3GPP TSG-T2 #26   *T2-040315*
Montreal, Canada
23-27 August 2004   *e-approved 12/08/2004*

Title:	LS on MMS over 3GPP Interworking WLANs
Response to:	LS (S2-041675) on "MMS over 3GPP interworking WLANs" from SA2
Release:	Rel-6
Work Item:	MMS over WLAN

Source:	T2
To:	SA2, OMA TP, OMA MWG-MMSG, IETF LEMONADE
Cc:	SA3

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Attachments: None

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1. Overall Description:

T2 thank SA2 for their liaison statement on MMS over 3GPP interworking WLANs (T2-040279 / S2-041675).

T2's answers to SA2's questions on MMS over WLAN:

Question 1: What is the status of the two MM1 implementations (WAP-based or IP-based) and which would be most appropriate for MMS support over WLAN?

The IP-based implementation that is referenced in the 23.140 specification was initiated in Rel-4 as an alternative to the MMS WAP implementation. However, no stage 3 work has been specified for this implementation and, as a matter of fact this "IP-based" MMS has never been implemented so far.
Moreover, T2 underlines that there is no link between this IP based implementation and the IETF Lemonade work.
T2 therefore assumes the WAP implementation (which is now being developed further by OMA) to be the most appropriate for MMS support over WLAN. In the following answers, only the WAP implementation is considered.

Question 2: Comment whether they consider the architecture and procedures described in TS 23.234 enable a WLAN UE to send and receive MMS while connected to a Public Land Mobile Network (Home or Visited) via a– WLAN which supports interworking with a 3GPP system (an Interworking WLAN or I-WLAN) using the procedures for tunnelled access to external IP networks ? Also, whether they see any difference in this respect between the WAP-based and IP-based implementations

SA2 has standardised an architecture that allows a WLAN network to connect to a 3GPP network. The connectivity is done via the Wi interface. T2's understanding is that this connectivity therefore allows any IP-based traffic to be exchanged between a WLAN UE and a 3GPP UE.

Please find below T2's analysis on MMS procedures support on a WLAN network:

- MMS sending from a WLAN UE to a 3GPP UE

A prerequisite is that the WLAN UE has an MMS client (compliant to 3GPP/OMA MMS specifications) embedded.
The MMS sending is based on WAP procedures. These WAP procedures are bearer-independent and can be executed over e.g. IP stack, i.e. GPRS or WLAN. Once the WLAN UE has initiated the sending of this MM, the IP flow should transit via the PDG that should be interconnected, via the Wi interface, to the WAP Gateway of the mobile operator (this WAP GW being interconnected to the MMS Relay/Server of the same mobile operator).

 From T2's understanding, the SA2-standardised WLAN architecture therefore allows MMS sending.

- MMS notification and subsequent retrieval by a WLAN UE

The WLAN UE shall be notified via WAP Push. The commonly used bearer for WAP Push is SMS. Therefore, the WLAN UE shall support reception of a notification SMS. The architecture for support of SMS over WLAN has already been standardised by SA2 and has been validated by T2 during T2#26. The subsequent retrieval of the multimedia message is based on WAP procedures and, as for the MMS sending, they are bearer-independent. Please note that delivery report and read-reply report are also based on bearer-independent WAP procedures.

From T2's understanding, the SA2-standardised WLAN architecture therefore allows MMS notification and subsequent retrieval.

Question 3: Comment whether they foresee any work needed on specifications under their control to enable this, and if so, what timescales are foreseen for the completion of this work?

From the above analysis, T2's opinion is that no work is needed to enable MMS over WLAN.

Question 4: Comment whether any work is ongoing to allow these protocols to be used over insecure networks, such as the Internet?

MMS client-server interface is based on WAP that is bearer-independent. Common underlying bearers are GPRS, UMTS or GSM. However, this is out of scope of MMS standardisation.

Question 5: SA2 requests T2 to comment on whether they foresee any impact on the existing functionalities (e.g. for charging, security and addressing) available to an operator when an MMS is sent or received while connected to the GPRS network, in case the user is also connected via I-WLAN ?

No impact has been identified by T2

Additional issues raised on SMS over WLAN

In the course of discussing the above MMS over WLAN questions, an issue was pointed out on SMS. Currently, SMS over CS and SMS over GPRS are available, however very few if any networks have implemented SMS over GPRS. Now a 3rd option becomes available, which is SMS over WLAN.

How does the network decide which route to use to deliver the SMS? How to choose which way to do it for MT SMS when you have a choice.

What has the potential to make things worse is if the user herself needs to define or decide what to use, how and when, under which circumstances - unless we can assume intelligent network services or operator implementations to always pick the cheapest, fastest and most reliable infrastructure channel available?

2. Actions:

To SA2 group:

T2 kindly asks SA2 to consider the additional issues raised on SMS over WLAN.

To OMA-MWG-MMSG group:
T2 kindly asks MMSG to review T2's assumption under *"Question 1"* **and to decide which OMA spec is appropriate for use over WLAN.**

3. Date of next T2 Meetings:

T2#26	23 – 27 Aug 2004	Montreal, Canada
T2#27	8 – 12 Nov 2004	South Africa