Technical Specification Group Services and System Aspects
Meeting #8, Düsseldorf, Germany, 26-28 June 2000

TSGS#8(00)0201

Source: **TSG SA1**

Title: **CRs to Service Principles (22.101) on H.324M support for CS multimedia**

Document for: **Approval**

Agenda Item: **6.1.3**

Doc-1st-Level	Doc-2nd-Level	Spec	CR	Rev	Phase	Cat	Subject	Version-Current	Version-New
SP-000201	S1-000362	22.101	038		R99	B	CS multimedia support	3.9.0	3.10.0

3GPP SA Working Group 1 Meeting #8
Beijing, 10 April - 14 April 2000

Document S1-00362
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

22.101	CR	038	Current Version:	3.9.0

GSM (AA.BB) or 3G (AA.BBB) specification number ? *? CR number as allocated by MCC support team*

For submission to: TSG#8 *list expected approval meeting # here ?*

for approval [X]
for information [ ]

strategic [ ]
non-strategic [ ]
(for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*
(U)SIM [ ] ME [X] UTRAN / Radio [ ] Core Network [X]

Source: SA1 **Date:** 10/4/00

Subject: CS multimedia support

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	[ ]
A	Corresponds to a correction in an earlier release	[ ]
B	Addition of feature	[X]
C	Functional modification of feature	[ ]
D	Editorial modification	[ ]

Release:

Phase 2	[ ]
Release 96	[ ]
Release 97	[ ]
Release 98	[ ]
Release 99	[X]
Release 00	[ ]

Reason for change: This CR is introduces H.324M support for CS multimedia. This CR is alignment to the work done by CN3/CN1. There are no new requirements for release 99.

Clauses affected:

Other specs affected:

Other 3G core specifications	[ ]	?	List of CRs:
Other GSM core specifications	[ ]	?	List of CRs:
MS test specifications	[ ]	?	List of CRs:
BSS test specifications	[ ]	?	List of CRs:
O&M specifications	[ ]	?	List of CRs:

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

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.

[1] TS 22.105: “Services and Service Capabilities”.

[2] TS 22.121: "Virtual Home Environment (VHE), Stage 1".

[3] TS 22.038: "SIM application toolkit, stage 1".

[4] TS 22.001: "Principles of Circuit telecommunication services supported by a Public Land Mobile Network (PLMN)".

[5] TS 22.004: "General on supplementary services".

[6] TS 22.030: "Man-Machine Interface (MMI) of the User Equipment (UE)".

[7] TS 22.066: "Support of Mobile Number Portability (MNP); Service description; Stage 1".

[8] TS 22.079: "Support of Optimal Routing; Stage 1".

[9] TS 22.129: "Handover Requirements between UMTS and GSM or other Radio Systems".

[10] TS 33.102: "Security Architecture".

[11] TS 22.011: "Service Accessibility".

[12] TS 22.016: "International mobile Station Equipment Identities (IMEI)".

[13] GSM 04.08: "Digital cellular telecommunications system (Phase 2+); Mobile Radio Interface Layer 3 Specification".

[14] TS 22.003: "Circuit Teleservices supported by a Public Land Mobile Network (PLMN)".

[15] TS 21.133: "Security Threats and Requirements".

[16] TS 33.120: "Security Principles".

[17] TS 22.042: "Network Identity and Time Zone, Service Description, Stage 1".

[18] GSM 02.09: "Digital cellular telecommunications system (Phase 2+); Security Aspects".

[19] TS 31.102: "USIM Application Characteristics".

[20] TS 22.121: "Architectural Requirements for Release 99".

[21] TS 22.002: “Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)”.

[22] TS 22.060: “General Packet Radio Service (GPRS)”.

[23] TS 29.002: “Mobile Application Part (MAP) specification ”.

[24] TR 23.972: "Circuit Switched Multimedia Telephony".

5 Principles for new service capabilities

5.1 General

3GPP specifications shall enable the user of a single terminal to establish and maintain several connections simultaneously. It shall efficiently cater for applications which have variable requirements relating to specific QoS parameters (e.g. throughput) whilst meeting other QoS targets. It shall also cater for applications which are able to take adapt to a range of variations in QoS.

5.2 Multimedia

UMTS shall support multimedia services and provide the necessary capabilities.
Multimedia services combine two or more media components (e.g. voice, audio, data, video, pictures) within one call. A multimedia service may involve several parties and connections (different parties may provide different media components) and therefore flexibility is required in order to add and delete both resources and parties.
Multimedia services are typically classified as interactive or distribution services.
Interactive services are typically subdivided into conversational, messaging and retrieval services:
Conversational services: are real time (no store and forward), usually bi-directional where low end to end delays (< 100 ms) and a high degree of synchronisation between media components (implying low delay variation) are required. Video telephony and video conferencing are typical conversational services".
Messaging services: offer user to user communication via store and forward units (mailbox or message handling devices). Messaging services might typically provide combined voice and text, audio and high resolution images.
Retrieval services: enable a user to retrieve information stored in one or many information centres. The start at which an information sequence is sent by an information centre to the user is under control of the user. Each information centre accessed may provide a different media component, e.g. high resolution images, audio and general archival information.
Distribution services are typically subdivided into those providing user presentation control and those without user presentation control.
Distribution services without user control: are broadcast services where information is supplied by a central source and where the user can access the flow of information without any ability to control the start or order of presentation e.g. television or audio broadcast services.
Distribution services with user control: are broadcast services where information is broadcast as a repetitive sequence and the ability to access sequence numbering allocated to frames of information enables the user (or the user's terminal) to control the start and order of presentation of information.
3GPP specifications shall support single media services (e.g. telephony) and multimedia services(e.g. video telephony).All calls shall have potential to become multimedia calls and there shall be no need to signal, in advance, any requirement for any number of multimedia components. However, it shall be possible to reserve resources in advance to enable all required media components to be available.

5.2.1 Circuit Switched (CS) multimedia calls

The following basic requirements are be supported for CS multimedia [24]:
? CS multimedia shall be based on a 3GPP specific subset of H.324M.
? All call scenarios shall be supported, i.e. Mobile Originating and Mobile Terminating call against Mobile, ISDN and PSTN call party.
? Single and multiple numbering schemes shall be supported.
? Speech fallback to TS 11 [14] shall be supported, i.e. if setup of the multimedia call fails the call will be set up as a speech call. At release '99 only fallback case supported is from '3.1kHz Ext. PLMN' to speech.
? CS Multimedia call is a Bearer Service, which utilises Synchronous Transparent Data service.
? Different bitrates as specified at 22.002 [21] shall be supported.
? Supplementary services apply to multimedia calls according to 22.004[5].