

**Technical Specification Group Services and System Aspects      TSGS#5(99)490**  
**Meeting #5, Kyongju, Korea, 11-13 October 1999**

**Source:**                    TSG-SA Vice Chair

**Title:**                     3GPP Radio Interface Specifications (Section 5.x.3)

Document for:    Decision

**Agenda Item:**

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3GPP Radio Interface Specifications will be incorporated by reference in ITU-R's Draft New Recommendation "Detailed Specifications of the Radio Interfaces of IMT-2000" (IMT.RSPC) at the 18<sup>th</sup> Meeting of ITU-R Task Group 8/1 in Helsinki, Finland, on 25 October - 5 November 1999.

This document provides the contribution for Section 5.x.3 of IMT.RSPC ('Reference from External Material') for the radio interface under development in 3GPP which will be provided to Task Group 8/1 in October 1999.

A companion contribution, submitted to ITU-R TG 8/1 as information document, will contain in CD-ROM format the complete set of agreed 3GPP Specifications; this would ensure that the 3GPP Specifications are available for consultation, discussion, adoption etc at the Helsinki meeting.

The proposed contribution, consisting of Summary, Annex containing the body of the contribution, and attachment (titles and short synopsis of 3GPP specifications) is attached. This has to be sent to Task Group 8/1 by October 15.

Based on the outcome of the meeting between ITU and SDO representatives (Geneva, 20-21 September 1999 [1]), it is also proposed to send the attached contribution to all Organisational Partners and to ask them to fill in the tables with the relevant references and to forward it to ITU-R TG 8/1 in time for the opening of the meeting.

**[3GPP MEMBER, OR ADMINISTRATION]#**

**3GPP RADIO INTERFACE SPECIFICATIONS  
(SECTION 5.X.3 OF IMT.RSPC)**

**Summary**

This document contains material on the 3GPP Radio Interface Specifications relevant for the system specification agreed by 3GPP TSG SA in October.

This should be incorporated in the "Recommendations" section (5.x.3, Extract from External Material) of Draft New Recommendation "Detailed Specifications of the Radio Interfaces of IMT-2000" (IMT.RSPC).

Another companion contribution, submitted to ITU-R TG 8/1 as information document, contains in CD-ROM format the complete set of agreed 3GPP Specifications for consultation. They can also be downloaded from: [www.3gpp.org](http://www.3gpp.org)

**Annex:** 1

**Attachment:** 1 to Annex 1

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# This contribution was developed in 3GPP TSG RAN

## ANNEX

### Introduction

This document contains in Attachment 1 titles and short synopsis of the of the 3GPP IMT-2000 Radio Interface Specifications relevant for the system specification agreed by 3GPP TSG SA in October 1999, for incorporation in the "Recommendations" section (5.x.3, Extract from External Material) of Draft New Recommendation "Detailed Specifications of the Radio Interfaces of IMT-2000" (IMT.RSPC).

### Proposal

The material on the 3GPP Radio Interface Specifications contained in Attachment 1 should be incorporated in the "Recommendations" section (5.x.3, Extract from External Material) of Draft New Recommendation "Detailed Specifications of the Radio Interfaces of IMT-2000" (IMT.RSPC).

### Attachment 1 to Annex 1

#### Series 23.000

**TS 23.002 v.3.1.0** UMTS Release 1999 Network Architecture

The purpose of this Technical Specification is to present the possible architectures of the mobile system.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location*</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS<sup>1</sup></b>	23.002	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard<sup>2</sup></b>						

**TS 23.060 v. 3.1.0** General Packet Radio Service (GPRS); Service Description; Stage 2

The present document defines the stage-2 service description for the UMTS packet domain, which includes the General Packet Radio Service (GPRS) in GSM, and the packet side of UMTS. This document does not cover the Access Network functionality.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	23.060	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

\* The relevant SDOs will make their reference material available from their Web site.

<sup>1</sup> Approved technical Specification upon which SDO deliverables will be based.

<sup>2</sup> This part will contain technical Standards and has to be completed before RA2000.

## **Series 23.100**

### **TS 23.101 v. 3.0.1** General UMTS Architecture

This TS defines the basic physical and functional separation of UMTS. The content of this specification is limited to those features that are common to all UMTS networks independent of their origin. It identifies and names the reference points and functional groupings appearing at this level.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	23.101	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **TS 23.107 v.3.0.0** QoS Concept and Architecture

Scope of this document is to provide the framework for Quality of Service in UMTS. The document shall be used as a living document which will cover all issues related Quality of Service in UMTS.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	23.107	3.0.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **TS 23.110 v. 3.2.0** UMTS Access Stratum

This document specifies the services provided by the Access Stratum to the rest of the system. This document describes the main functions visible at the boundary between the Access Stratum and the rest of the system, it describes in general terms the information flows, both control and user data, over this boundary and relevant for the Access Stratum.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	23.110	3.2.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **TS 23.121 v. 3.1.0** Architectural Requirements for Release 1999

The present document covers Architectural Requirements for Release 1999 related to the evolution of the GSM platform towards UMTS with the overall goal of fulfilling the UMTS service requirements, support of roaming and support of new functionality, signalling systems and interfaces.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
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<b>Specification 3GPP TS</b>	23.121	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **Series 23.900**

#### **TR 23.930 v.3.0.0** Iu Principles

This report identifies the requirements on the Iu and studies relevant principles to guide further standardisation of the related interface(s).

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TR</b>	23.930	3.0.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **Series 22.000**

#### **TS 22.002 v. 3.0.0** Bearer Services Supported by a GSM PLMN

This 3G TS defines a set of Bearer Services to be provided to 3G subscribers by a 3G network itself and in connection with other networks. This document is also be used as a reference for defining the corresponding required mobile network capabilities which are specified by means of the connection type concept.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.002	3.0.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

#### **TS 22.004 v. 3.0.1** General on Supplementary Services

The purpose of this document is to define a recommended set of supplementary services to the Teleservices and Bearer services which will be supported by a 3G network in connection with other networks as a basis for the definition of the network capabilities required.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.004	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

#### **TS 22.011 v. 3.0.1** Service Accessibility

The purpose of this TS is to describe the service access procedures as presented to the user. The document contains definitions and procedures are provided for international roaming, national

roaming and regionally provided service. These are mandatory in relation to the technical realisation of the User Equipment.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.011	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.016 v. 3.0.1 International Mobile Equipment Identities (IMEI)**

The present document defines the principal purpose and use of unique Equipment Identities.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.016	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.022 v. 3.0.1 Personalisation of GSM ME Mobile functionality Specification 3GPP TS - Stage 1**

The present document provides functional specifications of five features to personalise User Equipment. These features are called:

- Network personalisation;
- Network subset personalisation;
- Service Provider (SP) personalisation;
- Corporate personalisation;
- UMTS Subscriber Identity Module (USIM) personalisation.

The present document specifies requirements for User Equipment, which provide these personalisation features.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.022	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.024 v. 3.0.1 Description of Charge Advice Information (CAI)**

This document gives an overall view of how the charging advice supplementary service shall operate both in the network and within the user equipment. The charging supplementary service is described in 22.086.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.024	3.0.1	3GPP Approved	1999-10-12		None

<b>Standard</b>						

**TS 22.030 v. 3.1.0** Man-Machine Interface (MMI) of the Mobile Station (MS)

This document defines the requirements for and gives guidelines on the MMI for calls on the 3G user equipment. This includes the requirements of the user procedures for call control and supplementary service control, the requirements on the physical input media and the output, such as indications and displayed information.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.030	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.034 v. 3.1.0** High Speed Circuit Switched Data (HSCSD) - Stage 1

This document specifies the Stage 1 description of High Speed Circuit Switched Data (HSCSD). HSCSD is a feature that allows users subscribing to the General Bearer Services to access user rates that can be achieved with one or more traffic channel. HSCSD also defines a flexible use of air interface resources, which makes efficient and flexible use of higher user rates feasible.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.034	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.038 v. 3.0.0** SIM application toolkit (SAT); Stage 1

This document defines the stage one description of the SIM application Toolkit (SAT primarily from the subscriber's and serving environment's points of view, and does not deal with the details of the human interface itself. It includes information applicable to network operators, serving environments and terminal, switch and database manufacturers and contains the core requirements for a SIM application Toolkit (SAT) which are sufficient to provide a complete service.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.038	3.0.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.041 v. 3.1.0** Operator Determined Call Barring

The feature Operator Determined Barring (ODB) allows the network operator or service provider to regulate, by means of an exceptional procedure, access by the subscribers to 3G services, by

the barring of certain categories of outgoing or incoming calls or of roaming. ODB shall take effect immediately and shall terminate ongoing calls and bar future calls. The purpose of this network feature is to be able to limit the service provider's financial exposure to new subscribers, or to those who have not promptly paid their bills. It may only be applied to the service provider's own subscribers.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.041	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.042 v. 3.0.1** Network Identity and Time Zone (NITZ), stage 1

The feature Network Identity and Timezone (NITZ) provides the means for serving networks to transfer current identity, time, Daylight Saving Time and the local timezone to user equipment storage and use.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.042	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.043 v. 3.0.1** Support of Localised Service Area (SoLSA) - Stage 1

This document specifies a mechanism, which can be used as a platform for providing special tariffs and/or special set of service features for certain subscribers within a regionally restricted area or areas. The motivation for this concept is to create means for network operators to build new service and tariff packages, which take into account subscriber groups and their needs.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.043	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.057 v. 3.0.1** Mobile Station Application Execution Environment (MExE); Stage 1

This document defines the stage one description of the Mobile Application Execution Environment (MExE).

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.057	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						



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**TS 22.060 v. 3.1.0** General Packet Radio Service (GPRS); Stage 1

This document defines the stage one description of the General Packet Radio Service (GPRS).

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.060	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.066 v. 3.0.1** Support of Mobile Number Portability (MNP); Stage 1

This document defines the stage one description of the Support of Mobile Number Portability between networks in the same country. It is in response to a study mandate agreed between the European Commission and ETSI under order voucher ESTI/97/M-251.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.066	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.067 v. 3.0.1** Priority Set-up Service; Stage 1(ASCI spec)

The present document specifies the stage 1 description of the enhanced Multi-Level Precedence and Pre-emption Service (eMLPP). This service has two parts: precedence and pre-emption. Precedence involves assigning a priority level to a call in combination with fast call set-up. Pre-emption involves the seizing of resources, which are in use by a call of a lower precedence, by a higher level precedence call in the absence of idle resources. Pre-emption can also involve the disconnection of an on-going call of lower precedence to accept an incoming call of higher precedence.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.067	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.071 v. 3.1.0** Location Services (LCS); Stage 1

Location Services is a network provided enabling technology consisting of standardised service capabilities which enables the provision of location applications. This application may be service provider specific. The description of the numerous and varied possible location applications which are enabled by this technology are outside the scope of this specification. However, clarifying examples of how the functionality being specified may be used to provide specific location services is included in various sections of the specification.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.071	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.072 v. 3.0.1** Call Deflection (CD); Stage 1

Call Deflection (CD) enables the served mobile subscriber to respond to an incoming call offered by the network by requesting redirection of this call to another number specified in the response. The CD supplementary service can only be invoked before the connection is established by the served mobile subscriber, i.e. in response to the offered call, or during the period that the served subscriber is being informed of the call. The served subscriber's ability to originate calls is unaffected by the CD supplementary service.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.072	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.078 v. 3.1.0** CAMEL; Stage 1

This standard specifies the stage 1 description for CAMEL feature (Customised Applications for Mobile network Enhanced Logic) which provides the mechanisms to support services consistently independently of the serving network. The CAMEL features shall facilitate service control of operator specific services external from the serving network. The CAMEL feature is a network feature and not a supplementary service. It is a tool to help the network operator to provide the subscribers with the operator specific services even when roaming outside the home network.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.078	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.079 v. 3.0.1** Support of Optimal Routing; Stage 1

Support of Optimal Routing is a network feature to reduce the number of unnecessary inter-network call legs when the subscriber is roaming.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.079	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

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**TS 22.081 v. 3.0.1** Line Identification Supplementary Services; Stage 1                      The present document describes the Supplementary Services belonging to the group Line Identification Supplementary Services. The group of Line Identification Supplementary Services is divided into the following four Supplementary Services:

- CLIP - Calling line identification presentation (clause 1);
- CLIR - Calling line identification restriction (clause 2);
- COLP - Connected line identification presentation (clause 3);
- COLR - Connected line identification restriction (clause 4).

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.081	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.082 v. 3.0.1** Call Forwarding (CF) Supplementary Services; Stage 1

This document describes the supplementary services belonging to the group Call Offering Supplementary Services.

The group of supplementary services Call Offering Supplementary Services is divided into four different supplementary services:

- Call forwarding unconditional (section 1);
- Call forwarding on mobile subscriber busy (section 2);
- Call forwarding on no reply (section 3);
- Call forwarding on mobile subscriber not reachable (section 4).

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.082	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.083 v. 3.0.1** Call Waiting (CW) and Call Hold (HOLD) Supplementary Services; Stage 1

The present document describes the Supplementary Services belonging to the group Call Completion Supplementary Services which are divided into the following two Supplementary Services:

- Call waiting (clause 1);
- Call hold (clause 2).

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.083	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

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**TS 22.084 v. 3.0.1** MultiParty (MPTY) Supplementary Service; Stage 1

This Supplementary Service provides a mobile subscriber with the ability to have a multi-connection call, i.e. a simultaneous communication with more than one party.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.084	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.085 v. 3.0.1** Closed User Group (CUG) Supplementary Services; Stage 1

The Closed User Group (CUG) Supplementary Service enables subscribers, connected to a network and possibly also other networks, to form closed user groups (CUGs) to and from which access is restricted. A specific user may be a member of one or more CUGs. Members of a specific CUG can communicate among each other but not, in general, with users outside the group.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.085	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.086 v. 3.1.0** Advice of Charge (AoC) Supplementary Services; Stage 1

These services are designed to supply to a mobile user sufficient information to allow a real-time estimate to be made of the bill which will eventually be levied in the home PLMN on the Mobile Station (MS) subscriber.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.086	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.087 v. 3.0.1** User-to-user signalling (UUS); Stage 1

The User-to-User Signalling (UUS) supplementary service allows a mobile subscriber to send/receive a limited amount of information to/from another network or ISDN subscriber over the signalling channel in association with a call to the other subscriber.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.087	3.0.1	3GPP Approved	1999-10-12		None

<b>Standard</b>						

**TS 22.088 v. 3.0.1 Call Barring (CB) Supplementary Services; Stage 1**

The Call Restriction supplementary services allow the possibility for a mobile subscriber to have barring of certain categories of outgoing or incoming calls at the mobile subscribers access.

The group of Call Restriction Services includes two supplementary services:

- barring of outgoing calls;
- barring of incoming calls.

By use of subscription options, the mobile subscriber can at provision time select a set of one or more barring programs to determine the categories of calls to be barred. The following categories are defined:

- all outgoing calls;
- outgoing international calls;
- outgoing international calls except those directed to the home PLMN country;
- all incoming calls;
- incoming calls when roaming outside the home PLMN country.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.088	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.090 v. 3.0.1 Unstructured Supplementary Service Data (USSD); Stage 1**

There are two modes of USSD: MMI-mode and application mode. MMI-mode USSD is for the transparent transport of MMI strings entered by the user to the network and for the transparent transport of text strings from the network that are displayed by the mobile for user information.

Application mode USSD is for the transparent transport of data between the network and the mobile station. Application mode USSD is intended to be used by applications in the network and their peer applications in the user equipment.

The communication over the radio interface takes place on the signalling channels using short dialogues with peak data throughput rate capabilities of up to approximately 600 bits/s outside of a call and 1000 bits/s during a call.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.090	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.091 v. 3.0.1 Explicit Call Transfer (ECT) Supplementary Service; Stage 1**

The ECT supplementary service enables the served mobile subscriber (subscriber A) who has two calls , each of which can be an incoming or outgoing call, to connect the other parties in the two calls and release the served mobile subscribers own connection.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.091	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.093 v. 3.0.1** Call Completion to Busy Subscriber (CCBS); Stage 1

In the situation when subscriber A encounters a Network Determined User Busy (NDUB) destination B, the subscriber A can request the CCBS supplementary service (i.e. activate a CCBS Request against destination B). The network will then monitor the wanted destination B for becoming idle.

When the wanted destination B becomes idle, then the network will wait a short time in order to allow destination B to make an outgoing call. If destination B does not make any outgoing call within this time, then the network shall automatically recall subscriber A.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.093	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.096 v. 3.0.1** Calling Name Presentation (CNAP); Stage 1

The CNAP supplementary service enables the called party to receive the calling name information of the calling party.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.096	3.0.	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.097 v. 3.1.0** Multiple Subscriber Profile (MSP); Stage 1

Multiple Subscriber Profile is an optional service to enable mobile subscribers to have several profiles associated with a single SIM and a single IMSI, with each profile being a subscription option. Each profile may be used for mobile originated and mobile terminated calls.

Up to four different profiles can be provisioned against a subscriber using the MSP feature. This will allow the subscriber to separate her telecommunication service needs into different identities (e.g. business and home).

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.097	3.1.0	3GPP Approved	1999-10-12		None

<b>Standard</b>						

**Series 22.100**

**TS 22.100 v. 3.4.0** UMTS phase 1 capabilities

This document contains how the definition of the UMTS system will be achieved in a phased approach. This document also specifies the requirements for Release 99 of UMTS. Some requirements which are necessary to ensure a smooth transition to later releases are also indicated. This document should, however, be read in conjunction with the other 22.000 series documents which provide a complete description of the requirements for UMTS Release '99 and beyond.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.100	3.4.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.101 v. 3.7.0** UMTS service principles

This document describes the Service Principles of the Universal Mobile Telecommunications System (UMTS).

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.101	3.7.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.105 v. 3.6.0** Services and service capabilities

Pre-UMTS systems have largely standardised the complete sets of bearer services, teleservices and supplementary services which they provide. One major difference between UMTS and pre-UMTS systems is that service capabilities rather than services are standardised for UMTS, allowing service differentiation and system continuity. This document describes how and what kind of services the UMTS user has access to.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.105	3.6.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 22.115 v. 3.2.0** Service aspects: charging and billing

This document describes the Service Aspects of charging and billing of the Universal Mobile Telecommunications System (UMTS).

This standard is not intended to duplicate existing standards or standards being developed by other groups on these topics, and will reference these where appropriate. This standard will elaborate on the charging requirements described in the Charging Principles in UMTS 22.01 Service Principles. It will allow the generation of accurate charging information to be used in the commercial and contractual relationships between the parties concerned.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.115	3.2.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

#### **TS 22.121 v. 3.1.0** Virtual home environment

This document specifies the content of the stage one requirement for realisation of VHE. Virtual Home Environment (VHE) is defined as a concept for personal service environment (PSE) portability across network boundaries and between terminals. The concept of the VHE is such that users are consistently presented with the same personalised features, User Interface customisation and services in whatever network and whatever terminal (within the capabilities of the terminal and the network), wherever the user may be located.

A key feature to support VHE is the ability to build services using a standardised application interface.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.121	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

#### **TS 22.129 v. 3.1.0** Handover requirements between UMTS and GSM or other radio systems

The scope of this document includes service requirements for handover (terms are defined below) within UMTS systems and between UMTS, other IMT-2000 family members and 2<sup>nd</sup> generation systems. Particular emphasis has been placed on the description of requirements for handover between UMTS and GSM but requirements specific to other systems are incorporated as required.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.129	3.1.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

#### **TS 22.135 v. 3.0.0** Multicall

This document presents multicall scenarios and requirements for UMTS phase 1 release '99.



Multicall feature specifies functionality and interactions related to usage of several simultaneous bearers between a terminal and a network. Multicall features allows both circuit switched call(s) and packet session(s) to exist simultaneously.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	22.135	3.0.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **Series 22.900**

**TR 22.960 v. 3.0.1** Mobile multimedia services including mobile intranet and internet services. This document discusses the issues related to mobile multimedia in UMTS environment. Specifically the foreseen mobile multimedia applications and their special requirements are referred briefly. The major technical challenges faced in the provision of multimedia services and Internet and Intranet access are discussed and highlighted in order to give guidance for UMTS system standardisation.

This document contains various views into these future topics and cannot be regarded as complete.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TR</b>	22.960	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **TR 22.971 v. 3.1.1** Automatic establishment of roaming relations

This document outlines a proposed framework for commercial and technical interworking between UMTS Home Environments and Serving Networks who have no direct prior commercial agreements with each other.

This document is applicable to UMTS standardisation within ETSI, and is produced with the intent to clarify the concepts involved, and identify those areas which require standardisation.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TR</b>	22.971	3.1.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **TR 22.975 v. 3.0.1** Advanced addressing

This document defines the requirements for numbering and addressing for UMTS. This technical report is aimed at generating discussion and should be agreed with ETSI WG NA2. The responsibility for developing of Numbering and Addressing schemes for all networks being in ETSI NA2.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TR</b>	22.975	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **Series 21.100**

**TS 21.133 v. 3.0.0** Security Threats and Requirements  
Detailed security requirements

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	21.133	3.0.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **Series 33.100**

**TS 33.102 v. 3.2.0** Security Architecture  
Provides a specification of all security mechanisms and protocols, except algorithms

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	33.102	3.2.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 33.103 v. 3.0.0** Security Integration Guidelines

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	33.103	3.0.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 33.105 v. 3.1.0** Cryptographic Algorithm requirements  
Defines requirements for standard cipher and integrity algorithm

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	33.3.1.0	3.1.0	3GPP Approved	1999-10-12		None

<b>Standard</b>						

**TS 33.106 v. 3.0.0** Lawful interception requirements  
 Defines all requirements for network based lawful interception

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	33.106	3.0.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 33.120 v. 3.0.0** Security Objectives and Principles  
 Elaborates on the basic principles underlying the security in 3GPP

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	33.120	3.0.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**Series 33.900**

**TR 33.901 v. 3.0.0** Criteria for cryptographic Algorithm design process  
 Describes process used to design cipher and integrity algorithm

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	33.901	3.0.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TR 33.902 v. 3.0.0** Formal Analysis of the 3G Authentication Protocol with Modified Sequence number Management  
 Formal analysis using BAN and Temporal Logic of authentication mechanism

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	33.902	3.0.0	3GPP Approved	1999-10-12		None
<b>Standard</b>						

## **Series 26.000**

### **TS 26.071 v. 3.0.1: AMR Speech Codec: General Description**

This specification provides an introduction to the set of 3GPP AMR specifications.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	26.071	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **TS 26.090 v. 3.0.1: AMR Speech Codec: Transcoding Functions**

This specification contains a detailed description of the AMR Speech Codec Transcoding Functions.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	26.090	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **TS 26.091 v. 3.0.1: AMR Speech Codec: Error Concealment of Lost Frames**

This specification provides example procedures for the error concealment, also called frame substitution or muting procedure, of lost speech or silence indicator frames.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	26.091	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **TS 26.092 v. 3.0.1: AMR Speech Codec: Comfort Noise Aspects**

This document gives the detailed requirements for the correct operation of the background acoustic noise evaluation, noise parameter encoding/decoding and comfort noise generation for the AMR speech codec during Source Controlled Rate (SCR) operation.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	26.092	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

### **TS 26.093 v. 3.0.1: AMR Speech Codec: Source Controlled Rate Operation**

This document describes the operation of the Adaptive Multi Rate speech codec during Source Controlled Rate (SCR) operation.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	26.093	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 26.094 v. 3.0.1:** AMR Speech Codec: Voice Activity Detector

This document specifies two alternatives for the Voice Activity Detector (VAD) to be used during Source Controlled Rate (SCR) operation in conjunction with the AMR Codec.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	26.094	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**Series 26.100**

**TS 26.110 v. 3.0.1:** Codec for Circuit switched Multimedia Telephony Service: General Description

This specification provides an introduction to the set of specifications for the support of Circuit Switched 3G-324M Multimedia Telephony service.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	26.110	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**TS 26.111 v. 3.0.1:** Codec for Circuit switched Multimedia Telephony Service: Modifications to H.324

This specification lists the modifications applicable to the ITU-T H.324 Annex C Recommendation for the support of Circuit Switched 3G-324M Multimedia Telephony service.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	26.111	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						

**Series 26.900**

**TR 26.911 v. 3.0.1:** Codec for Circuit switched Multimedia Telephony Service: Terminal Implementor's Guide

This report provides non-mandatory recommendations for the use of the different codec implementation options for the Circuit Switched 3G-324M Multimedia Telephony service based on ITU-T H.324 Annex C Recommendation. These recommendations address issues specific to the 3G operating environment, including guaranteeing sufficient error resilience and inter-working between terminals.

	<b>Doc. Number</b>	<b>Version</b>	<b>Status</b>	<b>Issued Date</b>	<b>Location</b>	<b>Any IPR issue</b>
<b>Specification 3GPP TS</b>	26.911	3.0.1	3GPP Approved	1999-10-12		None
<b>Standard</b>						