



# Guide to Schemas for IC-EDH

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## IC-EDH Schema Guide

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## Chapter 1 - Introduction

### 1.1 - Purpose

This is an informative supplement for IC-EDH. This guide is generated from the IC-EDH Schemas and provides a consolidated reference for the schemas of this specification.

## Chapter 2 - Schema Files

### 2.1 - IC-EDH.xsd

```

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:ntk="urn:us:gov:ic:ntk"
  xmlns:edh="urn:us:gov:ic:edh"
  xmlns:arh="urn:us:gov:ic:arh"
  xmlns:icid="urn:us:gov:ic:id"
  xmlns:xhtml="http://www.w3.org/1999/xhtml-StopBrowserRendering"
  xmlns:usagency="urn:us:gov:ic:usagency"
  xmlns:cct="urn:us:gov:ic:cvenum:ismcat:responsibleentity"
  targetNamespace="urn:us:gov:ic:edh"
  attributeFormDefault="qualified"
  elementFormDefault="qualified"
  xml:lang="en"
  ism:compliesWith="USGov USIC"
  ism:resourceElement="true"
  ism:createDate="2019-09-18"
  ism:DESVersion="202111"
  ism:ISMATCESVersion="202205"
  ism:classification="U"
  ism:ownerProducer="USA"
  version="201903">
  <xs:annotation>
    <xs:documentation>
      <xhtml:h1 ism:ownerProducer="USA" ism:classification="U">Intelligence Community Technical Specification XML
Data Encoding Specification for Enterprise Data Header (IC-EDH.XML)</xhtml:h1>
    </xs:documentation>

    <xs:documentation>
      <xhtml:h2 ism:ownerProducer="USA" ism:classification="U">Notices</xhtml:h2>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">Distribution Notice:
This document has been approved for Public Release and is available for use without restriction.
</xhtml:p>
    </xs:documentation>

    <xs:documentation>
      <xhtml:h2 ism:ownerProducer="USA" ism:classification="U">Description</xhtml:h2>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">W3C XML Schema for the XML Data Encoding Specification
for Enterprise Data Header (IC-EDH.XML).</xhtml:p>
    </xs:documentation>

    <xs:documentation>
      <xhtml:h2 ism:ownerProducer="USA" ism:classification="U">Introduction</xhtml:h2>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">This XML Schema file is one component of the XML Data
Encoding Specification (DES). Please see the document titled <xhtml:i>
      <xhtml:a href="../../Documents/IC-EDH/DesEdhIcXml.pdf">XML Data Encoding Specification for Enterprise Data
Header</xhtml:a>
      </xhtml:i> for a complete description of the encoding as well as list of all components.</xhtml:p>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">It is envisioned that this schema or its components, as
well as other parts of the DES may be overridden for localized implementations. Therefore, permission to
use, copy, modify and distribute this XML Schema and the other parts of the DES for any purpose is hereby

```

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granted in perpetuity.</xhtml:p>
  <xhtml:p ism:ownerProducer="USA" ism:classification="U">Please reference the preceding two paragraphs in all
copies or variations. The developers make no representation about the suitability of the schema or DES for
any purpose. It is provided "as is" without expressed or implied warranty.</xhtml:p>
  <xhtml:p ism:ownerProducer="USA" ism:classification="U">If you modify this XML Schema in any way label your
schema as a variant of EDH.XML.</xhtml:p>
  <xhtml:p ism:ownerProducer="USA" ism:classification="U">Please direct all questions, bug reports, or suggestions
for changes to the points of contact identified in the document referenced above.</xhtml:p>
</xs:documentation>

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<xs:documentation>
  <xhtml:h2 ism:ownerProducer="USA" ism:classification="U">Implementation Notes</xhtml:h2>
  <xhtml:p ism:ownerProducer="USA" ism:classification="U">No implementation notes at this time.</xhtml:p>
</xs:documentation>

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<xs:documentation>
  <xhtml:h2 ism:ownerProducer="USA" ism:classification="U">Creators</xhtml:h2>
  <xhtml:p ism:ownerProducer="USA" ism:classification="U">Office of the Director of National Intelligence
Intelligence Community Chief Information Officer</xhtml:p>
</xs:documentation>
</xs:annotation>
<!--*****-->

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<!--Start Import Statements-->

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<!--*****-->

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<xs:import namespace="urn:us:gov:ic:arh" schemaLocation="../ISM/IC-ARH.xsd"/>
  <xs:import namespace="urn:us:gov:ic:cvenum:ismcat:responsibleentity"
    schemaLocation="../ISM/CVEGenerated/CVEnumISMCAResponsibleEntity.xsd"/>
  <xs:import namespace="urn:us:gov:ic:id" schemaLocation="../IC-ID/IC-ID.xsd"/>
  <xs:import namespace="urn:us:gov:ic:ism" schemaLocation="../ISM/IC-ISM.xsd"/>
  <xs:import namespace="urn:us:gov:ic:ntk" schemaLocation="../ISM/IC-NTK.xsd"/>
  <xs:import namespace="urn:us:gov:ic:usagency"
    schemaLocation="../USAgency/USAgency.xsd"/>
<!--*****-->

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<!--End Import Statements-->

```

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<!--*****-->

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<!--*****-->

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<!--Start All case-insensitive alphabetically-->

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<!--*****-->

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```

<xs:element name="AuthorizationReference" type="edh:AuthorizationReferenceType">
  <xs:annotation>
    <xs:documentation>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">Attribute to hold the authorization reference of the
data object referred to by the EDH. One or more indicators of a unique and documented legal basis for all
activities surrounding the creation, retention and use of an information resource.</xhtml:p>

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        </xs:documentation>
    </xs:annotation>
</xs:element>

<xs:simpleType name="AuthorizationReferenceType">
    <xs:annotation>
        <xs:documentation>
            <xhtml:p ism:ownerProducer="USA" ism:classification="U">One or more indicators of a unique and documented
legal basis for all activities surrounding the creation, retention and use of an information
resource.</xhtml:p>
        </xs:documentation>
    </xs:annotation>
    <xs:restriction base="xs:NMTOKENS"/>
</xs:simpleType>

<xs:element name="Country" type="cct:CVEEnumISMCAATResponsibleEntity">
    <xs:annotation>
        <xs:documentation>
            <xhtml:p ism:classification="U" ism:ownerProducer="USA">The ISO 3166 country code of the organization that
created the data item.</xhtml:p>
        </xs:documentation>
    </xs:annotation>
</xs:element>

<xs:element name="DataSet" type="ism:ShortStringWithSecurityType">
    <xs:annotation>
        <xs:documentation>
            <xhtml:p ism:ownerProducer="USA" ism:classification="U">A means of indicating a particular association of data. MUST not impact access control, access control MUST
be entirely contained in the ARH section.</xhtml:p>
        </xs:documentation>
    </xs:annotation>
</xs:element>

<xs:element name="DataItemCreateDateTime" type="xs:dateTime">
    <xs:annotation>
        <xs:documentation>
            <xhtml:p ism:ownerProducer="USA" ism:classification="U">The created dateTime of the data object referred to
by the EDH.</xhtml:p>
        </xs:documentation>
    </xs:annotation>
</xs:element>

<xs:attribute name="DESVersion">
    <xs:annotation>
        <xs:documentation xml:lang="en">
            <xhtml:p ism:ownerProducer="USA" ism:classification="U">The version number of the DES</xhtml:p>
        </xs:documentation>
    </xs:annotation>
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:pattern value="[0-9]{6}(\.[0-9]{6})?(\-{1,23})?" />
        </xs:restriction>
    </xs:simpleType>
</xs:attribute>

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<xs:element name="Edh">
  <xs:annotation>
    <xs:documentation>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">Used for specifying an object's basic header
information required for exchange on the IC Enterprise when the object is present in the same instance
document as this element.</xhtml:p>
    </xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:complexContent>
      <xs:extension base="edh:EdhType">
        <xs:sequence>
          <xs:element ref="arh:Security"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
</xs:element>

<xs:complexType name="EdhType">
  <xs:annotation>
    <xs:documentation>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">A base type to hold the common components of an
EDH.</xhtml:p>
    </xs:documentation>
  </xs:annotation>
  <xs:sequence>
    <xs:element ref="icid:Identifier" minOccurs="1" maxOccurs="1"/>
    <xs:element ref="edh:DataItemCreateDateTime" minOccurs="1" maxOccurs="1"/>
    <xs:element ref="edh:AuthorizationReference" minOccurs="0" maxOccurs="1"/>
    <xs:element ref="edh:ResponsibleEntity" minOccurs="1" maxOccurs="2"/>
    <xs:element ref="edh:DataSet" minOccurs="0" maxOccurs="1"/>
  </xs:sequence>
  <xs:attribute ref="edh:DESVersion" use="optional"/>
  <xs:attribute ref="ism:DESVersion" use="optional"/>
  <xs:attribute ref="ism:ISMATCESVersion" use="optional"/>
  <xs:attribute ref="ntk:DESVersion" use="optional"/>
  <xs:attribute ref="arh:DESVersion" use="optional"/>
  <xs:attribute ref="icid:DESVersion" use="optional"/>
  <xs:attribute ref="usagency:CESVersion" use="optional"/>
</xs:complexType>

<xs:element name="ExternalEdh">
  <xs:annotation>
    <xs:documentation>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">Used for specifying an object's basic header
information required for exchange on the IC Enterprise when the object is not in the instance document
that this element is used. Values specified in this header will not contribute to roll-up.</xhtml:p>
    </xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:complexContent>
      <xs:extension base="edh:EdhType">

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        <xs:sequence>
          <xs:element ref="arh:ExternalSecurity"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
</xs:element>

<xs:element name="Organization" type="xs:NMTOKEN">
  <xs:annotation>
    <xs:documentation>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">The organization within the country specified that
created the data item.</xhtml:p>
    </xs:documentation>
  </xs:annotation>
</xs:element>

<xs:element name="ResponsibleEntity" type="edh:ResponsibleEntityWithRoleType">
  <xs:annotation>
    <xs:documentation>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">The creator entity that created the data item
referenced by the EDH.</xhtml:p>
    </xs:documentation>
  </xs:annotation>
</xs:element>

<xs:simpleType name="ResponsibleEntityRoleType">
  <xs:annotation>
    <xs:documentation>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">
Role identifies the relationships of the ResponsibleEntity to the data item
referenced by the EDH. The role of Originator represents that the ResponsibleEntity is the creator/originator/author of the data item
referenced by the EDH. The role of Custodian represents that the ResponsibleEntity is responsible for the data item
referenced by the EDH being on the network but is not necessarily the creator/originator/author of it.
You must have one and only one Custodian, and you may have zero or one Originator.
</xhtml:p>
    </xs:documentation>
  </xs:annotation>
  <xs:restriction base="xs:NMTOKEN">
    <xs:enumeration value="Originator"/>
    <xs:enumeration value="Custodian"/>
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="ResponsibleEntityWithRoleType">
  <xs:annotation>
    <xs:documentation>
      <xhtml:p ism:ownerProducer="USA" ism:classification="U">A base type to hold the common components of an
EDH. It enforces the presence of a role attribute.</xhtml:p>
    </xs:documentation>
  </xs:annotation>
  <xs:sequence>
    <xs:element ref="edh:Country" maxOccurs="1" minOccurs="1"/>

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    <xs:element ref="edh:Organization" minOccurs="1" maxOccurs="1"/>
    <xs:element ref="edh:SubOrganization" minOccurs="0" maxOccurs="1"/>
  </xs:sequence>
  <xs:attribute name="role" type="edh:ResponsibleEntityType" use="required">
    <xs:annotation>
      <xs:documentation>
        <xhtml:p ism:ownerProducer="USA" ism:classification="U">Role identifies the relationships of the ResponsibleEntity to the data item
referenced by the EDH. The role of Originator represents that the ResponsibleEntity is the creator/originator/author of the data item
referenced by the EDH. The role of Custodian represents that the ResponsibleEntity is responsible for the data item
referenced by the EDH being on the network but is not necessarily the creator/originator/author of it.
You must have one and only one Custodian, and you may have zero or one Originator.</xhtml:p>
        </xs:documentation>
      </xs:annotation>
    </xs:attribute>
    <xs:attributeGroup ref="ism:SecurityAttributesOptionGroup"/>
  </xs:complexType>

  <xs:complexType name="ResponsibleEntityType">
    <xs:annotation>
      <xs:documentation>
        <xhtml:p ism:ownerProducer="USA" ism:classification="U">A base type to hold the common components of an
EDH.</xhtml:p>
        </xs:documentation>
      </xs:annotation>
      <xs:sequence>
        <xs:element ref="edh:Country" maxOccurs="1" minOccurs="1"/>
        <xs:element ref="edh:Organization" minOccurs="1" maxOccurs="1"/>
        <xs:element ref="edh:SubOrganization" minOccurs="0" maxOccurs="1"/>
      </xs:sequence>
      <xs:attributeGroup ref="ism:SecurityAttributesOptionGroup"/>
    </xs:complexType>

    <xs:element name="SubOrganization" type="xs:NMTOKEN">
      <xs:annotation>
        <xs:documentation>
          <xhtml:p ism:ownerProducer="USA" ism:classification="U">The suborganization within the organization
specified that created the data item.</xhtml:p>
          </xs:documentation>
        </xs:annotation>
      </xs:element>
    <!--*****-->

    <!--End All case-insensitive alphabetically-->

    <!--*****-->

    <xs:annotation>
      <xs:documentation>
        <xhtml:h2 ism:ownerProducer="USA" ism:classification="U">Formal Change List</xhtml:h2>
        <xhtml:table ism:ownerProducer="USA" ism:classification="U" id="ChangeHistory">
          <xhtml:caption>Change History</xhtml:caption>
          <xhtml:thead>
            <xhtml:tr>
              <th>Version</th>

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        <th>Date</th>
        <th>By</th>
        <th>Description</th>
    </xhtml:tr>
</xhtml:thead>
<xhtml:tbody>
    <xhtml:tr>
        <xhtml:td>2016-SEP</xhtml:td>
        <xhtml:td>2016-02-17</xhtml:td>
        <xhtml:td>IC CIO</xhtml:td>
        <xhtml:td>The schema change logs will no longer be maintained as of the 2016-SEP release.
The existing change logs will only serve as legacy information.
For changes to schema as of and after 2016-SEP, reference the change history in the DES.</xhtml:td>
    </xhtml:tr>
    <xhtml:tr>
        <xhtml:td>2015-AUG</xhtml:td>
        <xhtml:td>2015-04-16</xhtml:td>
        <xhtml:td>IC CIO</xhtml:td>
        <xhtml:td>Refactored schema to use ISMCAT Responsible Entity CVE for edh:Country.</xhtml:td>
    </xhtml:tr>
    <xhtml:tr>
        <xhtml:td>2015-AUG</xhtml:td>
        <xhtml:td>2015-04-16</xhtml:td>
        <xhtml:td>IC CIO</xhtml:td>
        <xhtml:td>Refactored schema to use types and avoid inline element declarations.</xhtml:td>
    </xhtml:tr>
    <xhtml:tr>
        <xhtml:td>4</xhtml:td>
        <xhtml:td>2013-08-16</xhtml:td>
        <xhtml:td>IC CIO</xhtml:td>
        <xhtml:td>Added an optional attribute to declare the CES Version for ISMCAT on the IC-EDH root elements.</xhtml:td>
    </xhtml:tr>
    <xhtml:tr>
        <xhtml:td>4</xhtml:td>
        <xhtml:td>2013-08-16</xhtml:td>
        <xhtml:td>IC CIO</xhtml:td>
        <xhtml:td>Added the US Agency CES Version attribute to the EDH top-level element.</xhtml:td>
    </xhtml:tr>
    <xhtml:tr>
        <xhtml:td>3</xhtml:td>
        <xhtml:td>2012-01-31</xhtml:td>
        <xhtml:td>Clay, ODNI/CIO/ME/DIA</xhtml:td>
        <xhtml:td>Added a dependency on the IC-ID specification. Updated the Edh type to reference the
Identifier element defined in IC-ID and removed the local definition.</xhtml:td>
    </xhtml:tr>
    <xhtml:tr>
        <xhtml:td>1</xhtml:td>
        <xhtml:td>2012-11-05</xhtml:td>
        <xhtml:td>Hodges, ODNI/CIO/ME/DIA</xhtml:td>
        <xhtml:td>Initial release of this module</xhtml:td>
    </xhtml:tr>
</xhtml:tbody>
</xhtml:table>
</xs:documentation>

```

```
</xs:annotation>  
</xs:schema>
```