TECHNICAL INTEROPERABILITY STANDARD

For E-Documents.

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MINISTRY OF TERRITORIAL POLICY AND PUBLIC ADMINISTRATION

13169 Resolution of the Secretary of State for Public Service, of 19 July 2011, giving approval to the Technical Interoperability Standard for E-Documents.

The National Interoperability Framework, established in Article 42, Section 1, of Law 11/2007, of 22 June, on Citizens’ E-Access to Public Services, is aimed at creating the conditions necessary to guarantee an adequate level of technical, semantic and organisational interoperability of the systems and applications used in the Public Administration, allowing the exercise of rights and the fulfilment of obligations through e-access to public services, while acting in the interest of effectiveness and efficiency.


The Technical Interoperability Standards describe specific aspects of a wide range of topics such as e-documents, digitisation, e-files, authentic copy and conversion, signature policy, standards, data brokerage, data models, e-document management, connection to the communication network of the Spanish Public Administration, and data models for the exchange of registry entries and declarations of conformity, all of which are necessary to guarantee the more practical and operational aspects of interoperability between Public Administration agencies and citizens. The Technical Operability Standards shall be further developed and improved over time, parallel to the progress of e-government services, their supporting infrastructure, and the evolution of technology, in order to meet the provision in Article 42.3 of Law 11/2007, of 22 June.

Within the Technical Interoperability Standards, those related to e-documents, e-files, the digitisation of paper documents, authentic copy and conversion procedures, and e-document management policy are in accordance with the provisions in the aforementioned Royal Decree 4/2010, of 8 January, on the Interoperability, Retrieval and Preservation of E-Documents, in light of the need to guarantee these aspects for e-documents throughout their lifecycle.

In particular, the Technical Interoperability Standard for E-Documents describes e-documents, including contents, e-signatures, and minimum required metadata, and the rules to exchange and copy them. For e-document management and preservation issues, this Standard cross-refers to the Technical Interoperability Standard for E-Document Management Policy. Finally, the Annex to this Resolution contains a detailed definition of the minimum required metadata, XML schemas for document exchange, and basic information on the signature of e-documents. In this regard, the e-document structure as defined in this Standard allows the use of e-signatures as envisaged in the Commission Decision 2011/130/EU, of February 25, 2011, establishing minimum requirements for the cross-border processing of documents signed electronically by competent authorities under Directive 2006/123/EC of the European Parliament and of the Council on services in the internal market.
Drafted in collaboration with all the Public Administration agencies to which it applies, the present Technical Standard has received a favourable report from the Standing Committee of the High Council for E-Government, at the proposal of the E-Government Sector Committee.

In accordance with the provisions in Section 2 of Additional Provision 1 of Royal Decree 4/2010, of 8 January, the Secretary of State decides:

One

To approve the Technical Interoperability Standard for E-Documents whose text appears below.

Two

That the Technical Interoperability Standard for E-Documents that is being approved by virtue of this document shall come into force on the day following its publication in the Official State Gazette, irrespective of the clauses in Transitory Provision 1 of Royal Decree 4/2010, of 8 January, regulating the National Interoperability Framework for E-Government.


TECHNICAL INTEROPERABILITY STANDARD FOR E-DOCUMENTS

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I. Purpose

The Technical Interoperability Standard for E-Documents is intended to set forth the components of e-documents, including their contents, e-signature, and metadata, as well as the structures and formats required for e-document exchange.

II. Scope of application

This standard shall apply to e-documents within the scope established in Article 3 of Royal Decree 4/2010, of 8 January, regulating the National Interoperability Framework for E-Government.

a) Administrative e-documents.
b) Other e-documents that could become part of an e-file.

III. Components of e-documents.

The components of e-documents are:

a) Contents, understood as the document’s set of data or information.

b) When relevant, e-signature.

c) Metadata.

IV. Signature e-documents

All administrative e-documents, as well as other e-documents that could become part of an e-file, will have at least one e-signature attached, in compliance with the regulations in force.

V. Metadata of e-documents

V.1 The minimum required metadata of e-documents:

a) Shall be those in Annex I.

b) Shall be included in every e-document exchange between agencies in the Public Administration and public law entities associated or reporting to it, and between such agencies or entities and citizens.

c) Shall not be altered at any stage of the administrative procedures, except for changes that need to be introduced to correct errors or omissions in the values originally assigned.

V.2 Complementary metadata can be added in response to special description needs.

When necessary, complementary metadata shall be applied in compliance with the provisions in the Technical Interoperability Standard for E-Document Management Policy.

V.3 Every agency in the Public Administration or public law entity associated or reporting to it shall apply the metadata of e-documents within their scope of operation for internal management or handling. Likewise, they shall guarantee the availability of the metadata, preserving the relations between each document and its metadata at all times.

VI. Format of e-documents

VI.1 E-document content files shall have the formats set forth in the Technical Interoperability Standard for Catalogue of Standards.

VI.2 The choice of format shall depend on the type of information being handled, with attention to the purpose each format has been established for.

VI.3 Other formats can be used when special characteristics make them necessary or when they are required to preserve a document’s value as proof or its reliability as e-evidence of activities or procedures in case of format conversion.
VII. Exchange of e-documents

VII.1 Every e-document being exchanged shall have the components described in Section III of this Standard.

VII.2 The exchange of e-documents shall consists in sending them with the structure defined in Annex II, irrespective of the application of other structures as regulated in the relevant regulations.

VII.3 As an exception, other structures can be used to exchange e-documents between Public Administration agencies if the parties have agreed on such structures beforehand. In any case, e-documents that must be sent to third parties must be converted to the structure defined in Annex II.

VII.4 For the exchange e-documents between Public Administration agencies in automated processes:

   a) The Public Administration communication network should preferably be used as the means of document transfer.

   b) If the e-document is part of a registry entry, it shall be treated as an attachment to the exchange data message, in compliance with the Technical Interoperability Standard for Data Models for the Exchange of Registry Entries.

VII.5 In case of e-document exchanges between Public Administration agencies involving the transfer of permanent document management responsibilities, the transferor shall check the document’s authenticity and integrity at the moment when the exchange takes place.

VIII. Access to e-documents

When Public Administration agencies give access to e-documents at their e-offices or the enabled communication channels, they shall show:

   a) E-document contents when they can be shown in compliance with the regulations on formats in Section VI of this Standard.

   b) The basic information on each of the e-signatures as defined in Annex III.

   c) A description of the minimum required metadata and the values assigned to them.
### ANNEXES

#### ANNEX I

**Minimum required metadata of e-documents**

<table>
<thead>
<tr>
<th>Metadata</th>
<th>Description/Terms of use</th>
<th>Repeatability</th>
<th>Type</th>
<th>Value schema</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTI version</td>
<td>Standard identifier of the version of the Technical Interoperability Standard for E-Documents (NTI) according to which the e-document is structured.</td>
<td>1</td>
<td>URI</td>
<td><a href="http://administracionelectronica.gob.es/ENIXSD/v1.0/documento-e">http://administracionelectronica.gob.es/ENIXSD/v1.0/documento-e</a></td>
</tr>
</tbody>
</table>
| Identifier        | Standard identifier of the e-document.                                                   | 1             | Character chain | ES_<Organo>_<AAA>_<ID_especifico>²
Example: ES_E00010207_2010_MPR00000000000000000000000010207 |
| Body              | Standard identifier of the agency creating the document or capturing it.                 | 1:N           | Character chain | A single alphanumeric code for each body/unit/office extracted from the Common Directory managed by the Ministry of Territorial Policy and Public Administration. |
| Date of capture   | Date when the document is entered in the document management system.                     | 1             | Date/time  | AAAAMMDD HH:MM:SS <ISO 8601> |
| Origin            | Indication of whether the document has been created by a citizen or an agency.           | 1             | Logical    | '0' = Citizen  
1 = Administration  
- Authentic e-copy with format conversion (Law 11/2007, Arts. 30.1).  
- Authentic partial e-copy.  
- Others. |
| Production status | Indication of the nature of the document, and of digitisation and format conversion in case of copies. | 1             | Character chain |                                                       |
| Format name       | Logical format of the e-document content file.                                          | 1             | Character chain | Value extracted from the list of accepted file formats in the Technical Interoperability Standard for E-document Management Policies. |

1. In the table, repeatability refers to the metadata accompanying a document in an exchange, irrespective of other metadata assigned, management internally by each Public Administration in compliance with the Technical Interoperability Standard for E-document Management Policies.
2. E-document identifier encoding:
   - Body: See encoding of "Body" metadata. If there is more than one body, the nine corresponding characters shall be agreed upon by the parties to ensure identifier uniqueness, which is their only purpose.
   - AAAA: E-document capture year (4 characters).
   - Specific_ID: Alphanumeric code uniquely identifying the document among those created by the relevant Public Administration agency. Each agency can design its own generation process according to its own needs as long as it ensures uniqueness. Therefore, this ID can be generated sequentially in a sequence or by a replica of the ID used internally (30 characters).
<table>
<thead>
<tr>
<th>Metadata</th>
<th>Description/Terms of use</th>
<th>Repeatability</th>
<th>Typ</th>
<th>Value schema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature type</td>
<td>Indication of the type of signature attached to the document. In case of signature with a certificate, the signature's format is indicated too.</td>
<td>1:N Character chain</td>
<td>- “CSV” - E-signature formats for e-documents as defined in the Technical Interoperability Standard for Signature and Certification Policies in the Public Administration.</td>
<td></td>
</tr>
<tr>
<td>CSV value</td>
<td>Value of CSV.</td>
<td>1:N Character chain</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>CSV generation definition</td>
<td>Reference to the decree, resolution, or document establishing the creation of the corresponding CSV.</td>
<td>1:N Character chain</td>
<td>For the General Administration (AGE): BOE (Official Spanish Gazette) reference: BOE-A-YYYY-XXXXX For others: corresponding reference.</td>
<td></td>
</tr>
<tr>
<td>Original document identifier</td>
<td>Standard identifier of the original document the e-document is a copy of.</td>
<td>1</td>
<td>Character chain</td>
<td>If the original document is an e-document: ES_&lt;Body&gt;<em>&lt;AAAA&gt;</em>&lt;Specific_ID&gt; Example: ES_E0010207_2010_MPR0000000000000000000000010207</td>
</tr>
</tbody>
</table>
ANNEX II
XML schemas for e-document exchange

1. E-document XSD

Legend:
Documento: document
contenido: contents
metadatos: metadata
firmas: signatures

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:enids="http://administracionelectronica.gob.es/ENI/XSD/v1.0/firma"
xmlns:enidocmeta="http://administracionelectronica.gob.es/ENI/XSD/v1.0/documento-e/metadatos"
xmlns:enifile="http://administracionelectronica.gob.es/ENI/XSD/v1.0/documento-e/contenido"
xmlns:enidoc="http://administracionelectronica.gob.es/ENI/XSD/v1.0/documento-e"
targetNamespace="http://administracionelectronica.gob.es/ENI/XSD/v1.0/documento-e"
elementFormDefault="qualified" attributeFormDefault="unqualified">
  <xsd:annotation>
    <xsd:documentation xml:lang="es"> DOCUMENT XSD ENI (v1.0)</xsd:documentation>
  </xsd:annotation>
  <xsd:element name="document" type="enidoc:TypeDocument">
    <xsd:annotation>
      <xsd:documentation xml:lang="es">The element "document" can appear as the root element in another XLM being exchanged or a non-root element (child element).</xsd:documentation>
    </xsd:annotation>
    <xsd:complexType name="TypeDocument">
    </xsd:complexType>
  </xsd:element>
</xsd:schema>
```
Signatures are mandatory for administrative e-documents and for any e-document to be added to an e-file.
2. contents XSD

Legend:
Contenidos: Contents
DatosXML: XMLData
ValorBinario: BinaryValue
referenciaFichero: FileReference
NombreFormato: FormatName

<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmns:enifile="http://administracionelectronica.gob.es/ENI/XSD/v1.0/documento-e/contenido"
targetNamespace="http://administracionelectronica.gob.es/ENI/XSD/v1.0/documento-e/contenido"
elementFormDefault="qualified" attributeFormDefault="unqualified">
  <xsd:documentation xml:lang="es"> DOCUMENT CONTENT XSD ENI (v1.0)</xsd:documentation>
  <xsd:element name="content" type="enifile:TipoContenido"/>
  <xsd:complexType name="TypeContent">
    <xsd:sequence>
      <xsd:choice>
        <xsd:element name="XMLData" type="xsd:anyType">
          <xsd:annotation>
            <xsd:documentation xml:lang="es">XML-format contents. For XML data whose encoding is different from the encoding of this root structure, a CDATA clause must be included.</xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="BinaryValue" type="xsd:base64Binary">
          <xsd:annotation>
            <xsd:documentation xml:lang="es">Base64 contents.</xsd:documentation>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="FileReferencere" type="xsd:string">
          <xsd:annotation>
            <xsd:documentation xml:lang="es">Internal reference to content file.</xsd:documentation>
          </xsd:annotation>
        </xsd:element>
      </xsd:choice>
    </xsd:sequence>
    <xsd:element name="FormatName" type="xsd:string">
      <xsd:annotation>
        <xsd:documentation xml:lang="es">The e-document content file format should be in accordance with the Technical Interoperability Standard for Catalogue of Standard.</xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:complexType>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:enidocmeta="http://administracionelectronica.gob.es/ENI/XSD/v1.0/documento-e/metadatos"
targetNamespace="http://administracionelectronica.gob.es/ENI/XSD/v1.0/documento-e/metadatos"
elementFormDefault="qualified" attributeFormDefault="unqualified">
  <xsd:annotation>
    <xsd:documentation xml:lang="es"> DOCUMENT METADATA XSD ENI (v1.0)</xsd:documentation>
  </xsd:annotation>
  <xsd:element name="metadata" type="enidocmeta:TypeMetadata"/>
  <xsd:complexType name="TypeMetadata">
    <xsd:sequence>
      <xsd:element name="NTIVersion" type="xsd:anyURI"/>
      <xsd:element name="Identifier" type="xsd:string" minOccurs="1" maxOccurs="unbounded"/>
      <xsd:element name="Body" type="xsd:string" minOccurs="1" maxOccurs="unbounded"/>
      <xsd:element name="CaptureDate" type="xsd:dateTime"/>
      <xsd:element name="OriginCitizenAdministration" type="xsd:boolean"/>
      <xsd:element name="ProductionStatus" type="enidocmeta:TypeProductionStatus">
        <xsd:annotation>
          <xsd:documentation xml:lang="es">- EE01 - Original.
- EE02 - Authentic e-copy with format conversion.
- EE03 - Authentic e-copy of paper document.
- EE04 - Authentic partial e-copy.
- EE99 - Others.
</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="DocumentType" type="enidocmeta:DocumentType"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:schema>
4. Signatures XSD

Legend:
Firmas: signatures
Firma: signature
TipoFirma: SignatureType
ContenidoFirma: SignatureContent
CSV: CSV
ValorCSV: CSVValue
RegulacionGeneracionCSV: CSVGenerationRegulation
FirmaConCertificado: SignatureWithCertificate
FirmaBase64: Base64Signature
Firma: Signature
ReferenciaFirma: SignatureReference

<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:enids="http://administracionelectronica.gob.es/ENI/XSD/v1.0/firma"
    xmlns:ds="http://www.w3.org/2000/09/xmldsig#"
    targetNamespace="http://administracionelectronica.gob.es/ENI/XSD/v1.0/firma"
    elementFormDefault="qualified"
    attributeFormDefault="unqualified">
    <xsd:annotation>
        <xsd:documentation xml:lang="es"> E-SIGNATURES XSD ENI (v1.0)</xsd:documentation>
    </xsd:annotation>
    <xsd:import namespace="http://www.w3.org/2000/09/xmldsig#"
        schemaLocation="http://www.w3.org/TR/xmldsig-core/xmldsig-core-schema.xsd"/>
    <xsd:element name="signatures" type="enids:firmas"/>
        <xsd:complexType name="signatures">
            <xsd:sequence>
                <xsd:element name="signature" type="enids:TypeE-Signatures" minOccurs="1" maxOccurs="unbounded"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:complexType>
</xsd:schema>
### ANNEX III

**Basic information on e-document signature**

<table>
<thead>
<tr>
<th>Signature type</th>
<th>Information</th>
<th>Localisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate-based signature</td>
<td>Document signer(s) information (individual, legal entity, or body stamp).</td>
<td>Signature properties or tags.</td>
</tr>
<tr>
<td>Certificate-based signature</td>
<td>Signer(s)’ certificate issuer.</td>
<td>Signature properties or tags.</td>
</tr>
<tr>
<td>Certificate-based signature</td>
<td>Date and time of signature(s).</td>
<td>Signature properties or tags.</td>
</tr>
</tbody>
</table>