

COMMONWEALTH OF VIRGINIA



Information Technology Resource Management (ITRM)

ENTERPRISE ARCHITECTURE

ENTERPRISE DATA MANAGEMENT (EDM)

PERSON DATA EXCHANGE STANDARD

Virginia Information Technologies Agency (VITA)

EDM Person Data Exchange Standard – EDM Person Data Extract Guide Compliance

The following table documents iterations of the EDM Person Data Exchange Standard (DES) and EDM Person Data Extract Guide (DEG) to ensure alignment and compliance.

| Date | EDM Person Data Exchange Standard | EDM Person Data Extract Guide | Compliance |
|------------|--|-------------------------------|--|
| 12/05/2011 | Initial DES Version 1.0 dated 12/05/2011 created | N/A | Initial EDM Person DES developed |
| 02/29/2012 | DES Version 1.0 dated 02/29/2012 transmitted to IBM | DEG Version v 1.0 | The DES Version 1.0 dated 02/29/2012 for matching and non-matching elements was developed and transmitted to IBM |
| 04/09/2012 | DES Version 2.0 dated 04/12/2012 developed based on IBM changes to DEG | IBM flattening | Changes made to DES based on email received from IBM Project Manager for EDM |
| 12/14/2012 | Made changes based on DEG Version v 5.0 | DEG Version v 5.0 | DEG Version v 4.0 updated to DEG Version v 5.0. Changes made to DES based on DEG |
| 01/17/2013 | Made changes based on DEG Version v 6.0 | DEG Version v 6.0 | DEG Version v 5.0 updated to DEG Version v 6.0. Changes made to DES based on DEG |
| 02/27/2013 | Modified based on direction from the Office of the Attorney General | DEG Version v 6.0 | Modified DES based on direction from from the Office of the Attorney General |

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1 Publication Version Control

The following table contains a history of revisions to this publication.

| Version | Date | Revision Description |
|---------|------------|--|
| 1.0 | 12/05/2011 | Initial Document |
| 2.0 | 04/12/2012 | Align with Enterprise Data Management Data Extract Guide |
| 3.0 | 01/17/2013 | Align with Enterprise Data Management Data Extract Guide |
| 4.0 | 2/27/2013 | Modified based on direction from the Office of the Attorney General. |

2 Reviews

- This publication was prepared by the VITA Commonwealth Data Governance (CDG) staff.
- This publication was reviewed by the VITA Policy, Practice and Architecture (PPA) group.
- This publication was approved by Health Information Technology Standards Advisory Committee (HITSAC) in its recommendation for adoption.
- This publication was revised to consolidate the Business Narrative content for the EDM Person Core Matching Data Standard, which was adopted by the Secretary of Technology on December 2, 2011, with the Business Narrative content for the EDM Person Core Non-matching Attributes Data Exchange Standard, which was recommended for adoption by HITSAC on December 15, 2011.
- Online review was provided for Agencies and other interested parties via the VITA Online Review and Comment Application (ORCA).
- This publication was revised based on comments received from Commonwealth Agencies and other interested parties via ORCA.
- This publication was revised to align with updates to the Enterprise Data Management Data Extract Guide Version v 1.0.
- This publication was revised to align with updates to the Enterprise Data Management Data Extract Guide Version v 5.0 and Version v 6.0.

3 Definitions

The terms used in this Business Narrative comply with the adopted definitions maintained in the Commonwealth of Virginia's ITRM Glossary. The ITRM Glossary can be accessed at

http://www.vita.virginia.gov/uploadedFiles/VITA_Main_Public/Library/PSGs/PSG_Sections/COV_ITRM_Glossary.pdf

4 Scope

The Commonwealth of Virginia has implemented an enterprise information architecture strategy designed to promote systemic and semantic interoperability across Commonwealth Agencies. A central part of this architecture will be the Enterprise Data Management (EDM) platform. The EDM platform will provide Agencies with an integrated platform for linking records from an array of source data systems. The EDM platform will feature the use of probabilistic matching algorithms for performing linkages of Person records based on a range of demographic attributes.

The EDM Person Data Exchange Standard defines the attributes that will be maintained within the EDM platform for matching and validation purposes. The attributes consist of those typically collected across Commonwealth Agencies and used to describe a Person's demographic characteristics. The attributes selected for matching purposes will be implemented as variables within the EDM platform's probabilistic matching algorithms. The remaining attributes may not be used for matching purposes but will be maintained in the EDM platform to validate matches, resolve linkage tasks or other purposes.

The attributes selected for matching were defined in the EDM Person Core Matching Data Standard, adopted by the Secretary of Technology on December 2, 2011 (EDS-R-161). The non-matching attributes were identified by Commonwealth Agency Data Owners, Data Stewards and other stakeholders and recommended for adoption by the Health Information Technology Standards Advisory Committee (HITSAC) on December 15, 2011. The standard established in this document consolidates into a single standard the EDM Person Core Matching Data Standard and the additional attributes. The consolidated standard is titled, the EDM Person Data Exchange Standard.

The EDM Person Data Exchange Standard has been developed to structure and support data exchanges by Commonwealth Agencies within the EDM platform. The attribute definitions are consistent with adopted standards and reflect best practices from Health Level 7 (HL7), the Office of the National Coordinator (ONC) for Health Information Technology, the National Information Exchange Model (NIEM) and external standard development organizations (SDOs). The purpose of the standard is to support enterprise data management, semantic interoperability and an enterprise vocabulary within the Commonwealth's EDM platform.

5 Governance

The EDM Person Data Exchange Standard was developed by VITA in collaboration with HITSAC and Commonwealth Agencies. HITSAC advises the Information Technology Advisory Council (ITAC) on the adoption of nationally recognized technical and data standards for health information technology systems or software pursuant to § 2.2-2699.7, Code of Virginia. The EDM Person Data Exchange Standard is owned by the Secretary of Technology and maintained by VITA in a searchable Enterprise Data Standards Repository available at <http://www.vita.virginia.gov/oversight/dm/default.aspx?id=10344>.

To gather input from Commonwealth Data Owners, Data Stewards and stakeholders, VITA staff formed an EDM Data Exchange Standards Working Group composed of representatives from the following Agencies:

- ◆ Auditor of Public Accounts (APA)
- ◆ Department of Behavioral Health and Disability Services (DBHDS)
- ◆ Department of Corrections (DOC)
- ◆ Department of Education (DOE)
- ◆ Department of Game and Inland Fisheries (DGIF)
- ◆ Department of General Services, Division of Consolidated Laboratory (DGS/DCLS)
- ◆ Department of Health (VDH)
- ◆ Department of Medical Assistance Services (DMAS)
- ◆ Department of Motor Vehicles (DMV)
- ◆ Department of Rehabilitative Services (DRS) representing the Disability Services Agencies
- ◆ Department of Social Services (DSS)
- ◆ Department of Taxation (TAX)
- ◆ State Board of Elections (SBE)
- ◆ Virginia Community College System (VCCS)
- ◆ Virginia Employment Commission (VEC)
- ◆ Virginia State Police (VSP)

6 Components

The EDM Person Data Exchange Standard consists of the following components:

1. A Business Narrative describing the standard (this document)
2. A Data Dictionary available on the Web at <https://bi.vita.virginia.gov/StdsRepository/rdPage.aspx?rdReport=DisplayStandard&VersionID=126&StandardID=99>

7 Authority

The following section references the statutory authority granted by the Code of Virginia to the Secretary of Technology to establish the EDM Person Data Exchange Standard. The section also cites provisions in the Code relating to the role of the Chief Information Officer (CIO) of the Commonwealth, the Information Technology Advisory Council (ITAC) and HITSAC in the development, review and adoption of Commonwealth data standards.

Governing Statutes:

The Secretary of Technology

§ 2.2-225. Position established; agencies for which responsible; additional powers (As Amended)

<http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+2.2-225>

The Chief Information Officer (CIO) of the Commonwealth

§ 2.2-2007. Powers of the CIO (As Amended)

<http://lis.virginia.gov/cgi-bin/legp604.exe?000+cod+2.2-2007>

The Virginia Information Technologies Agency

§ 2.2-2010. Additional powers of VITA (As Amended)

<http://lis.virginia.gov/cgi-bin/legp604.exe?000+cod+2.2-2010>

The Information Technology Advisory Council (ITAC)

§ 2.2-2699.6. Powers and duties of the ITAC (As Amended)

<http://lis.virginia.gov/cgi-bin/legp604.exe?000+cod+2.2-2699.6>

The Health Information Technology Standards Advisory Committee (HITSAC)

§ 2.2-2699.7. Health Information Technology Standards Advisory Committee (As Amended)

<http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+2.2-2699.7>

8 Overview

The EDM Person Data Exchange Standard establishes the attributes associated with the Person entity in the EDM platform. Detailed descriptions of each attribute along with data definitions, high-level data specifications and related information can be referenced in the EDM Person Data Exchange Standard Data Dictionary available at <https://bi.vita.virginia.gov/StdsRepository/rdPage.aspx?rdReport=DisplayStandard&VersionID=126&StandardID=99>. During the EDM pilot phase, modifications continue to be made to the attributes, data definitions and other data specifications established in EDM Person Data Exchange Standard to accommodate configuration and implementation of the EDM platform. Therefore, the EDM Person Data Exchange Standard shall be defined based on the most current Business Narrative and Data Dictionary published in the EA Standards Repository. The EDM Person Data Exchange Standard shall be reviewed on an as-needed basis and an updated version published to ensure consistency with the EDM status. Once the EDM platform has gone into its final production phase, and the physical data model has been finalized, a formal amendment to the EDM Person Data Exchange Standard shall be submitted for adoption by the Secretary of Technology.

The EDM Person Data Exchange Standard has been developed to promote semantic interoperability for the exchange of Person-related data in the EDM platform. The EDM Person Data Exchange Standard is implemented in the EDM platform by the EDM Person Data Extract Guide, which provides the data definitions for each data element in the EDM Person hub and establishes the data extract, transform and load (ETL) process between source systems and the EDM platform. The EDM Person Data Exchange Standard shall be updated on an as-needed basis to ensure alignment between the standard and the EDM Person Data Extract Guide. Once the EDM Person Data Extract Guide has been finalized based on the EDM production phase, a formal amendment to the EDM Person Data Exchange Standard shall be submitted for adoption by the Secretary of Technology.

EDM Person Attributes

NOTE: The attributes for the Person entity may be given varying levels of validation to designate a more trusted source for the particular field. For example, a Person identifier entered by an Agency staff member based on an in-person verification process may be assigned a higher validation level in the EDM platform compared to self-entered information from the Person via an Agency Web site. The highest validation level for each attribute will be used as the trusted source for that Person entity. The validation level of an attribute will be indicated by the *Validation Level Qualifier* field. The values for the validation level will range in numbers from 1 to 1000, with 1000 indicating the most stringent requirements for validation by the source system and 1 indicating the least stringent requirements for validation. If the source system utilizes a higher-level validation protocol or data validation procedure, the value in the Validation Qualifier field will be assigned a higher weighted value in the matching algorithm for the EDM system.

The **Person** attribute contains *Name*, *Gender* and *Birth Date* attributes for the Person. Any name with multiple parts (e.g., George Herbert Walker Bush, Vicente Fox Quesada) will be placed in the appropriate attribute (e.g., Herbert Walker in the *Middle Name Text* attribute, Fox Quesada in the *Last Name Text* attribute). The *Name Suffix Text* attribute stores terms that qualify the Person's legal name (e.g., Jr., Sr.), not professional qualifiers (e.g., Ph.D., Esq.).

The **Person Address** attribute records a method of contacting the associated Person. The EDM platform requires at least one address to be available for matching purposes. However, multiple address entries may be maintained in the EDM platform. The *Address Purpose Code* field will record the address use-purpose, including Physical Address, Mailing Address and Other. The Other type can be used to indicate a temporary physical or mailing address (for example, a college student's mailing address used during the school year, or a mailing address for a member of the military).

The *Address Type Code* field indicates location of the address relative to the United States. Valid values include Domestic (i.e., within the U.S.), Military (i.e., APO/FPO) and International. This field may control business rules for addresses. For example, only domestic addresses may be standardized, international addresses may be required to have a *Country Name Text*, and domestic addresses may be required to have a *State or Province Text* and *State-Locality Code*.

International addresses will have the city entered in the *City Name Text* field and a postal code, if one exists, in the *Postal Code Text* field. The *Country Name Text* field will contain the text name of the country instead of the ISO 3166-1 country code. The *State-Locality Code* field will contain the five-digit code from the standard ANSI INCITS 31:2009 (previously known as the FIPS Code). The first two digits indicate the state (e.g., 51 for Virginia) and the last three the county or city (e.g., 760 for Richmond City).

The **Person Alias** attribute allows alternate names to be associated with a Person. An alias could be created if, for example, an Agency has "James Edward Smith" as the Person's name but notes that the Person also may be known as "Eddie Smith." The Person Alias field contains the same name fields as the *Person* attribute.

The **Person Identifier** attribute contains alphanumeric values assigned to a Person by organizations for the purpose of identification. Multiple identifiers may be associated with the Person, and prior-issued identifiers may be maintained in the EDM system. The *Person Identifier Originating Authority* field indicates the organization that assigned the Person Identifier and potentially the type of identification assigned. The list of *Person Identifier Originating Authority Codes* will be developed as Agencies become onboarded into the platform.

The **Person Telephone Number** attribute records a number for a telecommunication device used to contact a Person. It allows for North American Numbering Plan (NANP) and international telephone numbers. An empty country code will denote a NANP telephone number. The *Telephone Number Purpose Code* field records the use-purpose of the telephone number, including Primary or Alternate values.

The **Source Data System Identifier** attribute is an alphanumeric value assigned to a Person by the organization that submitted the Person record into the EDM system. The value is the unique identifier maintained in the source system for the Person by the source Agency.

The **Person Citizenship** attribute records the legal status of a Person in the United States as a citizen of the United States, legal alien or other category pursuant to governing Federal regulations. The categories specified in the EDM system will be consistent with those established by the U.S. Bureau of Citizenship and Immigration Services.

The **Person Email Address** attribute records a method for exchanging with a Person information and/or messages via electronic mail. Multiple email addresses may be maintained in the EDM system. The Email *Purpose Code* field records the use-purpose of the email address, including Personal, Work or Other.

The **Person Ethnicity** attribute records the Person's cultural classification based on the allegiance or association. The ethnicity categories will include Hispanic or Latino and Not Hispanic or Latino.

The **Person Race** attribute records a Person's classification based on physical characteristics, sociological grouping or human population category. Examples of race categories include American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White and Other.

The **Person Physical Location** attribute records a narrative description of the geographic place at which the Person resides. The Person Physical Location attribute may be used in instances where the Person does not have a physical dwelling. For example, if the Person is homeless, a description of the physical location may be recorded, such as "Resides at the intersection of First Street and ABC Avenue."

The **Person Place of Birth** attribute records the geographical and/or a political subdivision of a state or a country in which the Person was born. The Person Place of Birth attribute will be specified using the same location attribute standards as those adopted for the Person Address attribute.

The **Mother Birth Name** attribute records a Person's natural mother's last name at the time of her birth. This may be referred to as the mother's birth name or maiden name.

The **ConnectVirginia Health Information Exchange (HIE) Participant Status** attribute will denote whether a Person has elected to be enrolled as a participant in the *ConnectVirginia* HIE. The *ConnectVirginia* HIE Participant Status field has been included in the standard in anticipation of a future phase of the EDM platform. The field will be populated only when a requirement has been defined to enable data exchanges between the EDM platform and the *ConnectVirginia* HIE.

The **Person Death** attribute records information about the person's death.

The **Last Update Information** attribute records the date and the time that the information was last changed in the source system and the individual or the system account that made the change in the source system.

The **Out of State Indicator** attribute denotes whether a Person is a resident of the Commonwealth of Virginia.

9 Compliance

The Commonwealth of Virginia has established the EDM Person Data Exchange Standard for the purpose of defining attributes in the EDM platform that will be used for matching and data validation processes.

As of April 1, 2012, Agencies making use of the EDM platform, either directly or indirectly (e.g., via the Commonwealth Authentication Service, or CAS), must adhere to the EDM Person Data Exchange Standard when interfacing with the EDM platform or associated services.

Commonwealth Agencies unable to comply with the standard must request an exception using the VITA Exception Form available on the Web at [http://www.vita.virginia.gov/uploadedFiles/Oversight/EA/Data Management Group/EA%20Change-Exception%20Request%20Form.doc](http://www.vita.virginia.gov/uploadedFiles/Oversight/EA/Data_Management_Group/EA%20Change-Exception%20Request%20Form.doc)

The completed form should be emailed to ea@vita.virginia.gov.