



EUROPEAN COMMISSION

DIGIT  
Connecting Europe Facility

**SML**

## **Interface Control Document**

### **Business Document Metadata Service Location (BDMSL)**

Version [1.08]

Status [Final]

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## 1. INTRODUCTION

BDMSL stands for Business Document Metadata Service Location. BDMSL is the sample implementation of the SML maintained by DG DIGIT. The version of the BDMSL referred in this document is 3.0.1. This version implements the eDelivery BDXL profile.

### 1.1. Purpose of the Interface Control Document

This document will univocally define the participant's interface to the BDMSL. This document describes the WSDL and the observable behaviour of the interface.

There are 4 interfaces described in this document:

| Interface   | Description   | Version |
|---|---|---------|
| <a href="#"><u>ManageServiceMetadataService-1.0.wsdl</u></a>    | Definition of the service to Manage Service Metadata.   | 1.0     |
| <a href="#"><u>ManageBusinessIdentifierService-1.0.wsdl</u></a> | Definition of the service to Manage Participant Identifier's.   | 1.0     |
| <a href="#"><u>BDMSLService-1.0.wsdl</u></a>                    | Definition of the services to Manage Service Metadata and to monitor SML specific to this implementation.           | 1.0     |
| <a href="#"><u>BDMSLAdminService-1.0.wsdl</u></a>               | Definition of the services for administration of the SML application. Services are specific to this implementation. | 1.0     |

Table 1 - Documented services

### 1.2. Scope of the document

This document covers the service interface of the BDMSL. It includes information regarding the description of the services available, the list of use cases, the information model and the sequence of message exchanges for the services provided. This specification is limited to the service interface of the BDMSL. All other aspects of its implementation are not covered by this document. The ICD specification provides both the provider (i.e. the implementer) of the services and their consumers with a complete specification of the following aspects:

- *Interface Functional Specification*, this specifies the set of services and the operations provided by each service and this is represented by the flows explained in the use cases.
- *Interface Behavioural Specification*, this specifies the expected sequence of steps to be respected by the participants in the implementation when calling a service or a set of services and this is represented by the sequence diagrams presented in the use cases.
- *Interface Message standards*, this specifies the syntax and semantics of the data

### 1.3. Audience

This document is intended to:

- The Directorate Generals and Services of the European Commission, Member States (MS) and also companies of the private sector wanting access BDMSL services. In particular:
  - **Architects** will find it useful for determining how to best exploit BDMSL services to create a fully-fledged solution integrating other components like the SMP, the DNS and the administration application;
  - **Analysts** will find it useful to understand the communication between the BDMSL and its major peer component the SMP which will enable them to have an holistic and detailed view of the operations and data involved in the use cases;
  - **Developers** will find it essential as a basis of their development concerning the interaction mainly between the BDMSL and the SMP, and also with the DNS and the administration application;
  - **Testers** can use this document in order to test the interface by following the use cases described; in particular the communications of the BDMSL with the SMP.

### 1.4. References

The table below provides the reader with the list of reference documents.

| #      | Document  | Contents outline   |
|--------|---|--|
| [REF1] | <a href="#">Business Document Metadata Service Location Version 1.0</a> | This specification defines service discovery methods. A method is first specified to query and retrieve an URL for metadata services. Two metadata service types are then defined. Also an auxiliary method pattern for discovering a registration service to enable access to metadata services is described. The methods defined here are instances of the generic pattern defined within IETF RFCs for Dynamic Delegation Discovery Services (DDDS). This specification then defines DDDS applications for metadata and metadata-registration services. |

| #      | Document   | Contents outline  |
|--------|--|---|
| [REF2] | <a href="#">PEPPOL</a>   | The OpenPEPPOL Association is responsible for the governance and maintenance of the PEPPOL specifications that enable European businesses to easily deal electronically with any European public sector buyer in their procurement processes.   |
| [REF3] | <a href="#">PEPPOL Transport Infrastructure - Service Metadata Locator (SML)</a> | <p>This document defines the profiles for the discovery and management interfaces for the Business Document Exchange Network (BUSDOX) Service Metadata Locator service.</p> <p>The Service Metadata Locator service exposes three interfaces: Service Metadata discovery, Manage participant identifiers and Manage service metadata interfaces.</p>  |
| [REF4] | <a href="#">Service Metadata Publishing (SMP) Version 1.0</a>                    | This document describes a protocol for publishing service metadata within a 4-corner network. In a 4-corner network, entities are exchanging business documents through intermediary gateway services (sometimes called Access Points). To successfully send a business document in a 4-corner network, an entity must be able to discover critical metadata about the recipient (endpoint) of the business document, such as types of documents the endpoint is capable of receiving and methods of transport supported. The recipient makes this metadata available to other entities in the network through a Service Metadata Publisher service. This specification describes the request/response exchanges between a Service Metadata Publisher and a client wishing to discover endpoint information. A client can either be an end-user business application or a gateway/access point in the 4-corner network. It also defines the request processing that must happen at the client side. |
| [REF5] | <a href="#">eDelivery BDXL profile</a>   | Specifications of eDelivery BDXL profile.   |



| #      | Document  | Contents outline   |
|--------|---|--|
|        |   |  |
| [REF6] | <a href="#">Policy for use of Identifiers (PEPPOL Transport Infrastructure)</a> | This document describes a PEPPOL policy and guidelines for use of identifiers within the PEPPOL network. |

## 2. INTRODUCTION

### 2.1. Glossary

The key terms used in this document are defined in the CEF Definitions section on the CEF Digital Single Web Portal:

<https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/CEF+Definitions>

The key acronyms used in this Interface Control Document are defined in the CEF Glossary on the CEF Digital Single Web Portal:

<https://ec.europa.eu/cefdigital/wiki/pages/viewpage.action?spaceKey=CEFDIGITAL&title=CEF+Glossary>

## 3. INTERFACE FUNCTIONAL SPECIFICATION

### 3.1. Purpose of the BDMSL component

The BDMSL component enables Access Points to dynamically discover the IP address of the destination Access Point. Instead of looking at a static list of IP addresses, the Access Point consults a Service Metadata Publisher (SMP) where information about every participant in the document/data exchange network is kept up to date, including the IP addresses of their Access Point. As at any point in time there can be one or several active SMPs in a same network. For dynamic discovery to work, every participant must be given a unique ID in the form of a website's URL which must be known on the internet's Domain Name System (DNS) thanks to the Service Metadata Locator (SML). By knowing this URL, the Access Point is able to dynamically locate the right SMP and therefore the right Access Point.

By combining the SMP services with a [Service Location](#) solution building block like the BDMSL component, the participants of a document/data exchange network can benefit from **dynamic discovery**. In such a configuration, a participant about to send a document or data will first use the service location service (e.g. the BDMSL) to retrieve the endpoint address of the SMP. As a second step, he will query the SMP to obtain "**Metadata**" of the receiving participant; i.e. its capabilities and settings, which includes the endpoint address of the receiver's access point. The sender has then enough information and can send the message to the receiver using the adequate transport protocol, security settings, etc.

The CEF eDelivery Service Metadata Locator (SML) enables Access Points to dynamically discover the IP address of the destination Access Point. Instead of looking at a static list of IP addresses, the Access Point consults a Service Metadata Publisher (SMP) where information about every participant in the document/ data exchange network is kept up to date, including the IP addresses of their Access Point. As at any point in time there can be one or several active SMPs in a same network. For dynamic discovery to work, every participant must be given a unique ID in the form of a website's URL which must be known on the internet's Domain Name System (DNS) thanks to the Service Metadata Locator (SML). By knowing this URL, the Access Point is able to dynamically locate the right SMP and therefore the right Access Point.

The current SML software component maintained by the European Commission implements the PEPPOL Transport Infrastructure SML specifications.

## 3.2. Use cases overview

### 3.2.1. Actors

| Actor               | Definition  |
|---------------------|---|
| <b>SMP</b>          | Holds the service metadata information about participants in the network.                             |
| <b>SML</b>          | Provides controlled access to the creation and updating of entries in the DNS.                        |
| <b>ADMIN</b>        | Application user with administrative privileges.  |
| <b>Monitor user</b> | The Monitor user who is allowed to call the isAlive service for monitoring health of SML application. |

Table 2 - Actors

### 3.2.2. Use cases diagram

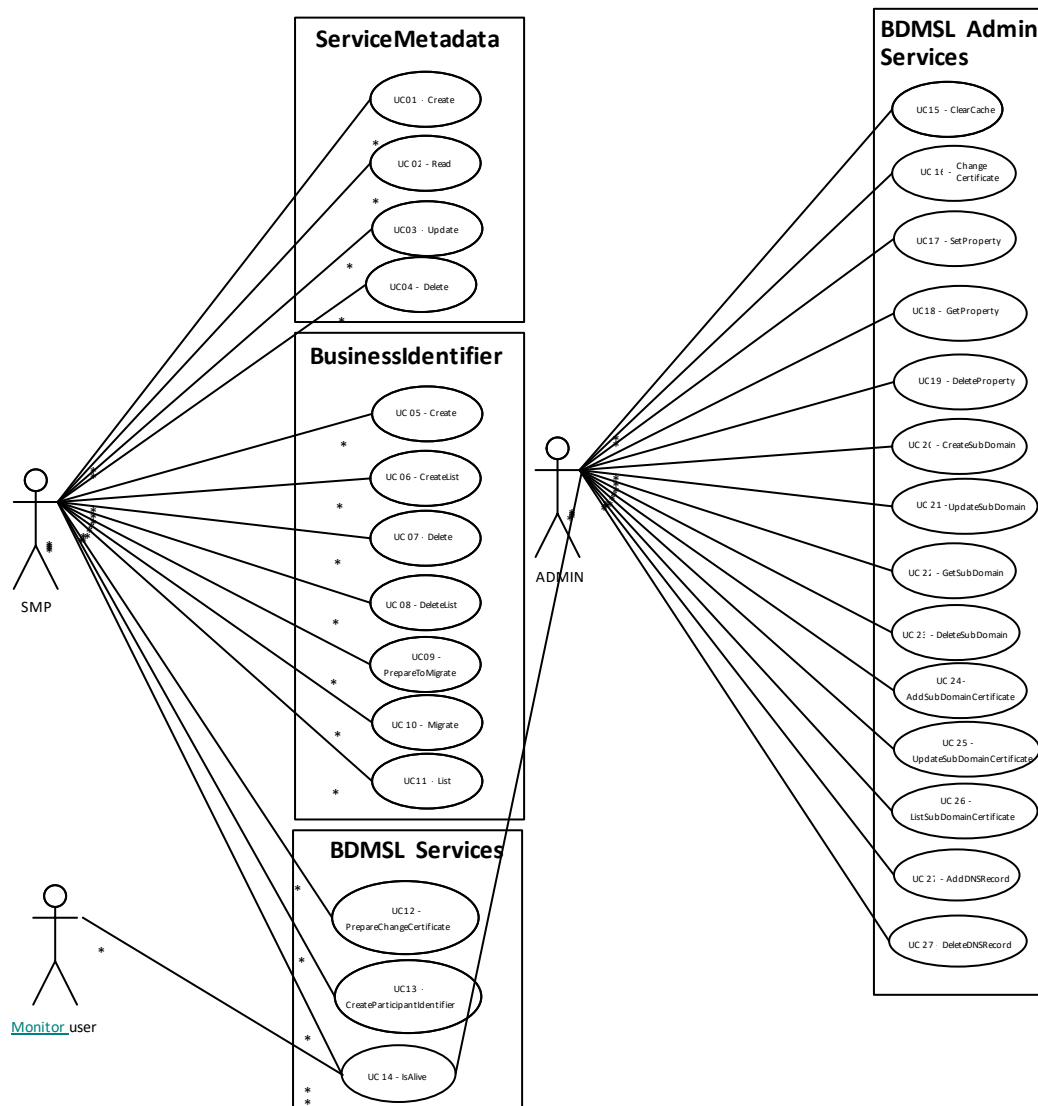


Figure 1 - Use case diagrams

| ID  | Operation         | Actor | Short description   |
|---|-------------------|-------|---|
| <b>Interface : ManageServiceMetadataService-1.0.wsdl</b>    |                   |       |   |
| <b>UC1</b>  | <b>Create</b>     | SMP   | Establishes a Service Metadata Publisher metadata record, containing the metadata about the Service Metadata Publisher- information as outlined in the <i>ServiceMetadataPublisherService</i> data type.  |
| <b>UC2</b>  | <b>Read</b>       | SMP   | Retrieves the Service Metadata Publisher record for the service metadata publisher.   |
| <b>UC3</b>  | <b>Update</b>     | SMP   | Updates the Service Metadata Publisher record for the service metadata publisher.   |
| <b>UC4</b>  | <b>Delete</b>     | SMP   | Deletes the Service Metadata Publisher record for the service metadata publisher.   |
| <b>Interface : ManageBusinessIdentifierService-1.0.wsdl</b> |                   |       |   |
| <b>UC5</b>  | <b>Create</b>     | SMP   | Creates an entry in the Service Metadata Locator service for information relating to a specific participant identifier. Regardless of the number of services a recipient exposes, only one record corresponding to the participant identifier is created in the Service Metadata Locator service by the Service Metadata Publisher which exposes the services for that participant. |
| <b>UC6</b>  | <b>CreateList</b> | SMP   | Creates a set of entries in the Service Metadata Locator service for information relating to a list of participant identifiers. Regardless of the number of services, a recipient exposes, only one record corresponding to each participant identifier is created in the Service Metadata Locator service by the Service   |

| ID   | Operation        | Actor | Short description   |
|------|------------------|-------|---|
|      |                  |       | Metadata Publisher which exposes the services for that participant.   |
| UC7  | Delete           | SMP   | Deletes the information that the Service Metadata Locator service holds for a specific Participant Identifier.  |
| UC8  | DeleteList       | SMP   | Deletes the information that the Service Metadata Locator service holds for a list of Participant Identifiers.  |
| UC9  | PrepareToMigrate | SMP   | <p>Prepares a Participant Identifier for migration to a new Service Metadata Publisher. This operation is called by the Service Metadata Publisher which currently publishes the metadata for the Participant Identifier.</p> <p>The Service Metadata Publisher supplies a Migration Code which is used to control the migration process.</p> <p>The Migration Code must be passed (out of band) to the Service Metadata Publisher which is taking over the publishing of the metadata for the Participant Identifier and which MUST be used on the invocation of the Migrate() operation.</p> <p>This operation can only be invoked by the Service Metadata Publisher which currently publishes the metadata for the specified Participant Identifier.</p> |
| UC10 | Migrate          | SMP   | Migrates a Participant Identifier already held by the Service Metadata Locator service to target a new Service Metadata Publisher. This operation is called by the Service Metadata Publisher which is taking over the publishing for the Participant Identifier. The operation requires the new Service Metadata Publisher to provide a migration code which was originally obtained from the  |

| ID                                       | Operation                   | Actor                          | Short description   |
|--|-----------------------------|--------------------------------|---|
|  |                             |                                | <p>replaced Service Metadata Publisher.</p> <p>The PrepareToMigrate operation MUST have been previously invoked for the supplied Participant Identifier, using the same <i>MigrationCode</i>, otherwise the Migrate() operation fails.</p> <p>Following the successful invocation of this operation, the lookup of the metadata for the service endpoints relating to a particular Participant Identifier will resolve (via DNS) to the new Service Metadata Publisher.</p> |
| UC11                                     | List                        | SMP                            | Used to retrieve a list of all participant identifiers associated with a single Service Metadata Publisher for synchronization purposes. Since this list may be large, it is returned as pages of data, with each page being linked from the previous page.   |
| <b>Interface : BDMSLService-1.0.wsdl</b> |                             |                                |   |
| UC12                                     | PrepareChangeCertificate    | SMP                            | Allows a SMP to prepare a change of its certificate when the current one is about to expire, and the future one is available.   |
| UC13                                     | CreateParticipantIdentifier | SMP                            | This service has the same behaviour as the <i>Create()</i> operation in the <i>ManageParticipantIdentifier</i> (UC5) interface but it has one additional and optional() Input: the <i>serviceName</i> element.  |
| UC14                                     | IsAlive                     | SMP/<br>ADMIN/<br>Monitor user | Confirms that the application is up and running (monitoring purposes)   |
|  |                             |                                |   |



| ID   | Operation                  | Actor | Short description   |
|------|----------------------------|-------|---|
| UC15 | ClearCache                 | ADMIN | Clears all the caches managed by the application.   |
| UC16 | ChangeCertificate          | ADMIN | This operation allows the admin team to change the SMP's certificate. It is called by the admin team in case the SMP's certificate has expired and the new one needs to be applied. |
| UC17 | SetProperty                | ADMIN | This operation allows the admin team to change BDML property in database. New property is taken into account when crontask refresh the properties                                   |
| UC18 | GetProperty                | ADMIN | This operation allows the admin team to verify BDML property in database.   |
| UC19 | DeleteProperty             | ADMIN | This operation allows the admin team to delete BDML property from database.   |
| UC20 | CreateSubDomain            | ADMIN | This operation allows the admin team to create new BDML SubDomain.  |
| UC21 | UpdateSubDomain            | ADMIN | This operation allows the admin team to BDML SubDomain properties.  |
| UC22 | GetSubDomain               | ADMIN | This operation allows the admin team to read BDML SubDomain properties.   |
| UC23 | DeleteSubDomain            | ADMIN | This operation allows the admin team to delete empty BDML SubDomain.  |
| UC24 | AddSubDomainCertificate    | ADMIN | This operation allows the admin team to add new Domain certificate to BDML SubDomain.   |
| UC25 | UpdateSubDomainCertificate | ADMIN | This operation allows the admin team to update Domain certificate properties.   |

| ID   | Operation                 | Actor | Short description   |
|------|---------------------------|-------|---|
| UC26 | ListSubDomainCertificates | ADMIN | This operation allows the admin team to search for domain certificate by partial certificate DN and by the Subdomain. |
| UC27 | AddDNSRecord              | ADMIN | This operation allows the admin team to add new record to DNS for DNS RecordType: A, CNAME and NAPTR.                 |
| UC28 | DeleteDNSRecord           | ADMIN | This operation allows the admin team to delete record from DNS by the DNS name.                                       |

Table 3 – Use cases

### 3.3. Sample Requests and Responses

In addition to the detailed use cases provided here below, sample requests and responses can be found in the SoapUI project referenced here:

<https://ec.europa.eu/cefdigital/code/projects/EDELIVERY/repos/bdmsl/browse/bdmsl-soapui-tests/src/test/resources/SML-soapui-project-TEST.xml>

These examples come in addition to the structure definition of the interface (cf. §4.2- WSDL – Data model) based on their WSDL files and related XSDs.

### **3.4. Detailed use cases - ManageServiceMetadataService**

The following paragraphs define the use cases related to the ManageServiceMetadata service.

The ManageServiceMetadata interface allows Service Metadata Publishers to manage the metadata held in the Service Metadata Locator service about their service metadata publisher services, e.g. binding, interface profile and key information.

This interface requires authentication of the user. The identity of the user derived from the authentication process identifies the Service Metadata Publisher associated with the service metadata which is managed via this interface.

**3.4.1. UC1 Create****Description UC01 Create**

Establishes a Service Metadata Publisher metadata record, containing the metadata about the Service Metadata Publisher (SMP), as outlined in the ServiceMetadataPublisherService data type.

**Actors**

SMP

**Preconditions**

|    |   |
|----|---|
| C1 | The user has a valid certificate  |
| C2 | The role associated to the user is ROLE_SMP   |
| C3 | The SMP does not already exist in the SML   |
| C4 | Input: CreateServiceMetadataPublisherService:<br>ServiceMetadataPublisherService - contains the service metadata publisher information, which includes the logical and physical addresses for the SMP (Domain name and IP address). It is assumed that the ServiceMetadataPublisherID has been assigned to the calling user out-of-bands. |

**Basic Flow**

| Actor | Step |  |
|-------|------|--|
| SMP   | 1    | Invokes the Create() operation   |
| SML   | 2    | Authenticates the user, validates the request, and adds the metadata record into its configuration database. |
| SML   | 3    | Returns a positive response to the requester   |
| SMP   | 4    | Receives the creation confirmation   |
|       | 5    | Use case ends  |

**Alternative flows**

None.

**Exception flows**

| E1    | The user is not authorized   |  |
|-------|--|--|
| 2.1.1 | SML  | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP  | Receives the error response                            |
| 2.1.3 |  | Use case ends  |
| E2    | Request is not valid   |  |
| 2.2.1 | SML  | Returns an HTTP error 400 as response to the requester |
| 2.2.2 | SMP  | Receives the error response                            |
| 2.2.3 |  | Use case ends  |
| E3    | Any other error occurred that prevented the SML to process the request |  |
| 2.3.1 | SML  | Returns an HTTP error 500 as response to the requester |
| 2.3.2 | SMP  | Receives the error response                            |
| 2.3.3 |  | Use case ends  |

## Post conditions

### Successful conditions

The Metadata record has been created into the SML

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if the supplied CreateServiceMetadataPublisherService does not contain consistent data (E2)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E3)

**3.4.2. UC2 Read****Description UC02 Read**

Retrieves the Service Metadata Publisher record for the service metadata publisher.

**Actors**

SMP

**Preconditions**

|    |   |
|----|---|
| C1 | The user has a valid certificate  |
| C2 | The role associated to the user is ROLE_SMP   |
| C3 | The SMP already exists in the SML   |
| C4 | Input ReadServiceMetadataPublisherService:<br>ServiceMetadataPublisherID - the unique ID of the Service Metadata Publisher for which the record is required |

**Basic Flow**

| Actor | Step |  |
|-------|------|--|
| SMP   | 1    | Invokes the Read() operation   |
| SML   | 2    | Authenticates the user, validates the request, and reads the requested SMP metadata from its configuration database. |
| SML   | 3    | Returns a positive response to the requester   |
| SMP   | 4    | Receives the metadata  |
|       | 5    | Use case ends  |

**Alternative flows**

None.

**Exception flows**

| E1    | The user is not authorized   |  |
|-------|--|--|
| 2.1.1 | SML  | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP  | Receives the error response                            |
| 2.1.3 |  | Use case ends  |
| E2    | Request is not valid   |  |
| 2.2.1 | SML  | Returns an HTTP error 400 as response to the requester |
| 2.2.2 | SMP  | Receives the error response                            |
| 2.2.3 |  | Use case ends  |
| E3    | Any other error occurred that prevented the SML to process the request |  |
| 2.3.1 | SML  | Returns an HTTP error 500 as response to the requester |
| 2.3.2 | SMP  | Receives the error response                            |
| 2.3.3 |  | Use case ends  |
| E4    | The identifier of the SMP could not be found                           |  |
| 2.4.1 | SML  | Returns an HTTP error 404 as response to the requester |
| 2.4.2 | SMP  | Receives the error response                            |
| 2.4.3 |  | Use case ends  |

## Post conditions

### Successful conditions

The Metadata has been provided to the requester.

Output: ServiceMetadataPublisherService - the service metadata publisher record, in the form of a ServiceMetadataPublisherService data type

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke the Create operation (E1)

badRequestFault (400) - returned if the supplied parameter does not contain consistent data (E2)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E3)

notFoundFault (404) - returned if the identifier of the SMP could not be found (E4)



**3.4.3. UC3 Update****Description UC03 Update**

Updates the Service Metadata Publisher record for the service metadata publisher.

**Actors**

SMP

**Preconditions**

|    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The role associated to the user is ROLE_SMP  |
| C3 | The SMP already exists in the SML  |
| C4 | Input UpdateServiceMetadataPublisheServicer:<br>ServiceMetadataPublisherService - contains the service metadata for the service metadata publisher, which includes the logical and physical addresses for the SMP (Domain name and IP address) |

**Basic Flow**

| Actor | Step |   |
|-------|------|---|
| SMP   | 1    | Invokes the Update() operation  |
| SML   | 2    | Authenticates the user, validates the request, and updates the requested metadata record from its configuration database. |
| SML   | 3    | Returns a positive response to the requester  |
| SMP   | 4    | Receives the update confirmation  |
|       | 5    | Use case ends   |

**Alternative flows**

None.

**Exception flows**

| E1    | The user is not authorized   |  |
|-------|--|--|
| 2.1.1 | SML  | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP  | Receives the error response                            |
| 2.1.3 |  | Use case ends  |
| E2    | Request is not valid   |  |
| 2.2.1 | SML  | Returns an HTTP error 400 as response to the requester |
| 2.2.2 | SMP  | Receives the error response                            |
| 2.2.3 |  | Use case ends  |
| E3    | The identifier of the SMP could not be found                           |  |
| 2.3.1 | SML  | Returns an HTTP error 404 as response to the requester |
| 2.3.2 | SMP  | Receives the error response                            |
| 2.2.3 |  | Use case ends  |
| E4    | Any other error occurred that prevented the SML to process the request |  |
| 2.4.1 | SML  | Returns an HTTP error 500 as response to the requester |
| 2.4.2 | SMP  | Receives the error response                            |

## 2.4.3

## Use case ends

**Post conditions****Successful conditions**

The SMP record has been created into the SML

**Failure Conditions (HTTP errors)**

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if the supplied UpdateServiceMetadataPublishService does not contain consistent data (E2)

notFoundFault (404) - returned if the identifier of the SMP could not be found (E3)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E4)

**3.4.4. UC4 Delete****Description UC04 Delete**

Deletes the Service Metadata Publisher record for the service metadata publisher.

**Actors**

SMP

**Preconditions**

- |    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The role associated to the user is ROLE_SMP  |
| C3 | The SMP already exists in the SML  |
| C4 | Input DeleteServiceMetadataPublisherService:<br>ServiceMetadataPublisherID - the unique ID of the Service Metadata Publisher to delete |

**Basic Flow**

| Actor | Step |   |
|-------|------|---|
| SMP   | 1    | Invokes the Delete() operation  |
| SML   | 2    | Authenticates the user, validates the request, and deletes the requested metadata record from its configuration database. |
| SML   | 3    | Returns a positive response to the requester  |
| SMP   | 4    | Receives the deletion confirmation  |
|       | 5    | Use case ends   |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

- |       |     |  |
|-------|-----|--|
| 2.1.1 | SML | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP | Receives the error response                            |
| 2.1.3 |     | Use case ends  |

**E2 Request is not valid**

- |       |     |  |
|-------|-----|--|
| 2.2.1 | SML | Returns an HTTP error 400 as response to the requester |
| 2.2.2 | SMP | Receives the error response                            |
| 2.2.3 |     | Use case ends  |

**E3 The identifier of the SMP could not be found**

- |       |     |  |
|-------|-----|--|
| 2.3.1 | SML | Returns an HTTP error 404 as response to the requester |
| 2.3.2 | SMP | Receives the error response                            |
| 2.3.3 |     | Use case ends  |

**E4 Any other error occurred that prevented the SML to process the request**

- |       |     |  |
|-------|-----|--|
| 2.4.1 | SML | Returns an HTTP error 500 as response to the requester |
|-------|-----|--|

2.4.2 SMP Receives the error response

2.4.3 Use case ends

## Post conditions

### Successful conditions

The SMP record has been created into the SML

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if the supplied DeleteServiceMetadataPublisherService does not contain consistent data (E2)

notFoundFault (404) - returned if the identifier of the SMP could not be found (E3)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E4)

### 3.5. Detailed use cases - ManageBusinessIdentifierService

The following paragraphs define the use cases related to the ManageBusinessIdentifier service.

The ManageParticipantIdentifier interface allows Service Metadata Publishers to manage the information in the Service Metadata Locator service relating to individual participant identifiers for which they hold metadata.

This interface requires authentication of the Service Metadata Publisher. The identity of the Service Metadata Publisher derived from the authentication process identifies the Service Metadata Publisher associated with the Participant Identifier(s) which is (are) managed via this interface.

**3.5.1. UC5 - Create****Description UC05 Create**

Creates an entry in the Service Metadata Locator service for information relating to a specific participant identifier. Regardless of the number of services a recipient exposes, only one record corresponding to the participant identifier is created in the Service Metadata Locator Service by the Service Metadata Publisher which exposes the services for that participant.

**Actors**

SMP

**Preconditions**

|    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The role associated to the user is ROLE_SMP  |
| C3 | The SMP does already exist in the SML  |
| C4 | The participant does not already exist   |
| C5 | Input CreateParticipantIdentifier:<br>ServiceMetadataPublisherServiceForParticipantType - contains the Participant Identifier for a given participant and the identifier of the SMP which holds its data |

**Basic Flow**

| Actor | Step |   |
|-------|------|---|
| SMP   | 1    | Invokes the Create() operation  |
| SML   | 2    | Authenticates the user, validates the request, and adds the SMP record into its configuration database. |
| SML   | 3    | Returns a positive response to the requester  |
| SMP   | 4    | Receives the creation confirmation  |
|       | 5    | Use case ends   |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

|       |     |  |
|-------|-----|--|
| 2.1.1 | SML | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP | Receives the error response                            |
| 2.1.3 |     | Use case ends  |

**E2 Request is not valid**

|       |     |  |
|-------|-----|--|
| 2.2.1 | SML | Returns an HTTP error 400 as response to the requester |
| 2.2.2 | SMP | Receives the error response                            |
| 2.2.3 |     | Use case ends  |

**E3 The SMP could not be found**

|       |     |  |
|-------|-----|--|
| 2.3.1 | SML | Returns an HTTP error 404 as response to the requester |
|-------|-----|--|

- 2.3.2 SMP Receives the error response  
 2.3.3 Use case ends

**E4 Any other error occurred that prevented the SML to process the request**

- 2.4.1 SML Returns an HTTP error 500 as response to the requester  
 2.4.2 SMP Receives the error response  
 2.4.3 Use case ends

## Post conditions

### Successful conditions

The SMP record has been created into the SML

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if the supplied CreateParticipantIdentifier does not contain consistent data (E2)

notFoundFault (404) - returned if the identifier of the SMP could not be found (E3)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E4)

### 3.5.2. UC6 - CreateList

#### Description UC06 CreateList

Creates a set of entries in the Service Metadata Locator service for information relating to a list of participant identifiers. Regardless of the number of services a recipient exposes, only one record corresponding to each participant identifier is created in the Service Metadata Locator service by the Service Metadata Publisher which exposes the services for that participant.

#### Actors

SMP

#### Preconditions

|    |   |
|----|---|
| C1 | The user has a valid certificate  |
| C2 | The role associated to the user is ROLE_SMP   |
| C3 | The SMP does already exist in the SML   |
| C4 | The participants don't already exist  |
| C5 | Input CreateList: ParticipantIdentifierPage - contains the list of Participant Identifiers for the participants which are added to the Service Metadata Locator service. The NextPageIdentifier is absent |

#### Basic Flow

| Actor | Step |  |
|-------|------|--|
| SMP   | 1    | Invokes the CreateList() operation   |
| SML   | 2    | Authenticates the user, validates the request, and adds the SMP records into its configuration database. |
| SML   | 3    | Returns a positive response to the requester   |
| SMP   | 4    | Receives the creation confirmation   |
|       | 5    | Use case ends  |

#### Alternative flows

None.

#### Exception flows

| E1    | The user is not authorized                            |  |
|-------|---|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP   | Receives the error response                            |
| 2.1.3 |   | Use case ends  |
| E2    | Request is not valid                                  |  |
| 2.2.1 | SML   | Returns an HTTP error 400 as response to the requester |
| 2.2.2 | SMP   | Receives the error response                            |
| 2.2.3 |   | Use case ends  |
| E3    | One or several SMP or participants could not be found |  |
| 2.3.1 | SML   | Returns an HTTP error 404 as response to the requester |



2.3.2 SMP Receives the error response

2.3.3 Use case ends

**E4 Any other error occurred that prevented the SML to process the request**

2.4.1 SML Returns an HTTP error 500 as response to the requester

2.4.2 SMP Receives the error response

2.4.3 Use case ends

## Post conditions

### Successful conditions

The SMP records have been created into the SML

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if:

- o The supplied CreateList does not contain consistent data
  - o The number of participants in the list is greater than 100
- (E2)

notFoundFault (404) - returned if one of the identifiers of the SMPs or of the participants could not be found (E3)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E4)

**3.5.3. UC7- Delete****Description UC07 Delete**

Deletes the information that the SML Service holds for a specific Participant Identifier.

**Actors**

SMP

**Preconditions**

|    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The role associated to the user is ROLE_SMP  |
| C3 | The SMP does already exist in the SML  |
| C4 | The participant already exists   |
| C5 | Input DeleteParticipantIdentifier :<br>ServiceMetadataPublisherServiceForParticipantType - contains the Participant Identifier for a given participant and the identifier of the SMP that publishes its metadata |

**Basic Flow**

| Actor | Step |  |
|-------|------|--|
| SMP   | 1    | Invokes the Delete() operation   |
| SML   | 2    | Authenticates the user, validates the request, and removes the SMP record from its configuration database. |
| SML   | 3    | Returns a positive response to the requester   |
| SMP   | 4    | Receives the deletion confirmation   |
|       | 5    | Use case ends  |

**Alternative flows**

None.

**Exception flows**

| E1    | The user is not authorized   |  |
|-------|--|--|
| 2.1.1 | SML  | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP  | Receives the error response                            |
| 2.1.3 |  | Use case ends  |
| E2    | Request is not valid   |  |
| 2.2.1 | SML  | Returns an HTTP error 400 as response to the requester |
| 2.2.2 | SMP  | Receives the error response                            |
| 2.2.3 |  | Use case ends  |
| E3    | The SMP or participant could not be found                              |  |
| 2.3.1 | SML  | Returns an HTTP error 404 as response to the requester |
| 2.3.2 | SMP  | Receives the error response                            |
| 2.3.3 |  | Use case ends  |
| E4    | Any other error occurred that prevented the SML to process the request |  |
| 2.4.1 | SML  | Returns an HTTP error 500 as response to the requester |

2.4.2 SMP Receives the error response

2.4.3 Use case ends

## Post conditions

### Successful conditions

The SMP record has been deleted from the SML

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if the supplied DeleteParticipantIdentifier does not contain consistent data (E2)

notFoundFault (404) - returned if the identifier of the SMP or of the participant could not be found (E3)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E4)

**3.5.4. UC8-DeleteList****Description UC08 DeleteList**

Deletes the information that the SML Service holds for a list of Participant Identifiers.

**Actors**

SMP

**Preconditions**

|    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The role associated to the user is ROLE_SMP  |
| C3 | The SMP does already exist in the SML  |
| C4 | The participant already exists   |
| C5 | Input DeleteList: ParticipantIdentifier - contains the list of Participant Identifiers for the participants which are removed from the Service Metadata Locator service. The NextPageIdentifier element is absent. |
| C6 | The number of participants in the list is less than 100  |

**Basic Flow**

| Actor | Step |  |
|-------|------|--|
| SMP   | 1    | Invokes the DeleteList() operation   |
| SML   | 2    | Authenticates the user, validates the request, and adds the SMP records into its configuration database. |
| SML   | 3    | Returns a positive response to the requester   |
| SMP   | 4    | Receives the deletion confirmation   |
|       | 5    | Use case ends  |

**Alternative flows**

None.

**Exception flows**

| E1    | The user is not authorized   |  |
|-------|--|--|
| 2.1.1 | SML  | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP  | Receives the error response                            |
| 2.1.3 |  | Use case ends  |
| E2    | Request is not valid   |  |
| 2.2.1 | SML  | Returns an HTTP error 400 as response to the requester |
| 2.2.2 | SMP  | Receives the error response                            |
| 2.2.3 |  | Use case ends  |
| E3    | The SMP or participant could not be found                              |  |
| 2.3.1 | SML  | Returns an HTTP error 404 as response to the requester |
| 2.3.2 | SMP  | Receives the error response                            |
| 2.3.3 |  | Use case ends  |
| E4    | Any other error occurred that prevented the SML to process the request |  |

- |       |     |  |
|-------|-----|--|
| 2.4.1 | SML | Returns an HTTP error 500 as response to the requester |
| 2.4.2 | SMP | Receives the error response                            |
| 2.4.3 |     | Use case ends  |

## Post conditions

### Successful conditions

The SMP records have been deleted from the SML

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if:

- o The supplied DeleteList does not contain consistent data
  - o The number of participants in the list is greater than 100
- (E2)

notFoundFault (404) - returned if one of the identifiers of the SMPs or of the participants could not be found (E3)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E4)

**3.5.5. UC9 PrepareToMigrate****Description UC09 PrepareToMigrate**

Prepares a Participant Identifier for migration to a new Service Metadata Publisher. This operation is called by the Service Metadata Publisher which currently publishes the metadata for the Participant Identifier. The Service Metadata Publisher supplies a Migration Code which is used to control the migration process. The Migration Code must be passed (out of band) to the Service Metadata Publisher which is taking over the publishing of the metadata for the Participant Identifier and which **MUST** be used on the invocation of the Migrate() operation. This operation can only be invoked by the Service Metadata Publisher which currently publishes the metadata for the specified Participant Identifier.

**Actors**

SMP

**Preconditions**

|    |   |
|----|---|
| C1 | The user has a valid certificate  |
| C2 | The role associated to the user is ROLE_SMP   |
| C3 | The SMP already exists in the SML   |
| C4 | The participant already exists  |
| C5 | Input PrepareMigrationRecord: MigrationRecordType - contains the Migration Key and the Participant Identifier which is about to be migrated from one Service Metadata Publisher to another. |

**Basic Flow**

| Actor | Step |   |
|-------|------|---|
| SMP   | 1    | Invokes the PrepareToMigrate() operation  |
| SML   | 2    | Authenticates the user, validates the request, and adds the SMP record into its configuration database. |
| SML   | 3    | Returns a positive response to the requester  |
| SMP   | 4    | Receives the prepared to migrate confirmation   |
|       | 5    | Use case ends   |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

|       |     |  |
|-------|-----|--|
| 2.1.1 | SML | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP | Receives the error response                            |
| 2.1.3 |     | Use case ends  |

**E2 Request is not valid**

- |       |     |  |
|-------|-----|--|
| 2.2.1 | SML | Returns an HTTP error 400 as response to the requester |
| 2.2.2 | SMP | Receives the error response                            |
| 2.2.3 |     | Use case ends  |

**E3 The SMP or participant could not be found**

- |       |     |  |
|-------|-----|--|
| 2.3.1 | SML | Returns an HTTP error 404 as response to the requester |
| 2.3.2 | SMP | Receives the error response                            |
| 2.3.3 |     | Use case ends  |

**E4 Any other error occurred that prevented the SML to process the request**

- |       |     |  |
|-------|-----|--|
| 2.4.1 | SML | Returns an HTTP error 500 as response to the requester |
| 2.4.2 | SMP | Receives the error response                            |
| 2.4.3 |     | Use case ends  |

## Post conditions

### Successful conditions

The SMP record is ready to be migrated into the SML

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if the supplied PrepateMigrationRecord does not contain consistent data (E2)

notFoundFault (404) - returned if the participant identifier or the identifier of the SMP could not be found (E3)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E4)

### 3.5.6. UC10 Migrate

#### Description UC10 Migrate

Migrates a Participant Identifier already held by the Service Metadata Locator service to target a new Service Metadata Publisher. This operation is called by the Service Metadata Publisher which is taking over the publishing for the Participant Identifier. The operation requires the new Service Metadata Publisher to provide a migration code which was originally obtained from the old Service Metadata Publisher. The PrepareToMigrate operation MUST have been previously invoked for the supplied Participant Identifier, using the same MigrationCode, otherwise the Migrate() operation fails. Following the successful invocation of this operation, the lookup of the metadata for the service endpoints relating to a particular Participant Identifier will resolve (via DNS) to the new Service Metadata Publisher.

#### Actors

SMP

#### Preconditions

|    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The role associated to the user is ROLE_SMP  |
| C3 | The SMP does already exist in the SML  |
| C4 | The participant already exists   |
| C5 | The PrepareToMigrate operation MUST have been previously invoked for the supplied Participant Identifier, using the same MigrationCode   |
| C6 | Input CompleteMigrationRecord: MigrationRecordType - contains the Migration Key and the Participant Identifier which is to be migrated from one Service Metadata Publisher to another. |

#### Basic Flow

| Actor | Step |   |
|-------|------|---|
| SMP   | 1    | Invokes the Migrate() operation   |
| SML   | 2    | Authenticates the user, validates the request, and migrates the SMP record into its configuration database. |
| SML   | 3    | Returns a positive response to the requester  |
| SMP   | 4    | Receives the migration confirmation   |
|       | 5    | Use case ends   |

#### Alternative flows

None.

#### Exception flows

| E1    | The user is not authorized |  |
|-------|----------------------------|--|
| 2.1.1 | SML                        | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP                        | Receives the error response                            |
| 2.1.3 |                            | Use case ends  |



|           |   |  |
|-----------|---|--|
| <b>E2</b> | <b>Request is not valid</b>   |  |
| 2.2.1     | SML   | Returns an HTTP error 400 as response to the requester |
| 2.2.2     | SMP   | Receives the error response                            |
| 2.2.3     |   | Use case ends  |
| <b>E3</b> | <b>The SMP or migration key could not be found</b>                            |  |
| 2.3.1     | SML   | Returns an HTTP error 404 as response to the requester |
| 2.3.2     | SMP   | Receives the error response                            |
| 2.3.3     |   | Use case ends  |
| <b>E4</b> | <b>Any other error occurred that prevented the SML to process the request</b> |  |
| 2.4.1     | SML   | Returns an HTTP error 500 as response to the requester |
| 2.4.2     | SMP   | Receives the error response                            |
| 2.4.3     |   | Use case ends  |

## Post conditions

### Successful conditions

The participant identifier has been migrated into the SML

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if the supplied CompleteMigrationRecord does not contain consistent data (E2)

notFoundFault (404) -returned if the migration key or the identifier of the SMP could not be found (E3)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E4)

**3.5.7. UC11 List****Description UC11 List**

List() is used to retrieve a list of all participant identifiers associated with a single Service Metadata Publisher, for synchronization purposes. Since this list may be large, it is returned as pages of data, with each page being linked from the previous page.

**Actors**

SMP

**Preconditions**

|    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The role associated to the user is ROLE_SMP  |
| C3 | The SMP does already exist in the SML  |
| C5 | Input Page: PageRequest - contains a PageRequest containing the ServiceMetadataPublisherID of the SMP and (if required) an identifier representing the next page of data to retrieve. If the NextPageIdentifier is absent, the first page is returned. |

**Basic Flow**

| Actor | Step |  |
|-------|------|--|
| SMP   | 1    | Invokes the List() operation   |
| SML   | 2    | Authenticates the user, validates the request, and builds the list of SMP from its configuration database. |
| SML   | 3    | Returns the requested list to the requester  |
| SMP   | 4    | Receives the requested list  |
|       | 5    | Use case ends  |

**Alternative flows**

None.

**Exception flows**

| <b>E1 The user is not authorized</b>   |     |  |
|--|-----|--|
| 2.1.1  | SML | Returns an HTTP error 401 as response to the requester |
| 2.1.2  | SMP | Receives the error response                            |
| 2.1.3  |     | Use case ends  |
| <b>E2 Request is not valid</b>   |     |  |
| 2.2.1  | SML | Returns an HTTP error 400 as response to the requester |
| 2.2.2  | SMP | Receives the error response                            |
| 2.2.3  |     | Use case ends  |
| <b>E3 The SMP or migration key could not be found</b>                            |     |  |
| 2.3.1  | SML | Returns an HTTP error 404 as response to the requester |
| 2.3.2  | SMP | Receives the error response                            |
| 2.3.3  |     | Use case ends  |
| <b>E4 Any other error occurred that prevented the SML to process the request</b> |     |  |

- |       |     |  |
|-------|-----|--|
| 2.4.1 | SML | Returns an HTTP error 500 as response to the requester |
| 2.4.2 | SMP | Receives the error response                            |
| 2.4.3 |     | Use case ends  |

## Post conditions

### Successful conditions

Output: ParticipantIdentifierPage - a page of Participant Identifier entries associated with the Service Metadata Publisher, also containing a <Page/> element containing the identifier that represents the next page, if any.

Note that the underlying data may be updated between one invocation of List() and a subsequent invocation of List(), so that a set of retrieved pages of participant identifiers may not represent a consistent set of data.

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if the supplied NextPage does not contain consistent data (E2)

notFoundFault (404) - returned if the next page or the identifier of the SMP could not be found (E3)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E4)

### 3.6. Detailed use cases – BDMSLService

This interface describes non-core services that are not defined in the SML or BDX specifications.

The following paragraphs define the use cases related to the BDMSLService service.

#### 3.6.1. UC12- PrepareChangeCertificate

##### Description UC12 PrepareChangeCertificate

This operation allows an SMP to prepare a change of its certificate. It is typically called when an SMP has a certificate that is about to expire and already has the new one. This operation **MUST** be called while the certificate that is already registered in the BDMSL is still valid. If the migrationDate is not empty, then the new certificate **MUST** be valid at the date provided in the migrationDate element. If the migrationDate element is empty, then the "Valid From" date is extracted from the certificate and is used as the migrationDate. In this case, the "Not Before" date of the certificate must be in the future.

##### Actors

SMP

##### Preconditions

|    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The role associated to the user is ROLE_SMP  |
| C3 | The user has the new certificate for the SMP(s)  |
| C4 | Input: PrepareChangeCertificate containing the new certificate and the validity start date |

##### Basic Flow

| Actor | Step |   |
|-------|------|---|
| SMP   | 1    | Invokes the PrepareChangeCertificate() operation  |
| SML   | 2    | Authenticates the user, validates the request, and stores the future certificate into its configuration database. |
| SML   | 3    | Returns a positive response to the requester  |
| SMP   | 4    | Receives the creation confirmation  |
|       | 5    | Use case ends   |

##### Alternative flows

None.

##### Exception flows

###### E1 The user is not authorized

|       |     |  |
|-------|-----|--|
| 2.1.1 | SML | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP | Receives the error response                            |
| 2.1.3 |     | Use case ends  |

###### E2 Request is not valid

|       |     |  |
|-------|-----|--|
| 2.2.1 | SML | Returns an HTTP error 400 as response to the requester |
| 2.2.2 | SMP | Receives the error response                            |
| 2.2.3 |     | Use case ends  |

| <b>E3</b> | <b>Any other error occurred that prevented the SML to process the request</b> |  |
|-----------|---|--|
| 2.3.1     | SML   | Returns an HTTP error 500 as response to the requester |
| 2.3.2     | SMP   | Receives the error response                            |
| 2.3.3     |   | Use case ends  |

## Post conditions

### Successful conditions

The Metadata record has been created into the SML

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if :

- o The supplied request does not contain consistent data
  - o The new certificate is not valid at the date provided in the migrationDate element
  - o The migrationDate is not in the future.
  - o The migrationDate is not provided and the "Not Before" date of the new certificate is not in the future
  - o The migrationDate is not provided and the "Valid From" is in the past
- (E2)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E3)

**3.6.2. UC13- CreateParticipantIdentifier****Description UC13 CreateParticipantIdentifier**

This service has the same behaviour as the Create() operation in the ManageParticipantIdentifier interface but it has one additional and optional() Input: the serviceName element. In the Create() operation, the service name is "Meta:SMP" by default. In the CreateParticipantIdentifier() operation, this service name can be customized.

- serviceName: the name of the service for the NAPTR record

**Actors**

SMP

**Preconditions**

- C1 The user has a valid certificate
- C2 The role associated to the user is ROLE\_SMP
- C3 The SMP does already exist in the SML
- C4 The participant does not already exist
- C5 Input CreateParticipantIdentifier:  
ServiceMetadataPublisherServiceForParticipantType - contains the Participant Identifier for a given participant and the identifier of the SMP which holds its data

Additional parameter: serviceName

**Basic Flow**

| Actor | Step |   |
|-------|------|---|
| SMP   | 1    | Invokes the CreateParticipantIdentifier() operation   |
| SML   | 2    | Authenticates the user, validates the request, and adds the SMP record into its configuration database. |
| SML   | 3    | Returns a positive response to the requester  |
| SMP   | 4    | Receives the creation confirmation  |
|       | 5    | Use case ends   |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

- 2.1.1 SML Returns an HTTP error 401 as response to the requester
- 2.1.2 SMP Receives the error response
- 2.1.3 Use case ends

**E2 Request is not valid**

- 2.2.1 SML Returns an HTTP error 400 as response to the requester
- 2.2.2 SMP Receives the error response
- 2.2.3 Use case ends

**E3 The SMP could not be found**

- |       |     |  |
|-------|-----|--|
| 2.3.1 | SML | Returns an HTTP error 404 as response to the requester |
| 2.3.2 | SMP | Receives the error response                            |
| 2.3.3 |     | Use case ends  |

|           |   |
|-----------|---|
| <b>E4</b> | <b>Any other error occurred that prevented the SML to process the request</b> |
|-----------|---|

- |       |     |  |
|-------|-----|--|
| 2.4.1 | SML | Returns an HTTP error 500 as response to the requester |
| 2.4.2 | SMP | Receives the error response                            |
| 2.4.3 |     | Use case ends  |

## Post conditions

### Successful conditions

The SMP record has been created into the SML

### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if the supplied CreateParticipantIdentifier does not contain consistent data (E2)

notFoundFault (404) - returned if the identifier of the SMP could not be found (E3)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E4)

**3.6.3. UC14 IsAlive****Description UC14 IsAlive**

This service has only a monitoring purpose. It can be called to check if the application is up and running. This service checks if the database and the DNS are accessible by trying to read from the database and to write to and read from DNS.

**Actors**

SMP,  
ADMIN,  
Monitor user

**Preconditions**

|    |  |
|----|--|
| C1 | The user has a valid certificate                           |
| C2 | The user has the role ROLE_SMP or ROLE_ADMIN, ROLE_MONITOR |
| C4 | Input: None  |

**Basic Flow**

| Actor | Step |  |
|-------|------|--|
| SMP   | 1    | Invokes the IsAlive() operation              |
| SML   | 2    | Authenticates the user                       |
| SML   | 3    | Returns a positive response to the requester |
| SMP   | 4    | Receives the alive confirmation              |
|       | 5    | Use case ends                                |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

|       |     |                                      |
|-------|-----|--------------------------------------|
| 2.1.1 | SML | Returns no response to the requester |
| 2.1.3 |     | Use case ends                        |

**E2 Any other error occurred that prevented the SML to process the request**

|       |     |                                      |
|-------|-----|--------------------------------------|
| 2.2.1 | SML | Returns no response to the requester |
| 2.2.2 |     | Use case ends                        |

**Post conditions****Successful conditions**

HTTP 200 OK response sent to the requester.

**Failure Conditions (HTTP errors)**

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E2)



### **3.7. Detailed use cases – BDMSLService**

This interface describes non-core services that are not defined in the SML or BDX specifications.

The following paragraphs define the use cases related to the BDMSLAdminService service.

**3.7.1. UC15 ClearCache****Description UC15 ClearCache**

The in-memory caches are used for:

- The list of trusted aliases and their corresponding domains, because these data are not supposed to be changed frequently.
- The content of the Certificate Revocation List, in order to avoid the cost of downloading each time the CRLM for each certificate.

**Actors**

ADMIN

**Preconditions**

|    |                                  |
|----|----------------------------------|
| C1 | The user has a valid certificate |
| C2 | The user has the role ROLE_ADMIN |
| C3 | Input: none.                     |

**Basic Flow**

| Actor | Step |  |
|-------|------|--|
| SMP   | 1    | Invokes the ClearCache() operation   |
| SML   | 2    | Authenticates the user, validates the request, and clears the in-memory cache. |
| SML   | 3    | Returns a positive response to the requester                                   |
| SMP   | 4    | Receives the reset confirmation  |
|       | 5    | Use case ends  |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

|       |     |  |
|-------|-----|--|
| 2.1.1 | SML | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP | Receives the error response                            |
| 2.1.3 |     | Use case ends  |

**E2 Any other error occurred that prevented the SML to process the request**

|       |     |  |
|-------|-----|--|
| 2.2.1 | SML | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | SMP | Receives the error response                            |
| 2.2.3 |     | Use case ends  |

**Post conditions****Successful conditions**

The cache is reset. HTTP 200 OK response sent to the requester.

**Failure Conditions (HTTP errors)**

No or unspecified type of response (E1, E2)

**3.7.2. UC16 ChangeCertificate****Description UC16 ChangeCertificate**

This operation allows the admin team to change the SMP's certificate. It is called by the admin team in case the SMP's certificate has expired and the new one needs to be applied. The new certificate MUST be valid at the date time the request is sent.

**Actors**

ADMIN

**Preconditions**

|    |   |
|----|---|
| C1 | The user has a valid certificate                |
| C2 | The role associated to the user is ROLE_ADMIN   |
| C3 | The user has the new certificate for the SMP(s) |
| C4 | Input : SMP id, New certificate public key      |

**Basic Flow**

| Actor | Step |  |
|-------|------|--|
| SMP   | 1    | Invokes the ChangeCertificate() operation  |
| SML   | 2    | Authenticates the user, validates the request, and stores the new certificate into its configuration database. |
| SML   | 3    | Returns a positive response to the requester   |
| SMP   | 4    | Receives the creation confirmation   |
|       | 5    | Use case ends  |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

|       |     |  |
|-------|-----|--|
| 2.1.1 | SML | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | SMP | Receives the error response                            |
| 2.1.3 |     | Use case ends  |

**E2 Request is not valid**

|       |     |  |
|-------|-----|--|
| 2.2.1 | SML | Returns an HTTP error 400 as response to the requester |
| 2.2.2 | SMP | Receives the error response                            |
| 2.2.3 |     | Use case ends  |

**E3 Any other error occurred that prevented the SML to process the request**

|       |     |  |
|-------|-----|--|
| 2.3.1 | SML | Returns an HTTP error 500 as response to the requester |
| 2.3.2 | SMP | Receives the error response                            |
| 2.3.3 |     | Use case ends  |

**Post conditions****Successful conditions**

New Certificate is stored

Output : none.

HTTP 200 OK expected

#### **Failure Conditions (HTTP errors)**

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)

badRequestFault (400) - returned if :

- o The supplied request does not contain consistent data
  - o The new certificate is not valid at the date provided in the migrationDate element
  - o The migrationDate is not in the future.
  - o The migrationDate is not provided and the "Not Before" date of the new certificate is not in the future
  - o The migrationDate is not provided and the "Valid From" is in the past
- (E2)

internalErrorFault (500) - returned if the SML service is unable to process the request for any reason (E3)

### 3.7.3. [Error! Reference source not found.](#) [Error! Reference source not found.](#)

#### Description UC17 SetProperty

This operation allows the admin team to change BDML property in database: as passwords, DNS url, .... New property is taken into account when crontask refresh the properties at the same time on all nodes in cluster. Crontab properties are refreshed only with restart of BDMLS server.

#### Actors

ADMIN

#### Preconditions

|    |   |
|----|---|
| C1 | The user has a valid certificate        |
| C2 | The user has the role ROLE_ADMIN        |
| C3 | Input: Property name and property value |

| Actor | Step |  |
|-------|------|--|
| ADMIN | 1    | Invokes the SetProperty () operation   |
| SML   | 2    | Authenticates the user, validates the request, if property is password – the password is encrypted, stores the property. |
| SML   | 3    | Returns returns stored property from database. In case of password property the '*****' is returned                      |
| ADMIN | 4    | Receives the stored property   |
|       | 5    | Use case ends  |

#### Alternative flows

None.

#### Exception flows

##### E1 The user is not authorized

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

##### E2 Any other error occurred that prevented the SML to process the request

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

#### Post conditions

#### Successful conditions

Output : PropertyType : the property stored in BDMSL

#### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
 internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)

### 3.7.4. [Error! Reference source not found.](#) [Error! Reference source not found.](#)

#### Description UC18 SetProperty

This operation allows the admin team to retrieve BDML property from database, DNS url, smtp configuration, etc.

#### Actors

ADMIN

#### Preconditions

|    |                                  |
|----|----------------------------------|
| C1 | The user has a valid certificate |
| C2 | The user has the role ROLE_ADMIN |
| C3 | Input: Property name             |

| Actor | Step |  |
|-------|------|--|
| ADMIN | 1    | Invokes the SetProperty () operation   |
| SML   | 2    | Authenticates the user, validates the request  |
| SML   | 3    | Returns returns stored property from database. In case of password property the '****' is returned |
| ADMIN | 4    | Receives the stored property   |
|       | 5    | Use case ends  |

#### Alternative flows

None.

#### Exception flows

##### E1 The user is not authorized

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

##### E2 Any other error occurred that prevented the SML to process the request

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

#### Post conditions

#### Successful conditions

Output : PropertyType : the property from BDMSL database

#### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
 internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)

### 3.7.5. [Error! Reference source not found.](#) [Error! Reference source not found.](#)

#### Description UC19 DeleteProperty

This operation allows the admin team to retrieve BDML delete non mandatory properties from database.

#### Actors

ADMIN

#### Preconditions

|    |                                  |
|----|----------------------------------|
| C1 | The user has a valid certificate |
| C2 | The user has the role ROLE_ADMIN |
| C3 | Input: Property name             |

| Actor | Step |   |
|-------|------|---|
| ADMIN | 1    | Invokes the DeleteProperty () operation   |
| SML   | 2    | Authenticates the user, validates the request   |
| SML   | 3    | Returns returns stored property from database. In case of password property the '*****' is returned |
| ADMIN | 4    | Receives the stored property  |
|       | 5    | Use case ends   |

#### Alternative flows

None.

#### Exception flows

##### E1 The user is not authorized

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

##### E2 Any other error occurred that prevented the SML to process the request

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

#### Post conditions

#### Successful conditions

Output : PropertyType : the deleted property from BDMSL database

#### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)

### 3.7.6. [Error! Reference source not found. Error! Reference source not found.](#)

#### Description UC20 CreateSubDomain

This operation allows the admin team to create new BDML SubDomain. When creating subdomain the DNS types, SMP url scheme restriction, Participant regular expression must be defined.

#### Actors

ADMIN

#### Preconditions

|    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The user has the role ROLE_ADMIN   |
| C3 | Input: Domain name, DNS Zone, DNS Record type, allowed SMP Url scheme, Participant regular expression. |

| Actor | Step |   |
|-------|------|---|
| ADMIN | 1    | Invokes the CreateSubDomain () operation                    |
| SML   | 2    | Authenticates the user, validates the request               |
| SML   | 3    | Stores the domain to database.                              |
| ADMIN | 4    | Receives the stored and normalized values for the SubDomain |
|       | 5    | Use case ends   |

#### Alternative flows

None.

#### Exception flows

##### E1 The user is not authorized

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

##### E2 Any other error occurred that prevented the SML to process the request

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

#### Post conditions

#### Successful conditions

Output : SubDomainType : the stored SubDomainData from BDMSL database

#### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)



### 3.7.7. [Error! Reference source not found.](#) [Error! Reference source not found.](#)

#### Description UC21 UpdateSubDomain

This operation allows the admin team to BDML SubDomain properties. In case of changing DNS Record Type and with DNS integration ON - the records are not updated automatically. Records must be updated manually using operations: AddDNSRecord, DeleteDNSRecord.

#### Actors

ADMIN

#### Preconditions

|    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The user has the role ROLE_ADMIN   |
| C3 | Input: Domain name and optional:, DNS Record type, allowed SMP Url scheme, Participant regular expression. |

| Actor | Step |   |
|-------|------|---|
| ADMIN | 1    | Invokes the UpdateSubDomain () operation                    |
| SML   | 2    | Authenticates the user, validates the request               |
| SML   | 3    | Update the subdomain data to database.                      |
| ADMIN | 4    | Receives the stored and normalized values for the SubDomain |
|       | 5    | Use case ends   |

#### Alternative flows

None.

#### Exception flows

##### E1 The user is not authorized

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

##### E2 Any other error occurred that prevented the SML to process the request

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

#### Post conditions

#### Successful conditions

Output : SubDomainType : the stored SubDomainData from BDMSL database

#### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)

### 3.7.8. [Error! Reference source not found. Error! Reference source not found.](#)

#### Description UC22 GetSubDomain

This operation allows the admin team to read BDML SubDomain properties.

#### Actors

ADMIN

#### Preconditions

|    |                                  |
|----|----------------------------------|
| C1 | The user has a valid certificate |
| C2 | The user has the role ROLE_ADMIN |
| C3 | Input: Domain name.              |

| Actor | Step |   |
|-------|------|---|
| ADMIN | 1    | Invokes the GetSubDomain () operation         |
| SML   | 2    | Authenticates the user, validates the request |
| SML   | 3    | Get the subdomain data from database.         |
| ADMIN | 4    | Receives the stored values for the SubDomain  |
|       | 5    | Use case ends                                 |

#### Alternative flows

None.

#### Exception flows

##### E1 The user is not authorized

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

##### E2 Any other error occurred that prevented the SML to process the request

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

#### Post conditions

#### Successful conditions

Output : SubDomainType : the stored SubDomainData from BDMSL database

#### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
 internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)

### 3.7.9. [Error! Reference source not found. Error! Reference source not found.](#)

#### Description UC23 DeleteSubDomain

This operation allows the admin team to delete empty BDML SubDomain.

#### Actors

ADMIN

#### Preconditions

|    |                                  |
|----|----------------------------------|
| C1 | The user has a valid certificate |
| C2 | The user has the role ROLE_ADMIN |
| C3 | Input: Domain name.              |

| Actor | Step |   |
|-------|------|---|
| ADMIN | 1    | Invokes the DeleteSubDomain () operation      |
| SML   | 2    | Authenticates the user, validates the request |
| SML   | 3    | Delete the subdomain data from database.      |
| ADMIN | 4    | Receives the deleted SubDomain data           |
|       | 5    | Use case ends                                 |

#### Alternative flows

None.

#### Exception flows

##### E1 The user is not authorized

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

##### E2 Any other error occurred that prevented the SML to process the request

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

#### Post conditions

#### Successful conditions

Output : SubDomainType : the deleted SubDomainData from BDMSL database

#### Failure Conditions (HTTP errors)

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
 internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)

**3.7.10. Error! Reference source not found. Error! Reference source not found.Certificate****Description UC24 AddSubDomainCertificate**

This operation allows the admin team to add new Domain certificate to BDML SubDomain. Certificate can be flagged as RootPKI certificate and as Admin certificate. Admin certificate can be only the certificate which is not flagged as RootPKI certificate.

**Actors**

ADMIN

**Preconditions**

|    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The user has the role ROLE_ADMIN   |
| C3 | Input: Certificate (PEM/DER), SubDomain name, IsRootPKI certificate, Is Admin certificate, CRL distribution URL. |

| Actor | Step |  |
|-------|------|--|
| ADMIN | 1    | Invokes the AddSubDomainCertificate () operation |
| SML   | 2    | Authenticates the user, validates the request    |
| SML   | 3    | Add new SubDomain certificate to the subdomain.  |
| ADMIN | 4    | Receives added Certificate SubDomain data        |
|       | 5    | Use case ends                                    |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

**E2 Any other error occurred that prevented the SML to process the request**

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

**Post conditions****Successful conditions**

Output : SubDomainCertificateType: the new SubDomain Certificate Data stored to BDMSL database

**Failure Conditions (HTTP errors)**

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)

**3.7.11. [Error! Reference source not found. Error! Reference source not found.Certificate](#)****Description UC25 UpdateSubDomainCertificate**

This operation allows the admin team to update SubDomain certificate data. Admin can set or clear CRL distribution point, IsAdmin flag and SubDomain name.

**Actors**

ADMIN

**Preconditions**

|    |  |
|----|--|
| C1 | The user has a valid certificate   |
| C2 | The user has the role ROLE_ADMIN   |
| C3 | Input: Certificate ID, Optional: SubDomain name, Is Admin certificate, CRL distribution URL. |

| Actor | Step |   |
|-------|------|---|
| ADMIN | 1    | Invokes the UpdateSubDomainCertificate () operation |
| SML   | 2    | Authenticates the user, validates the request       |
| SML   | 3    | Update data to SubDomain certificate.               |
| ADMIN | 4    | Receives stored Certificate SubDomain data          |
|       | 5    | Use case ends                                       |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

**E2 Any other error occurred that prevented the SML to process the request**

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

**Post conditions****Successful conditions**

Output : SubDomainCertificateType : the new SubDomain Certificate Data stored to BDMSL database

**Failure Conditions (HTTP errors)**

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)

**3.7.12. [Error! Reference source not found. Error! Reference source not found.Certificates](#)****Description UC26 ListSubDomainCertificates**

This operation allows the admin team to search for domain certificate by partial certificate DN and by the Subdomain.

**Actors**

ADMIN

**Preconditions**

|    |  |
|----|--|
| C1 | The user has a valid certificate                         |
| C2 | The user has the role ROLE_ADMIN                         |
| C3 | Input: Optional: Partial Certificate ID, SubDomain name. |

| Actor | Step |  |
|-------|------|--|
| ADMIN | 1    | Invokes the ListSubDomainCertificates () operation                         |
| SML   | 2    | Authenticates the user, validates the request                              |
| SML   | 3    | Returns list of SubDomain certificate data accordint to search paremeters. |
| ADMIN | 4    | Receives list of SubDomain certificate data                                |
|       | 5    | Use case ends  |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

**E2 Any other error occurred that prevented the SML to process the request**

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

**Post conditions****Successful conditions**

Output : List of SubDomainCertificateTypes which match search criteria.

**Failure Conditions (HTTP errors)**

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
 internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)

**3.7.13. [Error! Reference source not found. AddDNSRecord](#)****Description UC27 AddDNSRecord**

This operation allows the admin team to add new record to DNS for DNS RecordType: A, CNAME and NAPTR.

**Actors**

ADMIN

**Preconditions**

|    |   |
|----|---|
| C1 | The user has a valid certificate  |
| C2 | The user has the role ROLE_ADMIN  |
| C3 | Input: DNS Record Type, DNS Record Name, DNS Zone, Value and service name for NAPTR Type. |

| Actor | Step |  |
|-------|------|--|
| ADMIN | 1    | Invokes the AddDNSRecordType () operation  |
| SML   | 2    | Authenticates the user, validates the request  |
| SML   | 3    | Stores DNS record to SML database and if DNS integration is on inserts record to DNS server. |
| ADMIN | 4    | Receives stored DNS data   |
|       | 5    | Use case ends  |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

**E2 Any other error occurred that prevented the SML to process the request**

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

**Post conditions****Successful conditions**

Output : DNSRecord data which are stored to database and optionally to DNS.

**Failure Conditions (HTTP errors)**

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
 internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)

**3.7.14. [Error! Reference source not found. DeleteDNSRecord](#)****Description UC28 DeleteDNSRecord**

This operation allows the admin team to delete record from DNS by the DNS name. If there are multiple DNS records with the same name in database and DNS server all of them are deleted!

**Actors**

ADMIN

**Preconditions**

|    |                                  |
|----|----------------------------------|
| C1 | The user has a valid certificate |
| C2 | The user has the role ROLE_ADMIN |
| C3 | Input: DNS Record Name, DNS Zone |

| Actor | Step |  |
|-------|------|--|
| ADMIN | 1    | Invokes the DeleteDNSRecordType () operation                                   |
| SML   | 2    | Authenticates the user, validates the request                                  |
| SML   | 3    | Deleted DNS records from SML database and DNS server if DNS integration is on. |
| ADMIN | 4    | Receives list of deleted DNS data from database.                               |
|       | 5    | Use case ends  |

**Alternative flows**

None.

**Exception flows****E1 The user is not authorized**

|       |       |  |
|-------|-------|--|
| 2.1.1 | SML   | Returns an HTTP error 401 as response to the requester |
| 2.1.2 | ADMIN | Receives the error response                            |
| 2.1.3 |       | Use case ends  |

**E2 Any other error occurred that prevented the SML to process the request**

|       |       |  |
|-------|-------|--|
| 2.2.1 | SML   | Returns an HTTP error 500 as response to the requester |
| 2.2.2 | ADMIN | Receives the error response                            |
| 2.2.3 |       | Use case ends  |

**Post conditions****Successful conditions**

Output : List of DNSRecord data which are deleted from database.

**Failure Conditions (HTTP errors)**

unauthorizedFault (401) - returned if the caller is not authorized to invoke this operation (E1)  
internalErrorFault (500) - Returned if the BDMSL service is unable to process the request for any reason (E2)



## 4. INTERFACE BEHAVIOURAL SPECIFICATION

### 4.1. Sequence diagrams

#### 4.1.1. ManageServiceMetadataService

(cf. [REF3])

The ManageServiceMetadata interface allows Service Metadata Publishers to manage the metadata held in the Service Metadata Locator service about their service metadata publisher services, e.g. binding, interface profile and key information. This interface requires authentication of the user. The identity of the user derived from the authentication process identifies the Service Metadata Publisher associated with the service metadata which is managed via this interface. The ManageServiceMetadata interface has the following operations:

- Create
- Read
- Update
- Delete

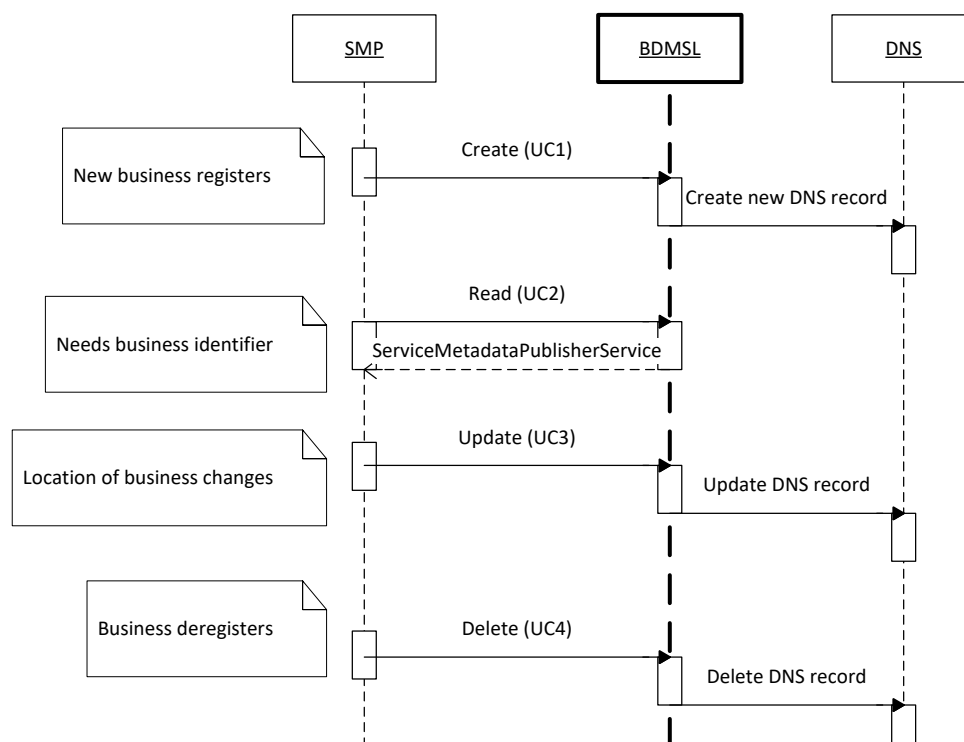


Figure 2 – Sequence diagram: *ManageServiceMetadataService*

#### 4.1.2. *ManageBusinessIdentifierService*

The ManageParticipantIdentifier interface has the following operations:

- Create
- CreateList
- Delete
- DeleteList
- PrepareToMigrate
- Migrate
- List

These services are listed in the sequence diagram below:

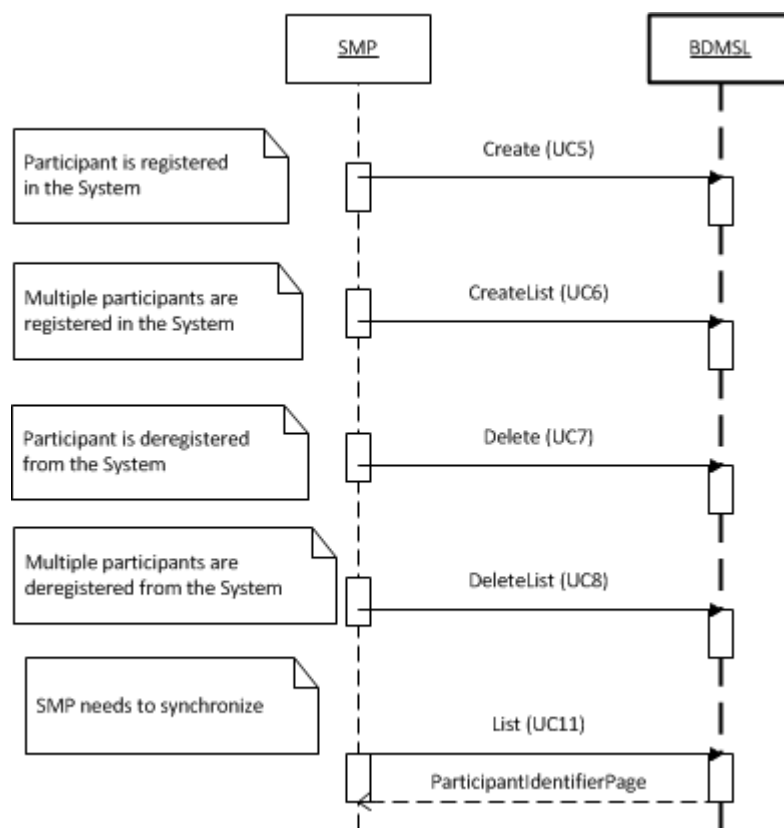


Figure 3 – Sequence diagram: *ManageBusinessIdentifierService*

The usage of the services related to the SMP migration process – involving more than a single step like the others above – are shown in the sequence diagram below:

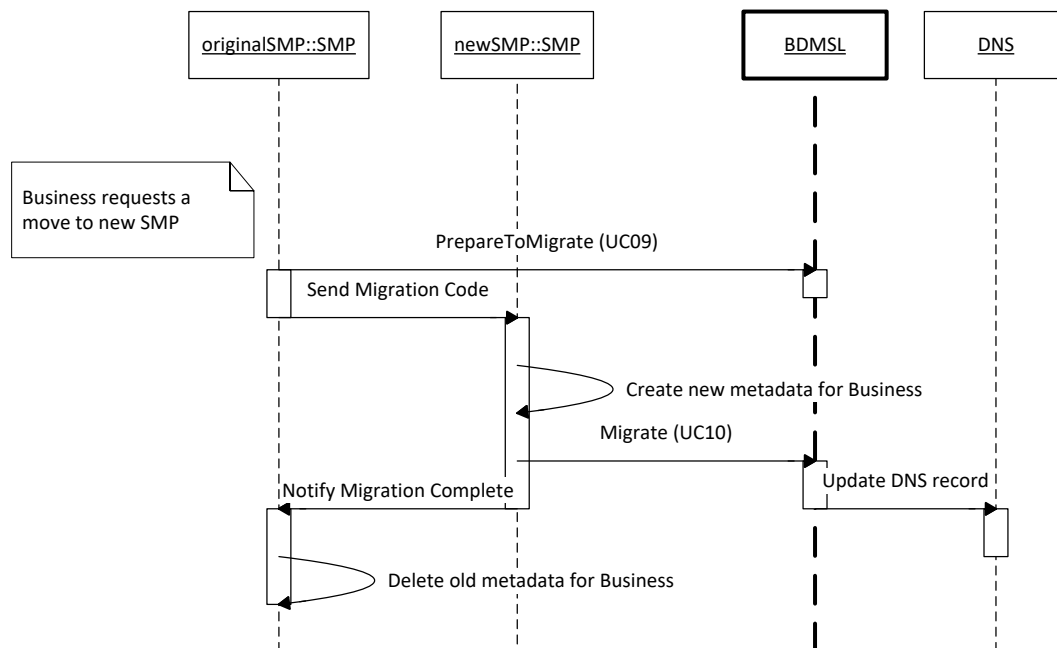


Figure 4 – Sequence diagram : SMP Migraion

#### 4.1.3. BDMSLService

This interface describes non-core services that are not defined in the SML or BDML specifications.

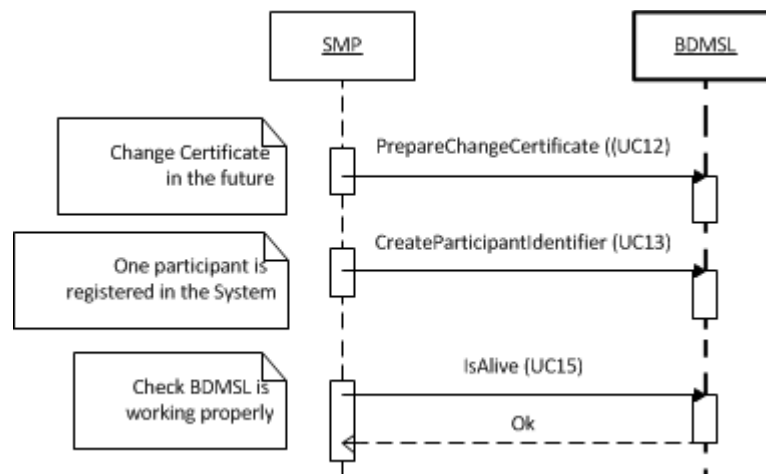


Figure 5 – Sequence diagram: BDMSLService

#### 4.1.4. BDMSLAdminService

This interface describes non-core administration services that are not defined in the SML or BDMSL specifications.

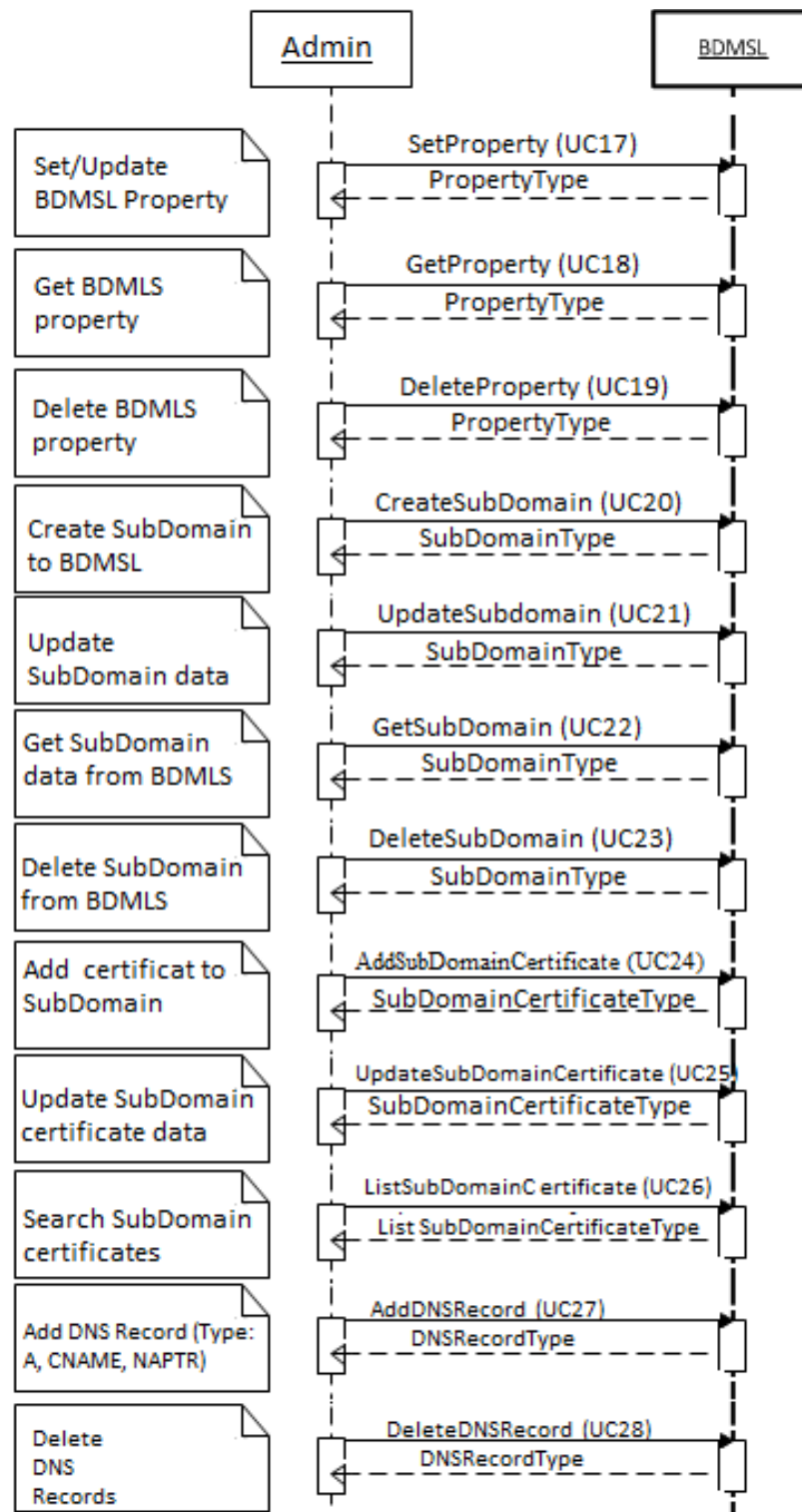
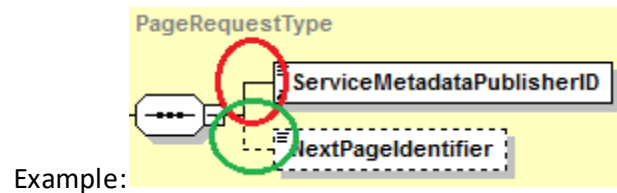



Figure 6 – Sequence diagram: BDMSLService

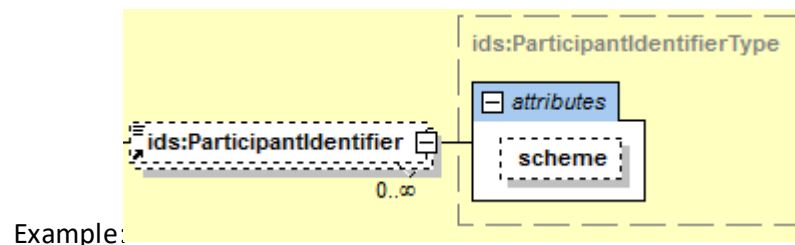
## 4.2. WSDL – Data model


The interface data model of the BDMSL is described as follows:

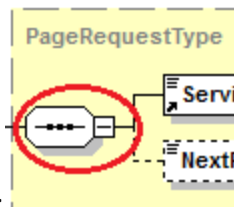
- One paragraph for each of the 3 web services will introduce all their operations
- One paragraph for each operation will specify their Input and Output structures and the fault that these operations may return. In some cases there is no argument, in which case there is no related structure (the text below will mention "none" in those cases).
- For each input or output structure, the related XSD structure is detailed in a graphical way specifying:
  - The arborescence structure;
  - The mandatory (**solid lines**) and optional (**dashed line**) fields.



- The repeated fields and their cardinality (icon  with min/max indication on the bottom right).

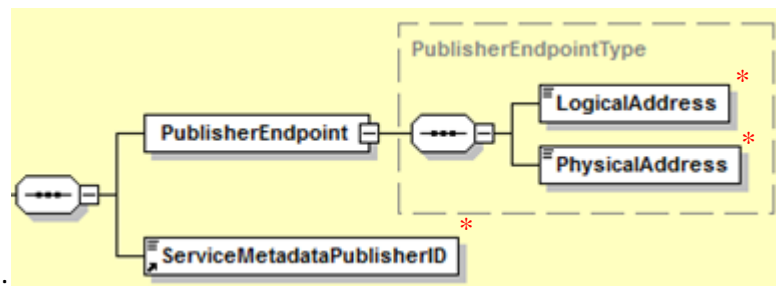


- The sequences (icon ).



Example:

- The leave attributes as defined in the first paragraph.



Examples (\*):

#### 4.2.1. WSDL model for ManageServiceMetadataService

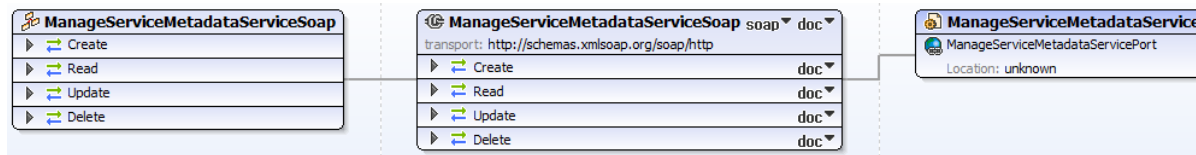
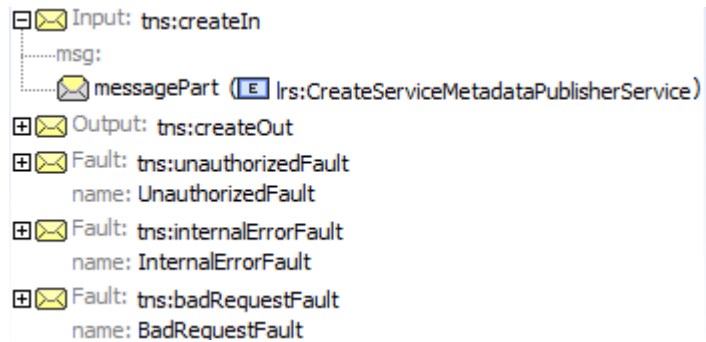


Figure 7 – WSDL ManageServiceMetadataService

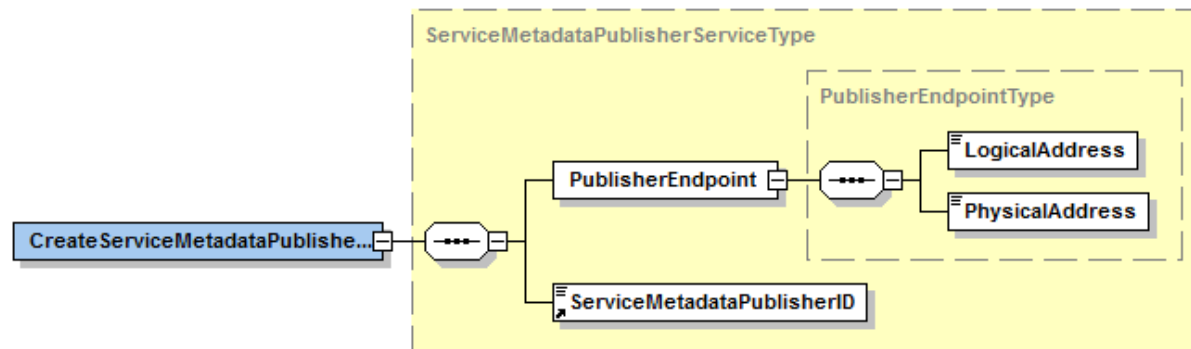
#### 4.2.1.1. Operations Signatures

##### 4.2.1.1.1. Create() Signature





## 4.2.1.1.2. Create() Input



| Argument                          | Description                                       | Format/XSD/Xpath   | Constraint   |
|-----------------------------------|---|--|--|
| PublisherEndpoint.LogicalAddress  | The logical address of the endpoint (Domain name) | xs:anyURI<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PublisherEndpointType']/*[local-name()='sequence']/*[local-name()='element' and @name='LogicalAddress']  | Must not be null or empty.<br>Must be valid and well formatted.  |
| PublisherEndpoint.PhysicalAddress | IP Address of the endpoint                        | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PublisherEndpointType']/*[local-name()='sequence']/*[local-name()='element' and @name='PhysicalAddress'] | This physical address is used as the ALIAS on the CNAME DNS record by default. However a NAPTR DNS record is also provided in order to give the possibility to process regular expressions for accessing the domain if necessary.<br>NAPTR records are based |

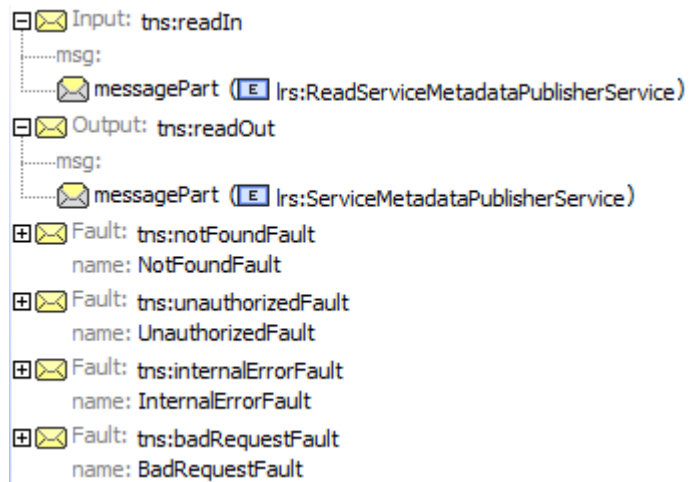
| Argument                   | Description                  | Format/XSD/Xpath   | Constraint   |
|----------------------------|------------------------------|--|--|
|                            |                              |  | on a different type of DNS resource records called "URI-enabled Naming Authority Pointer records" (U-NAPTR), which are defined to support Dynamic Delegation Discovery Service (DDDS). The result of a query is a full URI, which can use HTTPS and supports server and optionally client authentication. Must not be null or empty. Must be valid according to IPv4 and well formatted. |
| ServiceMetadataPublisherID | Unique identifier of the SMP | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID'] | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service.  |

Table 4 – Create() input

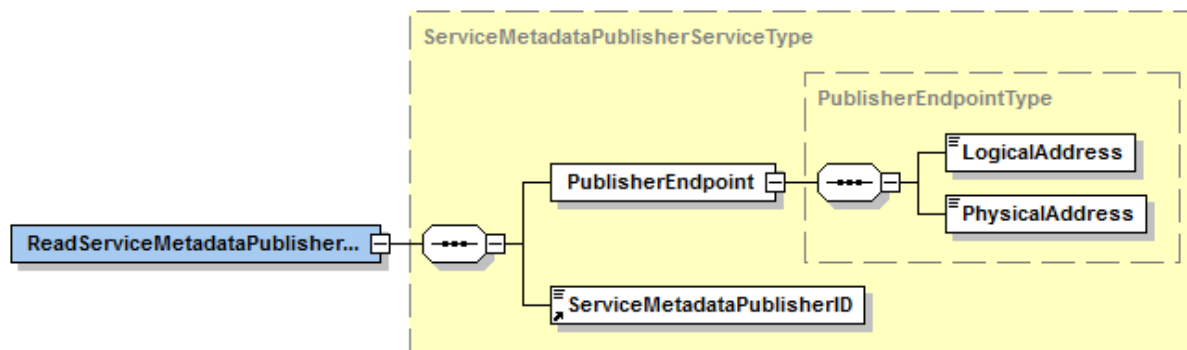
## 4.2.1.1.3. Create() Output

None

## 4.2.1.1.4. Read() Signature



## 4.2.1.1.5. Read() Input

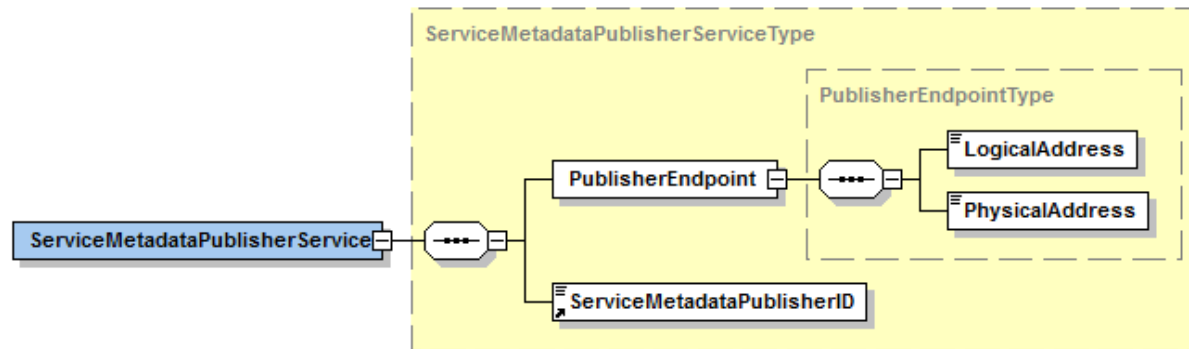


| Argument                          | Description                                       | Format/XSD/Xpath   | Constraint   |
|-----------------------------------|---|--|--|
| PublisherEndpoint.LogicalAddress  | The logical address of the endpoint (Domain name) | xs:anyURI<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PublisherEndpointType']/*[local-name()='sequence']/*[local-name()='element' and @name='LogicalAddress']  | Must not be null or empty.<br>Must be valid and well formatted.  |
| PublisherEndpoint.PhysicalAddress | IP Address of the endpoint                        | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PublisherEndpointType']/*[local-name()='sequence']/*[local-name()='element' and @name='PhysicalAddress'] | This physical address is used as the ALIAS on the CNAME DNS record by default. However a NAPTR DNS record is also provided in order to give the possibility to process regular expressions for accessing the domain if necessary.<br>NAPTR records are based on a different type of DNS resource records called "URI-enabled Naming Authority Pointer records" (U-NAPTR), which are defined to support Dynamic Delegation Discovery Service (DDDS). The result of a query is a full URI, which can use HTTPS and supports server and optionally client |

| Argument                   | Description                  | Format/XSD/Xpath   | Constraint  |
|----------------------------|------------------------------|--|---|
|                            |                              |  | authentication.<br>Must not be null or empty.<br>Must be valid according to IPv4 and well formatted.  |
| ServiceMetadataPublisherID | Unique identifier of the SMP | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID'] | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service. |

Table 5 – Read input()

## 4.2.1.1.6. Read() Output

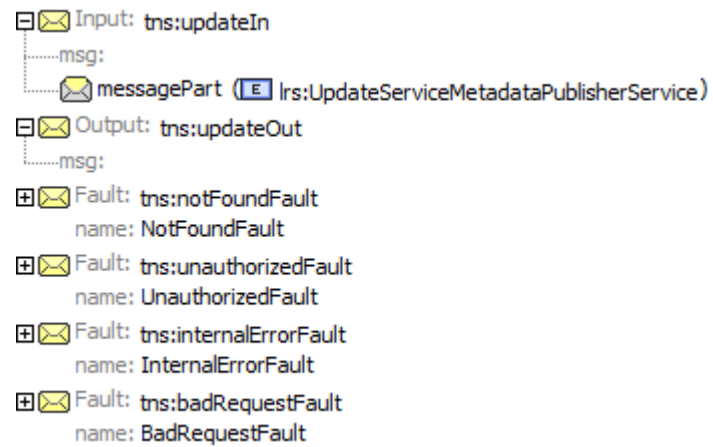


| Argument                          | Description                                       | Format/XSD/Xpath   | Constraint   |
|-----------------------------------|---|--|--|
| PublisherEndpoint.LogicalAddress  | The logical address of the endpoint (Domain name) | xs:anyURI<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PublisherEndpointType']/*[local-name()='sequence']/*[local-name()='element' and @name='LogicalAddress']  | Must not be null or empty.<br>Must be valid and well formatted.  |
| PublisherEndpoint.PhysicalAddress | IP Address of the endpoint                        | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PublisherEndpointType']/*[local-name()='sequence']/*[local-name()='element' and @name='PhysicalAddress'] | This physical address is used as the ALIAS on the CNAME DNS record by default. However a NAPTR DNS record is also provided in order to give the possibility to process regular expressions for accessing the domain if necessary.<br>NAPTR records are based |

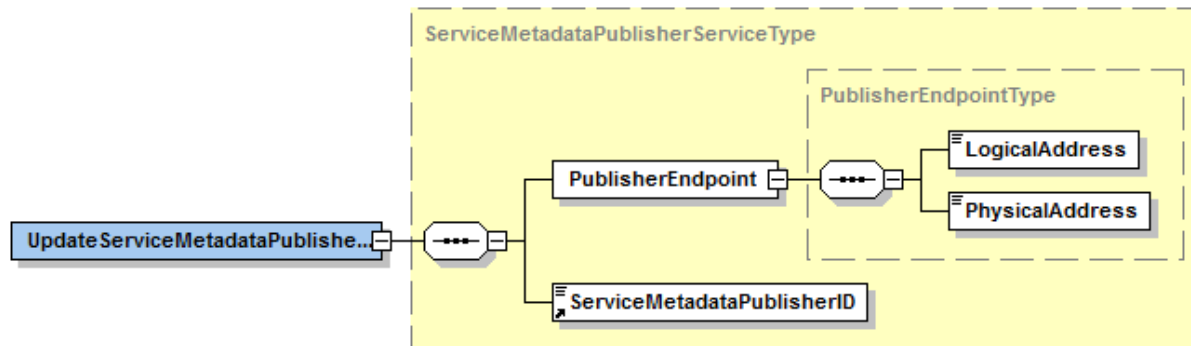
| Argument                   | Description                  | Format/XSD/Xpath  | Constraint  |
|----------------------------|------------------------------|---|---|
|                            |                              |   | <p>on a different type of DNS resource records called "URI-enabled Naming Authority Pointer records" (U-NAPTR), which are defined to support Dynamic Delegation Discovery Service (DDDS). The result of a query is a full URI, which can use HTTPS and supports server and optionally client authentication. Must not be null or empty. Must be valid according to IPv4 and well formatted.</p> |
| ServiceMetadataPublisherID | Unique identifier of the SMP | <p>xs:string</p> <p>ServiceMetadataLocatorTypes-1.0.xsd</p> <p>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID']</p> | <p>In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service.</p>  |

Table 6 – Read() output

## 4.2.1.1.7. Update() Signature



## 4.2.1.1.8. Update() Input





| Argument                          | Description                                       | Format/XSD/Xpath   | Constraint  |
|-----------------------------------|---|--|---|
| PublisherEndpoint.LogicalAddress  | The logical address of the endpoint (Domain name) | xs:anyURI<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PublisherEndpointType']/*[local-name()='sequence']/*[local-name()='element' and @name='LogicalAddress']  | Must not be null or empty.<br>Must be valid and well formatted.   |
| PublisherEndpoint.PhysicalAddress | IP Address of the endpoint                        | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PublisherEndpointType']/*[local-name()='sequence']/*[local-name()='element' and @name='PhysicalAddress'] | <p>This physical address is used as the ALIAS on the CNAME DNS record by default. However a NAPTR DNS record is also provided in order to give the possibility to process regular expressions for accessing the domain if necessary.</p> <p>NAPTR records are based on a different type of DNS resource records called "URI-enabled Naming Authority Pointer records" (U-NAPTR), which are defined to support Dynamic Delegation Discovery Service (DDDS). The result of a query is a full URI, which can use HTTPS and supports server and optionally client authentication.</p> |

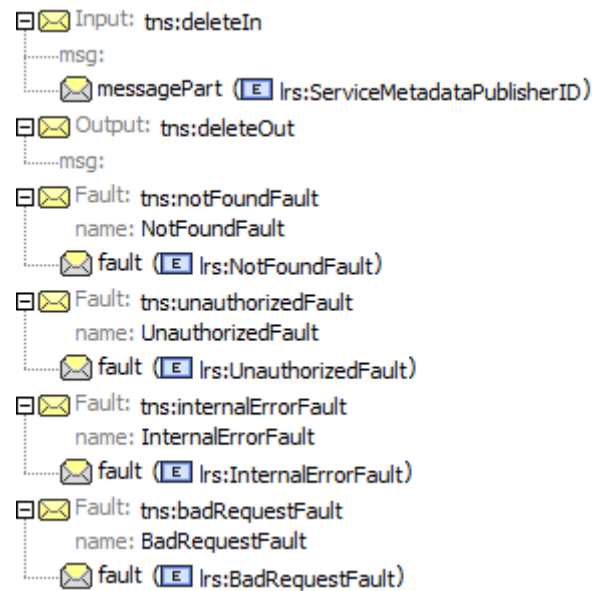
| Argument                   | Description                  | Format/XSD/Xpath   | Constraint  |
|----------------------------|------------------------------|--|---|
|                            |                              |  | Must not be null or empty.<br>Must be valid according to IPv4 and well formatted.   |
| ServiceMetadataPublisherID | Unique identifier of the SMP | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID'] | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service. |

Table 7 – Update() input

## 4.2.1.1.9. Update() Output

None

## 4.2.1.1.10. Delete()Signature



## 4.2.1.1.11. Delete()Input

**ServiceMetadataPublisherID**

| Argument                   | Description                  | Format/XSD/Xpath   | Constraint  |
|----------------------------|------------------------------|--|---|
| ServiceMetadataPublisherID | Unique identifier of the SMP | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and<br>@name='ServiceMetadataPublisherServiceForParticipantType']/*[local-<br>name()='sequence']/*[local-name()='element' and<br>@ref='ServiceMetadataPublisherID'] | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service. |

**Table 8 – Delete() input**

4.2.1.1.12. Delete() Output

None

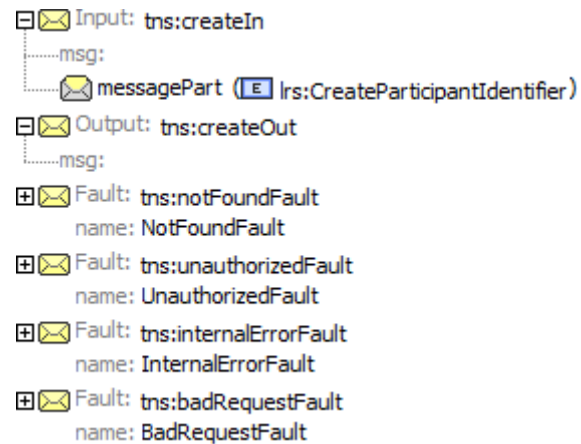
#### 4.2.2. WSDL model for ManageBusinessIdentifierService



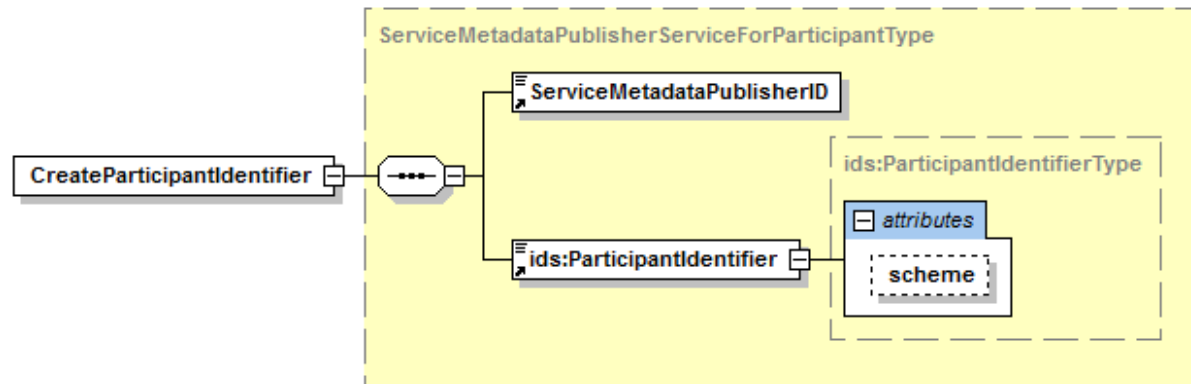
Figure 8 – WSDL ManageBusinessIdentifierService

##### 4.2.2.1. Operations Signatures

###### 4.2.2.1.1. Create() Signature



## 4.2.2.1.2. Create() Input



| Argument                   | Description                  | Format/XSD/Xpath   | Constraint  |
|----------------------------|------------------------------|--|---|
| ServiceMetadataPublisherID | Unique identifier of the SMP | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID'] | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service. |

| Argument              | Description  | Format/XSD/Xpath   | Constraint  |
|-----------------------|--|--|---|
| ParticipantIdentifier | Business unique identifier of the Participant. Represents a business level endpoint key that uniquely identifies an end-user entity in the network. Examples of identifiers are company registration and VAT numbers, DUNS numbers, GLN numbers, email addresses, etc... | <p>The format must comply with ISO 15459 constraints as defined in [REF6].</p> <p>Example: 0088:4035811991014</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ParticipantIdentifierType']</code></p> | <p>Must be unique.</p> <p>May not exceed 50 characters and must be at least 1 character long.</p> <p>May only contain ASCII characters.</p> <p>Participant identifier must be trimmed.</p> <p>If the scheme refers to the (default) PEPPOL participant identifier scheme (iso6523-actorid-upis) and the participant identifier is not a wildcard ('*'), then the issuing agency specified in the ParticipantIdentifier (as its leading part before ':') must be included in the official list (cf. §0 - "List of valid issuing agencies for PEPPOL")</p> <p>Remark: the participant identifier is case insensitive.</p> |

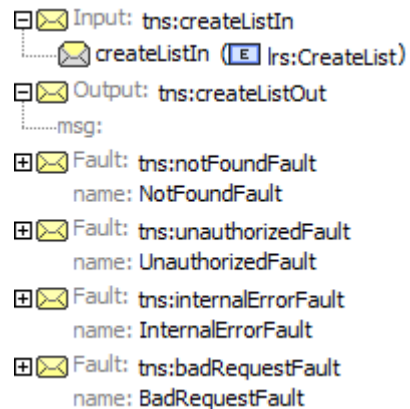
| Argument                     | Description                              | Format/XSD/Xpath   | Constraint   |
|------------------------------|--|--|--|
| ParticipantIdentifier.scheme | The scheme of the participant identifier | <p>Identifier schemes for all schemed identifier types (participants, documents, profiles, transports) may be defined outside of this specification. Any instance of a 4-cornered infrastructure may choose to define identifier schemes that match the type of documents, participants or profiles that are relevant to support in that instance.</p> <p>Examples:                    iso6523-actorid-upis,                    busdox-actorid-upis</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType'] and<br/>@name='ProcessIdentifierType']/xs:simpleContent/xs:extension/xs:attribute</code></p> | <p>May not exceed 25 characters.</p> <p>Must match the two following pattern:<br/> <a href="#">[a-zA-Z0-9]+-[a-zA-Z0-9]+-[a-zA-Z0-9]</a></p> <p>Which defines the following parts:<br/>           &lt;domain&gt;-&lt;identifier Area&gt;-&lt;identifier type&gt;</p> |

Table 9 – Create() input

## 4.2.2.1.3. Create() Output

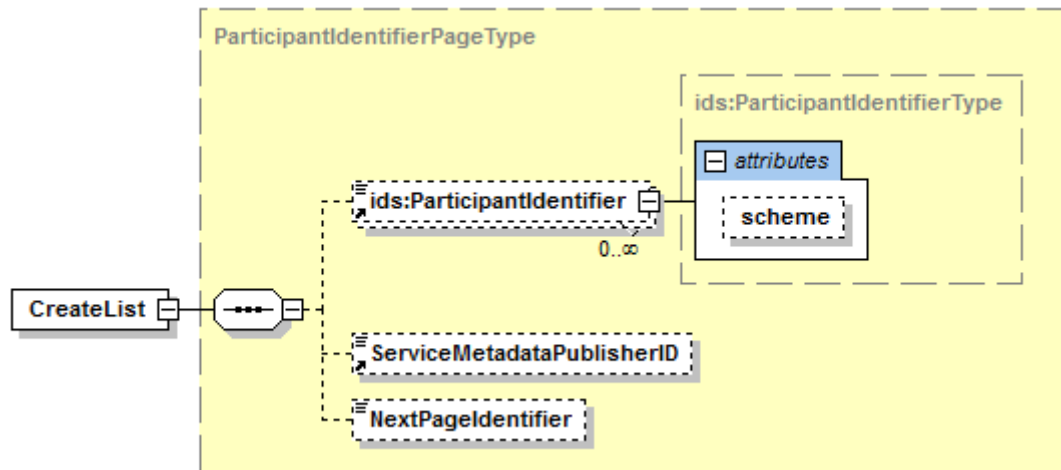
None

## 4.2.2.1.4. CreateList() Signature





## 4.2.2.1.5. CreateList() Input



Note: the `NextPageIdentifier` is absent.

| Argument                     | Description  | Format/XSD/Xpath   | Constraint  |
|------------------------------|--|--|---|
| ParticipantIdentifier (0..n) | Business unique identifier of the Participant. Represents a business level endpoint key that uniquely identifies an end-user entity in the network. Examples of identifiers are company registration and VAT numbers, DUNS numbers, GLN numbers, email addresses, etc... | <p>The format must comply with ISO 15459 constraints as defined in [REF6].</p> <p>Example: 0088:4035811991014</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ParticipantIdentifierType']</code></p> | <p>Must be unique.</p> <p>May not exceed 50 characters and must be at least 1 character long.</p> <p>May only contain ASCII characters.</p> <p>Participant identifier must be trimmed.</p> <p>If the scheme refers to the (default) PEPPOL participant identifier scheme (iso6523-actorid-upis) and the participant identifier is not a wildcard (*), then the issuing agency specified in the ParticipantIdentifier (as its leading part before ':') must be included in the official list (cf. §0 - "List of valid issuing agencies for PEPPOL")</p> <p>Remark: the participant identifier is case insensitive.</p> |

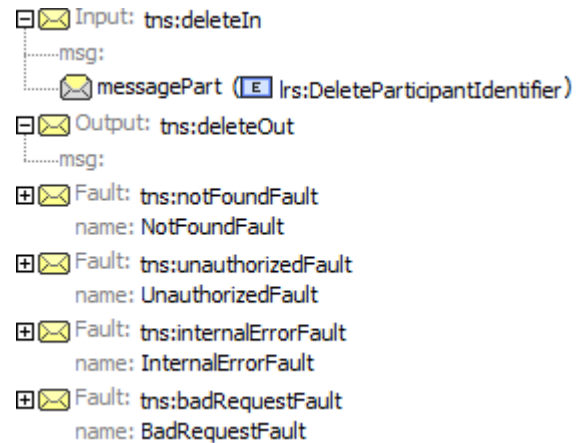
| Argument                               | Description                                | Format/XSD/Xpath  | Constraint   |
|--|--|---|--|
| ParticipantIdentifier.scheme<br>(0..n) | The scheme of the participant identifier   | <p>Identifier schemes for all schemed identifier types (participants, documents, profiles, transports) may be defined outside of this specification. Any instance of a 4-cornered infrastructure may choose to define identifier schemes that match the type of documents, participants or profiles that are relevant to support in that instance.</p> <p>Examples: iso6523-actorid-upis, busdox-actorid-upis</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ProcessIdentifierType']/xs:simpleContent/xs:extension/xs:attribute</code></p> | <p>May not exceed 25 characters.</p> <p>Must match the two following pattern:<br/>[a-zA-Z0-9]+-[a-zA-Z0-9]+-[a-zA-Z0-9]</p> <p>Which defines the following parts:<br/>&lt;domain&gt;-&lt;identifier Area&gt;-&lt;identifier type&gt;</p> |
| ServiceMetadataPublisherID             | Unique identifier of the SMP               | <p>xs:string</p> <p>ServiceMetadataLocatorTypes-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID']</code></p>  | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service.  |
| NextPageIdentifier                     | This argument is not used in this context. | n/a   | Must be null   |

Table 10 – CreateList() input

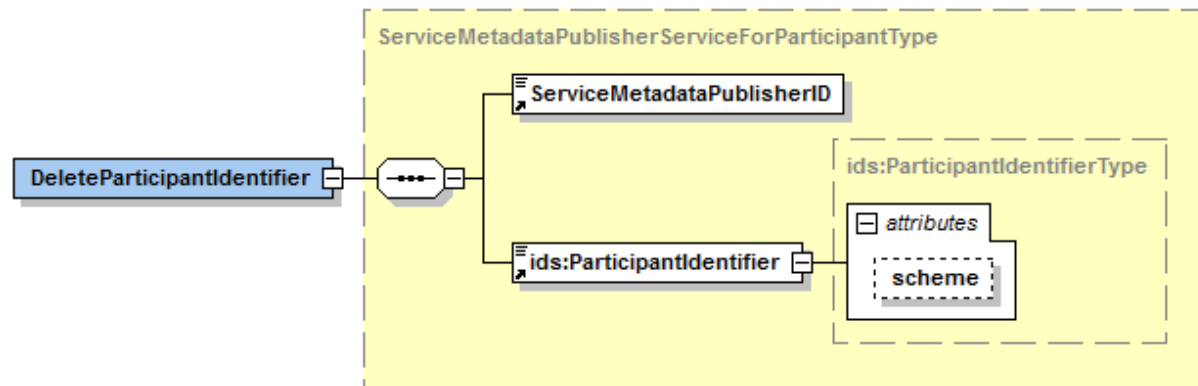
## 4.2.2.1.6. CreateList() Output

None.

## 4.2.2.1.7. Delete()Signature



## 4.2.2.1.8. Delete()Input



| Argument                   | Description                  | Format/XSD/Xpath   | Constraint  |
|----------------------------|------------------------------|--|---|
| ServiceMetadataPublisherID | Unique identifier of the SMP | <p>xs:string</p> <p>ServiceMetadataLocatorTypes-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID']</code></p> | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service. |

| Argument              | Description  | Format/XSD/Xpath   | Constraint   |
|-----------------------|--|--|--|
| ParticipantIdentifier | Business unique identifier of the Participant. Represents a business level endpoint key that uniquely identifies an end-user entity in the network. Examples of identifiers are company registration and VAT numbers, DUNS numbers, GLN numbers, email addresses, etc... | <p>The format must comply with ISO 15459 constraints as defined in [REF6].</p> <p>Example: 0088:4035811991014</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ParticipantIdentifierType']</code></p> | <p>Must be unique. May not exceed 50 characters and must be at least 1 character long.</p> <p>May only contain ASCII characters.</p> <p>Participant identifier must be trimmed.</p> <p>If the scheme refers to the (default) PEPPOL participant identifier scheme (iso6523-actorid-upis) and the participant identifier is not a wildcard (*), then the issuing agency specified in the ParticipantIdentifier (as its leading part before ':') must be included in the official list (cf. §0 - "List of valid issuing agencies for PEPPOL")</p> <p>Remark: the participant identifier is case insensitive.</p> |

| Argument                     | Description                              | Format/XSD/Xpath  | Constraint   |
|------------------------------|--|---|--|
| ParticipantIdentifier.scheme | The scheme of the participant identifier | <p>Identifier schemes for all schemed identifier types (participants, documents, profiles, transports) may be defined outside of this specification. Any instance of a 4-cornered infrastructure may choose to define identifier schemes that match the type of documents, participants or profiles that are relevant to support in that instance.</p> <p>Examples: iso6523-actorid-upis, busdox-actorid-upis</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ProcessIdentifierType']/xs:simpleContent/xs:extension/xs:attribute</code></p> | <p>May not exceed 25 characters.</p> <p>Must match the two following pattern:<br/> <code>[a-zA-Z0-9]+-[a-zA-Z0-9]+-[a-zA-Z0-9]</code></p> <p>Which defines the following parts:<br/> <code>&lt;domain&gt;-&lt;identifier Area&gt;-&lt;identifier type&gt;</code></p> |

Table 11 – Delete() input

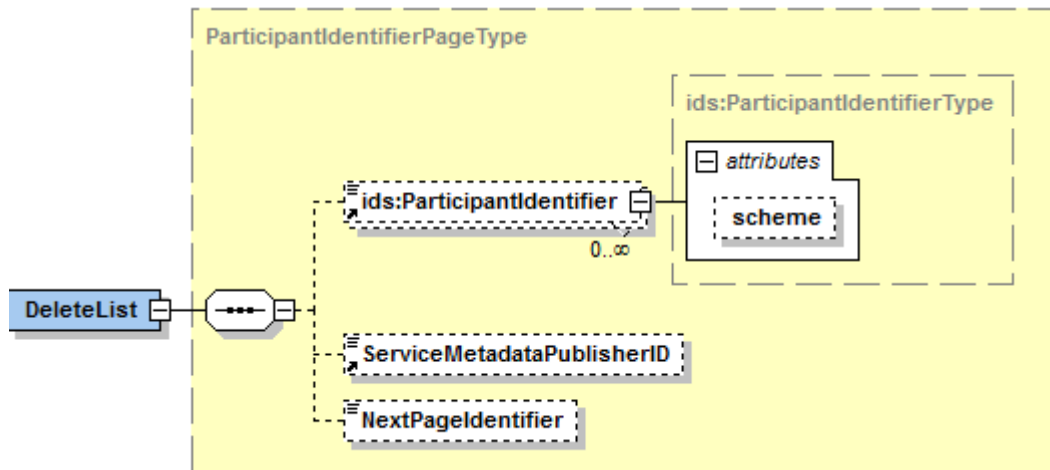
## 4.2.2.1.9. Delete() Output

None

## 4.2.2.1.10. DeleteList() Signature



## 4.2.2.1.11. DeleteList() Input



Note: the `NextPageIdentifier` is absent.



| Argument                     | Description  | Format/XSD/Xpath   | Constraint   |
|------------------------------|--|--|--|
| ParticipantIdentifier (0..n) | Business unique identifier of the Participant. Represents a business level endpoint key that uniquely identifies an end-user entity in the network. Examples of identifiers are company registration and VAT numbers, DUNS numbers, GLN numbers, email addresses, etc... | <p>The format must comply with ISO 15459 constraints as defined in [REF6].</p> <p>Example: 0088:4035811991014</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ParticipantIdentifierType']</code></p> | <p>Must be unique. May not exceed 50 characters and must be at least 1 character long.</p> <p>May only contain ASCII characters.</p> <p>Participant identifier must be trimmed.</p> <p>If the scheme refers to the (default) PEPPOL participant identifier scheme (iso6523-actorid-upis) and the participant identifier is not a wildcard (*), then the issuing agency specified in the ParticipantIdentifier (as its leading part before ':') must be included in the official list (cf. §0 - "List of valid issuing agencies for PEPPOL")</p> <p>Remark: the participant identifier is case insensitive.</p> |

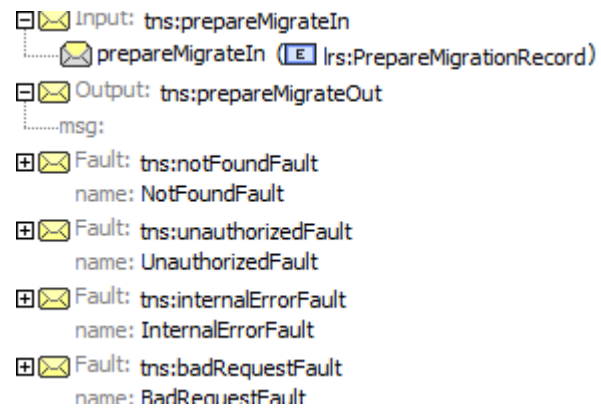
| Argument                               | Description                                | Format/XSD/Xpath  | Constraint   |
|--|--|---|--|
| ParticipantIdentifier.scheme<br>(0..n) | The scheme of the participant identifier   | <p>Identifier schemes for all schemed identifier types (participants, documents, profiles, transports) may be defined outside of this specification. Any instance of a 4-cornered infrastructure may choose to define identifier schemes that match the type of documents, participants or profiles that are relevant to support in that instance.</p> <p>Examples: iso6523-actorid-upis, busdox-actorid-upis</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ProcessIdentifierType']/xs:simpleContent/xs:extension/xs:attribute</code></p> | <p>May not exceed 25 characters.</p> <p>Must match the two following pattern:<br/>[a-zA-Z0-9]+-[a-zA-Z0-9]+-[a-zA-Z0-9]</p> <p>Which defines the following parts:<br/>&lt;domain&gt;-&lt;identifier Area&gt;-&lt;identifier type&gt;</p> |
| ServiceMetadataPublisherID             | Unique identifier of the SMP               | <p>xs:string</p> <p>ServiceMetadataLocatorTypes-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID']</code></p>  | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service.  |
| NextPageIdentifier                     | This argument is not used in this context. | n/a   | Must be null   |

Table 12 – DeleteList() input

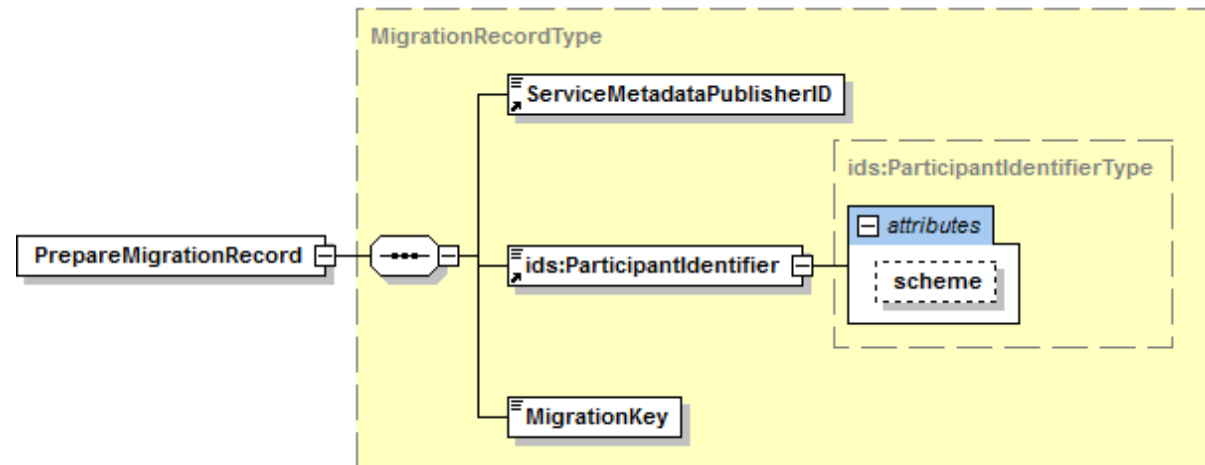
## 4.2.2.1.12. DeleteList() Output

None

## 4.2.2.1.13. PrepareToMigrate() Signature



## 4.2.2.1.14. PrepareToMigrate() Input



| Argument                   | Description                  | Format/XSD/Xpath   | Constraint   |
|----------------------------|------------------------------|--|--|
| ServiceMetadataPublisherID | Unique identifier of the SMP | <p>xs:string</p> <p>ServiceMetadataLocatorTypes-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID']</code></p> | <p>In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service.</p> |

| Argument              | Description  | Format/XSD/Xpath   | Constraint   |
|-----------------------|--|--|--|
| ParticipantIdentifier | Business unique identifier of the Participant. Represents a business level endpoint key that uniquely identifies an end-user entity in the network. Examples of identifiers are company registration and VAT numbers, DUNS numbers, GLN numbers, email addresses, etc... | <p>The format must comply with ISO 15459 constraints as defined in [REF6].</p> <p>Example: 0088:4035811991014</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ParticipantIdentifierType']</code></p> | <p>Must be unique. May not exceed 50 characters and must be at least 1 character long.</p> <p>May only contain ASCII characters.</p> <p>Participant identifier must be trimmed.</p> <p>If the scheme refers to the (default) PEPPOL participant identifier scheme (iso6523-actorid-upis) and the participant identifier is not a wildcard (*), then the issuing agency specified in the ParticipantIdentifier (as its leading part before ':') must be included in the official list (cf. §0 - "List of valid issuing agencies for PEPPOL")</p> <p>Remark: the participant identifier is case insensitive.</p> |

| Argument                     | Description  | Format/XSD/Xpath  | Constraint   |
|------------------------------|--|---|--|
| ParticipantIdentifier.scheme | The scheme of the participant identifier   | <p>Identifier schemes for all schemed identifier types (participants, documents, profiles, transports) may be defined outside of this specification. Any instance of a 4-cornered infrastructure may choose to define identifier schemes that match the type of documents, participants or profiles that are relevant to support in that instance.</p> <p>Examples: iso6523-actorid-upis, busdox-actorid-upis</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ProcessIdentifierType']/xs:simpleContent/xs:extension/xs:attribute</code></p> | <p>May not exceed 25 characters.</p> <p>Must match the two following pattern:</p> <p><code>[a-zA-Z0-9]+-[a-zA-Z0-9]+-[a-zA-Z0-9]</code></p> <p>Which defines the following parts:</p> <p><code>&lt;domain&gt;-&lt;identifier Area&gt;-&lt;identifier type&gt;</code></p>   |
| MigrationKey                 | String which is a unique key controlling the migration of the metadata for a given ParticipantIdentifier from one Service Metadata Publisher to another. | <p>xs:string</p> <p>ServiceMetadataLocatorTypes-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='MigrationRecordType']/*[local-name()='sequence']/*[local-name()='element' and @name='MigrationKey']</code></p>   | <p>The migration key is a code that must be passed out-of-band to the SMP which is taking over the publishing of the metadata for the participant identifier. This code must be unique;</p> <p>This code must not be null nor empty;</p> <p>This code must contain:</p> <ul style="list-style-type: none"> <li>• 8 characters minimum</li> <li>• 24 characters maximum</li> <li>• 2 Special Characters <code>@#\$( ) [ ] { } * ^ _ ! ~   + =</code></li> <li>• 2 Upper Case letters minimum</li> </ul> |

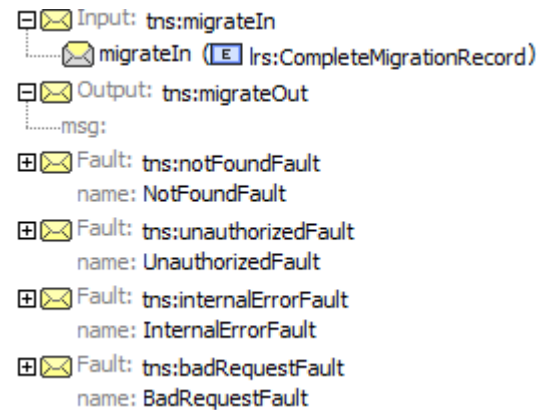
| Argument | Description | Format/XSD/Xpath | Constraint   |
|----------|-------------|------------------|--|
|          |             |                  | <ul style="list-style-type: none"> <li>• 2 Lower Case letters minimum</li> <li>• 2 Numbers minimum</li> <li>• No white spaces</li> </ul> |

Table 13 – PrepareToMigrate() input

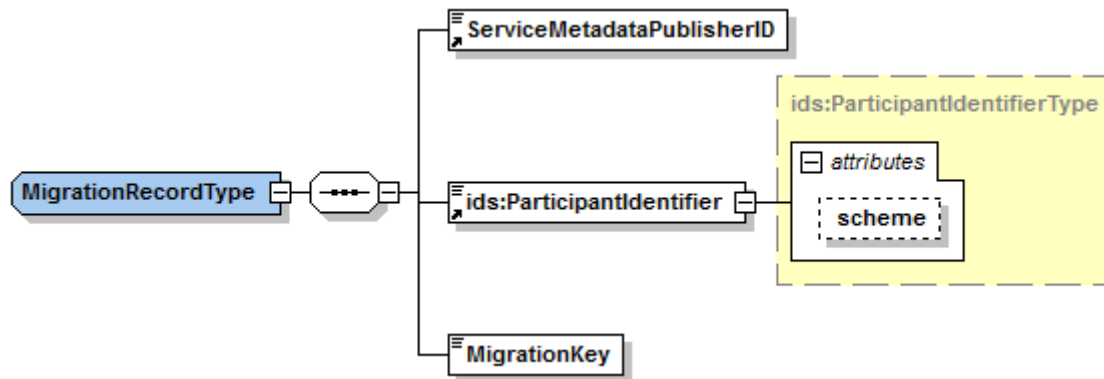
## 4.2.2.1.15. PrepareToMigrate() Output

None

## 4.2.2.1.16. Migrate() Signature



## 4.2.2.1.17. Migrate() Input



| Argument                   | Description                  | Format/XSD/Xpath   | Constraint  |
|----------------------------|------------------------------|--|---|
| ServiceMetadataPublisherID | Unique identifier of the SMP | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID'] | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service. |



| Argument              | Description   | Format/XSD/Xpath   | Constraint  |
|-----------------------|---|--|---|
| ParticipantIdentifier | <p>Business unique identifier of the Participant. Represents a business level endpoint key that uniquely identifies an end-user entity in the network. Examples of identifiers are company registration and VAT numbers, DUNS numbers, GLN numbers, email addresses, etc...</p> | <p>The format must comply with ISO 15459 constraints as defined in [REF6].</p> <p>Example: 0088:4035811991014</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ParticipantIdentifierType']</code></p> | <p>Must be unique.</p> <p>May not exceed 50 characters and must be at least 1 character long.</p> <p>May only contain ASCII characters.</p> <p>Participant identifier must be trimmed.</p> <p>If the scheme refers to the (default) PEPPOL participant identifier scheme (iso6523-actorid-upis) and the participant identifier is not a wildcard (*), then the issuing agency specified in the ParticipantIdentifier (as its leading part before ':') must be included in the official list (cf. §0 - "List of valid issuing agencies for PEPPOL")</p> <p>Remark: the participant identifier is case insensitive.</p> |

| Argument                     | Description  | Format/XSD/Xpath  | Constraint   |
|------------------------------|--|---|--|
| ParticipantIdentifier.scheme | The scheme of the participant identifier   | <p>Identifier schemes for all schemed identifier types (participants, documents, profiles, transports) may be defined outside of this specification. Any instance of a 4-cornered infrastructure may choose to define identifier schemes that match the type of documents, participants or profiles that are relevant to support in that instance.</p> <p>Examples: iso6523-actorid-upis, busdox-actorid-upis</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ProcessIdentifierType']/xs:simpleContent/xs:extension/xs:attribute</code></p> | <p>May not exceed 25 characters.</p> <p>Must match the two following pattern:</p> <p><code>[a-zA-Z0-9]+-[a-zA-Z0-9]+-[a-zA-Z0-9]</code></p> <p>Which defines the following parts:</p> <p><code>&lt;domain&gt;-&lt;identifier Area&gt;-&lt;identifier type&gt;</code></p>   |
| MigrationKey                 | String which is a unique key controlling the migration of the metadata for a given ParticipantIdentifier from one Service Metadata Publisher to another. | <p>xs:string</p> <p>ServiceMetadataLocatorTypes-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='MigrationRecordType']/*[local-name()='sequence']/*[local-name()='element' and @name='MigrationKey']</code></p>   | <p>The migration key is a code that must be passed out-of-band to the SMP which is taking over the publishing of the metadata for the participant identifier. This code must be unique;</p> <p>This code must not be null nor empty;</p> <p>This code must contain:</p> <ul style="list-style-type: none"> <li>• 8 characters minimum</li> <li>• 24 characters maximum</li> <li>• 2 Special Characters <code>@#\$( ) [ ] { } * ^ _ ! ~   + =</code></li> <li>• 2 Upper Case letters minimum</li> </ul> |

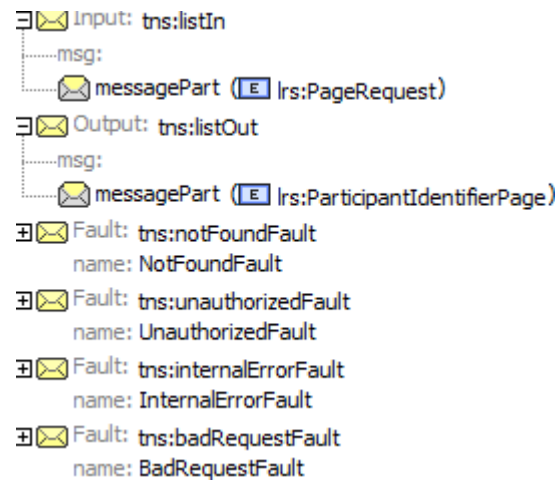
| Argument | Description | Format/XSD/Xpath | Constraint   |
|----------|-------------|------------------|--|
|          |             |                  | <ul style="list-style-type: none"> <li>• 2 Lower Case letters minimum</li> <li>• 2 Numbers minimum</li> <li>• No white spaces</li> </ul> |

Table 14 – Migrate() input

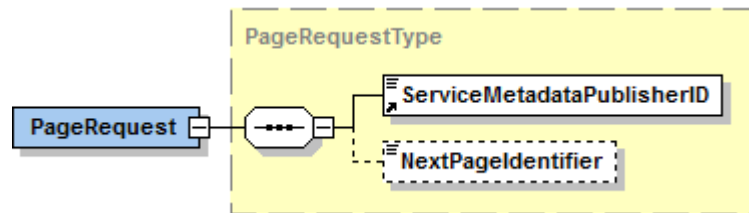
## 4.2.2.1.18. Migrate() Output

None

## 4.2.2.1.19. List() Signature



## 4.2.2.1.20. List() Input

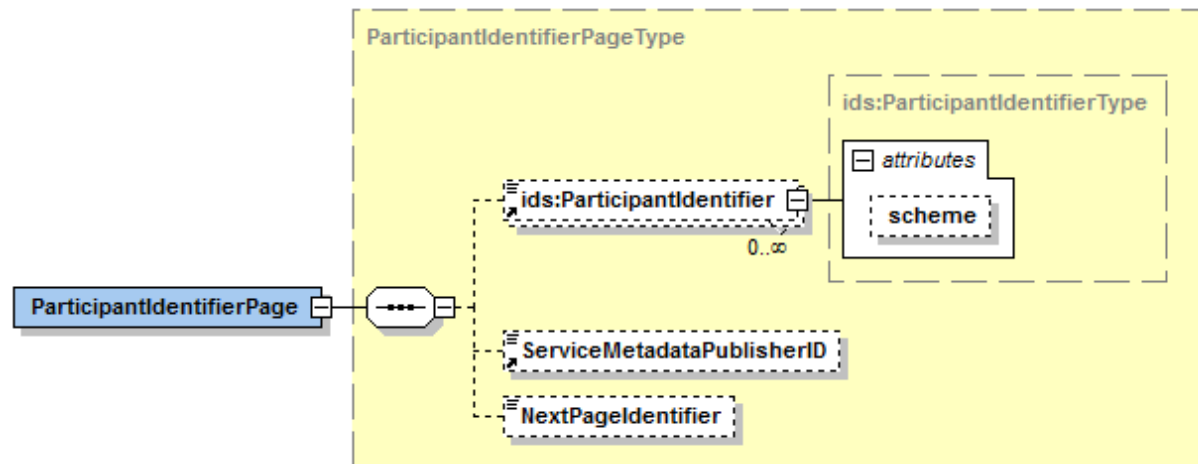


| argument                   | Description   | Format/XSD/Xpath   | Constraint  |
|----------------------------|---|--|---|
| ServiceMetadataPublisherID | Unique identifier of the SMP  | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID'] | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service. |
| NextPageIdentifier         | Identifier that controls the navigation between pages of a long list.<br>As Input parameter this identifier represents the page of data to retrieve.<br>If the NextPageIdentifier is absent, the first page is returned.<br>As Output parameter, this | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PageRequestType']/*[local-name()='sequence']/*[local-name()='element' and @name='NextPageIdentifier']  | Must be a positive number.<br>Must be null or empty for create or update operations (since the full list of values has to be provided at once).             |

| argument | Description  | Format/XSD/Xpath | Constraint |
|----------|--|------------------|------------|
|          | value can be used as() Input at the next call to the same operation to retrieve the next page of data (to navigate forward). This parameter is used only for 'read' operations returning list of values. |                  |            |

Table 15 – List() input

## 4.2.2.1.21. List() Output



| argument                     | Description  | Format/XSD/Xpath   | Constraint   |
|------------------------------|--|--|--|
| ParticipantIdentifier (0..n) | Business unique identifier of the Participant.<br>Represents a business level endpoint key that uniquely identifies an end-user entity in the network.<br>Examples of identifiers are company registration and VAT numbers, DUNS numbers, GLN numbers, email addresses, etc... | The format must comply with ISO 15459 constraints as defined in [REF6].<br><br>Example: 0088:4035811991014<br><br>Identifiers-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='ParticipantIdentifierType'] | Must be unique.<br>May not exceed 50 characters and must be at least 1 character long.<br><br>May only contain ASCII characters.<br><br>Participant identifier must be trimmed.<br><br>If the scheme refers to the (default) PEPPOL participant identifier scheme (iso6523-actorid-upis) and the participant identifier is not a wildcard ('*'), then the issuing agency specified in the ParticipantIdentifier (as its leading part before ':') must be included in the official list (cf. §0 - "List of valid issuing agencies for PEPPOL")<br><br>Remark: the participant identifier is case insensitive. |

| argument                               | Description                              | Format/XSD/Xpath  | Constraint   |
|--|--|---|--|
| ParticipantIdentifier.scheme<br>(0..n) | The scheme of the participant identifier | <p>Identifier schemes for all schemed identifier types (participants, documents, profiles, transports) may be defined outside of this specification. Any instance of a 4-cornered infrastructure may choose to define identifier schemes that match the type of documents, participants or profiles that are relevant to support in that instance.</p> <p>Examples: iso6523-actorid-upis, busdox-actorid-upis</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ProcessIdentifierType']/xs:simpleContent/xs:extension/xs:attribute</code></p> | <p>May not exceed 25 characters.</p> <p>Must match the two following pattern:<br/> <code>[a-zA-Z0-9]+-[a-zA-Z0-9]+-[a-zA-Z0-9]</code></p> <p>Which defines the following parts:<br/> <code>&lt;domain&gt;-&lt;identifier Area&gt;-&lt;identifier type&gt;</code></p> |
| ServiceMetadataPublisherID             | Unique identifier of the SMP             | <p>xs:string</p> <p>ServiceMetadataLocatorTypes-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID']</code></p>  | <p>In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service.</p>   |

| argument           | Description   | Format/XSD/Xpath   | Constraint   |
|--------------------|---|--|--|
| NextPageIdentifier | <p>Identifier that controls the navigation between pages of a long list.</p> <p>As Input parameter this identifier represents the page of data to retrieve. If the NextPageIdentifier is absent, the first page is returned.</p> <p>As Output parameter, this value can be used as() Input at the next call to the same operation to retrieve the next page of data (to navigate forward).</p> <p>This parameter is used only for 'read' operations returning list of values.</p> | <p>xs:string</p> <p>ServiceMetadataLocatorTypes-1.0.xsd</p> <p>/*[local-name()='schema']/*[local-name()='complexType' and @name='PageRequestType']/*[local-name()='sequence']/*[local-name()='element' and @name='NextPageIdentifier']</p> | <p>Must be a positive number.</p> <p>Must be null or empty for create or update operations (since the full list of values has to be provided at once).</p> |

Table 16 – List() output



#### 4.2.3. WSDL model for BDMSLService

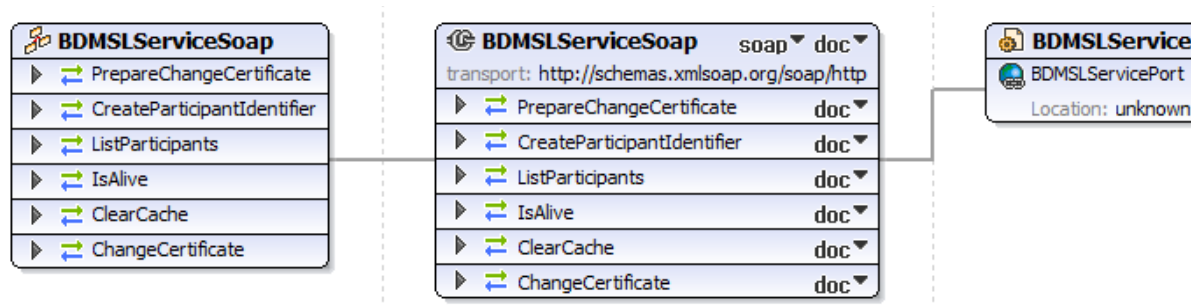
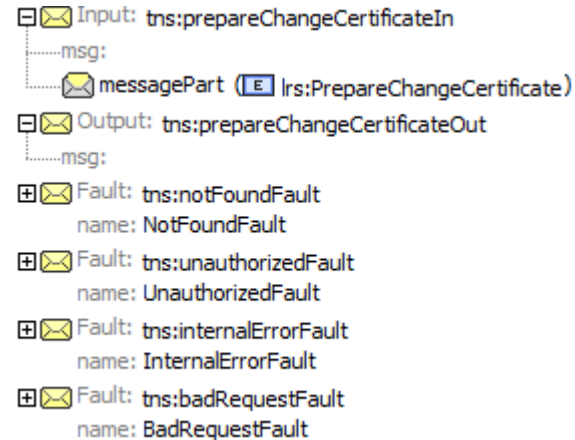


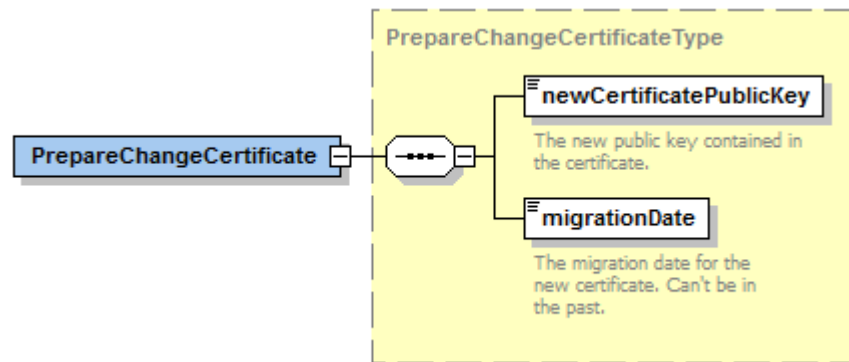
Figure 9 – WSDL BDMSLService

##### 4.2.3.1. Operations Signatures

###### 4.2.3.1.1. PrepareChangeCertificate() Signature



## 4.2.3.1.2. PrepareChangeCertificate() Input



| argument                | Description                                     | Format/XSD/Xpath  | Constraint   |
|-------------------------|---|---|--|
| newCertificatePublicKey | The new public key contained in the certificate | base64Binary<br><br>BDMSLSERVICE-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PrepareChangeCertificateType']/*[local-name()='sequence']/*[local-name()='element' and @name='newCertificatePublicKey'] | Must be valid and belong to the list of authorized root certificate aliases. |

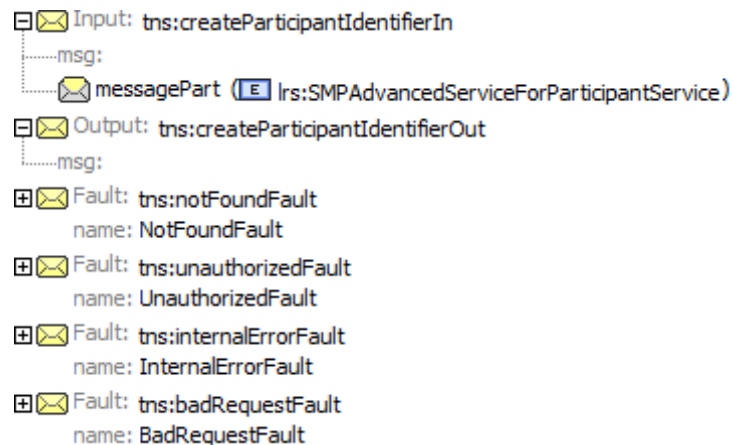
| argument      | Description                                | Format/XSD/Xpath   | Constraint   |
|---------------|--|--|--|
| migrationDate | The migration date for the new certificate | xs:date<br><br>BDMSLSERVICE-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PrepareChangeCertificateType']/*[local-name()='sequence']/*[local-name()='element' and @name='migrationDate'] | May not be in the past. Must be in the validity period of the related new certificate (i.e. within NotBeforeCertificateDate and NotAfterCertificateDate attribute of the certificate). If migrationDate is empty, then the "Valid From" date is extracted from the certificate and is used as the migrationDate. |

Table 17 – PrepareChangeCertificate() input

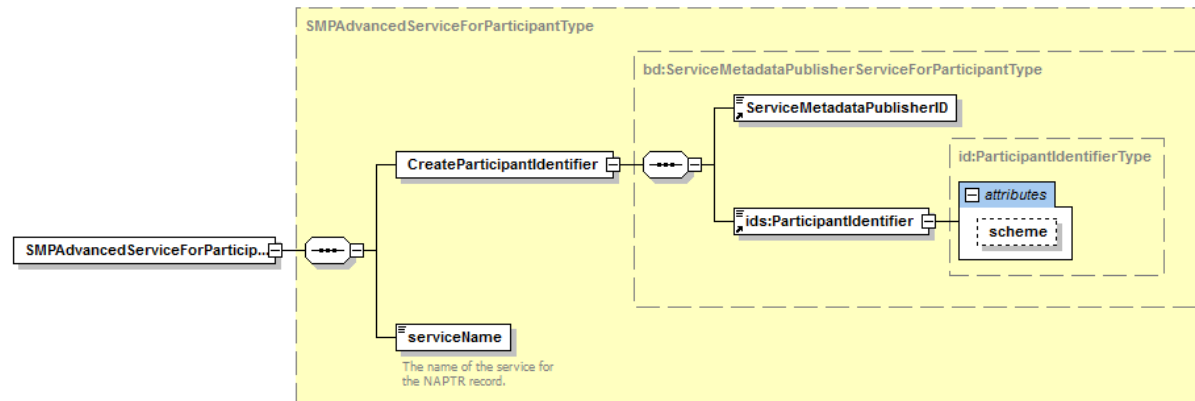
## 4.2.3.1.3. PrepareChangeCertificate() Output

None

## 4.2.3.1.4. CreateParticipantIdentifier() Signature



## 4.2.3.1.5. CreateParticipantIdentifier() Input



| argument                   | Description                  | Format/XSD/Xpath   | Constraint  |
|----------------------------|------------------------------|--|---|
| ServiceMetadataPublisherID | Unique identifier of the SMP | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID'] | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service. |

| argument              | Description  | Format/XSD/Xpath   | Constraint  |
|-----------------------|--|--|---|
| ParticipantIdentifier | Business unique identifier of the Participant. Represents a business level endpoint key that uniquely identifies an end-user entity in the network. Examples of identifiers are company registration and VAT numbers, DUNS numbers, GLN numbers, email addresses, etc... | <p>The format must comply with ISO 15459 constraints as defined in [REF6].</p> <p>Example: 0088:4035811991014</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ParticipantIdentifierType']</code></p> | <p>Must be unique.</p> <p>May not exceed 50 characters and must be at least 1 character long.</p> <p>May only contain ASCII characters.</p> <p>Participant identifier must be trimmed.</p> <p>If the scheme refers to the (default) PEPPOL participant identifier scheme (iso6523-actorid-upis) and the participant identifier is not a wildcard (*), then the issuing agency specified in the ParticipantIdentifier (as its leading part before ':') must be included in the official list (cf. §0 - "List of valid issuing agencies for PEPPOL")</p> <p>Remark: the participant identifier is case insensitive.</p> |

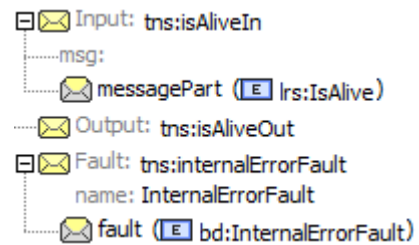
| argument                     | Description                                   | Format/XSD/Xpath  | Constraint   |
|------------------------------|---|---|--|
| ParticipantIdentifier.scheme | The scheme of the participant identifier      | <p>Identifier schemes for all schemed identifier types (participants, documents, profiles, transports) may be defined outside of this specification. Any instance of a 4-cornered infrastructure may choose to define identifier schemes that match the type of documents, participants or profiles that are relevant to support in that instance.</p> <p>Examples: iso6523-actorid-upis, busdox-actorid-upis</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ProcessIdentifierType']/xs:simpleContent/xs:extension/xs:attribute</code></p> | <p>May not exceed 25 characters.</p> <p>Must match the two following pattern:</p> <p><code>[a-zA-Z0-9]+-[a-zA-Z0-9]+-[a-zA-Z0-9]</code></p> <p>Which defines the following parts:</p> <p><code>&lt;domain&gt;-&lt;identifier Area&gt;-&lt;identifier type&gt;</code></p> |
| serviceName                  | The name of the service for the NAPTR record. | <p>xs:string</p> <p>BDMSLService-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='SMPAdvancedServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @name='serviceName']</code></p>  | No constraint is enforced by the BDMSL   |

Table 18 – CreateParticipantIdentifier() input

## 4.2.3.1.6. CreateParticipantIdentifier() Output

None

#### 4.2.3.1.7. IsAlive() Signature



#### 4.2.3.1.8. IsAlive() Input

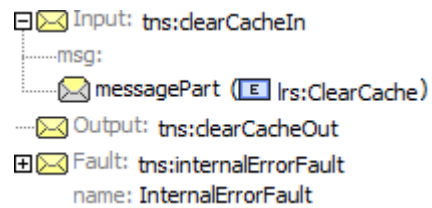
**IsAlive**

(empty)

#### 4.2.3.1.9. IsAlive() Output

None

#### 4.2.3.1.10. ClearCache() Signature



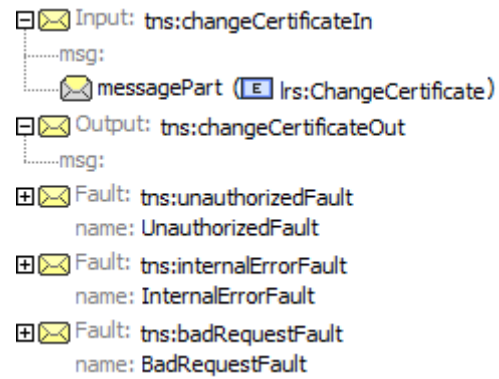
#### 4.2.3.1.11. ClearCache() Input

none

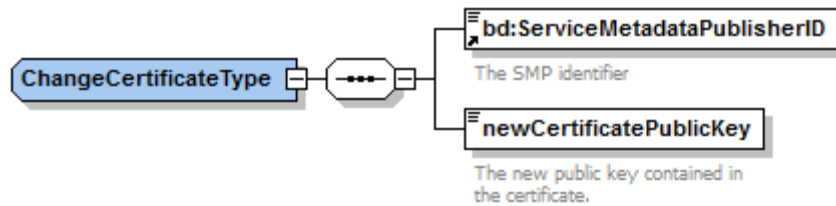
## 4.2.3.1.12. ClearCache() Output

none

## 4.2.3.1.13. ChangeCertificate() Signature



## 4.2.3.1.14. ChangeCertificate() Input





| argument                   | Description                                     | Format/XSD/Xpath   | Constraint  |
|----------------------------|---|--|---|
| ServiceMetadataPublisherID | Unique identifier of the SMP                    | xs:string<br><br>ServiceMetadataLocatorTypes-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID'] | In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service. |
| newCertificatePublicKey    | The new public key contained in the certificate | base64Binary<br><br>BDMSLService-1.0.xsd<br><br>/*[local-name()='schema']/*[local-name()='complexType' and @name='PrepareChangeCertificateType']/*[local-name()='sequence']/*[local-name()='element' and @name='newCertificatePublicKey']                                    | Must be valid and belong to the list of authorized root certificate aliases.  |

Table 19 – ChangeCertificate() input

## 4.2.3.1.15. ChangeCertificate() Output

None

| argument                     | Description  | Format/XSD/Xpath   | Constraint   |
|------------------------------|--|--|--|
| ParticipantIdentifier (0..n) | Business unique identifier of the Participant. Represents a business level endpoint key that uniquely identifies an end-user entity in the network. Examples of identifiers are company registration and VAT numbers, DUNS numbers, GLN numbers, email addresses, etc... | <p>The format must comply with ISO 15459 constraints as defined in [REF6].</p> <p>Example: 0088:4035811991014</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ParticipantIdentifierType']</code></p> | <p>Must be unique. May not exceed 50 characters and must be at least 1 character long.</p> <p>May only contain ASCII characters.</p> <p>Participant identifier must be trimmed.</p> <p>If the scheme refers to the (default) PEPPOL participant identifier scheme (iso6523-actorid-upis) and the participant identifier is not a wildcard ('*'), then the issuing agency specified in the ParticipantIdentifier (as its leading part before ':') must be included in the official list (cf. §0 - "List of valid issuing agencies for PEPPOL")</p> <p>Remark: the participant identifier is case insensitive.</p> |

| argument                               | Description                              | Format/XSD/Xpath  | Constraint   |
|--|--|---|--|
| ParticipantIdentifier.scheme<br>(0..n) | The scheme of the participant identifier | <p>Identifier schemes for all schemed identifier types (participants, documents, profiles, transports) may be defined outside of this specification. Any instance of a 4-cornered infrastructure may choose to define identifier schemes that match the type of documents, participants or profiles that are relevant to support in that instance.</p> <p>Examples: iso6523-actorid-upis, busdox-actorid-upis</p> <p>Identifiers-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ProcessIdentifierType']/xs:simpleContent/xs:extension/xs:attribute</code></p> | <p>May not exceed 25 characters.</p> <p>Must match the two following pattern:<br/> <code>[a-zA-Z0-9]+-[a-zA-Z0-9]+-[a-zA-Z0-9]</code></p> <p>Which defines the following parts:<br/> <code>&lt;domain&gt;-&lt;identifier Area&gt;-&lt;identifier type&gt;</code></p> |
| ServiceMetadataPublisherID             | Unique identifier of the SMP             | <p>xs:string</p> <p>ServiceMetadataLocatorTypes-1.0.xsd</p> <p><code>/*[local-name()='schema']/*[local-name()='complexType' and @name='ServiceMetadataPublisherServiceForParticipantType']/*[local-name()='sequence']/*[local-name()='element' and @ref='ServiceMetadataPublisherID']</code></p>  | <p>In ManageServiceMetadata service, this establishes the link with the managing SMP of the participant as defined by in the ManageBusinessIdentifier service.</p>   |

Table 20 – ListParticipants() input

#### 4.2.4. Faults

##### 4.2.4.1. Faults generic specifications

All operations above may return all or some of the possible following faults:

- notFoundFault: the target element(s) (MetadataPublisher, Participant ...) on which the operation must be performed is not present into the configuration.
- unauthorizedFault: the user does not have the permission to execute that operation
- badRequestFault: the structure of the request is not well-formed
- internaltFault: any other error occurred during the processing of the request

##### 4.2.4.2. Error Codes

Whenever a fault occurs, more details on the source of the error will provided in the SOAP fault with the applicable error code as listed in the table below:

| Error code | Description   |
|------------|---|
| 100        | SMP not found error   |
| 101        | Unauthorized error  |
| 102        | Certificate authentication issue  |
| 103        | The root alias is not found in the list of trusted issuers in the database          |
| 104        | The certificate is revoked  |
| 105        | Generic technical error   |
| 106        | Bad request error   |
| 107        | DNS communication problem   |
| 108        | Problem with the SIG0 Signature   |
| 109        | Bad configuration   |
| 110        | Participant not found error   |
| 111        | Migration data not found  |
| 112        | Duplicate participant error   |
| 113        | Error when deleting a SMP   |
| 114        | The deletion failed because a migration is planned for the given participant or SMP |

Table 21 – Error Codes

#### 4.2.4.3. Faults specific usages

The table below shows the applicability of these errors for all operations specified in this document:

|                  | ManageServiceMetadata |      |        |        | ManageBusinessIdentifier |            |        |            |                  |         |      | BDMSLService             |                             |         |
|------------------|-----------------------|------|--------|--------|--------------------------|------------|--------|------------|------------------|---------|------|--------------------------|-----------------------------|---------|
|                  | Create                | Read | Update | Delete | Create                   | CreateList | Delete | DeleteList | PrepareToMigrate | Migrate | List | PrepareChangeCertificate | CreateParticipantIdentifier | IsAlive |
|                  | notFoundFault:        | X    | X      | X      | X                        | X          | X      | X          | X                | X       | X    | X                        | X                           |         |
|                  | unauthorizedFault:    | X    | X      | X      | X                        | X          | X      | X          | X                | X       | X    | X                        | X                           | X       |
|                  | internalErrorFault:   | X    | X      | X      | X                        | X          | X      | X          | X                | X       | X    | X                        | X                           | X       |
| badRequestFault: | X                     | X    | X      | X      | X                        | X          | X      | X          | X                | X       | X    | X                        | X                           |         |

Table 22 – Fault specific usage

The table below shows the applicability of these errors for all operations specified in this document:

|                     | BDMSLAdminService |             |                |                |                 |              |                 |                         |                            |                           |              |                 |            |                   |
|---------------------|-------------------|-------------|----------------|----------------|-----------------|--------------|-----------------|-------------------------|----------------------------|---------------------------|--------------|-----------------|------------|-------------------|
|                     | SetProperty       | GetProperty | DeleteProperty | CreateSuDomain | UpdateSubDomain | GetSubDomain | DeleteSubDomain | AddSubDomainCertificate | UpdateSubDomainCertificate | ListSubDomainCertificates | AddDNSRecord | DeleteDNSRecord | ClearCache | ChangeCertificate |
| notFoundFault:      | X                 | X           | X              | X              | X               | X            | X               | X                       | X                          |                           | X            | X               |            | X                 |
| unauthorizedFault:  | X                 | X           | X              | X              | X               | X            | X               | X                       | X                          | X                         | X            | X               | X          | X                 |
| internalErrorFault: | X                 | X           | X              | X              | X               | X            | X               | X                       | X                          | X                         | X            | X               | X          | X                 |
| badRequestFault:    | X                 | X           | X              | X              | X               | X            | X               | X                       | X                          | X                         | X            | X               | X          | X                 |

Table 23 – Fault specific usage

#### 4.2.4.4. Sample SOAP errors

The following are SOAP faults samples as they are returned to the requester in case of error encountered by the BDMSL.

Sample "NotFoundFault":

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <soap:Fault>
      <faultcode>soap:Server</faultcode>
      <faultstring>[ERR-100] The SMP 'testSMPPPrepareToMigrate520' doesn't exist.
[14ojYP8Op4vWs78XmcVtLBVFsbPat1mOE9h8HChQW0O48XbOOZXu!-2114654990!1469472374542]</faultstring>
      <detail>
        <NotFoundFault xmlns:ns2="http://busdox.org/transport/identifiers/1.0/"
xmlns="http://busdox.org/serviceMetadata/locator/1.0/">
          <FaultMessage>[ERR-100] The SMP 'testSMPPPrepareToMigrate520' doesn't exist.</FaultMessage>
        </NotFoundFault>
      </detail>
    </soap:Fault>
  </soap:Body>
</soap:Envelope>
```

Sample "BadRequestFault":

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <soap:Fault>
      <faultcode>soap:Server</faultcode>
      <faultstring>[ERR-106] Participant Identifier value "9999" is illegal . [NtsjYc25LzhHUNmQ4_Z6Bv8En5sB2e9WjFhMZrBTUcLHT5Q]sR99!-
2114654990!1469472427449]</faultstring>
      <detail>
        <BadRequestFault xmlns:ns2="http://busdox.org/transport/identifiers/1.0/"
xmlns="http://busdox.org/serviceMetadata/locator/1.0/">
          <FaultMessage>[ERR-106] Participant Identifier Value contains the illegal issuing agency '0185'</FaultMessage>
        </BadRequestFault>
      </detail>
    </soap:Fault>
  </soap:Body>
</soap:Envelope>
```

## 5. ANNEXES

### 5.1. Interface Message standards

The documents listed in this paragraph can all be downloaded from eDelivery repository at this location:

<https://ec.europa.eu/cefdigital/code/projects/EDELIVERY/repos/bdmsl/browse/bdmsl-api/src/main/resources>

#### 5.1.1. WSDL's

##### 5.1.1.1. ManageBusinessIdentifierService

```
<!--
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You may not use this file except in compliance with the License.
You may obtain a copy of the License at

https://joinup.ec.europa.eu/sites/default/files/custom-page/attachment/eupl_v1.2_en.pdf

Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->

<wsdl:definitions xmlns:tns="http://busdox.org/serviceMetadata/ManageBusinessIdentifierService/1.0/"
xmlns:soap11="http://schemas.xmlsoap.org/wsdl/soap/" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:irs="http://busdox.org/serviceMetadata/locator/1.0/" xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/" name="ManageBusinessIdentifierService"
targetNamespace="http://busdox.org/serviceMetadata/ManageBusinessIdentifierService/1.0/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
    <wsdl:types>
      <s:schema elementFormDefault="qualified"
targetNamespace="http://busdox.org/serviceMetadata/ManageBusinessIdentifierService/1.0/Schema/">
        <s:import namespace="http://busdox.org/serviceMetadata/locator/1.0/" schemaLocation="ServiceMetadataLocatorTypes-1.0.xsd"/>
      </s:schema>
    </wsdl:types>
    <wsdl:message name="createIn">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
        <wsdl:part name="messagePart" element="Irs>CreateParticipantIdentifier"/>
      </wsdl:documentation>
    </wsdl:message>
    <wsdl:message name="createOut">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
    </wsdl:documentation>
    </wsdl:message>
    <wsdl:message name="deleteIn">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
        <wsdl:part name="messagePart" element="Irs>DeleteParticipantIdentifier"/>
      </wsdl:documentation>
    </wsdl:message>
    <wsdl:message name="deleteOut">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
    </wsdl:documentation>
    </wsdl:message>
    <wsdl:message name="listIn">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
        <wsdl:part name="messagePart" element="Irs:PageRequest"/>
      </wsdl:documentation>
    </wsdl:message>
    <wsdl:message name="listOut">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
```



```

    <wsdl:part name="messagePart" element="Irs:ParticipantIdentifierPage"/>
  </wsdl:message>
  <wsdl:message name="prepareMigrateIn">
    <wsdl:part name="prepareMigrateIn" element="Irs:PrepareMigrationRecord"/>
  </wsdl:message>
  <wsdl:message name="prepareMigrateOut">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  </wsdl:message>
  <wsdl:message name="migrateIn">
    <wsdl:part name="migrateIn" element="Irs:CompleteMigrationRecord"/>
  </wsdl:message>
  <wsdl:message name="migrateOut">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  </wsdl:message>
  <wsdl:message name="createListIn">
    <wsdl:part name="createListIn" element="Irs:CreateList"/>
  </wsdl:message>
  <wsdl:message name="createListOut">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  </wsdl:message>
  <wsdl:message name="deleteListIn">
    <wsdl:part name="deleteListIn" element="Irs:DeleteList"/>
  </wsdl:message>
  <wsdl:message name="deleteListOut">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  </wsdl:message>
  <wsdl:message name="badRequestFault">
    <wsdl:part name="fault" element="Irs:BadRequestFault"/>
  </wsdl:message>
  <wsdl:message name="internalErrorFault">
    <wsdl:part name="fault" element="Irs:InternalErrorFault"/>
  </wsdl:message>
  <wsdl:message name="notFoundFault">
    <wsdl:part name="fault" element="Irs:NotFoundFault"/>
  </wsdl:message>
  <wsdl:message name="unauthorizedFault">
    <wsdl:part name="fault" element="Irs:UnauthorizedFault"/>
  </wsdl:message>
  <wsdl:portType name="ManageBusinessIdentifierServiceSoap">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:operation name="Create">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
      <wsdl:input message="tns:createIn"/>
      <wsdl:output message="tns:createOut"/>
      <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
      <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
      <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
      <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
    </wsdl:operation>
    <wsdl:operation name="Delete">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
      <wsdl:input message="tns:deleteIn"/>
      <wsdl:output message="tns:deleteOut"/>
      <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
      <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
      <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
      <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
    </wsdl:operation>
    <wsdl:operation name="List">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
      <wsdl:input message="tns:listIn"/>
      <wsdl:output message="tns:listOut"/>
      <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
      <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
      <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
      <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
    </wsdl:operation>
    <wsdl:operation name="PrepareToMigrate">
      <wsdl:input message="tns:prepareMigrateIn"/>
      <wsdl:output message="tns:prepareMigrateOut"/>
      <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
      <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
    </wsdl:operation>
  </wsdl:portType>

```

```

        <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
        <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
    </wsdl:operation>
    <wsdl:operation name="Migrate">
        <wsdl:input message="tns:migrateIn"/>
        <wsdl:output message="tns:migrateOut"/>
        <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
        <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
        <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
        <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
    </wsdl:operation>
    <wsdl:operation name="CreateList">
        <wsdl:input message="tns:createListIn"/>
        <wsdl:output message="tns:createListOut"/>
        <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
        <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
        <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
        <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
    </wsdl:operation>
    <wsdl:operation name="DeleteList">
        <wsdl:input message="tns:deleteListIn"/>
        <wsdl:output message="tns:deleteListOut"/>
        <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
        <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
        <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
        <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
    </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="ManageBusinessIdentifierServiceSoap" type="tns:ManageBusinessIdentifierServiceSoap">
    <soap11:binding transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="Create">
        <soap11:operation soapAction="http://busdox.org/service/Metadata/ManageBusinessIdentifierService/1.0/ :createIn"
style="document"/>
        <wsdl:input>
            <soap11:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap11:body use="literal"/>
        </wsdl:output>
        <wsdl:fault name="NotFoundFault">
            <soap:fault name="NotFoundFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="UnauthorizedFault">
            <soap:fault name="UnauthorizedFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="InternalErrorFault">
            <soap:fault name="InternalErrorFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="BadRequestFault">
            <soap:fault name="BadRequestFault" use="literal"/>
        </wsdl:fault>
    </wsdl:operation>
    <wsdl:operation name="CreateList">
        <soap11:operation soapAction="http://busdox.org/service/Metadata/ManageBusinessIdentifierService/1.0/ :createListIn"
style="document"/>
        <wsdl:input>
            <soap11:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap11:body use="literal"/>
        </wsdl:output>
        <wsdl:fault name="NotFoundFault">
            <soap:fault name="NotFoundFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="UnauthorizedFault">
            <soap:fault name="UnauthorizedFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="InternalErrorFault">
            <soap:fault name="InternalErrorFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="BadRequestFault">
            <soap:fault name="BadRequestFault" use="literal"/>
        </wsdl:fault>
    </wsdl:operation>

```

```

        </wsdl:fault>
      </wsdl:operation>
      <wsdl:operation name="Delete">
        <soap11:operation soapAction="http://busdox.org/service/Metadata/ManageBusinessIdentifierService/1.0/ :deleteIn"
style="document"/>
        <wsdl:input>
          <soap11:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
          <soap11:body use="literal"/>
        </wsdl:output>
        <wsdl:fault name="NotFoundFault">
          <soap:fault name="NotFoundFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="UnauthorizedFault">
          <soap:fault name="UnauthorizedFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="InternalErrorFault">
          <soap:fault name="InternalErrorFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="BadRequestFault">
          <soap:fault name="BadRequestFault" use="literal"/>
        </wsdl:fault>
      </wsdl:operation>
      <wsdl:operation name="DeleteList">
        <soap11:operation soapAction="http://busdox.org/service/Metadata/ManageBusinessIdentifierService/1.0/ :deleteListIn"
style="document"/>
        <wsdl:input>
          <soap11:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
          <soap11:body use="literal"/>
        </wsdl:output>
        <wsdl:fault name="NotFoundFault">
          <soap:fault name="NotFoundFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="UnauthorizedFault">
          <soap:fault name="UnauthorizedFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="InternalErrorFault">
          <soap:fault name="InternalErrorFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="BadRequestFault">
          <soap:fault name="BadRequestFault" use="literal"/>
        </wsdl:fault>
      </wsdl:operation>
      <wsdl:operation name="List">
        <soap11:operation soapAction="http://busdox.org/service/Metadata/ManageBusinessIdentifierService/1.0/ :listIn"
style="document"/>
        <wsdl:input>
          <soap11:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
          <soap11:body use="literal"/>
        </wsdl:output>
        <wsdl:fault name="NotFoundFault">
          <soap:fault name="NotFoundFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="UnauthorizedFault">
          <soap:fault name="UnauthorizedFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="InternalErrorFault">
          <soap:fault name="InternalErrorFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="BadRequestFault">
          <soap:fault name="BadRequestFault" use="literal"/>
        </wsdl:fault>
      </wsdl:operation>
      <wsdl:operation name="PrepareToMigrate">
        <soap11:operation soapAction="http://busdox.org/service/Metadata/ManageBusinessIdentifierService/1.0/
:prepareMigrateIn" style="document"/>
        <wsdl:input>

```

```

        <soap11:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
        <soap11:body use="literal"/>
    </wsdl:output>
    <wsdl:fault name="NotFoundFault">
        <soap:fault name="NotFoundFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="UnauthorizedFault">
        <soap:fault name="UnauthorizedFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="InternalErrorFault">
        <soap:fault name="InternalErrorFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="BadRequestFault">
        <soap:fault name="BadRequestFault" use="literal"/>
    </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="Migrate">
    <soap11:operation soapAction="http://busdox.org/serviceMetadata/ManageBusinessIdentifierService/1.0/ :migrateIn"
style="document"/>
    <wsdl:input>
        <soap11:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
        <soap11:body use="literal"/>
    </wsdl:output>
    <wsdl:fault name="NotFoundFault">
        <soap:fault name="NotFoundFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="UnauthorizedFault">
        <soap:fault name="UnauthorizedFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="InternalErrorFault">
        <soap:fault name="InternalErrorFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="BadRequestFault">
        <soap:fault name="BadRequestFault" use="literal"/>
    </wsdl:fault>
</wsdl:operation>
</wsdl:binding>
<wsdl:service name="ManageBusinessIdentifierService">
    <wsdl:port name="ManageBusinessIdentifierServicePort" binding="tns:ManageBusinessIdentifierServiceSoap">
        <soap:address location="unknown"/>
    </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

### 5.1.1.2. ManageServiceMetadataService

```

<?xml version="1.0" encoding="utf-8"?>
<!--
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https://joinup.ec.europa.eu/sites/default/files/custom-page/attachment/eupl_v1.2_en.pdf

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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->
<wsdl:definitions xmlns:tns="http://busdox.org/serviceMetadata/ManageServiceMetadataService/1.0/"
xmlns:soap11="http://schemas.xmlsoap.org/wsdl/soap/" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:rs="http://busdox.org/serviceMetadata/locator/1.0/" xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/" name="ManageServiceMetadataService"
targetNamespace="http://busdox.org/serviceMetadata/ManageServiceMetadataService/1.0/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">

```

```

<wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
<wsdl:types>
  <s:schema elementFormDefault="qualified"
targetNamespace="http://busdcox.org/serviceMetadata/ManageServiceMetadataService/1.0/Schema/">
    <s:import namespace="http://busdcox.org/serviceMetadata/locator/1.0/" schemaLocation="ServiceMetadataLocatorTypes-
1.0.xsd" />
  </s:schema>
</wsdl:types>
<wsdl:message name="createIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:CreateServiceMetadataPublisherService" />
</wsdl:message>
<wsdl:message name="createOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
</wsdl:message>
<wsdl:message name="readIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:ReadServiceMetadataPublisherService" />
</wsdl:message>
<wsdl:message name="readOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:ServiceMetadataPublisherService" />
</wsdl:message>
<wsdl:message name="updateIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:UpdateServiceMetadataPublisherService" />
</wsdl:message>
<wsdl:message name="updateOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
</wsdl:message>
<wsdl:message name="deleteIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:ServiceMetadataPublisherID" />
</wsdl:message>
<wsdl:message name="deleteOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
</wsdl:message>
<wsdl:message name="badRequestFault">
  <wsdl:part name="fault" element="Irs:BadRequestFault" />
</wsdl:message>
<wsdl:message name="internalErrorFault">
  <wsdl:part name="fault" element="Irs:InternalErrorFault" />
</wsdl:message>
<wsdl:message name="notFoundFault">
  <wsdl:part name="fault" element="Irs:NotFoundFault" />
</wsdl:message>
<wsdl:message name="unauthorizedFault">
  <wsdl:part name="fault" element="Irs:UnauthorizedFault" />
</wsdl:message>
<wsdl:portType name="ManageServiceMetadataServiceSoap">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:operation name="Create">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:createIn" />
    <wsdl:output message="tns:createOut" />
    <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault" />
    <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault" />
    <wsdl:fault message="tns:badRequestFault" name="BadRequestFault" />
  </wsdl:operation>
  <wsdl:operation name="Read">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:readIn" />
    <wsdl:output message="tns:readOut" />
    <wsdl:fault message="tns:notFoundFault" name="NotFoundFault" />
    <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault" />
    <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault" />
    <wsdl:fault message="tns:badRequestFault" name="BadRequestFault" />
  </wsdl:operation>
  <wsdl:operation name="Update">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:updateIn" />
    <wsdl:output message="tns:updateOut" />
  </wsdl:operation>
</wsdl:portType>

```

```

<wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
<wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
<wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
<wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
</wsdl:operation>
<wsdl:operation name="Delete">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:input message="tns:deleteIn"/>
  <wsdl:output message="tns:deleteOut"/>
  <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
  <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
  <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
  <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
</wsdl:operation>
</wsdl:portType>
<wsdl:binding name="ManageServiceMetadataServiceSoap" type="tns:ManageServiceMetadataServiceSoap">
  <soap11:binding transport="http://schemas.xmlsoap.org/soap/http"/>
  <wsdl:operation name="Create">
    <soap11:operation soapAction="http://busdox.org/service/Metadata/ManageServiceMetadataService/1.0/:createIn"
style="document"/>
    <wsdl:input>
      <soap11:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap11:body use="literal"/>
    </wsdl:output>
    <wsdl:fault name="UnauthorizedFault">
      <soap:fault name="UnauthorizedFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="InternalErrorFault">
      <soap:fault name="InternalErrorFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="BadRequestFault">
      <soap:fault name="BadRequestFault" use="literal"/>
    </wsdl:fault>
  </wsdl:operation>
  <wsdl:operation name="Read">
    <soap11:operation soapAction="http://busdox.org/service/Metadata/ManageServiceMetadataService/1.0/:readIn"
style="document"/>
    <wsdl:input>
      <soap11:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap11:body use="literal"/>
    </wsdl:output>
    <wsdl:fault name="NotFoundFault">
      <soap:fault name="NotFoundFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="UnauthorizedFault">
      <soap:fault name="UnauthorizedFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="InternalErrorFault">
      <soap:fault name="InternalErrorFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="BadRequestFault">
      <soap:fault name="BadRequestFault" use="literal"/>
    </wsdl:fault>
  </wsdl:operation>
  <wsdl:operation name="Update">
    <soap11:operation soapAction="http://busdox.org/service/Metadata/ManageServiceMetadataService/1.0/:updateIn"
style="document"/>
    <wsdl:input>
      <soap11:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap11:body use="literal"/>
    </wsdl:output>
    <wsdl:fault name="NotFoundFault">
      <soap:fault name="NotFoundFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="UnauthorizedFault">
      <soap:fault name="UnauthorizedFault" use="literal"/>
    </wsdl:fault>
  </wsdl:operation>

```

```

        </wsdl:fault>
        <wsdl:fault name="InternalErrorFault">
            <soap:fault name="InternalErrorFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="BadRequestFault">
            <soap:fault name="BadRequestFault" use="literal"/>
        </wsdl:fault>
    </wsdl:operation>
    <wsdl:operation name="Delete">
        <soap11:operation soapAction="http://busdox.org/service/Metadata/ManageService/MetadataService/1.0:/deleteIn"
style="document"/>
        <wsdl:input>
            <soap11:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap11:body use="literal"/>
        </wsdl:output>
        <wsdl:fault name="NotFoundFault">
            <soap:fault name="NotFoundFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="UnauthorizedFault">
            <soap:fault name="UnauthorizedFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="InternalErrorFault">
            <soap:fault name="InternalErrorFault" use="literal"/>
        </wsdl:fault>
        <wsdl:fault name="BadRequestFault">
            <soap:fault name="BadRequestFault" use="literal"/>
        </wsdl:fault>
    </wsdl:operation>
</wsdl:binding>
<wsdl:service name="ManageServiceMetadataService">
    <wsdl:port name="ManageServiceMetadataServicePort" binding="tns:ManageServiceMetadataServiceSoap">
        <soap:address location="unknown"/>
    </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

### 5.1.1.3. BDMSLService

```

<!--
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https://joinup.ec.europa.eu/sites/default/files/custom-page/attachment/eupl_v1.2_en.pdf

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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->
<wsdl:definitions xmlns:tns="ec:services:wsdl:BDMSL:1.0" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
    xmlns:irs="ec:services:wsdl:BDMSL:data:1.0"
    xmlns:s="http://www.w3.org/2001/XMLSchema" xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
    xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" name="BDMSLService"
    targetNamespace="ec:services:wsdl:BDMSL:1.0"
    xmlns:bd="http://busdox.org/service/Metadata/locator/1.0"/>
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
    <wsdl:types>
        <s:schema>
            <s:import namespace="ec:services:wsdl:BDMSL:data:1.0" schemaLocation="BDMSLService-1.0.xsd"/>
            <s:import namespace="http://busdox.org/service/Metadata/locator/1.0/" schemaLocation="ServiceMetadataLocatorTypes-
1.0.xsd"/>
        </s:schema>
    </wsdl:types>
    <wsdl:message name="prepareChangeCertificateIn">
        <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
        <wsdl:part name="messagePart" element="irs:PrepareChangeCertificate"/>
    </wsdl:message>

```

```

</wsdl:message>
<wsdl:message name="prepareChangeCertificateOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
</wsdl:message>
<wsdl:message name="createParticipantIdentifierIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:SMPAdvancedServiceForParticipantService" />
</wsdl:message>
<wsdl:message name="createParticipantIdentifierOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
</wsdl:message>
<wsdl:message name="isAliveIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:IsAlive" />
</wsdl:message>
<wsdl:message name="isAliveOut">
</wsdl:message>

<wsdl:message name="badRequestFault">
  <wsdl:part name="fault" element="bd:BadRequestFault" />
</wsdl:message>
<wsdl:message name="internalErrorFault">
  <wsdl:part name="fault" element="bd:InternalErrorFault" />
</wsdl:message>
<wsdl:message name="notFoundFault">
  <wsdl:part name="fault" element="bd:NotFoundFault" />
</wsdl:message>
<wsdl:message name="unauthorizedFault">
  <wsdl:part name="fault" element="bd:UnauthorizedFault" />
</wsdl:message>

<wsdl:portType name="BDMSLSERVICESoap">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:operation name="PrepareChangeCertificate">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:prepareChangeCertificateIn" />
    <wsdl:output message="tns:prepareChangeCertificateOut" />
    <wsdl:fault message="tns:notFoundFault" name="NotFoundFault" />
    <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault" />
    <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault" />
    <wsdl:fault message="tns:badRequestFault" name="BadRequestFault" />
  </wsdl:operation>
  <wsdl:operation name="CreateParticipantIdentifier">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:createParticipantIdentifierIn" />
    <wsdl:output message="tns:createParticipantIdentifierOut" />
    <wsdl:fault message="tns:notFoundFault" name="NotFoundFault" />
    <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault" />
    <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault" />
    <wsdl:fault message="tns:badRequestFault" name="BadRequestFault" />
  </wsdl:operation>
  <wsdl:operation name="IsAlive">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:isAliveIn" />
    <wsdl:output message="tns:isAliveOut" />
    <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="BDMSLSERVICESoap" type="tns:BDMSLSERVICESoap">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="PrepareChangeCertificate">
    <soap:operation soapAction="ec:services:wsdl:BDMSL:1.0:prepareChangeCertificateIn" style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
    <wsdl:fault name="NotFoundFault">
      <soap:fault name="NotFoundFault" use="literal" />
    </wsdl:fault>
    <wsdl:fault name="UnauthorizedFault">
      <soap:fault name="UnauthorizedFault" use="literal" />
    </wsdl:fault>
  </wsdl:operation>

```



```

</wsdl:fault>
<wsdl:fault name="InternalErrorFault">
  <soap:fault name="InternalErrorFault" use="literal"/>
</wsdl:fault>
<wsdl:fault name="BadRequestFault">
  <soap:fault name="BadRequestFault" use="literal"/>
</wsdl:fault>
</wsdl:operation>
<wsdl:operation name="CreateParticipantIdentifier">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:1.0:createParticipantIdentifierIn" style="document"/>
  <wsdl:input>
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="NotFoundFault">
    <soap:fault name="NotFoundFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnauthorizedFault">
    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="BadRequestFault">
    <soap:fault name="BadRequestFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="IsAlive">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:1.0:isAliveIn" style="document"/>
  <wsdl:input>
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal"/>
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:service name="BDMSLService">
  <wsdl:port name="BDMSLServicePort" binding="tns:BDMSLServiceSoap">
    <soap:address location="unknown"/>
  </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

#### 5.1.1.4. BDMSLAdminService

```

<!--
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https://joinup.ec.europa.eu/sites/default/files/custom-page/attachment/eupl_v1.2_en.pdf

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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->
<wsdl:definitions xmlns:tns="ec:services:wsdl:BDMSL:admin:1.0" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:rs="ec:services:wsdl:BDMSL:admin:data:1.0"
  xmlns:s="http://www.w3.org/2001/XMLSchema" xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
  xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" name="BDMSLAdminService"
  targetNamespace="ec:services:wsdl:BDMSL:admin:1.0"
  xmlns:bd="http://busdox.org/serviceMetadata/locator/1.0/">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>

```

```

<s:schema>
  <s:import namespace="ec:services:wsdl:BDMSL:admin:data:1.0" schemaLocation="BDMSLAdminService-1.0.xsd"/>
  <s:import namespace="http://busdox.org/serviceMetadata/locator/1.0/"
    schemaLocation="ServiceMetadataLocatorTypes-1.0.xsd"/>
</s:schema>
</wsdl:types>
<wsdl:message name="generateInconsistencyReportIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:GenerateInconsistencyReport"/>
</wsdl:message>
<wsdl:message name="generateInconsistencyReportOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:GenerateInconsistencyResponse"/>
</wsdl:message>
<!-- SubDomain messages -->
<wsdl:message name="createSubDomainIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:CreateSubDomainRequest"/>
</wsdl:message>
<wsdl:message name="createSubDomainOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:CreateSubDomainResponse"/>
</wsdl:message>

<wsdl:message name="updateSubDomainIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:UpdateSubDomainRequest"/>
</wsdl:message>
<wsdl:message name="updateSubDomainOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:UpdateSubDomainResponse"/>
</wsdl:message>

<wsdl:message name="deleteSubDomainIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="DeleteSubDomain" element="Irs:DeleteSubDomainRequest"/>
</wsdl:message>
<wsdl:message name="deleteSubDomainOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="DeletedSubDomain" element="Irs:DeleteSubDomainResponse"/>
</wsdl:message>

<wsdl:message name="getSubDomainIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:GetSubDomainRequest"/>
</wsdl:message>
<wsdl:message name="getSubDomainOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:GetSubDomainResponse"/>
</wsdl:message>

<!-- subdomain certificate -->
<wsdl:message name="addSubDomainCertificateIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:AddSubDomainCertificateRequest"/>
</wsdl:message>
<wsdl:message name="addSubDomainCertificateOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:AddSubDomainCertificateResponse"/>
</wsdl:message>

<wsdl:message name="updateSubDomainCertificateIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:UpdateSubDomainCertificateRequest"/>
</wsdl:message>
<wsdl:message name="updateSubDomainCertificateOut">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:UpdateSubDomainCertificateResponse"/>
</wsdl:message>

<wsdl:message name="listSubDomainCertificateIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />

```

```

    <wsdl:part name="messagePart" element="Irs:ListSubDomainCertificateRequest"/>
  </wsdl:message>
  <wsdl:message name="listSubDomainCertificateOut">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:ListSubDomainCertificateResponse"/>
  </wsdl:message>

  <wsdl:message name="addDNSRecordIn">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:AddDNSRecordRequest"/>
  </wsdl:message>
  <wsdl:message name="addDNSRecordOut">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:AddDNSRecordResponse"/>
  </wsdl:message>

  <wsdl:message name="deleteDNSRecordIn">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:DeleteDNSRecordRequest"/>
  </wsdl:message>
  <wsdl:message name="deleteDNSRecordOut">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:DeleteDNSRecordResponse"/>
  </wsdl:message>

  <wsdl:message name="setPropertyIn">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:SetPropertyRequest"/>
  </wsdl:message>
  <wsdl:message name="setPropertyOut">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:SetPropertyResponse"/>
  </wsdl:message>

  <wsdl:message name="getPropertyIn">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:GetPropertyRequest"/>
  </wsdl:message>
  <wsdl:message name="getPropertyOut">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:GetPropertyResponse"/>
  </wsdl:message>

  <wsdl:message name="deletePropertyIn">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:DeletePropertyRequest"/>
  </wsdl:message>
  <wsdl:message name="deletePropertyOut">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:DeletePropertyResponse"/>
  </wsdl:message>

  <!-- fault messages-->
  <wsdl:message name="badRequestFault">
    <wsdl:part name="fault" element="bd:BadRequestFault"/>
  </wsdl:message>
  <wsdl:message name="internalErrorFault">
    <wsdl:part name="fault" element="bd:InternalErrorFault"/>
  </wsdl:message>
  <wsdl:message name="notFoundFault">
    <wsdl:part name="fault" element="bd:NotFoundFault"/>
  </wsdl:message>
  <wsdl:message name="unauthorizedFault">
    <wsdl:part name="fault" element="bd:UnauthorizedFault"/>
  </wsdl:message>

  <wsdl:message name="changeCertificateIn">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:part name="messagePart" element="Irs:ChangeCertificate"/>
  </wsdl:message>
  <wsdl:message name="changeCertificateOut">

```

```

<wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
</wsdl:message>

<wsdl:message name="clearCacheIn">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:part name="messagePart" element="Irs:ClearCache" />
</wsdl:message>
<wsdl:message name="clearCacheOut" />

<wsdl:portType name="BDMSLAdminServiceSoap">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />

  <wsdl:operation name="ChangeCertificate">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:changeCertificateIn" />
    <wsdl:output message="tns:changeCertificateOut" />
    <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault" />
    <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault" />
    <wsdl:fault message="tns:badRequestFault" name="BadRequestFault" />
  </wsdl:operation>

  <wsdl:operation name="GenerateInconsistencyReport">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:generateInconsistencyReportIn" />
    <wsdl:output message="tns:generateInconsistencyReportOut" />
    <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault" />
    <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault" />
    <wsdl:fault message="tns:badRequestFault" name="BadRequestFault" />
  </wsdl:operation>

  <wsdl:operation name="CreateSubDomain">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:createSubDomainIn" name="SubDomain" />
    <wsdl:output message="tns:createSubDomainOut" />
    <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault" />
    <wsdl:fault message="tns:badRequestFault" name="BadRequestFault" />
    <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault" />
  </wsdl:operation>

  <wsdl:operation name="UpdateSubDomain">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:updateSubDomainIn" />
    <wsdl:output message="tns:updateSubDomainOut" />
    <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault" />
    <wsdl:fault message="tns:badRequestFault" name="BadRequestFault" />
    <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault" />
    <wsdl:fault message="tns:notFoundFault" name="NotFoundFault" />
  </wsdl:operation>

  <wsdl:operation name="DeleteSubDomain">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:deleteSubDomainIn" name="DeleteSubDomain" />
    <wsdl:output message="tns:deleteSubDomainOut" name="SubDomain" />
    <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault" />
    <wsdl:fault message="tns:badRequestFault" name="BadRequestFault" />
    <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault" />
    <wsdl:fault message="tns:notFoundFault" name="NotFoundFault" />
  </wsdl:operation>

  <wsdl:operation name="GetSubDomain">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:input message="tns:getSubDomainIn" name="GetSubDomain" />
    <wsdl:output message="tns:getSubDomainOut" name="SubDomain" />
    <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault" />
    <wsdl:fault message="tns:badRequestFault" name="BadRequestFault" />
    <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault" />
    <wsdl:fault message="tns:notFoundFault" name="NotFoundFault" />
  </wsdl:operation>

  <wsdl:operation name="AddSubDomainCertificate">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />

```

```

<wsdl:input message="tns:addSubDomainCertificateIn"/>
<wsdl:output message="tns:addSubDomainCertificateOut"/>
<wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
<wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
<wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
<wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
</wsdl:operation>

<wsdl:operation name="UpdateSubDomainCertificate">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:input message="tns:updateSubDomainCertificateIn"/>
  <wsdl:output message="tns:updateSubDomainCertificateOut"/>
  <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
  <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
  <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
  <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
</wsdl:operation>

<wsdl:operation name="ListSubDomainCertificate">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:input message="tns:listSubDomainCertificateIn"/>
  <wsdl:output message="tns:listSubDomainCertificateOut"/>
  <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
  <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
  <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
  <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
</wsdl:operation>

<wsdl:operation name="AddDNSRecord">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:input message="tns:addDNSRecordIn"/>
  <wsdl:output message="tns:addDNSRecordOut"/>
  <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
  <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
  <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
  <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
</wsdl:operation>

<wsdl:operation name="DeleteDNSRecord">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:input message="tns:deleteDNSRecordIn"/>
  <wsdl:output message="tns:deleteDNSRecordOut"/>
  <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
  <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
  <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
  <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
</wsdl:operation>

<wsdl:operation name="SetProperty">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:input message="tns:setPropertyIn"/>
  <wsdl:output message="tns:setPropertyOut"/>
  <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
  <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
  <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
  <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
</wsdl:operation>

<wsdl:operation name="GetProperty">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:input message="tns:getPropertyIn"/>
  <wsdl:output message="tns:getPropertyOut"/>
  <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
  <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
  <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
  <wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
</wsdl:operation>

<wsdl:operation name="DeleteProperty">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:input message="tns:deletePropertyIn"/>

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<wsdl:output message="tns:deletePropertyOut"/>
<wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
<wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
<wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
<wsdl:fault message="tns:notFoundFault" name="NotFoundFault"/>
</wsdl:operation>

<wsdl:operation name="ClearCache">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" />
  <wsdl:input message="tns:clearCacheIn"/>
  <wsdl:output message="tns:clearCacheOut"/>
  <wsdl:fault message="tns:internalErrorFault" name="InternalErrorFault"/>
  <wsdl:fault message="tns:badRequestFault" name="BadRequestFault"/>
  <wsdl:fault message="tns:unauthorizedFault" name="UnauthorizedFault"/>
</wsdl:operation>

</wsdl:portType>
<wsdl:binding name="BDMSLAdminServiceSoap" type="tns:BDMSLAdminServiceSoap">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
  <wsdl:operation name="ChangeCertificate">
    <soap:operation soapAction="ec:services:wsdl:BDMSL:1.0:changeCertificateIn" style="document"/>
    <wsdl:input>
      <soap:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal"/>
    </wsdl:output>
    <wsdl:fault name="UnauthorizedFault">
      <soap:fault name="UnauthorizedFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="InternalErrorFault">
      <soap:fault name="InternalErrorFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="BadRequestFault">
      <soap:fault name="BadRequestFault" use="literal"/>
    </wsdl:fault>
  </wsdl:operation>

  <wsdl:operation name="GenerateInconsistencyReport">
    <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:generateInconsistencyReport" style="document"/>
    <wsdl:input>
      <soap:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal"/>
    </wsdl:output>
    <wsdl:fault name="InternalErrorFault">
      <soap:fault name="InternalErrorFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="UnauthorizedFault">
      <soap:fault name="UnauthorizedFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="BadRequestFault">
      <soap:fault name="BadRequestFault" use="literal"/>
    </wsdl:fault>
  </wsdl:operation>

  <wsdl:operation name="CreateSubDomain">
    <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:createSubDomain" style="document"/>
    <wsdl:input name="SubDomain">
      <soap:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal"/>
    </wsdl:output>
    <wsdl:fault name="InternalErrorFault">
      <soap:fault name="InternalErrorFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="BadRequestFault">
      <soap:fault name="BadRequestFault" use="literal"/>
    </wsdl:fault>
    <wsdl:fault name="UnauthorizedFault">

```

```

    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>

<wsdl:operation name="UpdateSubDomain">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:updateSubDomain" style="document"/>
  <wsdl:input>
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="BadRequestFault">
    <soap:fault name="BadRequestFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnauthorizedFault">
    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="NotFoundFault">
    <soap:fault name="NotFoundFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>

<wsdl:operation name="DeleteSubDomain">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:deleteSubDomain" style="document"/>
  <wsdl:input name="DeleteSubDomain">
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output name="SubDomain">
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="BadRequestFault">
    <soap:fault name="BadRequestFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnauthorizedFault">
    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="NotFoundFault">
    <soap:fault name="NotFoundFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>

<wsdl:operation name="GetSubDomain">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:getSubDomain" style="document"/>
  <wsdl:input name="GetSubDomain">
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output name="SubDomain">
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="BadRequestFault">
    <soap:fault name="BadRequestFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnauthorizedFault">
    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="NotFoundFault">
    <soap:fault name="NotFoundFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>

<wsdl:operation name="AddSubDomainCertificate">

```

```

<soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:addSubDomainCertificate" style="document"/>
<wsdl:input>
  <soap:body use="literal"/>
</wsdl:input>
<wsdl:output>
  <soap:body use="literal"/>
</wsdl:output>
<wsdl:fault name="InternalErrorFault">
  <soap:fault name="InternalErrorFault" use="literal"/>
</wsdl:fault>
<wsdl:fault name="BadRequestFault">
  <soap:fault name="BadRequestFault" use="literal"/>
</wsdl:fault>
<wsdl:fault name="UnauthorizedFault">
  <soap:fault name="UnauthorizedFault" use="literal"/>
</wsdl:fault>
</wsdl:operation>

<wsdl:operation name="UpdateSubDomainCertificate">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:updateSubDomainCertificate" style="document"/>
  <wsdl:input>
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="BadRequestFault">
    <soap:fault name="BadRequestFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnauthorizedFault">
    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>

<wsdl:operation name="ListSubDomainCertificate">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:listSubDomainCertificate" style="document"/>
  <wsdl:input>
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="BadRequestFault">
    <soap:fault name="BadRequestFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnauthorizedFault">
    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>

<wsdl:operation name="AddDNSRecord">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:addDNSRecord" style="document"/>
  <wsdl:input>
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="BadRequestFault">
    <soap:fault name="BadRequestFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnauthorizedFault">
    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>

```



```

</wsdl:fault>
</wsdl:operation>

<wsdl:operation name="DeleteDNSRecord">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:deleteDNSRecord" style="document"/>
  <wsdl:input>
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="BadRequestFault">
    <soap:fault name="BadRequestFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnauthorizedFault">
    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>

<wsdl:operation name="SetProperty">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:setProperty" style="document"/>
  <wsdl:input>
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="BadRequestFault">
    <soap:fault name="BadRequestFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnauthorizedFault">
    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>

<wsdl:operation name="GetProperty">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:getProperty" style="document"/>
  <wsdl:input>
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="BadRequestFault">
    <soap:fault name="BadRequestFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnauthorizedFault">
    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>

<wsdl:operation name="DeleteProperty">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:deleteProperty" style="document"/>
  <wsdl:input>
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>

```

```

<wsdl:fault name="BadRequestFault">
  <soap:fault name="BadRequestFault" use="literal"/>
</wsdl:fault>
<wsdl:fault name="UnauthorizedFault">
  <soap:fault name="UnauthorizedFault" use="literal"/>
</wsdl:fault>
</wsdl:operation>

<wsdl:operation name="ClearCache">
  <soap:operation soapAction="ec:services:wsdl:BDMSL:admin:1.0:clearCacheIn" style="document"/>
  <wsdl:input>
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="InternalErrorFault">
    <soap:fault name="InternalErrorFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="BadRequestFault">
    <soap:fault name="BadRequestFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnauthorizedFault">
    <soap:fault name="UnauthorizedFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>
</wsdl:binding>
<wsdl:service name="BDMSLAdminService">
  <wsdl:port name="BDMSLAdminServicePort" binding="tns:BDMSLAdminServiceSoap">
    <soap:address location="unknown"/>
  </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

### 5.1.2. XSD's

#### 5.1.2.1. Identifiers-1.0.xsd

```

<?xml version="1.0" encoding="utf-8"?>
<!--
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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->
<xs:schema xmlns="http://busdox.org/transport/identifiers/1.0/" xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://busdox.org/transport/identifiers/1.0/" elementFormDefault="qualified" id="Identifiers">
  <xs:annotation>
    <xs:documentation>
      Common identifiers for WSDLs and Schemas
    </xs:documentation>
  </xs:annotation>
  <xs:element name="ParticipantIdentifier" type="ParticipantIdentifierType"/>
  <xs:element name="DocumentIdentifier" type="DocumentIdentifierType"/>
  <xs:element name="ProcessIdentifier" type="ProcessIdentifierType"/>
  <xs:element name="RecipientIdentifier" type="ParticipantIdentifierType"/>
  <xs:element name="SenderIdentifier" type="ParticipantIdentifierType"/>
  <xs:element name="MessageIdentifier" type="MessageIdentifierType"/>
  <xs:element name="ChannelIdentifier" type="ChannelIdentifierType"/>
  <xs:complexType name="ParticipantIdentifierType">

```

```
<xs:simpleContent>
  <xs:extension base="xs:string">
    <xs:attribute name="scheme" type="xs:string"/>
  </xs:extension>
</xs:simpleContent>
</xs:complexType>
<xs:complexType name="DocumentIdentifierType">
  <xs:simpleContent>
    <xs:extension base="xs:string">
      <xs:attribute name="scheme" type="xs:string"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
<xs:complexType name="ProcessIdentifierType">
  <xs:simpleContent>
    <xs:extension base="xs:string">
      <xs:attribute name="scheme" type="xs:string"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
<xs:simpleType name="MessageIdentifierType">
  <xs:restriction base="xs:string"/>
</xs:simpleType>
<xs:simpleType name="ChannelIdentifierType">
  <xs:restriction base="xs:string"/>
</xs:simpleType>
</xs:schema>
```

### 5.1.2.2. ServiceGroupReferenceList.xsd

```
<?xml version="1.0" encoding="utf-8"?>
<!--
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WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->

<xs:schema xmlns="http://busdox.org/serviceMetadata/publishing/1.0/" xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://busdox.org/serviceMetadata/publishing/1.0/" elementFormDefault="qualified"
id="ServiceGroupReferenceList">
  <xs:include schemaLocation="ServiceMetadataPublishingTypes-1.0.xsd"/>
  <xs:element name="ServiceGroupReferenceList" type="ServiceGroupReferenceListType"/>
  <xs:complexType name="ServiceGroupReferenceListType">
    <xs:sequence>
      <xs:element name="ServiceGroupReference" type="ServiceGroupReferenceType" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ServiceGroupReferenceType">
    <xs:simpleContent>
      <xs:extension base="xs:string">
        <xs:attribute name="href" type="xs:anyURI"/>
      </xs:extension>
    </xs:simpleContent>
  </xs:complexType>
  <xs:element name="CompleteServiceGroup" type="CompleteServiceGroupType"/>
  <xs:complexType name="CompleteServiceGroupType">
    <xs:sequence>
      <xs:element ref="ServiceGroup"/>
      <xs:element ref="ServiceMetadata" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```

### 5.1.2.3. ServiceMetadataLocatorTypes-1.0.xsd

```
<?xml version="1.0" encoding="utf-8"?>
<!--
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See the License for the specific language governing permissions and
limitations under the License.
-->

<xs:schema xmlns="http://busdox.org/serviceMetadata/locator/1.0/" xmlns:ids="http://busdox.org/transport/identifiers/1.0/"
xmlns:xs="http://www.w3.org/2001/XMLSchema" targetNamespace="http://busdox.org/serviceMetadata/locator/1.0/"
elementFormDefault="qualified" id="ServiceMetadataPublisherService">
  <xs:import namespace="http://busdox.org/transport/identifiers/1.0/" schemaLocation="Identifiers-1.0.xsd"/>
```

```

<xs:element name="ServiceMetadataPublisherID" type="xs:string"/>
<xs:element name="CreateServiceMetadataPublisherService" type="ServiceMetadataPublisherServiceType"/>
<xs:element name="ReadServiceMetadataPublisherService" type="ServiceMetadataPublisherServiceType"/>
<xs:element name="UpdateServiceMetadataPublisherService" type="ServiceMetadataPublisherServiceType"/>
<xs:element name="ServiceMetadataPublisherService" type="ServiceMetadataPublisherServiceType"/>
<xs:complexType name="ServiceMetadataPublisherServiceType">
  <xs:sequence>
    <xs:element name="PublisherEndpoint" type="PublisherEndpointType"/>
    <xs:element ref="ServiceMetadataPublisherID"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="PublisherEndpointType">
  <xs:sequence>
    <xs:element name="LogicalAddress" type="xs:anyURI"/>
    <xs:element name="PhysicalAddress" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="ServiceMetadataPublisherServiceForParticipantType">
  <xs:sequence>
    <xs:element ref="ServiceMetadataPublisherID"/>
    <xs:element ref="ids:ParticipantIdentifier"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="CreateParticipantIdentifier" type="ServiceMetadataPublisherServiceForParticipantType"/>
<xs:element name="DeleteParticipantIdentifier" type="ServiceMetadataPublisherServiceForParticipantType"/>
<xs:element name="ParticipantIdentifierPage" type="ParticipantIdentifierPageType"/>
<xs:element name="CreateList" type="ParticipantIdentifierPageType"/>
<xs:element name="DeleteList" type="ParticipantIdentifierPageType"/>
<xs:complexType name="ParticipantIdentifierPageType">
  <xs:sequence>
    <xs:element ref="ids:ParticipantIdentifier" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="ServiceMetadataPublisherID" minOccurs="0"/>
    <xs:element name="NextPageIdentifier" type="xs:string" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="PageRequest" type="PageRequestType"/>
<xs:complexType name="PageRequestType">
  <xs:sequence>
    <xs:element ref="ServiceMetadataPublisherID"/>
    <xs:element name="NextPageIdentifier" type="xs:string" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="PrepareMigrationRecord" type="MigrationRecordType"/>
<xs:element name="CompleteMigrationRecord" type="MigrationRecordType"/>
<xs:complexType name="MigrationRecordType">
  <xs:sequence>
    <xs:element ref="ServiceMetadataPublisherID"/>
    <xs:element ref="ids:ParticipantIdentifier"/>
    <xs:element name="MigrationKey" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="BadRequestFault" type="FaultType"/>
<xs:element name="InternalServerError" type="FaultType"/>
<xs:element name="NotFoundFault" type="FaultType"/>
<xs:element name="UnauthorizedFault" type="FaultType"/>
<xs:complexType name="FaultType">
  <xs:sequence>
    <xs:element name="FaultMessage" type="xs:string" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
</xs:schema>

```

#### 5.1.2.4. ServiceMetadataPublishingTypes-1.0.xsd

```

<?xml version="1.0" encoding="utf-8"?>
<!--
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https://joinup.ec.europa.eu/sites/default/files/custom-page/attachment/eupl\_v1.2\_en.pdf

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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->
<xs:schema xmlns="http://busdox.org/serviceMetadata/publishing/1.0/" xmlns:ids="http://busdox.org/transport/identifiers/1.0/"
  xmlns:ds="http://www.w3.org/2000/09/xmldsig#" xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:wsa="http://www.w3.org/2005/08/addressing" targetNamespace="http://busdox.org/serviceMetadata/publishing/1.0/"
  elementFormDefault="qualified" id="ServiceMetadataPublishing">
  <xs:import namespace="http://www.w3.org/2000/09/xmldsig#" schemaLocation="xmldsig-core-schema.xsd"/>
  <xs:import namespace="http://busdox.org/transport/identifiers/1.0/" schemaLocation="Identifiers-1.0.xsd"/>
  <xs:import namespace="http://www.w3.org/2005/08/addressing" schemaLocation="ws-addr.xsd"/>
  <xs:element name="ServiceGroup" type="ServiceGroupType"/>
  <xs:element name="ServiceMetadata" type="ServiceMetadataType"/>
  <xs:element name="SignedServiceMetadata" type="SignedServiceMetadataType"/>
  <xs:complexType name="SignedServiceMetadataType">
    <xs:annotation>
      <xs:documentation>The SignedServiceMetadata structure is a ServiceMetadata structure
that has been signed by the ServiceMetadataPublisher, according to governance policies.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
      <xs:element ref="ServiceMetadata">
        <xs:annotation>
          <xs:documentation>The ServiceMetadata element covered by the Signature.</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element ref="ds:Signature">
        <xs:annotation>
          <xs:documentation>Represents an enveloped XML() Signature over the SignedServiceMetadata
element.</xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ServiceMetadataType">
    <xs:annotation>
      <xs:documentation>
This data structure represents Metadata about a specific electronic service.
The role of the ServiceMetadata structure is to associate a participant identifier
with the ability to receive a specific document type over a specific transport. It
also describes which business processes a document can participate in, and various
operational data such as service activation and expiration times.
The ServiceMetadata resource contains all the metadata about a service that a sender
Access Point needs to know in order to send a message to that service.
      </xs:documentation>
    </xs:annotation>
    <xs:sequence>
      <xs:choice>
        <xs:element name="ServiceInformation" type="ServiceInformationType">
          <xs:annotation>
            <xs:documentation>Contains service information for an actual service registration, rather than a redirect to
another SMP</xs:documentation>
          </xs:annotation>
        </xs:element>
        <xs:element name="Redirect" type="RedirectType">
          <xs:annotation>
            <xs:documentation>
For recipients that want to associate more than one SMP with their participant identifier.
          </xs:documentation>

```

they may redirect senders to an alternative SMP for specific document types. To achieve this, the ServiceMetadata element defines the optional element 'Redirect'. This element holds the URL of the alternative SMP, as well as the Subject Unique Identifier of the destination SMPs certificate used to sign its resources.

In the case where a client encounters such a redirection element, the client MUST follow the first redirect reference to the alternative SMP. If the SignedServiceMetadata resource at the alternative SMP also contains a redirection element, the client SHOULD NOT follow that redirect. It is the responsibility of the client to enforce this constraint.

```

    </xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:choice>
</xs:sequence>
</xs:complexType>
<xs:complexType name="ServiceInformationType">
  <xs:sequence>
    <xs:element ref="ids:ParticipantIdentifier">
      <xs:annotation>
        <xs:documentation>The participant identifier. Comprises the identifier, and an identifier scheme. This identifier
MUST have the same value of the {id} part of the URI of the enclosing ServiceMetadata resource.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element ref="ids:DocumentIdentifier">
      <xs:annotation>
        <xs:documentation>Represents the type of document that the recipient is able to handle.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="ProcessList" type="ProcessListType">
      <xs:annotation>
        <xs:documentation>Represents the processes that a specific document type can participate in, and endpoint address
and binding information. Each process element describes a specific business process that accepts this type of document as() Input and
holds a list of endpoint addresses (in the case that the service supports multiple transports) of services that implement the business
process, plus information about the transport used for each endpoint.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Extension" type="ExtensionType" minOccurs="0">
      <xs:annotation>
        <xs:documentation>The extension element may contain any XML element. Clients MAY ignore this
element.</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="ProcessListType">
  <xs:annotation>
    <xs:documentation>List of processes</xs:documentation>
  </xs:annotation>
  <xs:sequence>
    <xs:element name="Process" type="ProcessType" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="ProcessType">
  <xs:sequence>
    <xs:element ref="ids:ProcessIdentifier">
      <xs:annotation>
        <xs:documentation>The identifier of the process.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="ServiceEndpointList" type="ServiceEndpointList">
      <xs:annotation>
        <xs:documentation>List of one or more endpoints that support this process.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Extension" type="ExtensionType" minOccurs="0">
      <xs:annotation>
        <xs:documentation>The extension element may contain any XML element. Clients MAY ignore this
element.</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="ServiceEndpointList">

```

```

<xs:annotation>
  <xs:documentation>Contains a list of all endpoint</xs:documentation>
</xs:annotation>
<xs:sequence>
  <xs:element name="Endpoint" type="EndpointType" maxOccurs="unbounded">
    <xs:annotation>
      <xs:documentation>Endpoint represents the technical endpoint and address type of the recipient, as an
URL.</xs:documentation>
    </xs:annotation>
  </xs:element>
</xs:sequence>
</xs:complexType>
<xs:complexType name="EndpointType">
  <xs:sequence>
    <xs:element ref="wsa:EndpointReference">
      <xs:annotation>
        <xs:documentation>The address of an endpoint, as an WS-Addressing Endpoint Reference</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="RequireBusinessLevelSignature" type="xs:boolean">
      <xs:annotation>
        <xs:documentation>Set to &quot;true&quot; if the recipient requires business-level() Signatures for the message,
meaning a() Signature applied to the business message before the message is put on the transport. This is independent of the transport-
level() Signatures that a specific transport profile, such as the START profile, might mandate. This flag does not indicate which type of
business-level() Signature might be required. Setting or consuming business-level() Signatures would typically be the responsibility of the
final senders and receivers of messages, rather than a set of APs.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="MinimumAuthenticationLevel" type="xs:string" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Indicates the minimum authentication level that recipient requires. The specific semantics of this
field is defined in a specific instance of the BUSDOX infrastructure. It could for example reflect the value of the
&quot;urn:eu:busdox:attribute:assurance-level&quot; SAML attribute defined in the START specification.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="ServiceActivationDate" type="xs:dateTime" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Activation date of the service. Senders should ignore services that are not yet
activated.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="ServiceExpirationDate" type="xs:dateTime" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Expiration date of the service. Senders should ignore services that are
expired.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Certificate" type="xs:string">
      <xs:annotation>
        <xs:documentation>Holds the complete signing certificate of the recipient AP, as a PEM base 64 encoded X509 DER
formatted value.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="ServiceDescription" type="xs:string">
      <xs:annotation>
        <xs:documentation>A human readable description of the service</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="TechnicalContactUrl" type="xs:anyURI">
      <xs:annotation>
        <xs:documentation>Represents a link to human readable contact information. This might also be an email
address.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="TechnicalInformationUrl" type="xs:anyURI" minOccurs="0">
      <xs:annotation>
        <xs:documentation>A URL to human readable documentation of the service format. This could for example be a web
site containing links to XML Schemas, WSDLs, Schematrons and other relevant resources.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Extension" type="ExtensionType" minOccurs="0">
      <xs:annotation>

```



```

        <xs:documentation>The extension element may contain any XML element. Clients MAY ignore this
element.</xs:documentation>
        </xs:annotation>
    </xs:element>
</xs:sequence>
<xs:attribute name="transportProfile" type="xs:string">
    <xs:annotation>
        <xs:documentation>Indicates the type of BUSDOX transport that is being used between access points, e.g. the BUSDOX
START profile. This specification defines the following identifier URI which denotes the BUSDOX START transport: &quot;busdox-transport-
start&quot;</xs:documentation>
    </xs:annotation>
</xs:attribute>
</xs:complexType>
<xs:complexType name="ServiceGroupType">
    <xs:annotation>
        <xs:documentation>The ServiceGroup structure represents a set of services
associated with a specific participant identifier that is handled by a
specific Service Metadata Publisher. The ServiceGroup structure holds a
list of references to SignedServiceMetadata resources in the ServiceList
structure.</xs:documentation>
    </xs:annotation>
</xs:sequence>
    <xs:element ref="ids:ParticipantIdentifier">
        <xs:annotation>
            <xs:documentation>Represents the business level endpoint key and key type, e.g. a DUNS or GLN number that is
associated with a group of services. </xs:documentation>
        </xs:annotation>
    </xs:element>
    <xs:element name="ServiceMetadataReferenceCollection" type="ServiceMetadataReferenceCollectionType">
        <xs:annotation>
            <xs:documentation>The ServiceMetadataReferenceCollection structure holds a list of references to
SignedServiceMetadata structures. From this list, a sender can follow the references to get each SignedServiceMetadata
structure.</xs:documentation>
        </xs:annotation>
    </xs:element>
    <xs:element name="Extension" type="ExtensionType" minOccurs="0">
        <xs:annotation>
            <xs:documentation>The extension element may contain any XML element. Clients MAY ignore this
element.</xs:documentation>
        </xs:annotation>
    </xs:element>
</xs:sequence>
</xs:complexType>
<xs:complexType name="ServiceMetadataReferenceCollectionType">
    <xs:annotation>
        <xs:documentation>Contains the URL to a specific SignedServiceMetadata instance. Note
that references MUST refer to SignedServiceMetadata records that are signed by the
certificate of the SMP. It must not point to SignedServiceMetadata resources published
by external SMPs.</xs:documentation>
    </xs:annotation>
</xs:sequence>
    <xs:element name="ServiceMetadataReference" type="ServiceMetadataReferenceType" minOccurs="0"
maxOccurs="unbounded"/>
</xs:sequence>
</xs:complexType>
<xs:complexType name="ServiceMetadataReferenceType">
    <xs:attribute name="href" type="xs:anyURI">
        <xs:annotation>
            <xs:documentation>Contains the URL to a specific SignedServiceMetadata instance.</xs:documentation>
        </xs:annotation>
    </xs:attribute>
</xs:complexType>
<xs:complexType name="RedirectType">
    <xs:sequence>
        <xs:element name="CertificateUID" type="xs:string">
            <xs:annotation>
                <xs:documentation>Holds the Subject Unique Identifier of the certificate of the destination SMP. A client SHOULD
validate that the Subject Unique Identifier of the certificate used to sign the resource at the destination SMP matches the Subject Unique
Identifier published in the redirecting SMP.</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="Extension" type="ExtensionType" minOccurs="0">

```

```

        <xs:annotation>
          <xs:documentation>The extension element may contain any XML element. Clients MAY ignore this
element.</xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:sequence>
    <xs:attribute name="href" type="xs:anyURI">
      <xs:annotation>
        <xs:documentation>The destination URL of the redirect.</xs:documentation>
      </xs:annotation>
    </xs:attribute>
  </xs:complexType>
  <xs:complexType name="ExtensionType">
    <xs:annotation>
      <xs:documentation>
Child elements of the &lt;smpl:Extension&gt; element are known as &quot;custom
extension elements&quot;. Extension points may be used for optional extensions
of service metadata. This implies:
* Extension elements added to a specific Service Metadata resource MUST be ignorable
by any client of the transport infrastructure. The ability to parse and adjust client
behavior based on an extension element MUST NOT be a prerequisite for a client to
locate a service, or to make a successful request at the referenced service.
* A client MAY ignore any extension element added to specific service metadata
resource instances.
    </xs:documentation>
    <xs:annotation>
      <xs:sequence>
        <!-- TODO processContents="skip" will be added after 1.1.0 -->
        <xs:any/>
      </xs:sequence>
    </xs:complexType>
  </xs:schema>

```

#### 5.1.2.5. BDMSLService-1.0.xsd

```

<?xml version="1.0" encoding="utf-8"?>
<!--
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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
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limitations under the License.
-->

<xs:schema xmlns="ec:services:wsl:BDMSL:data:1.0" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:bd="http://busdox.org/serviceMetadata/locator/1.0/" xmlns:id="http://busdox.org/transport/identifiers/1.0/"
targetNamespace="ec:services:wsl:BDMSL:data:1.0" elementFormDefault="qualified" id="BDMSLTypes">
  <xs:import namespace="http://busdox.org/serviceMetadata/locator/1.0/" schemaLocation="ServiceMetadataLocatorTypes-1.0.xsd"/>
  <xs:import namespace="http://busdox.org/transport/identifiers/1.0/" schemaLocation="Identifiers-1.0.xsd"/>
  <xs:element name="PrepareChangeCertificate" type="PrepareChangeCertificateType"/>
  <xs:element name="ChangeCertificate" type="ChangeCertificateType"/>
  <xs:element name="SMPAdvancedServiceForParticipantService" type="SMPAdvancedServiceForParticipantType"/>
  <xs:element name="ListParticipantsOut" type="ListParticipantsType"/>
  <xs:element name="ClearCache" type="ClearCacheType"/>
  <xs:element name="IsAlive" type="IsAliveType"/>
  <xs:element name="ListParticipantsIn" type="ListParticipantsInType"/>
  <xs:complexType name="PrepareChangeCertificateType">
    <xs:sequence>
      <xs:element name="newCertificatePublicKey" type="xs:string">
        <xs:annotation>
          <xs:documentation>The new public key contained in the certificate.</xs:documentation>
        </xs:annotation>
      </xs:element>

```

```

        <xs:element name="migrationDate" type="xs:date">
            <xs:annotation>
                <xs:documentation>The migration date for the new certificate. Can't be in the past.
            </xs:documentation>
        </xs:annotation>
    </xs:element>
</xs:sequence>
</xs:complexType>
<xs:complexType name="ChangeCertificateType">
    <xs:sequence>
        <xs:element ref="bd:ServiceMetadataPublisherID">
            <xs:annotation>
                <xs:documentation>The SMP identifier</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="newCertificatePublicKey" type="xs:base64Binary">
            <xs:annotation>
                <xs:documentation>The new public key contained in the certificate.</xs:documentation>
            </xs:annotation>
        </xs:element>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="SMPAdvancedServiceForParticipantType">
    <xs:sequence>
        <xs:element name="CreateParticipantIdentifier" type="bd:ServiceMetadataPublisherServiceForParticipantType"/>
        <xs:element name="serviceName" type="xs:string">
            <xs:annotation>
                <xs:documentation>The name of the service for the NAPTR record.</xs:documentation>
            </xs:annotation>
        </xs:element>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="ListParticipantsType">
    <xs:sequence>
        <xs:element name="participant" type="ParticipantsType" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="ParticipantsType">
    <xs:sequence>
        <xs:element ref="id:ParticipantIdentifier">
            <xs:annotation>
                <xs:documentation>The participant identifier</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element ref="bd:ServiceMetadataPublisherID">
            <xs:annotation>
                <xs:documentation>The SMP identifier</xs:documentation>
            </xs:annotation>
        </xs:element>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="ListParticipantsInType"/>
<xs:complexType name="IsAliveType"/>
<xs:complexType name="ClearCacheType"/>
</xs:schema>

```

#### 5.1.2.6. BDMSLAdminService-1.0.xsd

```

<?xml version="1.0" encoding="utf-8"?>
<!-- edited with XMLSpy v2008 (http://www.altova.com) by XMLSpy 2007 Professional Ed., Installed for 5 users (with SMP from 2007-02-06
to 2008-02-07) (CIF VSRS) -->
<!--
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distributed under the License is distributed on an "AS IS" BASIS,

```

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→

```
<xs:schema xmlns="ec:services.wsdl:BDMSL:admin:data:1.0" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:bd="http://busdox.org/serviceMetadata/locator/1.0/" xmlns:id="http://busdox.org/transport/identifiers/1.0/"
targetNamespace="ec:services.wsdl:BDMSL:admin:data:1.0" elementFormDefault="qualified" id="BDMSLAdminTypes">
  <xs:element name="GenerateInconsistencyReport" type="GenerateInconsistencyReportType"/>
  <xs:element name="GenerateInconsistencyResponse" type="GenerateInconsistencyResponseType"/>
  <xs:element name="CreateSubDomainRequest" type="SubDomainType"/>
  <xs:element name="CreateSubDomainResponse" type="SubDomainType"/>
  <xs:element name="CreateDomainCertificateRequest" type="SubDomainType"/>
  <xs:element name="UpdateSubDomainRequest" type="UpdateSubDomainType"/>
  <xs:element name="UpdateSubDomainResponse" type="SubDomainType"/>
  <xs:element name="DeleteSubDomainRequest" type="DeleteSubDomainType"/>
  <xs:element name="DeleteSubDomainResponse" type="SubDomainType"/>
  <xs:element name="GetSubDomainRequest" type="GetSubDomainType"/>
  <xs:element name="GetSubDomainResponse" type="SubDomainType"/>
  <xs:element name="AddSubDomainCertificateRequest" type="AddDomainCertificateType"/>
  <xs:element name="AddSubDomainCertificateResponse" type="DomainCertificateType"/>
  <xs:element name="UpdateSubDomainCertificateRequest" type="UpdateDomainCertificateType"/>
  <xs:element name="UpdateSubDomainCertificateResponse" type="DomainCertificateType"/>
  <xs:element name="ListSubDomainCertificateRequest" type="ListSubDomainCertificateRequestType"/>
  <xs:element name="ListSubDomainCertificateResponse" type="ListSubDomainCertificateResponseType"/>
  <xs:element name="AddDNSRecordRequest" type="DNSRecordType"/>
  <xs:element name="AddDNSRecordResponse" type="DNSRecordType"/>
  <xs:element name="DeleteDNSRecordRequest" type="DeleteDNSRecordType"/>
  <xs:element name="DeleteDNSRecordResponse" type="DNSRecordListType"/>
  <xs:element name="SetPropertyRequest" type="PropertyType"/>
  <xs:element name="SetPropertyResponse" type="PropertyType"/>
  <xs:element name="GetPropertyRequest" type="PropertyKeyType"/>
  <xs:element name="GetPropertyResponse" type="PropertyType"/>
  <xs:element name="DeletePropertyRequest" type="PropertyKeyType"/>
  <xs:element name="DeletePropertyResponse" type="PropertyType"/>
  <xs:element name="ChangeCertificate" type="ChangeCertificateType"/>
  <xs:element name="ClearCache" type="ClearCacheType"/>
  <xs:complexType name="ClearCacheType"/>
  <xs:complexType name="ChangeCertificateType">
    <xs:sequence>
      <xs:element ref="bd:ServiceMetadataPublisherID">
        <xs:annotation>
          <xs:documentation>The SMP identifier</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="newCertificatePublicKey" type="xs:base64Binary">
        <xs:annotation>
          <xs:documentation>The new public key contained in the
certificate.</xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="GenerateInconsistencyReportType">
    <xs:sequence>
      <xs:element name="ReceiverEmailAddress" type="xs:string">
        <xs:annotation>
          <xs:documentation>Receiver email address!</xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
  <xs:simpleType name="GenerateInconsistencyResponseType">
    <xs:annotation>
      <xs:documentation>Status description</xs:documentation>
    </xs:annotation>
    <xs:restriction base="xs:string">
      <xs:minLength value="0"/>
      <xs:maxLength value="253"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:complexType name="SubDomainType">
    <xs:sequence>
```

```

        <xs:element name="SubDomainName" type="SubDomainNameType">
          <xs:annotation>
            <xs:documentation>SubDomain name. Name must be unique on SML
server!</xs:documentation>
          </xs:annotation>
        </xs:element>
        <xs:element name="SubDomainDescription" minOccurs="0">
          <xs:annotation>
            <xs:documentation>Short SubDomain description</xs:documentation>
          </xs:annotation>
          <xs:simpleType>
            <xs:restriction base="xs:string">
              <xs:maxLength value="1024"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="DNSZone">
          <xs:annotation>
            <xs:documentation>Domain (dns zone) for SubDomain.</xs:documentation>
          </xs:annotation>
          <xs:simpleType>
            <xs:restriction base="xs:string">
              <xs:maxLength value="512"/>
              <xs:minLength value="1"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="ParticipantRegularExpression" type="ParticipantRegularExpressionType">
          <xs:annotation>
            <xs:documentation>Regex allows specific and described ids only or * instead for
having wildcards.
          </xs:documentation>
          </xs:annotation>
        </xs:element>
        <xs:element name="DNSRecordType" type="DNSRecordTypeType">
          <xs:annotation>
            <xs:documentation>Type of DNS Record when registering/updating participant, all
means that both DNS
record types are accepted as possible values: [cname, naptr, all].
          </xs:documentation>
          </xs:annotation>
        </xs:element>
        <xs:element name="SmpUrlScheme" type="SmpUrlSchemeType">
          <xs:annotation>
            <xs:documentation>Protocol that MUST be used for LogicalAddress when
registering new SMP, all means
both protocols are accepted possible values: [ http, https, all].
          </xs:documentation>
          </xs:annotation>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
    <xs:complexType name="PropertyType">
      <xs:sequence>
        <xs:element name="Key">
          <xs:annotation>
            <xs:documentation>Property key.</xs:documentation>
          </xs:annotation>
          <xs:simpleType>
            <xs:restriction base="xs:string">
              <xs:maxLength value="512"/>
              <xs:minLength value="1"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="Value">
          <xs:annotation>
            <xs:documentation>Property Value.</xs:documentation>
          </xs:annotation>
          <xs:simpleType>
            <xs:restriction base="xs:string">
              <xs:maxLength value="4000"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:sequence>
</xs:element>

```

```

        <xs:minLength value="1"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:element>
  <xs:element name="Description" minOccurs="0">
    <xs:annotation>
      <xs:documentation>Property description.</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:maxLength value="4000"/>
        <xs:minLength value="1"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:element>
</xs:sequence>
</xs:complexType>
<xs:complexType name="PropertyKeyType">
  <xs:sequence>
    <xs:element name="Key">
      <xs:annotation>
        <xs:documentation>Property key.</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="512"/>
          <xs:minLength value="1"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="UpdateSubDomainType">
  <xs:sequence>
    <xs:element name="SubDomainName" type="SubDomainNameType">
      <xs:annotation>
        <xs:documentation>SubDomain name. Name must be unique on SML
server!</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="ParticipantRegularExpression" type="ParticipantRegularExpressionType"
minOccurs="0">
      <xs:annotation>
        <xs:documentation>Regex allows specific and described ids only or * instead for
having wildcards.
      </xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="DNSRecordType" type="DNSRecordTypeType" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Type of DNS Record when registering/updating participant, all
means that both DNS
record types are accepted as possible values: [cname, naptr, all].
      </xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="SmpUrlScheme" type="SmpUrlSchemeType" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Protocol that MUST be used for LogicalAddress when
registering newSMP, all means
both protocols are accepted possible values: [ http, https, all].
      </xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="DeleteSubDomainType">
  <xs:sequence>
    <xs:element name="SubDomainName" type="SubDomainNameType">
      <xs:annotation>
        <xs:documentation>SubDomain name to be deleted</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>

```

```

        </xs:element>
      </xs:sequence>
    </xs:complexType>
    <xs:complexType name="GetSubDomainType">
      <xs:sequence>
        <xs:element name="SubDomainName" type="SubDomainNameType">
          <xs:annotation>
            <xs:documentation>SubDomain name to be retrieved</xs:documentation>
          </xs:annotation>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
    <xs:simpleType name="ParticipantRegularExpressionType">
      <xs:annotation>
        <xs:documentation>Regex allows specific and described ids only or * instead for having wildcards.
      </xs:documentation>
      </xs:annotation>
      <xs:restriction base="xs:string">
        <xs:maxLength value="1024"/>
        <xs:minLength value="1"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="DNSRecordTypeType">
      <xs:annotation>
        <xs:documentation>Type of DNS Record when registering/updating participant, all means that both DNS
record
types are accepted as possible values: [cname, naptr, all].
      </xs:documentation>
      </xs:annotation>
      <xs:restriction base="xs:token">
        <xs:minLength value="1"/>
        <xs:maxLength value="128"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="SmpUrlSchemeType">
      <xs:annotation>
        <xs:documentation>Protocol that MUST be used for LogicalAddress when registering new SMP, all means
both
protocols are accepted possible values: [ http, https, all].
      </xs:documentation>
      </xs:annotation>
      <xs:restriction base="xs:token">
        <xs:minLength value="1"/>
        <xs:maxLength value="128"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="SubDomainNameType">
      <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
        <xs:maxLength value="255"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="CertificateDomainType">
      <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
        <xs:maxLength value="255"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="DNSNameType">
      <xs:annotation>
        <xs:documentation>Record name. Must end with valid zone name.</xs:documentation>
      </xs:annotation>
      <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
        <xs:maxLength value="253"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="DNSZoneType">
      <xs:annotation>
        <xs:documentation>DNS zone name.</xs:documentation>
      </xs:annotation>
      <xs:restriction base="xs:string">

```

```

        <xs:minLength value="1"/>
        <xs:maxLength value="253"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="CRLDistributionPointsUriType">
    <xs:restriction base="xs:anyURI"/>
</xs:simpleType>
<xs:complexType name="DomainCertificateType">
    <xs:sequence>
        <xs:element name="SubDomainName" type="SubDomainNameType">
            <xs:annotation>
                <xs:documentation>SubDomain name</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="IsRootCertificate" type="xs:boolean">
            <xs:annotation>
                <xs:documentation>Flag if certificate is root certificate</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="IsAdminCertificate" type="xs:boolean">
            <xs:annotation>
                <xs:documentation>Flag if certificate has admin rights. Only non root certificate
could have admin rights.</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="CertificateDomainId" type="CertificateDomainType">
            <xs:annotation>
                <xs:documentation>Certificate identifier</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="CRLDistributionPointsUri" type="CRLDistributionPointsUriType" minOccurs="0">
            <xs:annotation>
                <xs:documentation>Certificate identifier</xs:documentation>
            </xs:annotation>
        </xs:element>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="AddDomainCertificateType">
    <xs:sequence>
        <xs:element name="SubDomainName" type="SubDomainNameType">
            <xs:annotation>
                <xs:documentation>SubDomain name</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="IsRootCertificate" type="xs:boolean">
            <xs:annotation>
                <xs:documentation>Flag if certificate is root certificate</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="IsAdminCertificate" type="xs:boolean">
            <xs:annotation>
                <xs:documentation>Flag if certificate has admin rights. Only non root certificate can
have admin rights</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="CertificatePublicKey" type="xs:base64Binary">
            <xs:annotation>
                <xs:documentation>Domain certificate.</xs:documentation>
            </xs:annotation>
        </xs:element>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="UpdateDomainCertificateType">
    <xs:sequence>
        <xs:element name="CertificateDomainId" type="CertificateDomainType">
            <xs:annotation>
                <xs:documentation>Certificate identifier</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="IsAdminCertificate" type="xs:boolean" minOccurs="0">
            <xs:annotation>

```



```

                                <xs:documentation>Flag if certificate has admin rights. Only non root certificate can
have admin rights</xs:documentation>
                                </xs:annotation>
                            </xs:element>
                            <xs:element name="SubDomainName" type="SubDomainNameType" minOccurs="0">
                                <xs:annotation>
                                    <xs:documentation>SubDomain name</xs:documentation>
                                </xs:annotation>
                            </xs:element>
                            <xs:element name="CrlDistributionPoint" type="xs:string" minOccurs="0">
                                <xs:annotation>
                                    <xs:documentation>Certificate revocation list DistributionPoint
URL</xs:documentation>
                                </xs:annotation>
                            </xs:element>
                        </xs:sequence>
                    </xs:complexType>
                    <xs:complexType name="ListSubDomainCertificateRequestType">
                        <xs:sequence>
                            <xs:element name="CertificateDomainId" type="CertificateDomainType" minOccurs="0">
                                <xs:annotation>
                                    <xs:documentation>'Like' parameter for certificate identifier</xs:documentation>
                                </xs:annotation>
                            </xs:element>
                            <xs:element name="SubDomainName" type="SubDomainNameType" minOccurs="0">
                                <xs:annotation>
                                    <xs:documentation>SubDomain name</xs:documentation>
                                </xs:annotation>
                            </xs:element>
                        </xs:sequence>
                    </xs:complexType>
                    <xs:complexType name="ListSubDomainCertificateResponseType">
                        <xs:sequence>
                            <xs:element name="DomainCertificateType" type="DomainCertificateType" minOccurs="0"
maxOccurs="unbounded"/>
                        </xs:sequence>
                    </xs:complexType>
                    <xs:complexType name="DeleteDNSRecordType">
                        <xs:sequence>
                            <xs:element name="Name" type="DNSNameType">
                                <xs:annotation>
                                    <xs:documentation>Dns name. It must be valid domain.</xs:documentation>
                                </xs:annotation>
                            </xs:element>
                            <xs:element name="DNSZone" type="DNSZoneType">
                                <xs:annotation>
                                    <xs:documentation>Dns zone on dns server.</xs:documentation>
                                </xs:annotation>
                            </xs:element>
                        </xs:sequence>
                    </xs:complexType>
                    <xs:complexType name="DNSRecordListType">
                        <xs:sequence>
                            <xs:element name="DNSRecord" type="DNSRecordType" minOccurs="0" maxOccurs="unbounded">
                                <xs:annotation>
                                    <xs:documentation>Dns record list.</xs:documentation>
                                </xs:annotation>
                            </xs:element>
                        </xs:sequence>
                    </xs:complexType>
                    <xs:complexType name="DNSRecordType">
                        <xs:sequence>
                            <xs:element name="Type" type="xs:token">
                                <xs:annotation>
                                    <xs:documentation>Supported dns type: A, CName, Naptr.</xs:documentation>
                                </xs:annotation>
                            </xs:element>
                            <xs:element name="Name" type="DNSNameType">
                                <xs:annotation>
                                    <xs:documentation>Dns name. It must be valid domain.</xs:documentation>
                                </xs:annotation>
                            </xs:element>
                        </xs:sequence>
                    </xs:complexType>

```

```

        <xs:element name="DNSZone" type="DNSZoneType">
            <xs:annotation>
                <xs:documentation>Dns zone on dns server.</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="Value" type="xs:string">
            <xs:annotation>
                <xs:documentation>Dns Value. For A type it must be IP address, for CNAME it must
valid Domain, for NAPTR it must be regular expresion.</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element name="Service" type="xs:string" minOccurs="0">
            <xs:annotation>
                <xs:documentation>Service - part of naptr record. If not given (for naptr) default
value is: Meta:SMP </xs:documentation>
            </xs:annotation>
        </xs:element>
    </xs:sequence>
</xs:complexType>
</xs:schema>

```

## 5.2. List of valid issuing agencies for PEPPOL

| Scheme ID | ICD value | Issuing Organization  | Deprecated | Since | Last Modification   | Structure of code  | Display requirements  | PEPPOL Examples |
|-----------|-----------|---|------------|-------|---|--|---|-----------------|
| FR:SIRENE | 0002      | Institut National de la Statistique et des Etudes Economiques, (I.N.S.E.E.) | false      | 1.0.0 | 1.1.1 - Changed from FR:SIRET to FR:SIRENE (see ISU Jira ISU-231) | 1) Number of characters: 9 characters ("SIREN") 14 " 9+5 ("SIRET"), The 9 character number designates an organization, The 14 character number designates a specific establishment of the organization designated by the first 9 characters. 2) Check digits: 9th & 14th character respectively  | The 9 figure code number (SIREN) is written in groups of 3 characters. Example: 784 301 772, The 14 figure code number is written in 3 groups of 3 characters and a single group of 5. Example: 784 301 772 00025 |                 |
| SE:ORGNR  | 0007      | The National Tax Board  | false      | 1.0.0 |   | 1) 10 digits. 1st digit = Group number, 2nd - 9th digit = Ordinal number 1st digit, = Group number, 10th digit = Check digit, 2) Last digit.   | Single group of 10 digits.  |                 |
| FR:SIRET  | 0009      | DU PONT DE NEMOURS  | false      | 1.1.1 |   | 1) 14 digits, 2) None  | In four groups, Groups 1 - 3 = three digits each, Group 4 = five digits   |                 |
| FI:OVT    | 0037      | National Board of Taxes, (Verohallitus)                                     | false      | 1.0.0 |   | 1) ICD 4 Digits, Organization code upto 11 characters, Organization name upto 250 characters, 2) None<br>- Example: 00371234567800001<br>- 0037 Country code for Finland (ISO 6523 International Code Designator (ICD) value)<br>- 12345678 Business ID without hyphen<br>- 00001 Optional specifier for organisation unit (assigned by the organisation itself) | None  |                 |

| Scheme ID | ICD value | Issuing Organization       | Deprecated | Since | Last Modification | Structure of code   | Display requirements   | PEPPOL Examples  |
|-----------|-----------|----------------------------|------------|-------|-------------------|---|--|--|
| DUNS      | 0060      | Dun and Bradstreet Ltd     | false      | 1.0.0 |                   | 1) 8 digits, 1st-7th digit = number, 8th digit = check number, 2) digit   | Single group of 8 digits   | OVT identifier conforming to standard ISO6523.<br>- Constant 0037 (Finnish tax administration organisation code)<br>- Finnish local tax ID, 8 characters with initial zero and no hyphen<br>- Free-format 5 characters, for example profit center.<br>Example:<br>003710948874 |
| GLN       | 0088      | EAN International          | false      | 1.0.0 |                   | 1) Eight identification digits and a check digit. A two digit prefix will be added in the future but it will not be used to calculate the check digit. 2) The Organization name is not part of the D-U-N-S number.  | IIIIIIIC where all characters are the digits 0, to 9, I = a n identification digit and C = the check digit. When the prefix (P) is added the display requirement will be eleven digits, PPIIIIIIC. |  |
| DK:P      | 0096      | Danish Chamber of Commerce | false      | 1.0.0 |                   | 1) 13 digits including check digits, 2) None  | None   |  |
| IT:FTI    | 0097      | FTI - Ediforum Italia      | false      | 1.0.0 |                   | Character repertoire, The EDI identifier consists of digits only. The identifier has a fixed length. No separators are required. Structure: [123] [123456] [123456] [12], 17, < >, A B C D, A: numerical value allocated by the RA to the regional sub-authority, (3 digits), B: numerical value allocated by the sub-authority to the registered organization (mandatory part of | None   |  |

| Scheme ID | ICD value | Issuing Organization   | Deprecated | Since | Last Modification | Structure of code  | Display requirements | PEPPOL Examples |
|-----------|-----------|--|------------|-------|-------------------|--|----------------------|-----------------|
|           |           |  |            |       |                   | the identifier; 6 digits), C: numerical value used by the registered organization (free part; 6 digits), D: numerical check digit calculated by the registered organization; (2 digits), Check digit computation, The check digit is modular 97 computed on ABC as one number.   |                      |                 |
| NL:KVK    | 0106      | Vereniging van Kamers van Koophandel en Fabrieken in Nederland, Scheme | false      | 1.1.2 |                   |  |                      |                 |
| IT:SIA    | 0135      | SIA-Società Interbancaria per l'Automazione S.p.A.                     | false      | 1.0.0 |                   | Structure of EDI identifier, Character repertoire, The EDI identifier consists of digits only. The identifier has a fixed length. No separators are required. Structure: [1234567] [123] [1] [12345], min 11- max 16, < >, A B C D, A: numerical value (7 digits) assigned by Ufficio Provinciale IVA (local branch of Ministry of Finance); B: numerical value a (3 digits) identifying the County; C: numerical check digit (1 digit); D: optional numerical value (up to 5 digits) used by the registered organization (free part). Check digit computation, The check digit algorithm is the one published in the Gazzetta Ufficiale no 345 of December 29 1976. | None                 |                 |
| IT:SECETI | 0142      | Servizi Centralizzati SECETI S.p.A.                                    | false      | 1.0.0 |                   | First field: ICD: 4 digits, Second field: sequence of digits   | None                 |                 |
| DIGST     | 0184      | DIGSTORG   | false      | 1.2.1 |                   | Defined by Danish Agency for Digitisation  |                      |                 |

| Scheme ID       | ICD value | Issuing Organization  | Deprecated | Since | Last Modification  | Structure of code   | Display requirements | PEPPOL Examples   |
|-----------------|-----------|---|------------|-------|--------------------|---|----------------------|---|
| <b>DK:CPR</b>   | 9901      | Danish Ministry of the Interior and Health                          | false      | 1.0.0 |                    | 1) First field: ICD: 4 digits, Second field: sequence of digits | None                 |   |
| <b>DK:CVR</b>   | 9902      | The Danish Commerce and Companies Agency                            | false      | 1.0.0 |                    |   |                      | 7603770123  |
| <b>DK:SE</b>    | 9904      | Danish Ministry of Taxation, Central Customs and Tax Administration | false      | 1.0.0 |                    |   |                      | DK26769388  |
| <b>DK:VANS</b>  | 9905      | Danish VANS providers   | false      | 1.0.0 |                    |   |                      | DK26769388  |
| <b>IT:VAT</b>   | 9906      | Ufficio responsabile gestione partite IVA                           | false      | 1.0.0 |                    |   |                      | IT06363391001   |
| <b>IT:CF</b>    | 9907      | TAX Authority   | false      | 1.0.0 |                    |   |                      | RSSBBR69C48F839A<br>NOTE: The "CF" is a Fiscal Code that can be "personal" or for a "legal entity". The CF for legal entities is like the Italian VAT code (IT:VAT) |
| <b>NO:ORGNR</b> | 9908      | Enhetsregisteret ved Bronnoysundregisterne                          | false      | 1.0.0 |                    |   |                      |   |
| <b>NO:VAT</b>   | 9909      | Enhetsregisteret ved Bronnoysundregisterne                          | true       | 1.0.0 | 1.1.0 - deprecated |   |                      | 990399123   |
| <b>HU:VAT</b>   | 9910      |   | false      | 1.0.0 |                    |   |                      | 990399123MVA  |
| <b>EU:VAT</b>   | 9912      | National ministries of Economy                                      | true       | 1.0.0 | 1.1.0 - deprecated |   |                      |   |
| <b>EU:REID</b>  | 9913      | Business Registers Network  | false      | 1.0.0 |                    |   |                      |   |
| <b>AT:VAT</b>   | 9914      | Österreichische Umsatzsteuer-Identifikationsnummer                  | false      | 1.0.0 |                    |   |                      |   |
| <b>AT:GOV</b>   | 9915      | Österreichisches Verwaltungs bzw. Organisationskennzeichen          | false      | 1.0.0 |                    |   |                      | ATU12345678   |

| Scheme ID | ICD value | Issuing Organization   | Deprecated | Since | Last Modification  | Structure of code   | Display requirements | PEPPOL Examples |
|-----------|-----------|--|------------|-------|--------------------|---|----------------------|-----------------|
| AT:CID    | 9916      | Firmenidentifikationsnummer der Statistik Austria                      | true       | 1.0.0 | 1.0.2 - deprecated |   |                      |                 |
| IS:KT     | 9917      | Icelandic National Registry  | false      | 1.0.0 |                    |   |                      |                 |
| IBAN      | 9918      | SOCIETY FOR WORLDWIDE INTERBANK FINANCIAL, TELECOMMUNICATION S.W.I.F.T | false      | 1.0.1 |                    |   |                      |                 |
| AT:KUR    | 9919      | Kennziffer des Unternehmensregisters                                   | false      | 1.0.2 |                    | 9 characters in total; letter, number x3, letter, number x3, letter |                      |                 |
| ES:VAT    | 9920      | Agencia Española de Administración Tributaria                          | false      | 1.0.2 |                    |   |                      |                 |
| IT:IPA    | 9921      | Indice delle Pubbliche Amministrazioni                                 | false      | 1.1.0 |                    |   |                      |                 |
| AD:VAT    | 9922      | Andorra VAT number   | false      | 1.1.0 |                    |   |                      |                 |
| AL:VAT    | 9923      | Albania VAT number   | false      | 1.1.0 |                    |   |                      |                 |
| BA:VAT    | 9924      | Bosnia and Herzegovina VAT number                                      | false      | 1.1.0 |                    |   |                      |                 |
| BE:VAT    | 9925      | Belgium VAT number   | false      | 1.1.0 |                    |   |                      |                 |
| BG:VAT    | 9926      | Bulgaria VAT number  | false      | 1.1.0 |                    |   |                      |                 |
| CH:VAT    | 9927      | Switzerland VAT number   | false      | 1.1.0 |                    |   |                      |                 |
| CY:VAT    | 9928      | Cyprus VAT number  | false      | 1.1.0 |                    |   |                      |                 |
| CZ:VAT    | 9929      | Czech Republic VAT number  | false      | 1.1.0 |                    |   |                      |                 |
| DE:VAT    | 9930      | Germany VAT number   | false      | 1.1.0 |                    |   |                      |                 |
| EE:VAT    | 9931      | Estonia VAT number   | false      | 1.1.0 |                    |   |                      |                 |
| GB:VAT    | 9932      | United Kingdom VAT number  | false      | 1.1.0 |                    |   |                      |                 |
| GR:VAT    | 9933      | Greece VAT number  | false      | 1.1.0 |                    |   |                      |                 |
| HR:VAT    | 9934      | Croatia VAT number   | false      | 1.1.0 |                    |   |                      |                 |
| IE:VAT    | 9935      | Ireland VAT number   | false      | 1.1.0 |                    |   |                      |                 |

| Scheme ID | ICD value | Issuing Organization                                  | Deprecated | Since | Last Modification               | Structure of code   | Display requirements | PEPPOL Examples |
|-----------|-----------|---|------------|-------|---------------------------------|---|----------------------|-----------------|
| LI:VAT    | 9936      | Liechtenstein VAT number                              | false      | 1.1.0 |                                 |   |                      |                 |
| LT:VAT    | 9937      | Lithuania VAT number                                  | false      | 1.1.0 |                                 |   |                      |                 |
| LU:VAT    | 9938      | Luxemburg VAT number                                  | false      | 1.1.0 |                                 |   |                      |                 |
| LV:VAT    | 9939      | Latvia VAT number                                     | false      | 1.1.0 |                                 |   |                      |                 |
| MC:VAT    | 9940      | Monaco VAT number                                     | false      | 1.1.0 |                                 |   |                      |                 |
| ME:VAT    | 9941      | Montenegro VAT number                                 | false      | 1.1.0 |                                 |   |                      |                 |
| MK:VAT    | 9942      | Macedonia, the former Yugoslav Republic of VAT number | false      | 1.1.0 |                                 |   |                      |                 |
| MT:VAT    | 9943      | Malta VAT number                                      | false      | 1.1.0 |                                 |   |                      |                 |
| NL:VAT    | 9944      | Netherlands VAT number                                | false      | 1.1.0 |                                 |   |                      |                 |
| PL:VAT    | 9945      | Poland VAT number                                     | false      | 1.1.0 |                                 |   |                      |                 |
| PT:VAT    | 9946      | Portugal VAT number                                   | false      | 1.1.0 |                                 |   |                      |                 |
| RO:VAT    | 9947      | Romania VAT number                                    | false      | 1.1.0 |                                 |   |                      |                 |
| RS:VAT    | 9948      | Serbia VAT number                                     | false      | 1.1.0 |                                 |   |                      |                 |
| SI:VAT    | 9949      | Slovenia VAT number                                   | false      | 1.1.0 |                                 |   |                      |                 |
| SK:VAT    | 9950      | Slovakia VAT number                                   | false      | 1.1.0 |                                 |   |                      |                 |
| SM:VAT    | 9951      | San Marino VAT number                                 | false      | 1.1.0 |                                 |   |                      |                 |
| TR:VAT    | 9952      | Turkey VAT number                                     | false      | 1.1.0 |                                 |   |                      |                 |
| VA:VAT    | 9953      | Holy See (Vatican City State) VAT number              | false      | 1.1.0 |                                 |   |                      |                 |
| NL:OIN    | 9954      | Dutch Originator's Identification Number              | false      | 1.1.3 | 1.1.4 - renamed from ION to OIN |   |                      |                 |
| SE:VAT    | 9955      | Swedish VAT number                                    | false      | 1.2.0 |                                 |   |                      |                 |
| BE:CBE    | 9956      | Belgian Crossroad Bank of Enterprises                 | false      | 1.2.1 |                                 | Format: 9.999.999.999 -<br>Check: 99 = 97 - (9.999.999.9 modulo 97) |                      |                 |
| FR:VAT    | 9957      | French VAT number                                     | false      | 1.2.1 |                                 |   |                      |                 |

Table 24 – PEPPOL issuing agencies



## 6. ANNEXE 1 – DOCUMENT PARTS



UC v1.0.xlsx



**Drawings – Interface**  
**Control Document for**



PEPPOL Code Lists 1  
2 1-15072016.xls

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## 8. CONTACT INFORMATION

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