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Model for Performance-driven Government (MPG)

Version 1.0

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http://www.omg.org/spec/MPG/20110301/BMMMODEL.xsd
Non-normative:
http://www.omg.org/spec/MPG/20110301/MPG_example.xml

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Preface

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OMG

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- **Specialized CORBA**

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- **UML, MOF, CWM, XMI**
- **UML Profile**

Modernization Specifications

Platform Independent Model (PIM), Platform Specific Model (PSM), Interface Specifications

- **CORBAServices**
- **CORBAFacilities**

OMG Domain Specifications

CORBA Embedded Intelligence Specifications

CORBA Security Specifications

All of OMG's formal specifications may be downloaded without charge from our website. (Products implementing OMG specifications are available from individual suppliers.) Copies of specifications, available in PostScript and PDF format, may be obtained from the Specifications Catalog cited above or by contacting the Object Management Group, Inc. at:

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Times/Times New Roman - 10 pt.: Standard body text

Helvetica/Arial - 10 pt. Bold: OMG Interface Definition Language (OMG IDL) and syntax elements.

`Courier - 10 pt. Bold:` Programming language elements.

Helvetica/Arial - 10 pt: Exceptions

Note – Terms that appear in *italics* are defined in the glossary. Italic text also represents the name of a document, specification, or other publication.

Issues

The reader is encouraged to report any technical or editing issues/problems with this specification to *http://www.omg.org/report_issue.htm*.

1 Scope

The Model for Performance-Driven Government (MPG) specifies a model that provides a uniform basis for agencies within the U.S. Federal Government to represent, analyze, and report on their enterprise-level transformation activities. It specifies how key transformation elements such as segment architecture, performance architecture, and investment planning model content are to be represented. It supports repository maintenance of that content and the fundamental information required to meet transparency and accountability goals.

2 Conformance

Full compliance with this specification requires the ability to instantiate a Federal Segment Architecture model based on the MPG concepts described in Clause 7 and to represent that model using the XML schema referenced in Clause 8.

3 References

The normative references are:

- Business Motivation Model (OMG BMM), version 1.1, formal/2010-05-01
- This document and the machine-readable files corresponding to the XML schema document (platform-specific model) found in dtc/2011-03-15.

  http://www.omg.org/spec/MPG/20110301/MPGMODEL.xsd
  http://www.omg.org/spec/MPG/20110301/BMMMODEL.xsd

Non-normative reference(s):

- http://www.omg.org/spec/MPG/20110301/MPG_example.xml.

4 Terms and Definitions

See Annex A: MPG-Specific Glossary.

5 Symbols

Modeled class color conventions:

- This specification augments the classes defined by the Federal Enterprise Architecture Performance Reference Model, as published by the U.S. Office of Management and Budget. In the class diagrams associated with the Federal Enterprise Architecture Performance Reference Model, the classes that have been added are highlighted by having their shapes filled in yellow.

6 Additional Information

6.1 Specification Overview

The *Model for Performance-Driven Government* (MPG) has as its objective the specification of a uniform means for agencies in the U.S. Federal Government to represent and maintain concepts related to their transformation. The business transformation activities are driven through identification of needed performance improvements within specific functional business areas, termed *segments*. Additionally, by conforming to such uniformity, the resulting information sets provide a common basis for information sharing and (comparative) analysis across government, furthering the goals of the both the U.S. Office of Management and Budget (OMB) and the *Open Government Directive* (http://www.whitehouse.gov/open/documents/open-government-directive). Collaboration with the OMB was key to the production of this specification.

To meet the objective, this specification specifically addresses modeling of transformation concerns including representation of:

- Segments and related segment architectures as described in the *Federal Segment Architecture Methodology (FSAM)*.
- Capital planning and investment control of segment transformation.
- The *Federal Enterprise Architecture Consolidated Reference Model*
  - Business Reference Model (BRM)
  - Service Component Reference Model (SRM)
  - Technical Reference Model (TRM)
  - Performance Reference Model (PRM)
  - Data reference Model (DRM)

  as well as their integration into the overall agency business context.
- *Federal Transition Framework* integration.

The resulting model is organized into two packages having content specific to this specification, *MPG* and *FEA CRM*. The *FEA CRM* provides the model details for the *Federal Enterprise Architecture Consolidated Reference Model*. This separation was made to facilitate change management in the future, since updates to the elements in the different packages are anticipated to occur at different intervals.

To support representation of the business context in which transformation occurs, the *Business Motivation Metamodel (BMM)* has been incorporated into this specification by reference and, in some cases, concepts from it specialized as classes within the MPG itself.

The MPG was created as a platform independent UML model (gov/2010-03-04). From that model, two additional specification artifacts were created:

- An XML Metadata Interchange (XMI) file (gov/2010-03-02), and
- A platform specific model (PSM), produced as an XML Schema (dtc/2011-03-15).

6.2 Acknowledgments

The submitters thank the following supporting organizations and individuals who contributed to the development of this specification.

Organization	**Individual**
Adaptive	Pete Rivett Gene Mutschler
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Level Seven Visualizations	Jon Farmer
MITRE	Fatma Dandashi
National Highway Traffic Safety Administration	Colleen Coggins
Office of Management and Budget	Kshemendra Paul Adrienne Walker Phillip Wenger Dominic Sale Tim Wang Bill Curtis Stephan Wasserman
Telesis Partners	Phil Cooke
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U.S. Department of Justice	Richard Von Bostel
U.S. Department of Labor	Don Hodge (Troux on behalf of) Anthony Hemmans (TMI on behalf of)
U.S. Department of the Treasury	R. Brian Doerk
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U.S. Social Security Administration	Deborah Rauser

Contributors from the submitter organizations not otherwise listed above include:

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Computer Sciences Corporation (CSC)	John Dodd James O'Dell
IBM	Lou Varvaris John Jessup John Sweigart
Troux Technologies	Bob Daniel Jason Lilleboe

7 Model for Performance-Driven Architecture

7.1 Introduction

This clause presents the normative specification for the Model for Performance-Driven Government (MPG). It begins with an overview of the metamodel structure followed by a description of each sub-package.

7.2 Package Structure

There are two main packages that comprise MPG:

1. The Federal Enterprise Architecture Consolidated Reference Model (FEA CRM) Package
2. The Model for Performance-Driven Government (MPG) Package

The MPG Package has a dependency on the FEA CRM Package.

The MPG Package has an additional dependency to the OMG Business Motivation Metamodel (BMM), which is defined external to this specification.

The structure of the MPG package set is described in Figure 7.1.

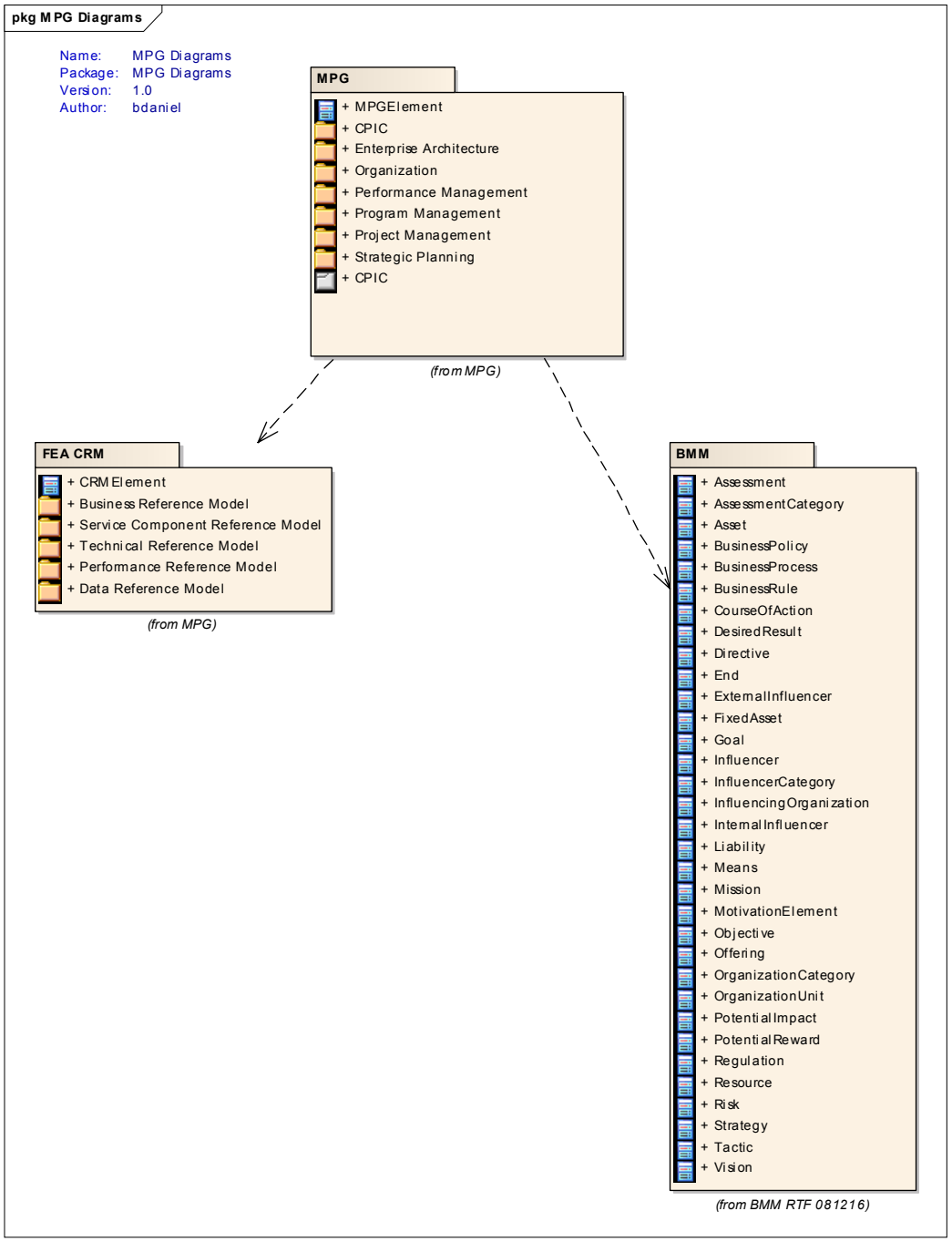


Figure 7.1 - MPG Package Structure

7.3 Federal Enterprise Architecture Consolidated Reference Model (FEA CRM Package)

Type: **Package**
Package: MPG
Package that describes the types associated with the Federal Enterprise Architecture Consolidated Reference Models.

FEA CRM - (*Logical diagram*)

See Figure 7.2

Description

This diagram provides a complete view of the Federal Enterprise Architecture Consolidated Reference Model classes defined in the MPG. Each of the Reference Models: Performance (PRM), Business (BRM), Service (SRM), Technical (TRM), Data (DRM) are depicted based on the Reference Model descriptions as provided by the United States Office of Management and Budget. (Refer to "FEA_CRM_v23_Final_Oct_2007_Revised.pdf" and "DRM_2_0_Final.pdf" available at http://www.whitehouse.gov/omb/e-gov/fea/).

This complete CRM view is provided here for electronic viewing and printing at greater than 100% scaling. Sub-views of the diagram describing each reference model follows in subsequent diagrams.

The three class objects that are shaded in yellow in the lower left of the diagram indicate that these are an interpretation of the CRM document that extends the PRM in order to elaborate the "PRM Performance Measurement Indicator" concept through association with instantiated measurements.

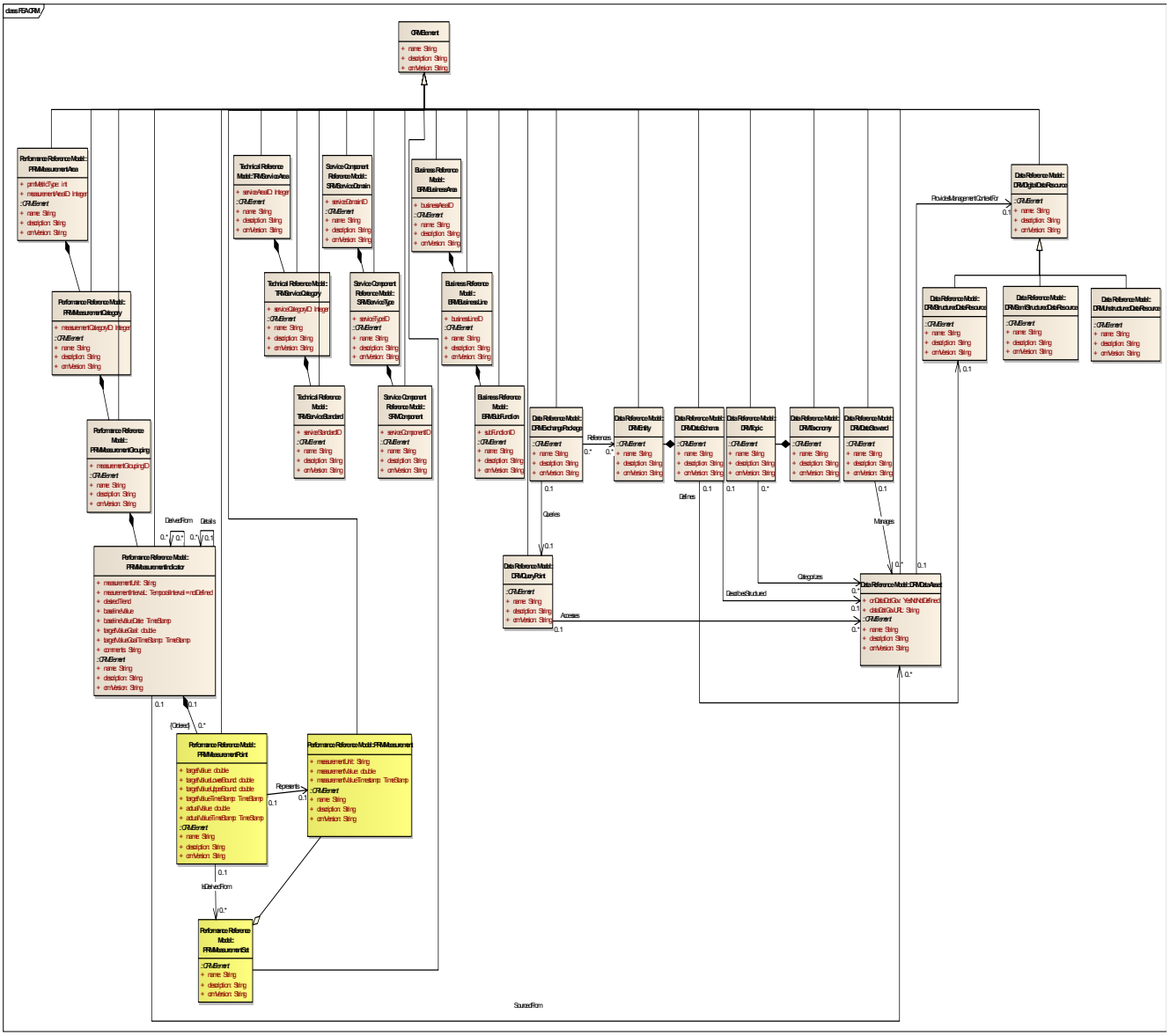


Figure 7.2 - FEA CRM

Type: **Package**
Package: MPG
Package that describes the types associated with the Federal Enterprise Architecture Consolidated Reference Models.

FEA CRM Packages - (*Logical diagram*)

See Figure 7.3

Description

This diagram describes the package structure used to represent each of the Federal Enterprise Architecture Reference Models: Performance (PRM), Business (BRM), Service Component (SRM), Technical (TRM), and Data (DRM). Each is depicted based on the Federal Enterprise Architecture Reference Model descriptions as provided by the United States Office of Management and Budget.

The three class objects that are shaded in yellow indicate that these elements have been added, as an interpretation of the CRM document, to extend the PRM. This was done to elaborate the "PRM Performance Measurement Indicator" concept through association with instantiated measurements.

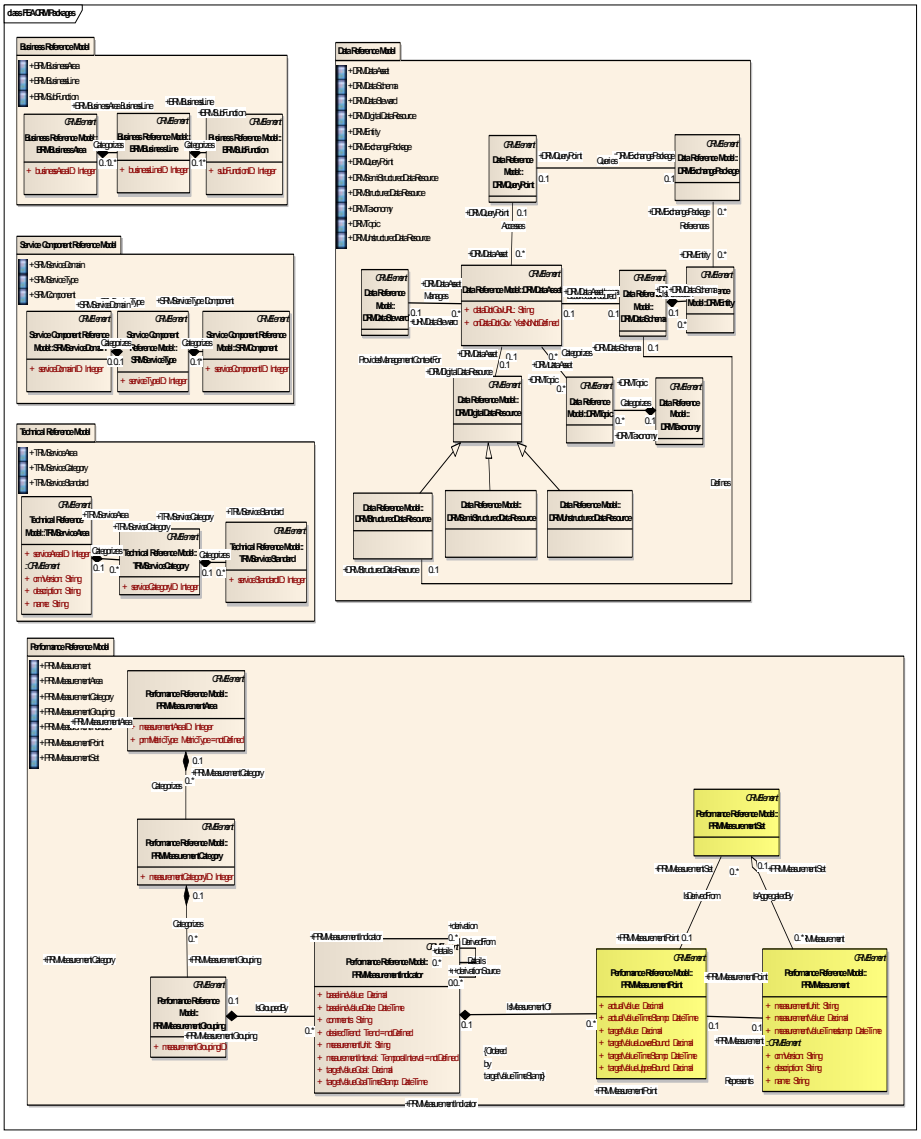


Figure 7.3 - FEA CRM Packages

7.3.1 CRMElement

Type: **Class**
Specialization of: n/a
Abstract
Parent Package: FEA CRM

Description

Abstract type from which all Consolidated Reference model types are derived.

Attributes

Attribute	Type	Description
name	String	The name of the CRMElement-derived object.
description	String	The description of the CRMElement-derived object.
crmVersion	String	Version of the CRM by which the CRMElement-derived object is defined, e.g., 2.3.

7.3.2 Business Reference Model

Type: **Package**
Parent Package: FEA CRM

The Business Reference Model (BRM) provides a taxonomy for classifying business processes. The first level of classification is provided by instances of BRMBusinessArea. The second level of classification is provided by instances of BRMBusinessLine, which represent refinements of the BRMBusinessArea classification categories. The third level of classification is provided by instances of BRMSubFunction, which represent refinements of the BRMBusinessLine classification categories.

The instantiation of the Business Reference Model is provided in the Consolidated Reference Model. [http://www.whitehouse.gov/omb/assets/fea_docs/FEA_CRM_v23_Final_Oct_2007_Revised.pdf and http://www.whitehouse.gov/omb/asset.aspx?AssetId=472 (in XML)].

Business Reference Model - *(Package diagram)*

See Figure 7.4

Description

This diagram depicts the Business Reference Model as sub-elements of the FEA CRM. The Business Reference Model package provides the means for modeling a tiered hierarchy of business function categories that can be used to categorize business processes. Refer to the OMB CRM document (FEA_CRM_v23_Final_Oct_2007_Revised.pdf) for additional description.

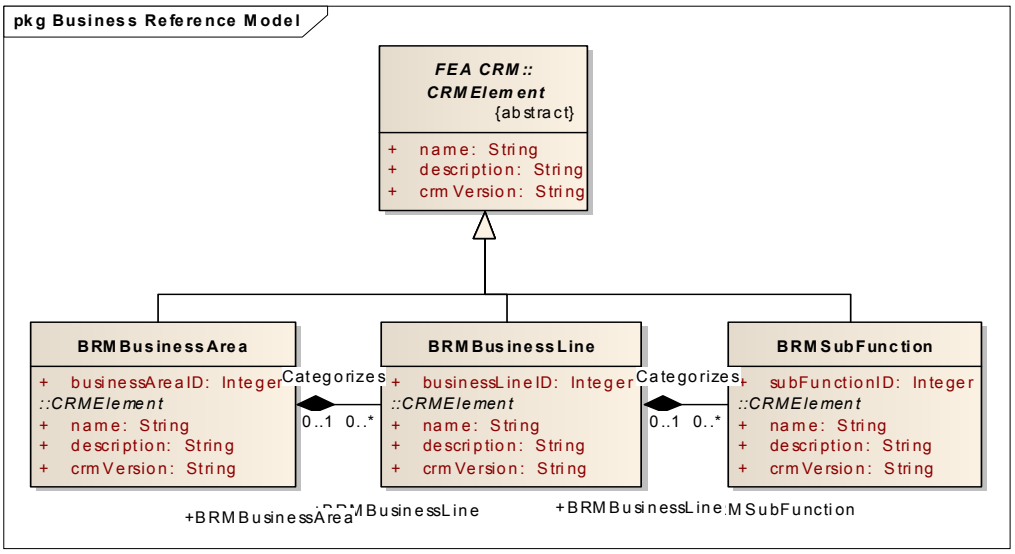


Figure 7.4 - Business Reference Model

7.3.2.1 BRMBusinessArea

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Business Reference Model

Description

Instances of BRMBusinessArea provide the highest-level categorization of the business processes and functions performed by the enterprise. These are further sub-classified (refined) by instances of BRMBusinessLine.

Attributes

Attribute	Type	Description
businessAreaID	Integer	The numeric identifier for a BRMBusinessArea object.

Relationships

Name	Description	Source	Target
Categorizes (Aggregation)	BRMBusinessLine categorizes BRMBusinessArea	**BRMBusinessLine** Role: • BRMBusinessLine Role Description: • BRMBusinessLine categorizing BRMBusinessArea Cardinality: 0..*	BRMBusinessArea Role: • BRMBusinessArea Role Description: • BRMBusinessArea categorized by the BRMBusinessLine Cardinality: 0..1

7.3.2.2 BRMBusinessLine

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Business Reference Model

Description

Instances of BRMBusinessLine sub-classify (refine) an instance of BRMBusinessArea classification. These are further sub-classified (refined) by instances of BRMSubFunction.

Attributes

Attribute	Type	Description
businessLineID	Integer	The numeric identifier for a BRMBusinessLine object.

Relationships

Name	Description	Source	Target
Categorizes (Aggregation)	BRMSubFunction categorizes BRMBusinessLine	**BRMSubFunction** Role: • BRMSubFunction Role Description: • BRMSubFunction that categorizes the BRMBusinessLine Cardinality: 0..*	BRMBusinessLine Role: • BRMBusinessLine Role Description: • BRMBusinessLine categorized by the BRMSubFunction Cardinality: 0..1
Categorizes (Aggregation)	BRMBusinessLine categorizes BRMBusinessArea	**BRMBusinessLine** Role: • BRMBusinessLine Role Description: • BRMBusinessLine categorizing BRMBusinessArea Cardinality: 0..*	BRMBusinessArea Role: • BRMBusinessArea Role Description: • BRMBusinessArea categorized by the BRMBusinessLine Cardinality: 0..1

7.3.2.3 BRMSubFunction

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Business Reference Model

Description

Instances of BRMSubFunction sub-classify (refine) an instance of BRMBusinessLine classification and are used to associate agency business processes.

Attributes

Attribute	Type	Description
subFunctionID	Integer	The numeric identifier for a BRMSubFunction object.

Relationships

Name	Description	Source	Target
Aligns (Association)	BRMSubFunction Aligns BusinessProcess	**BRMSubFunction** Role: • brmSubFunction Role Description: • The brmSubFunction category that aligns the BusinessProcess Cardinality: 0..*	BusinessProcess Role: • businessProcess Role Description: • The BusinessProcess aligned by the BRMSubFunction category Cardinality: 0..*
Categorizes (Aggregation)	BRMSubFunction categorizes BRMBusinessLine	**BRMSubFunction** Role: • BRMSubFunction Role Description: • BRMSubFunction that categorizes the BRMBusinessLine Cardinality: 0..*	BRMBusinessLine Role: • BRMBusinessLine Role Description: • BRMBusinessLine categorized by the BRMSubFunction Cardinality: 0..1
Aligns (Association)	BRMSubFunction Aligns CommonBusinessProcess	**BRMSubFunction** Role: • brmSubFunction Role Description: • The BRMSubFunction category that aligns the CommonBusinessProcess Cardinality: 0..*	CommonBusinessProcess Role: • commonBusinessProcess Role Description: • The CommonBusinessProcess that is aligned by the BRMSubFunction category Cardinality: 0..*
AlignsSecondary BRM (Association)	Investment secondary alignment to the BRM	**Investment** Role: • secondaryInvestment Role Description: • A secondary investment for a BRM subfunction Cardinality: 0..*	BRMSubFunction Role: • secondaryBrmSubfunction Role Description: • The BRM Subfunction for the investment Cardinality: 0..1
AlignsPrimary BRM (Association)	Investment primary alignment to the BRM	**Investment** Role: • primaryInvestment Role Description: • A primary investment that falls into the subfunction Cardinality: 0..*	BRMSubFunction Role: • primaryBrmSubFunction Role Description: • The BRM Subfunction for the investment Cardinality: 0..1

7.3.3 Data Reference Model

Type: **Package**
Parent Package: FEA CRM

A flexible and standards-based framework to enable information sharing and reuse across the federal government via the standard description and discovery of common data and the promotion of uniform data management practices.

Data Reference Model - *(Package diagram)*

See Figure 7.5

Description

This diagram depicts the Federal Enterprise Architecture Data Reference Model sub-elements of the FEA CRM. This view is based on an interpretation of the DRM as provided by the United States Office of Management and Budget. (Refer to the "DRM_2_0_Final.pdf" available at http://www.whitehouse.gov/omb/e-gov/fea/).

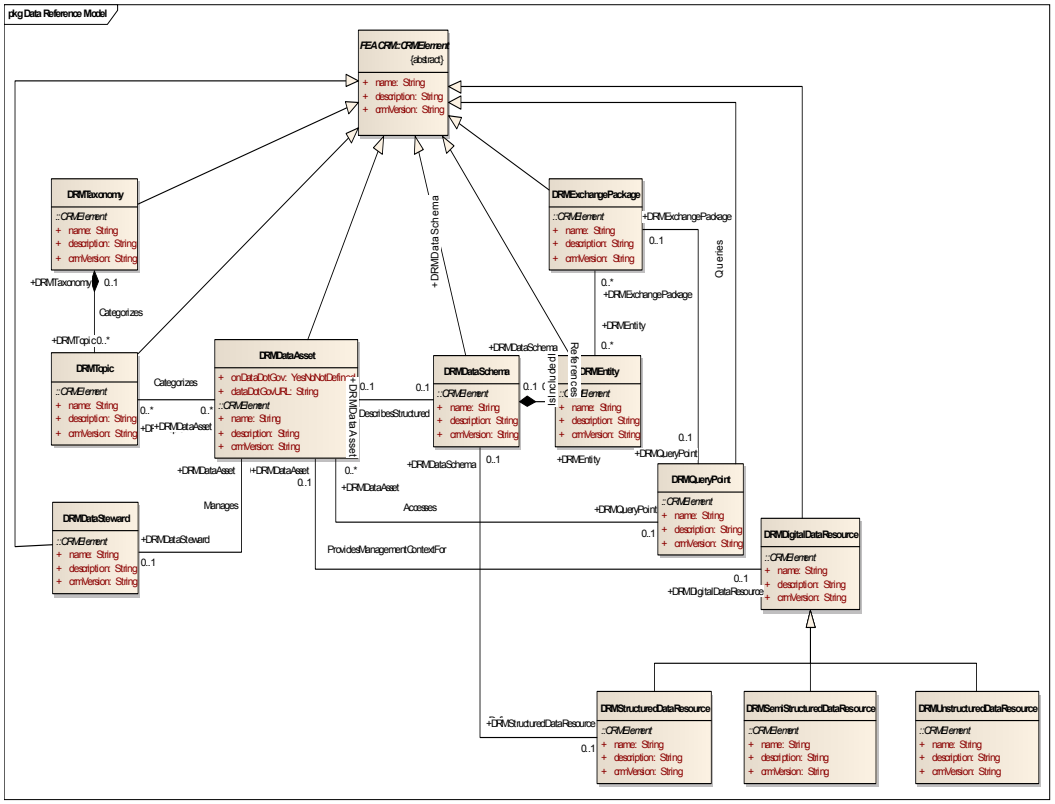


Figure 7.5 - Data Reference Model

DRMDataAsset

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Data Reference Model

Description

A managed container for data. In many cases, this will be a relational database; however, a Data Asset may also be a Web site, a document repository, directory, or data service.

Attributes

Attribute	Type	Description
onDataDotGov	YesNoNotDefined	Whether the data asset is available on data.gov
	String	The URL for the data asset reference on data.gov

Relationships

Name	Description	Source	Target
Manages (Association)	DRMDataSteward manages DRMDataAsset	**DRMDataSteward** Role: • DRMDataSteward Role Description: Cardinality: 0..1	DRMDataAsset Role: • DRMDataAsset Role Description: Cardinality: 0..*
IsSourcedFrom (Association)	PRMMeasurementIndicator is sourced from DRMDataAsset	**PRMMeasurementIndicator** Role: • PRMMeasurementIndicator Role Description: • The PRMMeasurement Indicator that is sourced from the DRMDataAsset Cardinality: 0..1	DRMDataAsset Role: • DRMDataAsset Role Description: • The DRMDataAsset that sources the PRMMeasurement Indicator Cardinality: 0..*
Categorizes (Association)	DRMDataAsset catagorizes DRMTopic	**DRMTopic** Role: • DRMTopic Role Description: • The DRMTopic that categorizes the DRMDataAsset Cardinality: 0..*	DRMDataAsset Role: • DRMDataAsset Role Description: • The DRMDataAsset categorized by the DRMTopic Cardinality: 0..*

Name	Description	Source	Target
ProvidesManagement ContextFor (Association)	DRMDataAsset provides management context for DRMDigitalDataResource	**DRMDataAsset** Role: • DRMDataAsset Role Description: Cardinality: 0..1	DRMDigitalDataResource Role: • DRMDigitalData Resource Role Description: Cardinality: 0..1
DescribesStructured (Association)	DRMDataSchema describes structured DRMDataAsset	**DRMDataSchema** Role: • DRMDataSchema Role Description: Cardinality: 0..1	DRMDataAsset Role: • DRMDataAsset Role Description: Cardinality: 0..1
Accesses (Association)	DRMQueryPoint accesses DRMQueryPoint	**DRMQueryPoint** Role: • DRMQueryPoint Role Description: • The DRMQueryPoint accessing the DRMDataAsset Cardinality: 0..1	DRMDataAsset Role: • DRMDataAsset Role Description: • The DRMDataAsset queried by the DRMQueryPoint Cardinality: 0..*

DRMDataSchema

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Data Reference Model

Description

A representation of metadata, often in the form of data artifacts such as logical data models or conceptual data models. The Data Schema concept is actually a concept group, which is an aggregation of related concepts. The Data Schema concept group is comprised of those concepts pertaining to the representation of structured data.

Relationships

Name	Description	Source	Target
Defines (Association)	DRMDataSchema defines DRMStructuredDataResource	**DRMDataSchema** Role: • DRMDataSchema Role Description: • The DRMDataSchema that defines the DRMStructuredData Resource Cardinality: 0..1	DRMStructuredDataResource Role: • DRMStructuredData Resource Role Description: • The DRMStructuredData Resource defined by the DRMDataSchema Cardinality: 0..1
IsIncludedIn (Aggregation)	DRMEntity is included in DRMDataSchema	**DRMEntity** Role: • DRMEntity Role Description: • The DRMEntity included in the DRMDataSchema Cardinality: 0..*	DRMDataSchema Role: • DRMDataSchema Role Description: • The DRMDataSchema including the DRMDataEntity Cardinality: 0..1
DescribesStructured (Association)	DRMDataSchema describes structured DRMDataAsset	**DRMDataSchema** Role: • DRMDataSchema Role Description: Cardinality: 0..1	DRMDataAsset Role: • DRMDataAsset Role Description: Cardinality: 0..1

DRMDataSteward

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Data Reference Model

Description

A person responsible for managing a Data Asset.

Relationships

Name	Description	Source	Target
Manages (Association)	DRMDataSteward manages DRMDataAsset	**DRMDataSteward** Role: • DRMDataSteward Role Description: Cardinality: 0..1	DRMDataAsset Role: • DRMDataAsset Role Description: Cardinality: 0..*

DRMDigitalDataResource

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Data Reference Model

Description

A digital container for information, which may be stored in structured, semi-structured, or unstructured forms. This type is further subtyped into Structured, Semi-Structured, and Unstructured Data Resource, as per the DRM 2.0.

Relationships

Name	Description	Source	Target
ProvidesManagement ContextFor (Association)	DRMDataAsset provides management context for DRMDigitalDataResource	**DRMDataAsset** Role: • DRMDataAsset Role Description: Cardinality: 0..1	DRMDigitalDataResource Role: • DRMDigitalDataResource Role Description: Cardinality: 0..1

DRMEntity

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Data Reference Model

Description

An abstraction for a person, place, object, event, or concept described (or characterized) by common Attributes. For example, “Person” and “Agency” are Entities. An instance of an Entity represents one particular occurrence of the Entity, such as a specific person or a specific agency.

Relationships

Name	Description	Source	Target
References (Association)	DRMExchangePackage references DRMEntity	**DRMExchangePackage** Role: • DRMExchangePackage Role Description: • The DRMExchangePackage that references the DRMEntity Cardinality: 0..*	DRMEntity Role: • DRMEntity Role Description: • The DRMEntity referenced by the DRMExchangePackage Cardinality: 0..*
IsStewardFor (Association)	Organization that is the steward for the DRMEntity	**Organization** Role: • steward Role Description: • The organization responsible for guiding the development of a particular DRM Entity Cardinality: 0..*	DRMEntity Role: • drmEntity Role Description: • A DRM Entity for which an organization is the steward Cardinality: 0..*
IsIncludedIn (Aggregation)	DRMEntity is included in DRMDataSchema.	**DRMEntity** Role: • DRMEntity Role Description: • The DRMEntity included in the DRMDataSchema Cardinality: 0..*	DRMDataSchema Role: • DRMDataSchema Role Description: • The DRMDataSchema including the DRMDataEntity Cardinality: 0..1

DRMExchangePackage

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Data Reference Model

Description

A description of a specific recurring data exchange between a supplier and a consumer. An Exchange Package contains information (metadata) relating to the exchange (such as Supplier ID, Consumer ID, validity period for data, etc.), as well as a reference to the Payload (message content) for the exchange. An Exchange Package can also be used to define the result format for a query accepted and processed by a Query Point in a data sharing scenario.

Relationships

Name	Description	Source	Target
References (Association)	DRMExchangePackage references DRMEntity	**DRMExchangePackage** Role: • DRMExchangePackage Role Description: • The DRMExchangePackage that references the DRMEntity Cardinality: 0..*	DRMEntity Role: • DRMEntity Role Description: • The DRMEntity referenced by the DRMExchangePackage Cardinality: 0..*
Consumes (Association)	SystemServiceInterface Consumes DRMExchangePackage	**SystemServiceInterface** Role: • consumingSystemService Interface Role Description: • The SystemServiceInterface that consumes the DRMExchangePackage Cardinality: 0..*	DRMExchangePackage Role: • consumedDRMExchange Package Role Description: • The DRMExchangePackage that the SystemService Interface consumes Cardinality: 0..*
Supplies (Association)	SystemServiceInterface Supplies DRMExchangePackage	**SystemServiceInterface** Role: • supplyingSystemService Interface Role Description: • The SystemServiceInterface that supplies the DRMExchangePackage Cardinality: 0..*	DRMExchangePackage Role: • suppliedDRMExchangePackage Role Description: • The DRMExchangePackage that the SystemService Interface supplies Cardinality: 0..*
Owns (Association)	The organization that owns the DRMExchangePackage	**Organization** Role: • owner Role Description: • The organization that owns a particular DRM Exchange Package Cardinality: 0..*	DRMExchangePackage Role: • ownedDrmExchangePackage Role Description: • a DRM Exchange Package owned by an Organization Cardinality: 0..*
Uses (Association)	CommonBusiness Process uses DRMExchangePackage	**CommonBusinessProcess** Role: • usingCommonBusinessProcess Role Description: • The CommonBusinessProcess that uses the DRMExchangePackage Cardinality: 0..*	DRMExchangePackage Role: • usedDRMExchangePackage Role Description: • The DRMExchangePackage used by the CommonBusiness Process Cardinality: 0..*

Queries (Association)	DRMExchangePackage queries DRMQueryPoint	**DRMExchangePackage** Role: • DRMExchangePackage Role Description: • The DRMExchangePackage that queries the DRMQueryPoint Cardinality: 0..1	DRMQueryPoint Role: • DRMQueryPoint Role Description: • The DRMQueryPoint queried by the DRMExchangePackage Cardinality: 0..1
Exchanges (Association)	SharedService Exchanges DRMExchangePackage	**SharedService** Role: • sharedService Role Description: • The SharedService that exchanges the DRMExchangePackage Cardinality: 0..*	DRMExchangePackage Role: • drmExchangePackage Role Description: • The DRMExchangePackage that the SharedService exchanges Cardinality: 0..*

DRMQueryPoint

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Data Reference Model

Description

An endpoint providing an interface for accessing and querying a Data Asset. A concrete representation of a Query Point may be a specific URL at which a query Web Service may be invoked. A Query Point returns a result set specified in an Exchange Package.

Relationships

Name	Description	Source	Target
Queries (Association)	DRMExchangePackage queries DRMQueryPoint	**DRMExchangePackage** Role: • DRMExchangePackage Role Description: • The DRMExchangePackage that queries the DRMQueryPoint Cardinality: 0..1	DRMQueryPoint Role: • DRMQueryPoint Role Description: • The DRMQueryPoint queried by the DRMExchangePackage Cardinality: 0..1
Accesses (Association)	DRMQueryPoint accesses DRMQueryPoint	**DRMQueryPoint** Role: • DRMQueryPoint Role Description: • The DRMQueryPoint accessing the DRMDataAsset Cardinality: 0..1	DRMDataAsset Role: • DRMDataAsset Role Description: • The DRMDataAsset queried by the DRMQueryPoint Cardinality: 0..*

DRMSemiStructuredDataResource

Type: **Class**
Specialization of: **DRMDigitalDataResource**
Parent Package: Data Reference Model

Description

A Digital Data Resource containing semi-structured data.

DRMStructuredDataResource

Type: **Class**
Specialization of: **DRMDigitalDataResource**
Parent Package: Data Reference Model

Description

A Digital Data Resource containing structured data.

Relationships

Name	Description	Source	Target
Defines (Association)	DRMDataSchema defines DRMStructuredData Resource	**DRMDataSchema** Role: • DRMDataSchema Role Description: • The DRMDataSchema that defines the DRMStructuredDataResource Cardinality: 0..1	DRMStructuredDataResource Role: • DRMStructuredData Resource Role Description: • The DRMStructuredData Resource defined by the DRMDataSchema Cardinality: 0..1

DRMTaxonomy

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Data Reference Model

Description

A collection of controlled vocabulary terms organized into a hierarchical structure. Taxonomies provide a means for categorizing or classifying information within a reasonably well-defined associative structure. Each term in a taxonomy is in one or more parent/child (broader/narrower) relationships to other terms.

Relationships

Name	Description	Source	Target
Categorizes (Aggregation)	DRMTopic categorizes DRMTaxonomy	**DRMTopic** Role: • DRMTopic Role Description: • The DRMTopic that categorizes the DRMTaxonomy Cardinality: 0..*	DRMTaxonomy Role: • DRMTaxonomy Role Description: • The DRMTaxonomy that the DRMTopic categorizes Cardinality: 0..1

DRMTopic

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Data Reference Model

Description

A category within a Taxonomy. A Topic is the central concept for applying context to data. For example, an agency may have a Taxonomy representing their organizational structure. In such a Taxonomy, each role in the organizational structure (e.g., CIO) represents a Topic. Topic is often synonymous with “node.”

Relationships

Name	Description	Source	Target
Categorizes (Aggregation)	DRMTopic categorizes DRMTaxonomy	**DRMTopic** Role: • DRMTopic Role Description: • The DRMTopic that categorizes the DRMTaxonomy Cardinality: 0..*	DRMTaxonomy Role: • DRMTaxonomy Role Description: • The DRMTaxonomy that the DRMTopic categorizes Cardinality: 0..1
Categorizes (Association)	DRMDataAsset catagorizes DRMTopic	**DRMTopic** Role: • DRMTopic Role Description: • The DRMTopic that categorizes the DRMDataAsset Cardinality: 0..*	DRMDataAsset Role: • DRMDataAsset Role Description: • The DRMDataAsset categorized by the DRMTopic Cardinality: 0..*

DRMUnstructuredDataResource

Type: **Class**
Specialization of: **DRMDigitalDataResource**
Parent Package: Data Reference Model

Description

A Digital Data Resource containing unstructured data.

7.3.4 Performance Reference Model

Type: **Package**
Package: FEA CRM

The Performance Reference Model (PRM) provides both a taxonomy for classifying metrics used by agencies to evaluate performance and a means for defining specific metrics, as well as capture data related to those metrics.

The PRM taxonomy is instantiated through the use of the PRMMeasurementArea, PRMMeasurementCategory, and PRMMeasurementGrouping types. That instantiation is provided in the Consolidated Reference Model. [http://www.whitehouse.gov/omb/assets/fea_docs/FEA_CRM_v23_Final_Oct_2007_Revised.pdf and http://www.whitehouse.gov/omb/asset.aspx?AssetId=472 (in XML)].

The PRMMeasurementIndicator type is used to define specific metrics, with the PRMMeasurementPoint type used to capture the related metric data.

Performance Reference Model - *(Package diagram)*

See Figure 7.6

Description

This diagram depicts the Federal Enterprise Architecture Performance Reference Model sub-elements of the FEA CRM. This view is based on an interpretation of the PRM as provided by the United States Office of Management and Budget (OMB). (Refer to the "DRM_2_0_Final.pdf," available at http://www.whitehouse.gov/omb/e-gov/fea/).

The three class objects that are shaded in yellow indicate that these elements have been added, as an interpretation of the CRM document, to extend the PRM. This was done in order to allow association of the "PRM Performance Measurement Indicator" class with related instantiated measurements, as well as represent the details of the data sets upon which those measurements are based.

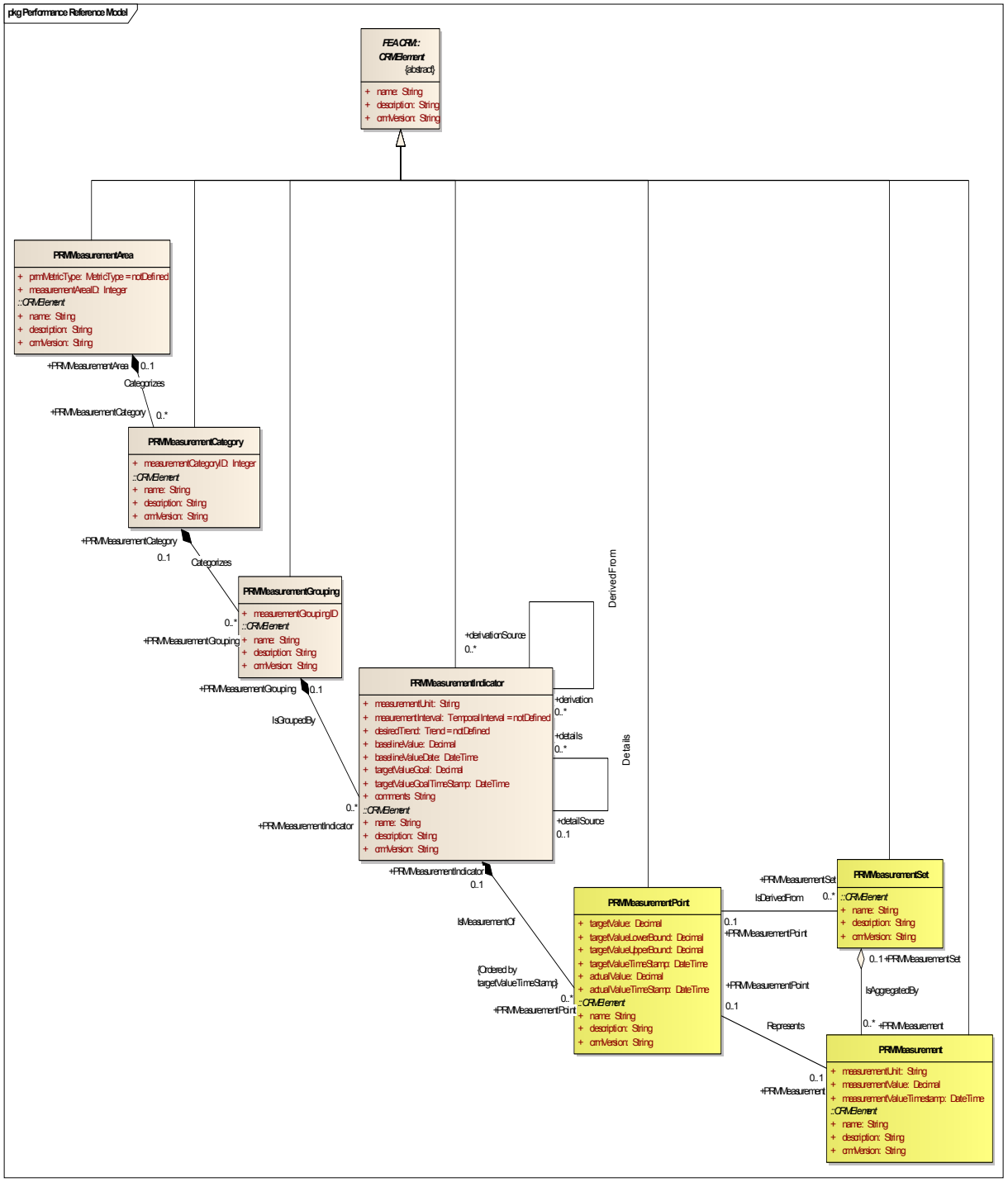


Figure 7.6 - Performance Reference Model

Performance Reference Model Context - (*Logical diagram*)

See Figure 7.7

Description

This diagram depicts the use of the Performance Reference Model in the context of key entities with which it has associations. The association with the BMM Assessment class supports performance analysis. The association with the DRMDataAsset class allows identification of where detailed performance indicator data can be found, i.e., on the data.gov web site.

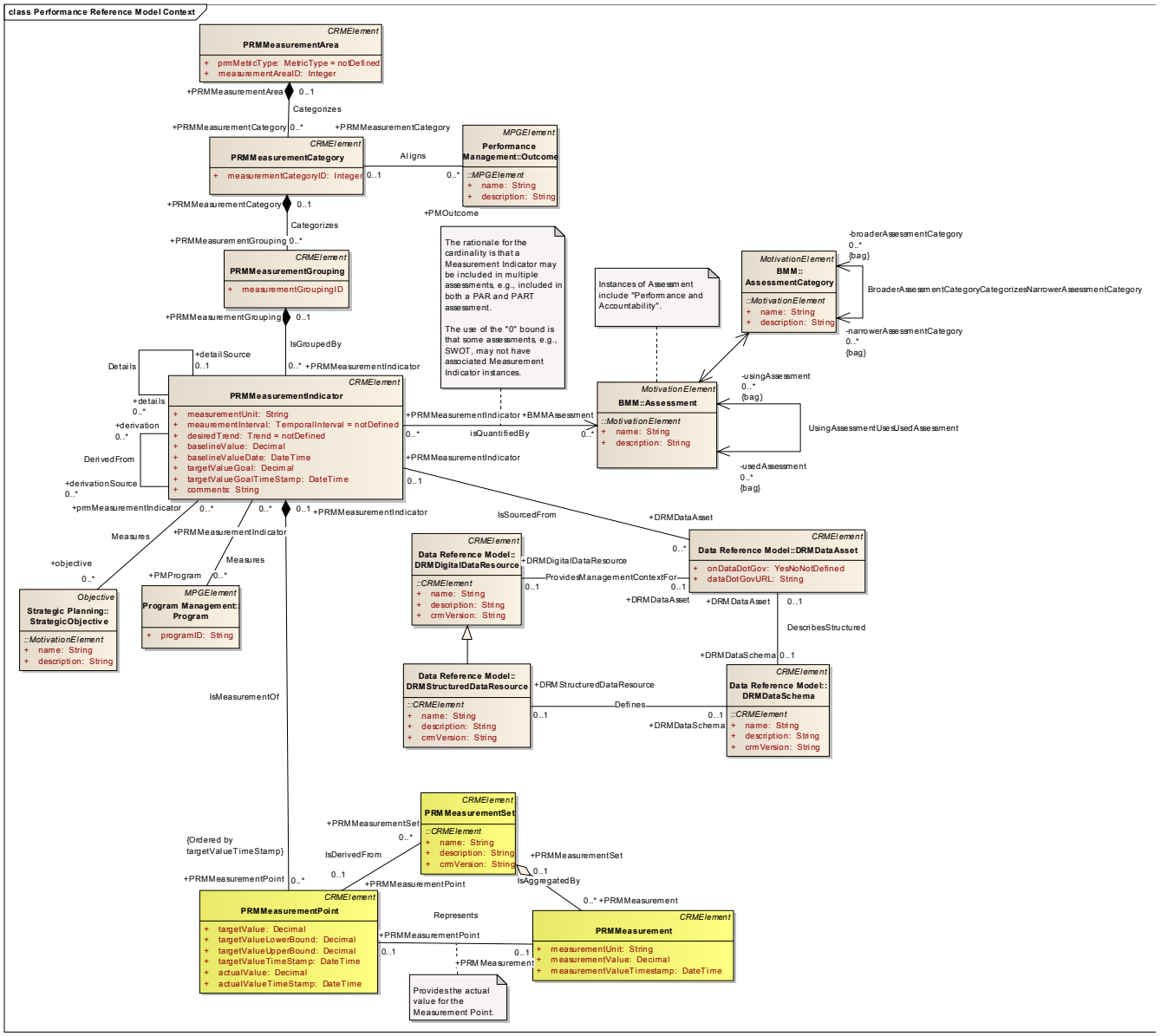


Figure 7.7 - Performance Reference Model Context

PRMMeasurement

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Performance Reference Model

Description

Quantitative description of a phenomenon (or phenomena) using standard units, potentially across multiple dimensions of measure, and made at a specific point in time.

Attributes

Attribute	Type	Description
measurementUnit	String	The unit of measure
measurementValue	Decimal	The numeric value of the measurement
measurementValueTimestamp	DateTime	The date and time at which the measurement was taken or for which derived.

Relationships

Name	Description	Source	Target
IsAggregatedBy (Aggregation)	PRMMeasurement is aggregated by PRMMeasurementSet	**PRMMeasurement** Role: • PRMMeasurement Role Description: • A PRMMeasurement that is a member of a PRMMeasurementSet Cardinality: 0..*	PRMMeasurementSet Role: • PRMMeasurementSet Role Description: • The PRMMeasurementSet of which the PRMMeasurement is a member Cardinality: 0..1
Represents (Association)	PRMMeasurementPoint represents PRMMeasurement	**PRMMeasurementPoint** Role: • PRMMeasurementPoint Role Description: • The PRMMeasurementPoint representing the PRMMeasurement Cardinality: 0..1	PRMMeasurement Role: • PRMMeasurement Role Description: • The PRMMeasurement represented by the PRMMeasurement Point Cardinality: 0..1

PRMMeasurementArea

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Performance Reference Model

Description

Instances of PRMMeasurementArea provide the highest-level categorization of the metrics (PRMMeasurementIndicator instances) used to evaluate agency performance, in the dimensions of input, output, and outcome measures. These are further sub-classified (refined) by instances of PRMMeasurementCategory.

Attributes

Attribute	Type	Description
prmMetricType	MetricType	The type of metric: Input, Output, or Outcome.
measurementAreaID	Integer	Numeric identifier for the measurement area

Relationships

Name	Description	Source	Target
Categorizes (Aggregation)	PRMMeasurementCategory categorizes PRMMeasurementArea	**PRMMeasurementCategory** Role: • PRMMeasurement Category Role Description: • PRMMeasurement Category that categorizes the PRMMeasurement Area Cardinality: 0..*	PRMMeasurementArea Role: • PRMMeasurementArea Role Description: • PRMMeasurementArea categorized by the PRMMeasurementCategory Cardinality: 0..1

PRMMeasurementCategory

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Performance Reference Model

Description

Instances of PRMMeasurementCategory sub-classify (refine) an instance of PRMMeasurementArea classification. These are further sub-classified (refined) by instances of PRMMeasurementGrouping.

Attributes

Attribute	Type	Description
measurementCategoryID	Integer	Numeric identifier for the measurement category.

Relationships

Name	Description	Source	Target
Categorizes (Aggregation)	PRMMeasurementGrouping categorizes PRMMeasurementCategory	**PRMMeasurementGrouping** Role: • PRMMeasurementGrouping Role Description: • PRMMeasurementGrouping that categorizes the PRMMeasurementCategory Cardinality: 0..*	PRMMeasurementCategory Role: • PRMMeasurementCategory Role Description: • PRMMeasurementCategory that is categorized by the PRMMeasurementGrouping Cardinality: 0..1
Categorizes (Aggregation)	PRMMeasurementCategory categorizes PRMMeasurementArea	**PRMMeasurementCategory** Role: • PRMMeasurementCategory Role Description: • PRMMeasurementCategory that categorizes the PRMMeasurementArea Cardinality: 0..*	PRMMeasurementArea Role: • PRMMeasurementArea Role Description: • PRMMeasurementArea categorized by the PRMMeasurementCategory Cardinality: 0..1
Aligns (Association)	PRMMeasurementCategory aligns PMOutcome	**PRMMeasurementCategory** Role: • PRMMeasurementCategory Role Description: Cardinality: 0..1	Outcome Role: • PMOutcome Role Description: Cardinality: 0..*

PRMMeasurementGrouping

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Performance Reference Model

Description

Instances of PRMMeasurementGrouping sub-classify (refine) an instance of PRMMeasurementCategory classification and are used to classify agency metrics represented by instances of PRMMeasurementIndicator.

Attributes

Attribute	Type	Description
measurementGroupingID		The numeric identifier for the Measurement Grouping

Relationships

Name	Description	Source	Target
IsGroupedBy (Aggregation)	PRMMeasurementIndicator is grouped by PRMMeasurementGrouping	**PRMMeasurementIndicator** Role: • PRMMeasurementIndicator Role Description: • PRMMeasurementIndicator grouped by the PRMMeasurementGrouping Cardinality: 0..*	PRMMeasurementGrouping Role: • PRMMeasurementGrouping Role Description: • PRMMeasurementGrouping that groups the PRMMeasurementIndicator Cardinality: 0..1
Categorizes (Aggregation)	PRMMeasurementGrouping categorizes PRMMeasurementCategory	**PRMMeasurementGrouping** Role: • PRMMeasurementGrouping Role Description: • PRMMeasurementGrouping that categorizes the PRMMeasurementCategory Cardinality: 0..*	PRMMeasurementCategory Role: • PRMMeasurementCategory Role Description: • PRMMeasurementCategory that is categorized by the PRMMeasurementGrouping Cardinality: 0..1

PRMMeasurementIndicator

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Performance Reference Model

Description

Instances of PRMMeasurementIndicator describe specific metrics used to evaluate agency performance. They are defined by the agency. Such measures of agency performance may be defined across broad areas of concern--from those used to monitor programs and projects to detailed measures related to the performance of processes or systems. Each metric defined should support quantitative analysis, including description of units of measure, baseline (starting point) and target values, the strategic planning horizon for which the target values are specified (valid), and the time interval between discrete measurement values being taken.

Instances of PRMMeasurementIndicator are classified by PRMMeasurementGrouping instances.

Attributes

Attribute	Type	Description
measurementUnit	String	The unit of measure
meaurementInterval	TemporalInterval	The duration of the inter-measurement period
desiredTrend	Trend	The desired direction of measurement value trend: Increasing, Decreasing, or Steady State.
baselineValue	Decimal	The starting point value of the measurement indicator
baselineValueDate	DateTime	Date the performance indicator baseline value was set
targetValueGoal	Decimal	The desired value of the measurement indicator
targetValueGoalTimeStamp	DateTime	The point in time at which the desired value for the measurement indicator is intended to be reached.
comments	String	A comment that may provide further explanation of the measurement indicator.

Relationships

Name	Description	Source	Target
isQuantifiedBy (Association)	BMMAssessment isQuantifiedBy PRMMeasurementIndicator	**Assessment** Role: • BMMAssessment Role Description: • The Assessment quantified by the PRMMeasure Indicator. Cardinality: 0..*	PRMMeasurementIndicator Role: • PRMMeasurementIndicator Role Description: • The PRMMeasurementIndicator that quantifies the Assessment. Cardinality: 0..*
IsGroupedBy (Aggregation)	PRMMeasurementIndicator is grouped by PRMMeasurementGrouping	**PRMMeasurementIndicator** Role: • PRMMeasurementIndicator Role Description: • PRMMeasurementIndicator grouped by the PRMMeasurementGrouping Cardinality: 0..*	PRMMeasurementGrouping Role: • PRMMeasurementGrouping Role Description: • PRMMeasurementGrouping that groups the PRMMeasurementIndicator Cardinality: 0..1
Measures (Association)	PRMMeasurementIndicator measures StrategicObjective	**PRMMeasurementIndicator** Role: • prmMeasurementIndicator Role Description: • A PRM measurement indicator for an objective Cardinality: 0..*	StrategicObjective Role: • objective Role Description: • The objective measured by the indicator Cardinality: 0..*

IsMeasurement Of (Aggregation)	PRMMeasurementPoint is measurement of PRMMeasurementIndicator	**PRMMeasurementPoint** Role: • PRMMeasurementPoint Role Description: • PRMMeasurementPoint is measure of PRMMeasurementIndicator Cardinality: 0..*	PRMMeasurementIndicator Role: • PRMMeasurementIndicator Role Description: • PRMMeasurementIndicator has measurement PRMMeasurementPoint Cardinality: 0..1
Details (Association)	Case in which the same measure is being made but at a different measurement interval.	**PRMMeasurementIndicator** Role: • detailSource Role Description: • The detailed PRMMeasurementIndicator Cardinality: 0..1	PRMMeasurementIndicator Role: • details Role Description: • The PRMMeasurement Indicator that provides the detail Cardinality: 0..*
IsSourcedFrom (Association)	PRMMeasurementIndicator is sourced from DRMDataAsset	**PRMMeasurementIndicator** Role: • PRMMeasurementIndicator Role Description: • The PRMMeasurement Indicator that is sourced from the DRMDataAsset Cardinality: 0..1	DRMDataAsset Role: • DRMDataAsset Role Description: • The DRMDataAsset that sources the PRMMeasurementIndicator Cardinality: 0..*
DerivedFrom (Association)	PRMMeasurementIndicator derived from PRMMeasurementIndicator	**PRMMeasurementIndicator** Role: • derivation Role Description: • The derived PRMMeasurementIndicator Cardinality: 0..*	PRMMeasurementIndicator Role: • derivationSource Role Description: • The PRMMeasurement Indicator on which the derived PRMMEasurement Indicator is based Cardinality: 0..*
Measures (Association)	PRMMeasurementIndicator measures PMProgram.	**PRMMeasurementIndicator** Role: • PRMMeasurementIndicator Role Description: • The PRMMeasurement +Indicator that measures the performance of the Program Cardinality: 0..*	Program Role: • PMProgram Role Description: • The Program about which the PRMMeasurement Indicator measures performance Cardinality: 0..*

PRMMeasurementPoint

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Performance Reference Model

Description

An instance of PRMMeasurementPoint describes a measurement sample taken of an associated PRMMeasurementIndicator instance at a specific point in time. PRMMeasurementIndicator instances should be instantiated consistent with the measurement interval specified by the associated instance of PRMMeasurementIndicator. Each PRMMeasurementPoint instance can capture both the actual measured value for that interval and an intended target value, i.e., defined *a priori*, for that interval. This supports the specification of a set of (future) target values for a measurement indicator against which actual values can be compared.

Attributes

Attribute	Type	Description
targetValue	Decimal	The target value for the Measurement Point
targetValueLowerBound	Decimal	The lower bound of the target value for the Measurement Point.
targetValueUpperBound	Decimal	The upper bound of the target value for the Measurement Point
targetValueTimeStamp	DateTime	The date and time at which the target value is to be achieved
actualValue	Decimal	The actual measured value for the Measurement Point
actualValueTimeStamp	DateTime	The date and time at which the actual value measurement was taken

Relationships

Name	Description	Source	Target
IsDerivedFrom (Association)	PRMMeasurementPoint is derived from PRMMeasurementSet	**PRMMeasurementPoint** Role: • PRMMeasurementPoint Role Description: • The PRMMeasurementPoint derived from the PRMMeasurementSet Cardinality: 0..1	PRMMeasurementSet Role: • PRMMeasurementSet Role Description: • The PRMMeasurementSet that provides the basis of the PRMMeasurementPoint Cardinality: 0..*

Represents (Association)	PRMMeasurementPoint represents PRMMeasurement.	**PRMMeasurementPoint** Role: • PRMMeasurementPoint Role Description: • The PRMMeasurementPoint representing the PRMMeasurement Cardinality: 0..1	PRMMeasurement Role: • PRMMeasurement Role Description: • The PRMMeasurement represented by the PRMMeasurement Point Cardinality: 0..1
IsMeasurement Of (Aggregation)	PRMMeasurementPoint is measurement of PRMMeasurement Indicator	**PRMMeasurementPoint** Role: • PRMMeasurementPoint Role Description: • PRMMeasurementPoint is measure of PRMMeasurement Indicator Cardinality: 0..*	PRMMeasurementIndicator Role: • PRMMeasurementIndicator Role Description: • PRMMeasurementIndicator has measurement PRMMeasurementPoint Cardinality: 0..1

PRMMeasurementSet

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Performance Reference Model

Description

A collection of Measurement instances.

Relationships

Name	Description	Source	Target
IsDerivedFrom (Association)	PRMMeasurementPoint is derived from PRMMeasurementSet	**PRMMeasurementPoint** Role: • PRMMeasurementPoint Role Description: • The PRMMeasurementPoint derived from the PRMMeasurementSet Cardinality: 0..1	PRMMeasurementSet Role: • PRMMeasurementSet Role Description: • The PRMMeasurementSet that provides the basis of the PRMMeasurementPoint Cardinality: 0..*
IsAggregatedBy (Aggregation)	PRMMeasurement is aggregated by PRMMeasurementSet	**PRMMeasurement** Role: • PRMMeasurement Role Description: • A PRMMeasurement that is a member of a PRMMeasurementSet. Cardinality: 0..*	PRMMeasurementSet Role: • PRMMeasurementSet Role Description: • ThePRMMeasurementSet of which the PRMMeasurement is a member. Cardinality: 0..1

7.3.5 Service Component Reference Model

Type: **Package**
Package: FEA CRM

The Service Component Reference Model (SRM) provides a taxonomy for classifying service components. The first level of classification is provided by instances of SRMServiceDomain. The second level of classification is provided by instances of SRMServiceType, which represent refinements of the SRMServiceDomain classification categories. The third level of classification is provided by instances of SRMComponent, which represent refinements of the SRMServiceType classification categories.

The instantiation of the Service Component Reference Model is provided in the Consolidated Reference Model. [http://www.whitehouse.gov/omb/assets/fea_docs/FEA_CRM_v23_Final_Oct_2007_Revised.pdf and http://www.whitehouse.gov/omb/asset.aspx?AssetId=472 (in XML)].

Service Component Reference Model - *(Package diagram)*

See Figure 7.8

Description

This diagram depicts the Service Component Reference Model sub-elements of the FEA CRM. The Service Component Reference Model package provides the means to model the tiered hierarchy representing service categories as published by OMB. It serves to identify and classify horizontal and vertical Service Components supporting enterprise and their IT investments and assets. Refer to the OMB CRM document (FEA_CRM_v23_Final_Oct_2007_Revised.pdf) for additional description.

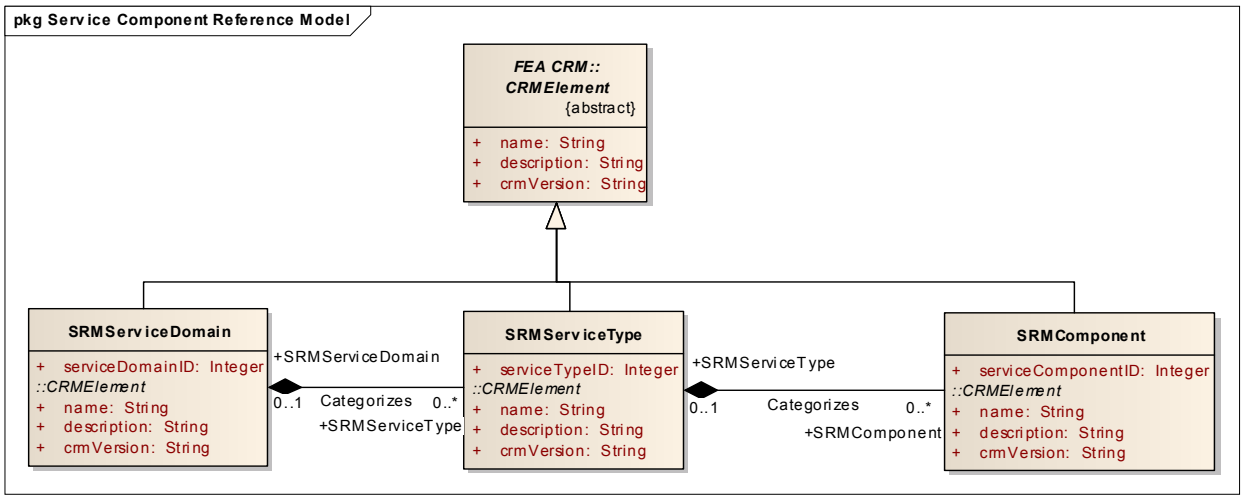


Figure 7.8 - Service Component Reference Model

SRMServiceDomain

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Service Component Reference Model

Description

Instances of SRMServiceDomain provide the highest-level categorization of the services and capabilities that support the enterprise's organizational processes and applications. These are further sub-classified (refined) by instances of SRMServiceType.

Attributes

Attribute	Type	Description
serviceDomainID	Integer	The numeric identifier for the SRMServiceDomain

Relationships

Name	Description	Source	Target
Categorizes (Aggregation)	SRMServiceType categorizes SRMServiceDomain.	**SRMServiceType** Role: • SRMServiceType Role Description: • SRMServiceType that categorizes the SRMServiceDomain Cardinality: 0..*	SRMServiceDomain Role: • SRMServiceDomain Role Description: • The SRMServiceDomain categorized by the SRMServiceType Cardinality: 0..1

SRMServiceType

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Service Component Reference Model

Description

Instances of SRMServiceType sub-classify (refine) an instance of SRMServiceDomain classification. These are further sub-classified (refined) by instances of SRMComponent.

Attributes

Attribute	Type	Description
serviceTypeID	Integer	The numeric identifier for the SRMServiceType

Relationships

Name	Description	Source	Target
Categorizes (Aggregation)	SRMServiceType categorizes SRMServiceDomain.	**SRMServiceType** Role: • SRMServiceType Role Description: • SRMServiceType that categorizes the SRMServiceDomain Cardinality: 0..*	SRMServiceDomain Role: • SRMServiceDomain Role Description: • The SRMServiceDomain categorized by the SRMServiceType Cardinality: 0..1
Categorizes (Aggregation)	SRMComponent categorizes SRMServiceType.	**SRMComponent** Role: • SRMComponent Role Description: • SRMComponent that categorizes the SRMServiceType Cardinality: 0..*	SRMServiceType Role: • SRMServiceType Role Description: • SRMServiceType the SRMComponent categorizes Cardinality: 0..1
Aligns (Association)	SRMServiceType Aligns SharedService.	**SRMServiceType** Role: • srmServiceType Role Description: • The SRMServiceType that aligns a SharedService Cardinality: 0..*	SharedService Role: • sharedService Role Description: • The SharedService that the SRMServiceType aligns Cardinality: 0..*

SRMComponent

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Service Component Reference Model

Description

Instances of SRMComponent sub-classify (refine) an instance of SRMServiceType classification and are used to associate agency service component instances. A single agency service component instance may be associated with mutiple instances of SRMComponent.

Attributes

Attribute	Type	Description
serviceComponentID	Integer	The numeric identifier for the SRMComponent

Relationships

Name	Description	Source	Target
Aligns (Association)	SRMComponent Aligns SoftwareTechnologyProduct Version	**SRMComponent** Role: • srmComponent Role Description: • An SRMComponent that aligns a SoftwareTechnology ProductVersion Cardinality: 0..*	SoftwareTechnologyProduct Version Role: • softwareTechnology ProductVersion Role Description: • A SoftwareTechnology ProductVersion that an SRMComponent aligns Cardinality: 0..*
Categorizes (Aggregation)	SRMComponent categorizes SRMServiceType	**SRMComponent** Role: • SRMComponent Role Description: • SRMComponent that categorizes the SRMServiceType Cardinality: 0..*	SRMServiceType Role: • SRMServiceType Role Description: • SRMServiceType the SRMComponent categorizes Cardinality: 0..1
Aligns (Association)	SRMComponent Aligns SharedComponent	**SRMComponent** Role: • srmComponent Role Description: • The SRMComponent that aligns a SharedComponent Cardinality: 0..*	SharedComponent Role: • sharedComponent Role Description: • The SharedComponent an SRMComponent aligns Cardinality: 0..*

AlignsSecondarySRM (Association)	Investment aligns secondary SRMComponent.	**Investment** Role: • secondaryInvestment Role Description: • Investment secondarily aligned to the SRM Component Cardinality: 0..*	SRMComponent Role: • secondarySRMComponent Role Description: • The secondary SRMComponent alignment for the Investment Cardinality: 0..1
AlignsPrimarySRM (Association)	Investment primary alignment SRMComponent.	**Investment** Role: • primaryInvestment Role Description: • Investment primarily aligned to the SRM Component Cardinality: 0..*	SRMComponent Role: • primarySrmComponent Role Description: • The primary SRMComponent alignment for the Investment Cardinality: 0..1

7.3.6 Technical Reference Model

Type: **Package**
Parent Package: FEA CRM

The Technical Reference Model (TRM) provides a taxonomy for classifying c. It provides a means for identifying commonalities in technology usage among agencies, thereby supporting the advancement of technology and service component reuse and standardization government-wide.

The first level of TRM classification is provided by instances of TRMServiceArea. The second level of classification is provided by instances of TRMServiceCategory, which represent refinements of the TRMServiceArea classification categories. The third level of classification is provided by instances of TRMServiceStandard, which represent refinements of the TRMServiceCategory classification categories.

The instantiation of the Technical Reference Model is provided in the Consolidated Reference Model. [http://www.whitehouse.gov/omb/assets/fea_docs/FEA_CRM_v23_Final_Oct_2007_Revised.pdf and http://www.whitehouse.gov/omb/asset.aspx?AssetId=472 (in XML)].

Technical Reference Model - *(Package diagram)*

See Figure 7.9

Description

This diagram depicts the Technical Reference Model sub-elements of the FEA CRM. The Technical Reference Model package provides the means to model the tiered hierarchy representing the technology and standard categories as published by the OMB. It is intended to provide a foundation to advance the reuse and standardization of technology from an enterprise-wide perspective. Refer to the OMB CRM document (FEA_CRM_v23_Final_Oct_2007_Revised.pdf) for additional description.

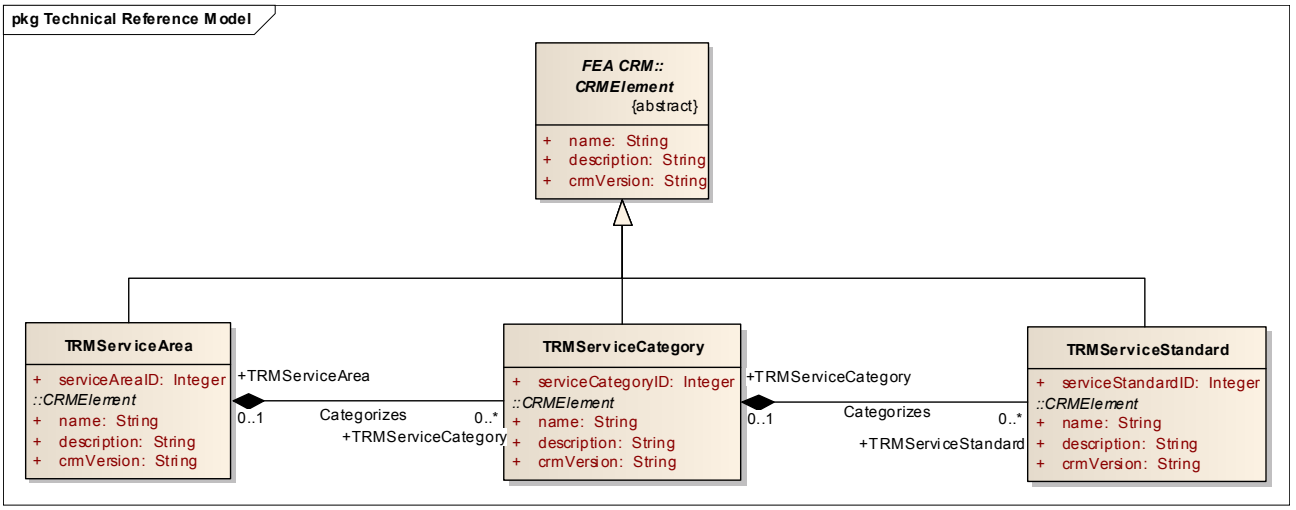


Figure 7.9 - Technical Reference Model

TRMServiceArea

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Technical Reference Model

Description

Instances of TRMServiceArea provide the highest-level categorization of the technologies and related standards used to implement agency service components and capabilities. These are further sub-classified (refined) by instances of TRMServiceCategory.

Attributes

Attribute	Type	Description
serviceAreaID	Integer	Numeric identifier for the service area

Relationships

Name	Description	Source	Target
Categorizes (Aggregation)	TRMServiceCategory categorizes TRMServiceArea	**TRMServiceCategory** Role: • TRMServiceCategory Role Description: • TRMServiceCategory that categorizes the TRMServiceArea Cardinality: 0..*	TRMServiceArea Role: • TRMServiceArea Role Description: • TRMServiceArea that the TRMServiceCategory categorizes Cardinality: 0..1

TRMServiceCategory

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Technical Reference Model

Description

Instances of TRMServiceCategory sub-classify (refine) an instance of TRMServiceArea classification. These are further sub-classified (refined) by instances of TRMServiceStandard.

Attributes

Attribute	Type	Description
serviceCategoryID	Integer	Numeric identifier for the service category

Relationships

Name	Description	Source	Target
Categorizes (Aggregation)	TRMServiceStandard categorizes TRMServiceCategory	**TRMServiceStandard** Role: • TRMServiceStandard Role Description: • TRMServiceStandard that categorizes the TRMServiceCategory Cardinality: 0..*	TRMServiceCategory Role: • TRMServiceCategory Role Description: • TRMServiceCategory that the TRMServiceStandard categorizes Cardinality: 0..1
Categorizes (Aggregation)	TRMServiceCategory categorizes TRMServiceArea	**TRMServiceCategory** Role: • TRMServiceCategory Role Description: • TRMServiceCategory that categorizes the TRMServiceArea Cardinality: 0..*	TRMServiceArea Role: • TRMServiceArea Role Description: • TRMServiceArea that the TRMServiceCategory categorizes Cardinality: 0..1

TRMServiceStandard

Type: **Class**
Specialization of: **CRMElement**
Parent Package: Technical Reference Model

Description

Instances of TRMServiceStandard sub-classify (refine) an instance of TRMServiceCategory classification and are used to associate technologies (and related standards) used to implement agency service component and capability instances.

Attributes

Attribute	Type	Description
serviceStandardID	Integer	The numeric identifier for the TRMServiceStandard

Relationships

Name	Description	Source	Target
Categorizes (Aggregation)	TRMServiceStandard categorizes TRMServiceCategory	**TRMServiceStandard** Role: • TRMServiceStandard Role Description: • TRMServiceStandard that categorizes the TRMServiceCategory Cardinality: 0..*	TRMServiceCategory Role: • TRMServiceCategory Role Description: • TRMServiceCategory that the TRMServiceStandard categorizes Cardinality: 0..1
Aligns (Association)	TRMServiceStandard Aligns SoftwareTechnologyProduct Version	**TRMServiceStandard** Role: • trmServiceStandard Role Description: • A TRMServiceStandard that aligns a SoftwareTechnologyProduct Version Cardinality: 0..*	SoftwareTechnologyProduct Version Role: • softwareTechnologyProduct Version Role Description: • A SoftwareTechnology ProductVersion that a TRMServiceStandard aligns Cardinality: 0..*
Aligns (Association)	TRMServiceStandard Aligns TechnologyStandard	**TRMServiceStandard** Role: • trmServiceStandard Role Description: • A TRMServiceStandard that aligns a TechnologyStandard Cardinality: 0..*	TechnologyStandard Role: • technologyStandard Role Description: • A TechnologyStandard that a TRMService Standard aligns Cardinality: 0..*

AlignsPrimary TRM (Association)	Investment AlignsPrimaryTRM TRMServiceStandard	**Investment** Role: • investment Role Description: • An Investment with a primiary alignment to a TRMServiceStandard Cardinality: 0..*	TRMServiceStandard Role: • trmServiceStandard Role Description: • A TRMServiceStandard that has a primary alignment to an Investment Cardinality: 0..1
Aligns (Association)	TRMServiceStandard Aligns HardwareTechnologyProduct Model	**TRMServiceStandard** Role: • trmServiceStandard Role Description: • A TRMServiceStandard that aligns a Hardware TechnologyProductModel Cardinality: 0..*	HardwareTechnologyProduct Model Role: • hardwareTechnology ProductModel Role Description: • A HardwareTechnology ProductModel that a TRMServiceStandard aligns Cardinality: 0..*

7.4 MPG

Type: **Package**
Parent Package: MPG

Package that describes the types specific to the Model for Performance-Driven Architecture.

MPG Packages - *(Package diagram)*

See Figure 7.10

Description

This diagram depicts/lists the sub-packages and class elements that, along with the elements from the FEA CRM and the BMM, comprise the MPG. The package CPIC contains those elements that relate to the Capital Planning and Investment Control of the Investment Budget cycle. The source information for these elements can be found in the OMB guidelines for budget preparation.

The Enterprise Architecture package contains sub-packages with class elements that serve to provide for architecture descriptions in terms of Business Processes, Business Services, and the Applications and Systems that are used in the enterprise. These package elements along with the Segment Architecture class elements provide structure in support of use of the Federal Segment Architecture Methodology (FSAM).

The Organization package provides class elements required to support ownership for responsibility and accountability purposes.

The remaining packages provide elements to establish relationships to the FEA CRM and the BMM in support of Architecture analysis and reporting.

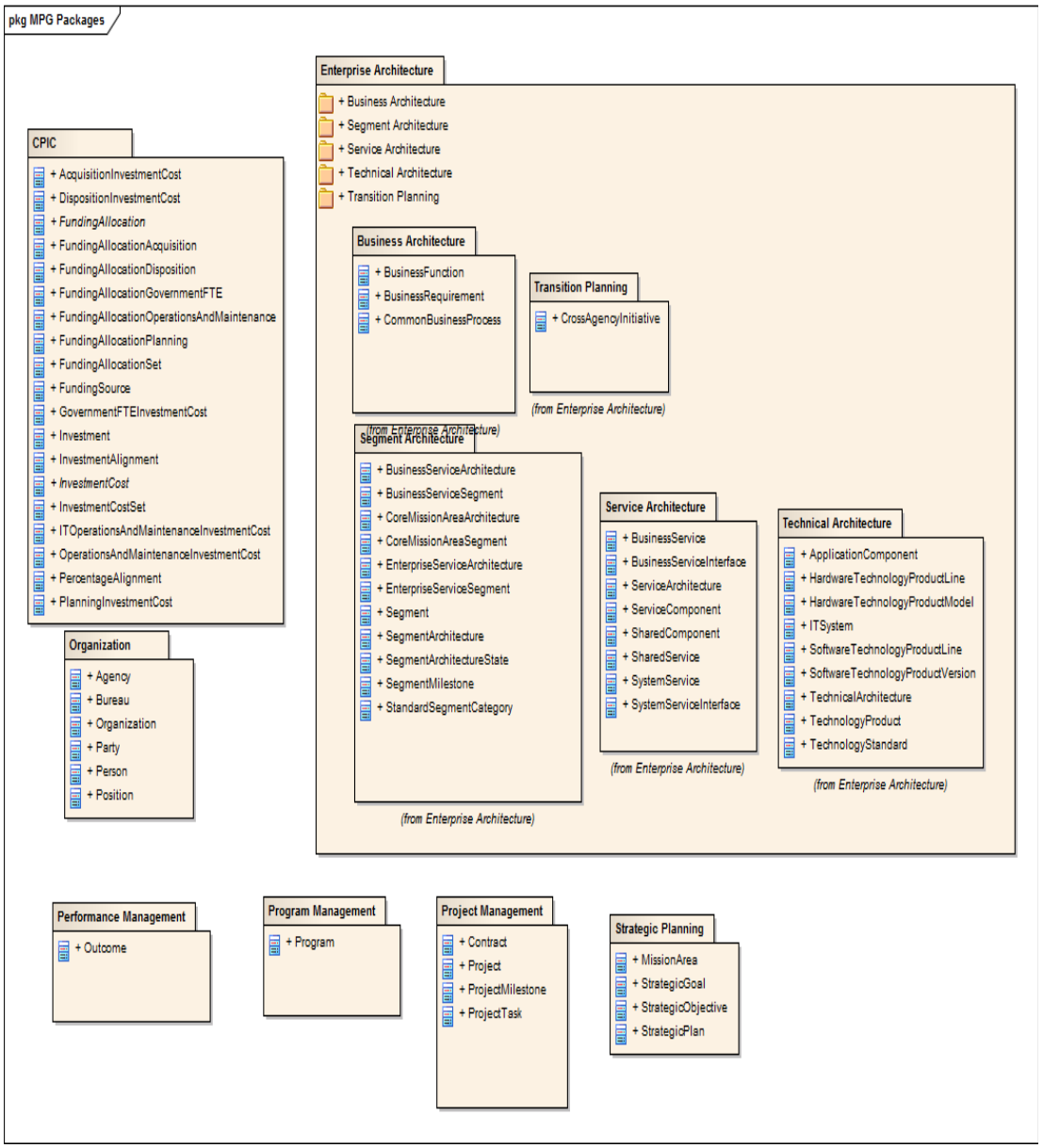


Figure 7.10 - MPG Packages

7.4.1 MPGElement

Type: **Class**
Specialization of: n/a
Abstract
Parent Package: MPG

Description

The abstract object type from which all Model for Performance-Driven Government object types are derived.

Attributes

Attribute	Type	Description
name	String	The name assigned to an MPGElement-derived object.
description	String	The description assigned to an MPGElement-derived object.

7.4.2 CPIC

Type: **Package**
Parent Package: MPG

This package contains the set of types related to modeling Capital Planning and Investment Control concepts.

CPIC - *(Package diagram)*

See Figure 7.11

Description

This diagram depicts the Capital Planning and Investment Control (CPIC) class elements that provide the means to describe Investment and cost information relating to those investments. These class elements have been established as an interpretation of the Capital Planning guidance that is published by the OMB. Refer to the document, “CIRCULAR NO. A–11, PREPARATION, SUBMISSION, AND EXECUTION OF THE BUDGET,” published annually by the OMB.

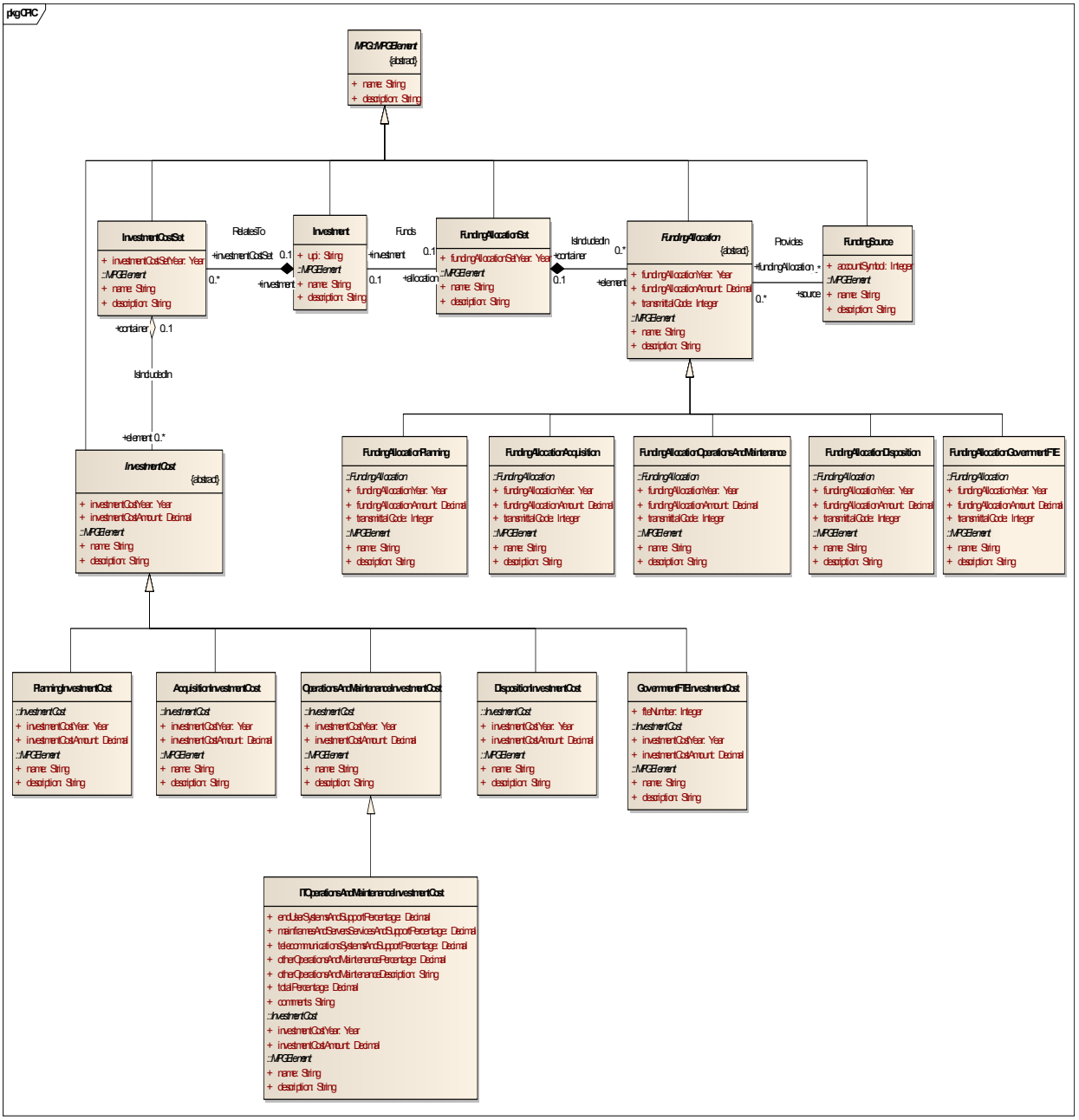


Figure 7.11 - CPIC

CPIC Context - *(Logical diagram)*

See Figure 7.12

Description

This diagram places the Investment class element and its related elements from the CPIC package in relation to key class elements that it relates to from other MPG class elements and the FEA CRM. This provides for the structure whereby the Segment architecture is related to specific investments that support specific business functions and service components. These relationships support analysis that may identify other investments supporting similar business functions or services. Through additional relationships, not shown on this diagram but inherent in the full MPG and detailed in subsequent diagrams, the system and applications that the investments fund can be analyzed for gaps and overlaps in funding application.

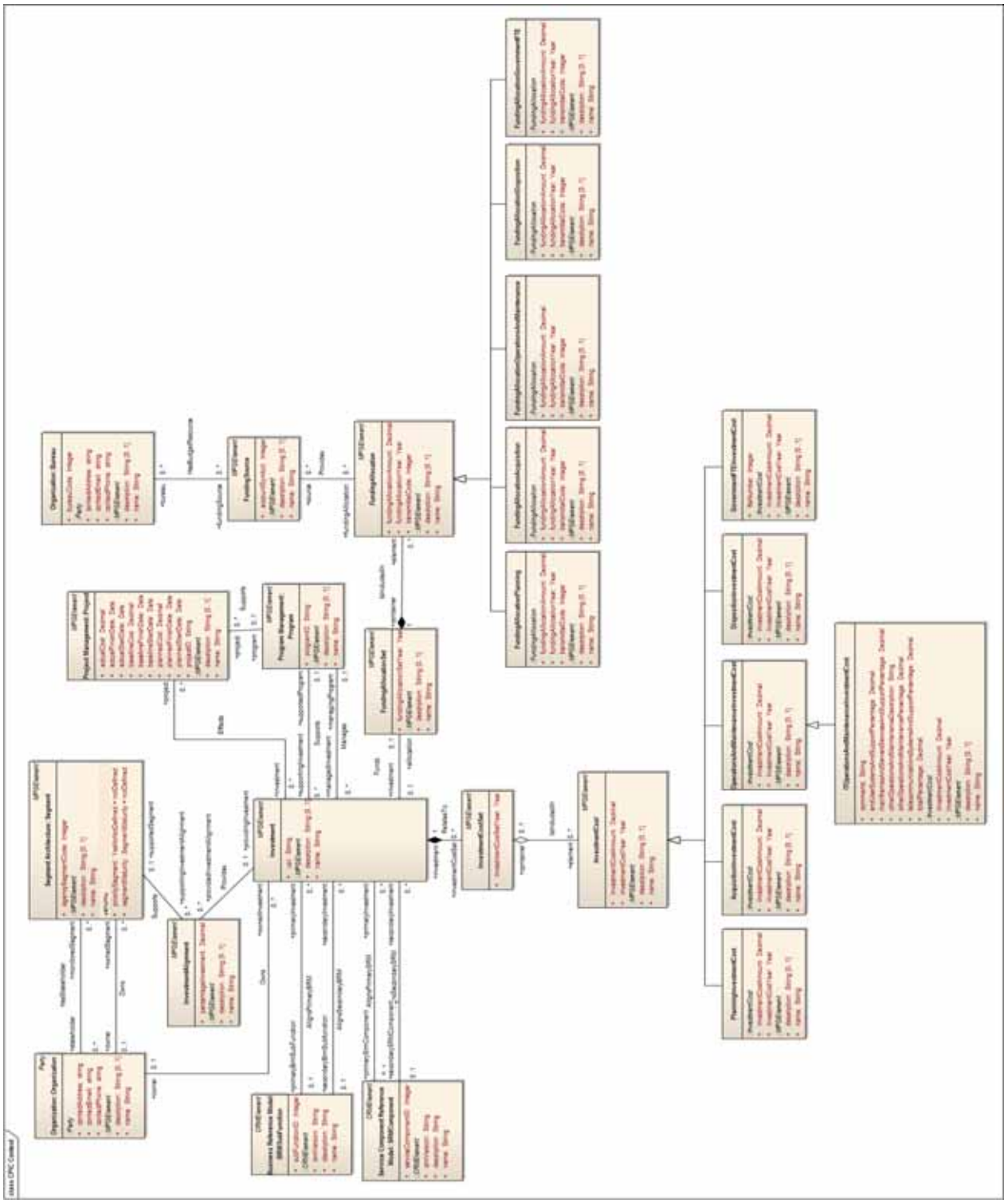


Figure 7.12 - CPIC Context

AcquisitionInvestmentCost

Type: **Class**
Specialization of: **InvestmentCost**
Parent Package: CPIC

Description

A cost incurred after receiving funding from Congress for a segment, module or the entire asset and ends when the asset is delivered and fully operational.

DispositionInvestmentCost

Type: **Class**
Specialization of: **InvestmentCost**
Parent Package: CPIC

Description

The cost in the referenced fiscal year related to the disposition of a segment, module, or entire asset and/or related means in which an investment was previously made.

FundingAllocation

Type: **Class**
Specialization of: **MPGElement**
Abstract
Parent Package: CPIC

Description

A distribution of funds to be applied toward the overall funding requirements of an Investment.

Attributes

Attribute	Type	Description
fundingAllocationYear	Year	Fiscal year for which the funding allocation is valid
fundingAllocationAmount	Decimal	The amount of funding allocation in $M
transmittalCode	Integer	The one-digit code associated with the account in MAX and identifies the nature or timing of the associated schedules: 0 - Regular budget schedules. 1 - Supplemental proposal. Use only for requesting supplemental CY amounts. 2 - Legislative proposal, not subject to PAYGO. 3 - Appropriations language to be transmitted later. 4 - Legislative proposal, subject to PAYGO. 5 - Rescission proposal. 9 - Reserved for OMB use.

Relationships

Name	Description	Source	Target
IsIncludedIn (Aggregation)	FundingAllocation is included in FundingAllocationSet	**FundingAllocation** Role: • element Role Description: • FundingAllocation include in the FundingAllocationSet. Cardinality: 0..*	FundingAllocationSet Role: • container Role Description: • The FundingAllocationSet that includes the FundingAllocation Cardinality: 0..1
Provides (Association)	FundingSource provides FundingAllocation	**FundingSource** Role: • source Role Description: • FundingSource that provides the FundingAllocation Cardinality: 0..*	FundingAllocation Role: • fundingAllocation Role Description: • The FundingAllocation provided by the FundingSource Cardinality: 0..*

FundingAllocationAcquisition

Type: **Class**
Specialization of: **FundingAllocation**
Parent Package: CPIC

Description

Funding allocated for acquisition for the referenced fiscal year.

FundingAllocationDisposition

Type: **Class**
Specialization of: **FundingAllocation**
Parent Package: CPIC

Description

Funding allocation for disposition in the referenced fiscal year.

FundingAllocationGovernmentFTE

Type: **Class**
Specialization of: **FundingAllocation**
Parent Package: CPIC

Description

Funding allocated for government full time equivalent (FTE) personnel resources for the referenced fiscal year.

FundingAllocationOperationsAndMaintenance

Type: **Class**
Specialization of: **FundingAllocation**
Parent Package: CPIC

Description

Funding allocated for operations and maintenenace for the referenced fiscal year.

FundingAllocationPlanning

Type: **Class**
Specialization of: **FundingAllocation**
Parent Package: CPIC

Description

Funding allocated for planning for the referenced fiscal year.

FundingAllocationSet

Type: **Class**
Specialization of: **MPGElement**
Parent Package: CPIC

Description

A collection of Funding Allocation instances.

Attributes

Attribute	Type	Description
fundingAllocationSetYear	Year	The fiscal year for which the funding allocation set applies.

Relationships

Name	Description	Source	Target
IsIncludedIn (Aggregation)	FundingAllocation is included in FundingAllocationSet	**FundingAllocation** Role: • element Role Description: • FundingAllocation include in the FundingAllocationSet Cardinality: 0..*	FundingAllocationSet Role: • container Role Description: • The FundingAllocationSet that includes the FundingAllocation. Cardinality: 0..1
Funds (Association)	FundingAllocationSet funds Investment	**FundingAllocationSet** Role: • allocation Role Description: • The FundingAllocationSet that provides the Investment funding Cardinality: 0..1	Investment Role: • investment Role Description: • The Investment funded by the FundingAllocationSet Cardinality: 0..1

FundingSource

Type: **Class**
Specialization of: **MPGElement**
Parent Package: CPIC

Description

The direct appropriation or other budgetary resources an agency receives.

Attributes

Attribute	Type	Description
accountSymbol	Integer	The assigned identification code for the Funding Source. The account symbol value is based on the fund type. 0000–3899 General fund 5000–5999 Special fund 4000–4499 Public enterprise revolving fund 4500–4999 Intragovernmental revolving fund 3900–3999 Management fund 8000–8399 and 8500–8999 Trust non-revolving fund 8400–8499 Trust revolving fund 6000–6999 Deposit funds

Relationships

Name	Description	Source	Target
HasBudgetResource (Association)	Bureau has budget resource FundingSource	**Bureau** Role: • bureau Role Description: • Bureau with a particular budget source Cardinality: 0..*	FundingSource Role: • fundingSource Role Description: • A source of funding for a bureau Cardinality: 0..*
Provides (Association)	FundingSource provides FundingAllocation	**FundingSource** Role: • source Role Description: • FundingSource that provides the FundingAllocation Cardinality: 0..*	FundingAllocation Role: • fundingAllocation Role Description: • The FundingAllocation provided by the FundingSource Cardinality: 0..*

GovernmentFTEInvestmentCost

Type: **Class**
Specialization of: **InvestmentCost**
Parent Package: CPIC

Description

An Investment Cost that is based on the cost of full time equivalent government personnel for the referenced fiscal year.

Attributes

Attribute	Type	Description
fteNumber	Integer	Number of Full Time Equivalent government personnel being funded

ITOperationsAndMaintenanceInvestmentCost

Type: **Class**
Specialization of: **OperationsAndMaintenanceInvestmentCost**
Parent Package: CPIC

Description

An IT Investment Cost that is incurred due to the maintenance of an existing capital asset.

Attributes

Attribute	Type	Description
endUserSystemsAndSupportPercentage	Decimal	Percentage of investment cost for operations and maintenance of end user systems
mainframesAndServersServicesAnd SupportPercentage	Decimal	Investment cost percentage for operations and maintenance of mainframe and server computing resources
telecommunicationsSystemsAndSupport Percentage	Decimal	Investment cost percentage related to the operations and maintenance of telecommunications systems
otherOperationsAndMaintenance Percentage	Decimal	Investment cost percentage related to operations and maintenance costs not otherwise defined
otherOperationsAndMaintenance Description	String	Description of "other" operations and maintenance investment cost area
totalPercentage	Decimal	Total percentage of operations and maintenance investment cost for the referenced fiscal year related to end user systems; mainframes and servers; telecommunications systems; and other identified elements.
comments	String	Further explanatory information regarding the investment cost

Investment

Type: **Class**
Specialization of: **MPGElement**
Parent Package: CPIC

Description

The application of capital in expectation of derived benefit or other return.

Attributes

Attribute	Type	Description
upi	String	The unique project identifier assigned to the investment

Relationships

Name	Description	Source	Target
Supports (Association)	Investment supports StrategicGoal	**Investment** Role: • investment Role Description: • The Investment that supports the StrategicGoal Cardinality: 0..*	StrategicGoal Role: • investmentGoal Role Description: • The StrategicGoal supported by the Investment Cardinality: 0..*
RelatesTo (Aggregation)	InvestmentCostSet relates to Investment	**InvestmentCostSet** Role: • investmentCostSet Role Description: • InvestmentCostSet that is related to the Investment Cardinality: 0..*	Investment Role: • investment Role Description: • Investment that has the related InvestmentCostSet Cardinality: 0..1
Supports (Association)	Investment supports Contract	**Investment** Role: • supportingInvestment Role Description: • An investment that supports a contract Cardinality: 0..*	Contract Role: • supportedContract Role Description: • A contract supported by an investment Cardinality: 0..*
Owns (Association)	Organization owns Investment	**Organization** Role: • owner Role Description: • The organization that owns the ownedInvestment Cardinality: 0..1	Investment Role: • ownedInvestment Role Description: • This investment is owned by the organization playing the owner role Cardinality: 0..*
AlignsPrimary TRM (Association)	Investment AlignsPrimaryTRM TRMServiceStandard	**Investment** Role: • investment Role Description: • An Investment with a primiary alignment to an TRMServiceStandard Cardinality: 0..*	TRMServiceStandard Role: • trmServiceStandard Role Description: • A TRMServiceStandard that has a primary alignment to an Investment Cardinality: 0..1

Effects (Association)	Project effects Investment	**Project** Role: • project Role Description: • The Project that effects the objectives of the Investment Cardinality: 0..*	Investment Role: • investment Role Description: • The Investment that has its objectives effected by the Project Cardinality: 0..*
Funds (Association)	FundingAllocationSet funds Investment	**FundingAllocationSet** Role: • allocation Role Description: • The FundingAllocationSet that provides the Investment funding Cardinality: 0..1	Investment Role: • investment Role Description: • The Investment funded by the FundingAllocationSet Cardinality: 0..1
Provides (Association)	Investment provides InvestmentAlignment	**Investment** Role: • providingInvestment Role Description: • The Investment providing the InvestmentAlignment Cardinality: 0..1	InvestmentAlignment Role: • providedInvestment Alignment Role Description: • The InvestmentAlignment the Investment provides Cardinality: 0..*
AlignsSecondary SRM (Association)	Investment aligns secondary SRMComponent	**Investment** Role: • secondaryInvestment Role Description: • Investment secondarily aligned to the SRM Component Cardinality: 0..*	SRMComponent Role: • secondarySRMComponent Role Description: • The secondary SRMComponent alignment for the Investment Cardinality: 0..1
AlignsSecondary BRM (Association)	Investment secondary alignment to the BRM	**Investment** Role: • secondaryInvestment Role Description: • A secondary investment for a BRM subfunction Cardinality: 0..*	BRMSubFunction Role: • secondaryBrmSubfunction Role Description: • The BRM Subfunction for the investment Cardinality: 0..1

Supports (Association)	Investment supports Program	**Investment** Role: • supportingInvestment Role Description: • An investment that supports a program Cardinality: 0..*	Program Role: • supportedProgram Role Description: • A program supported by an investment Cardinality: 0..1
Manages (Association)	Program manages Investment	**Program** Role: • managingProgram Role Description: • Program that manages the investment Cardinality: 0..1	Investment Role: • managedInvestment Role Description: • Investment managed by a program Cardinality: 0..*
Funds (Association)	Investment Funds ITSystem	**Investment** Role: • investment Role Description: • The Investment that funds the ITSystem Cardinality: 0..*	ITSystem Role: • itSystem Role Description: • The ITSystem that is funded by the Investment Cardinality: 0..*
AlignsPrimary BRM (Association)	Investment primary alignment to the BRM	**Investment** Role: • primaryInvestment Role Description: • A primary investment that falls into the subfunction Cardinality: 0..*	BRMSubFunction Role: • primaryBrmSubFunction Role Description: • The BRM Subfunction for the investment Cardinality: 0..1
AlignsPrimary SRM (Association)	Investment primary alignment SRMComponent	**Investment** Role: • primaryInvestment Role Description: • Investment primarily aligned to the SRM Component Cardinality: 0..*	SRMComponent Role: • primarySrmComponent Role Description: • The primary SRMComponent alignment for the Investment Cardinality: 0..1

InvestmentAlignment

Type: **Class**
Specialization of: MPGElement
Parent Package: CPIC

Description

The allocation of funds from the associated investment to the related Segment's transformation.

Attributes

Attribute	Type	Description
percentageInvestment	Decimal	The percentage of the associated investment being applied to the segment

Relationships

Name	Description	Source	Target
Provides (Association)	Investment provides InvestmentAlignment	**Investment** Role: • providingInvestment Role Description: • The Investment providing the InvestmentAlignment Cardinality: 0..1	InvestmentAlignment Role: • providedInvestment Alignment Role Description: • The InvestmentAlignment the Investment provides Cardinality: 0..*
Supports (Association)	The InvestmentAlignment that supports the Segment	**InvestmentAlignment** Role: • supportingInvestment Alignment Role Description: • The InvestmentAlignment that supports the Segment Cardinality: 0..*	Segment Role: • supportedSegment Role Description: • The Segment supported by the Investmentalignment Cardinality: 0..1

InvestmentCost

Type: **Class**
Specialization of: **MPGElement**
Abstract
Parent Package: CPIC

Description

A discrete Investment Cost element.

Attributes

Attribute	Type	Description
investmentCostYear	Year	Fiscal Year in which the investment cost applies
investmentCostAmount	Decimal	Investment cost for referenced fiscal year in $M

Relationships

Name	Description	Source	Target
IsIncludedIn (Aggregation)	InvestmentCost is included in InvestmentCostSet	**InvestmentCost** Role: • element Role Description: • InvestmentCost included in the InvestmentCostSet Cardinality: 0..*	InvestmentCostSet Role: • container Role Description: • InvestmentCostSet that includes the InvestmentCost Cardinality: 0..1

InvestmentCostSet

Type: **Class**
Specialization of: **MPGElement**
Parent Package: CPIC

Description

A collection of Investment Cost instances.

Attributes

Attribute	Type	Description
investmentCostSetYear	Year	The fiscal year for the investment cost set

Relationships

Name	Description	Source	Target
RelatesTo (Aggregation)	InvestmentCostSet relates to Investment	**InvestmentCostSet** Role: • investmentCostSet Role Description: • IinvestmentCostSet that is related to the Investment Cardinality: 0..*	Investment Role: • investment Role Description: • Investment that has the related InvestmentCostSet Cardinality: 0..1
IsIncludedIn (Aggregation)	InvestmentCost is included in InvestmentCostSet	**InvestmentCost** Role: • element Role Description: • InvestmentCost included in the InvestmentCostSet Cardinality: 0..*	InvestmentCostSet Role: • container Role Description: • InvestmentCostSet that includes the InvestmentCost. Cardinality: 0..1

OperationsAndMaintenanceInvestmentCost

Type: **Class**
Specialization of: **InvestmentCost**
Parent Package: CPIC

Description

An Investment Cost for the referenced fiscal year related to the operations and maintenance of an asset and/or related means.

PlanningInvestmentCost

Type: **Class**
Specialization of: **InvestmentCost**
Parent Package: CPIC

Description

An Investment Cost that is to be incurred as part of the planning of the investment.

7.4.3 Enterprise Architecture

Type: **Package**
Parent Package: MPG

This package contains the set of types related to modeling Enterprise Architecture concepts.

Enterprise Architecture Domains - *(Package diagram)*

See Figure 7.13

Description

This diagram depicts the Enterprise Architecture package and its sub-packages, with class elements, that serve to provide for architecture descriptions in terms of Business Processes, Business Services, and the Applications and Systems that are used in the enterprise. These package elements along with the Segment Architecture class elements provide structure in support of use of the Federal Segment Architecture Methodology (FSAM).

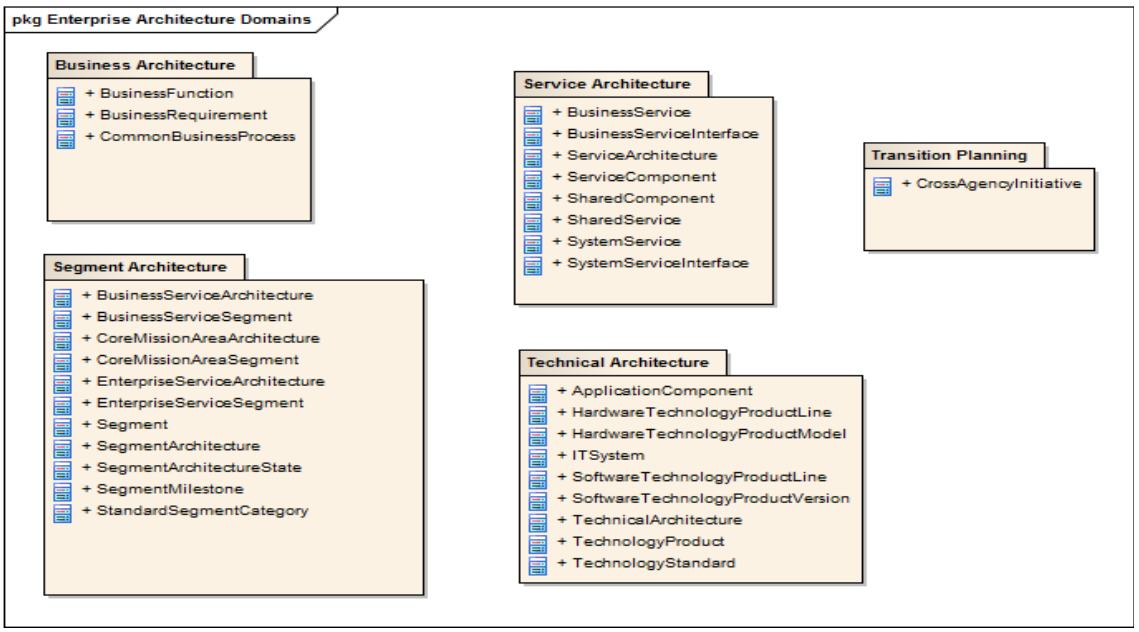


Figure 7.13 - Enterprise Architecture Domains

Business Architecture

Type: **Package**
Parent Package: Enterprise Architecture

This package contains the set of types related to modeling Business Architecture concepts.

Business Architecture - *(Package diagram)*

See Figure 7.14

Description

This diagram depicts the classes that support the definition of business processes in the enterprise. Refer to the next diagram that places these class elements in the context of other class elements used to describe the enterprise.

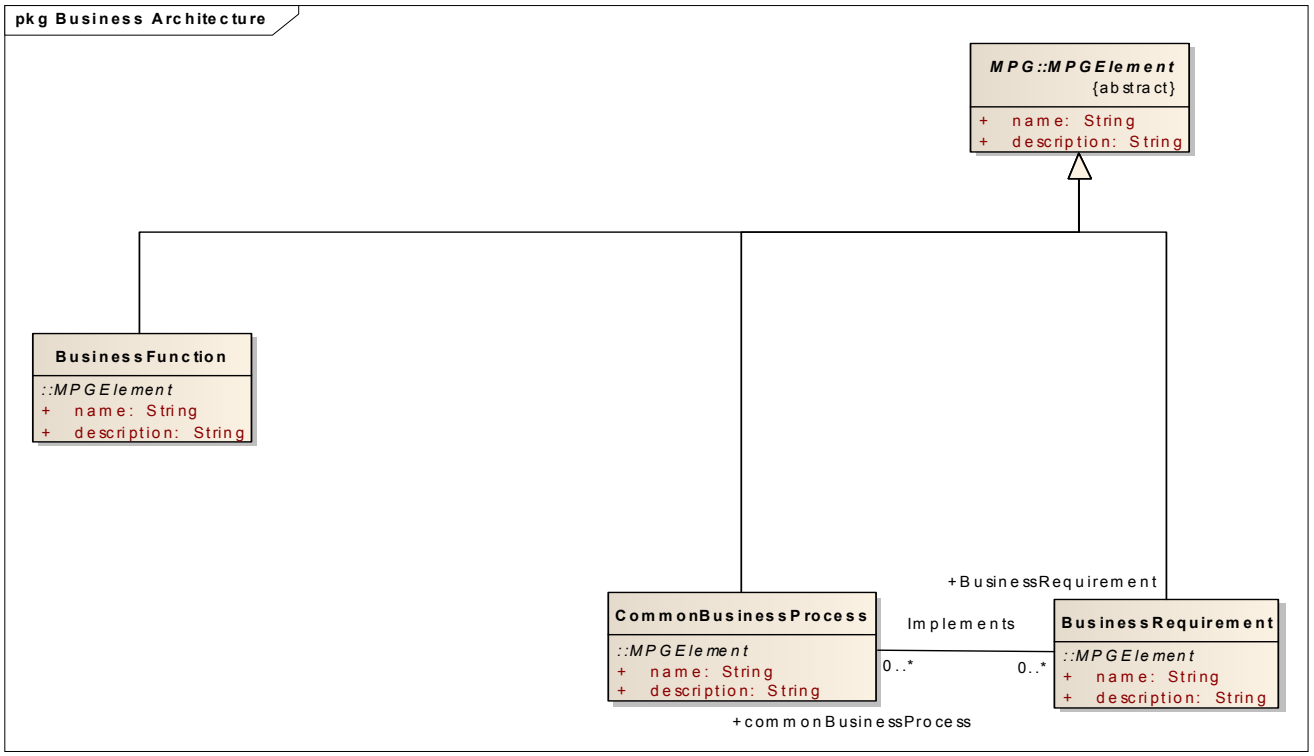


Figure 7.14 - Business Architecture

Business Architecture Context - *(Logical diagram)*

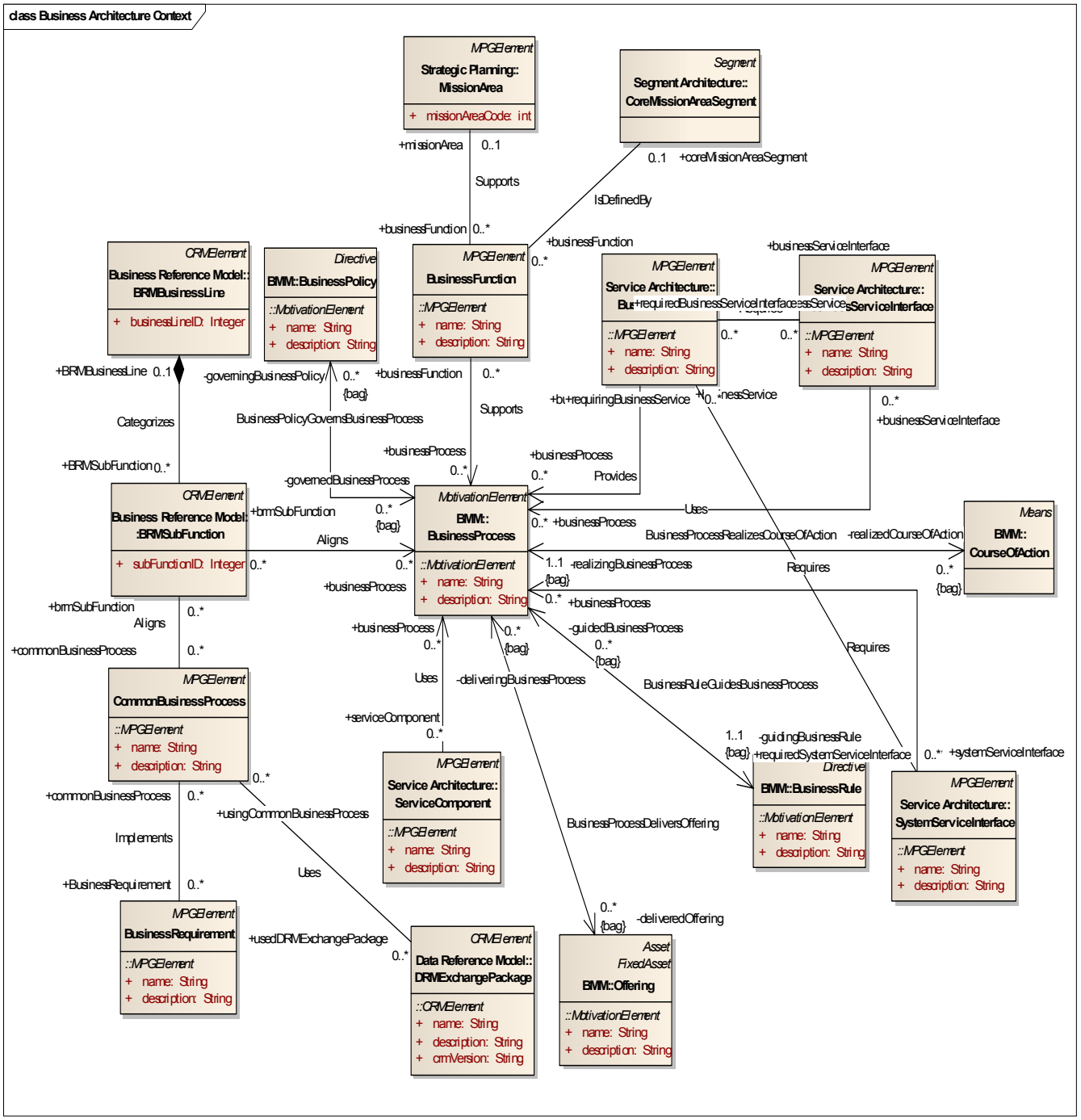
See Figure 7.15

Description

This diagram provides the MPG Business Architecture class elements in context with the class elements from the FEA CRM and the MPG packages Segment Architecture and Service Architecture. The enterprise Business Processes (central to the diagram) are mapped to the BRM Sub-functions, the lowest level of the BRM. It is through this relationship that the Service Components, System Service Interfaces, Business Services and Business Service Interfaces can be consolidated under the BRM Sub-Function for gap analysis. Note that the BusinessProcess class has been adopted from the Business Motivation Metamodel (BMM).

Moving up from Business Process, the Business Function class element provides for documentation of the enterprises business functions separate from the BRM and links up to the overall Mission Area that is being supported. The Core Mission Area Segment relationship to Business Function provides for categorization of the Architecture into a segment approach.

The lower left part of the diagram shows the relationship to two class elements that are legacy from the Federal Transition Framework (FTF). These provide for the cataloging of Common Business Processes that support the BRM Sub-Function and satisfy a Business Requirement.


class Business Architecture Context
MPGElement
Strategic Planning::
MissionArea
+ missionAreaCode: int
Segment
Segment Architecture::
CoreMissionAreaSegment
+missionArea
0..1
Supports
0..1
+coreMissionAreaSegment
IsDefinedBy
+businessFunction
0..*
+businessFunction
0..*
+businessServiceInterface
CRMElement
Business Reference Model::
BRMBusinessLine
+ businessLineID: Integer
Directive
BMM::BusinessPolicy
::MotivationElement
+ name: String
+ description: String
MPGElement
BusinessFunction
::MPGElement
+ name: String
+ description: String
MPGElement
Service Architecture::
+requiredBusinessServiceInterface
::MPGElement
+ name: String
+ description: String
MPGElement
Service Architecture::
sServiceInterface
::MPGElement
+ name: String
+ description: String
+BRMBusinessLine 0..1
-governingBusinessPolicy
0..*
{bag}
+businessFunction
0..*
+businessServiceInterface
0..*
Categorizes
BusinessPolicyGovernsBusinessProcess
Supports
+businessProcess
0..*
+businessProcess
0..*
Provides
+BRMSubFunction 0..*
-governedBusinessProcess
CRMElement
Business Reference Model::
:BRMSubFunction
+ subFunctionID: Integer
+brmSubFunction
0..*
{bag}
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BMM::
BusinessProcess
::MotivationElement
+ name: String
+ description: String
Uses
0..*
+businessProcess
Means
BMM::
CourseOfAction
Aligns
0..*
0..*
BusinessProcessRealizesCourseOfAction
-realizedCourseOfAction
0..*
{bag}
1..1
-realizingBusinessProcess
{bag}
0..*
+businessProcess
Requires
+businessProcess
0..*
+businessProcess
0..*
{bag}
-guidedBusinessProcess
0..*
{bag}
+brmSubFunction
0..*
Aligns
+commonBusinessProcess
0..*
Requires
MPGElement
CommonBusinessProcess
::MPGElement
+ name: String
+ description: String
Uses
-deliveringBusinessProcess
BusinessRuleGuidesBusinessProcess
+serviceComponent
0..*
1..1
{bag}
-guidingBusinessRule
+requiredSystemServiceInterface
0..*
+systemServiceInterface
MPGElement
Service Architecture::
ServiceComponent
::MPGElement
+ name: String
+ description: String
Directive
BMM::BusinessRule
::MotivationElement
+ name: String
+ description: String
MPGElement
Service Architecture::
SystemServiceInterface
::MPGElement
+ name: String
+ description: String
0..*
+commonBusinessProcess
0..*
+usingCommonBusinessProcess
Implements
BusinessProcessDeliversOffering
Uses
+BusinessRequirement
0..*
0..*
{bag}
-deliveredOffering
MPGElement
BusinessRequirement
::MPGElement
+ name: String
+ description: String
+usedDRMExchangePackage
0..*
CRMElement
Data Reference Model::
DRMExchangePackage
::CRMElement
+ name: String
+ description: String
+ crmVersion: String
Asset
FixedAsset
BMM::Offering
::MotivationElement
+ name: String
+ description: String

Figure 7.15

8 Model for Performance-driven Government XML Schema

This is a non-normative file and it is located at this URL:

http://www.omg.org/spec/MPG/20100322/MPG_example.xml

Annex A: MPG-specific Glossary

(normative)

AcquisitionITInvestmentCost	A cost incurred, after receiving funding from Congress, to procure a segment, module or other IT asset. Acquisition costs no longer apply when the asset becomes fully operational.
Agency	An administrative unit of the Executive Branch of the U.S. federal government.
ApplicationComponent	A package or module of an application that is self contained.
BudgetYearITInvestmentCost	An IT Investment Cost that is to be incurred in the year for which the investment is currently being budgeted.
Bureau	A type of organization unit that is used in some government organizations as a way of managing the parent organization (agency) mission and workforce. For example, the agency Department of Interior is made up of a number of bureaus (e.g., Bureau of Land Management). In the context of A11 reporting, sub-organizations may be assigned a bureau code even though the organization is not officially a bureau.
BusinessFunction	A business function is a collection of similar business activities that use common resources such as Purchasing, Receiving, or Quality Assurance. A business function is generally associated with a particular set of competencies and it not time bounded. This is in contrast to business process, which is concerned with a particular result that is time bounded.
BusinessRequirement	Specific agency requirement for compliance with this initiative that derives from a Mandate (see Mandate). A Requirement describes a specific, measurable expectation for agency conformance. (From FTF v.2)
BusinessService	Defined by the agency business model, business services include the foundational mechanisms and back-office services used to achieve the purpose of the agency, e.g., inspections and auditing, direct loans, program monitoring, and financial management.
BusinessServiceArchitecture	An architectural perspective based on the representation of the business and enterprise services comprising the Business Service Segment.
BusinessServiceInterface	A description of the point of interaction where the Business Service is provided and the parameters required for the interface to occur. The interface to a Business Service may or may not involve automation. The interface is the public view of the Business Service. See “Business Service” Compare to “System Service Interface”

BusinessServiceSegment	A Business Service segment includes common or shared business services supporting the core mission areas. Business services are defined by the agency business model, and include the foundational mechanisms and back office services used to achieve the purpose of the agency (e.g., inspections and auditing, program monitoring, human resource management, and financial management). IT investments that serve a common business function, for example - financial management or human resources management, should be included in a Business Service segment regardless of whether they serve multiple business units or are limited to a single business unit.
CommonBusinessProcess	A business process is an activity performed by agencies that yields a result of measurable value to one or more stakeholders. Each BRM Business Subfunction can be further decomposed into multiple business processes. (From FTF v2
Contract	A binding agreement between two or more parties, as in a business agreement for the delivery of goods or services at a specified price.
CoreMissionAreaArchitecture	An architectural perspective based on the representation of the business and enterprise services comprising the Core Mission Area Segment.
CoreMissionAreaSegment	A Core Mission Area segment represents a unique service area defining the mission or purpose of the agency. Core mission areas are defined by the agency business model (e.g., tactical defense, air transportation, energy supply, pollution prevention and control, and emergency response). Only IT investments for applications which cannot be used outside of a unique mission area should be included in a Core Mission segment.
CrossAgencyInitiative	OMB-sponsored initiatives such as E-Gov initiatives, Line of Business (LOB) initiatives, and other government-wide initiatives, such as Internet Protocol Version 6 (IPV6) and Homeland Security Presidential Directive 12 (HSPD-12)
CurrentYearITInvestmentCost	An IT Investment Cost that is to be incurred in the current fiscal year.
DispositionITInvestmentCost	An IT Investment Cost that is to be incurred in the year for which the investment is currently being budgeted.
EnterpriseServiceArchitecture	Enterprise Service Architecture is a type of Segment Architecture addressing the Enterprise Services. Enterprise Services are common or shared IT services that support core mission areas and business services. Enterprise services are defined by the agency service component model and include the applications and service components used to achieve the purpose of the agency (e.g., knowledge management, records management, mapping/GIS, business intelligence, and reporting).
EnterpriseServiceSegment	An Enterprise segment includes common policies, frameworks, requirements, or standards developed to be applied enterprise-wide. Few actual IT investments should be mapped to an enterprise segment. Most investments which serve an enterprise-wide purpose should be mapped to a business service segment.
FundingAllocation	A distribution of funds to be applied toward the overall funding requirements of an Investment.
FundingAllocationSet	A collection of Funding Allocation instances.

FundingSource	The direct appropriation or other budgetary resources an agency receives.
GovernmentFTEITInvestmentCost	An IT Investment Cost that is based on the cost of full time equivalent (FTE) government personnel.
HardwareTechnologyProductLine	A group of hardware products that are intended to support the same market and are closely related in terms of functional, physical and manufacturing characteristics.
HardwareTechnologyProductModel	A specific configuration within a Hardware Technology Product Line and offered for sale.
Investment	The application of capital in expectation of derived benefit or other return
ITInvestmentCost	A discrete IT Investment Cost element
InvestmentCostSet	A collection of Investment Cost instances
ITProject	A temporary endeavor undertaken to create a unique IT product, service, or result. (Definition based on PMBOK)
ITProjectMilestone	A significant IT project event
ITProjectTask	An activity performed within the scope of an IT project. IT Project Tasks may be hierarchically decomposed into sub-tasks.
ITSystem	An IT system is a combination of hardware, software and documentation united and regulated by interaction or interdependence to accomplish a set of specific functions. This is synonymous with the terms “Information System” and “Information Processing System.”
MaintenanceITInvestmentCost	An IT Investment Cost that is incurred due to the maintenance of an existing capital asset.
MissionArea	A mission area describes a functional capability that supports achievement of some aspect of a mission.
MPGElement	The abstract object type from which all Model for Performance-Driven Government object types are derived.
Organization	Organization is used to represent the hierarchy of departments and the participants in each organization (Automatons, Persons, Roles).
Outcome	Describes the intended result of carrying out a program or activity. They define an event or condition that is external to the program or activity and that is of direct importance to the intended beneficiaries and/or the public. For a tornado warning system, outcomes could be the number of lives saved and property damage averted. While performance measures must distinguish between outcomes and outputs, there must be a reasonable connection between them, with outputs supporting (i.e., leading to) outcomes in a logical fashion. (From Circular No. A–11, Part 6, Section 200, August 2009)
Party	Party is the abstract supertype of all participants in the organization
Person	A human being
PlanningITInvestmentCost	An IT Investment Cost that is to be incurred as part of the planning of the investment.
Position	A Position is a formal post inside an organization held by one or more persons.

PriorYearITInvestmentCost	An IT Investment Cost that was incurred in the fiscal year just prior to the current one.
Program	A group of related project managed in a coordinated way to obtain benefits and control not available from managing them individually. (Definition based on PMBOK)
Project	A temporary endeavor undertaken to create a unique product, service, or result. (Definition based on PMBOK)
ProjectMilestone	A significant point or event in a project. (Definition based on PMBOK)
ProjectTask	An activity with finite duration, requiring the application of resources, and delivering a concrete result, performed within the scope of a project.
Segment	Individual elements of the enterprise describing core mission areas and common or shared business services and enterprise services. Segments are defined by the enterprise architecture. (From OMB FEA Practice Guidance, November 2007)
SegmentArchitecture	A detailed, results-oriented architecture (baseline and target) and a transition strategy for a portion (or segment) of the enterprise. Segment architecture is driven by business management and delivers products that improve the delivery of services to citizens and agency staff. (From OMB FEA Practice Guidance, November 2007)
SegmentArchitectureState	A designation of the (abstract) point in time at which the associated segment architecture configuration is, or is intended to be, valid, e.g., current state, interim state, target state.
SegmentMilestone	A significant point or event in the development of a Segment.
ServiceArchitecture	An architectural perspective based on the representation of the services comprising the architecture. Services may include those provided by automated, as well as manual, means.
ServiceComponent	A constituent element (building block) of a service that implements some aspect of the service's functionality, potentially in conjunction with other service elements. Service components can be large or small, may be written by different programmers using different development environments, and may be platform independent. Such components can be executed on standalone machines, or multiple computing elements connected via LAN, Intranet, or the Internet.
SharedComponent	A representation of a service component that is used to identify and catalog the service component as one being made available for reuse.
SharedService	A representation of a service that is used to identify and catalog the service as one being made available for reuse.
SoftwareTechnologyProductLine	A group of software products that are intended to support the same market and are closely related in terms of functional capabilities, packaging, or other characteristics.
SoftwareTechnologyProductVersion	A specific configuration within a Software Technology Product Line and offered for sale.

StandardSegmentCategory	Defines a category to which a segment is aligned, e.g., Health: Access to Care. A set of standard segments create a taxonomy of such categories. Each standard segment is assigned a three-digit code in addition to its name.
StrategicGoal	Statements of aim or purpose that are set out in the agency strategic plan. Several agency programs may contribute to achievement of a strategic goal.
StrategicObjective	For each strategic goal, there are usually several underlying strategic objectives or outcome goals. For each of the underlying outcome goals, there typically are several output goals.
StrategicPlan	An agency's strategic plan defines its missions, goals, and the means by which it will measure its progress in addressing specific national problems, needs, or challenges related to its mission over the course of at least five years. It appraises the agency's capabilities, assesses the operating environment, and provides for evaluation of the strategy. A strategic plan presents a commitment to perform by describing specific results the agency aims to achieve, what actions the agency will take to realize those planned results, and how the agency will deal with current and foreseeable internal and external challenges and risks that may hinder achieving those results.
SystemService	A System Service is an entirely automated self contained construct that is available for re-use via a System Service Interface. The description conveys what is accomplished when the System Service is invoked and the conditions for using the service.
SystemServiceInterface	1) Information necessary to interact with the service in such terms as the service inputs, outputs, and associated semantics. The service description also conveys what is accomplished when the service is invoked and the conditions for using the service. 2) A description of the point of interaction where the System Service is provided and the parameters required for the interface to occur. The interface to a System Service is entirely automated. The interface is the public view of the System Service. See "System Service" Compare to "Business Service Interface"
TechnicalArchitecture	An architectural perspective based on the representation of the technical elements comprising the architecture. Technical elements include hardware and software entities.
TechnologyProduct	An abstract type from which the Hardware Technology Product Line and Software Technology Product Line types are derived.
TechnologyStandard	A specification that establishes normative criteria regarding technology-related methods, processes, and practice.