

**3GPP TSG_CN
Plenary Meeting #9, Oahu, Hawaii
20th – 22nd September 2000.**

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Source: TSG_N3
Title: Revised proposed work item description for interworking between IM CN subsystem and circuit switched networks
Document for: APPROVAL

3GPP TSG-CN3
Meeting #12, Seattle, USA
28th August – 1st September 2000

Tdoc N3-000469

Work Item Description

Title: Interworking between IM CN subsystem and circuit switched networks.

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

- Support of IP multimedia services (S1)
- An architecture for Call control and roaming to support IP-based multimedia services in UMTS (S2)

3 Justification

Within Release 2000, the capability for IP telephony and IP multi-media (IM) services will enable the support of calls to and from circuit switched networks. These calls may require interworking functions. The Release 2000 architecture includes media gateway (MGW) functionality for interworking between the GGSN Gi reference point and circuit switched networks.

This WI will outline the solutions and functionality required within the MGW to deliver the U plane aspects between IM CN subsystems and circuit switched networks.

4 Objective

The objective of this work item is to specify bearer capabilities for packet switched IM services and the necessary interworking functions between the UE served by the IM CN subsystem of the UMTS network and the various TE types in the circuit switched networks.

A significant goal is to define the functionality of the MGW together with aspects of the Media Gateway Control Function (MGCF) and Signalling Gateway (SGW) required for the various interworking scenarios. This will include:

- layer 1 and layer 2 transport protocols (mainly rate adaption)
- signalling issues related to call control and bearer establishment (service set-up, QoS negotiation, mapping bearer capabilities etc).
- Control and selection mechanisms for the possible transcoding techniques used between the IP (IM) and circuit switched networks.

5 Service Aspects

None identified.

6 MMI-Aspects

None identified.

7 Charging Aspects

None identified.

8 Security Aspects

None identified.

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes				X	
No	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
xx.xxx	Tech Report "Technical Requirements for IM to CS Interworking"	CN3	CN1 SA4	CN#11 (March 01)	CN#13 (Sept 01)	
29.xxx	Tech Specification "General technical requirements on interworking between the IM CN subsystem of the UMTS network and CS networks"	CN3	CN1 SA4	CN#12 (May 01)	CN#14 (Dec 01)	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	

11 Work item raporteurs

Kevin Bye, BT Advanced Communication Engineering, Adastral Park

12 Work item leadership

CN3

13 Supporting Companies

BT, Nokia, Motorola, Alcatel, Siemens

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

N/A

14b The WI is a Building Block: parent Feature

N/A

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

- Call control and roaming to support IP based multimedia services in UMTS