Technical Specification Group Services and System Aspects
Meeting #25, Palm Springs, USA

TSGS#25(04)0688

Source: ~~TSG SA WG2 (S2-042965)~~SA2 Chairman
Title: ~~New~~ WID on support of SMS and MMS over generic 3GPP IP access ~~over IP networks~~
Agenda Item: 7.2.3

Work Item Description

1 3GPP Work Area

	Radio Access
X	Core Network
X	Services

2 Linked work items

WLAN Interworking

3 Justification

There is interest in providing 3GPP messaging services across WLAN, and, more generically across any form of IP access that is part of the 3GPP system.

Although some initial work has been documented within annex D of the WLAN interworking stage 2 (TS 23.234), there are many topics that cannot be tackled in isolation.

These include (but are not limited) to:

a) the impact on existing SMS services and the HSS (e.g. the impact on SMS message waiting flags and on voice mail services.) If this is not studied, then there is a risk that existing operator services will be degraded by the introduction of "SMS over WLAN";
b) the investigation of the use of SS7 and/or IP protocols to communicate with the ~~SMSC (actually its~~ SMS-GMSC/SMS-IWMSC~~)~~ and~~/or~~ the HSS;
c) providing SMS/MMS services over any 3GPP IP access needs authentication (e.g. specification of security mechanisms);
d) potential synergies between solutions for SMS, MMS and IMS messaging (e.g. common (re)registration mechanisms);
e) addressing mechanisms when multiple IP-SMS Gateways are in use; and
f) reliable deregistration mechanisms to cope with cases when the 3GPP IP access link is lost suddenly (e.g. when WLAN coverage is lost).
g) mechanisms to handle SMS and MMS when there is more than one 3GPP IP connection active with the mobile (e.g. a WLAN/GPRS/UMTS card may be GPRS attached and/or CS attached while also having the WLAN connection active).

This Work Item aims to address these issues in a well documented fashion.

4 Objective

The overall objective is to enhance the 3GPP specifications to support delivery of SMS and MMS over WLAN and any other 3GPP IP access in a manner which guarantees existing SMS and MMS services are not degraded.

It is expected that this will require the production of a technical report covering generic messaging architectures, and, updates to the existing SMS and MMS stage 2 specifications.

Updates to stage 3 specifications are expected.

5 Service Aspects

To provide SMS and MMS over any 3GPP IP access without degrading existing services.

6 MMI-Aspects

None.

7 Charging Aspects

It should be studied whether the ~~SMSC~~SMS-GMSC/SMS-IWMSC and/or MMS R/S~~C~~ need to know that the message was delivered/sent via WLAN or via GSM/UMTS access.

8 Security Aspects

When using generic 3GPP IP access, security needs to be provided between the UE and any IP-SMS gateway.

9 Impacts

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

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

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TR 23.abc	Support of SMS and MMS over generic 3GPP IP access.	SA2	T2	SA#26	SA#27	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
23.040		Updated for SMS over IP	T#27	
29.002		Updated for SMS over IP	CN#27	
23.140		Updated for MMS over secure IP	T #27	
		Future work should be identified when the TR 23.abc is sent “for approval”.,		

11 Work Item Rapporteur

Wenlin Zhang (Huawei)~~tbd~~

12 Work Item Leadership

TSG SA WG2

13 Supporting Companies

Lucent, Nortel, Huawei, InterDigital

14 Classification of the WI (if known)

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

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

14c The WI is a Work Task: parent Building Block (one Work Item identified as a building block)