

**TSG-SA Working Group 1 (Services) meeting #2**  
**Edinburgh, Scotland 9<sup>th</sup>-12<sup>th</sup> March 1999**

**TSGS1#2(99)xxx**

<b>CHANGE REQUEST No :</b> <input type="text"/>		<small>Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.</small>
<b>Technical Specification 3GPP:</b> <input type="text" value="22.05"/>		<b>Version</b> <input type="text" value="3.3.0"/>
Submitted to <input type="text" value="#3"/> TSG SA	for approval <input checked="" type="checkbox"/>	without presentation ("non-strategic") <input checked="" type="checkbox"/>
<small>list plenary meeting or STC here ↑</small>	for information <input type="checkbox"/>	with presentation ("strategic") <input type="checkbox"/>

PT SMG CR cover form. Filename: crf26\_3.doc

**Proposed change affects:** SIM  ME  Network   
(at least one should be marked with an X)

**Work item:** UMTS Services and Service Capabilities

**Source:** Ericsson

**Date:** 1999-02-26

**Subject:** Clarification of the Teleservice Internet Access

<b>Category:</b>	F Correction	<input checked="" type="checkbox"/>	<b>Release:</b>	Phase 2	<input type="checkbox"/>
	A Corresponds to a correction in an earlier release	<input type="checkbox"/>		Release 96	<input type="checkbox"/>
<small>(one category and one release only shall be marked with an X)</small>	B Addition of feature	<input type="checkbox"/>		Release 97	<input type="checkbox"/>
	C Functional modification of feature	<input type="checkbox"/>		Release 98	<input type="checkbox"/>
	D Editorial modification	<input type="checkbox"/>		Release 99	<input type="checkbox"/>
				UMTS	<input checked="" type="checkbox"/>

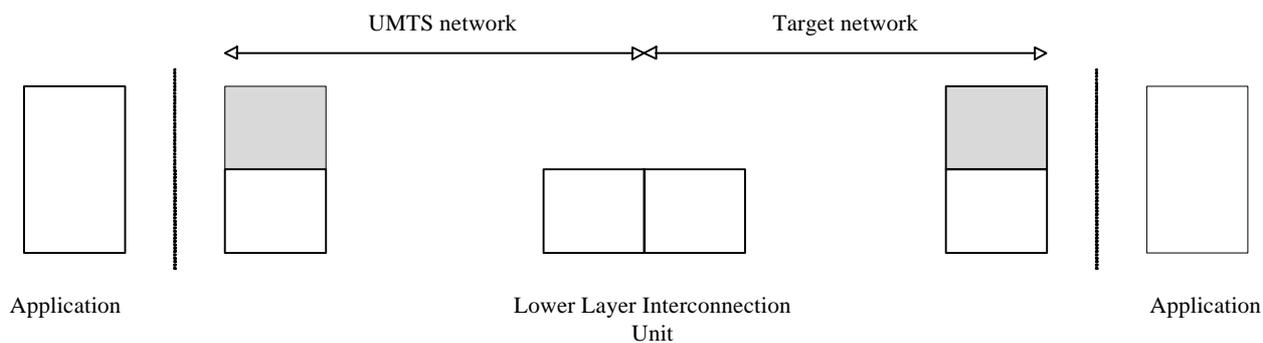
**Reason for change:** Last paragraph in chapter 6.5 can be interpreted as if 3GPP wants to standardise a protocol with 'similar services as the Internet' (i.e. not IP), but optimised for wireless access.

Ericsson's interpretation of the 3GPP scope is that the 'standard' IP (defined by IETF) shall be used, and the (standard) IP-applications shall not be aware of which kind of access method that is used (wireless or fixed). However, optimisations over the radio interface must be considered.

**Clauses affected:** 6.5

<b>Other specs affected:</b>	Other releases of same spec	<input type="checkbox"/>	→ List of CRs:	<input type="text"/>
	Other core specifications	<input type="checkbox"/>	→ List of CRs:	<input type="text"/>
	MS test specifications / TBRs	<input type="checkbox"/>	→ List of CRs:	<input type="text"/>
	BSS test specifications	<input type="checkbox"/>	→ List of CRs:	<input type="text"/>
	O&M specifications	<input type="checkbox"/>	→ List of CRs:	<input type="text"/>

**Other comments:**



**Figure 4; Teleservice with lower layer interworking**

## 6.4 Existing Teleservices supported by UMTS networks

The subset of standardised teleservices shall be supported by UMTS for interworking with teleservices provided on other networks. The means to support the following set of teleservices will be standardised;

- Speech;
- Emergency call;
- Short message service;

### 6.4.1 Speech

The speech service as defined in international standards should be supported by UMTS. The international reference for the speech is ITU E.105 recommendation. UMTS networks should contain interworking units which allow calls to be received from or destined to users of existing networks like PSTN, ISDN, GSM. This will include interworking units for generation of DTMF or other tones (the entire DTMF tone set would at minimum be available) and detection of DTMF tones.

A default speech codec shall be specified to provide speech service across the UTRAN. The selected speech codec shall be capable of operating with minimum discernible loss of speech on handover between the GSM access network and UTRAN.

### 6.4.2 Emergency Call

This service will use components of Speech. There are however compared to Telephony reduced authentication requirements and a requirement for specific routing. Additionally Emergency Calls may have higher priority than normal calls, etc.. The reference for the emergency call service is GSM 02.03.

### 6.4.3 Short Message Service

The short message service as specified in GSM 02.03 shall be supported in UMTS. A short message service shall be provided seamlessly (as far as the user or the users terminal equipment is concerned) across the UMTS and GSM access network. Additional features are planned for SMS in Release 99.

## 6.5 Internet Access

UMTS shall provide means to interwork with external data networks. This interworking shall satisfy, within the constraints introduced by the mobile radio environment, the QoS requirements of the interworked-with network. For UMTS the Internet is seen as the most important interworked-with network, therefore the specification of an optimised access to Internet shall be part of the UMTS standard. The most important benefits achieved by the definition of Internet Access would be:

- Optimised transmission of IP traffic over the UMTS radio interface, ~~to minimise the amount of information transmitted.~~

- Optimised usage of encryption protocols/algorithms over the UMTS radio interface.  
In the case of Internet traffic it would be possible for the user to select the encryption to be used (e.g. no encryption, end-to-end encryption, encryption over UMTS radio, etc.).
- Inter-operation of QoS mechanisms used in both, UMTS and in Internet.  
The QoS mechanisms defined for UMTS packet access mode shall be harmonised with those defined for Internet (e.g. Differentiated Services).

For interworking with the Internet, 'standard' Internet Protocols (defined by IETF) shall be used in the UMTS network. The (standard) IP applications shall not be aware of which kind of access method that is used (wireless or fixed). (However, optimisations over the UMTS radio interface must be considered).

~~For the purposes of optimised access to Internet one or more of the UMTS generic bearers will be used. On top of the bearer a UMTS protocol profile will be defined. This profile would be based on the work done by IETF or other relevant fora, and will consist of a recommended set of parameters and standardised protocols providing similar services than the Internet ones but optimised for wireless access. In the case of Internet traffic it would be possible for the user to select the encryption to be used (e.g. no encryption, end to end encryption, encryption over UMTS radio, etc.). The QoS mechanisms defined for UMTS packet access mode shall be harmonised with those defined for Internet (e.g. Differentiated Services).~~

## 7 Supplementary Services

Supplementary services are used to complement and personalise the usage of basic telecommunication services (bearer services and teleservices). The capabilities standardised in UMTS shall enable all the supplementary services specified in GSM 02.04 and the 02.8x set to be provided.

## 8 Service features

Service features are building blocks which can be used to create services. The functionality offered by a service feature may depend upon the underlying service capability used to realise the service feature e.g. CAMEL, MExE etc.. Service features may be used to offer the user some control over a service such as the ability to modify a service, subscribe or unsubscribe to a service.

Service features are associated with call/session control, bearer control, mobility management. The term calls is used to encompass not only circuit-switched (e.g. voice) calls, but also virtual-circuit sessions set-up to handle packet data traffic.

The following service features are required;

- security/privacy;
- access control;
- address translation;
- call/session/bearer control;
- location;
- messaging;
- service control;
- user interaction.

### 8.1 Security/Privacy features

- presentation of or restriction of information associated with a party involved in a call or a session (e.g. calling line ID, calling name, location...);