

Title: LS on the use of MMS as a bearer for USAT
Response to: LS TP-030167 on MMS support by USAT
Release: Release 6
Work Item: MMS as a bearer for USAT

Source: 3GPP TSG-T
To: 3GPP SA2
Cc: 3GPP-T2, 3GPP-T3, OMA-BAC, OMA-MWG, OMA-REQ, OMA-ARCH, 3GPP SA1

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Attachments: None

1. Overall Description:

TSG-T has discussed again the matter of providing an enhanced capability for data download to the USIM application toolkit (USAT) and upload from USAT. At the moment, the generally accepted method for doing download to the UICC is to use SMS as a bearer. Now SA1 has decided, based on operator input, that a new mechanism is required for providing a higher bandwidth capability for USAT. SA2 has sent a liaison statement saying that MMS is an appropriate method for providing higher bandwidth capability for USAT.

TSG-T has reviewed the LS from SA2, and notes that the analysis undertaken in SA2 appears to be quite basic. In TSG-T it was agreed that a more detailed analysis is required to establish exactly what needs to be changed in the 3GPP system to support the new requirement before concluding that the answer is "MMS". There are implications for defining a transport mechanism based on MMS. The consequence of this is that the MMS client might not be under control of either the mobile manufacturer or the operator as the user might download any MMS client compatible with the OS of mobile or run the MMS client on a TE connected to the mobile equipment by a multitude of interfaces each with their set of security aspects. In such a case, there could be no guarantee that a downloaded MMS client would be capable to send the MMS message on to the UICC. Therefore defining a new transport mechanism based on MMS should be carefully considered, and in particular taking into consideration what significant advantages it would bring as compared to other solutions (regarding re-use of infrastructure, easiness of implementation within the ME and the UICC).

MMS was not developed to be a bearer, rather a service relying on bearers: when studying how an MMS message is sent to a UE in a 3GPP network, we find that an SMS message is first sent (as defined by OMA) and then the UE makes a connection over GPRS to retrieve the MMS message.

What is needed is some more detailed study which explains what needs to be added to this to achieve the desired result, i.e. a higher bandwidth connection for USAT, and also to have a "push" mode, as with MMS. 3GPP has already defined a transport mechanism in the "Bearer Independent Protocol"(BIP) which allows USAT to set up a GPRS/packet data connection. This has already been implemented by several handsets and UICCs. However, as it is now, BIP works only in a "pull" mode. One approach is to define a specific SMS message which would be sent to USAT; on receiving this then USAT would connect over GPRS/packet data to retrieve the relevant data. This could be retrieved from an MMS Relay/server or elsewhere based on MMS or WAP Push, or other protocols.

TSG-T has also heard that the Java Community JSR-205 Expert Group is interested in transferring Java Games over MMS and believes that the same issues apply to this, i.e. the simplistic assumption is that the MMS client in the UE can look at the different types of incoming MMS and decide where to send the data (to keep it in the MMS client, to send it to a Games engine, or to transfer it to USAT). This means communications need to be defined between the MMS client and elsewhere in the UE. There are alternatives to this approach which

should be studied, including using SMS to determine which application is the destination for the incoming data, and having the destination application retrieve the incoming material. The advantages and disadvantages of these and other approaches should be considered before reaching a final conclusion.

This problem space is spread across the 3GPP and OMA communities and therefore this Liaison Statement is also sent to some OMA groups.

TSG-T would be happy to act as a co-ordination point for all input relating to this from different groups, with the intention to proposing a way forward based on all input received prior to our next meeting as shown below.

2. Actions:

To SA2, OMA-BAC, OMA-MWG, OMA-REQ, OMA-ARCH

ACTION: TSG-T invites the above groups to look into the matter as described above and provide proposals to TSG-T by the next TSG-T meeting.

3. Date of next TSG-T Meetings:

T#22	10–12 Dec 2003	Hawaii, US
T#23	10–12 Mar 2004	China