

eIDAS SAML Attribute Profile

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Abstract:

This specification defines the SAML attributes to be used for the assertion of natural and legal person identity between eIDAS nodes.

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1 Introduction

The eIDAS interoperability framework including its national entities (eIDAS-Connector and eIDAS-Service) need to exchange messages including personal and technical attributes to support cross-border identification and authentication processes. For the exchange of messages, the use of the SAML 2.0 specifications has been agreed in the eIDAS technical subgroup and is laid down in the eIDAS Interoperability Architecture.

Since the eIDAS interoperability architecture should use widely used standards, the following SAML- based profiles are taken into utmost account in this paper:

- Kantara Initiative eGovernment Implementation Profile of SAML V2.0 [SAMLeGov2.0]
- STORK 2.0 D4.4 First version of Technical Specifications for the cross border Interface [STORK]

1.1 Definitions

Terms used throughout this document are defined in [eIDAS Interoperability Architecture]. In addition, when referring to SAML technology, an eIDAS-Service can be seen as SAML identity provider and an eIDAS-Connector as a SAML service provider.

1.2 Key Words

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in [RFC2119]. The key word “CONDITIONAL” is to be interpreted as follows:

CONDITIONAL: The usage of an item is dependent on the usage of other items. It is therefore further qualified under which conditions the item is **REQUIRED** or **RECOMMENDED**.

2 Attributes

The complete list of attributes included in the eIDAS minimum data sets are defined in the Annex of the interoperability framework implementing act.

All attributes for the eIDAS minimum data sets can be derived from the ISA Core Vocabulary. In the case of natural persons refer to the Core Person Vocabulary at https://joinup.ec.europa.eu/asset/core_person/asset_release/core-person-vocabulary, in the case of legal persons also refer to definitions for Core Business Vocabulary at https://joinup.ec.europa.eu/asset/core_business/asset_release/core-business-vocabulary.

The following sections describe the mandatory and optional elements for both natural and legal persons as required by the eIDAS interoperability framework in the context of the Core Vocabulary.

2.1 SAML Attribute Naming

The NameFormat XML attribute in <Attribute> elements MUST be `urn:oasis:names:tc:SAML:2.0:attrname-format:uri`.

The XML attribute Name value MUST be one of the descriptors defined in sections 2.2 Attributes for Natural Persons, and 2.3 Attributes for Legal Persons.

The optional XML attribute FriendlyName value, if present, MUST be one of the friendly descriptors associated with the Name descriptor.

Examples are included in this document for illustrative purposes (see sections 2.2 and 2.3), it is expected that these schema and examples will be refined before publication of the reference architecture.

2.2 Attributes for Natural Persons

2.2.1 Mapping eIDAS minimum data set for Natural Persons to ISA Core Vocabulary

The ISA Core Vocabulary describes a highly structured way of encoding person data that is not ideal for message creation or processing with SAML. The approach taken in this profile is to adopt the base type specified by ISA Core Vocabulary rather than the complex data types required for full compatibility with the standard.

The following Mandatory attributes are required by the Regulation.

Attribute (Friendly) Name	eIDAS MDS Attribute	ISA Core Vocab Equivalent	Notes
FamilyName	Current Family Name	cbc:FamilyName	Encoded as xsd:string
FirstName	Current First Names	cvb:GivenName	Encoded as xsd:string
DateOfBirth	Date of Birth	cvb:BirthDate	Encoded as xsd:date
PersonIdentifier	Uniqueness Identifier	cva:Cvidentifier	Encoded as xsd:string

The following Optional attributes MAY be supplied by a MS if available and acceptable to national law.

Attribute (Friendly) Name	eIDAS MDS Attribute	ISA Core Vocab Equivalent	Notes
BirthName	First Names at Birth	cvb:BirthName	Encoded as xsd:string
BirthName	Family Name at Birth	cvb:BirthName	See above re birth names
PlaceOfBirth	Place of Birth	cva:BirthPlaceCvlocation	Encoded as xsd:string
CurrentAddress	Current Address	cva:Cvaddress	Encoded as multiple xsd:string elements
Gender	Gender	cvb:GenderCode	Encoded as xsd:string with a restriction of selection: Male, Female, Not Specified

2.2.2 Attribute Schema

The following attribute schema is based on the definition of Core Person defining the minimum set of classes and properties for description of a natural person according to the ISA Core Vocabulary (https://joinup.ec.europa.eu/asset/core_person/asset_release/core-person-vocabulary).

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema
  xmlns="http://eidass.europa.eu/attributes/naturalperson"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://eidass.europa.eu/attributes/naturalperso
n"
  elementFormDefault="qualified"
  attributeFormDefault="unqualified"
  version="1">

  <xsd:attribute name="LatinScript" type="xsd:boolean"
default="true"/>
```

```

<!--
    Mandatory attribute types for a natural person.
-->
<xsd:simpleType name="PersonIdentifierType">
  <xsd:annotation>
    <xsd:documentation>
      Unique identifier for the natural person as defined
by the eIDAS Regulation.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:restriction base="xsd:string"/>
</xsd:simpleType>

  <xsd:complexType name="CurrentFamilyNameType">
    <xsd:annotation>
      <xsd:documentation>
        Current family name of the natural person.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:simpleContent>
      <xsd:extension base="xsd:string">
        <xsd:attribute ref="LatinScript"/>
      </xsd:extension>
    </xsd:simpleContent>
  </xsd:complexType>

  <xsd:complexType name="CurrentGivenNameType">
    <xsd:annotation>
      <xsd:documentation>
        Current given names of the natural person.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:simpleContent>
      <xsd:extension base="xsd:string">
        <xsd:attribute ref="LatinScript"/>
      </xsd:extension>
    </xsd:simpleContent>
  </xsd:complexType>

  <xsd:simpleType name="DateOfBirthType">
    <xsd:annotation>
      <xsd:documentation>
        Date of Birth for the Natural Person (Based on
xsd:date i.e. YYYY-MM-DD format).
      </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:date"/>
  </xsd:simpleType>

<!--
    Optional attribute types for a natural person.
-->
<xsd:complexType name="CurrentAddressStructuredType">
  <xsd:annotation>
    <xsd:documentation>
      Current address of the natural person.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>

```

```

        <xsd:element name="PoBox" type="xsd:string" minOccurs="0"
maxOccurs="1"/>
        <xsd:element name="LocatorDesignator" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="LocatorName" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="CvaddressArea" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="Thoroughfare" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="PostName" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="AdminunitFirstline" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="AdminunitSecondline" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="PostCode" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
    </xsd:sequence>
</xsd:complexType>

<xsd:simpleType name="CurrentAddressType">
    <xsd:annotation>
        <xsd:documentation>
            Current address of the natural person as a base64
encoded string.
        </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string"/>
</xsd:simpleType>

<xsd:simpleType name="GenderType">
    <xsd:annotation>
        <xsd:documentation>
            Gender of the natural person.
        </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="Male"/>
        <xsd:enumeration value="Female"/>
        <xsd:enumeration value="Unspecified"/>
    </xsd:restriction>
</xsd:simpleType>

<xsd:complexType name="BirthNameType">
    <xsd:annotation>
        <xsd:documentation>
            First name(s) and family name(s) of the natural
person at birth.
        </xsd:documentation>
    </xsd:annotation>
    <xsd:simpleContent>
        <xsd:extension base="xsd:string">
            <xsd:attribute ref="LatinScript"/>
        </xsd:extension>
    </xsd:simpleContent>
</xsd:complexType>

<xsd:complexType name="PlaceOfBirthType">
    <xsd:annotation>
        <xsd:documentation>

```

```

        Place of birth for a natural person.
    </xsd:documentation>
</xsd:annotation>
<xsd:simpleContent>
    <xsd:extension base="xsd:string">
        </xsd:extension>
    </xsd:simpleContent>
</xsd:complexType>
</xsd:schema>

```

Fig. 2.2.2 – Schema for natural persons

2.2.3 Uniqueness Identifier (mandatory)

SAML Attribute Name:

http://eidas.europa.eu/attributes/naturalperson/PersonIdentifier

SAML Attribute FriendlyName:

PersonIdentifier

```

<saml:Attribute
  FriendlyName="PersonIdentifier"
  Name="http://eidas.europa.eu/attributes/naturalperson/Person
  Identifier"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
  format:uri">
  <saml:AttributeValue xsi:type="eidas:PersonIdentifierType">
    ES/AT/02635542Y
  </saml:AttributeValue>
</saml:Attribute>

```

Fig. 2.2.3 – example PersonIdentifier attribute value

The uniqueness identifier consists of:

1. The first part is the Nationality Code of the identifier
 - This is one of the ISO 3166-1 alpha-2 codes, followed by a slash (“/”)
2. The second part is the Nationality Code of the destination country or international organization¹
 - This is one of the ISO 3166-1 alpha-2 codes, followed by a slash (“/”)
3. The third part a combination of readable characters
 - This uniquely identifies the identity asserted in the country of origin but does not necessarily reveal any discernible correspondence with the subject’s actual identifier (for example, username, fiscal number etc)

Example: ES/AT/02635542Y (Spanish eIDNumber for an Austrian SP)

¹ „e.g. ,EU’ for European Institutions; ,EU’ has been exceptionally reserved by ISO 3166”

2.2.4 Current Family Name(s) (mandatory)

SAML Attribute Name:

http://eidas.europa.eu/attributes/naturalperson/CurrentFamilyName

SAML Attribute FriendlyName:

FamilyName

```
<saml:Attribute
  FriendlyName="FamilyName"
  Name="
http://eidas.europa.eu/attributes/naturalperson/CurrentFamilyName"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:CurrentFamilyNameType">
    Chalk
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.2.4 – example CurrentFamilyName attribute value

2.2.5 Current First Name(s) (mandatory)

SAML Attribute Name:

http://eidas.europa.eu/attributes/naturalperson/CurrentGivenName

SAML Attribute FriendlyName:

FirstName

```
<saml:Attribute
  FriendlyName="FirstName"
  Name="
http://eidas.europa.eu/attributes/naturalperson/CurrentGivenName"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:CurrentGivenNameType">
    Sarah
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.2.5 – example CurrentGivenName attribute value

2.2.6 Date of Birth (mandatory)

SAML Attribute Name:

http://eidas.europa.eu/attributes/naturalperson/DateOfBirth

SAML Attribute FriendlyName:

DateOfBirth

```
<saml:Attribute
  FriendlyName="DateOfBirth"
  Name="
http://eidas.europa.eu/attributes/naturalperson/DateOfBirth"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:DateOfBirthType">
    1970-05-28
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.2.6 – example DateOfBirth attribute value

Date of Birth includes a date using the following format: YYYY + "-" + MM + "-" + DD (as defined for xsd:date)

- YYYY indicates a four-digit year, 0000 through 9999.
- MM indicates a two-digit month of the year, 01 through 12.
- DD indicates a two-digit day of that month, 01 through 31.

2.2.7 First name(s) and family name(s) at birth

SAML Attribute Name:

<http://eidas.europa.eu/attributes/naturalperson/BirthName>

SAML Attribute FriendlyName: BirthName

```
<saml:Attribute
  FriendlyName="BirthName"
  Name="
http://eidas.europa.eu/attributes/naturalperson/BirthName"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:BirthNameType">
    Sarah Jane Booth
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.2.7 – example BirthName attribute value

First name(s) and family name(s) at birth are described as a single text value in line with the Core Person Vocabulary.

2.2.8 Place of Birth

SAML Attribute Name:

<http://eidas.europa.eu/attributes/naturalperson/PlaceOfBirth>

SAML Attribute FriendlyName: PlaceOfBirth

```
<saml:Attribute
  FriendlyName="PlaceOfBirth"
  Name="
http://eidas.europa.eu/attributes/naturalperson/PlaceOfBirth"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:PlaceOfBirthType">
    Peterborough
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.2.8 – example PlaceOfBirth attribute value

2.2.9 Current Address

SAML Attribute Name:

http://eidas.europa.eu/attributes/naturalperson/CurrentAddress

SAML Attribute FriendlyName:

CurrentAddress

```
<saml:Attribute
  FriendlyName="CurrentAddress"
  Name="
http://eidas.europa.eu/attributes/naturalperson/CurrentAddress"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:CurrentAddressType">
PGVpZGFzOkxvY2F0b3JEZXNpZ25hdG9yPjIyPC9laWRhczpMb2NhdG9yRGVzaWduYX
Rvcj48ZWlkYXM6VGhvcmlkYXM6UG9zdE5hbWU+TG9uZG9uPC9laWRhczpUaG9y
b3VnaGZhcmlkYXM6UG9zdE5hbWU+TG9uZG9uPC9laWRhczpQb3N0TmFtZT
4NCjxlaWRhczpQb3N0Q29kZT5TVzFBIDFBQTWvZWlkYXM6UG9zdENVZGU+
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.2.9 – example CurrentAddress attribute value (address data base64 encoded)

This attribute describes the current address for the natural person as registered with the MS authority.

Address data is structured by nature and is defined in the attribute schema as a structured XML sequence of xsd:string elements. Where appropriate this structure address data follows the Core ISA Vocabulary type CvAddressType although this has been simplified to a sequence of xsd:string elements.

To enable this data to be passed in a single attribute value this data MUST first be base64 encoded as described in section 2.2.3 Responding Attributes, of the eIDAS Message Format specification.

For reference the un-encoded address data can be seen in the following XML snippet.

```
<eidas:LocatorDesignator>22</eidas:LocatorDesignator>
<eidas:Thoroughfare>Arcacia Avenue</eidas:Thoroughfare>
<eidas:PostName>London</eidas:PostName>
<eidas:PostCode>SW1A 1AA</eidas:Postcode>
```

Fig. 2.3.5 – Address data before encoding to base64

2.2.10 Gender

SAML Attribute Name:

http://eidas.europa.eu/attributes/naturalperson/Gender

SAML Attribute FriendlyName:

Gender

```
<saml:Attribute
  FriendlyName="Gender"
  Name="
http://eidas.europa.eu/attributes/naturalperson/Gender"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:GenderType">
    Female
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.2.10 – example Gender attribute value

Values for Gender attributes MUST be one of the following:

- Male
- Female
- Not Specified

2.3 Attributes for Legal Persons

2.3.1 Mapping eIDAS minimum data set for Legal Persons to Core ISA Vocabulary

The ISA Core Vocabulary describes a highly structured way of encoding person data that is not ideal for message creation or processing with SAML. The approach taken in this profile is to adopt the base type specified by ISA Core Vocabulary rather than the complex data types required for full compatibility with the standard.

The following Mandatory attributes are required by the Regulation.

Attribute (Friendly) Name	eIDAS MDS Attribute	ISA Core Vocab Equivalent	Notes
LegalName	Current Legal Name	cvb:LegalName	Encoded as xsd:string
LegalPersonIdentifier	Uniqueness Identifier	cva:Cvidentifier	Encoded as xsd:string

The following Optional attributes MAY be supplied by a MS if available and acceptable to national law.

Attribute (Friendly) Name	eIDAS MDS Attribute	ISA Core Vocab Equivalent	Notes
LegalAddress	Current Address	cva:Cvaddress	Encoded as multiple xsd:string elements
VATRegistration	VAT Registration Number	cva:CvbusinessCode	Encoded as xsd:string
TaxReference	Tax Reference Number	cva:CvbusinessCode	Encoded as xsd:string
BusinessCodes	Directive 2012/17/EU Identifier	cva:CvbusinessCode	Encoded as xsd:string
LEI	Legal Entity Identifier (LEI)	cva:CvbusinessCode	Encoded as xsd:string
EORI	Economic Operator Registration and Identification (EORI)	cva:CvbusinessCode	Encoded as xsd:string
SEED	System for Exchange of Excise Data (SEED)	cva:CvbusinessCode	Encoded as xsd:string
SIC	Standard Industrial Classification (SIC)	cva:CvbusinessCode	Encoded as xsd:string

2.3.2 Attribute Schema

The following attribute schema is based, where applicable, on the definition of Core Business the minimum set of classes and properties for description of a legal entity according to the ISA Core Vocabulary (https://joinup.ec.europa.eu/asset/core_business/asset_release/core-business-vocabulary).

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema
  xmlns="http://eid.as.europa.eu/attributes/legalperson"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://eid.as.europa.eu/attributes/legalperson"
  elementFormDefault="qualified"
  attributeFormDefault="unqualified"
  version="1">

  <xsd:attribute name="LatinScript" type="xsd:boolean"
default="true"/>

  <!--
    Mandatory attribute types for a legal person.
  -->
  <xsd:simpleType name="LegalPersonIdentifierType">
    <xsd:annotation>
      <xsd:documentation>
        Unique identifier for the legal person as defined
by the eIDAS Regulation.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string"/>
  </xsd:simpleType>

  <xsd:complexType name="LegalNameType">
    <xsd:annotation>
      <xsd:documentation>
        Current legal name for the legal person or
organisation.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:simpleContent>
      <xsd:extension base="xsd:string">
        <xsd:attribute ref="LatinScript"/>
      </xsd:extension>
    </xsd:simpleContent>
  </xsd:complexType>

  <!--
    Optional attribute types for a legal person.
  -->
  <xsd:complexType name="LegalPersonAddressStructuredType">
    <xsd:annotation>
      <xsd:documentation>
        The address the legal person has registered with the
MS authority or operating address if not registered. For a company
this should be the registered address within the MS issuing the eID.
      </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="PoBox" type="xsd:string" minOccurs="0"
maxOccurs="1"/>

```

```

        <xsd:element name="LocatorDesignator" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="LocatorName" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="CvaddressArea" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="Thoroughfare" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="PostName" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="AdminunitFirstline" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="AdminunitSecondline" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
        <xsd:element name="PostCode" type="xsd:string"
minOccurs="0" maxOccurs="1"/>
    </xsd:sequence>
</xsd:complexType>

<xsd:simpleType name="LegalPersonAddressType">
    <xsd:annotation>
        <xsd:documentation>
            The address the legal person has registered with the
MS authority or operating address if not registered. For a company
this should be the registered address within the MS issuing the eID
as a base64 encoded string.
        </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string"/>
</xsd:simpleType>

<xsd:simpleType name="VATRegistrationNumberType">
    <xsd:annotation>
        <xsd:documentation>VAT - VAT registration number
        </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string"/>
</xsd:simpleType>

<xsd:simpleType name="TaxReferenceType">
    <xsd:annotation>
        <xsd:documentation>TAX-Ref - tax reference number
        </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string"/>
</xsd:simpleType>

<xsd:simpleType name="D-2012-17-EUIdentifierType">
    <xsd:annotation>
        <xsd:documentation>D-2012/17/EU - the identifier used
under Directive 2012/17/EU
        </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string"/>
</xsd:simpleType>

<xsd:simpleType name="LEIType">
    <xsd:annotation>
        <xsd:documentation>LEI - Legal Entity Identifier
        </xsd:documentation>
    </xsd:annotation>

```

```

    <xsd:restriction base="xsd:string"/>
  </xsd:simpleType>

  <xsd:simpleType name="EORIType">
    <xsd:annotation>
      <xsd:documentation>EORI - Economic Operator Registration
and Identification
      </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string"/>
  </xsd:simpleType>

  <xsd:simpleType name="SEEDType">
    <xsd:annotation>
      <xsd:documentation>SEED - System for Exchange of Excise
Data
      </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string"/>
  </xsd:simpleType>

  <xsd:simpleType name="SICType">
    <xsd:annotation>
      <xsd:documentation>SIC - Standard Industrial
Classification
      </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string"/>
  </xsd:simpleType>
</xsd:schema>

```

Fig. 2.3.2 – Schema for legal persons

2.3.3 Uniqueness Identifier (mandatory)

SAML Attribute Name:

<http://eid.as.europa.eu/attributes/legalperson/LegalPersonIdentifier>

SAML Attribute FriendlyName:

LegalPersonIdentifier

```

<saml:Attribute
  FriendlyName="LegalPersonIdentifier"
  Name="
http://eid.as.europa.eu/attributes/legalperson/LegalPersonIdentifier"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
  <saml:AttributeValue xsi:type="eid.as:
LegalPersonIdentifierType">
    ES/AT/02735442Z
  </saml:AttributeValue>
</saml:Attribute>

```

Fig. 2.3.3 – example LegalPersonIdentifier attribute value

Attribute describing a unique identifier for the legal person identity.

2.3.4 Legal Name (mandatory)

SAML Attribute Name:

http://eidas.europa.eu/attributes/legalperson/LegalName

SAML Attribute FriendlyName:

LegalName

```
<saml:Attribute
  FriendlyName="LegalName"
  Name="
http://eidas.europa.eu/attributes/legalperson/LegalNameType"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue languageID="en-GB" xsi:type="eidas:
LegalNameType">
    Acme Corporation
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.3.4 – example LegalName attribute value

Attribute describing the legal name for the legal person authenticating.

2.3.5 Legal Address

SAML Attribute Name:

http://eidas.europa.eu/attributes/legalperson/LegalPersonAddress

SAML Attribute FriendlyName:

LegalAddress

```
<saml:Attribute
  FriendlyName="LegalAddress"
  Name="
http://eidas.europa.eu/attributes/legalperson/LegalPersonAddress"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:
LegalPersonAddressType">PGVpZGFzOkxvY2F0b3JEZXNpZ25hdG9yPjEyNTwvZW
1kYXM6TG9jYXRvcnRlc2lnbmf0b3I+DQo8ZWlkYXM6VGhvcn91Z2hmYXJlPktpbmdz
d2F5PC9laWRhc3pUaG9yb3VnaGZhcU+DQo8ZWlkYXM6UG9zdE5hbWU+TG9uZG9uPC
9laWRhc3pQb3N0TmFtZT4gDQo8ZWlkYXM6UG9zdENvZGU+V0MyQIA2Tkg8L2VpZGFz
OlBvc3Rjb2RlPg==
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.3.5 – example LegalPersonAddress attribute value (address data base64 encoded)

This attribute describes the address the legal person has registered with the MS authority or operating address if not registered. For a company this should be the registered address within the MS issuing the eID.

Address data is structured by nature and is defined in the attribute schema as a structured XML sequence of xsd:string elements. Where appropriate this structure address data follows the Core ISA Vocabulary type CvAddressType although this has been simplified to a sequence of xsd:string elements.

To enable this data to be passed in a single attribute value this data MUST first be base64 encoded as described in section 2.2.3 Responding Attributes, of the eIDAS Message Format specification.

For reference the un-encoded address data can be seen in the following XML snippet.

```
<eidas:LocatorDesignator>125</eidas:LocatorDesignator>
<eidas:Thoroughfare>Kingsway</eidas:Thoroughfare>
<eidas:PostName>London</eidas:PostName>
<eidas:PostCode>WC2B 6NH</eidas:Postcode>
```

Fig. 2.3.5 – Address data before encoding to base64

2.3.6 VAT Registration Number

SAML Attribute Name:

<http://eidas.europa.eu/attributes/legalperson/VATRegistrationNumber>

SAML Attribute FriendlyName: VATRegistration

```
<saml:Attribute
  FriendlyName="VATRegistration"
  Name="
http://eidas.europa.eu/attributes/legalperson/VATRegistrationNumber"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:
VATRegistrationNumberType">GB 730 7577 27</saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.3.6.1 – example VATRegistrationNumber attribute value.

Attribute describing the VAT registration number for the organisation.

2.3.7 Tax Reference Number

SAML Attribute Name:

<http://eidas.europa.eu/attributes/legalperson/TaxReference>

SAML Attribute FriendlyName: TaxReference

```
<saml:Attribute
  FriendlyName="TaxReference"
  Name="
http://eidas.europa.eu/attributes/legalperson/TaxReferenceType"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:TaxReferenceType">
    ABZ1230789
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.3.7.1 – example TaxReference attribute value.

Attribute describing the Tax Reference number related to the legal person.

2.3.8 Directive 2012/17/EU Identifier

SAML Attribute Name: <http://eid.as.europa.eu/attributes/legalperson/D-2012-17-EUIdentifier>

SAML Attribute FriendlyName: D-2012-17-EUIdentifier

```
<saml:Attribute
  FriendlyName="D-2012-17-EUIdentifier"
  Name=" http://eid.as.europa.eu/attributes/legalperson/D-2012-
17-EUIdentifier"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eid.as:D-2012-17-
EUIdentifierType">
    GB 755 267 1243
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.3.8.1 – example D-2012-17-EUIdentifier attribute value.

Attribute describing the identifier referred to in Article 3(1) of Directive 2009/101/EC of the European Parliament and of the Council.

Further information regarding this identifier can be found in Directive 2009/101/EC of the European Parliament and of the Council of 16 September 2009 on coordination of safeguards which, for the protection of the interests of members and third parties, are required by Member States of companies within the meaning of the second paragraph of Article 48 of the Treaty, with a view to making such safeguards equivalent (OJ L 258, 1.10.2009, p. 11).

2.3.9 Legal Entity Identifier

SAML Attribute Name: <http://eid.as.europa.eu/attributes/legalperson/LEI>

SAML Attribute FriendlyName: LEI

```
<saml:Attribute
  FriendlyName="LEI"
  Name=" http://eid.as.europa.eu/attributes/legalperson/LEI"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eid.as:LEIType">
    ES123567983568437254K
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.3.9.1 – example LEI attribute value

Attribute describing the Legal Entity Identifier (LEI) referred to in Commission Implementing Regulation (EU) No 1247/2012 of 19 December 2012 laying down implementing technical standards with regard to the format and frequency of trade reports to trade repositories according to Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories (OJ L 352, 21.12.2012, p. 20).

2.3.10 Economic Operator Registration and Identification

SAML Attribute Name: <http://eidas.europa.eu/attributes/legalperson/EORI>

SAML Attribute FriendlyName: EORI

```
<saml:Attribute
  FriendlyName="EORI"
  Name=" http://eidas.europa.eu/attributes/legalperson/EORI"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:EORITYPE">
    GB123456789000
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.3.10.1 – example EORI attribute value

Attribute describing the Economic Operator Registration and Identification (EORI) for the legal person as referred to in Commission Implementing Regulation (EU) No 1352/2013.

Further information regarding Economic Operator Registration and Identification (EORI) can be found in Commission Implementing Regulation (EU) No 1352/2013 of 4 December 2013 establishing the forms provided for in Regulation (EU) No 608/2013 of the European Parliament and of the Council concerning customs enforcement of intellectual property rights (OJ L 341, 18.12.2013, p. 10).

2.3.11 System for Exchange of Excise Data Identifier

SAML Attribute Name: <http://eidas.europa.eu/attributes/legalperson/SEED>

SAML Attribute FriendlyName: SEED

```
<saml:Attribute
  FriendlyName="SEED"
  Name=" http://eidas.europa.eu/attributes/legalperson/SEED"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:SEEDTYPE">
    GB 00000987ABC
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.3.11.1 – example SEED attribute value

Attribute describing the System for Exchange of Excise Data (SEED) Excise Number for the legal person.

Further information regarding the SEED identifier can be found in Council Directive 92/12/EEC of 25 February 1992 on the general arrangements for products subject to excise duty and on the holding, movement and monitoring of such products (OJ L 076, 23/03/1992 p. 1 – 13).

2.3.12 Standard Industrial Classification

SAML Attribute Name: http://eidas.europa.eu/attributes/legalperson/SIC

SAML Attribute FriendlyName: SIC

```
<saml:Attribute
  FriendlyName="SIC"
  Name=" http://eidas.europa.eu/attributes/legalperson/SIC"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:SICType">
    3730
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.3.12.1 – example attribute element based on SIC

Attribute describing the Standard Industrial Classification (SIC) code for the legal person.

2.4 Transliteration

Transliteration allows the consumer of identity assertions to determine which attribute values are recorded in Latin and non-Latin script.

For attribute values where transliteration is applicable (as defined by the profile) a modifying attribute `LatinScript="false"` MUST be applied to the `<AttributeValue>`. This `LatinScript` attribute is optional and set to `"true"` by default.

To facilitate transliteration two `<AttributeValue>` statements MUST be included in the `<Attribute>` statement;

1. a Latin script variant of the attribute value
2. a non-Latin script variant which MUST be clearly identified using the `LatinScript` attribute set to `"false"`.

If a transliterated attribute value is included the `LatinScript` attribute MUST be set to `false` indicating a non-latin variant of the attribute value. Nodes MUST take account of the `LatinScript` attribute where present and act accordingly.

In the following example a `FamilyName` attribute value is provided in the original Greek and transliterated versions.

```
<saml:Attribute
  FriendlyName="FamilyName"
  Name="
http://eidas.europa.eu/attributes/naturalperson/CurrentFamilyName"
  NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-
format:uri">
  <saml:AttributeValue xsi:type="eidas:CurrentFamilyNameType">
    Onasis
  </saml:AttributeValue>

  <saml:AttributeValue LatinScript="false"
xsi:type="eidas:CurrentFamilyNameType">
    Ωνάσης
  </saml:AttributeValue>
</saml:Attribute>
```

Fig. 2.4.1 – example attribute element based on `FamilyName` including Latin and non-Latin attribute value.