



Intelligence Community Technical Specification

Abstract Data Definition for Electronic Records Management

Version 2014-DEC

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Chapter 1 - Introduction

1.1 - Purpose

This Abstract Data Definition (ADD) for Electronic Records Management (ERM) defines common conceptual data elements that support the management of record information in the Intelligence Community (IC). This document is one of a series of ADDs that will replace the IC ADD Version 2, 9 August 2011.^[1] Each ADD in this suite will focus on a functional component of the IC ADD Version 2.

1.2 - Scope

Records Management encompasses the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records.^[8] Records are managed from the time of creation or receipt to final disposition, which is referred to as the life-cycle management of records. Official records document the organization, functions, policies, decisions, procedures, operations, and other activities related to conducting business.

1.3 - Background

The standards in the ADD TechSpec Suite define a set of abstract concepts that express information commonly used to describe and manage intelligence mission documents and data. The goal of this suite of specifications is to provide common conceptual data elements that can be used, combined and elaborated as needed to meet specific needs in the generation and processing of mission data.

The ADD TechSpec Suite provides a framework of data elements that:

- Capture basic concepts about an information resource. Concepts can be “about” the information resource, for example, the subject or topic of the resource. Concepts can also represent parts of an information resource, for example, an attachment to the resource or a paragraph in a document.
- Have a defined meaning and usage that can be refined or specialized to meet specific business contexts. For example, the concept Publisher is defined in IC.ADD.V2 as “the entity responsible for making a resource available.”^[1] The concept Publisher can then be specialized to the domain of open source intelligence to mean, on the one hand, the commercial organization that originally published a document, and, on the other hand, the intelligence agency that made the open source document available on an IC network. Both organizations are Publishers of the document, but at different times in the lifecycle of the document and with slightly different usages of the term Publisher.
- Can be joined together in different combinations to meet the needs of specific use cases. Applying the ADD TechSpec Suite to a specific use case can include selecting from the entire ADD the concepts needed for the use case.

1.4 - Enterprise Need

Electronic Data Management (EDM) is necessary to manage information from initial ingest into the Intelligence Community Information Technology Enterprise (IC ITE) through final data disposition, in accordance with legislation such as the Federal Records Act, Freedom of Information Act (FOIA), Privacy Act, and direction from the Executive Branch. This applies to permanent and temporary records. To enable originating IC elements to fulfill records management responsibilities, IC ITE Service Providers shall provide the means to audit, track, manage, and disposition information, using agreed upon metadata tags that can be adapted to changing missions and records management practices. EDM will help automate the sharing, processing, routing, discovery, and controlled access of information. EDM is necessary to enable users to quickly discover information related to FOIA and Privacy Act cases and other specialized legal requests, identify documents for mandatory declassification, and respond to other open government initiatives. Bottom line, IC ITE must provide capabilities to effectively manage electronic information, which President Obama described in OMB Memo M-12-18 as "the backbone of open Government."

Enterprise needs and requirements for this specification can be found in the following Office of the Director of National Intelligence (ODNI) policies and implementation guidance:

- IC Information Technology Enterprise (IC ITE):
 - Intelligence Community Information Technology Enterprise (IC ITE) Increment 1 Implementation Plan^[3]
- 500 Series:
 - Intelligence Community Directive (ICD) 500, Director Of National Intelligence Chief Information Officer^[4]

1.5 - Audience and Applicability

The conditions of use and applicability of this technical specification are defined outside of this technical specification. IC Standard (ICS) 500-20, *Intelligence Community Enterprise Standards Compliance*, ^[6] defines the IC Enterprise Standards Baseline (IC ESB) and the applicability of such to an IC element.

The IC defines the compliance requirements associated with each version of a technical specification. Each version will be individually registered in the IC. The IC will define, among other things, the location(s) of the relevant artifacts, prescriptive status, and validity period, all of which characterize the version and its utility.

Additional applicability and guidance may be defined in separate IC policy guidance.

1.6 - Conventions

Certain technical and presentation conventions were used in the creation of this document to ensure readability and understanding.

1.6.1 - Language

The keywords "MUST," "MUST NOT," "REQUIRED," "SHALL," "SHALL NOT," "SHOULD," "SHOULD NOT," "RECOMMENDED," "MAY," and "OPTIONAL" in this technical specification

are to be interpreted as described in the IETF RFC 2119.^[7] These implementation indicator keywords are thus capitalized when used to unambiguously specify requirements over protocol and application features and behavior that affect the interoperability and security of implementations. When these words are not capitalized, they are meant in their natural-language sense.

1.6.2 - Typography

Certain typography is used throughout the body of this document to convey certain meanings, in particular:

- *Italics* – A title of a referenced work or a specialized or emphasized term
- Underscore – An abstract data element
- **Bold** – An XML element or attribute

1.7 - Dependencies

Table 1 - Dependencies

Name	Dependency Description
ISO 15489-1:2001, <i>Information and documentation – Records management – Part 1: General</i>	Standard that defines "records management".
Office of the Director of National Intelligence/ Office of General Counsel. <i>The Intelligence Community Legal Reference Book</i> . Winter 2012.	Document describing the rules across the IC for various agencies for the element, 'foiaOpsIndicator'.
Presidential Memorandum - Managing Government Records (M-12-18)	Document describing the Enterprise Need for Records Management.
Federal Continuity Directive 1	Document defining a Vital Record.
Intelligence Community Abstract Data Definition ^[1] (ADD) v2	Document defining a number of concepts that are out of scope for this document (Privacy Act Indicator, Commercial Restrictions, Unique Identifier).

1.8 - Conformance

For an implementation to conform to this specification, it **MUST** adhere to all normative aspects of the specification. For the purposes of this document, normative and informative are defined as:

- *Normative*: considered to be prescriptive and necessary to conform to the standard.
- *Informative*: serving to instruct, enlighten or inform.

Chapter 2 - Development Guidance

2.1 - Introduction to Electronic Records Management Metadata

The *ADD for Electronic Records Management* (ERM) identifies the abstract concepts (unique to records management) needed to identify and manage a record over time at all stages in its lifecycle to include creation, receipt, maintenance, use, and disposition.

2.2 - Section Structure

Each subsection in [Section 2.4 - Electronic Records Management](#) contains a UML diagram and data dictionary tables. The UML diagram captures the structure and associations of the entities discussed in that subsection. A UML Primer is provided in Chapter 3. The data dictionary tables provide additional definitions to go along with the UML diagram.

The tables in [Section 2.4 - Electronic Records Management](#) are composed of the following three columns:

- **Name:** A label assigned to a metadata entity or to a metadata element. Metadata entity names start with an upper case letter. Spaces do not appear in a metadata entity name. Instead, multiple words are concatenated, with each new subword starting with a capital letter (example: XnnnYmmm). Metadata element names use the same naming conventions as entity names with the exception that they start with a lower case letter.
- **Definition:** The metadata entity/element description.

2.3 - Out of Scope Concepts

This document is narrowly scoped to cover concepts that pertain specifically to Electronic Records Management. There are some concepts that are involved in the identification and maintenance of records that are not unique to records management. These concepts are defined in other documents, but are listed below.

- **Privacy Act Indicator** - An essential component of records management, indicating the presence of information covered by the Privacy Act of 1974. This concept is covered by the Rights concept that is present in version 2 of the Abstract Data Definition (IC.ADD.V2).^[1]
- **Commercial Restrictions** - An essential component of records management, indicating if there are any commercial restrictions on the data. This concept is covered by the Rights concept that is present in version 2 of the Abstract Data Definition (IC.ADD.V2).^[1]
- **Unique Identifier** - An essential component of records management, this is the permanent identifier associated with a resource throughout the records management lifecycle. This concept is covered by the Identifier concept that is present in version 2 of the Abstract Data Definition (IC.ADD.V2).^[1]

2.4 - Electronic Records Management

2.4.1 - ERM UML

This UML diagram defines the abstract concepts for Electronic Records Management.

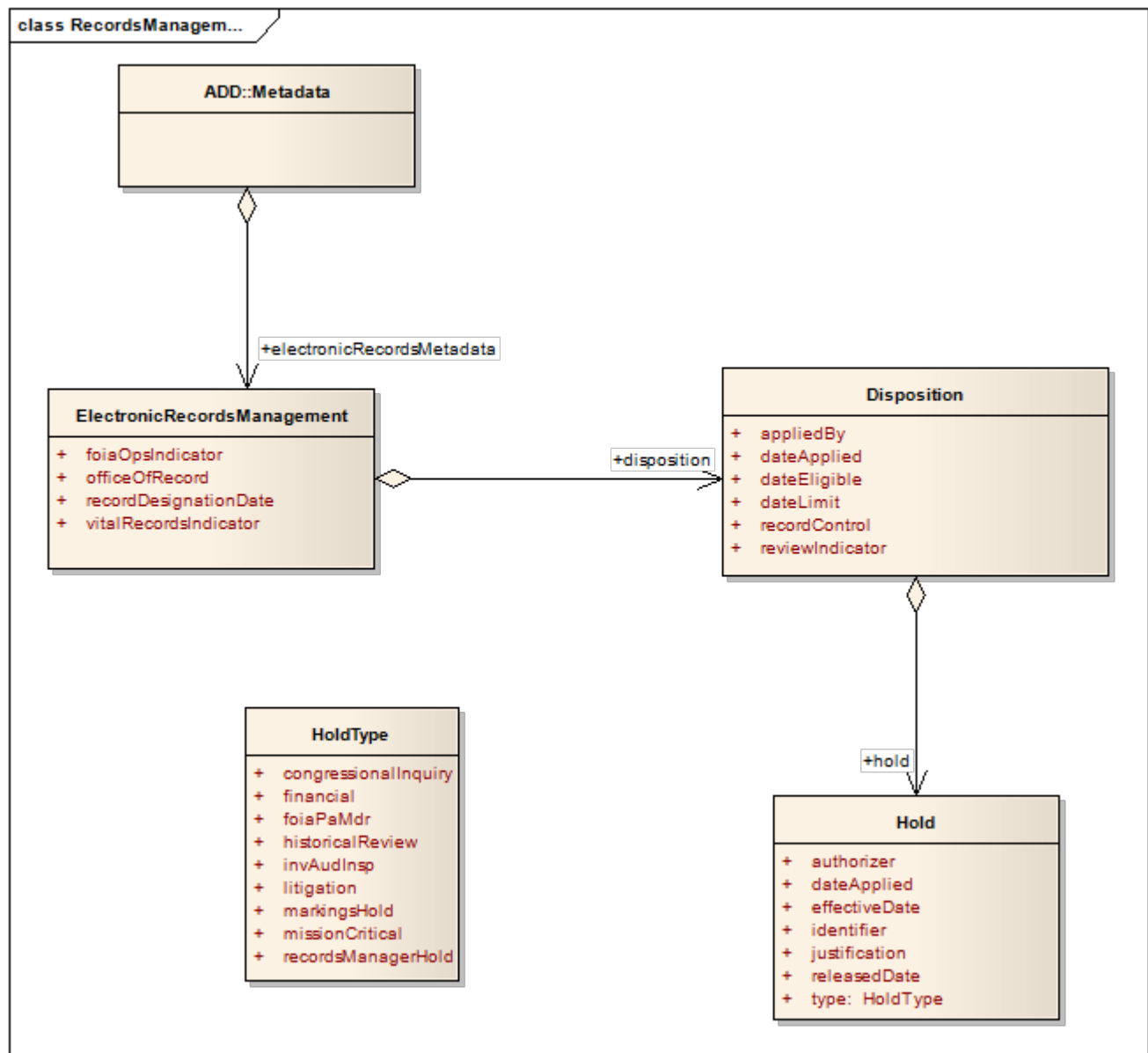


Figure 1 : Electronic Records Management UML Diagram

2.4.2 - ERM Data Dictionary

The data dictionary tables contained in this section contain the definition information for the classes and elements in the [Figure 1](#).

Table 2 - Metadata

	Name	Definition
1	ADD:Metadata	High level abstract metadata class
2	Role name: ElectronicRecordsMetadata	Information about the management of the electronic record

2.4.3 - Electronic Records Management

Table 3 - Electronic Records Management

	Name	Definition
3	foiaOpsIndicator	Indicator stating if the Record is exempted from FOIA search and publication (e.g. operations exemption at CIA); each agency has specific exemptions they request and maintain
4	officeOfRecord	Identifies the Agency and organization element within the agency that is responsible for making decisions related to the Record. Also identifies which organizational element within an agency owns/is responsible for the official copy of the Record
5	recordDesignationDate	Date that the Record is declared final (e.g. cutoff, publication, creation) and starts the retention period which will be used to calculate the disposition date based on the retention schedule
6	vitalRecordsIndicator	Indicator stating that the Record is a Vital Record. Vital Records are those Records considered essential to the continuity of operation during and after emergencies or disaster conditions. Also known as Essential Records (per Federal Continuity Directive 1 ^[2])
7	Role Name: disposition	Information about the disposition of the record

2.4.4 - Disposition

Table 4 - Disposition

	Name	Definition
8	Disposition	Disposition refers to actions taken with regard to Federal records that are no longer needed for current government business as determined by their appraisal pursuant to legislation, regulation, or administrative procedure. Disposition is a comprehensive term that includes both destruction and transfer of federal records to NARA
9	appliedBy	Individual that performed the disposition of the Record
10	dateApplied	Date the disposition was performed
11	dateEligible	Date the record is eligible for disposition
12	dateLimit	Date by which a disposition action must be taken regarding the Record
13	recordControl	Identifier for Agency Record Control Schedule (RCS) disposition policies (per NARA)
14	reviewIndicator	Indicator stating that the resource has been reviewed to determine the appropriate RCS, if applicable
15	Role Name: hold	Information concerning suspension of disposition

2.4.5 - Hold

Table 5 - Hold

	Name	Definition
16	Hold	Information concerning suspension of disposition
17	authorizer	entity responsible for the hold
18	dateApplied	date the hold order was applied to the Record
19	effectiveDate	date the hold order was effective
20	identifier	specific way to identify the hold (unique among hold types and agencies)
21	justification	legal, policy or mission driver for the hold order

	Name	Definition
22	releasedDate	date the hold order was released
23	type	category of hold

2.4.6 - HoldType

The HoldType does not have a Business Rules column as codelists do not usually have associated business rules.

Table 6 - HoldType

	Name	Definition
24	HoldType	Category of hold
25	congressionalInquiry	Records relating to an agency's congressional affairs office ongoing searches and congressional inquiries
26	financial	<ol style="list-style-type: none"> 1. Records retired before contract close-out, final payment, and/or settlement 2. Records under review for confirmation of payment, undergoing financial audits, and certifications
27	foiaPaMdr	Records associated with open FOIA/PA/MDR requests
28	historicalReview	Records determined by the History Staff to be of historical significance
29	invAudInsp	Records relating to pending Inspector General's office and other offices' investigations, inspections and audits
30	litigation	Records relating to the General Counsel's Office and other offices' ongoing legal actions
31	markingsHold	Record has classification or dissemination control marking(s) that prevent the record from being transferred to NARA. For example: LIMDIS, RD (Restricted Data) and Declassification Review Pending"
32	missionCritical	Records associated with ongoing operations, projects and/or programs

	Name	Definition
33	recordsManagerHold	<ol style="list-style-type: none">1. Records requiring Records Manager/Custodian review2. Waiting for NARA approval of proposed new disposition3. Records relating to/from office reorganization4. Records retired under wrong Record Control Schedule (RCS) and/or incorrect RCS Item Number5. Inactive records retired prior to cutoff6. Disposition time miscalculated

Chapter 3 - Definitions, Interfaces, and Constraints

3.1 - UML Primer

The following is a UML primer that covers UML notations and model relationships.

3.2 - UML Notations

The diagrams that appear in this document are presented using the Unified Modeling Language (UML) static structure diagram. The UML notations used in this Standard are described in the diagram below.

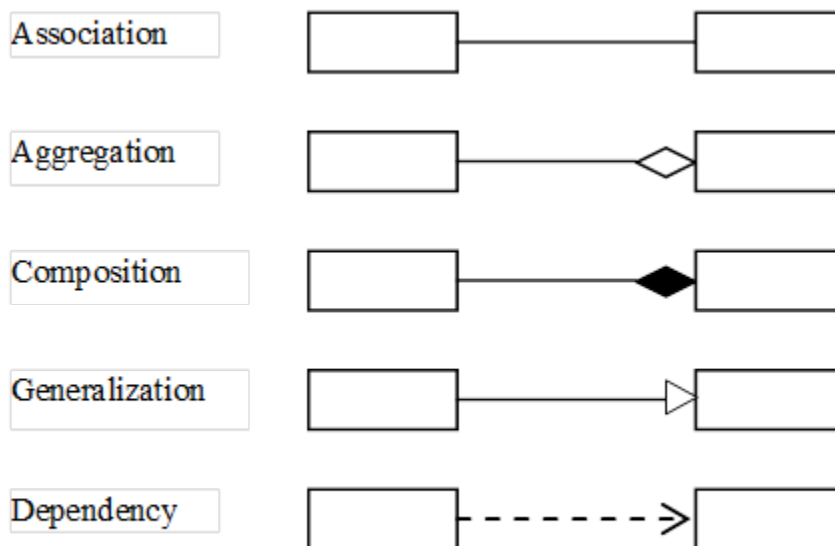


Figure 2 : UML Notation

3.3 - UML Model Relationships

3.3.1 - Associations

An association is used to describe a relationship between two or more classes. UML defines three different types of relationships, called association, aggregation, and composition. The three types have different semantics. An ordinary association shall be used to represent a general relationship between two classes. The aggregation and composition associations shall be used to create part-whole relationships between two classes. The direction of an association must be specified. If the direction is not specified, it is assumed to be a two-way association. If one-way associations are intended, the direction of the association can be marked by an arrow at the end of the line.

An aggregation association is a relationship between two classes in which one of the classes plays the role of container and the other plays the role of a containee.

A composition association is a strong aggregation. In a composition association, if a container object is deleted, then all of its containee objects are deleted as well. The composition association shall be used when the objects representing the parts of a container object cannot exist without the container object.

3.3.2 - Generalization

A generalization is a relationship between a superclass and the subclasses that may be substituted for it. The superclass is the generalized class, while the subclasses are specified classes.

3.3.3 - Instantiation / Dependency

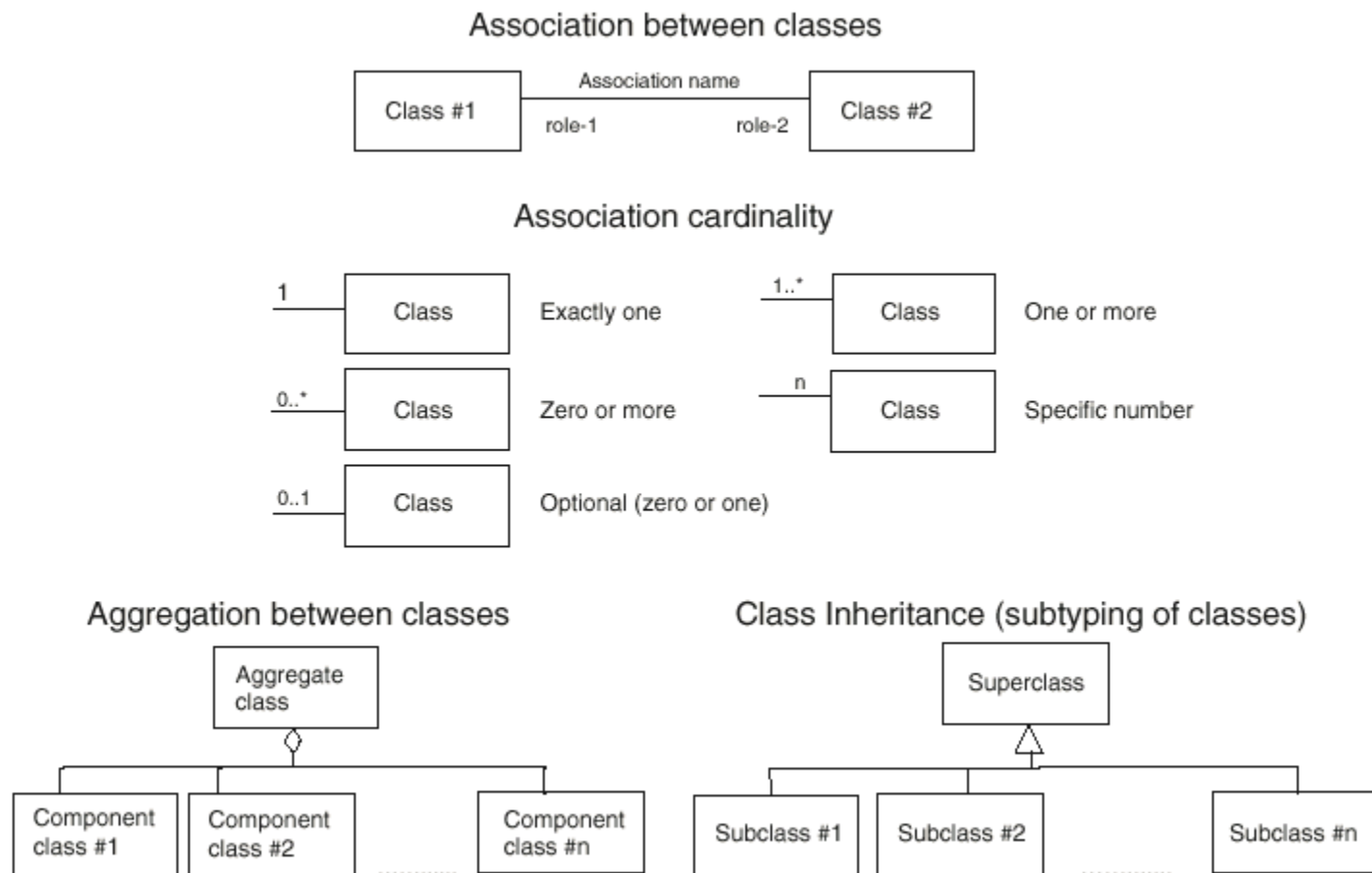
A dependency relationship shows that the client class depends on the supplier class/interface to provide certain services, such as:

- Client class accesses a value (constant or variable) defined in the supplier class/interface;
- Operations of the client class invoke operations of the supplier class/interface;
- Operations of the client class have signatures whose return class or arguments are instances of the supplier class/interface.

An instantiated relationship represents the act of substituting actual values for the parameters of a parameterized class or parameterized class utility to create a specialized version of the more general item.

3.3.4 - Roles

If an association is navigable in a particular direction, the model shall supply a “role name” that is appropriate for the role of the target object in relation to the source object. Thus in a two-way association, two role names will be supplied. The diagram below represents how role names and cardinalities are expressed in UML diagrams.

**Figure 3 : UML Roles**

Appendix A Feature Summary

The following table summarizes major features by version for ADD-ERM.

Table 7 - Feature Summary Legend

Key	Description
F	Full (able to comply and verified by spec to some degree)
P	Partial (Able to comply but not verifiable)
N	Non-compliance (Can't comply)
N/A	Not Applicable. Feature is no longer required.
Cell Colors represent the same information as the Key value	

A.1. ADD-ERM Feature Summary

Table 8 - ADD-ERM Feature comparison

ADD-ERM Feature Comparison		
Required date	Feature	V2014-DEC
	FOIA indication	F
	Record Hold information	F
	Record Disposition information	F
	Vital record indication	F

Appendix B Change History

The following table summarizes the version identifier history for this ADD.

Table 9 - ADD Version Identifier History

Version	Date	Purpose
2014-DEC	4 December 2014	Initial Release

Appendix C List of Abbreviations

This appendix lists all the acronyms and abbreviations referenced in this encoding specification.

ADD	Abstract Data Definition
CIA	Central Intelligence Agency
CVE	Controlled Vocabulary Enumeration
DNI	Director of National Intelligence
EDM	Electronic Data Management
ERM	Electronic Records Management
FOIA	Freedom of Information Act
IC	Intelligence Community
IC CIO	Intelligence Community Chief Information Officer
IC ESB	Intelligence Community Enterprise Standards Baseline
IC ITE	Intelligence Community Information Technology Enterprise
ICD	Intelligence Community Directive
ICS	Intelligence Community Standard
NARA	National Archives and Records Administration
OCIO	Office of the Intelligence Community Chief Information Officer
ODNI	Office of the Director of National Intelligence
RCS	Records Control Schedule
UML	Unified Modeling Language
XML	Extensible Markup Language
XSL	Extensible Stylesheet Language

Appendix D Bibliography

Bibliography

[1] ADD

Office of the Director of National Intelligence. *Intelligence Community Abstract Data Definition (IC-ADD.XML)*.

Available online Intelink-TS at:<http://go.ic.gov/soSC6M8>

Available online Intelink-U at:<http://purl.org/IC/Standards/ADD>

Available online at:<http://purl.org/IC/Standards/public>

[2] FCD

Department of Homeland Security. *Federal Continuity Directive 1: Federal Executive Branch National Continuity Program and Requirements*. October 2012.

Available online at:<http://www.fema.gov/media-library-data/1386609058779-b084a7230663249ab1d6da4b6472e691/2012-Federal-Continuity-Directive1.pdf>

[3] IC ITE INC1 IMPL

Office of the Director of National Intelligence. *Intelligence Community Information Technology Enterprise (IC ITE) Increment 1 Implementation Plan*. July 2012.

Available online Intelink-TS at:<http://go.ic.gov/HvBHBmY>

[4] ICD 500

Office of the Director of National Intelligence. *Director of National Intelligence Chief Information Officer*. Intelligence Community Directive 500. 7 August 2008.

Available online Intelink-TS at:<http://go.ic.gov/enm8L9x>

Available online at:http://www.dni.gov/files/documents/ICD/ICD_500.pdf

[5] ICPG 710.1

Director of National Intelligence. *Application of Dissemination Controls: Originator Control*. Intelligence Community Policy Guidance 710.1. 25 July 2012.

Available online Intelink-TS at:<http://go.ic.gov/yAqVQ0H>

[6] ICS 500-20

Director of National Intelligence Chief Information Officer. *Intelligence Community Enterprise Standards Compliance*. Intelligence Community Standard 500-20. 16 December 2010.

Available online Intelink-TS at: <http://go.ic.gov/sLKNq3N>

Available online Intelink-U at: <http://www.purl.org/ic/standards/policy/ICS500-20>

[7] IETF-RFC 2119

Internet Engineering Task Force. *Key words for use in RFCs to Indicate Requirement Levels*. March 1997.

Available online at:<http://tools.ietf.org/html/rfc2119>

[8] ISO 15489

International Organization for Standardization (ISO). *Information and documentation – Records Management - Part 1: General*. ISO 15489-1:2001.

Available online at:http://www.iso.org/iso/catalogue_detail?csnumber=31908

Appendix E Points of Contact

The Intelligence Community Chief Information Officer (IC CIO) facilitates one or more collaboration and coordination forums charged with the adoption, modification, development, and governance of IC technical specifications of common concern. This technical specification was produced by the IC CIO and coordinated with these forums, approved by the IC CIO or a designated representative, and made available at DNI-sponsored web sites. Direct all inquiries about this IC technical specification to the IC CIO, an IC technical specification collaboration and coordination forum, or IC element representatives involved in those forums.

Public Website: <http://purl.org/ic/standards/public>

E-mail: ic-standards-support@ugov.gov [mailto:ic-standards-support@ugov.gov].

Appendix F IC CIO Approval Memo

An Office of the Intelligence Community Chief Information Officer (OCIO) Approval Memo should accompany this enterprise technical data specification bearing the signature of the Intelligence Community Chief Information Officer (IC CIO) or an IC CIO-designated official(s). If an OCIO Approval Memo is not accompanying this specification's version release package, then refer back to the authoritative web location(s) for this specification to see if a more complete package or a specification update is available.

Specification artifacts display a date representing the last time a version's artifacts as a whole were modified. This date most often represents the conclusion of the IC Element collaboration and coordination process. Once the IC Element coordination process is complete, the specification goes through an internal OCIO staffing and coordination process leading to signature of the OCIO Approval Memo. The signature date of the OCIO Approval Memo will be later than the last modified date shown on the specification artifacts by an indeterminable time period.

Upon signature of the OCIO Approval Memo, IC Elements may begin to use this specification version in order to address mission and business objectives. However, it is critical for IC Elements, prior to disseminating information encoded with this new specification version, to ensure that key enterprise services and consumers are prepared to accept this information. IC Elements should work with enterprise service providers and consumers to orchestrate an orderly implementation transition to this specification version in concert with mandatory and retirement usage decisions captured in the IC Enterprise Standards Baseline as defined in Intelligence Community Standard (ICS) 500-20.^[6]