/2 <sup>nd</sup> resp. group in SMG	Rapporteur	Actual status and date	Approval status: planned or approved
21.11	report	Requirements of the USIM	MS	SMG9 [SMG1]	Stephanie Manning		plan. V.1.0.0 SMG#29
xx.xx	specification	USIM/ME interface specification	MS	SMG9			plan v1.0.0 SMG#30

## 4.9 UMTS Data services, responsibility of Project GSM -UMTS

Identity (UMTS xx.xx)	Type	TITLE	Resp. in STF SMG	Prime/2 <sup>nd</sup> resp. group in SMG	Rapporteur	Actual status and date	Approval status: planned or approved
21.04	report	Requirements for the Support of Data Services in UMTS	MC	SMG4 [SMG1]	Kevin Holley		plan. V.1.0.0 SMG#27

# Annex A: Work Item descriptions

*Editorial note: The structure of WI description should be revised and eventually modified by STC SMG12.( the structure of the WI could change )*

## Work item description structure

For each work item a separate sub-clause with the following structure should be developed:

x <Work Item name> -- mandatory

**x.1 Justification**

<text>-- mandatory

**x.2 Service Aspects**

<text>-- mandatory

**x.3 MMI-Aspects**

<text> -- mandatory

**x.4 Charging Aspects**

<text> -- mandatory

**x.5 Security Aspects**

<text> -- mandatory

x.6 Impacts -- best possible information requested

Affects:	USIM	ME	NW	Others
Yes				
No				
Don't know				

<supplementary text> -- optional

**x.7 Expected Output and Timescales (to be updated at each plenary) -- best possible information requested**

[This section either consists in a reference to another TC-TR, or it has the following contents:]

New specifications						
Spec No.	Title	Prime rsp. STC	2ndary rsp. STC(s)	presented for information at SMG#	approved at SMG#	Comments
Affected existing specifications						
Spec No.	CR	Subject		Approved at SMG#	Comments	

< optional supplementary text, e.g. other documents to be produced >

Note: Even some GSM specifications might be affected.

**x.8 Work item rapporteurs**

< list of one or more persons/companies > -- mandatory

**x.9 Supporting companies**

< SMG members supporting the work item> -- mandatory

**x.10 Responsible STC(s)**

<Prime responsible STC, i.e. the STC mainly driving the development;

secondarily responsible STCs and their responsibilities

this information may change when work progresses>

**x.11 Others**

<text> -- optional

The following work items have been identified [to be revised, complemented and refined by STCs]:

## A.1 Mobile multimedia services including mobile Intranet and Internet service

### A.1.1 Justification

<text>-- mandatory

### A.1.2 Service Aspects

<text>-- mandatory

### A.1.3 MMI-Aspects

<text> -- mandatory

### A.1.4 Charging Aspects

<text> -- mandatory

### A.1.5 Security Aspects

<text> -- mandatory

### A.1.6 Impacts

-- best possible information requested

Affects:	USIM	ME	NW	Others
Yes				
No		x	x	
Don't know	x			

<supplementary text> -- optional

### A.1.7 Expected Output and Timescales (to be updated at each plenary)

-- best possible information requested

[This section either consists in a reference to another TC-TR, or it has the following contents:]

New specifications						
Spec No.	Title	Prime rsp. STC	2ndary rsp. STC(s)	presented for information at SMG#	approved at SMG#	Comments
Affected existing specifications						
Spec No.	CR	Subject		Approved at SMG#	Comments	

< optional supplementary text, e.g. other documents to be produced >



Note: Even some GSM specifications might be affected.

## A.1.8 Work item rapporteurs

*< list of one or more persons/companies > -- mandatory*

## A.1.9 Supporting companies

*< SMG members supporting the work item > -- mandatory*

## A.1.10 Responsible STC(s)

[Prime responsible STC: SMG1

secondarily responsible STCs: SMG 11 for multi-media

System Architecture Group for Intranet and Internet services]

## A.1.11 Others

*<text> -- optional*

## A.2 Service Continuity and Provision of VHE via GSM/UMTS

*Editorial note: The structure of WI description should be revised and eventually modified by STC SMG12.*

### A.2.1 Service Continuity and Provision of VHE via GSM/UMTS

#### A.2.1.1 SMG project - one and only one cross is requested

	UMTS Radio Access
	GSM Radio Access
x	GSM-UMTS Core Network
	UMTS Services

#### A.2.1.2 Linked work items

CAMEL Phase 3, Mobile Station Execution Environment, UMTS

#### A.2.1.3 Justification

SMG#22 agreed that handover between UMTS and GSM (in both directions) should be supported since UMTS cells are expected to be smaller than those of GSM. This implies continuous/seamless service provision via GSM and UMTS with the end user being aware only of slower response times in certain environments (e.g. due to lower bit rates being available via the GSM environment). It also implies that the Virtual Home Environment, which aims to provide the user with the same services in the same way wherever he/she roams, should be provided via GSM as well as UMTS. It is expected that work will progress via a feasibility study followed by appropriate changes to GSM specifications and the introduction of a number of new requirements into UMTS specifications.

## A.2.2 Service Aspects

The following is a preliminary list of key issues that should be studied -

What services could or should be subject to handover between GSM and UMTS?

Should GSM services be supported via UMTS and in what form? Does everything in GSM have to be supported by UMTS? Is it possible to identify areas that need not be supported by UMTS? Should we develop features in GSM that might not be relevant in UMTS?

What services could adapt to differing bit rates provided via GSM and UMTS possibilities of inter operator handover (GSM and UMTS provided via different operators)

What are the handover criteria [service aspects?]

Would we handover for capacity reasons (e.g. service can be supported on UMTS cell and GSM cell becoming congested)

To what extent should the service capabilities of UMTS be limited by evolution from GSM

### A.2.3 Network Aspects

Should the UMTS requirements be stated totally disregarding GSM evolution issues? This might imply a large set of services/features that might not be supported on an evolved GSM air interface?

What are the possibilities for having a shared subscriber/user data base (common data base?)

What are the possibilities for shared service creation and service management

What are the possibilities for shared PSTN/ISDN and Internet interworking functions

What are the possibilities for VHE in GSM

The elimination of unnecessary signalling due to handover attempts with respect to services that can't be supported on the "handed over to" environment should be studied.

### A.2.5 Automatic Establishment of Roaming Agreements

Should the standard cover automatic establishment of roaming agreements between GSM service providers?

Should the standard cover automatic establishment of roaming agreements between GSM service providers and UMTS service providers (private and public)?

### A.2.6 MMI-Aspects

To what extent can the same look and feel to service provision be maintained in the context of smart card roaming (i.e. when the user takes his/her smart card out of one terminal and inserts it into another)?

To what extent can the service provider customise the MMI and have it maintained across GSM and UMTS?

### A.2.7 Charging Aspects

The exchange of call records to facilitate billing should be studied.

### A.2.8 Security Aspects

what are the security implications of the VHE and supporting automatic roaming relationships, handover etc. across GSM and UMTS?

### A.2.9 Impacts

<b>Affects:</b>	<b>USIM</b>	<b>ME</b>	<b>NW</b>	<b>Others</b>
<b>Yes</b>	x	x	x	
<b>No</b>				
<b>Don't know</b>				

### A.2.10 Expected Output and Timescales (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. STC	2ndary rsp. STC(s)	presented for information at SMG#	approved at SMG#	Comments
	Report	SMG1	SMG3	SMG#27	SMG#29	other reports/specifications will follow
Affected existing specifications						
Spec No.	CR	Subject		Approved at SMG#	Comments	

It is expected that the work item could have far reaching implications on the development of UMTS and the future evolution of GSM. A possible course of action would be to plan for future work items to be applicable to both GSM and UMTS and to plan for SMG to develop a common core to support both GSM and UMTS air interfaces and to support UMTS features via the GSM air interface.

GSM and UMTS specifications will be affected.

### A.2.11 Work item rapporteurs

Derek Richards, Lucent Technologies (SMG1 UMTS chairman)

### A.2.12 Supporting Companies

*It is assumed that all GSM operators and manufacturers will support this new work item since it is consistent with the decisions of TC SMG (i.e. SMG#22).*

### A.2.13 Responsible STC(s)

SMG1 in close co-operation with SMG3. Joint activities involving SMG1 and SMG3 SA will be needed.

## A.5 Terminal concepts

### A.5.1 Justification

*<text>-- mandatory*

### A5.2 Service Aspects

*<text>-- mandatory. The functional blocks should be distinguished in the*

*service area,*

*radio access (RAN) area*

*core network (CN) area - that is communication between mobile and core network entities*

*other areas.*

Mobile Station Application Execution Environment could be an element or a new work item.

### A.5.3 MMI-Aspects

*<text> -- mandatory*

### A.5.4 Charging Aspects

*<text> -- mandatory*

### A.5.5 Security Aspects

*<text> -- mandatory*

### A.5.6 Impacts

*-- best possible information requested*

<b>Affects:</b>	<b>USIM</b>	<b>ME</b>	<b>NW</b>	<b>Others</b>
<b>Yes</b>				
<b>No</b>				
<b>Don't know</b>				

*<supplementary text> -- optional*

### A.5.7 Expected Output and Timescales (to be updated at each plenary)

*-- best possible information requested*

*[This section either consists in a reference to another TC-TR, or it has the following contents:]*

New specifications						
Spec No.	Title	Prime rsp. STC	2ndary rsp. STC(s)	presented for information at SMG#	approved at SMG#	Comments
UMTS 22.07	Terminal concepts	SMG1	[SMG2]	SMG#23	SMG#24	
Affected existing specifications						
Spec No.	CR	Subject		Approved at SMG#	Comments	

< optional supplementary text, e.g. other documents to be produced >

Note: Even some GSM specifications might be affected.

### A.5.8 Work item rapporteurs

< list of one or more persons/companies > -- mandatory

### A.5.9 Supporting companies

< SMG members supporting the work item > -- mandatory

### A.5.10 Responsible STC(s)

[Prime responsible STC: SMG1

secondarily responsible STCs: SMG 2 for RAN aspects

SMG3 for CN aspects

System Architecture Group or SMG6 for application environment??

### A.5.11 Others

<text> -- optional

[tbd]

*Editorial note: The structure of WI description should be revised and eventually modified by STC SMG12.*

## 3.x New Access Network to Core Network (BSS-NSS) interface

### 3.x.1 SMG project

	UMTS Radio Access
	GSM Radio Access
X	GSM-UMTS Core Network
	UMTS Services

### 3.x.2 Linked work items

#### 3.x.1 Justification

A new radio access interface will be developed for UMTS/IMT-2000 (the UTRA). A complete new radio access network will be developed around this interface (UTRAN). These features are covered by the UMTS Radio Project.

The split between a radio access network (BSS) and a Core Network (NSS) determines reference point Iu. The existing interface specifications for GSM (A and Gb interfaces) are not sufficient for the needs of UTRA (e.g., high bit rates).

The purpose of this work item is to develop for the Iu reference point interface specifications suitable, at least, both for the interconnection of the future UMTS Radio Access Network and the GSM-UMTS Core Network and for the interconnection of the GSM Radio Access Network (GSM BSS) with the GSM-UMTS Core Network.

A secondary aim of these interface specifications is to cover, as far as requirements are provided by sources external to the project, needs for inter-connecting the UTRAN to other Core Networks, and needs for inter-connecting other Access Networks (examples of potential cases are BRAN, satellite networks, ...) to the GSM-UMTS Core Network.

These interface specifications shall cover the physical, link and network layers for signaling and user packets, the Access network protocol implementing the primitives as described in UMTS 23.10, and the protocols for other user data transport as needed.

The goal is that these interface specifications will be published by ETSI as mandatory for the interconnection between UTRAN and the GSM-UMTS Core Network.

#### 3.X.2 Service Aspects

These interface specifications shall cover all the requirements set by providing services to the users through the UTRAN and the GSM-UMTS Core Network, or through the GSM Radio Access Network and the GSM-UMTS Core Network.

#### 3.X.3 MMI Aspects

Not applicable.

#### 3.x.4 Charging Aspects

Not applicable.

### 3.x.5 Security Aspects

None.

### 3.x.6 Impacts

Affects	SIM	ME	NW	Other
Yes			X	
No	X	X		
Not known				

### 3.x.7 Expected output and Timescales (to be updated at each plenary)

The first phase of the Work Item shall consist in a study, finalized by a Report, which shall address the choice between developing a new set of specifications or to extend the set included in the GSM 08 series, and the choice, if applicable, of the basic transmission technique (e.g., PCM or ATM, IP, SS7, ...).

The second phase of the Work Item shall consist in the development of the interface specifications.

Document	Yes or No	Date for TC approval	Comments, list of specifications, list of CRs, etc.
Report	X	SGM#26	Principles for the Iu Interface
New specifications		SMG#28	Interface specifications
CRs to existing specifications		SMG#28	The impact on the existing GSM specifications (08 series, 09 series, ...) has to be assessed
Others			

<p><b>New specifications:</b></p> <p>23.30 Principles for the Iu Interface</p> <p>? Interface specifications</p>
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Affected existing specifications				
GSM No.	CR	Subject	Approved at SMG#	Comments

### 3.x.8 Rapporteur(s)

Overall Item: (Proposed) Michel Mouly, Nortel, SMG3/SA Chairman

23.30 Lauri Söderbacka, Nokia

Others TBD



### 3.x.9 Others

The main responsibility for the Work Item will be SMG3/SA, as part of the GSM-UMTS Core Network projects, with liaison with SMG2 (for UTRAN and GSM BSS) and with other bodies developing other Access Networks and/or other Core networks, and committed to use the Iu interface for these networks.

*Editorial note: The structure of WI description should be revised and eventually modified by STC SMG12.*

### 3.x Architecture overview of the GSM-UMTS System

#### 3.x.1 SMG project

	UMTS Radio Access
	GSM Radio Access
	GSM-UMTS Core Network
X	UMTS Services

#### 3.x.2 Linked work items

##### 3.x.1 Justification

The aim of this Work Item is to provide an architectural framework for the development of the UMTS specifications. This framework will consist in a set of documents which will describe the high-level architecture of UMTS, both for the Infrastructure side and the User Equipment side.

The description shall be sufficient for organizing the work between the Radio Access projects (UMTS Radio Access and GSM Radio Access projects) and the GSM-UMTS Core Network project. The description shall identify major reference points, the major modules of the system and the major functional planes. The description shall not go into details which can be addressed in the Radio Access project or in the GSM-UMTS Core network projects.

##### 3.X.2 Service Aspects

The general architecture shall be in line with the requirements expressed in UMTS 22.01.

##### 3.X.3 MMI Aspects

Not applicable.

##### 3.x.4 Charging Aspects

Not applicable.

##### 3.x.5 Security Aspects

Not applicable.

##### 3.x.6 Impacts

Affects	SIM	ME	NW	Other
Yes	X	X	X	
No				
Not known				

### 3.x.7 Expected output and Timescales (to be updated at each plenary)

The two main expected outputs are a document providing a high-level description of UMTS, and a document describing in details the functional split between the parts of the system which will be respectively developed under the UMTS Radio Access project and the GSM-UMTS Core Network project.

Document	Yes or No	Date for TC approval	Comments, list of specifications, list of CRs, etc.
Report			
New specifications		?	General architecture description Access Stratum
CRs to existing specifications		?	The impact on the existing GSM specifications (03.02, 03.09, 09 series, ...) has to be assessed
Others			

#### Newspecifications:

**23.01** General UMTS Architecture

**23.10** Services provided by the UMTS Radio Access Stratum

Affected existing specifications				
GSM No.	CR	Subject	Approved at SMG#	Comments
<b>TBD</b>				

### 3.x.8 Rapporteur(s)

Overall Item: (Proposed) Michel Mouly, Nortel, SMG3/SA Chairman

23.01 Roland Bodin, Ericsson

23.10 Michael Schönborn, T-Mobil

Others TBD

### 3.x.9 Others

The main responsibility for the Work Item will be SMG3/SA.

*Editorial note: The structure of WI description should be revised and eventually modified by STC SMG12.*

### 3.x Architecture the GSM-UMTS Platform

#### 3.x.1 SMG project

	UMTS Radio Access
	GSM Radio Access
X	GSM-UMTS Core Network
	UMTS Services

#### 3.x.2 Linked work items

##### 3.x.1 Justification

The aim of this Work Item is to provide an architectural framework for the development of the specifications of the GSM-UMTS Platform, as defined by UMTS 23.01 and 23.10. This framework will consist in a set of documents which will describe the architecture of UMTS, both for the Infrastructure side and the User Equipment side.

The description shall be sufficient for organizing the work within the GSM-UMTS Core Network project. This description shall identify all reference points and all functional entities inside the platform and relevant for the UMTS specifications issued by the project, including those linked to Operation and Maintenance. This description shall identify all protocols which are specified within the UMTS specifications issued by the project. This description shall also cover the major system features on which are built the services and features addressed by other Work Items. This includes such aspects as backbone transport networks, Operation and Maintenance support networks, mobility aspects, call and session concepts.

##### 3.X.2 Service Aspects

The general architecture shall be in line with the requirements expressed in UMTS 22.01.

##### 3.X.3 MMI Aspects

Not applicable.

##### 3.x.4 Charging Aspects

Not applicable.

##### 3.x.5 Security Aspects

Not applicable.

##### 3.x.6 Impacts

Affects	SIM	ME	NW	Other
Yes	X	X	X	
No				

Not known				
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### 3.x.7 Expected output and Timescales (to be updated at each plenary)

Document	Yes or No	Date for TC approval	Comments, list of specifications, list of CRs, etc.
Report	X	?	Evolution of
New specifications	X	?	
CRs to existing specifications		?	TBD
Others			

<p><b>New specifications:</b></p> <p>23.20 Evolution of the GSM platform towards UMTS</p> <p>23.05 Network Principles</p> <p>...</p>
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Affected existing specifications				
GSM No.	CR	Subject	Approved at SMG#	Comments
<b>TBD</b>				

### 3.x.8 Rapporteur(s)

Overall Item: (Proposed) Harald Dettner, Siemens, SMG3 Vice-Chairman

23.20 André Jarvis, Lucent Technology

23.05 Alain Sultan, France Télécom

Others TBD

### 3.x.9 Others

The main responsibility for the Work Item will be SMG3/SA.

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## History

<b>Document history</b>		
<b>Date</b>	<b>Status</b>	<b>Comment</b>
March 97	3.0.0	Approved by correspondence
June 1997	3.1.0	Approved by SMG#22
October 1997	3.2.0	Approved by SMG#23
December 1997	3.3.0	Approved by SMG#24
March 1998	3.4.0	Approved by SMG#25
June 1998	3.5.0	approved by SMG#26