



EVVM XDM Specification

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Open Mobile Alliance
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Contents

- 1. SCOPE.....6
- 2. REFERENCES7
 - 2.1 NORMATIVE REFERENCES.....7
 - 2.2 INFORMATIVE REFERENCES.....7
- 3. TERMINOLOGY AND CONVENTIONS8
 - 3.1 CONVENTIONS.....8
 - 3.2 DEFINITIONS.....8
 - 3.3 ABBREVIATIONS9
- 4. INTRODUCTION10
 - 4.1 VERSION 1.010
- 5. APPLICATION USAGES11
 - 5.1 EVVM GLOBAL SERVICE PREFERENCES11
 - 5.1.1 Structure.....12
 - 5.1.2 Application Unique ID.....14
 - 5.1.3 XML Schema14
 - 5.1.4 Default Namespace14
 - 5.1.5 MIME Type14
 - 5.1.6 Validation Constraints14
 - 5.1.7 Data Semantics14
 - 5.1.7.1 *prefs*15
 - 5.1.8 Naming conventions18
 - 5.1.9 Global Documents18
 - 5.1.10 Resource interdependencies.....18
 - 5.1.11 Authorization Policies.....18
 - 5.1.12 Subscription to Changes18
 - 5.1.13 Search Capabilities.....18
 - 5.1.14 XDM Preferences Document18
 - 5.1.15 History Information Document.....19
 - 5.1.16 Forwarding.....19
 - 5.1.17 Restore19
 - 5.1.18 Document Reference.....19
 - 5.1.19 Differential Read and Write.....19
 - 5.2 EVVM SUBSCRIPTION-SPECIFIC SERVICE PREFERENCES19
 - 5.2.1 Structure.....20
 - 5.2.2 Application Unique ID.....23
 - 5.2.3 XML Schema23
 - 5.2.4 Default Namespace23
 - 5.2.5 MIME Type24
 - 5.2.6 Validation Constraints24
 - 5.2.7 Data Semantics24
 - 5.2.7.1 *prefs*24
 - 5.2.8 Naming conventions25
 - 5.2.9 Global Documents25
 - 5.2.10 Resource interdependencies.....25
 - 5.2.11 Authorization Policies.....25
 - 5.2.12 Subscription to Changes25
 - 5.2.13 Search Capabilities.....25
 - 5.2.14 XDM Preferences Document25
 - 5.2.15 History Information Document.....26
 - 5.2.16 Forwarding.....26
 - 5.2.17 Restore26
 - 5.2.18 Document Reference.....26
 - 5.2.19 Differential Read and Write.....26

- 5.3 EVVM CLIENT PREFERENCES 26**
 - 5.3.1 Structure 27
 - 5.3.2 Application Unique ID 28
 - 5.3.3 XML Schema 29
 - 5.3.4 Default Namespace 29
 - 5.3.5 MIME Type 29
 - 5.3.6 Validation Constraints 29
 - 5.3.7 Data Semantics 29
 - 5.3.7.1 *prefs* 29
 - 5.3.8 Naming conventions 30
 - 5.3.9 Global Documents 30
 - 5.3.10 Resource interdependencies 30
 - 5.3.11 Authorization Policies 30
 - 5.3.12 Subscription to Changes 30
 - 5.3.13 Search Capabilities 31
 - 5.3.14 XDM Preferences Document 31
 - 5.3.15 History Information Document 31
 - 5.3.16 Forwarding 31
 - 5.3.17 Restore 31
 - 5.3.18 Document Reference 31
 - 5.3.19 Differential Read and Write 31
- 5.4 EVVM USER PREFERENCES 31**
 - 5.4.1 Structure 32
 - 5.4.2 Application Unique ID 34
 - 5.4.3 XML Schema 34
 - 5.4.4 Default Namespace 34
 - 5.4.5 MIME Type 34
 - 5.4.6 Validation Constraints 34
 - 5.4.7 Data Semantics 34
 - 5.4.7.1 *prefs* 34
 - 5.4.8 Naming conventions 37
 - 5.4.9 Global Documents 37
 - 5.4.10 Resource interdependencies 37
 - 5.4.11 Authorization Policies 37
 - 5.4.12 Subscription to Changes 37
 - 5.4.13 Search Capabilities 37
 - 5.4.14 XDM Preferences Document 37
 - 5.4.15 History Information Document 37
 - 5.4.16 Forwarding 38
 - 5.4.17 Restore 38
 - 5.4.18 Document Reference 38
 - 5.4.19 Differential Read and Write 38
- 6. DATA TYPES 39**
 - 6.1 BASIC DATA TYPES 39**
 - 6.2 ELEMENTARY DATA TYPES 39**
- APPENDIX A. CHANGE HISTORY (INFORMATIVE) 40**
 - A.1 APPROVED VERSION HISTORY 40**
- APPENDIX B. STATIC CONFORMANCE REQUIREMENTS (NORMATIVE) 41**
 - B.1 EVVM GLOBAL SERVICE PREFERENCES 41**
 - B.1.1 XDMS 41
 - B.1.2 XDMC 41
 - B.1.3 XDM Agent 41
 - B.2 EVVM SUBSCRIPTION-SPECIFIC SERVER PREFERENCES 41**
 - B.2.1 XDMS 41
 - B.2.2 XDMC 41
 - B.2.3 XDM Agent 41

B.3 EVVM CLIENT PREFERENCES 41

 B.3.1 XDMS 41

 B.3.2 XDMC 41

 B.3.3 XDM Agent 42

B.4 EVVM USER PREFERENCES 42

 B.4.1 XDMS 42

 B.4.2 XDMC 42

 B.4.3 XDM Agent 42

APPENDIX C. FLOWS (INFORMATIVE) 43

APPENDIX D. DOCUMENT EXAMPLES (INFORMATIVE) 44

 D.1 EVVM GLOBAL SERVICE PREFERENCES 44

 D.2 EVVM SUBSCRIPTION-SPECIFIC SERVER PREFERENCES 45

 D.3 EVVM CLIENT PREFERENCES 45

 D.4 EVVM USER PREFERENCES 46

Figures

Figure 1: Conventions for structure diagrams 8

Figure 2: Structure diagram, Global Service Preferences 12

Figure 3: Structure diagram, Subscription-specific Service Preferences 22

Figure 4: Structure diagram, Client Preferences 27

Figure 5: Structure diagram, User Preferences 32

1. Scope

The Enhanced Visual VoiceMail XDM-specific data formats and Application Usage(s) are described in this specification.

2. References

2.1 Normative References

- [EVVM ER] “Enhanced Visual Voice Mail Architecture and Technical Specification”, Version 1.0, Open Mobile Alliance™, OMA-ER-EVVM-V1_0, [URL: http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [EVVM SUP CP] “XML Schema Definition: EVVM Client Preferences”, Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_EVVM_SSP-V1_0, [URL: http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [EVVM SUP GSP] “XML Schema Definition: EVVM Global Service Preferences”, Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_EVVM_GSP-V1_0, [URL: http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [EVVM SUP SSP] “XML Schema Definition: EVVM Subscription-specific Service Preferences”, Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_EVVM_SSP-V1_0, [URL: http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [EVVM SUP UP] “XML Schema Definition: EVVM User Preferences”, Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_EVVM_SSP-V1_0, [URL: http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [ISO639-2] “Codes for the representation of names of languages-- Part 2: alpha-3 code”, Library of Congress, 2010-03-29, [URL: http://www.loc.gov/standards/iso639-2/](http://www.loc.gov/standards/iso639-2/)
- [OMA XDM Core] “XML Document Management Specification”, Version 2.1, Open Mobile Alliance™, OMA-TS-XDM_Core-V2_1, [URL: http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [OMA XDM] “XML Document Management”, Open Mobile Alliance™, OMA-ERP-XDM-V2_1, [URL: http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [RFC2045] “Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies”, N. Freed et al, November 1996, [URL: http://tools.ietf.org/html/rfc2045](http://tools.ietf.org/html/rfc2045)
- [RFC2119] “Key words for use in RFCs to Indicate Requirement Levels”, S. Bradner, March 1997, [URL: http://tools.ietf.org/html/rfc2119](http://tools.ietf.org/html/rfc2119)
- [RFC3966] “The tel URI for Telephone Numbers”, H. Schulzrinne, December 2004, [URL: http://tools.ietf.org/html/rfc3966](http://tools.ietf.org/html/rfc3966)
- [RFC4648] “The Base16, Base32, and Base64 Data Encodings”, S. Josefsson, October 2006, [URL: http://tools.ietf.org/html/rfc4648](http://tools.ietf.org/html/rfc4648)
- [RFC5234] “Augmented BNF for Syntax Specifications: ABNF”, D. Crocker & P. Overell, January 2008, [URL: http://tools.ietf.org/html/rfc5234](http://tools.ietf.org/html/rfc5234)
- [SCRRULES] “SCR Rules and Procedures”, Open Mobile Alliance™, OMA-ORG-SCR_Rules_and_Procedures, [URL: http://www.openmobilealliance.org](http://www.openmobilealliance.org)

2.2 Informative References

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

All structure diagrams adhere to the conventions on the following diagram:

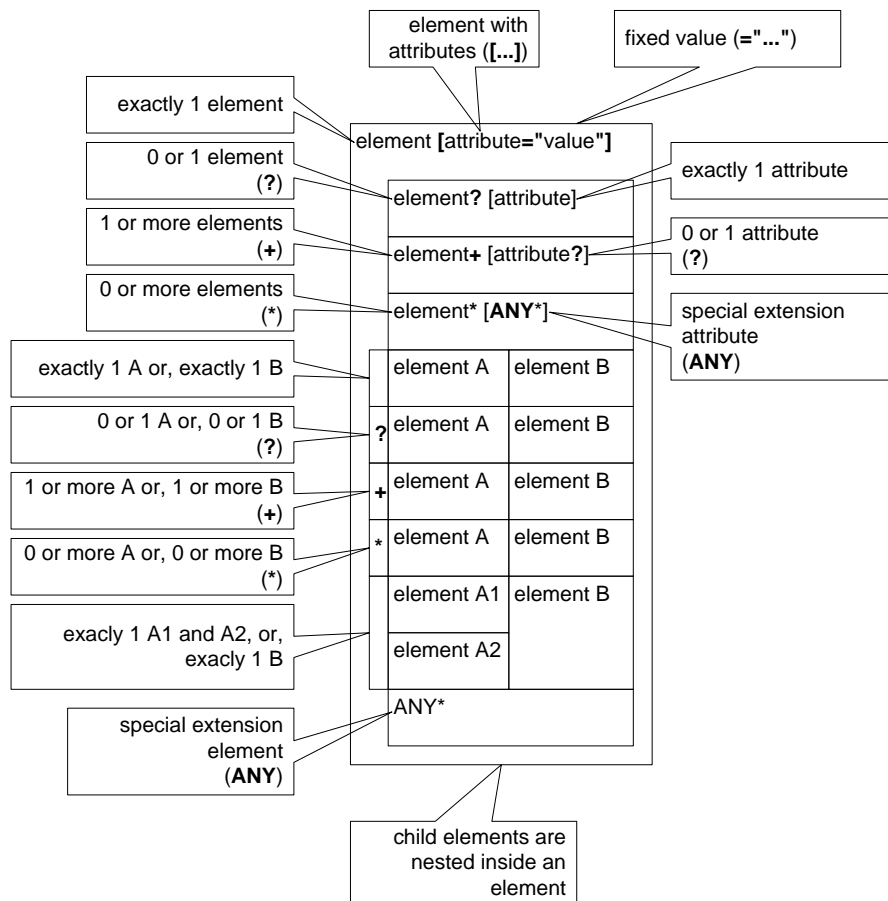


Figure 1: Conventions for structure diagrams

3.2 Definitions

Access Permissions	See [OMA XDM Core]
Application Usage	See [OMA XDM Core]
Device	See [EVVM ER].
Document Reference	See [OMA XDM Core].
Document Selector	See [OMA XDM Core].
EVVM Client	See [EVVM ER].

EVVM Server	See [EVVM ER].
History Information	See [OMA XDM Core].
XCAP User Identifier (XUI)	See [OMA XDM Core].
XDM Resource	See [OMA XDM Core].

3.3 Abbreviations

AUID	Application Unique ID
EVVM	Enhanced Visual Voicemail
OMA	Open Mobile Alliance
OMTP	Open Mobile Terminal Platform
TUI	Telephony User Interface
VM	voicemail
VVM	Visual Voicemail
XDM	XML Document Management
XDMC	XDM Client
XDMS	XDM Server
XML	Extensible Markup Language

4. Introduction

The EVVM XDM specification defines the Application Usages for all EVVM XDM documents that are managed in accordance with the OMA XDM Enabler [OMA XDMS].

4.1 Version 1.0

EVVM XDM TS version 1.0 specifies the following Application Usages:

- EVVM Global Service Preferences
- EVVM Subscription-specific Server Preferences
- EVVM Client Preferences
- EVVM User Preferences

5. Application Usages

This section contains the description for each Application Usage. Each Application Usage contains its default authorization policies. These policies refer to the EVVM Server and EVVM users. The identity used to authenticate the EVVM Server, as well as any other administrative entities that manage the global service preferences on behalf of the service provider are not in the scope of this specification. EVVM users are authenticated using their XUIs.

5.1 EVVM Global Service Preferences

The global service preferences include EVVM Server capabilities, service provider policies, settings and other EVVM-related configuration information that apply to all EVVM users. The global service preferences are managed (read/write/update) by the EVVM Server, and, interpreted (read) by the EVVM Clients of their respective EVVM users, as described in [EVVM ER].

This Application Usage defines a document in the global tree, therefore, this Application Usage allows zero or one document.

5.1.1 Structure



Figure 2: Structure diagram, Global Service Preferences

The XML document MUST contain the 'prefs' element.

The 'prefs' element MUST have a 'version' attribute.

The 'version' attribute MUST be '1.0'.

The 'prefs' element MAY have any number of extension attributes.

The 'prefs' element MUST contain exactly one 'mediatypes' element.

The 'mediatypes' element MAY have a 'supplementary' attribute, an 'optional' attribute and any number of extension attributes.

The 'mediatypes' element MUST contain zero or more 'mediatype' elements.

The 'prefs' element MUST contain exactly one 'charsets' element.

The 'charsets' element MAY have a 'supplementary' attribute and any number of extension attributes.

The 'charsets' element MUST contain zero or more 'charset' elements.

The 'prefs' element MUST contain exactly one 'protocols' element.

The 'protocols' element MUST contain one or more 'protocol' elements.

Each 'protocol' element MAY have an 'id' attribute

Each 'protocol' element MUST have a 'version' attribute.

Each 'protocol' element MUST be empty.

The 'prefs' element MUST contain exactly one 'mappings' element.

The 'mappings' element MUST contain one or more 'mapping' elements.

Each 'mapping' element MUST have a 'logical' attribute.

Each 'mapping' element MUST contain exactly one 'physical' element.

The 'physical' element MAY have an 'encoded' attribute.

The 'prefs' element MUST contain exactly one 'notifications' element.

The 'notifications' element MAY have a 'home', a 'roaming', an 'intloaming', an 'encrypt', a 'deac', a 'pref', a 'sync' and a 'trans' attribute.

The 'notifications' element MAY have any number of extension attributes.

The 'notifications' element MUST contain one or more 'encryption' elements.

Each 'encryption' element MUST have a 'type' attribute.

Each 'encryption' element MAY have a 'minstrength', a 'maxstrength', and a 'preferredstrength' attribute.

Each 'encryption' element MAY have any number of extension attributes.

Each 'encryption' element MUST be empty.

The 'prefs' element MUST contain exactly one 'bounds' element.

The 'bounds' element MUST have a 'maxvmsize' attribute.

The 'bounds' element MAY have a 'maxgreetinglength' attribute, a 'maxvoicesignaturelength' attribute and any number of extension attributes.

The 'bounds' element MUST contain exactly one 'evvm' element and exactly one 'tui' element.

The 'evvm' element MUST contain exactly one 'password' element.

The 'password' element MAY have a 'minpasslength' attribute, a 'maxpasslength' attribute, an 'alphasallowed' attribute, an 'alphasrequired' attribute, an 'alphasuppercaserequired' attribute, a 'digitsallowed' attribute, a 'digitsrequired' attribute, a 'specialsallowed' attribute, a 'specialsrequired' attribute, and a 'specials' attribute.

The 'password' element MUST be empty.

The 'tui' element MAY have a 'usercontrol' attribute.

The 'tui' element MUST contain exactly one 'password' element and one or more 'language' elements.

The 'password' element MAY have a 'minpasslength' attribute, a 'maxpasslength' attribute, an 'alphasallowed' attribute, an 'alphasrequired' attribute, an 'alphasuppercaserequired' attribute, a 'digitsallowed' attribute, a 'digitsrequired' attribute, a 'specialsallowed' attribute, a 'specialsrequired' attribute, and a 'specials' attribute.

The 'password' element MUST be empty.

Each 'language' element MAY have a 'name' attribute.

Each 'language' element MUST have a 'code' attribute.

Each 'language' element MUST be empty.

The 'bounds' element MAY contain any number of extension elements.

The 'prefs' element MUST contain exactly one 'contentadaptation' element.

The 'contentadaptation' element MUST be empty.

The 'contentadaptation' element MAY have a 'v2t' attribute, a 'tts' attribute and any number of extension attributes.

The 'prefs' element MAY contain any number of extension elements.

5.1.2 Application Unique ID

The AUID MUST be "org.openmobilealliance.evvm-serviceprefs".

5.1.3 XML Schema

The XML document MUST conform to the XML schema described in [EVVM SUP GSP].

5.1.4 Default Namespace

The default element namespace MUST be "urn:oma:xml:evvm:serviceprefs-global".

5.1.5 MIME Type

The MIME type MUST be "application/vnd.oma.evvm-serviceprefs-global+xml".

5.1.6 Validation Constraints

See description in section 5.1.1.

5.1.7 Data Semantics

The data semantics are organized into basic types, elementary types and composite types. The definitions use ABNF notation [RFC5234] to define the data semantics of the elements and the attributes. The basic and elementary types are defined in section 6. The composite types are defined in this section, organized into sub-trees.

5.1.7.1 prefs

The ‘xmlns’ attribute MUST match the default names number of the XML document defined in this Application Usage.

The ‘version’ attribute MUST match the revision number of the XML document defined in this Application Usage.

```
xmlns          = default-namespace
version       = revision-number
```

Example:

```
<prefs xmlns="urn:oma:xml:evvm:serviceprefs-global" version="1.0">
</prefs>
```

5.1.7.1.1 mediatypes

When the ‘supplementary’ attribute is omitted, the default value of ‘false’ MUST be used.

When the ‘optional’ attribute is omitted, the default value of ‘false’ MUST be used.

```
supplementary = boolean
optional      = boolean
mediatype     = media-type
```

Example:

```
<mediatypes supplementary="true" optional="false">
  <mediatype>image/tiff</mediatype/>
  <mediatype>audio/mpeg</mediatype/>
</mediatypes/>
```

5.1.7.1.2 charsets

When the ‘supplementary’ attribute is omitted, the default value of ‘false’ MUST be used.

```
supplementary = boolean
charset       = character-set
```

Example:

```
<charsets supplementary="false"/>
  <charset>ISO-8859-2</charset/>
</charsets>
```

5.1.7.1.3 protocols

When the ‘id’ attribute is omitted, the default value of ‘OMA-EVVM’ MUST be used.

```
id          = vvm-sdo-name
version     = revision-number *(", " revision-number)
```

Example:

```
<protocols>
  <protocol id="OMTP-VVM" version="1.3"/>
  <protocol id="OMA-EVVM" version="1.0,1.0.1,1.1"/>
</protocols/>
```

5.1.7.1.4 mappings

5.1.7.1.4.1. mapping

```
logical          = special-mailbox-token
```

Example:

```
<mappings>
  <mapping logical="inbox">
    ...
  </mapping>
</mappings>
```

5.1.7.1.4.1.1. physical

When the ‘encoded’ attribute is omitted, the default value of ‘false’ MUST be used.

The value of the ‘encoded’ attribute MUST be ‘true’ only when the UTF-8 content of the ‘physical’ element is encoded using Base64 [RFC4648].

```
physical          = string | base64encoded
encoded          = boolean
```

Example:

```
<mappings>
  <mapping logical="inbox">
    <physical>INBOX</physical>
  </mapping>
  <mapping logical="trash">
    <physical encoded="true">TWFya2VkJk1vdmVh</physical>
  </mapping>
</mappings>
```

5.1.7.1.5 notifications

When the ‘home’ attribute is omitted, the default value of ‘true’ MUST be used.

When the ‘roaming’ attribute is omitted, the default value of ‘true’ MUST be used.

When the ‘intlroaming’ attribute is omitted, the default value of ‘false’ MUST be used.

When the ‘encrypt’ attribute is omitted, the default value of ‘ifneeded’ MUST be used.

When the ‘deac’ attribute is omitted, the default value of ‘true’ MUST be used.

When the ‘pref’ attribute is omitted, the default value of ‘true’ MUST be used.

When the ‘sync’ attribute is omitted, the default value of ‘true’ MUST be used.

When the ‘tran’ attribute is omitted, the default value of ‘true’ MUST be used.

```
home              = boolean
roaming           = boolean
intlroaming       = boolean
encrypt           = indefinite-frequency
deac              = boolean
pref              = boolean
sync              = boolean
tran              = boolean
```

Example:

```
<notifications home="true" roaming="true" intlroaming="true" encrypt="always" deac="false" pref="false"
sync="false" tran="false"/>
```

5.1.7.1.5.1 encryption

When the ‘minstrength’ attribute is omitted, the default value of ‘0’ (zero) MUST be used.

When the ‘maxstrength’ attribute is omitted, the default value of ‘∞’ (infinity) MUST be used.

When the ‘preferredstrength’ attribute is omitted, the value of ‘minstrength’ MUST be used as default value.

```
type              = encryption-type
minstrength       = integer
maxstrength       = integer
preferredstrength = integer
```

Example:

```
<notifications>
  <encryption type="ECIES" minstrength="128" maxstrength="256" preferredstrength="192"/>
</notifications>
```


5.1.7.1.6 bounds

When the ‘maxgreetinglength’ attribute is omitted, the default value of ‘0’ MUST be used.

When the ‘maxvoicesignaturelength’ attribute is omitted, the default value of ‘0’ MUST be used.

```
maxvmsize                = integer
maxgreetinglength       = integer
maxvoicesignaturelength = integer
```

Example:

```
<bounds maxvmsize="20971520" maxgreetinglength="10" maxvoicesignaturelength="15"/>
```

5.1.7.1.6.1. evvm

When the ‘minpasslength’ attribute is omitted, the default value of ‘0’ MUST be used.

When the ‘maxpasslength’ attribute is omitted, the default value of ‘∞’ (infinity) MUST be used.

When the ‘alphasallowed’ attribute is omitted, the default value of ‘true’ MUST be used.

When the ‘alphasrequired’ attribute is omitted, the default value of ‘false’ MUST be used.

When the ‘alphasuppercaserequired’ attribute is omitted, the default value of ‘0’ MUST be used.

When the ‘digitsallowed’ attribute is omitted, the default value of ‘true’ MUST be used.

When the ‘digitsrequired’ attribute is omitted, the default value of ‘false’ MUST be used.

When the ‘specialsalowed’ attribute is omitted, the default value of ‘true’ MUST be used.

When the ‘specialrequired’ attribute is omitted, the default value of ‘false’ MUST be used.

```
minpasslength           = integer
maxpasslength           = integer
alphasallowed           = boolean
alphasrequired          = boolean
alphasuppercaserequired = integer
digitsallowed           = boolean
digitsrequired          = boolean
specialsalowed          = boolean
specialrequired         = boolean
specials                 = 1*special
```

Example:

```
<bounds>
  <evvm>
    <password minpasslength="6" maxpasslength="12" alphasuppercaserequired="1"
specials="~!@#$$%^&* () [] {} _-+="/>
  </evvm>
</bounds>
```

5.1.7.1.6.2. tui

When the ‘usercontrol’ attribute is omitted, the default value of ‘false’ MUST be used.

The semantics of the ‘password’ element’s attributes are not duplicated here, see those in section 5.1.7.1.6.1.

When the ‘name’ attribute is omitted, a default value MAY be generated from the available information.

```
usercontrol              = boolean
language                 = language-token
name                     = 1*( ALPHA / DIGIT / special )
```

Example:

```
<bounds>
```

```

<tui usercontrol="false">
  <password minlength="4" maxlength="6" alphasallowed="false" specialssallowed="false"/>
  <language name="English, male" code="eng"/>
  <language name="Chinese, female" code="chi"/>
  <language name="Chinese, male" code="chi.1"/>
</tui>
</bounds>

```

5.1.7.1.7 contentadaptation

When the ‘v2t’ attribute is omitted, the default value of ‘false’ MUST be used.

When the ‘tts’ attribute is omitted, the default value of ‘false’ MUST be used.

```

v2t          = boolean
tts          = boolean

```

Example:

```
<contentadaptation v2t="true" tts="true"/>
```

5.1.8 Naming conventions

The filename MUST be “index”.

5.1.9 Global Documents

This Application Usage defines a Global Document:

<http://xcap-root/org.openmobilealliance.evvm-serviceprefs/global/index>

5.1.10 Resource interdependencies

Existing subscription-specific service preferences (see section 5.2) override individual global service preferences, as described in [EVVM ER].

5.1.11 Authorization Policies

The authorization policies are defined as follows:

- The EVVM Server MUST have permission to perform all operations defined in section “*Document Management*” of [OMA XDM Core].
- All EVVM users MUST have permissions that permit all read operation and forbid all writing/updating operations as defined in section “*Document Management*” of [OMA XDM Core].
- The EVVM Server and all EVVM users MUST have permission to perform all operations defined in section “*Subscribing to changes in the XDM Resources*” of [OMA XDM Core].

5.1.12 Subscription to Changes

Subscription to document changes MUST be supported as specified in [OMA XDM Core] section “*Subscriptions to changes in the XDM Resources*”.

5.1.13 Search Capabilities

Not applicable.

5.1.14 XDM Preferences Document

If History Information Document (section 5.1.15) is supported, the XDM Preferences Document MUST be supported, as described in section “*XDM Preference Document*” of [OMA XDM Core].

5.1.15 History Information Document

Modification History Information Document MAY be supported, as described in section “*Modification History Information Document*” of [OMA XDM Core].

Request History Information Document MAY be supported, as described in section “*Request History Information Document*” of [OMA XDM Core].

5.1.16 Forwarding

Not applicable.

5.1.17 Restore

Not applicable.

5.1.18 Document Reference

Not applicable.

5.1.19 Differential Read and Write

Not applicable.

5.2 EVVM Subscription-specific Service Preferences

The subscription-specific service preferences include EVVM Server capabilities, service provider policies, settings and other EVVM-related configuration information that apply to individual EVVM users. The subscription-specific service preferences are managed (read/write/update) by the EVVM Server, and, interpreted (read) by the EVVM Clients of their respective EVVM users, as described in [EVVM ER].

This Application Usage defines a document in the user tree. Each user may have zero or one document.

5.2.1 Structure

prefs [version="1.0", ANY*]
mediatypes [supplementary?, optional?, ANY*]
mediatype*
charsets [supplementary?, ANY*]
charset*
protocols
protocol* [id?, version]
mappings
mapping* [logical]
physical [encoded?]
notifications [home?, roaming?, introaming?, encrypt?, deac?, pref?, sync?, tran?, ANY*]
encryption* [type, minstrength?, maxstrength?, preferredstrength?, ANY*]
bounds [maxvmsize?, maxgreetinglength?, maxvoicesignaturelength?, ANY*]
evvm
password? [minpasslength?, maxpasslength?, alphasallowed?, alphasrequired?, alphasuppercaserequired?, digitsallowed?, digitsrequired?, specialsallowed?, specialsrequired?, specials?]
tui [usercontrol?]
password? [minpasslength?, maxpasslength?, alphasallowed?, alphasrequired?, alphasuppercaserequired?, digitsallowed?, digitsrequired?, specialsallowed?, specialsrequired?, specials?]
language* [name?, code]
address? [id]
ANY*
associations
user* [id]
contentadaptation [v2t?, tts?, ANY*]
ANY*

Figure 3: Structure diagram, Subscription-specific Service Preferences

The XML document MUST contain the 'prefs' element.

The 'prefs' element MUST have a 'version' attribute.

The 'version' attribute MUST be '1.0'.

The 'prefs' element MAY have any number of extension attributes.

The 'prefs' element MUST contain exactly one 'mediatypes' element.

The 'mediatypes' element MAY have a 'supplementary' attribute, an 'optional' attribute and any number of extension attributes.

The 'mediatypes' element MUST contain zero or more 'mediatype' elements.

The 'prefs' element MUST contain exactly one 'charsets' element.

The 'charsets' element MAY have a 'supplementary' attribute and any number of extension attributes.

The 'charsets' element MUST contain zero or more 'charset' elements.

The 'prefs' element MUST contain exactly one 'protocols' element.

The 'protocols' element MAY contain zero or more 'protocol' elements.

Each 'protocol' element MAY have an 'id' attribute

Each 'protocol' element MUST have a 'version' attribute.

Each 'protocol' element MUST be empty.

The 'prefs' element MUST contain exactly one 'mappings' element.

The 'mappings' element MAY contain zero or more 'mapping' elements.

Each 'mapping' element MUST have a 'logical' attribute.

Each 'mapping' element MUST contain exactly one 'physical' element.

The 'physical' element MAY have an 'encoded' attribute.

The 'prefs' element MUST contain exactly one 'notifications' element.

The 'notifications' element MAY have a 'home', a 'roaming', an 'intlroaming', an 'encrypt', a 'deac', a 'pref', a 'sync' and a 'trans' attribute.

The 'notifications' element MAY have any number of extension attributes.

The 'notifications' element MUST contain zero or more 'encryption' elements.

Each 'encryption' element MUST have a 'type' attribute.

Each 'encryption' element MAY have a 'minstrength', a 'maxstrength' and a 'preferredstrength' attribute.

Each 'encryption' element MAY have any number of extension attributes.

Each 'encryption' element MUST be empty.

The 'prefs' element MUST contain exactly one 'bounds' element.

The 'bounds' element MAY have a 'maxvmsize' attribute, a 'maxgreetinglength' attribute, a 'maxvoicesignaturelength' attribute and any number of extension attributes.

The 'bounds' element MUST contain exactly one 'evvm' element and exactly one 'tui' element.

The 'evvm' element MAY contain exactly one 'password' element.

The 'password' element MAY have a 'minpasslength' attribute, a 'maxpasslength' attribute, an 'alphasallowed' attribute, an 'alphasrequired' attribute, an 'alphasuppercaserequired' attribute, a 'digitsallowed' attribute, a 'digitsrequired' attribute, a 'specialsallowed' attribute, a 'specialsrequired' attribute, and a 'specials' attribute.

The 'password' element MUST be empty.

The 'tui' element MAY have a 'usercontrol' attribute.

The 'tui' element MAY contain exactly one 'password' element and zero or more 'language' elements.

The 'password' element MAY have a 'minpasslength' attribute, a 'maxpasslength' attribute, an 'alphasallowed' attribute, an 'alphasrequired' attribute, an 'alphasuppercaserequired' attribute, a 'digitsallowed' attribute, a 'digitsrequired' attribute, a 'specialsallowed' attribute, a 'specialsrequired' attribute, and a 'specials' attribute.

The 'password' element MUST be empty.

Each 'language' element MAY have a 'name' attribute.

Each 'language' element MUST have a 'code' attribute.

Each 'language' element MUST be empty.

The 'bounds' element MAY contain any number of extension elements.

The 'prefs' element MUST contain exactly one 'associations' element.

The 'associations' element MAY contain zero or more 'user' elements.

Each 'user' element MUST have an 'id' attribute.

Each 'user' element MUST be empty.

The 'prefs' element MUST contain exactly one 'contentadaptation' element.

The 'contentadaptation' element MUST be empty.

The 'contentadaptation' element MAY have a 'v2t' attribute, a 'tts' attribute and any number of extension attributes.

The 'prefs' element MAY contain any number of extension elements.

5.2.2 Application Unique ID

The AUID MUST be "org.openmobilealliance.evvm-serviceprefs".

5.2.3 XML Schema

The XML document MUST conform to the XML schema described in [EVVM SUP SSP].

5.2.4 Default Namespace

The default element namespace MUST be "urn:oma:xml:evvm:serviceprefs-subscription".

5.2.5 MIME Type

The MIME type MUST be “application/vnd.oma.evvm-serviceprefs-subscription+xml”.

5.2.6 Validation Constraints

See description in section 5.2.1.

5.2.7 Data Semantics

The data semantics are organized into basic types, elementary types and composite types. The definitions use ABNF notation [RFC5234] to define the data semantics of the elements and the attributes. The basic and elementary types are defined in section 6. The composite types are defined in this section, organized into sub-trees.

5.2.7.1 prefs

The ‘xmlns’ attribute MUST match the default names number of the XML document defined in this Application Usage.

The ‘version’ attribute MUST match the revision number of the XML document defined in this Application Usage.

```
xmlns          = default-namespace
version       = revision-number
```

Example:

```
<prefs xmlns="urn:oma:xml:evvm:serviceprefs-subscription" version="1.0">
</prefs>
```

5.2.7.1.1 mediatypes

See section 5.1.7.1.1.

5.2.7.1.2 charsets

See section 5.1.7.1.2

5.2.7.1.3 protocols

See section 5.1.7.1.3.

5.2.7.1.4 mappings

See section 5.1.7.1.4 and its subsections.

5.2.7.1.5 notifications

See section 5.1.7.1.4 and its subsections.

5.2.7.1.6 bounds

See section 5.1.7.1.4.

5.2.7.1.6.1 evvm

See section 5.1.7.1.6.1.

5.2.7.1.6.2 tui

See section 5.1.7.1.6.2 for the common semantics.

When the ‘address’ attribute is omitted, all values under the ‘tui’ element MUST be ignored.

```
address          = tui-address
```

Example:


```
<bounds>
  <tui>
    <address id="tel:+9876543210"/>
  </tui>
</bounds>
```

5.2.7.1.7 associations

id = user-id

Examples:

```
<associations>
  <user id="tel:+1234567890"/>
  <user id="me.myself.i@notmail.com"/>
  <user id="me.myself.i@jeemail.com"/>
  <user id="sip:me.myself.i@sipit.com"/>
  <user id="sip:me.myself.i@sipper.com"/>
</associations>
```

5.2.7.1.8 contentadaptation

See section 5.1.7.1.7.

5.2.8 Naming conventions

The filename MUST be “index”.

5.2.9 Global Documents

Not applicable.

5.2.10 Resource interdependencies

Existing subscription-specific service override individual global service preferences, as described in [EVVM ER].

5.2.11 Authorization Policies

The authorization policies are defined as follows:

- The EVVM Server MUST have permission to perform all operations defined in section “*Document Management*” of [OMA XDM Core].
- The EVVM user MUST have permissions that permit all read operation and forbid all writing/updating operations as defined in section “*Document Management*” of [OMA XDM Core].
- The EVVM Server and the EVVM user MUST have permission to perform all operations defined in section “*Subscribing to changes in the XDM Resources*” of [OMA XDM Core].

5.2.12 Subscription to Changes

Subscription to changes MUST be supported as specified in section “*Subscriptions to changes in the XDM Resources*” of [OMA XDM Core].

5.2.13 Search Capabilities

Not applicable.

5.2.14 XDM Preferences Document

If History Information Document (section 5.2.15) is supported, the XDM Preferences Document MUST be supported, as described in section “*XDM Preference Document*” of [OMA XDM Core].

5.2.15 History Information Document

Modification History Information Document MAY be supported, as described in section “*Modification History Information Document*” of [OMA XDM Core].

Request History Information Document MAY be supported, as described in section “*Request History Information Document*” of [OMA XDM Core].

5.2.16 Forwarding

Not applicable.

5.2.17 Restore

Not applicable.

5.2.18 Document Reference

Not applicable.

5.2.19 Differential Read and Write

Not applicable.

5.3 EVVM Client Preferences

The client preferences include EVVM Client capabilities, and other EVVM-related configuration information. The client preferences are managed (read/write/update) by the EVVM Clients on behalf of their respective EVVM users, and, interpreted (read) by the EVVM Server, as described in [EVVM ER].

This Application Usage defines multiple documents in the user tree. Each user may have multiple clients; therefore each user may have zero or more documents.

5.3.1 Structure

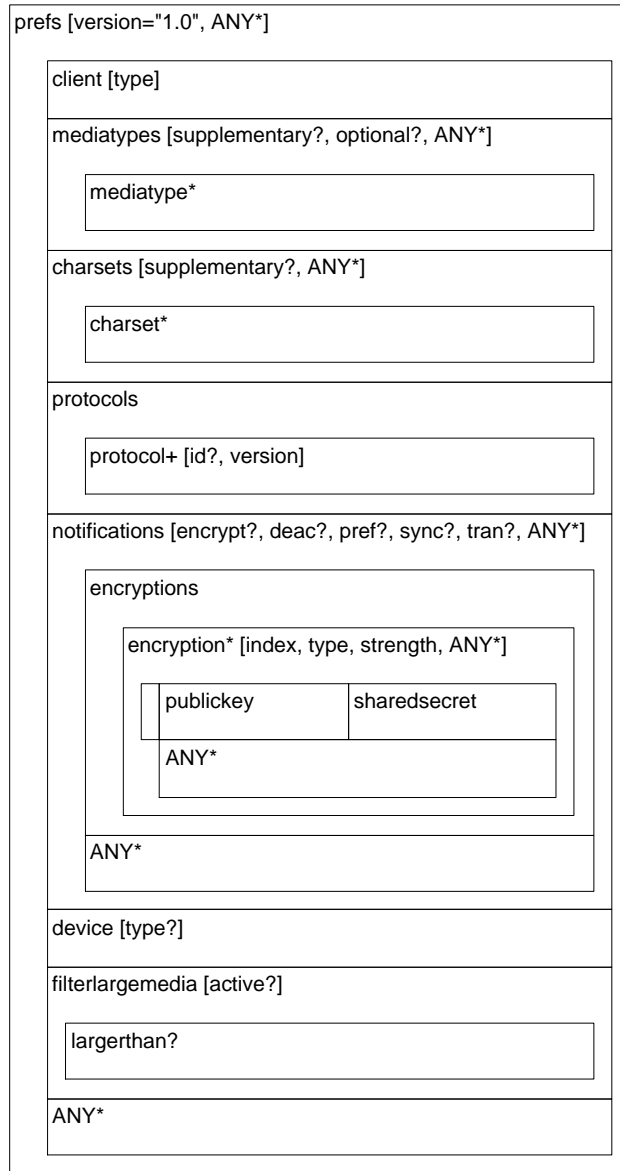


Figure 4: Structure diagram, Client Preferences

The XML document MUST contain the ‘prefs’ element.

The ‘prefs’ element MUST have a ‘version’ attribute.

The ‘version’ attribute MUST be ‘1.0’.

The ‘prefs’ element MAY have any number of extension attributes.

The ‘prefs’ element MUST contain exactly one ‘client’ element.

The ‘client’ element MUST have a ‘type’ attribute.

The ‘client’ element MUST be empty.

The ‘prefs’ element MUST contain exactly one ‘mediatypes’ element.

The 'mediatypes' element MAY have a 'supplementary' attribute, an 'optional' attribute and any number of extension attributes.

The 'mediatypes' element MUST contain zero or more 'mediatype' elements.

The 'prefs' element MUST contain exactly one 'charsets' element.

The 'charsets' element MAY have a 'supplementary' attribute and any number of extension attributes.

The 'charsets' element MUST contain zero or more 'charset' elements.

The 'prefs' element MUST contain exactly one 'protocols' element.

The 'protocols' element MUST contain one or more 'protocol' elements.

Each 'protocol' element MAY have an 'id' attribute

Each 'protocol' element MUST have a 'version' attribute.

Each 'protocol' element MUST be empty.

The 'prefs' element MUST contain exactly one 'notifications' element.

The 'notifications' element MAY have an 'encrypt', a 'deac', a 'pref', a 'sync' and a 'trans' attribute.

The 'notifications' element MAY have any number of extension attributes.

The 'notifications' element MUST contain exactly one 'encryptions' element.

The 'encryptions' element MAY contain zero or more 'encryption' elements.

Each 'encryption' element MUST have an 'index', a 'type' and a 'strength' attribute.

The value of the 'index' attribute MUST be in the range of 0 to 15 (0 and 15 inclusive).

The value of the 'index' attribute MUST be unique within the scope of this 'encryption' element.

Each 'encryption' element MAY have any number of extension attributes.

Each 'encryption' element MUST contain exactly one 'publickey' or exactly one 'sharedsecret' element.

Each 'encryption' element MAY contain any number of extension elements.

The 'notifications' element MAY contain any number of extension elements.

The 'prefs' element MUST contain exactly one 'device' element.

The 'device' element MAY have a 'type' attribute.

The 'device' element MUST be empty.

The 'prefs' element MUST contain exactly one 'filterlargemedia' element.

The 'filterlargemedia' element MAY have an 'active' attribute.

The 'filterlargemedia' element MAY contain exactly one 'largerthan' element.

The 'prefs' element MAY contain any number of extension elements.

5.3.2 Application Unique ID

The AUID MUST be "org.openmobilealliance.evvm-clientprefs".

5.3.3 XML Schema

The XML document MUST conform to the XML schema described in [EVVM SUP CP].

5.3.4 Default Namespace

The default element namespace MUST be "urn:oma:xml:evvm:clientprefs".

5.3.5 MIME Type

The MIME type MUST be "application/vnd.oma.evvm-clientprefs+xml".

5.3.6 Validation Constraints

See description in section 5.3.1.

5.3.7 Data Semantics

The data semantics are organized into basic types, elementary types and composite types. The definitions use ABNF notation [RFC5234] to define the data semantics of the elements and the attributes. The basic and elementary types are defined in section 6. The composite types are defined in this section, organized into sub-trees.

5.3.7.1 prefs

The 'xmlns' attribute MUST match the default names number of the XML document defined in this Application Usage.

The 'version' attribute MUST match the revision number of the XML document defined in this Application Usage.

```
xmlns          = default-namespace
version       = revision-number
```

Example:

```
<prefs xmlns="urn:oma:xml:evvm:clientprefs" version="1.0">
</prefs>
```

5.3.7.1.1 client

```
client        = client-type
```

Example:

```
<client type="iVoice Unlimited;iVMC;0.9rc1;b=test build 23;d=debug,norush"/>
```

5.3.7.1.2 mediatypes

See section 5.1.7.1.1.

5.3.7.1.3 charsets

See section 5.1.7.1.2

5.3.7.1.4 protocols

See section 5.1.7.1.3.

5.3.7.1.5 notifications

See section 5.1.7.1.4.

5.3.7.1.5.1 encryption

```
index         = integer
type          = encryption-type
strength      = integer
publickey     = base64encoded
```

sharedsecret = base64encoded

Example:

```
<notifications>
  <encryption index="1" type="ECIES" strength="128">
    <sharedsecret>SecretTokenFor128bit</sharedsecret>
  </encryption>
  <encryption index="2" type="ECIES" strength="192">
    <sharedsecret>SecretTokenFor192bit</sharedsecret>
  </encryption>
  <encryption index="3" type="ECIES" strength="256">
    <sharedsecret>SecretTokenFor192bit</sharedsecret>
  </encryption>
</notifications>
```

5.3.7.1.6 device

device = host-device-type

Example:

```
<device type="HANDHELD_COMPUTER;uToo Fullconductors Inc.;uPad3;uOS 3.0.9;hwid=1"/>
```

5.3.7.1.7 filterlargemedia

When the ‘active’ attribute is omitted, the default value of ‘false’ MUST be used.

active = boolean

The sub-element ‘largerthan’ contains a message size value given in the unit of “byte”.

Example:

```
<filterlargemedia active="true">
  <largerthan>10000000</largerthan>
</filterlargemedia>
```

5.3.8 Naming conventions

The filename MUST be “<ClientID>”, where <ClientID> corresponds to an identifiers associated with the client; see section “*Client Identifier (Client-ID)*” in [EVVM ER].

5.3.9 Global Documents

Not applicable.

5.3.10 Resource interdependencies

Not applicable.

5.3.11 Authorization Policies

The authorization policies are defined as follows:

- The EVVM user MUST have permission to perform all operations defined in sections “*Document Management*”.
- The EVVM Server MUST have permissions that permit all read operation and forbid all writing/updating operations defined in section “*Document Management*” of [OMA XDM Core].
- The EVVM User and the EVVM Server MUST have permission to perform all operations defined in section “*Subscribing to changes in the XDM Resources*” of [OMA XDM Core].

5.3.12 Subscription to Changes

Subscription to changes MUST be supported as specified in [OMA XDM Core] section “*Subscriptions to changes in the XDM Resources*”.

5.3.13 Search Capabilities

Not applicable.

5.3.14 XDM Preferences Document

If History Information Document (section 5.3.15) is supported, the XDM Preferences Document MUST be supported, as described in section “*XDM Preference Document*” of [OMA XDM Core].

5.3.15 History Information Document

Modification History Information Document MAY be supported, as described in section “*Modification History Information Document*” of [OMA XDM Core].

Request History Information Document MAY be supported, as described in section “*Request History Information Document*” of [OMA XDM Core].

5.3.16 Forwarding

Not applicable.

5.3.17 Restore

Not applicable.

5.3.18 Document Reference

Document Reference MUST be supported, as described in section “*Document Reference*” of [OMA XDM Core].

5.3.19 Differential Read and Write

Not applicable.

5.4 EVVM User Preferences

The user preferences include EVVM user settings and other EVVM-related configuration information. The user preferences are managed (read/write/update) by the EVVM Clients on behalf of their respective EVVM users, and, interpreted (read) by the EVVM Server, as described in [EVVM ER].

This Application Usage defines a document in the user tree. Each user may have zero or one document.

5.4.1 Structure

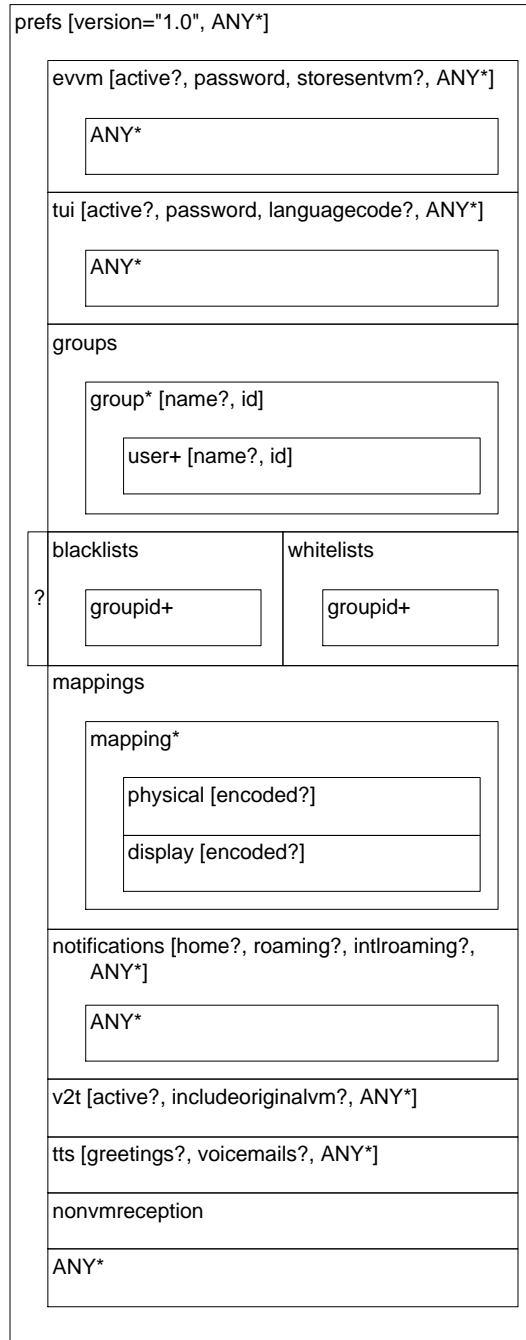


Figure 5: Structure diagram, User Preferences

The XML document **MUST** contain the ‘prefs’ element.

The ‘prefs’ element **MUST** have a ‘version’ attribute.

The ‘version’ attribute **MUST** be ‘1.0’.

The ‘prefs’ element **MAY** have any number of extension attributes.

The ‘prefs’ element **MUST** contain exactly one ‘evvm’ element.

The 'evvm' element MAY have an 'active' attribute, a 'storesentvm' attribute and any number of extension attributes.

The 'evvm' element MUST have a 'password' attribute.

The 'evvm' element MUST either be empty or contain at least one extension element.

The 'prefs' element MUST contain exactly one 'tui' element.

The 'tui' element MAY have an 'active' attribute, a 'languagecode' attribute and any number of extension attributes.

The 'tui' element MUST have a 'password' attribute.

The 'tui' element MUST either be empty or contain at least one extension element.

The 'prefs' element MUST contain exactly one 'groups' element.

The 'groups' element MAY contain zero or more 'group' elements.

Each 'group' element MAY have a 'name' attribute.

Each 'group' element MUST have an 'id' attribute.

Each 'group' element MUST contain one or more 'user' elements.

Each 'user' element MAY have a 'name' attribute.

Each 'user' element MUST have an 'id' attribute.

Each 'user' element MUST be empty.

The 'prefs' element MAY contain zero or one 'blacklists' element, or, zero or one 'whitelists' element.

The 'blacklists' element MUST contain one or more 'groupid' elements.

The 'whitelists' element MUST contain one or more 'groupid' elements.

The 'prefs' element MUST contain exactly one 'mappings' element.

The 'mappings' element MAY contain zero or more 'mapping' elements.

Each 'mapping' element MUST contain exactly one 'physical' element.

The 'physical' element MAY have an 'encoded' attribute.

Each 'mapping' element MUST contain exactly one 'display' element.

The 'display' element MAY have an 'encoded' attribute.

The 'prefs' element MUST contain exactly one 'notifications' element.

The 'notifications' element MAY have a 'home', a 'roaming', an 'intlroaming' attribute and any number of extension attributes.

The 'notifications' element MAY contain any number of extension elements.

The 'prefs' element MUST contain exactly one 'v2t' element.

The 'v2t' element MUST be empty.

The 'v2t' element MAY have an 'active' attribute, an 'includeoriginalvm' attribute and any number of extension attributes.

The 'prefs' element MUST contain exactly one 'tts' element.

The 'tts' element MUST be empty.

The 'tts' element MAY have a 'greetings' attribute, a 'voicemails' attribute and any number of extension attributes.

The 'prefs' element MUST contain exactly one 'nonvmreception' element.

The 'prefs' element MAY contain any number of extension elements.

5.4.2 Application Unique ID

The AUID MUST be "org.openmobilealliance.evvm-userprefs".

5.4.3 XML Schema

The XML document MUST conform to the XML schema described in [EVVM SUP UP].

5.4.4 Default Namespace

The default element namespace MUST be "urn:oma:xml:evvm:userprefs".

5.4.5 MIME Type

The MIME type MUST be "application/vnd.oma.evvm-userprefs+xml".

5.4.6 Validation Constraints

See description in section 5.4.1.

All 'groupid' elements under the 'blacklists' and 'whitelists' elements MUST identify a unique group using the corresponding 'id' attribute of a 'group' element defined under the 'groups' element.

5.4.7 Data Semantics

The data semantics are organized into basic types, elementary types and composite types. The definitions use ABNF notation [RFC5234] to define the data semantics of the elements and the attributes. The basic and elementary types are defined in section 6. The composite types are defined in this section, organized into sub-trees.

5.4.7.1 prefs

The 'xmlns' attribute MUST match the default names number of the XML document defined in this Application Usage.

The 'version' attribute MUST match the revision number of the XML document defined in this Application Usage.

```
xmlns          = default-namespace
version        = revision-number
```

Example:

```
<prefs xmlns="urn:oma:xml:evvm:userprefs" version="1.0">
</prefs>
```

5.4.7.1.1 evvm

When the 'active' attribute is omitted, the default value of 'false' MUST be used.

When the 'storesentvm' attribute is omitted, the default value of 'false' MUST be used.

```
active          = boolean
password        = raw-password
storesentvm     = boolean
```

Example:

```
<evvm active="true" password="H4ckDis" storesentvm="true"/>
```

5.4.7.1.2 tui

When the ‘active’ attribute is omitted, the default value of ‘false’ MUST be used.

active	=	boolean
password	=	raw-password
languagecode	=	language-token

Example:

```
<tui password="123456" languagecode="eng" active="true"/>
```

5.4.7.1.3 groups

When the ‘name’ attribute is omitted, a default value MAY be generated from the available information.

name	=	group-name
id	=	group-id

Examples:

```
<groups>
  <group name="Friends" id="friends">
  </group>
</groups>
```

5.4.7.1.3.1. user

When the ‘name’ attribute is omitted, a default value MAY be generated from the available information.

name	=	user-name
id	=	user-id

Examples:

```
<user name="Fred" id="tel:+1122334455"/>
<user name="Mom" id="mrs@smith.name"/>
```

5.4.7.1.4 blacklists

Refers to groups defined in 5.4.7.1.3.

Examples:

```
<blacklists>
  <groupid="12345">
</blacklists>
```

5.4.7.1.5 whitelists

Refers to groups defined in 5.4.7.1.3.

Examples:

```
<whitelists>
  <groupid="qwerty">
  <groupid="friends">
</whitelists>
```

5.4.7.1.6 mappings

5.4.7.1.6.1. mapping

5.4.7.1.6.1.1. physical

When the ‘encoded’ attribute is omitted, the default value of ‘false’ MUST be used.

The value of the ‘encoded’ attribute MUST be ‘true’ only when the UTF-8 content of the ‘physical’ element is encoded using Base64 [RFC4648].

physical = string | base64encoded
 encoded = boolean

Example:

```
<mappings>
  <mapping>
    <physical>INBOX</physical>
    ...
  </mapping>
  <mapping>
    <physical encoded="true">TWFya2VkJk1vdmVk</physical>
    ...
  </mapping>
</mappings>
```

5.4.7.1.6.1.2. display

When the ‘encoded’ attribute is omitted, the default value of ‘false’ MUST be used.

The value of the ‘encoded’ attribute MUST be ‘true’ only when the UTF-8 content of the ‘display’ element is encoded using Base64 [RFC4648].

display = string | base64encoded
 encoded = boolean

Example:

```
<mappings>
  <mapping>
    ...
    <display>Posteingang</display>
  </mapping>
  <mapping>
    ...
    <display encoded="true">TWFya2l1cnQmVmVyc2Nob2Jlbg==</display>
  </mapping>
</mappings>
```

5.4.7.1.7 notifications

When the ‘home’ attribute is omitted, the default value of ‘true’ MUST be used.

When the ‘roaming’ attribute is omitted, the default value of ‘true’ MUST be used.

When the ‘intlroaming’ attribute is omitted, the default value of ‘false’ MUST be used.

home = boolean
 roaming = boolean
 intlroaming = boolean

Example:

```
<notifications home="true" roaming="true" intlroaming="true"/>
```

5.4.7.1.8 v2t

When the ‘active’ attribute is omitted, the default value of ‘false’ MUST be used.

When the ‘includeoriginalvm’ attribute is omitted, the default value of ‘true’ MUST be used.

active = boolean
 includeoriginalvm = boolean

Example:

```
<v2t active="true" includeoriginalvm="true"/>
```

5.4.7.1.9 tts

When the ‘greetings’ attribute is omitted, the default value of ‘false’ MUST be used.

When the ‘voicemails’ attribute is omitted, the default value of ‘false’ MUST be used.

greetings = boolean
voicemails = boolean

Example:

```
<tts greetings="true" voicemails="true"/>
```

5.4.7.1.10 nonvmreception

The content of the ‘nonvmreception’ element (if present) SHALL be either ‘off’, ‘sms’, ‘mms’ or ‘email’, corresponding to the selection of receiving voicemails via SMS, MMS or e-mail service, respectively.

Example:

```
<nonvmreception>sms</nonvmreception>
```

5.4.8 Naming conventions

The filename MUST be “index”.

5.4.9 Global Documents

Not applicable.

5.4.10 Resource interdependencies

Not applicable.

5.4.11 Authorization Policies

The authorization policies are defined as follows:

- The EVVM user MUST have permission to perform all operations defined in sections “*Document Management*” of [OMA XDM Core].
- The EVVM Server MUST have permissions that permit all read operation and forbid all writing/updating operations defined in section “*Document Management*” of [OMA XDM Core].
- The EVVM User and the EVVM Server MUST have permission to perform all operations defined in section “*Subscribing to changes in the XDM Resources*” of [OMA XDM Core].

5.4.12 Subscription to Changes

Subscription to changes MUST be supported as specified in [OMA XDM Core] section “*Subscriptions to changes in the XDM Resources*”.

5.4.13 Search Capabilities

Not applicable.

5.4.14 XDM Preferences Document

If History Information Document (section 5.3.15) is supported, the XDM Preferences Document MUST be supported, as described in section “*XDM Preference Document*” of [OMA XDM Core].

5.4.15 History Information Document

Modification History Information Document MAY be supported, as described in section “*Modification History Information Document*” of [OMA XDM Core].

Request History Information Document MAY be supported, as described in section “*Request History Information Document*” of [OMA XDM Core].

5.4.16 Forwarding

Not applicable.

5.4.17 Restore

Not applicable.

5.4.18 Document Reference

Document Reference MUST be supported, as described in section “*Document Reference*” of [OMA XDM Core].

5.4.19 Differential Read and Write

Not applicable.

6. Data Types

This section contains the description of basic and elementary data types. These descriptions are referenced from the ABNF notations defined in the “*Data Semantics*” section of applicable Application Usages.

6.1 Basic Data Types

The basic types are defined as follows (organized alphabetically):

```
boolean           = "true" / "false"
char-delimiter-safe = <any XML-safe special character except semicolon>
char-special      = <any XML-safe special character>
integer           = DIGIT *DIGIT
```

6.2 Elementary Data Types

The elementary types are defined as follows (organized alphabetically):

```
base64encoded      = <Data encoded using Base64 encoding, as defined in [RFC4648].>
character-set      = <A character set token registered with IANA.>
client-type        = client-manufacturer ";" client-name ";" \
                    client-revision *("; " custom-list-item)
client-manufacturer = string-delimiter-safe
client-name        = string-delimiter-safe
client-revision    = revision-number
custom-list-item   = string-delimiter-safe
default-namespace = <The default namespace defined for an Application Usage.>
device-type        = "MOBILE_PHONE" / "COMPUTER" / "HANDHELD_COMPUTER" / "OTHER"
device-manufacturer = string-delimiter-safe
device-model       = string-delimiter-safe
device-os          = string-delimiter-safe
encryption-type    = "ECIES" / string
group-name         = string
group-id           = 1*( ALPHA / DIGIT )
host-device-type   = device-type ";" device-manufacturer ";" \
                    device-model ";" device-os *("; " custom-list-item)
indefinite-frequency = "always" / "ifneeded" / "never"
language-code      = 3*3ALPHA; an ISO 639-2 code defined in [ISO639-2]
language-token     = language-code *1(language-variant)
language-variant   = "." integer; see language variant definition in [OMTP VVM]
media-type         = discrete-type "/" subtype *("; " parameter)
                    ; See discrete-type, subtype and parameter in [RFC2045]
raw-password       = string
revision-number    = DIGIT *(ALPHA / DIGIT / ".")
special-mailbox-token = "inbox" / "greetings" / "draftbox" / "outbox" \
                        / "sentbox" / "spambox" / "trash"
string             = 1*( ALPHA / DIGIT / char-special)
string-delimiter-safe = 1*( ALPHA / DIGIT / char-delimiter-safe)
tui-address        = tel-uri; see tel-URI in [RFC3966]
user-id           = <see section 'User Identifier' in [EVVM ER]>
user-name         = string
vvm-sdo-name       = "OMTP-VVM" / "OMA-EVVM"
```

Appendix A. Change History

(Informative)

A.1 Approved Version History

Reference	Date	Description
OMA-TS-EVVM_XDM-V1_0-20150915-A	15 Sep 2015	Status changed to Approved by TP TP Ref # OMA-TP-2015-0145-INP_EVVM_V1_0_ERP_for_final_Approval

Appendix B. Static Conformance Requirements (Normative)

The notation used in this appendix is specified in [SCRRULES].

The SCRs defined in the following tables include SCRs for each Application Usage:

- Global service preferences
- Subscription-specific server preferences
- Client preferences
- User preferences

B.1 EVVM Global Service Preferences

B.1.1 XDMS

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

B.1.2 XDMC

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

B.1.3 XDM Agent

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

B.2 EVVM Subscription-specific Server Preferences

B.2.1 XDMS

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

B.2.2 XDMC

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

B.2.3 XDM Agent

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

B.3 EVVM Client Preferences

B.3.1 XDMS

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

B.3.2 XDMC

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

B.3.3 XDM Agent

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

B.4 EVVM User Preferences

B.4.1 XDMS

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

B.4.2 XDMC

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

B.4.3 XDM Agent

Item	Function	Reference	Requirement
TBD	TBD	TBD	TBD

Appendix C. Flows

(Informative)

The EVVM XDMS document management flows are described in the [EVVM ER].

Appendix D. Document examples

(Informative)

D.1 EVVM Global Service Preferences

The following example demonstrates the use of global service preferences, where the EVVM Server:

- Supports all supplementary content types,
- Does not support optional content types,
- Defines two additional custom content types,
- Does not support supplementary character sets,
- Defines an additional custom character set,
- Supports the VVM 1.3 and EVVM 1.0 protocols,
- Limits the maximum VM size to 2Mbytes,
- Limits the maximum greeting length to 10 seconds,
- Limits the maximum voice signature length to 15 seconds,
- Imposes the following EVVM passwords requirements:
 - Minimum 6 characters long
 - Maximum 12 characters long
 - Contain at least one uppercase character
 - Allow the use of the following special characters: ~!@#%*^*()[]{}_+ =
- Imposes the following TUI passwords requirements:
 - Minimum 4 characters long
 - Maximum 6 characters long
 - Forbid the use of alphabetical and special characters
- Supports three voice prompt variants for the TUI: English, Chinese female, Chinese male.

```
<prefs xmlns="urn:oma:xml:evvm:serviceprefs-global" version="1.0">
  <mediatypes supplementary="true" optional="false">
    <mediatype>image/tiff</mediatype>
    <mediatype>audio/mpeg</mediatype>
  </mediatypes>
  <charsets supplementary="false">
    <charset>ISO-8859-2</charset>
  </charsets>
  <protocols>
    <protocol id="OMTP-VVM" version="1.3"/>
    <protocol id="OMA-EVVM" version="1.0"/>
  </protocols>
  <bounds maxvmsize="2097152" maxgreetinglength="10" maxvoicesignaturelength="15">
    <evvm>
      <password minpasslength="6" maxpasslength="12" alphasuppercaserequired="1"
specials="~!@#%*^*()[]{}_+ ="/>
    </evvm>
    <tui>
      <password minpasslength="4" maxpasslength="6" alphasallowed="false" specialssallowed="false"/>
    </tui>
  </bounds>
</prefs>
```

```

    <language name="English, male" code="eng"/>
    <language name="Chinese, female" code="chi"/>
    <language name="Chinese, male" code="chi.1"/>
  </tui>
</bounds>
</prefs>

```

D.2 EVVM Subscription-specific Server Preferences

The following example demonstrates the use of subscription-specific service preferences, where the EVVM Server:

- Supports all supplementary and optional content types,
- Supports all supplementary sets,
- Limits the maximum VM size to 20Mbytes,
- Limits the maximum greeting length to 20 seconds,
- Limits the maximum voice signature length to 30 seconds,
- Indicates the TUI address.
- Indicates all UserIDs associated with the subscription.

```

<prefs xmlns="urn:oma:xml:evvm:serviceprefs-subscription" version="1.0">
  <mediatypes supplementary="true" optional="true"/>
  <charsets supplementary="true">
  <protocols/>
  <mappings/>
  <notifications/>
  <bounds maxvmsize="20971520" maxgreetinglength="20" maxvoicesignaturelength="30">
    <tui>
      <address id="tel:+9876543210"/>
    </tui>
  </bounds>
  <associations>
    <user id="tel:+1234567890"/>
    <user id="me.myself.i@notmail.com"/>
    <user id="me.myself.i@jeemail.com"/>
    <user id="sip:me.myself.i@sipit.com"/>
    <user id="sip:me.myself.i@sipper.com"/>
  </associations>
  <contentadaptation/>
</prefs>

```

D.3 EVVM Client Preferences

The following example demonstrates the use of client preferences, where the EVVM Client:

- Discloses its type,
- Discloses the Device's type,
- Supports all supplementary content types,
- Does not support optional content types,
- Does not support supplementary character sets,
- Supports the EVVM 1.0 protocol.

```

<prefs xmlns="urn:oma:xml:evvm:clientprefs" version="1.0">
  <client type="iVoice Unlimited;iVMC;0.9rc1;b=test build 23;d=debug,norush"/>
  <mediatypes supplementary="true" optional="false"/>

```

```

<Charsets supplementary="false"/>
<protocols>
  <protocol id="OMA-EVVM" version="1.0"/>
</protocols>
<notifications>
  <encryptions/>
</notifications>
<device type="HANDHELD_COMPUTER;uToo Fullconductors Inc.;uPad3;uOS 3.0.9;hwid=1"/>
<filterlargemedia/>
</prefs>

```

D.4 EVVM User Preferences

The following example demonstrates the use of user preferences, where the user:

- Wishes the EVVM service to be active.
- Specifies the password to access the EVVM service.
- Wishes the TUI to be active.
- Specifies the password to access the TUI.
- Specifies the language to be used while accessing the service via the TUI.
- Wishes to store sent VMs.
- Defines three groups.
- Specifies one of the groups to be blacklisted.
- Specifies two of the groups to be whitelisted.

Note: The example below violates the XML schema on purpose for the sake of completeness; "blacklists" and "whitelists" are mutually exclusive.

```

<prefs xmlns="urn:oma:xm:evvm:userprefs" version="1.0">
  <evvm active="true" password="H4ckDis" storesentvm="true"/>
  <tui active="true" password="123456" languagecode="eng"/>
  <groups>
    <group name="Friends" id="friends">
      <user name="Fred" id="tel:+1122334455"/>
      <user name="Wilma" id="tel:+2233445566"/>
      <user name="Barney" id="tel:+3344556677"/>
      <user name="Betty" id="tel:+4455667788"/>
    </group>
    <group name="White list" id="qwerty">
      <user name="Mom" id="tel:+1111111111"/>
      <user name="Mom" id="mrs@smith.name"/>
      <user name="Dad" id="tel:+2222222222"/>
      <user name="Dad" id="mr@smith.name"/>
    </group>
    <group name="Never call" id="12345">
      <user name="Unknown number" id="tel:+9999999999"/>
      <user name="Spammer" id="rosie@spam.biz"/>
    </group>
  </groups>
  <blacklists>
    <groupid="12345">
  </blacklists>
  <whitelists>
    <groupid="qwerty">
    <groupid="friends">
  </whitelists>
  <mappings/>
  <notifications/>
</v2t/>

```

```
<tts/>  
<nonvmreception>off<nonvmreception>  
</prefs>
```