Service User Profile Management Requirements

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Open Mobile Alliance

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1. Scope (Informative)

The scope of this specification is to identify the requirements (and a few informative use cases where appropriate) for the Service User Profile Management (SUPM) enabler. The objective is to determine the requirements for the access to, and management of, Service User Profile data. These requirements are in support of needs identified in both OMA service enablers and other resources. The objective is to determine the requirements for a data model for the Service User Profile data, and the access to and the management of such data.

2. References

2.1 Normative References

[RFC2119] "Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997,
URL:http://www.ietf.org/rfc/rfc2119.txt

2.2 Informative References

[3GPP_UDC] 3GPP TR 22.985-900 "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Service requirement for the User Data Convergence (UDC) (Release 9)", 2008-12, URL: http://www.3gpp.org

[CAB_RD_1] "Converged Address Book Requirements", Version 1.0, Open Mobile Alliance™

URL: http://www.openmobilealliance.org/

[CBCSF_RD_1] "Categorization Based Content Screening Framework Requirements", Version 1.0, Open Mobile Alliance™, URL: http://www.openmobilealliance.org/

[CPM_RD_1] "Converged IP Messaging Requirements", Version 1.0, Open Mobile Alliance™

URL: http://www.openmobilealliance.org/

[OMADICT] "Dictionary for OMA Specifications", Version 2.8, Open Mobile Alliance™, OMA-ORG-Dictionary-V2_8, URL:http://www.openmobilealliance.org/

[RFC2822] IETF RFC 2822 "Internet Message Format", URL: http://www.ietf.org/rfc/rfc2822.txt

[RFC3261] IETF RFC 3261 "SIP: Session Initiation Protocol", http://www.ietf.org/rfc/rfc3261.txt

URL: http://www.ietf.org/rfc/rfc3261.txt

[RFC3966] IETF RFC 3966 "The tel URI for Telephone Numbers", URL: http://www.ietf.org/rfc/rfc3966.txt

[RFC4646] IETF RFC 3966 "Tags for Identifying Languages", URL: http://www.ietf.org/rfc/rfc4646.txt

[XDM_RD_21] "OMA XML Document Management Requirements", Version 2.1, Open Mobile Alliance™

URL: http://www.openmobilealliance.org/

3. Terminology and Conventions

3.1 Conventions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

All sections and appendixes, except "Scope" and "Introduction", are normative, unless they are explicitly indicated to be informative.

3.2 Definitions

User's Characteristic Description Information	User's characteristic description information permits to describe user characterisation (e.g. user's interest and hobbies), generally as an analysis result from user's related data (user's basic information, extended information, historical behaviour data, etc.).
Service Provider	See [OMADICT]
Service User Profile	A Service Provider managed set of information related to a User, that may be used to create personalized and contextualized services. The set of information may include both static and dynamic information available for example from the User Profile, User's Characteristic Description information and User Context.
Service User Profile Model	The abstract model defining the structure of the Service User Profile composed of individual data element definitions.
User Profile	See [OMADICT]
User	See [OMADICT]
User Preferences	User's related data used for contextualization and personalization of the service.
User Context	A set of information which describes the current state of the User (e.g. location, presence, current device capabilities, body temperature).

3.3 Abbreviations

OMA	Open Mobile Alliance
SUPM	Service User Profile Management

4. Introduction   (Informative)

In an even richer and richer service environment, where heterogeneous technical solutions may coexist, the set of information related to the User may result in being spread over the Service Provider resources and not optimized with respect to having to access those data across many repositories.

So, when deploying OMA enablers and other resources, the service providers would benefit from having a unique logical mechanism for providing easy access to the Service User Profile information, not strictly tied to the physical technology used to access the User's information. Such a common access may be used by several authorised resources and allows them to get access to aggregated user data.

In order for OMA enablers and other resources to personalise and contextualise services or services content for Users, consistent with the Users' preferences, these enablers/resources require access to User's Profile information.

5. Service User Profile Management (SUPM) release description   (Informative)

The main objective of the Service User Profile Management (SUPM) enabler is to define a unified data model (Service User Profile Model) for data related to Service User Profile, and provide one unique central point to access and allow management of those data, fulfilling the need of OMA services/enablers, while avoiding the duplication of SUPM functionalities in different enablers. The unified Service User Profile Model supports contextualization and personalization of the User's mobile and/or fixed services, as well as the content handled by those services.

The RD is following the following guiding principles:

- the focus is on requirements regarding the data model, including logical definition, representation and presentation of data, and not on the physical storage of the data.
- unless explicitly required by specific requirements, the general assumption is that data accessed by SUPM Enabler is obtained from several physical repositories deployed under the responsibility of Service Provider, without requiring storage replication.
- definitions and/or data models from publicly available specifications (e.g. from other OMA enablers and/or other standards bodies - see [3GPP_UDC]) are re-used and referenced if appropriate with respect to the focus of the requirements, and if needed expanded.
- the way in which data related to Service User Profile are to be presented by SUPM Enabler may however be different from the way the original data are defined, in particular when definitions from other specifications are used. In this case, SUPM Enabler will execute the necessary data presentation transformations, and the way the data is presented to requesters.

Figure 1 gives a graphical representation of the SUPM Enabler scope with the roles/actors (e.g. User, service and applications, SUPM enabler).

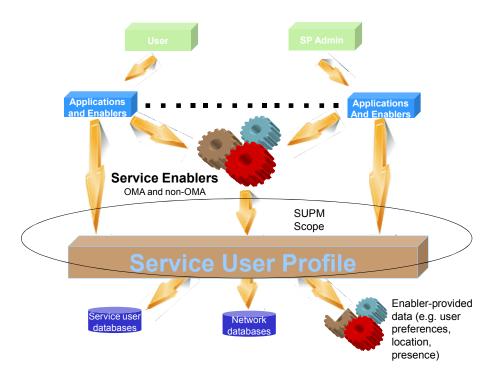**Figure 1: High level diagram of SUPM scope**

Services, applications and other enablers in the upper part of the figure exploit the SUPM Enabler, being the consumers of data made available through the Service User Profile Model; the SUPM Enabler obtains data from several physical repositories such as service user database, network database, other enablers represented in the bottom part of the figure.

5.1 Version 1.0

The SUPM enabler V1.0 makes use of previously defined User services-related data and data access mechanisms (e.g. protocols, data representations), in order to achieve the following:

- definition of a Service User Profile Model for User data. This comprises data that is under the responsibility of the Service Provider and is useful for contextualisation and personalisation of services (e.g. user preferences related to applications/services and/or service content):
    - o inclusion of underlying service-related data structures previously defined in other standards fora
    - o inclusion of previously defined different types of data and related elements (such as personalisation) provided by OMA enablers or other resources
    - o definition of additional (new) data to be included in the data model
    - o definition of the different views for representation of data in the data model
    - o definition of extensible data model for future data inclusion
- Definition of the service user profile management interface:
    - o selection of data management operations (creation, modification, retrieval, deletion etc.) together with:
    - o principles to ensure controlled, secure access by authenticated and authorised entities

6. Requirements   (Normative)

6.1   Modularisation

The SUPM requirements can be grouped into the following major functional modules:

1) General Enabler Requirements: These are requirements that specify basic high-level functions of the overall enabler

2) Access the SUPM data: These are requirements that specify how the data exposed by the SUPM enabler may be accessed by the consumer of the data

3) Manipulating SUPM data: These are requirements that specify how the SUPM enabler may manipulate data before to make them available to the consumer of the data

4) Service User Profile Model characteristics: These are requirements that specify the characteristics of the Service User Profile Model

5) Data types for Service User Profile Model: These are requirements that specify the data types that will be defined for the Service User Profile Model.

6.2   High-Level Functional Requirements

Note: there may be requirements in the form of bullet lists where there is heading text followed by a list of numbered requirements. In those cases, the heading text applies to all subsequent numbered requirements.

Label	Description	Release	Functional module
SUPM -HLF-001	The SUPM Enabler SHALL support an authorized Principal to interrogate the User Preferences information for each of the user's services (e.g. read specific information)	SUPM V1.0	General
SUPM -HLF-002	The SUPM Enabler SHALL support an authorized Principal to update User Preferences information for each of the user's services (e.g. enabling/disabling a service)	SUPM V1.0	General

Table 1: High-Level Functional Requirements

6.2.1   Access the SUPM data

Label	Description	Release	Functional module
SUPM -ACC-001	The SUPM Enabler SHALL allow an authorised Principal to interrogate and/or modify any Service User Profile information specified by the Service User Profile Model (e.g. name, age, address) in accordance with the authorisation permissions	SUPM V1.0	Access the SUPM data
SUPM-ACC-002	For accessing data included in the Service User Profile Model from different sources, the SUPM Enabler SHALL provide a common access entry point.	SUPM V1.0	Access the SUPM data
SUPM –ACC-003	SUPM Enabler SHALL specify a common and consistent data independent interface that enables access to each and all of the data defined in the Service User Profile Model, via its specified set of data schemas.	SUPM V1.0	Access the SUPM data
SUPM -ACC-004	SUPM Enabler SHALL re-use pre-existing standard data access mechanisms.	Out of scope.	Access the SUPM data

Table 2: Access to data Requirements

6.2.2 Manipulating SUPM data

Label	Description	Release	Functional module
SUPM -MAN-001	When data needs to be exposed in a different logical view than the representation of the data definitions themselves, SUPM Enabler SHALL enable the data transformations.	SUPM V1.0	Manipulating SUPM data
SUPM-MAN-002	The SUPM Enabler SHALL be able to consolidate (e.g. through aggregation, federation) Service User Profile data from different sources in order to present data through the Service User Profile Model.	SUPM V1.0	Manipulating SUPM data
SUPM -MAN-003	The SUPM Enabler SHALL NOT specify the physical representation and physical storage for the Service User Profile data	SUPM V1.0	Manipulating SUPM data

Table 3: Manipulating data Requirements

6.2.3 Service User Profile Model characteristics

Label	Description	Release	Functional module
SUPM-CRT-001	The SUPM Enabler SHALL be able to locate data for a given user in the Service User Profile Model based on that user's identity (e.g. MSISDN).	SUPM V1.0	Service User Profile Model characteristics
SUPM -CRT-002	The SUPM Enabler SHALL specify a data model, able to reflect the logical view of the Service User Profile Model that may be exposed to authorised requesters.	SUPM V1.0	Service User Profile Model characteristics
SUPM -CRT-003	The Service User Profile Model specified by the SUPM Enabler SHALL re-use and/or expand pre-existing standard data definitions (data definitions corresponding to individual leaves and/or branches of other relevant standard data models). Infomational Note: which pre-existing standard data definitions can be reused will be detailed during the technical specification phase.	SUPM V1.0	Service User Profile Model characteristics
SUPM -CRT-004	The Service User Profile Model specified by the SUPM Enabler SHALL only include new data definitions when the data model requires it, and when such data definitions from other standards cannot be re-used as is or by expanding them.	SUPM V1.0	Service User Profile Model characteristics
SUPM -CRT-005	SUPM Enabler SHALL specify a set of data schemas to support presentation in a consistent manner of each and all the data defined in its data model.	SUPM V1.0	Service User Profile Model characteristics
SUPM -CRT-006	Where applicable, SUPM Enabler SHALL re-use and/or expand pre-existing standard data schemas.	SUPM V1.0	Service User Profile Model characteristics
SUPM -CRT-007	The SUPM Enabler specified set of data schemas SHALL be extensible to support additional data definitions added to the Service User Profile Model as may be needed by the Service Provider.	SUPM V1.0	Service User Profile Model characteristics
SUPM -CRT-008	The SUPM Enabler SHALL be able to support the Service User Profile Model to be extensible to represent user data belonging to any OMA enabler	SUPM V1.0	Service User Profile Model characteristics

Table 4: Data model characteristics Requirements

6.2.4   Data types for Service User Profile Model

6.2.4.1   **Generic Data types**

Label	Description	Release	Functional module
	SUPM Enabler specified data types SHALL include:		
SUPM -GDT-001	1. The user's preferred mechanisms for interaction with the services (e.g. select which of the defined interactions mechanisms [email, SMS, Push etc.] is to be used to access/deliver a service)	Future Release	Data types for Service User Profile Model
SUPM-GDT-002	2. User service usage data.	Future Release	Data types for Service User Profile Model
SUPM-GDT-003	3. User subscription information (i.e. all the user data that is collected and recorded in his/her subscription; e.g. User service constraint such as User being in blacklist for given services, credit limit)	Future Release	Data types for Service User Profile Model
SUPM -GDT-004	4. Two kinds of Date of Birth information of the User; one that delivers the real Date of Birth, set and locked by the Service Provider, and the other that delivers the Date of Birth as set by the User.	SUPM V1.0	Data types for Service User Profile Model
SUPM -GDT-005	5. Business Communication address(es) (e.g. SIP URI [RFC3261], TEL URI [RFC3966], E.164 number, email address [RFC2822])	SUPM V1.0	Data types for Service User Profile Model
SUPM -GDT-006	6. Title (e.g. Mr, Master, Mrs, Ms)	SUPM V1.0	Data types for Service User Profile Model
SUPM -GDT-007	7. Business address (e.g. country, region, locality, area, street-name, street-number, postal code	SUPM V1.0	Data types for Service User Profile Model
SUPM -GDT-008	8. Preferred languages (e.g. preferred language, other languages [RFC4646]	SUPM V1.0	Data types for Service User Profile Model
SUPM -GDT-009	9. Account type (e.g., pre-payment, post-payment, enterprise-payment)	Future Release	Data types for Service User Profile Model
SUPM -GDT-010	10. Account status (e.g., regular, owing fee, paused)	Future Release	Data types for Service User Profile Model
SUPM -GDT-011	11. Brand/service level (e.g., gold, silver, bronze)	Future Release	Data types for Service User Profile Model
SUPM -GDT-012	12. Account credit level (e.g., high, medium, low)	Future Release	Data types for Service User Profile Model
SUPM -GDT-013	13. Location information	SUPM V1.0	Data types for Service User Profile Model

SUPM -GDT-014	14. Presence (e.g., online, busy, idle, on-the-call)	SUPM V1.0	Data types for Service User Profile Model
SUPM -GDT-015	15. Device information (e.g., device type, specific service capability)	Future Release	Data types for Service User Profile Model
SUPM -GDT-016	16. Information about current access network (e.g., WiFi, GPRS/EDGE, WCDMA)	Future Release	Data types for Service User Profile Model
SUPM -GDT-017	17. Other information that can be considered as part of the User Context	SUPM V1.0	Data types for Service User Profile Model
SUPM -GDT-018	18. User's Characteristic Description Information	Future Release	Data types for Service User Profile Model

Table 5: Generic data types Requirements

6.2.4.2   CBCS V1.0 Data types

Label	Description	Release	Functional module
	SUPM Enabler specified data types SHALL include:		
SUPM -CBCS-001	1. Content screening Control [CBCSF_RD_1] (such control is used by CBCS to enable or disable content screening)	Future Release	Data types for Service User Profile Model
SUPM -CBCS-002	2. Screening Options [CBCSF_RD_1] (these options are used by CBCS to know how to screen previously categorised content	Future Release	Data types for Service User Profile Model

Table 6: Data types originated from CBCS V1.0 Requirements

6.2.4.3   XDM V2.1 Data types

Label	Description	Release	Functional module
	SUPM Enabler specified data types SHALL include:		
SUPM -XDM-001	1. Personal Communication address(es) [XDM_RD_21] (e.g. SIP URI [RFC3261], TEL URI [RFC3966], E.164 number, email address [RFC2822])	SUPM V1.0	Data types for Service User Profile Model
SUPM -XDM-002	2. Display name [XDM_RD_21], containing a suggested name to display in user interfaces (e.g. in the IM buddy list)	SUPM V1.0	Data types for Service User Profile Model
SUPM -XDM-003	3. Date of birth [XDM_RD_21], containing the birth date of the User	SUPM V1.0	Data types for Service User Profile Model
SUPM -XDM-004	4. Name [XDM_RD_21], containing the human identity of the User, (e.g. first name, family name, middle name, name suffix, name prefix).	SUPM V1.0	Data types for Service User Profile Model

SUPM -XDM-005	5. Address [XDM_RD_21], containing the personal postal address of the User (e.g. country, region, locality, area, street-name, street-number, postal code).	SUPM V1.0	Data types for Service User Profile Model
SUPM -XDM-006	6. Gender [XDM_RD_21], containing the gender of the User (e.g. male, female)	SUPM V1.0	Data types for Service User Profile Model
SUPM -XDM-007	7. Free text [XDM_RD_21], containing a description of the User	SUPM V1.0	Data types for Service User Profile Model
SUPM -XDM-008	8. Communication abilities [XDM_RD_21], containing a list of the communication abilities of the User for human consumption	SUPM V1.0	Data types for Service User Profile Model
SUPM -XDM-009	9. Hobbies [XDM_RD_21], containing a list of the User's hobbies	SUPM V1.0	Data types for Service User Profile Model
SUPM -XDM-010	10.Favourite links [XDM_RD_21], containing a list of the User's favourite links	SUPM V1.0	Data types for Service User Profile Model

Table 7: Data types originated from XDM V2.1 Requirements

6.2.4.4　　CPM V1.0 Data types

Label	Description	Release	Functional module
	SUPM Enabler specified data types SHALL include:		
SUPM -CPM-001	1. User preferences [CPM_RD_1] set that enable messaging service customization: • User's addresses • User's devices • message type • Media Types • the message priority	Future Release	Data types for Service User Profile Model
SUPM -CPM-002	2. User preference [CPM_RD_1] indicating on whether his/her identity can or not be disclosed to the recipient of a message sent by the user.	Future Release	Data types for Service User Profile Model
SUPM -CPM-003	3. User preferences [CPM_RD_1] indicating whether a messaging service used by the user should accept or reject an incoming message or a session invitation (e.g. based on originator address (blacklist), undisclosed sender identity, or message type/content).	Future Release	Data types for Service User Profile Model
SUPM -CPM-004	4. Multiple User Preferences Profiles [CPM_RD_1] (e.g. created according to different scenarios, such as Home, Office, Travel, Sleep, Meeting etc).	Future Release	Data types for Service User Profile Model
SUPM -CPM-005	5. User preference [CPM_RD_1] indicating one of the multiple User Preferences Profiles as the active profile (e.g. for address and device combinations), regardless of the device used to initially create that profile.	Future Release	Data types for Service User Profile Model

SUPM -CPM-006	6. User's Communication Preferences [CPM_RD_1], e.g.: • Settings applying to all the devices that he chooses • Individual settings per device • Per contact or category of contacts	Future Release	Data types for Service User Profile Model
SUPM -CPM-007	7. User preferences [CPM_RD_1] indicating whether, and if so, how to expose User's Communication Capabilities to other Principals (e.g. to his contacts in the User's network address book).	Future Release	Data types for Service User Profile Model
SUPM -CPM-008	8. User's Communication Capabilities and information, and related User's Communication Preferences (e.g. for disclosure to authorised contacts) [CPM_RD_1].	Future Release	Data types for Service User Profile Model
SUPM -CPM-009	9. User contacts' preferred communication means, and the means and conditions under which they can be disclosed [CPM_RD_1].	Future Release	Data types for Service User Profile Model
SUPM -CPM-010	10. User preference [CPM_RD_1] indicating whether, and if so, how he/she should be notified, on a per-message basis, on the delivery or non-delivery of messages he/she has sent towards the recipient(s).	Future Release	Data types for Service User Profile Model
SUPM -CPM-011	11. User preference [CPM_RD_1] indicating whether he/she should be notified when a message he/she sent is read by the recipient(s).	Future Release	Data types for Service User Profile Model
SUPM -CPM-012	12. User preference [CPM_RD_1] indicating the message handling mechanism used by the messaging enabler in case the user is not available for receiving the such message (e.g. not registered in the home network, user does not wish to receive it immediately), e.g.: • Discard the message while providing a notification to the sender based on service provider policies and sender's preferences • Defer the message • Store the message in the network-based storage • Deliver the message through other via a communication service	Future Release	Data types for Service User Profile Model
SUPM -CPM-013	13. User preferences [CPM_RD_1] regarding storing of messages based on the Media forms (e.g. store text and voice messages but delete video messages or streams).	Future Release	Data types for Service User Profile Model
SUPM -CPM-014	14. User preference [CPM_RD_1] regarding the use of a pseudonym (e.g. used when participating in group messaging sessions).	Future Release	Data types for Service User Profile Model
SUPM -CPM-015	15. User preference [CPM_RD_1] regarding the renegotiation of his/her Pseudonym (e.g., the renegotiation process may reject forbidden sensitive words).	Future Release	Data types for Service User Profile Model
SUPM -CPM-016	16. User preference [CPM_RD_1] regarding joining a messaging session in a "hidden mode"; that is, his/her presence in the communication and identity are not to be disclosed to other Participants, subject to service provider policies.	Future Release	Data types for Service User Profile Model

SUPM -CPM-017	17. User preferences [CPM_RD_1] regarding automatic acceptance/rejection of a request to add/modify/delete continuous Media to a 1-N messaging session received from the other Participants based on the Communication Capabilities and user preferences.	Future Release	Data types for Service User Profile Model
SUPM -CPM-018	18. User preferences [CPM_RD_1] regarding the presentation of messages and messaging sessions belonging to the same messaging conversation in a conversational view in the messaging-enabled device.	Future Release	Data types for Service User Profile Model
SUPM -CPM-019	19. User preferences [CPM_RD_1] regarding the presentation of the stored messages and messaging session histories belonging to a messaging conversation history in a threaded view.	Future Release	Data types for Service User Profile Model
SUPM -CPM-020	20. User preference [CPM_RD_1] indicating the association of an expiry time to a message.	Future Release	Data types for Service User Profile Model
SUPM -CPM-021	21. User preference [CPM_RD_1] regarding the handling of a message when the expiry time associated with a deferred message is reached in the messaging enabler, e.g.: • Discard the message • Store the message in the network-based storage • Extend the expiry time	Future Release	Data types for Service User Profile Model
SUPM -CPM-022	22. User preferences [CPM_RD_1] indicating the contacts whose presence should be watched, on a per User Preferences Profile basis.	Future Release	Data types for Service User Profile Model
SUPM -CPM-023	23. User preference [CPM_RD_1] indicating whether a piece of discrete Media (e.g. audio clip or video clip) sent as part of a message is to be played immediately and automatically upon reception at the recipient end (if supported and enabled by the recipient user).	Future Release	Data types for Service User Profile Model
SUPM -CPM-024	24. User preferences [CPM_RD_1] indicating offered Media Types are the preferred Media Types in a messaging session invitation.	Future Release	Data types for Service User Profile Model
SUPM -CPM-025	25. User preferences [CPM_RD_1] indicating how to filter/prioritize continuous Media if two or more continuous Media are simultaneously exchanged in the same messaging session, or if there is more than one messaging conversation containing continuous Media in parallel (e.g. session priority, listen to one voice/audio stream only).	Future Release	Data types for Service User Profile Model
SUPM -CPM-026	26. User preferences [CPM_RD_1] (e.g. enable/disable, filtering criteria) regarding the automatic storage of messages, messaging sessions, messaging conversations and Media, and the conditions in which to store them (e.g., when messages are received and sent) in his/her network-based storage.	Future Release	Data types for Service User Profile Model

SUPM -CPM-027	27. User preferences [CPM_RD_1] (e.g. filtering criteria, enable/disable automatic synchronization) regarding the synchronization of : • the stored messages or session histories • the conversation histories • the Media • the list of stored messages and/or session histories and/or Media • between the local storage of the messaging User's device(s) and messaging User's network-based storage.	Future Release	Data types for Service User Profile Model
SUPM -CPM-028	28. User preferences [CPM_RD_1] regarding the delivery of messages that include Media (e.g. receive the Media content within the message or receive a link to the Media content stored the network-based storage).	Future Release	Data types for Service User Profile Model
SUPM -CPM-029	29. User preferences [CPM_RD_1] regarding the delivery of a messaging session invitation to all or a subset of the devices of the User.	Future Release	Data types for Service User Profile Model
SUPM -CPM-030	30. User preferences [CPM_RD_1] regarding which of his/her devices SHALL be used for the added/modified continuous Media within the current messaging session.	Future Release	Data types for Service User Profile Model
SUPM -CPM-031	31. User indicated identifiers [CPM_RD_1] (i.e. a human readable name) for each of his/her devices.	Future Release	Data types for Service User Profile Model
SUPM -CPM-032	32. User preferences [CPM_RD_1] regarding the use of a common set of preference settings for all or a subset of his/her messaging addresses.	Future Release	Data types for Service User Profile Model

Table 8: Data types originated from CPM V1.0 Requirements

6.2.4.5   CAB V1.0 Data types

Label	Description	Release	Functional module
	SUPM Enabler specified data types SHALL include:		

SUPM -CAB-001	1. User contacts' information such as [CAB_RD_1]: • Full name (e.g. title, first, middle, last and suffix) • Display name: An optional descriptive name suggested by the user to identify him/herself (e.g. nickname) • Addressing identifiers (e.g. CPM Address [CPM], instant messaging address, email address, phone number, SIP address, presence subscription address, gaming user identifier…) • Basic personal data (e.g. birth date, description, gender, height, home address) • Extended personal data (e.g. areas of expertise, avatars data, hobbies, interests, photo or video data, title) • Web resources (e.g. homepage URL, weblog URL, publications URL) • Organisational data (e.g. business category, department name, job title, alternative contact or agent)	SUPM V1.0	Data types for Service User Profile Model
SUPM -CAB-002	2. User preferences [CAB_RD_1] regarding the keeping up-to-date of all address book(s) information (e.g. automatic or by request).	Future Release	Data types for Service User Profile Model
SUPM -CAB-003	3. User settings [CAB_RD_1] for access and modification rights to all or a subset of the contact information stored in his/her address book(s).	Future Release	Data types for Service User Profile Model
SUPM -CAB-004	4. User settings [CAB_RD_1] indicating the address book used for each of the user's messaging address.	Future Release	Data types for Service User Profile Model
SUPM -CAB-005	5. User setting [CAB_RD_1] regarding acceptance contact information in Legacy Formats other than vCard.	Future Release	Data types for Service User Profile Model
SUPM -CAB-006	6. User setting [CAB_RD_1] regarding notification when another user is adding him/her to their address book(s).	Future Release	Data types for Service User Profile Model
SUPM -CAB-007	7. User setting [CAB_RD_1] regarding notification when a contact starts using the same address book capabilities that he/she is using.	Future Release	Data types for Service User Profile Model
SUPM -CAB-008	8. User authorisation rules [CAB_RD_1] regarding the information in the address book(s), and the conditions in which it can be disclosed (e.g. to satisfy contact subscriptions, contact searches).	Future Release	Data types for Service User Profile Model
SUPM -CAB-009	9. User default authorization rule [CAB_RD_1] to be applied to any users that are not explicitly identified within the authorization rules.	Future Release	Data types for Service User Profile Model
SUPM -CAB-010	10. User's Personal Contact Card information [CAB_RD_1].	SUPM V1.0	Data types for Service User Profile Model
SUPM -CAB-011	11. User's Contact Views of their Personal Contact Card and the fields [CAB_RD_1] that are associated with each Contact View.	Future Release	Data types for Service User Profile Model

SUPM -CAB-012	12. User setting [CAB_RD_1] indicating the Contact View(s) to be provided to a user requesting Personal Contact Card information.	Future Release	Data types for Service User Profile Model
SUPM -CAB-013	13. User preference [CAB_RD_1] regarding notification about a request for a Contact Subscription.	Future Release	Data types for Service User Profile Model
SUPM -CAB-014	14. User preference [CAB_RD_1] regarding notification when changes occur to Published Contact Card information for which the address book User has a Contact Subscription.	Future Release	Data types for Service User Profile Model
SUPM -CAB-015	15. User preferences [CAB_RD_1] regarding automatic update of User's address book with contact information from Contact Subscriptions.	Future Release	Data types for Service User Profile Model

Table 9: Data types originated from CAB V1.0 Requirements

6.2.5   Security

Label	Description	Release	Functional module
SUPM –SEC-001	The SUPM Enabler SHALL allow secure access to data in the Service User Profile for an authorized Principal	SUPM V1.0	General

Table 10: High-Level Functional Requirements – Security Items

6.2.5.1   Authentication

Label	Description	Release	Functional module
SUPM –SEC-002	The SUPM Enabler SHALL support mechanisms to authenticate Principals	SUPM V1.0	General

Table 11: High-Level Functional Requirements – Authentication Items

6.2.5.2   Authorization

Label	Description	Release	Functional module
SUPM –SEC-003	The SUPM Enabler SHALL support mechanisms to authorize Principals attempting to perform data management operations (e.g. create, read, update, modify, etc)	SUPM V1.0	General
SUPM -SEC-004	The SUPM Enabler SHALL support an authorized Principal to manage access to preferences information in the user profile (e.g. read/update/create permissions to perform operations on preferences information)	SUPM V1.0	General

Table 12: High-Level Functional Requirements – Authorization Items

6.2.5.3   Data Integrity

Label	Description	Release	Functional module
SUPM -SEC-005	The SUPM Enabler SHALL support data integrity of the management operations, protecting against accidental or intentional changes to the data, by ensuring that changes to the data are journalled and detectable	SUPM V1.0	General

Table 13: High-Level Functional Requirements – Data Integrity Items

6.2.5.4   Confidentiality

None identified

6.2.6   Charging

None identified

6.2.7   Administration and Configuration

None identified

6.2.8   Usability

None identified

6.2.9   Interoperability

None identified

6.2.10   Privacy

Label	Description	Release	Functional module
SUPM -PRV-001	The SUPM Enabler SHALL support a mechanism allowing the provisioning of the mapping between any authorized principal, the Service User Profile data that principal is allowed access to, and the operations allowed on that data by that authorized principal. The provisioning is performed by an authorized Principal, thus defining which user data shall not be made available and accessible depending on the requesting resource and data requested (e.g. identify that service preferences X shall not be made available to read, for example because of user data release or because of user data usage criteria).	SUPM V1.0	General

Table 14: High-Level Functional Requirements – Privacy Items

6.3   Overall System Requirements

Label	Description	Release	Functional module
SUPM -SYS-001	The SUPM Enabler SHALL leverage existing technologies and specifications (e.g. protocols, data representations and encoding formats) defined within OMA and by other standards bodies as far as possible to satisfy the requirements	SUPM V1.0	General
SUPM -SYS-002	The SUPM Enabler SHALL allow modularity, scalability and extensibility	SUPM V1.0	General

Table 15: High-Level System Requirements

Appendix A.   Change History   (Informative)

A.1   Approved Version History

Reference	Date	Description
n/a	n/a	No prior version –or- No previous version within OMA

A.2   Draft/Candidate Version 1.0 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-RD- Service_User_Profile_Management- V1_0	12 Feb 2009	Scope Introduction Abbreviation Requirement Use Cases	OMA-REQ-ServUserProf-2008-0002R01-INP_ServUserProf_Scope OMA-REQ-ServUserProf-2008-0012R03-INP_ServUserProf_support_for_MobAd OMA-REQ-ServUserProf-2008-0005R03-INP_Use_Case OMA-REQ-ServUserProf-2008-0004R01-INP_ServUserProf_Introduction OMA-REQ-ServUserProf-2008-0003-INP_ServUserProf_Abbreviations OMA-REQ-ServUserProf-2009-0009-CR_User_service_usage_data_use_case
	17 Mar 2009	6.2 High-Level Functional Requirements	Update accordingly to INP agreed on 20090312 REQ CC: - OMA-REQ-ServUserProf-2009-0010-INP_Support_for_XDM - OMA-REQ-ServUserProf-2009-0011-INP_Support_for_further_user_data_requirements
	28 Apr 2009	n/a	Update accordingly to INP and CRs agreed on 20090402 REQ CC and Helsinki Face to Face Meeting: OMA-REQ-ServUserProf-2009-0013R03-CR_Collection_Requirements OMA-REQ-ServUserProf-2009-0014R03-CR_Management_Requirements OMA-REQ-ServUserProf-2009-0017-INP_Data_integrity OMA-REQ-ServUserProf-2009-0018R01-INP_Privacy OMA-REQ-ServUserProf-2009-0019R01-INP_Security OMA-REQ-ServUserProf-2009-0020R01-INP_Support_for_CBCSF OMA-REQ-ServUserProf-2009-0022-INP_System_requirements OMA-REQ-ServUserProf-2009-0024R01-CR_Introduction_Changes OMA-REQ-ServUserProf-2009-0025R01-INP_Reusing_data_definitions_and_access_mechanisms OMA-REQ-ServUserProf-2009-0027R01-INP_Support_for_messaging OMA-REQ-ServUserProf-2009-0028R01-INP_Support_for_address_book
	24 May 2009	All	Editorial clean-up
		6.2 High-Level Functional Requirements	OMA-REQ-ServUserProf-2009-0029-INP_Enabler_user_data
		6.2 High-Level Functional Requirements	OMA-REQ-ServUserProf-2009-0030-INP_Subscriber_Account_Information_Support.zip
		6.2 High-Level Functional Requirements	OMA-REQ-ServUserProf-2009-0031-INP_User_Context_Information_Support.zip
		3.2 Definitions 6.2 High-Level Functional Requirements	OMA-REQ-ServUserProf-2009-0032-INP_User_Characteristic_Description_Support.zip
	29 May 2009	All	OMA-REQ-ServUserProf-2009-0033R01-CR_Restruscturing_RD

Document Identifier	Date	Sections	Description
		3.2 Definitions	OMA-REQ-ServUserProf-2009-0034-INP_Service_User_Profile_Definition
		All	Editorial
	04 Jun 2009	4, 5 and 6	OMA-REQ-ServUserProf-2009-0036-CR_Completing_RD
	24 Jun 2009	3.2, 6	Update accordingly to comments closed in Boston: A006, A065, A069, A070, A071, A072, A073, A074, A075, A076, A078, A079, A080, A081, A082, A084, A086, A087, A088, A089, A090, A091, A092, A093, A094, A095, A096 (see RDRR and Boston meeting minute)
	29 Jun 2009	All	Updated accordingly to action assigned to Francesco in Boston "Francesco to updated RD accordingly to the agreed definition of Service User Profile Data Model"
	15 Jul 2009	5, 6	Update accordingly to comments closed with CRs in R&A: A097, A099, A100, A101, A102, A103, A104, A105, A106, A025, A026, A030, A031, A032, A033, A034, A035, A036, A037 CRs implemented: ▪ OMA-REQ-ServUserProf-2009-0048-CR_Resolution_comment_A097___CBCS_001_and_CBCS_002 ▪ OMA-REQ-ServUserProf-2009-0049-CR_Resolution_comments_A099,_A100,_A101_–_SEC_001 ▪ OMA-REQ-ServUserProf-2009-0050-CR_Resolution_comments_A103,_A104_–_PRV_001 ▪ OMA-REQ-ServUserProf-2009-0052-CR_Resolution_comments_A102_for_SEC_003 ▪ OMA-REQ-ServUserProf-2009-0053-CR_Resolution_comments_A105_A106_for_SYS_001_SYS_002 ▪ OMA-REQ-ServUserProf-2009-0054-CR_Resolution_comments_A025_A026_A030_A031_A032_A033_A034_A035_A036_A037_in_Section_5
	22 Jul 2009	5.1	Update accordingly to comments closed with CRs in R&A: A047, A048, A049, from A050 to A062 CRs implemented: ▪ OMA-REQ-ServUserProf-2009-0057-CR_Resolution_comment_A047_48_49_–_Intro_Section5_1 ▪ OMA-REQ-ServUserProf-2009-0058R02-CR_Resolution_comments_A050_to_A062
	30 Jul 2009	5	Update accordingly to comments closed with CRs in R&A: from A038 to A046. CRs implemented: OMA-REQ-ServUserProf-2009-0059-CR_OMA_REQ_ServUserProf_2009_CR_Resolution_comment_A038_to_A046_Intro_Section5
	31 Jul 2009	6, 6.2.3	Update accordingly to comments closed in REQ CC July 30: A063, A001, A085 CRs implemented: OMA-REQ-ServUserProf-2009-0062-CR_Resolution_comments_A027_28_29_for_Editorial_sect_5 OMA-REQ-ServUserProf-2009-0063R02-CR_Resolution_comments_A063_A064_for_Editorial_sect_6 OMA-REQ-ServUserProf-2009-0064-CR_RDRR_update_for_Resolution_comment_A106

Document Identifier	Date	Sections	Description
	14 Aug 2009	2.2, 4, 3.2, 1, 5.1, 6.2.3	Update accordingly to comments closed with CRs in R&A: A007, A008, A009, from A013 to A024, A010 and A011, from A002 to A005, A055 and A083, A001, A085 CRs implemented: OMA-REQ-ServUserProf-2009-0060-CR_Resolution_comments_A007_to_A009_for_section2_2 OMA-REQ-ServUserProf-2009-0061R01-CR_Resolution_comments_A013_A024_for_section_4 OMA-REQ-ServUserProf-2009-0066R01-CR_Resolution_comments_A010_A011_for_section3_2 OMA-REQ-ServUserProf-2009-0068R01-CR_Resolution_comments_A002_to_A005_for_section_1 OMA-REQ-ServUserProf-2009-0069-CR_Resolution_comments_A055_and_A083
	26 Aug 2009	6.2, 6.2.1, 3.2, 3.3, 6.2.4.1, 1, 5.1, 6.1, 6.2.1,	Update accordingly to comments closed with CRs in Singapore: A066, A067. CRs implemented: OMA-REQ-ServUserProf-2009-0067R02-CR_Action_for_comments_A066_A067_for_HLF_001_HLF_002 OMA-REQ-ServUserProf-2009-0070R01-CR_Resolution_for_User_Context_Consistency OMA-REQ-ServUserProf-2009-0071R01-CR_Resolution_for_Service_User_Profile_Data_Model_Consistency Editorial Changes
Candidate Version OMA-RD-Service_User_Profile_Management-V1_0	15 Sep 2009	N/A	Status changed to Candidate by TP ref # OMA-TP-2009-0408-INP_ServUserProf_V1_0_RD_for_Candidate_Approval
Draft Versions: OMA-RD-Service_User_Profile_Management-V1_0	18 Oct 2010	Various	Implemented agreed change: OMA-ARC-SUPM-2010-0158R01-CR_CONR_RD_Editorials Editorial fixes: 2010 template

	24 Nov 2010	Various	Implemented agreed changes:
			    OMA-ARC-SUPM-2010-0163R03-CR_CONR_RD_Definitions
			    OMA-ARC-SUPM-2010-0164R01-CR_CONR_RD_B007
			    OMA-ARC-SUPM-2010-0182R01-CR_CONR_B007_B010_B012_updates_CR176

	25 Nov 2010	5.2 App A	Completed implementation of OMA-ARC-SUPM-2010-0163R03-CR_CONR_RD_Definitions Editorial: fixed History Table
Candidate Version OMA-RD-Service_User_Profile_Management-V1_0	11 Jan 2011	All	Status changed to Candidate by TP: OMA-TP-2010-0530-INP_SUPM_V1_0_ERP_for_Candidate_Approval

Appendix B.   Use Cases   (Informative)

B.1   User Context information data approach

This use case demonstrates the abilities of SUPM to help subscribers to book an appropriate service type for him/herself, based on the user's preference information.

B.1.1   Short Description

The user interacts with the electronic news magazine service platform to subscribe to an electronic magazine. The electronic news magazine service platform accesses the SUPM enabler storing User Context information to fetch User Context information.

The user context information includes the user's current handset brand and type, places the user is visiting, etc.

The SUPM enabler should perform data fetching.

After this procedure, the SUPM enabler returns the data to the electronic news magazine platform. The platform chooses the most appropriate magazines for the user and then presents them to user.

B.1.2   Market benefits

A smart and reasonable service offer mechanism function may give the subscribers a good service experience. And this may boost the market acceptance of mobile value-added services. The content provider and operators may benefit from the increased consumption of content.

B.2   User service usage data approach

B.2.1 Short Description

There is a user's subscription in the mobile TV service platform. The user will pay for this service every month.

But the user didn't know or has forgotten this subscription. He/She has never used this service. The mobile TV service platform or other service enabler/application (e.g. integrated service management platform, service usage notification application) should notify this information to him/her. This can eliminate unnecessary misunderstanding.

The SUPM Enabler shall be able to support user service usage data approach. The mobile TV service platform or other service enabler/application accesses the SUPM enabler storing user service usage information to fetch the number of times the user uses the service over a period of time.

According to the frequency of use, the mobile TV service platform or other service enabler/application chooses whether or not there is a need to notify the user.

B.2.2 Market benefits

The user service usage data is very important information to the operator and service provider. The service provider may provide better and more services based on this information. The user may get a good service experience. The operator and service providers may benefit from the increased service consumption.