Technical Specification Group Services and System Aspects ***TSGS#17(02)0607***
Meeting #17, Biarritz, France, 9-12 September 2002

Source: **TSG SA WG2**
Title: **WI description for Commonality and Interoperability between IMSs**
Agenda Item: **7.2.3**

This document is a revision of SP-020543. Revisions compared to prevision version are highlighted by revision marks.

In early April, a meeting was held in Toronto to discuss aspects of 3GPP and 3GPP2 core network harmonisation. The ideas attracted widespread support. This draft WID is an attempt to formalise the mechanism for converting these ideas into actual specifications.

The WID attempts to address 2 main areas:

1) Commonality
In order to benefit from economies of scale, it will be useful if the 3GPP, 3GPP2 and Wireless LAN IMS systems can be as similar as possible.

2) Interoperability
A customer using one (eg the 3GPP) IMS system needs to be able to “phone” (ie make a multimedia call with a speech component) someone using another (eg 3GPP2) IMS system. Currently this is difficult because the R’5 IMS does not have any transcoding, but 3GPP and 3GPP2 mobiles use different transcoders.

S2-022330

Work Item Description

Title

Interoperability and Commonality between IP Multimedia Systems using different "IP-connectivity Networks"

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

The stage 2 work proposed by this WID may lead to the generation of WIDs for stage 3 work.

This work is linked to the following WIDs:

a) IMS stage-2 enhancements (WI code is TBD)
b) Interworking between IMS and IP networks (IMS-CCR-IWIP)
c) WLAN Interworking – Architecture Definition (WLAN)
d) Dynamic Policy control enhancements for end-to-end QoS (QoS1)

3 Justification

Currently the 3GPP R'5 IMS system is optimised for the 3GPP UMTS and GSM access networks. However, economies of scale (in terms of hardware, software and application development) should be improved by increasing the commonality of IMS for different "IP-connectivity networks" (including specifically the 3GPP, 3GPP2 and W-LAN IP-connectivity networks).

Similarly, it is necessary for users of any IMS system using any kind of IP-connectivity access to be able to "phone" (ie make a multimedia call with a speech component) users on any other system. This may imply the need for bearer level interworking, e.g. the need for transcoders and/or IP version interworking.

4 Objective

To improve the commonality between the IMS systems utilising different IP-connectivity networks (e.g. 3GPP, 3GPP2, W-LAN, etc…).

To ensure that users of the 3GPP IMS system can inter-operate with users of other "IP Multimedia Networks" such as the 3GPP2 IP Multimedia Domain System.

The initial work should discuss potential architectural solutions and the selection of one solution.

Note: This WI defines the work to be done within 3GPP and 3GPP specifications. In order to reach end-to-end interoperability, some solutions may have to be reused and possibly adapted in external bodies e.g. within 3GPP2.

~~The proposed time plan is outlined below. It should be copied into, and maintained within, the 3GPP Work Plan.~~

~~**Task**~~	~~**Planned Start**~~	~~**Planned Finish**~~
~~Work Item Revision~~	~~June 2002~~	~~Sept 2002~~
~~Work Item Approval~~		~~Sept 2002~~
~~Discussion on possible solutions~~	~~August 2002~~	~~October 2002~~
~~Drafting and discussion, updates of stage 1 and 2 specifications~~	~~October 2002~~	~~January 2003~~
~~Identification of stage 3 work and drafting of WIDs for stage 3~~	~~October 2002~~	~~December 2002~~
~~Submission to TSG SA for approval of stage 2 CRs~~		~~March 2003~~
~~Stage 3 CRs drafting and discussion~~	~~December 2002~~	~~March 2003~~
~~Submission to TSG CN for approval of stage 3 CRs~~		~~March 2003~~
~~Possible remaining corrections and clarifications~~	~~April 2003~~	~~June 2003~~

5 Service Aspects

As indicated in the objective.

6 MMI-Aspects

None identified.

7 Charging Aspects

The R’5 IMS charging work should be reviewed to identify any further changes that are needed.

8 Security Aspects

As yet, none identified, however, SA 3 should monitor, and contribute as needed to the ongoing work .

9 Impacts

Affects:	UICC	ME	AN	CN	Others
Yes	?	?		X	IMS – yes
No			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

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
23.228		Architectural updates for Access Independence	March 2003	
23.228		Architectural updates for interoperability	March 2003	
22.228		Restoration of interoperability requirements which were removed as a result of R'5 design difficulties/R'5 time pressure	March 2003	
23.207		Updates for access independence	March 2003	

Additional stage 3 CRs are expected to be needed. However the impacted specifications cannot be fully identified until the discussion of potential solutions and the selection of one solution has been completed.

Depending upon the type of technical solution, additional new specifications might be created.

11 Work item raporteurs

Balazs Bertenyi (Nokia)

12 Work item leadership

SA2

13 Supporting Companies

Vodafone, Hutchison 3G, dynamicsoft, Lucent, Qualcomm, SK Telecom, Fujitsu, Nortel Networks, Alcatel, Nokia, KPN, Toshiba America Research Inc, Thomson Multimedia, Cisco, Sasken Communication Technologies Ltd, Ericsson, Siemens, Mobility Network Systems, Intel.

14 Classification of the WI (if known)

This Work Item is a feature.
