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3GPP TSG-T2 #15
Cancun, Mexico
26-30 November 2001**T2-010905**3GPP TSG-T2 SWG3#08 MMS ad hoc
Dortmund, Germany
22nd to 26th October 2001**T2M010190**

Liaison Statement

From: 3GPP T2

To: 3GPP SA1, 3GPP CN5, 3GPP SA2, 3GPP SA5, 3GPP SA3

Cc:

Subject: VASP MMS Connectivity

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Attachments: **3GPP T2M010177**

1. Background

3GPP T2-SWG3 has been working on the issue of VASP (Value Added Service Provider) Connectivity to MMS. (MultiMedia Messaging Service)

3GPP T2-SWG3 sees VASP connectivity as a very important feature of MMS. This will enable MMS providers (normally network operators) to provide value added services to their subscribers, which will create additional revenues for network operators and lots of added value for subscribers.

Examples of MMS related VAS's include (but of course are not limited to):

- VASP send subscribers location based advertisements as Multimedia Messages
- Subscribers get news updates to which they subscribe, as MM's
- Subscribers send queries to a VASP which sends back , for example, an area map, or a stock quote & chart

3GPP T2-SWG3 identified a set of functionalities which are required for VASP connectivity to MMS, which are listed below. 3GPP T2-SWG3 intends to incorporate these functionalities into MMS specifications for Rel.5

It is assumed that many of the functionalities that we have identified are covered by VHE, OSA Framework, or existing OSA services. However, 3GPP T2-SWG3 has the feeling that not all of the functionalities required for VASP-MMS connectivity exist today as OSA (Parlay) API's.

3GPP T2-SWG3 has decided to define a protocol, at reference point MM7 in MMS architecture, that will connect VASPs to the MMS Relay/Server . As 3GPP T2-SWG3 sees it, this protocol will only handle unique MMS functions, as it is expected that other functions will be either be handled by the OSA Framework connectivity to VASP, or by other similar mechanisms (SOAP, PAP).

2. MMS VASP Connectivity Functionalities

The following table lists the T2-SWG3 working assumptions on MMS – VASP interoperability functions and divides them into two classes, basic – i.e. messaging functionalities (marked as “M” under “type” below), and what we called “framework” (non-messaging, e.g authentication and authorization) - marked as “F” under “type” below. 3GPP T2-SWG3 intends to include the “messaging” functions and some of the “framework” functions in the MMS Release 5 specifications, as indicated below with a “5” under “REL-5/later”.

Functionality	Description	REL-5 / later	Type	Comments
Authentication	Two-way between VASP and MMS Relay/Server	REL-5	Framework	Until Rel.5
Authorization of VASP	Is VASP allowed to access MMS Relay/Server?	REL-5	Framework	Until Rel.5
Authorization of MMS User with VASP	Is VAS allowed to access MMS User, i.e. send MM to specific user	REL-6 or Later	Framework	Based on Subscription (maybe out of scope)
Security - Encryption	Encryption of transport between VASP and MMS Relay/Server	REL-5	Messaging	Key management outside scope of Relay/Server for REL-5
Security – End-to-end Encryption	Encryption of messages between VASP and MMS User Agent	Under discussion in T2 SWG3	Messaging	
Security – Preventing the VASP from exceeding SLA	MMS Relay/Server prevents VASP from exceeding or violating SLA	REL-6 or Later	Messaging & Framework	Not a function but an MMS Relay/Server feature
Charging – Creating CDR by MMS Relay/Server	VAS, volume and content based	REL-5 / Out of scope of MM7	Basic MMS functionality	
Charging Creating CDR by VASP	“	Out of scope of MM7	Framework	
Service Codes – transferring service codes (as container) between VASP and MMS Relay/Server		REL-5	Messaging	Service code is transferred from MMS Relay/Server to the billing system Service codes: type of service indicators
Charging – support for prepaid costumers		Under discussion in T2 SWG3	Messaging	
Sending MMs from MMS Relay/Server to VASP		REL-5	Messaging	Rel.5
Sending MMs from VASP to MMS Relay/Server		REL-5	Messaging	Rel.5 also to MSISDN addresses
MASS Distribution from VASP to MMS Relay/Server	To subscriber list via alias name	REL-5	Messaging	distribution list is resolved by MMS Relay/Server
Adding or changing addresses in distribution lists by VASP		REL-5	Messaging	
Signing SLA	Just electronic signature!!	REL-5 / Out of scope of MM7	Framework	
One to many relationship	Single VASP can have several VAS	Out of	Framework	

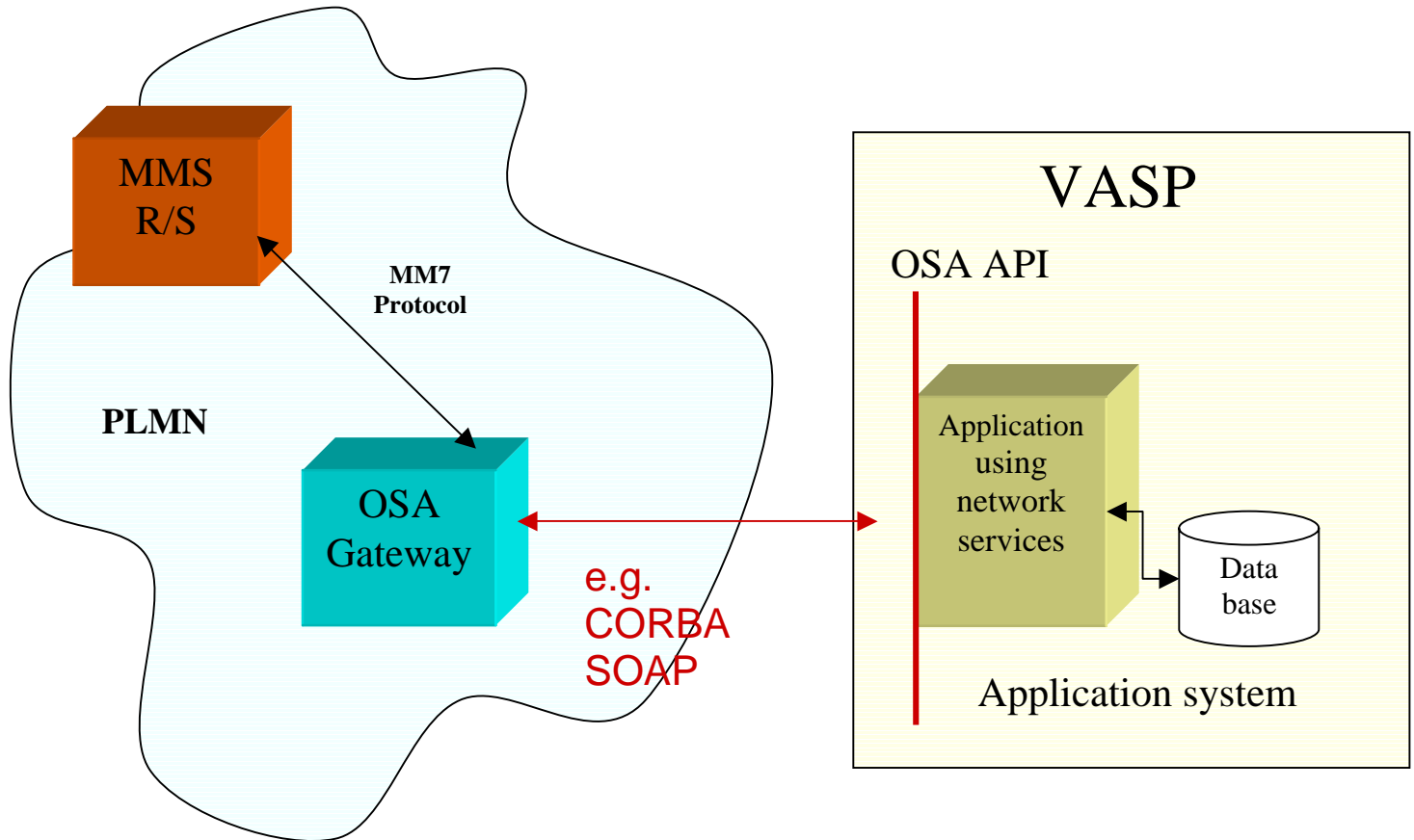
	and single VAS can have several SLAs	scope of MM7		
Request for individual "Status" report by VASP	Status report: report on status of individual message per recipient	REL-5	Messaging	Status report requested upon VASP sending of MM Status report is generated by relay where recipient user CAN NOT refuse its creation; no indication is sent to user
request by VASP for individual Read report	Read report (per message & per recipient): Generated by recipient MMS user agent; creation might be refused by user	REL-5	Messaging	Read report requested upon VASP sending the MM
request by VASP for mass status report	Mass status report: (might be AGGREGATE) report on status of individual message for all recipients	REL-5	Messaging	Mass report requested upon VASP sending of MM Configurable whether periodic report, event-based report or report at certain time
Query by VASP for status of messages by list of message-Ids	Interrogation restricted to pending messages	REL-5	Messaging	Query done AFTER VASP sent the MM
Delivery Reports from MMS Relay/Server to MMS UA	in case MM is sent from UA to VASP	REL-5	Messaging	No new delivery report PDU from VASP to UA over MM7
"transaction completed" Reports from VASP to MMS UA	in case MM is sent from UA to VASP "transaction completed" report	REL-6 or Later	Messaging	
VASP Profile Provisioning	MMS Relay maintains VASP profiles and VASP can read his associated profile	Under discussion in T2 SWG3	Framework	VASP profile: e.g. service level agreements, For future: MMS Relay maintains VASP profiles and VASP can also write his associated profile
Capability negotiation over MM7	relay/server MMS-specific functionality, VASP server MMS-specific functionality	REL-5	Framework	At least version handling for REL-5
Multimedia Message processing	e.g. MMS Relay/Server sends message to VASP and VASP adds multimedia element(s)	REL-5	Messaging	Might have impact on MM1 (if decided that MMS User Agent controls that processing)
MM Notification from VASP	VASP sends Notification only (which is passed on to MMS User Agent), MM stays on VASP until user retrieves it	REL-6 or Later	Messaging	Alternative distribution model. Rel.6 Implies different security issues
Replace	Replacement of previously sent MM (from VASP to MMS Relay/Server)	REL-5	Messaging	Scope of MM replace: INSIDE SCOPE: <ul style="list-style-type: none"> • MM not yet notified • MM notified but not yet delivered • MM delivered • MM read
Cancel of messages	Deletion of previously sent MM (from VASP to MMS Relay/Server)	REL-5	Messaging	Scope of MM cancel: INSIDE SCOPE: <ul style="list-style-type: none"> • MM not yet notified • MM notified but not yet delivered

				OUTSIDE SCOPE: <ul style="list-style-type: none"> • MM forwarded after notification • MM delivered • MM read
Media type/format conversion deny	VASP indicates that e.g. sent content MUST NOT be converted/changed	REL-5	Messaging	
MM7 restricted to a single MMSE	MM7 functionality not supported beyond the border of one MMSE	REL-5	Messaging + Framework	Exception: not restricted to one MMSE for delivery report when a.) not to a distribution list b.) billing in place
MM7 NOT restricted to a single MMSE	MM7 functionality supported beyond the border of one MMSE	REL-6 or Later	Messaging + Framework	High-priority for post-REL-5 (maybe even to be included in REL-5)
Error handling on MM7		REL-5	Messaging + Framework	To be defined for every operation
DRM	Digital rights management	Out of scope of MM7	Messaging	A generic (not MMS specific) 3GPP solution to be adopted for content protection

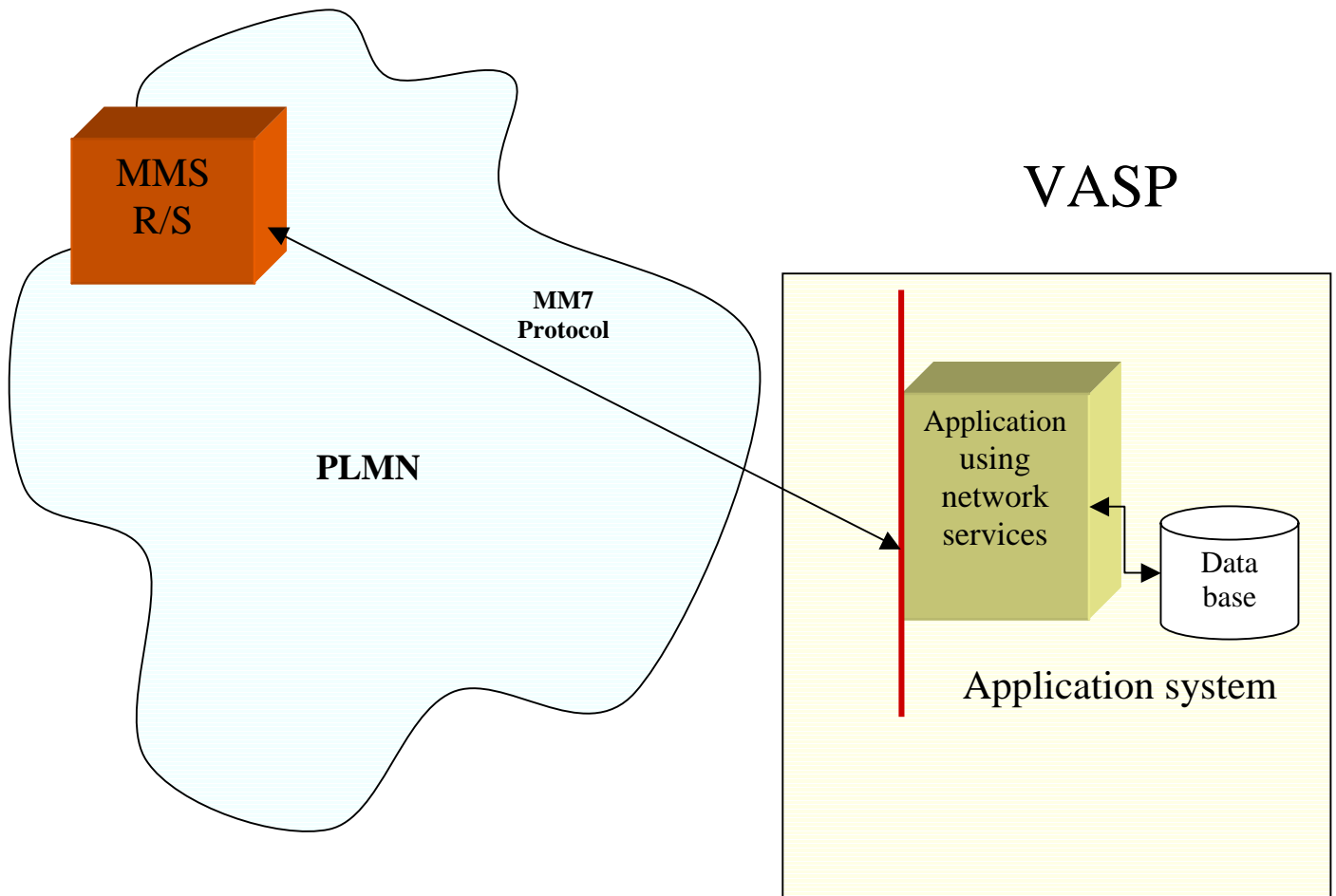
3. Architectural Principles

T2 SWG3 depicts below the two architectural options for connectivity between a VASP and MMS that have been discussed – please refer to T2M010177 attached. It is desirable that the VASP/MMS reference point (MM7) is based on stable open standards, cost-effective, simple to use, easy to implement in a secure way.

VASP is connected via OSA



VASP Connected Directly to MMS Relay/Server



4. Request for Comments, Guidance and Further Joint Work

3GPP T2-SWG3 would like to bring to the attention of the recipient groups our description of MMS VASP architecture, and suggested functionalities and kindly requests their guidance and assistance on the following items:

- From all groups: Review and comment about the suggested architecture and set of requirements
- From SA1 – review and comment about the compliance of these requirements with the Stage 1 MMS specifications (22.140). To reflect these ideas a separate CR is being submitted to SA1#14 – probably as a company input due to lack of time.
- From SA2 – review and guidance regarding the architectural principles described above
- From CN 5 – review and guidance of the following:
 - Which of the mentioned functions are supported in the upcoming OSA specifications?
 - Are we right in assuming that what we termed “Framework” functionalities, can be supported today by OSA. If not, where are our assumptions wrong?
 - Would it be possible to enhance OSA API's in order to enable the interoperability of VASP and MMS for post-REL5?
- From SA5 – are there any implications on SA5 billing and charging specifications
- From SA3 – guidance and information about the existence or plans for 3GPP specifications end-to-end encryption of traffic between 3GPP terminals/clients and external applications at a VASP or encryption of links between an 3GPP MMS Relay/Server and a VASP and/or OSA Gateway.

Agenda Item: MM7
Source: SWG3 chairman
Title: MM7 working assumptions
Document for: Information

At T2-SWG3#8 the following working assumption was made by SWG3 for future work on MM7:

MM7 working assumption on architecture / protocols:

- For REL-5:
 - MM7 = mainly messaging functions only between MMS R/S and VASP server
 - Framework functions: optional and mainly non-standardised
 - MAINLY OUT OF SCOPE OF REL-5 MMS
 - SOME (very basics as defined in T2M010166) SHOULD be standardised in MM7 of REL-5 MMS
 - unless not feasible
 - Authentication
 - Authorization
 - Cap neg
 - Candidate protocols as basis for this work are PAP, SOAP, ... - decision pending
- For REL-6:
 - MM7 (messaging functions only) can be re-used to be connected to OSA-GW
 - OSA: may provide framework functions