3GPP TSG CN Plenary Meeting #18 **NP-020601**
4th – 6th December 2002 New Orleans, USA.

Source:	CN4
Title:	Multimedia Resource Function Controller (MRFC) – Multimedia Resource Function Processor (MRFP) Mp Interface
Agenda item:	9.1
Document for:	Approval

Work Item Description

Title Mp (MRFC - MRFP) interface protocol definitions

1 3GPP Work Area

	Radio Access
x	Core Network
	Services

2 Linked work items

IMS phase 2 (SA2)

3 Justification

Within the IP Multimedia Subsystem, the Multimedia Resource Function (MRF), through interactions with the User Equipment (UE), Application Server (AS) and Serving Call Session Control Function (S-CSCF), provides, for example, ad-hoc video and audio conference capabilities, and the support of announcements, tones and media streams processing.

The MRF is decomposed into two functions, i.e. the MRFC and MRFP. The Mp Interface, which is located between these two functions, supports the H.248/MEGACO protocol with the additional support of Multimedia specific H.248 Packages.

The intention of this WI is to define the use of H.248/MEGACO including the additional H.248/MEGACO Multimedia Packages between the MRFC and MRFP and to define the relationship between the S-CSCF – MRFC –interface (Mr-interface) SIP and SDP procedures/instructions and the associated H.248/MEGACO, including the additional Packages and procedures.

The MRFC:

- Controls the media stream resources in the MRFP.
- Interprets information coming from an AS and S-CSCF (e.g. session identifier) and control MRFP accordingly.
- Generates CDRs

The MRFP:

- Controls bearers on the Mb reference point.
- Provides resources to be controlled by the MRFC.
- Mixes incoming media streams (e.g. for multiple parties).
- Sources media streams (for multimedia announcements).
- Processes media streams (e.g. media analysis).

4 Objective

- To define the use of the H.248 protocol between the Multimedia Resource Function Controller (MRFC) and the Media Resource Function Processor (MRFP), i.e. across the Mp Interface. In particular, the required H.248 Packages, including the Multimedia H.248 Packages, will be identified. New H.248 Packages will be defined by external standardisation bodies (ITU-T SG 16) or/and CN4. The result produced by external bodies shall be evaluated taking into account the applicability for the packages and the 3GPP Rel-6 time frame;
- The interaction between SIP and SDP procedures/messages and H.248/MEGACO procedures/messages, including Multimedia H.248 Packages, will be defined;
- The bearer control between the MRFP and various connecting functions will be defined;
- The signalling interaction between the MRFP and interconnected nodes will be considered.

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

The MRFC may take charging into account when deciding to establish or to close user plane connections using the Mp interface.

8 Security Aspects

None

9 Impacts

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

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
29.333	Multimedia Resource Function Controller (MRFC) – Multimedia Resource Function Processor (MRFP) Mp Interface; Stage 3	CN4		CN#19 (Mar 03))	CN#20 (Jun 03)	To define stage 3 description of H.248/MEGACO across the Mp Interface

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
29.162		Interworking between the IM CN subsystem and IP networks (CN3)		*May need to describe the transcoding between the MRFP and external IP network.*
24.229		IP Multimedia Call Control Protocol based on SIP and SDP; Stage 3 (CN1)		*This specification defines the Mr interface procedures*

11 Work item raporteurs

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12 Work item leadership

CN4. (CN3 may be consulted if help in defining the interaction between SIP and SDP procedures/messages and H.248/MEGACO procedures/messages is needed.)

13 Supporting Companies

Nokia, Siemens, Lucent, Ericsson, Vodafone

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
x	Work Task (go to 14c)

14a The WI is a Feature: List of building blocks under this feature

-14b The WI is a Building Block: parent Feature

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14c The WI is a Work Task: parent Building Block

An architecture for Call control and roaming to support IP-based multimedia services in UMTS (SA2).