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<th></th>
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<td>.....................................................</td>
<td>25</td>
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<td></td>
</tr>
<tr>
<td>64</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
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Foreword

This draft European Standard (EN) has been produced by ETSI Technical Committee| ESI and is now submitted for public review before approval by TC ESI and submission for the combined Public Enquiry and Vote phase of the ETSI standards EN Approval Procedure.

The present document is part 3 of a multi-part deliverable. Full details of the entire series can be found in [1].

<table>
<thead>
<tr>
<th>Proposed national transposition dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of latest announcement of this EN (doa):</td>
</tr>
<tr>
<td>Date of latest publication of new National Standard or endorsement of this EN (dop/e):</td>
</tr>
<tr>
<td>Date of withdrawal of any conflicting National Standard (dow):</td>
</tr>
</tbody>
</table>

Modal verbs terminology

In the present document "shall", "shall not", "should", "should not", "may", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

"must" and "must not" are NOT allowed in ETSI deliverables except when used in direct citation.
1 Scope

The present document provides the format for the semantic content that flows across the different interfaces of ERD systems as defined in [2].

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at https://docbox.etsi.org/Reference/.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are necessary for the application of the present document.

[1] ETSI EN 319 522-1: "Electronic Signatures and Infrastructures (ESI); Electronic Registered Delivery Services; Part 1: Framework and Architecture".


[3] ETSI EN 319 132-1: "Electronic Signatures and Infrastructures (ESI); XAdES signatures; Part 1: Building blocks and baseline profiles".


[8] IETF RFC 5646: "Tags for Identifying Languages".


[12] IETF RFC 5332: Internet Message Format

[13] ETSI EN 319 532-3: "Electronic Signatures and Infrastructures (ESI); Registered Electronic Mail (REM) Services; Part 3: Formats".
2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] COMMISSION IMPLEMENTING REGULATION (EU) 2015/1502 "on setting out minimum technical specifications and procedures for assurance levels for electronic identification means pursuant to Article 8(3) of Regulation (EU) No 910/2014 of the European Parliament and of the Council on electronic identification and trust services for electronic transactions in the internal market”.

[i.2] NIST Special Publication 800-63: "Digital Identity Guidelines".


[i.5] NIST Special Publication 800-63-C: "Digital Identity Guidelines. Federation and Assertions”.

[i.6] Regulation (EU) No 910/2014

3 Definitions and abbreviations

For the purposes of the present document, the definitions and abbreviations given in [1] apply.
4 Metadata formats

4.1 Introduction

The following clause aims at providing specific formats for metadata components identified in [2], clause 6. Clause 4.2 maps metadata components in RFC 5322 format; clause 4.3 maps metadata components in AS4 format.

Other mappings can be provided by future versions of this document or by other parties.

4.2 RFC 5322 format

Specification for the mapping of ERDS metadata in an RFC 5322 [12] format is provided in [13].

4.3 AS4 format

All Message Property names should be prefixed with: http://uri.etsi.org/19522/as4binding/v1#

<table>
<thead>
<tr>
<th>Semantic content (from EN 319 522-2)</th>
<th>Mapping to AS4 header elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit date and time</td>
<td>SubmissionTimestamp</td>
</tr>
<tr>
<td>Relay date and time</td>
<td>//eb:Messaging/eb:UserMessage/eb3:MessageInfo/eb3:Timestamp</td>
</tr>
<tr>
<td>Expiration date</td>
<td>ExpirationTimestamp</td>
</tr>
<tr>
<td>Recipient authentication level</td>
<td>RequiredRecipientAuthenticationLevel</td>
</tr>
<tr>
<td>Applicable policy</td>
<td>Policy</td>
</tr>
<tr>
<td>Sender’s address</td>
<td>SenderAddress</td>
</tr>
<tr>
<td>Sender’s replyto address</td>
<td>ReplyTo</td>
</tr>
<tr>
<td>Recipient’s address</td>
<td>ReceiverAddress</td>
</tr>
<tr>
<td>Message original identifier</td>
<td>OriginalMessageId</td>
</tr>
<tr>
<td>In reply to</td>
<td>//eb:Messaging/eb:UserMessage/eb3:MessageInfo/eb3:RefToMessageId</td>
</tr>
<tr>
<td>Message digest</td>
<td>Included in WS-Security header</td>
</tr>
<tr>
<td>Content type</td>
<td></td>
</tr>
<tr>
<td>Attachment information</td>
<td>For each attachment of the business document there shall be a eb:PartInfo element in the header with the following PartProperties set:</td>
</tr>
<tr>
<td>Attachment name</td>
<td>AttachmentName</td>
</tr>
<tr>
<td>Attachment format</td>
<td>AttachmentType</td>
</tr>
<tr>
<td>SubjectExtensions</td>
<td></td>
</tr>
<tr>
<td>Signature?</td>
<td></td>
</tr>
</tbody>
</table>

5 Evidence and identification formats
5.1 Introduction


ERDS can generate PDF-formatted ERDS evidences. This format, although valid, it is thought more for final human usage rather than in situations where interoperability has to be addressed or automatic processes have to take some decision based on ERDS evidence content.

XML format is better suited for these last cases, where the automatic processing of the evidence content prevails over its immediate human interpretation. For the aforementioned reasons, the detailed specification of PDF evidence format is out of scope of the present specification and it is left to specific implementations of ERDS.

5.2 XML format

5.2.1 Namespaces used

Table 2 below shows the URIs corresponding to the namespaces and the prefixes associated to them in the present document.

<table>
<thead>
<tr>
<th>Namespace's URI</th>
<th>Namespace's prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://uri.etsi.org/19522/v1#">http://uri.etsi.org/19522/v1#</a></td>
<td>erds</td>
</tr>
<tr>
<td><a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a></td>
<td>xs</td>
</tr>
<tr>
<td><a href="http://www.w3.org/2000/09/xmldsig#">http://www.w3.org/2000/09/xmldsig#</a></td>
<td>ds</td>
</tr>
<tr>
<td>urn:oasis:names:tc:SAML:2.0:assertion</td>
<td>saml</td>
</tr>
</tbody>
</table>

Below follows a copy of the xs:schema element of the XML Schema file "ERDS19522v111-201902.xsd" whose location is detailed in clause [XMLSCHEMALOCATIONFILE], and that defines the namespace whose URI is http://uri.etsi.org/19522/v1#.

<x:schema targetNamespace="http://uri.etsi.org/19522/v1#"
</xs:schema>

5.2.2 Evidence format

5.2.2.1 Introduction

The present clause specifies a XML format for the Evidences generated by an ERDS.

5.2.2.2 Auxiliary elements

5.2.2.2.1 Introduction

The present clause provides details of a number of auxiliary types and elements used in throughout the XML Schema file.
5.2.2.2 URI related types

The present clause defines a number of types whose instances’ values are URIs.

These types element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:simpleType name="NonEmptyURIType">
  <xs:restriction base="xs:anyURI">
    <xs:minLength value="1"/>
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="NonEmptyAttributedURIType">
  <xs:simpleContent>
    <xs:extension base="NonEmptyURIType">
      <xs:attribute ref="xml:lang" use="optional"/>
      <xs:attribute name="scheme" type="xs:string" use="optional"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
<xs:complexType name="NonEmptyMultiLangURIType">
  <xs:simpleContent>
    <xs:extension base="NonEmptyURIType">
      <xs:attribute ref="xml:lang" use="required"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
<xs:complexType name="NonEmptyMultiLangURIListType">
  <xs:sequence>
    <xs:element name="URI" type="NonEmptyMultiLangURIType"/>
  </xs:sequence>
</xs:complexType>

Instances of NonEmptyURIType type shall have a non-empty URI as value.

Instances of NonEmptyAttributedURIType shall have a non-empty URI as value. The xml:lang attribute shall identify a language using the language code as specified in IETF RFC 5646 [5]. The scheme attribute shall indicate the scheme for the URI value of the element.

Instances of NonEmptyMultiLangURIType shall have a non-empty URI as value. The xml:lang attribute shall identify a language using the language code as specified in IETF RFC 5646 [8].

5.2.2.2.3 String related types

The present clause defines a number of types whose instances’ values are strings.

These types element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:simpleType name="NonEmptyStringType">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="AttributedNonEmptyStringType">
  <xs:simpleContent>
    <xs:extension base="NonEmptyStringType">
      <xs:attribute name="type" type="NonEmptyStringType" use="required"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
<xs:complexType name="NonEmptyMultiLangURITType">
  <xs:simpleContent>
    <xs:extension base="NonEmptyURIType">
      <xs:attribute ref="xml:lang" use="required"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
<xs:complexType name="NonEmptyMultiLangURIListType">
  <xs:sequence>
    <xs:element name="URI" type="NonEmptyMultiLangURIType"/>
  </xs:sequence>
</xs:complexType>

Instances of NonEmptyURIType type shall have a non-empty URI as value.

Instances of NonEmptyAttributedURIType shall have a non-empty URI as value. The xml:lang attribute shall identify a language using the language code as specified in IETF RFC 5646 [5]. The scheme attribute shall indicate the scheme for the URI value of the element.

Instances of NonEmptyMultiLangURIType shall have a non-empty URI as value. The xml:lang attribute shall identify a language using the language code as specified in IETF RFC 5646 [8].

Instances of NonEmptyStringType type shall have a non-empty string as value.
Instances of NonEmptyAttributedStringType type shall have a non-empty string as value. The type attribute shall indicate the type of the corresponding string value.

5.2.2.2.4 Container for extensibility

The present clause defines the Any element that may have any content.

The present clause also defines the AnyType type whose instances may have any content.

They are specified for serving as placeholders for contents that are not specified in the present document.

This Any element shall be defined in XML Schema whose location is detailed in clause [XMLSCHEMALLOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:element name="Any" type="AnyType"/>
<xs:complexType name="AnyType" mixed="true">
  <xs:sequence minOccurs="0" maxOccurs="unbounded">
    <xs:any namespace="##any" processContents="lax"/>
  </xs:sequence>
  <xs:anyAttribute namespace="##any"/>
</xs:complexType>
```

5.2.2.3 Evidence root element

The root element of evidence shall be the Evidence element.

This element shall be defined as in XML Schema whose location is detailed in clause [XMLSCHEMALLOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:element name="Evidence" type="EvidenceType"/>
<xs:complexType name="EvidenceType">
  <xs:sequence>
    <xs:element ref="EvidenceIdentifier'/">
    <xs:element ref="ERDSEventId"/>
    <xs:group ref="Components"/>
  </xs:sequence>
  <xs:attribute name="version" type="xs:string" use="required"/>
  <xs:attribute name="Id" type="xs:ID" use="optional"/>
</xs:complexType>
```

Evidences conformant to the present specification shall have "EN319522v1.1.1" as value for version attribute.

Attribute version shall implement the semantics specified in clause 8.2.2 of [2].

Attribute Id shall be used to reference the Evidence element.

Clauses below provide XML Schema definitions and requirements on its components.

5.2.2.4 EvidenceIdentifier element

The content of this element shall have the semantics specified in clause 8.2.2 of

```
<xs:element name="EvidenceIdentifier" type="xs.string"/>
```

5.2.2.5 ERDSEventId element

The content of this element shall have the semantics specified in clause 8.2.2 of [2].
The content of this element shall be one of the URI values listed in Table 3.

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:element name="ERDSEventId" type="NonEmptyURIType"/>
```

Table 3 below shows the URI values corresponding to each of the events specified in clause 6.2 of [2]. Table 3 below shows the URI values corresponding to each of the events specified in clause 6.2 of [2].

<table>
<thead>
<tr>
<th>URI value</th>
<th>Event identified</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://www.etsi.org/19522/Event/SubmissionAcceptance">http://www.etsi.org/19522/Event/SubmissionAcceptance</a></td>
<td>SubmissionAcceptance</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/SubmissionRejection">http://www.etsi.org/19522/Event/SubmissionRejection</a></td>
<td>SubmissionRejection</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/RelayAcceptance">http://www.etsi.org/19522/Event/RelayAcceptance</a></td>
<td>RelayAcceptance</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/RelayRejection">http://www.etsi.org/19522/Event/RelayRejection</a></td>
<td>RelayRejection</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/NotificationForAcceptance">http://www.etsi.org/19522/Event/NotificationForAcceptance</a></td>
<td>NotificationForAcceptance</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/NotificationForAcceptanceFailure">http://www.etsi.org/19522/Event/NotificationForAcceptanceFailure</a></td>
<td>NotificationForAcceptanceFailure</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/ConsignmentAcceptance">http://www.etsi.org/19522/Event/ConsignmentAcceptance</a></td>
<td>ConsignmentAcceptance</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/ConsignmentRejection">http://www.etsi.org/19522/Event/ConsignmentRejection</a></td>
<td>ConsignmentRejection</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/ConsignmentFailure">http://www.etsi.org/19522/Event/ConsignmentFailure</a></td>
<td>ConsignmentFailure</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/ConsignmentNotification">http://www.etsi.org/19522/Event/ConsignmentNotification</a></td>
<td>ConsignmentNotification</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/ConsignmentNotificationFailure">http://www.etsi.org/19522/Event/ConsignmentNotificationFailure</a></td>
<td>ConsignmentNotificationFailure</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/ContentHandover">http://www.etsi.org/19522/Event/ContentHandover</a></td>
<td>ContentHandover</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/ContentHandoverFailure">http://www.etsi.org/19522/Event/ContentHandoverFailure</a></td>
<td>ContentHandoverFailure</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/RelayToNonERDS">http://www.etsi.org/19522/Event/RelayToNonERDS</a></td>
<td>RelayToNonERDS</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/RelayToNonERDSFailure">http://www.etsi.org/19522/Event/RelayToNonERDSFailure</a></td>
<td>RelayToNonERDSFailure</td>
</tr>
<tr>
<td><a href="http://www.etsi.org/19522/Event/ReceivedFromNonERDS">http://www.etsi.org/19522/Event/ReceivedFromNonERDS</a></td>
<td>ReceivedFromNonERDS</td>
</tr>
</tbody>
</table>

5.2.2.6 Components elements group

Below follows a copy of a part of the XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] that defines a group of elements, whose components are specified in clauses below.

```xml
<xs:group name="Components">
  <xs:sequence>
    <xs:element ref="EventReasons" minOccurs="0"/>
    <xs:element name="EventTime" type="xs:dateTime"/>
    <xs:element name="EventIssuerPolicyID" minOccurs="0"/>
    <xs:element ref="EventIssuerDetails"/>
    <xs:element ref="SenderDetails"/>
    <xs:element ref="RecipientDetails" maxOccurs="unbounded"/>
    <xs:element ref="RecipientsDelegateDetails" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="SubmissionTime" type="xs:dateTime" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="MessageIdentifier" type="xs:string" minOccurs="0"/>
    <xs:element ref="UserContentInfo" minOccurs="0"/>
    <xs:element ref="ForwardedToExternalSystem" type="xs:string" minOccurs="0"/>
    <xs:element ref="TransactionLogInformation" minOccurs="0"/>
    <xs:element ref="Extensions" minOccurs="0"/>
    <xs:element ref="ds:Signature" minOccurs="0"/>
  </xs:sequence>
</xs:group>
```

5.2.2.7 EventReasons element

The EventReasons element shall have the semantics specified in clause 8.2.3 of [2].
The EventReasons element shall identify, by means of an URI value, the reason or reasons that have caused the event that has triggered the generation of the evidence.

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<xs:element name="EventReasons" type="EventReasonsType"/>
<xs:complexType name="EventReasonsType">
  <xs:sequence>
    <xs:element ref="EventReason" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="EventReason" type="EventReasonType"/>
<xs:complexType name="EventReasonType">
  <xs:sequence>
    <xs:element name="Code" type="xs:anyURI"/>
    <xs:element name="Details" type="xs:string" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

Each EventReason child shall identify one of the reasons that caused the evidence’s triggering event.

EventReason’s Code child shall have a URI value. Table 4 shows some possible values for this element. Code child element may have values different than those that are listed in Table 4.

EventReason’s Details child shall contain textual information providing further information on the reason.

<table>
<thead>
<tr>
<th>URI values</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/MessageAccepted">http://uri.etsi.org/19522/EventReason/MessageAccepted</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/InvalidMessageFormat">http://uri.etsi.org/19522/EventReason/InvalidMessageFormat</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/MalwareFound">http://uri.etsi.org/19522/EventReason/MalwareFound</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/InvalidSenderSignature">http://uri.etsi.org/19522/EventReason/InvalidSenderSignature</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/SenderSigningCertExpiredOrRevoked">http://uri.etsi.org/19522/EventReason/SenderSigningCertExpiredOrRevoked</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/SERDS_PolicyViolation">http://uri.etsi.org/19522/EventReason/SERDS_PolicyViolation</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/SERDSP_Malfunction">http://uri.etsi.org/19522/EventReason/SERDSP_Malfunction</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/SERDSP_NotIdentified">http://uri.etsi.org/19522/EventReason/SERDSP_NotIdentified</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/SERDSP_ReceivedNoDeliveryInfoFromR_ERDSP">http://uri.etsi.org/19522/EventReason/SERDSP_ReceivedNoDeliveryInfoFromR_ERDSP</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/UnknownRecipient">http://uri.etsi.org/19522/EventReason/UnknownRecipient</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/RecipientUAFull">http://uri.etsi.org/19522/EventReason/RecipientUAFull</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/TechnicalMalfunction">http://uri.etsi.org/19522/EventReason/TechnicalMalfunction</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/AttachmentFormatNotAccepted">http://uri.etsi.org/19522/EventReason/AttachmentFormatNotAccepted</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/RecipientRejection">http://uri.etsi.org/19522/EventReason/RecipientRejection</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/RetentionPeriodExpired">http://uri.etsi.org/19522/EventReason/RetentionPeriodExpired</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/NonERDSUnreachable">http://uri.etsi.org/19522/EventReason/NonERDSUnreachable</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/NonERDSNonOperational">http://uri.etsi.org/19522/EventReason/NonERDSNonOperational</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/NonERDSRejection">http://uri.etsi.org/19522/EventReason/NonERDSRejection</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/PrintingSystemUnreachable">http://uri.etsi.org/19522/EventReason/PrintingSystemUnreachable</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/PrintingSystemNonOperational">http://uri.etsi.org/19522/EventReason/PrintingSystemNonOperational</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/PrintingBufferFull">http://uri.etsi.org/19522/EventReason/PrintingBufferFull</a></td>
</tr>
<tr>
<td><a href="http://uri.etsi.org/19522/EventReason/Other">http://uri.etsi.org/19522/EventReason/Other</a></td>
</tr>
</tbody>
</table>

### 5.2.2.8 EventTime element

The EventTime element of the Components group shall have the semantics specified in clause 8.2.4 of 2.

### 5.1.2.9 EvidenceIssuerPolicyID element

Each PolicyID child of EvidenceIssuerPolicyID element shall have the semantics specified in clause 8.2.6 of 2.

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.
PolicyID child shall have a URI reference as value, which shall identify one policy. If the policy is identified by an OID, the URI reference shall have a URN as value. The value of this URN shall be compliant with RFC 3061 [5].

**Reference source not found.**

### 5.2.2.10 EntityDetailsType type

Instances of EntityDetailsType type shall have the semantics specified in clause 8.2.7 of 2.

This type shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:complexType name="EntityDetailsType">
  <xs:sequence>
    <xs:element ref="Identity"/>
    <xs:element ref="CertificateDetails" minOccurs="0"/>
    <xs:element ref="Any" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
```

The Any element is a placeholder for extending the definition of this type.

Clauses below provide details of the different components.

### 5.2.2.11 Identity element

The Identity element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:element name="Identity" type="IdentityAttributesType" />
```

The Identity child element shall contain a sequence of saml:Attribute elements. Each saml:Attribute element shall contain the value of one identity attribute.

The Identity child element may contain one or more saml:Attribute elements each one with a value representing one postal address.

**EXAMPLE 1:** For natural persons the saml:Attribute element specified in [6] whose Name attribute value is "Error! Reference source not found. Error! Reference source not found."

**EXAMPLE 2:** For legal persons the saml:Attribute element specified in [6] whose Name attribute value is "http://eidas.europa.eu/attributes/legalperson/LegalPersonAddress".

**EXAMPLE 3:** The ISA Core Vocabulary cva:Cvaddress element.

The sequence of saml:Attribute elements within XML evidences issued by ERDS provided within the European Union shall be conformant with the identity attributes specified in Error! Reference source not found.. The mandatory and optional saml:Attribute elements within XML evidences issued by ERDS provided within the European Union used for identifying natural and legal persons, as well as their corresponding postal addresses shall be the ones specified in [6] Error! Reference source not found..
5.2.2.12 CertificateDetailsType type

Instances of CertificateDetailsType type shall contain the details of the certificate of a certain entity.

This type shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:complexType name="CertificateDetailsType">
  <xs:choice maxOccurs="3">
    <xs:element name="X509Certificate" type="xs:base64Binary"/>
    <xs:element name="CertID" type="CertIDTypeV2"/>
    <xs:element ref="CertIDAndSignature"/>
  </xs:choice>
</xs:complexType>

<xs:complexType name="CertIDAndSignatureType">
  <xs:sequence>
    <xs:element name="CertID" type="CertIDTypeV2"/>
    <xs:element ref="CertSignatureDetails" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="CertIDTypeV2">
  <xs:sequence>
    <xs:element name="CertDigest" type="DigestAlgAndValueType"/>
    <xs:element name="IssuerSerialV2" type="xs:base64Binary" minOccurs="0"/>
  </xs:sequence>
  <xs:attribute name="URI" type="xs:anyURI" use="optional"/>
</xs:complexType>

<xs:complexType name="DigestAlgAndValueType">
  <xs:sequence>
    <xs:element ref="ds:DigestMethod"/>
    <xs:element ref="ds:DigestValue"/>
  </xs:sequence>
</xs:complexType>

<xs:element name="CertSignatureDetails" type="CertSignatureDetailsType"/>
<xs:complexType name="CertSignatureDetailsType">
  <xs:sequence>
    <xs:element ref="ds:SignatureMethod"/>
    <xs:element ref="ds:SignatureValue"/>
  </xs:sequence>
</xs:complexType>

The X509Certificate child shall contain the base-64 encoding of a DER-encoded X.509 certificate of the entity whose details are provided by the instance of CertificateDetailType.

The CertID child shall be an instance of CertIDTypeV2 type and shall contain a reference to the X.509 certificate of the entity whose details are provided by the instance of CertificateDetailsType.

The child element CertDigest of an instance of CertIDTypeV2 shall contain the digest of the referenced certificate.

CertDigest’s children elements satisfy the following requirements:

1)  `ds:DigestMethod` element shall identify the digest algorithm. And

2)  `ds:DigestValue` element shall contain the base-64 encoded value of the digest computed on the DER-encoded certificate.

The content of IssuerSerialV2 element shall be the the base-64 encoding of one DER-encoded instance of type IssuerSerial type defined in IETF RFC 5035 [9].

NOTE 1: The information in the IssuerSerialV2 element is only a hint, that can help to identify the certificate whose digest matches the value present in the reference. But the binding information is the digest of the certificate.
The URI attribute shall provide an indication of where the referenced certificate can be found.

NOTE 2: It is intended that this attribute be used as a hint, as implementations can have alternative ways for retrieving the referenced certificate if it is not found at the referenced place.

The CertIDAndSignature child of CertificateDetails element shall contain an instance of CertIDTypeV2 whose contents shall be as explained in the paragraph above, and the CertISignatureDetails child element, whose details are given below.

The CertSignatureDetails child of CertIDAndSignature element shall contain the details of the signature value of the certificate of the entity whose details are provided by the instance of CertificateDetailType.

The ds:SignatureMethod child of CertSignatureDetails element shall be an element as specified in clause 4.4.2 of [4] Error! Reference source not found.. It shall contain the identifier of the algorithm used for computing the signature of the certificate of the entity whose details are provided by the instance of CertificateDetailType.

The ds:SignatureValue child of CertSignatureDetails element shall be an element as specified in clause 4.4.3 of Error! Reference source not found.. It shall contain the base-64 encoded signature value of the certificate of the entity whose details are provided by the instance of CertificateDetailType.

5.2.2.13 EvidenceIssuerDetails element

The EvidenceIssuerDetails element shall have the semantics specified in clause 8.2.7 of 2.

The EvidenceIssuerDetails element shall be an instance of EntityDetailsType type where the values within all its components shall be values corresponding to the entity that has issued the evidence.

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<xs:element name="EvidenceIssuerDetails" type="EntityDetailsType"/>
```

5.2.2.14 AssuranceLevelsDetailsType type

Instances of the AssuranceLevelsDetailsType type shall allow implementing the semantics corresponding to the details of the assurance levels of the identification validation and authentication processes carried out with users as specified in clauses 7.2.16 (for the sender), 7.2.17 (for one recipient), and 8.2.18 (for one delegate of one or more recipients) of [2].

This type shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<xs:complexType name="AssuranceLevelsDetailsType">
    <xs:choice>
        <xs:sequence>
            <xs:element name="GlobalAssuranceLevel" type="AssuranceLevelDetailsType"/>
            <xs:element ref="AuthenticationDetails"/>
        </xs:sequence>
        <xs:sequence>
            <xs:element ref="AuthenticationDetailsAndAssuranceLevel"/>
            <xs:element name="IdentityProofAssuranceLevel" type="AssuranceLevelDetailsType"/>
            <xs:element name="FederationAssuranceLevel" type="AssuranceLevelDetailsType" minOccurs="0"/>
        </xs:sequence>
    </xs:choice>
</xs:complexType>
```
Each instance of AssuranceLevelDetailsType type shall contain detailed information of a certain assurance level. These instances may support schemes that define separated assurance levels for authentication process, identity proof processes, and an assertion protocol in cases there is a federation for communicating authentication and identity information.

EXAMPLE 1: The Commission Implementing Regulation (EU) 2015/1502 Error! Reference source not found. specifies three assurance levels for identity proof and authentication processes. Each one would require one instance of AssuranceLevelDetailsType type.

EXAMPLE 2: NIST Special Publications 800-63[i.2], 800-63-A [i.3], 800-63-B i.4, and 800-63-C i.5 providing guidelines to federal agencies for implementing digital identification and authentication also provide means for managing these three different assurance levels if required. Each one would require one instance of AssuranceLevelDetailsType type.

One instance may also support schemes that define a unique global assurance level jointly assigned to the identification proof and authentication processes.

The AssuranceLevel child element of instances of AssuranceLevelDetailsType shall indicate the value of an assurance level.

The PolicyID child element of instances of AssuranceLevelDetailsType shall identify the policy that defined the different assurance levels.

The PolicyIDDetails child element of instances of AssuranceLevelDetailsType shall contain relevant textual details of the policy that defined the different assurance levels.

The PolicyIDDetailsResources child element of instances of AssuranceLevelDetailsType shall contain a list of URIs pointing to resources providing details of the policy that defined the different assurance levels, each one in a certain language. The xml:lang attribute of each URI child element shall indicate the language used in the resource pointed by this element.

Each instance of AssuranceLevelsDetailsType shall convey either:
• a global assurance level jointly assigned to the identification proof and authentication processes, supported by the `GlobalAssuranceLevel` and `AuthenticationDetails` children elements, or
• separated information related to the assurance levels of identification proof process, authentication process and the assertion protocols in federated environments, supported by the sequence of `AuthenticationAssuranceLevel`, `IdentityProofAssuranceLevel`, and `FederationAssuranceLevel` children elements.

`GlobalAssuranceLevel` child element of an instance of `AssuranceLevelsDetailsType` shall contain the information of a unique global assurance level jointly assigned to the identification proof and authentication processes.

One instance of `AuthenticationDetailsType` type (as the `AuthenticationDetails` child element of an instance of `AssuranceLevelsDetailsType`) shall contain details of one authentication process within either a `saml:Assertion` element or the sequence formed by `AuthenticationTime` and `AuthenticationMethod` children elements.

The `saml:Assertion` element shall contain a SAML assertion as specified in [7]

The `OAuth2` element shall contain an OAuth2 token. This token may also be embedded within a SAML2 assertion as specified in RFC 7522 Error! Reference source not found.10].

The `Other` element is a placeholder for incorporating tokens different than the ones contained in the other elements.

The `AuthenticationTime` child element shall indicate the time when the authentication process was conducted.

The `AuthenticationMethod` child element shall identify the authentication method using an URI.

`AuthenticationAssuranceLevels` child element shall include the details of the assurance level of the conducted authentication process within its `AssuranceLevel` child element, and all the details corresponding to the conducted authentication method within its `AuthenticationDetails` child element.

`IdentityProofAssuranceLevels` child element shall include the details of the assurance level of the conducted identity proof process.

`FederationAssuranceLevels` child element shall include the details of the assurance level of the assertion protocol implemented in the federation.

### 5.2.2.15 UserDetailsType type

Instances of the `UserDetailsType` type shall contain one component that shall allow implementing the semantics corresponding to identity attributes of sender and recipient as specified in clauses 8.2.9 (for the sender), and 8.2.11 (for one recipient) of [2].

Instances of the `UserDetailsType` type shall contain one component that shall allow implementing the semantics corresponding to identifiers of sender and recipient as specified in clauses 8.2.10 (for the sender), and 8.2.12 (for one recipient) of [2].

Instances of the `UserDetailsType` type shall contain one component that shall allow implementing the semantics corresponding to the details of the assurance levels of the identification validation and authentication processes carried out with sender and recipient as specified in clauses 7.2.16 (for the sender), and 7.2.17 (for one recipient) of [2].

This type shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALLOCATIONFILE] and is copied below for information. "ERDS19522v111-201902.xsd" whose location is detailed in clause [XMLSCHEMALLOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:complexType name="UserDetailsType">
  <xs:sequence>
    <xs:element ref="Identity"/>
    <xs:element name="Identifier" type="EntityIdentifierType"/>
    <xs:element name="AssuranceLevelsDetails" type="AssuranceLevelsDetailsType"/>
  </xs:sequence>
</xs:complexType>
```
Child element Identity shall contain the identity attributes of the user.

Child element Identifier shall contain the identifier of the user.

Child element AssuranceLevelsDetails shall contain the details of the assurance levels of the identification validation and authentication processes carried out with the user.

5.2.2.16 SenderDetails element

The SenderDetails element shall contain one component that shall have the semantics corresponding to the identity attributes of the sender as specified in clause 8.2.9 of [2].

The SenderDetails element shall also contain one component that shall have the semantics corresponding to the identifier of the sender as specified in clause 8.2.10 of [2].

The SenderDetails element shall also contain one component that shall have the semantics corresponding to the details of the assurance levels of the identification validation and authentication processes carried out with the sender as specified in clause 8.2.16 of [2].

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALLOCATIONFILE] and is copied below for information. "ERDS19522v111-201902.xsd" whose location is detailed in clause [XMLSCHEMALLOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:element name="SenderDetails" type="UserDetailsType"/>
```

5.2.2.17 RecipientDetails element

The RecipientDetails element shall contain one component that shall have the semantics corresponding to the identity attributes of one recipient as specified in clause 8.2.11 of [2].

The RecipientDetails element shall also contain one component that shall have the semantics corresponding to the identifier of one recipient as specified in clause 8.2.12 of [2].

The RecipientDetails element shall also contain one component that shall have the semantics corresponding to the details of the assurance levels of the identification validation and authentication processes carried out with one recipient as specified in clause 8.2.17 of [2].

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALLOCATIONFILE] and is copied below for information. "ERDS19522v111-201902.xsd" whose location is detailed in clause [XMLSCHEMALLOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:element name="RecipientDetails" type="UserDetailsType"/>
```

5.2.2.18 RecipientsDelegateDetails element

The RecipientsDelegateDetails element shall contain one component that shall have the semantics corresponding to the identity attributes of one delegate of one or more recipients as specified in clause 8.2.13 of [2].

The RecipientsDelegateDetails element shall also contain one component that shall have the semantics corresponding to the identifier of one delegate of one or more recipients as specified in clause 8.2.14 [2].

The RecipientsDelegateDetails element shall also contain one component that shall have the semantics corresponding to the details of the assurance levels of the identification validation and authentication processes carried out with one recipient as specified in clause 8.2.18 of [2].

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALLOCATIONFILE] and is copied below for information. "ERDS19522v111-201902.xsd" whose location is detailed in clause [XMLSCHEMALLOCATIONFILE] and is copied below for information.
<xs:element name="RecipientsDelegateDetails" type="RecipientsDelegateDetailsType"/>

Child element Identity shall contain the identity attributes of the delegate.

Child element Identifier shall contain the identifier of the delegate.

Child element AssuranceLevelsDetails shall contain the details of the assurance levels of the identification validation and authentication processes carried out with the delegate.

Child element DelegatingRecipients shall contain a sequence of integers. Each integer shall identify one of the recipients that have delegated into this delegate whose details are provided by the corresponding RecipientsDelegateDetails element. For matching the integer values with the delegating recipients, the first recipient in DelegatingRecipients child element shall be assigned number 1. If DelegatingRecipients element is absent, then the delegate shall act as delegated of all the recipients.

5.2.2.19 SubmissionTime element

The SubmissionTime element shall have the semantics specified in clause 8.2.21 of [2].

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information. "ERDS19522v111-201902.xsd" whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

5.2.2.20 EvidenceRefersToRecipient element

Each EvidenceRefersToRecipient element of the Components group shall have the semantics specified in clause 8.2.15 of [2].

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

5.2.2.21 MessageIdentifier element

The MessageIdentifier element shall have the semantics specified in clause 8.2.19 of [2].

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.
5.2.2.22 UserContentInfo element

The UserContentInfo element shall have the semantics specified in clause 8.2.20 of [2].

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:element name="UserContentInfo" type="UserContentInfoType"/>
<xs:complexType name="UserContentInfoType">
  <xs:sequence>
    <xs:element name="AppLayerIdentifier" type="xs:string" minOccurs="0"/>
    <xs:element name="ComposingParts" type="xs:int" minOccurs="0"/>
    <xs:element ref="PartsInfo"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="PartsInfo" type="PartsInfoType"/>
<xs:complexType name="PartsInfoType">
  <xs:sequence maxOccurs="unbounded">
    <xs:element ref="PartInfo"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="PartInfo" type="PartInfoType"/>
<xs:complexType name="PartInfoType">
  <xs:sequence>
    <xs:element name="Identifier" type="xs:string"/>
    <xs:element name="ContentType" type="xs:string"/>
    <xs:element ref="ds:DigestMethod" minOccurs="0"/>
    <xs:element ref="ds:DigestValue" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
```

The AppLayerIdentifier child shall contain a string indicating the application layer identifier assigned to the user content.

The ComposingParts child shall contain an integer value indicating the number of parts of the user content.

The PartsInfo child shall contain one or more PartInfo children each one containing detailed information of one of the parts of the user content.

Identifier child element of PartInfo shall contain the identifier of the corresponding part of the user content.

ContentType child element of PartInfo shall indicate the type of content of the corresponding part of the user content.

Child element ds:DigestMethod of PartInfo shall indicate the algorithm used for computing the digest value of the corresponding part of the user content.

Child element ds:DigestValue of PartInfo shall contain the base-64 encoded digest value of the corresponding part of the user content as computed using the digest algorithm indicated in the aforementioned ds:DigestMethod child element.

5.2.2.23 ForwardedToExternalSystem element

The ForwardedToExternalSystem element shall have the semantics specified in clause 8.2.22 of [2].

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:element name="ForwardedToExternalSystem" type="xs:string"/>
```
The \texttt{ForwardedToExternalSystem} element shall have a string value, which shall describe the external system the ERD Message has been forwarded to.

5.2.2.24 \textbf{TransactionLogInformation element}

The \texttt{TransactionLogInformation} element shall have the semantics specified in clause 8.2.5 of [2].

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:element name="TransactionLogInformation" type="TransactionLogInformationType"/>
<xs:complexType name="TransactionLogInformationType">
  <xs:sequence>
    <xs:element ref="TransactionLog" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

Each \texttt{TransactionLog} child element shall contain one log record, whose format and contents are specific to the underlying transport protocol.

5.2.2.25 \textbf{Extensions element}

The \texttt{Extensions} element shall have the semantics specified in clause 8.2.23 of [2].

This element shall be defined as in XML Schema file whose location is detailed in clause [XMLSCHEMALOCATIONFILE] and is copied below for information.

```xml
<!-- targetNamespace="http://uri.etsi.org/19522/v1#" -->
<xs:element name="Extensions" type="ExtensionsListType"/>
<xs:complexType name="ExtensionsListType">
  <xs:sequence maxOccurs="unbounded">
    <xs:element ref="Extension"/>
  </xs:sequence>
</xs:complexType>
```

Each \texttt{Extension} child element shall contain one component whose content model is not specified within the present document.

The \texttt{isCritical} attribute shall indicate whether the extension is critical or non-critical. If this attribute is absent, then the extension shall be designated as non-critical.

5.2.2.26 \textbf{ds:Signature element}

The \texttt{ds:Signature} element shall have the semantics specified in clause 8.2.8 of [2].

The \texttt{ds:Signature} shall be present enveloped within the ERDS Evidence.

This digital signature should be a XAdES baseline signature as specified in ETSI EN 319 312-1 [3].

This digital signature may include the signed qualifying property \texttt{xades:SignaturePolicyIdentifier}, containing the explicit identifier of the signature policy governing the signing and validating processes.
Once the XAdES-B-B baseline signature has been generated, it should be augmented to a XAdES-B-T baseline signature by incorporation into the digital signature of the unsigned qualifying property \texttt{xades:SignatureTimeStamp}, containing a time-stamp token computed as specified in ETSI EN 319 312-1 [3].

The signing certificate of this digital signature shall meet the requirements specified in clause 7.3 of [2].
6 Common Service Infrastructure (CSI) formats

6.1 Routing information

<table>
<thead>
<tr>
<th>Semantic content (from EN 319 522-2)</th>
<th>XML?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERDS identification</td>
<td>Scheme and identifier, see ERDS metadata below.</td>
</tr>
<tr>
<td>ERDS RI</td>
<td>As per ServiceInformation data type from clause 2.3.4.2 of SMP [11]</td>
</tr>
</tbody>
</table>

6.2 Trust information

<table>
<thead>
<tr>
<th>Semantic content (from EN 319 522-2)</th>
<th>Mapping to EU TSL</th>
<th>Mapping to domain TSL</th>
<th>Mapping to domain PKI</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERDS identification</td>
<td>Service digital identity and service identifier.</td>
<td>Service digital identity and service identifier. URL to TSL location.</td>
<td>Subject name in certificate issued in the domain PKI URL to root-CA certificate and other PKI information.</td>
</tr>
</tbody>
</table>

6.3 Capability management

6.3.1 Recipient metadata (recipient capabilities)
As per OASIS Service Metadata Publisher (SMP Version 1.0 [11]).

6.3.2 ERDS metadata (ERDS capabilities)

EDITOR NOTE: XML definitions still to be produced for the following elements

Clause references refer to EN 319 522-2) [2]:

<table>
<thead>
<tr>
<th></th>
<th>Scheme and identifier, see clause 5.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERDS identification</td>
<td></td>
</tr>
<tr>
<td>ERDS domain name</td>
<td>Domain name of ERDS for DNS lookup etc.</td>
</tr>
<tr>
<td>ERDS governing body</td>
<td>Identification of the ERDSP providing the ERDS, or – if the ERDS is provided by several co-operating ERDSPs – of the governing organisation.</td>
</tr>
<tr>
<td>Protocol/profile(binding)</td>
<td>Alternatives as per ETSI EN 319 522-4 and indication of REM/not REM. List of metadata types supported as per clause 6.2.</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>[optional] Metadata repository</td>
<td>URL of repository for recipient metadata.</td>
</tr>
</tbody>
</table>
| [optional] Trust domains | Information on the trust domains (see 9.4) where the ERDS is a member:  
  a) EU Qualified indicator (EU TL system referenced)  
  b) URL for location of domain TSL  
  c) Root-certificate for domain PKI |
| ERDS capabilities | Shall include the following:  
  a) Support for the “expiry date and time” feature: Yes/no flag, see clause 6.2.3.  
  b) Authentication LoAs supported: List of LoA levels by scheme and level identifier, see clause 6.2.4.  
  c) [Optional] ERD policy support: List of identifiers (OID or URI) of supported ERD policies, see clause 6.2.5.  
  d) Supported mode of consignment: See clause 6.2.6.  
  e) Support of scheduled delivery: Yes/no flag, see clause 6.2.7. |

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**History**

<table>
<thead>
<tr>
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<tr>
<td>0.0.1 03/2017 V0.0.1 for ESI comments</td>
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<td>0.0.2 06/2017 V0.0.2 for ESI comments</td>
</tr>
<tr>
<td>0.0.3 09/2017 V0.0.3 stable draft for ESI</td>
</tr>
<tr>
<td>0.0.4 10/2017 V0.0.4 for public comment</td>
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