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Commonwealth of Pennsylvania
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Introduction/Executive Summary:
The purpose of the citizen data model is to provide a guideline for Commonwealth agencies to identify and standardize logical citizen-related data elements (*A Logical data name is a unique identifier of an entity or attribute as stored within a logical data model or data dictionary. Logical names, also known as the Business Name or Functional Name, are to consist of English words and are to be readily understandable by the end user.*) The identification of the data elements will define entities and attributes that constitute a 'Core citizen,' whereas standardization will attempt to promote a common business name for the data elements along with their associated attributes. A common understanding of data entities and elements across the enterprise is an essential first step in developing integrated processes, and moving away from 'silo' systems. As agencies attempt to follow these guidelines, it will help Communities of Practice (COPs) identify authoritative data sources for citizen data elements, thereby promoting data sharing and interoperability.

Objectives and benefits of a common citizen model:

- *Common language:*
  The first and foremost aspect of creating common data elements is to define or assign a standard business name for the core elements. This process unites the enterprise in calling each defined entity and element by a consistent name and avoiding abbreviations or annotations of the same entity or element.

- *Communication & Sharing:*
  Once a common name is defined, it facilitates communication between agencies and also facilitates sharing data and models between departments and agencies.

- *Data Quality:*
  Data quality is a pressing need for any enterprise. By creating common models, an enterprise increases its ability to compare and synchronize data, thus improving the overall consistency and quality of data.

Predefined supplemental document type codes are listed below:
APP = Appendix **BPD** = Best Practice Document **GEN** = General Information Document
OPD = Operations Document **RFD** = Existing Supporting Document Referenced by this ITP
WHP = White Paper

- *Model Evolution*:
  This model with its entities and elements will be an extensible model. As new and changed entities and elements evolve, they will be identified through the domain team, and updated models will be published to help agencies and departments make best use of this citizen model.

Citizen Model Creation History & Approval process:
The creation of the core citizen data element list was initially proposed by the members of the Enterprise Architecture Standards Committee (EASC) in an attempt to identify universal elements across the enterprise. The EA team initially put together a draft of the elements, along with a skeleton model. Through the EA Information Domain Team, this model was evaluated using members from various state agencies. Based on domain team inputs and evaluation, the element list was finalized. The EASC was presented with the list, and given a two week time frame to provide feedback on the model. Several questions were asked about the usability of the model, which are addressed in the objectives section of this document. The members from the JNET team evaluated this model with the dictionary of core elements in the GJXDM model. A conceptual representation of the model is given in Fig 1.1 below.

Model Usage:
Each agency or department is encouraged to examine the model to determine if the entities and elements defined are adequate and to provide feedback to OA. The following are the steps to be performed to make best use of this model.

- Use the citizen model as a starting point in the agency's logical analysis.
- Retain/Use the same names from the citizen model in the agency's logical model.
- Create mapping/traceability from the citizen logical model to the physical model.
- Recommend/Promote additional changes to the model through EA Information domain team.

By observing this process, the commonwealth will be able to move away from 'silo' systems into a more enterprise-oriented system in future.

Additionally, COPs may further use the model by identifying authoritative data sources for individual data elements within their COP and initiating data exchange mechanisms which will directly reduce data management costs and increase reusability.

Conceptual Citizen Model

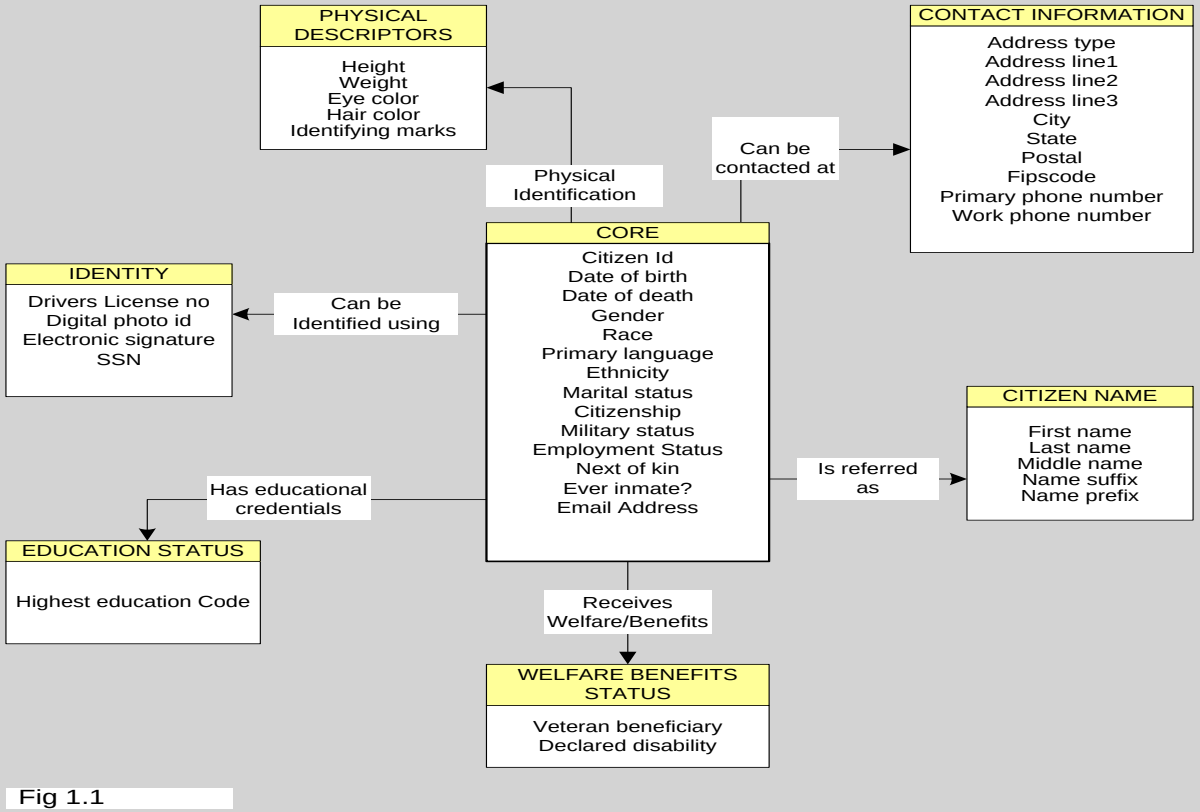

Fig 1.1

Core Citizen Data Entities and Attributes

CORE: Represents the basic set of attributes pertaining to a citizen

Entity	Element	Description	History	Relevance /Source	Comments
CORE	Citizen Id	Citizen Identification	Y	Real_id	Unique distinct person identification
	Date of birth	Date of birth of the person	Y	Real_id/Gjxdm	Date of birth including century.
	Date of death	Date of death of the person			Date of death including century
	Gender	A code to identify the person's sex		Real_id/Gjxdm	Male/Female/etc
	Race	A code to identify the person's race		Gjxdm	
	Primary language	A code to identify the person's primary language		Gjxdm	EN for English etc
	Ethnicity	A code to identify the person's ethnicity		Gjxdm	Ethnicity under race
	Marital status	A code to specify the person's marital status	Y	Domain_team	Single/Married etc
	Citizenship	A code to specify the person's residence status in the country	Y	Domain_team	Citizen/Alien etc
	Military status	A code indicating military status	Y	Gjxdm	Active/discharged etc
	Employment Status	A code to indicate the person's Employment status	Y	Domain_team	Employed/Unemployed etc
	Next of kin	Name and Id of the person with contact details to contact in case of emergency		Domain_team	Next of kin for emergency contact, as well as fulfill financial obligation
	Ever inmate?	Ever inmate indicator	Y	Domain_team	Indicated if citizen was ever a convicted inmate in prison
	Email Address	Person's Email address	Y		Primary Email address for contact/communication

NAME: Describes the official full name of a citizen

Entity	Element	Description	History	Relevance /Source	Comments
NAME	First name	First name of the person	Y	Real_id/Gjxdm	First name of the person
	Last name	Last name of the person	Y	Real_id/Gjxdm	Last name of the person
	Middle name	Middle name of the person	Y	Real_id/Gjxdm	Middle name of the person
	Name suffix	Name prefix of the person	Y	Real_id/Gjxdm	Name prefix of the person
	Name prefix	Name suffix of the person	Y	Real_id/Gjxdm	Name suffix of the person
	Person full name	Full name of the person	Y	Gjxdm	This is to accommodate situations where a person may have more than three names

CONTACT INFORMATION: Describes all information necessary to identify a location and/or communicate with a citizen

Entity	Element	Description	History	Relevance / Source	Comments
CONTACT INFORMATION	Address type	Indicates type of address	Y	Domain_team	Mailing/Primary/Secondary
	Address line1	Address line1	Y	Domain_team	Street name and number/po box
	Address line2	Address line2	Y	Domain_team	Street name and number/po box
	Address line3	Address line3	Y	Domain_team	Street name and number/po box
	City	City of residence	Y	Domain_team	City of residence
	State	State of residence	Y	Domain_team	State
	Postal	Postal code	y	Domain_team	Postal code
	Fipscode	Fipscode	y	Domain_team	County code
	Primary phone number	Person's primary contact phone number		Domain_team	Primary Contact phone no
	Work phone number	Person's work contact number	y	Domain_team	Work phone number

IDENTITY: Describes credentials unique to the citizen

Entity	Element	Description	History	Relevance / Source	Comments
IDENTITY	Drivers License no	Person's drivers license id	y	Real_id/Gjxdm	Unique identifier assigned by the state to a driver's license
	Digital photo id	A digital photograph of the person		Real_id/Gjxdm	Digital photograph of the person
	Electronic signature	Person's signature		Real_id/Gjxdm	Digital representation of the person's signature
	Ssn	Social security no	y	Gjxdm	Person's social security number

PHYSICAL DESCRIPTORS: Characteristics that describe the citizen

Entity	Element	Description	History	Relevance / Source	Comments
PHYSICAL DESCRIPTORS	Height	Person's height		Gjxdm	Physical height of the person
	Weight	Person's weight		Gjxdm	Physical weight of the person
	Eye color	Person's eye color		Gjxdm	Color of the eyes
	Hair color	Person's hair color		Gjxdm	Color of the hair
	Identifying marks	Identifying marks such as mole, scar		Gjxdm	Physical identification marks on the person to avoid fraud, counterfeiting, duplication etc

EDUCATIONAL STATUS: Description of the educational status of the citizen

Entity	Element	Description	History	Relevance / Source	Comments
EDUCATION STATUS	Highest education	A code specifying the person's highest education		Domain_team	Highest education the person has attained

WELFARE BENEFITS STATUS: Description of the public welfare benefits status of the Citizen

Entity	Element	Description	History	Relevance / Source	Comments
WELFARE BENEFITS STATUS	Veteran beneficiary	A code to indicate if person received veteran benefits		Domain_team	Identifies if the person receives veteran benefits
	Declared disability	A code to indicate if person is disabled		Domain_team	Identifies if the person is disabled