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Model for Performance-Driven Government (MPG)

Beta2

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Preface

OMG

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- CORBA Component Model (CCM)

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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.

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 Section 2.7 and to represent that model using the XML schema referenced in Section 2.8.

3 Normative References

The normative references are:

- This specification document (OMG document <u>dtc/2011-03-13 gov/2010 03 01[BDIMPG]</u>), and
- The machine-readable files corresponding to the XML schema document (platform-specific model) found in dtc/2011-03-15gev/2010-03-03

The following normative documents contain provisions that, through reference in this text, constitute provisions of this specification. Subsequent amendments to, or revisions of, any of these publications do not apply.

• Business Motivation Model (BMM)

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
 - o Business Reference Model (BRM)
 - o Service Component Reference Model (SRM)
 - o Technical Reference Model (TRM)
 - o Performance Reference Model (PRM)
 - o Data reference Model (DRM)

as well as their integration into the overall agency business context, and

• 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/2011-03-15gov/2010-03-03).

1

6.2 Acknowledgments

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Troux Technologies	Bob Daniel Jason Lilleboe

7 Model for Performance-Driven Architecture (MPG) Specification

This section 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.

7.1 Package Structure

There are two main packages that comprise MPG:

- The Federal Enterprise Architecture Consolidated Reference Model (FEA CRM) Package, and
- 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 1.

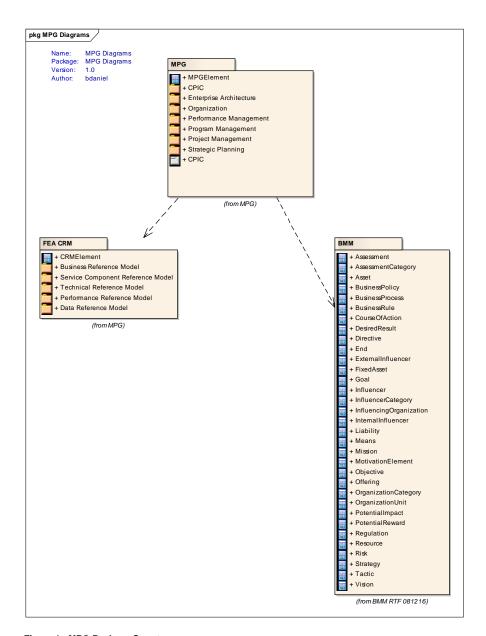


Figure 1 - MPG Package Structure

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

Type: Package MPG

Package that describes the types associated with the Federal Enterprise Architecture Consolidated Reference Models.

FEA CRM - (Logical diagram)

See Figure 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.

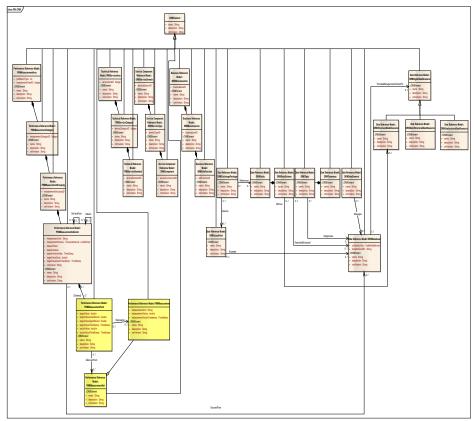


Figure 2 - FEA CRM

FEA CRM Packages - (Logical diagram)

See Figure 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 in order to elaborate the "PRM Performance Measurement Indicator" concept through association with instantiated measurements.

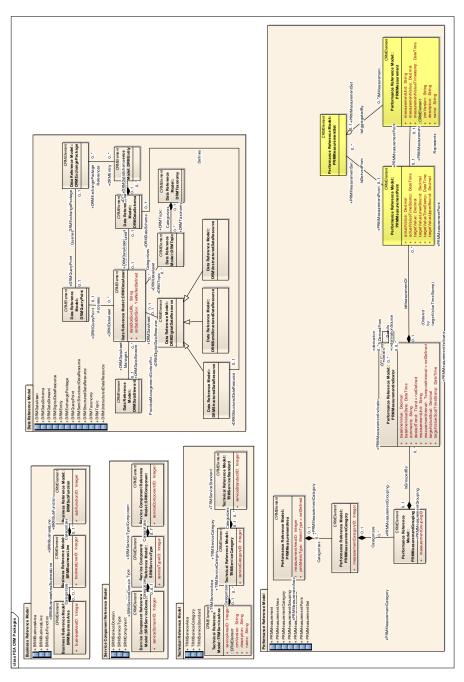


Figure 3 - FEA CRM Packages

7.2.1 CRMElement

Type: Class
Specialization of: n/a

Abstract

Parent Package: FEA CRM

Description

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

<u>Attributes</u>

Attribute	Туре	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.

7.2.2 Business Reference Model

Type: 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 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.

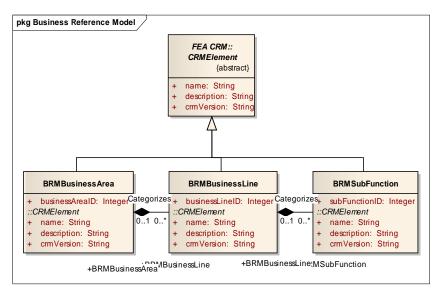


Figure 4 - Business Reference Model

BRMBusinessArea

Type: <u>Class</u>
Specialization of: <u>CRMElement</u>

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: 01

BRMBusinessLine

Type: Class
Specialization of: CRMElement

Parent Package: Business Reference Model

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

Attributes

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

Relationshins

Name	Description	Source	Target
Categorizes	BRMSubFunction categorizes	BRMSubFunction	BRMBusinessLine
(Aggregation)	BRMBusinessLine.	Role: BRMSubFunction Role Description: BRMSubFunction that categorizes the BRMBusinessLine. Cardinality: 0*	Role: BRMBusinessLine Role Description: BRMBusinessLine categorized by the BRMSubFunction. Cardinality: 01
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: 01

BRMSubFunction

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	BRMSubFunction Aligns	BRMSubFunction	BusinessProcess
(Association)	BusinessProcess.	Role:	Role:
		brmSubFunction	businessProcess
		Role Description:	Role Description:
		The brmSubFunction	The BusinessProcess aligned
		category that aligns the BusinessProcess.	by the BRMSubFunction
		Cardinality:	category.
		0*	Cardinality:
			0*
Categorizes	BRMSubFunction categorizes	BRMSubFunction	BRMBusinessLine
(Aggregation)	BRMBusinessLine.	Role:	Role:
		BRMSubFunction	BRMBusinessLine
		Role Description:	Role Description:
		BRMSubFunction that	BRMBusinessLine
		categorizes the BRMBusinessLine.	categorized by the
		Cardinality:	BRMSubFunction.
		0*	Cardinality:
			01
Aligns	BRMSubFunction Aligns	BRMSubFunction	CommonBusinessProcess
(Association)	CommonBusinessProcess.	Role:	Role:
		brmSubFunction Role Description:	commonBusinessProcess
			Role Description:
		The BRMSubFunction	The
		category that aligns the CommonBusinessProcess.	CommonBusinessProcess
		Cardinality: 0*	that is aligned by the
			BRMSubFunction category.
			Cardinality:
İ			0*
AlignsSecondaryBRM	Investment secondary alignment	Investment	BRMSubFunction
(Association)	to the BRM.	Role:	Role:
		secondaryInvestment	secondaryBrmSubfunction
		Role Description:	Role Description:
		A secondary investment for a BRM subfunction.	The BRM Subfunction for
		Cardinality:	the investment.
		0*	Cardinality:
			01
AlignsPrimaryBRM	Investment primary alignment to the BRM.	Investment	BRMSubFunction
(Association)	ше вкм.	Role:	Role:
		primaryInvestment	primaryBrmSubFunction
		Role Description: A primary investment that	Role Description:
		falls into the subfunction.	The BRM Subfunction for
		Cardinality:	the investment.
		0*	Cardinality:
			01

7.2.3 Data Reference Model

Type: 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.

<u>**Data Reference Model**</u> - (Package diagram)

See Figure 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/).

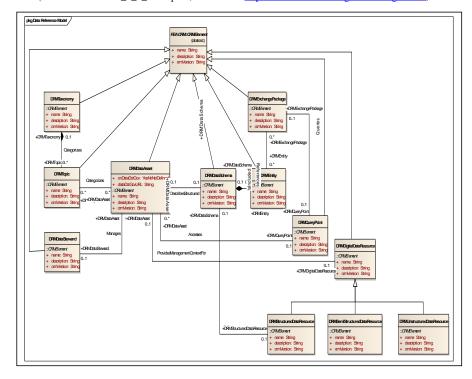


Figure 5 - Data Reference Model

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

TIVI W WOOD		
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	DRMDataSteward manages	DRMDataSteward	DRMDataAsset
(Association)	DRMDataAsset	Role: DRMDataSteward Role Description: Cardinality: 01	Role: DRMDataAsset Role Description: Cardinality: 0*
IsSourcedFrom	PRMMeasurementIndicator is	PRMMeasurementIndicator	DRMDataAsset
(Association)	sourced from DRMDataAsset	Role: PRMMeasurementIndicator Role Description: The PRMMeasurementIndicator that is sourced from the DRMDataAsset. Cardinality: 01	Role: DRMDataAsset Role Description: The DRMDataAsset that sources the PRMMeasurementIndicator 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*

ProvidesManagement ContextFor (Association)	DRMDataAsset provides management context for DRMDigitalDataResource	DRMDataAsset Role: DRMDataAsset Role Description: Cardinality: 01	DRMDigitalDataResource Role: DRMDigitalDataResource Role Description: Cardinality: 01
DescribesStructured (Association)	DRMDataSchema describes structured DRMDataAsset	DRMDataSchema Role: DRMDataSchema Role Description: Cardinality: 01	DRMDataAsset Role: DRMDataAsset Role Description: Cardinality: 01
Accesses (Association)	DRMQueryPoint accesses DRMQueryPoint	DRMQueryPoint Role: DRMQueryPoint Role Description: The DRMQueryPoint accessing the DRMDataAsset. Cardinality: 01	DRMDataAsset Role: DRMDataAsset Role Description: The DRMDataAsset queried by the DRMQieryPoint. 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 DRMStructuredDataResource. Cardinality: 01	DRMStructuredDataResource Role: DRMStructuredDataResource Role Description: The DRMStructuredDataResource defined by the DRMDataSchema. Cardinality: 01

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: 01
DescribesStructured (Association)	DRMDataSchema describes structured DRMDataAsset	DRMDataSchema Role: DRMDataSchema Role Description: Cardinality: 01	DRMDataAsset Role: DRMDataAsset Role Description: Cardinality: 01

DRMDataSteward

Type: <u>Class</u>
Specialization of: <u>CRMElement</u>

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: 01	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	DRMDataAsset provides	DRMDataAsset	DRMDigitalDataResource
ContextFor	management context for	Role:	Role:
(Association)	DRMDigitalDataResource	DRMDataAsset	DRMDigitalDataResource
		Role Description:	Role Description:
		Cardinality: 01	Cardinality: 01

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	DRMExchangePackage	DRMExchangePackage	DRMEntity
(Association)	references DRMEntity	Role: DRMExchangePackage Role Description: The DRMExchangePackage that references the DRMEntity. Cardinality: 0*	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*

	DRMEntity is included in	DRMEntity	DRMDataSchema	ì
IsincludedIn (Aggregation)	DRMEntity is included in DRMDataSchema.	Role: DRMEntity Role Description: The DRMEntity included in the	DRMDataSchema Role: DRMDataSchema Role Description: The DRMDataSchema including the DRMDataEntity. Cardinality: 01	

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	DRMExchangePackage	DRMExchangePackage	DRMEntity
(Association)	references DRMEntity	Role: DRMExchangePackage Role Description: The DRMExchangePackage that references the DRMEntity. Cardinality: 0*	Role: DRMEntity Role Description: The DRMEntity referenced by the DRMExchangePackage. Cardinality: 0*
Consumes (Association)	SystemServiceInterface Consumes DRMExchangePackage.	SystemServiceInterface Role: consumingSystemServiceInterface Role Description: The SystemServiceInterface that consumes the DRMExchangePackage. Cardinality: 0*	DRMExchangePackage Role: consumedDRMExchangePackage Role Description: The DRMExchangePackage that the SystemServiceInterface consumes. Cardinality: 0*

Supplies (Association)	SystemServiceInterface Supplies DRMExchangePackage.	SystemServiceInterface Role: supplyingSystemServiceInterface Role Description: The SystemServiceInterface that supplies the DRMExchangePackage. Cardinality: 0*	DRMExchangePackage Role: suppliedDRMExchangePackage Role Description: The DRMExchangePackage that the SystemServiceInterface supplies. Cardinality: 0*
Owns (Association)	The organization that owns the DRMExchangePackage.	Organization Role: owner Role Description: The organizatin 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)	CommonBusinessProcess 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 CommonBusinessProcess. Cardinality: 0*
Queries (Association)	DRMExchangePackage queries DRMQueryPoint	DRMExchangePackage Role: DRMExchangePackage Role Description: The DRMExchangePackage that queries the DRMQueryPoint. Cardinality: 01	DRMQueryPoint Role: DRMQueryPoint Role Description: The DRMQueryPoint queried by the DRMExchangePackage. Cardinality: 01
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	DRMExchangePackage queries	DRMExchangePackage	DRMQueryPoint
(Association)	DRMQueryPoint	Role:	Role:
		DRMExchangePackage	DRMQueryPoint
		Role Description:	Role Description:
		The DRMExchangePackage that queries the DRMQueryPoint. Cardinality:	The DRMQueryPoint queried by the DRMExchangePackage. Cardinality:
		01	01
Accesses	DRMQueryPoint accesses	DRMQueryPoint	DRMDataAsset
(Association)	DRMQueryPoint	Role:	Role:
		DRMQueryPoint	DRMDataAsset
		Role Description:	Role Description:
		The DRMQueryPoint accessing the DRMDataAsset.	The DRMDataAsset queried by the DRMQieryPoint.
		Cardinality:	Cardinality:
		01	0*

DRMSemiStructuredDataResource

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

Description

A Digital Data Resource containing semi-structured data.

DRMStructuredDataResource

Type: <u>Class</u> Specialization of: <u>DRMDigitalDataResource</u> Parent Package: Data Reference Model

Description

A Digital Data Resource containing structured data.

Relationships

Name	Description	Source	Target
Defines	DRMDataSchema defines	DRMDataSchema	DRMStructuredDataResource
(Association)	DRMStructuredDataResource.	Role:	Role:
		DRMDataSchema	DRMStructuredDataResource
		Role Description: The DRMDataSchema that	Role Description:
		defines the DRMDatascriema that defines the DRMStructuredDataResource. Cardinality: 01	The DRMStructuredDataResource defined by the DRMDataSchema. Cardinality:

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:	DRMTaxonomy Role: DRMTaxonomy Role Description: The DRMTaxonomy that the DRMTopic categorizes. Cardinality:
		0*	01

DRMTopic

Type: <u>Class</u>

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	DRMTopic categorizes	DRMTopic	DRMTaxonomy
(Aggregation)	DRMTaxonomy.	Role: DRMTopic Role Description: The DRMTopic that categorizes the DRMTaxonomy. Cardinality: 0*	Role: DRMTaxonomy Role Description: The DRMTaxonomy that the DRMTopic categorizes. Cardinality: 01
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: <u>Class</u>

Specialization of: DRMDigitalDataResource
Parent Package: Data Reference Model

Description

A Digital Data Resource containing unstructured data.

7.2.4 Performance Reference Model

Type: <u>Package</u>
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)].

 $The \ PRMMeasurement Indicator \ type \ is \ used \ to \ define \ specific \ metrics, \ with \ the \ PRMMeasurement Point \ type \ used \ to \ capture \ the \ related \ metric \ data.$

<u>Performance Reference Model</u> - (Package diagram)

See Figure 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.

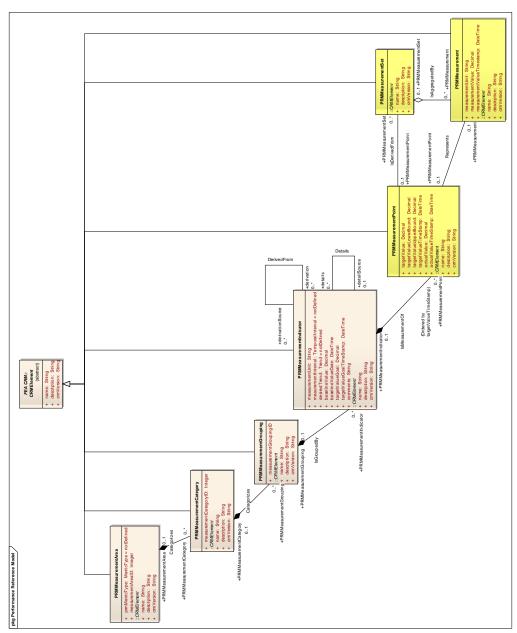


Figure 6 - Performance Reference Model

<u>Performance Reference Model Context</u> - (Logical diagram)

See Figure 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.

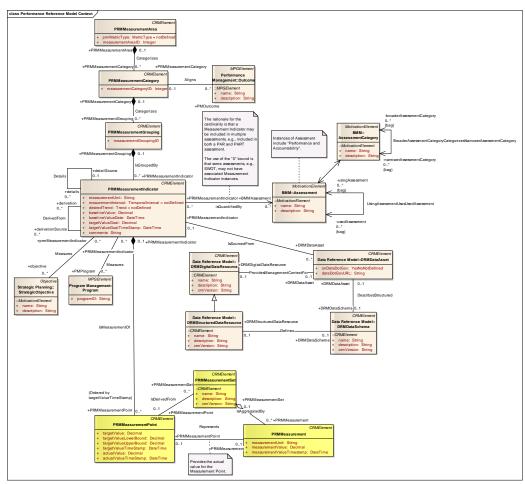


Figure 7 - Performance Reference Model Context

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.

<u>Attr</u>ibutes

Aurwaies		
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	PRMMeasurement is aggregated	PRMMeasurement	PRMMeasurementSet
(Aggregation)	by PRMMeasurementSet.	Role:	Role:
		PRMMeasurement	PRMMeasurementSet
		Role Description:	Role Description:
		A PRMMeasurement that is a member of a PRMMeasurementSet.	The PRMMeasurementSet of which the PRMMeasurement is a member.
		Cardinality:	Cardinality:
		0*	01
Represents	PRMMeasurementPoint	PRMMeasurementPoint	PRMMeasurement
(Association)	represents PRMMeasurement	Role:	Role:
		PRMMeasurementPoint	PRMMeasurement
		Role Description: The PRMMeasurementPoint	Role Description:
	representing the PRMMeasurement.	The PRMMeasurement represented by the PRMMeasurement Point.	
		Cardinality: 01	Cardinality:
			01

PRMMeasurementArea

Type: Class

Specialization of: <u>CRMElement</u>
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: PRMMeasurementCategory Role Description: PRMMeasurementCategory that categorizes thePRMMeasurementArea.	PRMMeasurementArea Role: PRMMeasurementArea Role Description: PRMMeasurementArea categorized by the
		Cardinality: 0*	PRMMeasurementCategory. Cardinality: 01

PRMMeasurementCategory

Type: Class

Specialization of: <u>CRMElement</u>
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	Туре	Description
measurementCategoryID	Integer	Numeric identifier for the measurement category.

Relationshins

Name	Description	Source	Target
Categorizes	PRMMeasurementGrouping	PRMMeasurementGrouping	PRMMeasurementCategory
(Aggregation)	categorizes PRMMeasurementCategory.	Role: PRMMeasurementGrouping Role Description: PRMMeasurementGrouping that categorizes the PRMMeasurementCategory. Cardinality: 0*	Role: PRMMeasurementCategory Role Description: PRMMeasurementCategory that is categorized by the PRMMeasurementGrouping. Cardinality: 01
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: 01
Aligns (Association)	PRMMeasurementCategory aligns PMOutcome	PRMMeasurementCategory Role: PRMMeasurementCategory Role Description: Cardinality: 01	Outcome Role: PMOutcome Role Description: Cardinality: 0*

PRMMeasurementGrouping

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

Description

 $In stances \ of \ PRMMeasurement Grouping \ sub-classify \ (refine) \ an \ instance \ of \ PRMMeasurement Category \ classification \ and \ are \ used \ to \ classify \ agency \ metrics \ represented \ by \ instances \ of \ PRMMeasurement Indicator.$

Attributes

Attribute	Туре	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: 01
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: 01

PRMMeasurementIndicator

Type: Class

 ${\it Specialization~of:} {\bf \underline{CRMElement}}$

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.

<u>Attributes</u>

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.

Attribute	Туре	Description
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.

Name	Description	Source	Target
isQuantifiedBy	BMMAssessment	Assessment	PRMMeasurementIndicator
(Association)	isQuantifiedBy PRMMeasurementIndicator	Role: BMMAssessment	Role: PRMMeasurementIndicator
		Role Description: The Assessment quantified by the PRMMeasureIndicator. Cardinality: 0.*	Role Description: The PRMMeasurementIndicator that quantifies the Assessment. Cardinality: 0*
IsGroupedBy	PRMMeasurementIndicator	PRMMeasurementIndicator	PRMMeasurementGrouping
(Aggregation)	is grouped by PRMMeasurementGrouping.	Role: PRMMeasurementIndicator	Role: PRMMeasurementGrouping
		Role Description: PRMMeasurementIndicator grouped by the PRMMeasurementGrouping. Cardinality: 0*	Role Description: PRMMeasurementGrouping that groups the PRMMeasurementIndicator. Cardinality: 01
Measures	PRMMeasurementIndicator	PRMMeasurementIndicator	StrategicObjective
(Association)	measures StrategicObjective.	Role:	Role:
		prmMeasurementIndicator	objective
		Role Description: A PRM measurement indicator for an objective. Cardinality: 0*	Role Description: The objective measured by the indicator. Cardinality: 0*
IsMeasurementOf	PRMMeasurementPoint is	PRMMeasurementPoint	PRMMeasurementIndicator
(Aggregation)	measurement of PRMMeasurementIndicator.	Role: PRMMeasurementPoint	Role: PRMMeasurementIndicator
		Role Description: PRMMeasurementPoint is measure of PRMMeasurementIndicator.	Role Description: PRMMeasurementIndicator has
		Cardinality: 0*	measurement PRMMeasurementPoint. Cardinality:
			01
Details	Case in which the same	PRMMeasurementIndicator	PRMMeasurementIndicator
(Association)	measure is being made but at a different measurement interval.	Role: detailSource Role Description:	Role: details
		The detailed PRMMeasurementIndicator. Cardinality: 01	Role Description: The PRMMeasurementIndicator that provides the detail. Cardinality: 0*

IsSourcedFrom (Association)	PRMMeasurementIndicator is sourced from DRMDataAsset	PRMMeasurementIndicator Role: PRMMeasurementIndicator Role Description: The PRMMeasurementIndicator that is sourced from the DRMDataAsset. Cardinality: 01	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 PRMMeasurementIndicator on which the derived PRMMEasurementIndicator is based. Cardinality: 0*
Measures (Association)	PRMMeasurementIndicator measures PMProgram.	PRMMeasurementIndicator Role: PRMMeasurementIndicator Role Description: The PRMMeasurementIndicator that measures the performance of the Program. Cardinality: 0*	Program Role: PMProgram Role Description: The Program about which the PRMMeasurementIndicator 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.
target Value Lower Bound	Decimal	The lower bound of the target value for the Measurement Point.

Attribute	Type	Description
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	PRMMeasurementPoint is	PRMMeasurementPoint	PRMMeasurementSet
(Association)	derived from PRMMeasurementSet.	Role: PRMMeasurementPoint	Role: PRMMeasurementSet
		Role Description: The PRMMeasurementPoint derived from the the PRMMeasurementSet. Cardinality: 01	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: 01	PRMMeasurement Role: PRMMeasurement Role Description: The PRMMeasurement represented by the PRMMeasurement Point. Cardinality: 01
IsMeasurementOf (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: 01

PRMMeasurementSet

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

Description

A collection of Measurement instances.

Relationships

Name	Description	Source	Target
IsDerivedFrom	PRMMeasurementPoint is derived	PRMMeasurementPoint	PRMMeasurementSet
(Association)	from PRMMeasurementSet.	Role: PRMMeasurementPoint Role Description: The PRMMeasurementPoint derived from the the PRMMeasurementSet. Cardinality: 01	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: The PRMMeasurementSet of which the PRMMeasurement is a member. Cardinality: 01

7.2.5 Service Component Reference Model

Type: <u>Package</u>
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 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.

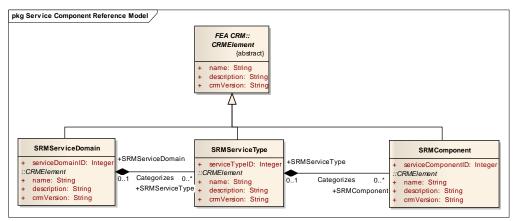


Figure 8 - Service Component Reference Model

SRMServiceDomain

Type: <u>Class</u>
Specialization of: <u>CRMElement</u>

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.

Name	Description	Source	Target
Categorizes (Aggregation)	SRMServiceType categorizes SRMServiceDomain.	Source SRMServiceType Role: SRMServiceType Role Description: SRMServiceType that categorizes the SRMServiceDomain. Cardinality: 0*	SRMServiceDomain Role: SRMServiceDomain Role Description: The SRMServiceDomain categorized by the SRMServiceType. Cardinality:
			01

SRMServiceType

Type: Class
Specialization of: CRMElement

Parent Package: Service Component Reference Model

Description

 $In stances \ of \ SRMS ervice Type \ sub-classify \ (refine) \ an instance \ of \ SRMS ervice Domain \ classification. \ These \ are \ further sub-classified \ (refined) \ by \ instances \ of \ SRMC omponent.$

Attributes

Attribute	Type	Description
serviceTypeID	Integer	The numeric identifier for the SRMServiceType.

Name	Description	Source	Target
Categorizes	SRMServiceType categorizes	SRMServiceType	SRMServiceDomain
(Aggregation)	SRMServiceDomain.	Role:	Role:
		SRMServiceType	SRMServiceDomain
		Role Description:	Role Description:
		SRMServiceType that categorizes the SRMServiceDomain. Cardinality:	The SRMServiceDomain categorized by the SRMServiceType.
		0*	Cardinality:
			01
Categorizes	SRMComponent categorizes	SRMComponent	SRMServiceType
(Aggregation)	ggregation) SRMServiceType.	Role:	Role:
Role Descript SRMCompon SRMServiceT Cardinality:		Role Description:	SRMServiceType
			Role Description:
	SRMComponent that categorizes the SRMServiceType.	SRMServiceType the SRMComponent categorizes.	
		Cardinality:	
		0*	01
Aligns	SRMServiceType Aligns	SRMServiceType	SharedService
(Association)	SharedService.	Role:	Role:
		srmServiceType	sharedService
		Role Description:	Role Description:
	The SRMServiceType that aligns a SharedService.	The SharedService that the SRMServiceType aligns.	
		Cardinality:	Cardinality:
		0*	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.

Name	Description	Source	Target
Aligns (Association)	SRMComponent Aligns SoftwareTechnologyProductVersion .	SRMComponent Role: srmComponent Role Description: An SRMComponent that aligns a SoftwareTechnologyProduct Version. Cardinality: 0*	SoftwareTechnologyProduct Version Role: softwareTechnologyProduct Version Role Description: A SoftwareTechnologyProduct Version 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: 01
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: 01
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: 01

7.2.6 Technical Reference Model

Type: 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)].

<u>Technical Reference Model</u> - (Package diagram)

See Figure 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.

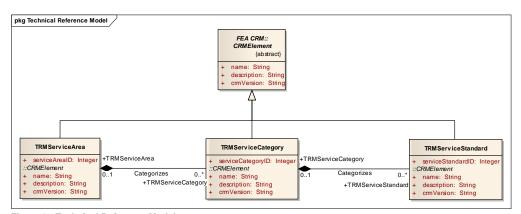


Figure 9 - Technical Reference Model

TRMServiceArea

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	Туре	Description
serviceAreaID	Integer	Numeric identifier for the service area.

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: 01

TRMServiceCategory

Type: Class Specialization of: CRMElement

Parent Package: Technical Reference Model

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

Attributes

Attribute	Туре	Description
serviceCategoryID	Integer	Numeric identifier for the service category.

Relationships

Name	Description	Source	Target
Categorizes	TRMServiceStandard categorizes	TRMServiceStandard	TRMServiceCategory
(Aggregation)	TRMServiceCategory.	Role: TRMServiceStandard Role Description: TRMServiceStandard that categorizes the TRMServiceCategory. Cardinality: 0*	Role: TRMServiceCategory Role Description: TRMServiceCategory that the TRMServiceStandard categorizes. Cardinality:
Categorizes (Aggregation)	TRMServiceCategory categorizes TRMServiceArea.	TRMServiceCategory Role: TRMServiceCategory Role Description: TRMServiceCategory that categorizes the TRMServiceArea. Cardinality: 0*	O1 TRMServiceArea Role: TRMServiceArea Role Description: TRMServiceArea that the TRMServiceCategory categorizes. Cardinality: O1

TRMServiceStandard

Specialization of: <u>CRMElement</u>
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.

Name	Description	Source	Target
Categorizes	TRMServiceStandard categorizes	TRMServiceStandard	TRMServiceCategory
(Aggregation)	TRMServiceCategory.	Role:	Role:
		TRMServiceStandard	TRMServiceCategory
		Role Description:	Role Description:
		TRMServiceStandard that categorizes the TRMServiceCategory.	TRMServiceCategory that the TRMServiceStandard categorizes.
		Cardinality:	Cardinality:
		0*	01
			01
Aligns	TRMServiceStandard Aligns	TRMServiceStandard	SoftwareTechnologyProduct
(Association)	SoftwareTechnologyProductVersion.	Role:	Version
		trmServiceStandard	Role:
		Role Description:	softwareTechnologyProduct
		A TRMServiceStandard that	Version
		aligns a	Role Description:
		SoftwareTechnologyProduct Version.	A
		version.	SoftwareTechnologyProduct
		Cardinality:	Version that a
		0*	TRMServiceStandard aligns.
			Condinality
			Cardinality:
			0*
Aligns	TRMServiceStandard Aligns	TRMServiceStandard	TechnologyStandard
(Association)	TechnologyStandard.	Role:	Role:
		trmServiceStandard	technologyStandard
		Role Description:	Role Description:
		A TRMServiceStandard that	A TechnologyStandard that a
		aligns a	TRMServiceStandard aligns.
		TechnologyStandard.	Cardinality:
		Cardinality: 0*	0*
		0	0
AlignsPrimaryTRM	Investment AlignsPrimaryTRM	Investment	TRMServiceStandard
(Association)	TRMServiceStandard.	Role:	Role:
		investment	trmServiceStandard
		Role Description:	Role Description:
		An Investment with a	A TRMServiceStandard that
		primiary alignment to an TRMServiceStandard.	has a primary alignment to
			an Investment.
		Cardinality: 0*	Cardinality:
		U ·	01

Aligns (Association)	TRMServiceStandard Aligns HardwareTechnologyProductModel.	TRMServiceStandard Role: trmServiceStandard Role Description: A TRMServiceStandard that aligns a HardwareTechnologyProduct Model. Cardinality: 0*	HardwareTechnologyProduct Model Role: hardwareTechnologyProduct Model Role Description: A HardwareTechnologyProduct Model that a TRMServiceStandard aligns. Cardinality:
			0*

7.3 MPG

Type: Package MPG

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

MPG Packages - (Package diagram)

See Figure 10

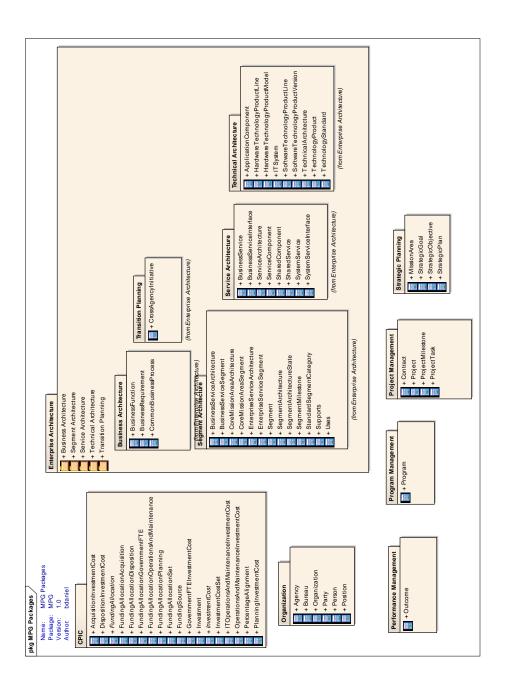
Description

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.





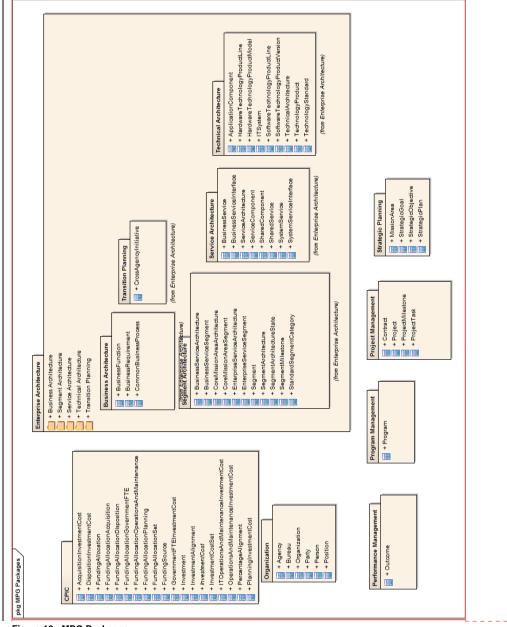


Figure 10 - MPG Packages

7.3.1 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.

7.3.2 CPIC

Type: Package MPG

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

CPIC - (Package diagram)

See Figure 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, ANDEXECUTION OF THE BUDGET," published annually by the OMB.

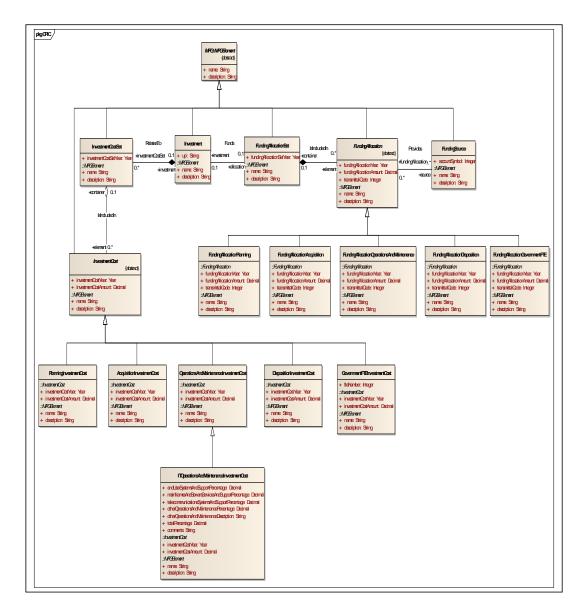


Figure 11 – CPIC

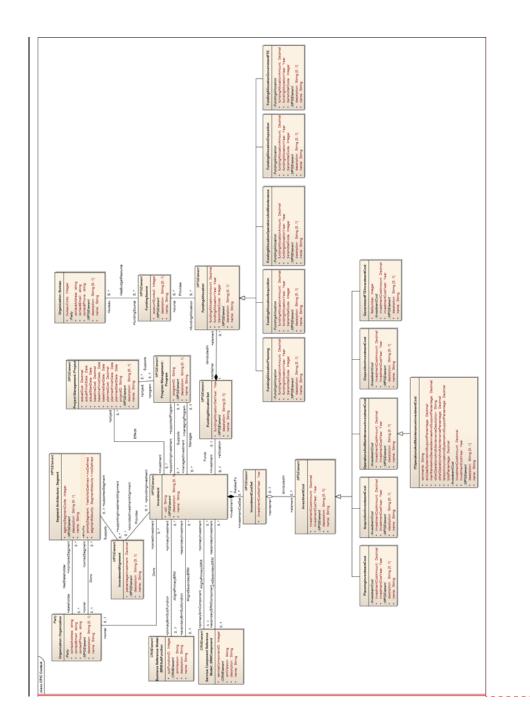
<u>CPIC Context</u> - (Logical diagram)

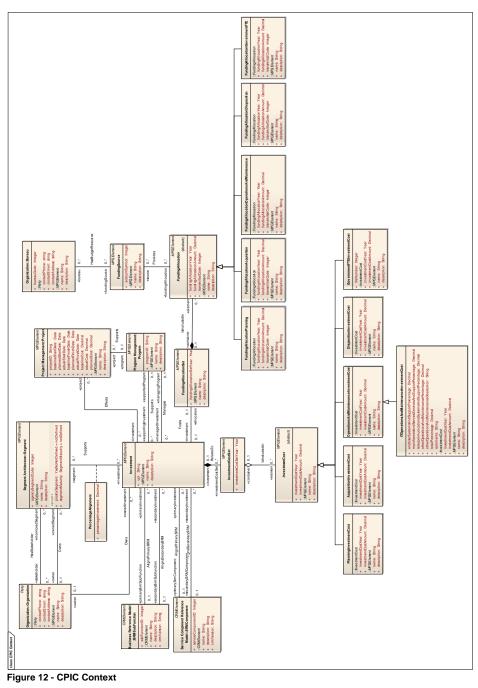
See Figure 12

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.







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	FundingAllocation is included in	FundingAllocation	FundingAllocationSet
(Aggregation)	FundingAllocationSet.	Role:	Role:
		element	container
		Role Description:	Role Description:
		FundingAllocation include in the FundingAllocationSet. Cardinality:	The FundingAllocationSet
			that includes the FundingAllocation.
		0*	Cardinality:
			01
Provides	FundingSource provides	FundingSource	FundingAllocation
(Association)	FundingAllocation.	Role:	Role:
		source	fundingAllocation
		Role Description:	Role Description:
		FundingSource that provides the FundingAllocation.	The FundingAllocation
			provided by the
Cardinanty 0*	Cardinality:	FundingSource.	
	0*	Cardinality:	
			0*

FundingAllocationAcquisition

Type: Class
Specialization of: FundingAllocation
Parent Package: CPIC

Description

Funding allocated for acquisition for the referenced fiscal year.

FundingAllocationDisposition

Type: <u>Class</u>
Specialization of: <u>FundingAllocation</u>
Parent Package: CPIC

Description

Funding allocation for disposition in the referenced fiscal year.

FundingAllocationGovernmentFTE

Type: <u>Class</u>
Specialization of: <u>FundingAllocation</u>
Parent Package: CPIC

Description

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

Funding Allocation Operations And Maintenance

Type: <u>Class</u>
Specialization of: <u>FundingAllocation</u>
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.

<u>Attributes</u>

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

Name	Description	Source	Target
IsIncludedIn (Aggregation)	FundingAllocation is included in FundingAllocationSet.	FundingAllocation Role: element Role Description: FundingAllocation include in	FundingAllocationSet Role: container Role Description: The FundingAllocationSet
		the FundingAllocationSet. Cardinality: 0*	that includes the FundingAllocation. Cardinality: 01

Funds	FundingAllocationSet funds	FundingAllocationSet	Investment
(Association)	Investment.	Role: allocation Role Description: The FundingAllocationSet that provides the Investment funding. Cardinality: 01	Role: investment Role Description: The Investment funded by the FundingAllocationSet. Cardinality: 01

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

Name	Description	Source	Target
HasBudgetResource	Bureau has budget resource	Bureau	FundingSource
(Association)	FundingSource.	Role: bureau	Role: fundingSource
		Role Description: Bureau with a particular budget source. Cardinality: 0*	Role Description: A source of funding for a bureau. Cardinality: 0*

Provides	FundingSource provides	FundingSource	FundingAllocation
(Association)	Funding Allocation.	Role: source Role Description: FundingSource that provides the FundingAllocation. Cardinality: 0*	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	Туре	Description	
fteNumber	Integer	Number of Full Time Equivalent	
		government personnel being funded.	

ITO perations And Maintenance Investment Cost

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.

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.
telecommunications Systems And Support 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.

Attribute	Type	Description
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-	Investment supports Segment.	-Investment	Segment
(AssociationClass)		Role:	Role:
I		investment	segment
L		- Role Description:	Role Description:
		Investment that supports the Segment.	The Segment supported by the Investment.
		Cardinality: 0*	Cardinality:
		-	0*
Supports	Investment supports	Investment	StrategicGoal
(Association)	StrategicGoal.	Role:	Role:
		investment	investmentGoal
		Role Description:	Role Description:
		The Investment that supports the StrategicGoal.	The StrategicGoal supported by the Investment.
		Cardinality:	Cardinality:
		0*	0*
RelatesTo	InvestmentCostSet relates to	InvestmentCostSet	Investment
(Aggregation)	Investment.	Role:	Role:
		investmentCostSet	investment
		Role Description: IinvestmentCostSet that is related to the Investment.	Role Description:
			Investment that has the related InvestmentCostSet.
		Cardinality:	Cardinality:
		U	01

Comment [BD3]: Deletion per Resolution of Issue 15919

Supports	Investment supports Contract.	Investment	Contract
(Association)		Role:	Role:
		supportingInvestment	supportedContract
		Role Description:	Role Description:
		An investment that supports	A contract supported by an
		a contract.	investment.
		Cardinality: 0*	Cardinality:
		0*	0*
Owns	Organization owns Investment.	Organization	Investment
(Association)		Role:	Role:
		owner	ownedInvestment
		Role Description:	Role Description:
		The organization that owns the ownedInvestment.	This investment is owned by
			the organization playing the
		Cardinality: 01	owner role.
			Cardinality:
	Y ALL D' TENA	*	0* TRMServiceStandard
AlignsPrimaryTRM (Association)	Investment AlignsPrimaryTRM TRMServiceStandard.	Investment	
(rissociation)	Trivisci vicestandard.	Role:	Role:
		Role Description:	trmServiceStandard
		An Investment with a	Role Description:
		primiary alignment to an	A TRMServiceStandard that has a primary alignment to
		TRMServiceStandard.	an Investment.
		Cardinality: 0*	Cardinality:
		0*	01
Effects	Project effects Investment.	Project	Investment
(Association)		Role:	Role:
		project	investment
		Role Description:	Role Description:
		The Project that effects the objectives of the Investment.	The Investment that has its
		Cardinality:	objectives effected by the
		0*	Project.
			Cardinality:
Funds	FundingAllocationSet funds	FundingAllocationSet	0* Investment
(Association)	Investment.	Role:	Role:
		allocation	investment
		Role Description:	
		The FundingAllocationSet	Role Description:
		that provides the Investment	The Investment funded by the FundingAllocationSet.
		funding.	Cardinality:
		Cardinality: 01	01
L		U1	V1

Provides.	Investment provides	Investment	InvestmentAlignment
(Association)	InvestmentAlignment.	Role:	Role:
^	 -	providingInvestment	providedInvestmentAlignme
		Role Description: The Investment providing	nt.
		the Investment Alignment.	Role Description:
		Cardinality:	The Investment Alignment
		01	Cardinality:
		_	0*
			<u></u>
AlignsSecondarySRM	Investment aligns secondary	Investment	SRMComponent
(Association)	SRMComponent.	Role:	Role:
		secondaryInvestment	secondarySRMComponent
		Role Description: Investment secondarily	Role Description:
		aligned to the SRM	The secondary
		Component.	SRMComponent alignment for the Investment.
		Cardinality:	Cardinality:
		0*	01
AlignsSecondaryBRM	Investment secondary alignment	Investment	BRMSubFunction
(Association)	to the BRM.	Role:	Role:
		secondaryInvestment	secondaryBrmSubfunction
		Role Description:	Role Description:
		A secondary investment for a BRM subfunction.	The BRM Subfunction for
			the investment.
		Cardinality: 0*	Cardinality:
		***	01
Supports	Investment supports Program.	Investment	Program
(Association)		Role:	Role:
		supportingInvestment	supportedProgram
		Role Description: An investment that supports	Role Description:
		a program.	A program supported by an investment
		Cardinality:	Cardinality:
		0*	01
Manages	Program manages Investment.	Program	Investment
(Association)	1 Togram manages investment.	Role:	Role:
		managingProgram	managedInvestment
		Role Description:	Role Description:
		Program that manages the	Investment managed by a
		investment.	program.
		Cardinality: 01	Cardinality:
		01	0*
Funds	Investment Funds ITSystem.	Investment	ITSystem
(Association)		Role:	Role:
		investment	itSystem
		Role Description: The Investment that funds	Role Description:
		the ITSystem	The ITSystem that is funded
		Cardinality:	by the Investment.
		0*	Cardinality:
			0*

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	Comment [BD4]: Added per Resolution of Issue 15919
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AlignsPrimaryBRM	Investment primary alignment to	Investment	BRMSubFunction
(Association)	the BRM.	Role: primaryInvestment Role Description: A primary investment that falls into the subfunction. Cardinality: 0*	Role: primaryBrmSubFunction Role Description: The BRM Subfunction for the investment. Cardinality: 01
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: 01

InvestmentAlignment

Type: Class
Specialization of: MPGElement
Parent Package: CPIC

Description

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

<u>Attributes</u>

Attribute	<u>Type</u>	<u>Description</u>
<u>percentageInvestment</u>	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: 01	InvestmentAlignment Role: providedInvestmentAlignment Role Description: The InvestmentAlignment the Investment provides. Cardinality: 0*
Supports (Association)	The InvestmentAlignment that supports the Segment.	InvestmentAlignment Role: supportingInvestmentAlignment Role Description: The InvestmentAlignment that supports the Segment. Cardinality: 0*	Segment Role: supportedSegment Role Description: The Segment supported by the Investmentalignment. Cardinality: 01

Comment [BD5]: Type Changed per Resolution of Issue 15919

Comment [BD6]: Added per Resolution of Issue 15919

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	InvestmentCost is included in	InvestmentCost	InvestmentCostSet
(Aggregation)	InvestmentCostSet.	Role: element	Role:
		Role Description: InvestmentCost included in the InvestmentCostSet. Cardinality: 0*	container Role Description: InvestmentCostSet that includes the InvestmentCost. Cardinality: 01

InvestmentCostSet

Type: Class
Specialization of: MPGElement
Parent Package: CPIC

Description

A collection of Investment Cost instances.

Attributes

Attı	ribute	Туре	Description
inve	stmentCostSetYear	Year	The fiscal year for the investment cost set.

Relationships

Name	Description	Source	Target
RelatesTo	InvestmentCostSet relates to	InvestmentCostSet	Investment
(Aggregation)	Investment.	Role:	Role:
		investmentCostSet	investment
		Role Description:	Role Description:
		InvestmentCostSet that is related to the Investment.	Investment that has the related InvestmentCostSet.
	Cardinality: 0*		Cardinality:
		0	01
IsIncludedIn	InvestmentCost is included in	InvestmentCost	InvestmentCostSet
(Aggregation)	ggregation) InvestmentCostSet.	rvestmentCostSet. Role: element	Role:
			container
		Role Description: InvestmentCost included in the InvestmentCostSet. Cardinality: 0*	Role Description:
			InvestmentCostSet that includes the InvestmentCost.
			Cardinality:
			01

OperationsAndMaintenanceInvestmentCost

Type: <u>Class</u>
Specialization of: <u>InvestmentCost</u>
Parent Package: CPIC

Description

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

PercentageAlignment

Specialization of: n/a

Description

ntage of the Investment aligned to support the Segment.

Attributes

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

PlanningInvestmentCost

Class

Specialization of: InvestmentCost

Parent Package: CPIC

Description

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

7.3.3 Enterprise Architecture

Type: Package MPG

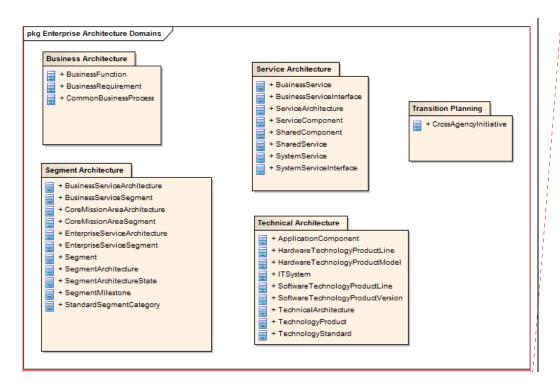
This package contains the set of types related to modeling Enterprise Architecture concepts.

Enterprise Architecture Domains - (Package diagram)

See Figure 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).



Comment [BD7]: Replaced per Resolution of Issue 15919

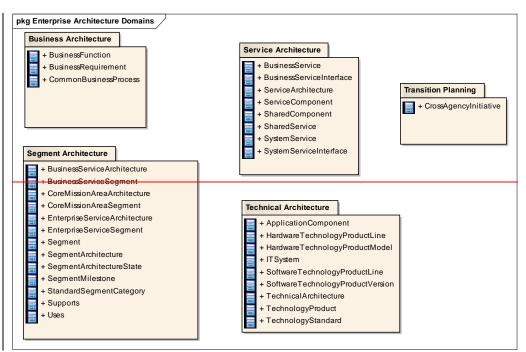


Figure 13 - Enterprise Architecture Domains

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 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.

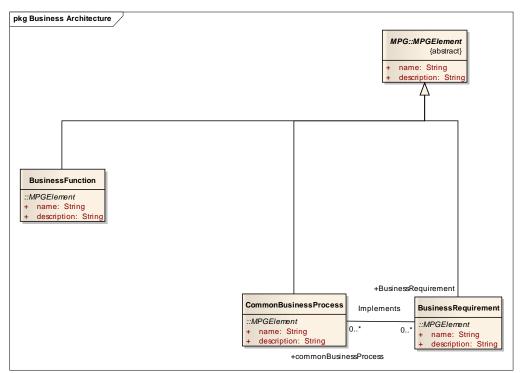


Figure 14 - Business Architecture

<u>Business Architecture Context</u> - (Logical diagram)

See Figure 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.

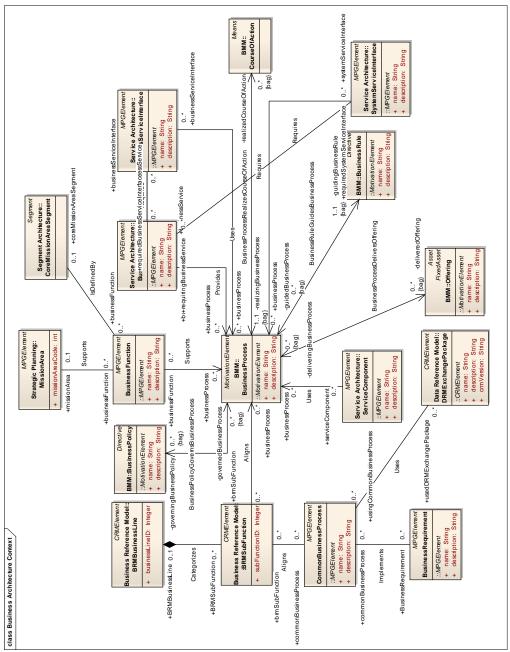


Figure 15 - Business Architecture Context

BusinessFunction

Type: <u>Class</u>

Specialization of: MPGElement
Parent Package: Business Architecture

Description

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 is time bounded.

Relationships

Name	Description	Source	Target
Supports	Business Process supports Business	BusinessProcess	BusinessFunction
(Association)	Function	Role: businessProcess	Role: businessFunction
		Role Description: The Business Process supporting the Business Function. Cardinality: 0*	Role Description: The Business Function being supported by the Business Process. Cardinality: 0*
IsDefinedBy	CoreMissionAreaSegment is	CoreMissionAreaSegment	BusinessFunction
(Association)	defined by BusinessFunction.	Role: coreMissionAreaSegment Role Description: The CoreMissionAreaSegment that is defined by BusinessFunction. Cardinality: 01	Role: businessFunction Role Description: The BusinessFunction that the CoreMissionAreaSegment is defined by. Cardinality: 0*
Supports	BusinessFunction supports	BusinessFunction	MissionArea
(Association)	MissionArea.	Role: businessFunction	Role: missionArea
		Role Description: A business function that supports a mission area. Cardinality: 0.*	Role Description: The mission area of a supporting business function. Cardinality:
		v	01

BusinessRequirement

Type: Class

Specialization of: MPGElement
Parent Package: Business Architecture

Description

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)

Name	Description	Source	Target
Produces	BusinessRequirement produces	BusinessRequirement	Outcome
(Association)	Outcome.	Role: BusinessRequirement Role Description: The Business Requirement that when satisfied produces the Outcome. Cardinality: 0*	Role: Outcome Role Description: The Outcome desired to be produced through satisfaction of the BusinessRequirement. Cardinality: 0*
Establishes (Association)	CrossAgencyInitiative Establishes BusinessRequirement.	CrossAgencyInitiative Role: crossAgencyInitiative Role Description: The CrossAgencyInitiative that establishes the BusinessRequirement. Cardinality: 0*	BusinessRequirement Role: businessRequirement Role Description: The BusinessRequirement that the CrossAgencyInitative establishes. Cardinality: 0*
Implements (Association)	CommonBusinessProcess Implements Business Requirement	CommonBusinessProcess Role: commonBusinessProcess Role Description: The CommonBusiness Process that implements the Business Requirement. Cardinality: 0*	BusinessRequirement Role: BusinessRequirement Role Description: The BusinessRequirement implmented by the CommonBusinessProcess. Cardinality: 0*

CommonBusinessProcess

Type: <u>Class</u>
Specialization of: <u>MPGElement</u>
Parent Package: Business Architecture

Description

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)

Name	Description	Source	Target
Automates (Association)	SharedService Automates CommonBusinessProcess.	SharedService Role: sharedService Role Description: The SharedService that automates the CommonBusinessProcess. Cardinality: 0*	CommonBusinessProcess Role: commonBusinessProcess Role Description: The CommonBusinessProcess that the SharedService automates. Cardinality: 0*
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*
Implements (Association)	CommonBusinessProcess Implements Business Requirement	CommonBusinessProcess Role: commonBusinessProcess Role Description: The CommonBusiness Process that implements the Business Requirement. Cardinality: 0*	BusinessRequirement Role: BusinessRequirement Role Description: The BusinessRequirement implemented by the CommonBusinessProcess. Cardinality: 0*
Uses (Association)	CommonBusinessProcess 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 CommonBusinessProcess. Cardinality: 0*

Segment Architecture

Type: Package Enterprise Architecture

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

Segment Architecture - (Package diagram)

See Figure 16

Description

This diagram depicts the fundamental entities related to the Segment Architecture concept. Subsequent diagrams detail the three types of Segments: Core Mission, Business, and Enterprise Service. These segment types are discussed in detail in the OMB's document "FEA_Practice_Guidance_Nov_2007.pdf" available at http://www.whitehouse.gov/omb/e-gov/fea/.

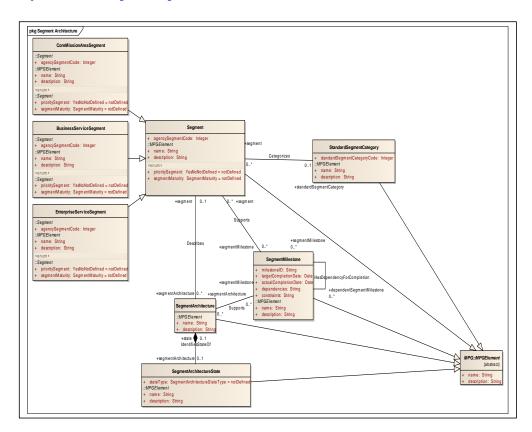


Figure 16 - Segment Architecture

<u>Core Mission Area Architecture</u> - (Logical diagram)

See Figure 17

Description

This diagram shows the basic relationships of the Segment of the type "Core Mission Area" and that this type of Segment can have a "Core Mission Area Segment Architecture". Refer to the "Segment Architecture Context" diagram later in this specification to see this structure in context with the other two types of Segments.

Note 1: Refer to the "Business Architecture Context" diagram to see the unique relationship of the "Core Mission Area Segment" class element to the Business Function.

Note 2: See that the only the "Service Architecture" class element is shown as an association to the Segment Architecture parent class element. Compare this to the Enterprise Service Architecture diagram where both the "Technical Architecture" and "Service Architecture" class elements are shown.

Further discussion of why this was done will be presented in subsequent diagrams.

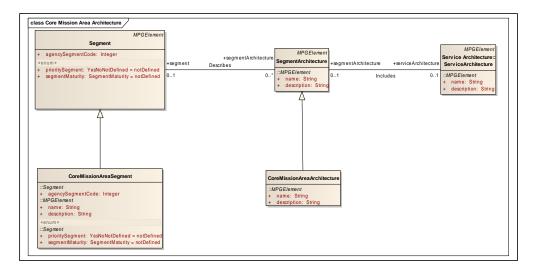


Figure 17 - Core Mission Area Architecture

$\underline{\textbf{Business Service Architecture}} \text{-} (Logical \ diagram)$

See Figure 18

Description

This diagram shows the basic relationships of the Segment of the type "Business Service" and that this type of Segment can have a "Business Service Segment Architecture". Refer to the "Segment Architecture Context" diagram, later in this specification, to see this structure in context with the other two types of Segments.

Note: See that the only the "Service Architecture" class element is shown as an association to the Segment Architecture parent class element. Compare this to the next diagram, "Enterprise Service Architecture", where both the "Technical Architecture" and "Service Architecture" class elements are shown.

Further discussion of why this was done will be presented in subsequent diagrams.

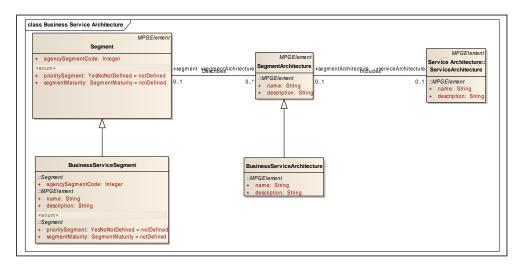


Figure 18 - Business Service Architecture

Enterprise Service Architecture - (Logical diagram)

See Figure 19

Description

This diagram shows the basic structure of the Segment of the type "Enterprise Service" and that this type of Segment can have a Enterprise Service Segment Architecture. Refer to the "Segment Architecture Context" diagram, later in this specification, to see this structure in context with the other two types of Segments.

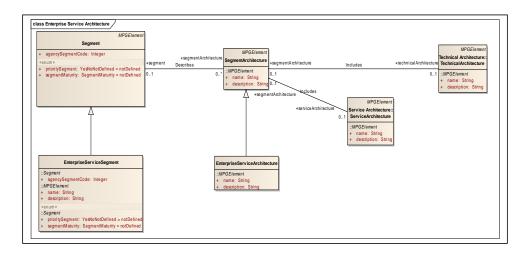


Figure 19 - Enterprise Service Architecture

<u>Segment Architecture Context</u> - (Logical diagram)

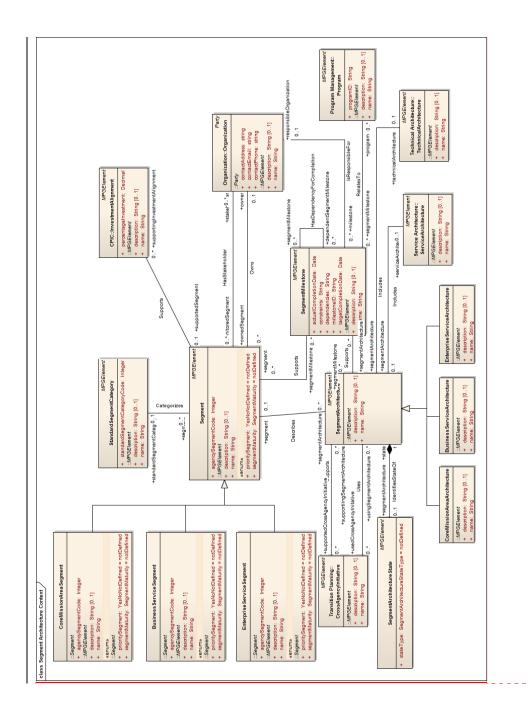
See Figure 20

Description

This diagram shows the three different types of Segments as derived from the Segment class element and, correspondingly, the three types of Segment Architectures.

The Standard Segment Category class element provides for the categorization of segments as standard as established by the OMB. A placeholder for the representation of a "Standard Segment Reference Architecture" has been established in the case where OMB establishes a standard reference architecture.





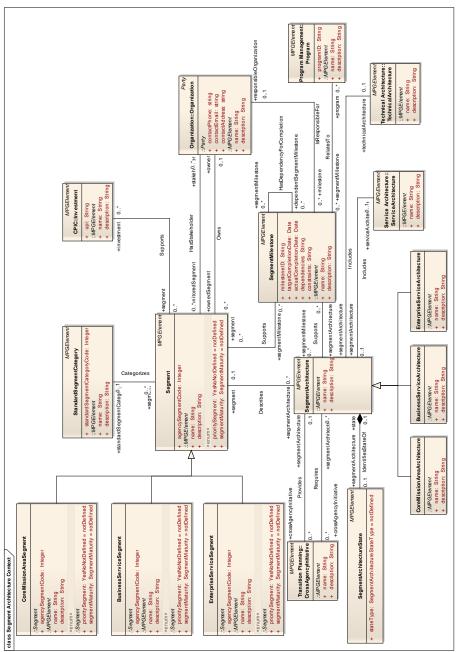


Figure 20 - Segment Architecture Context

BusinessServiceArchitecture

Type: Class

Specialization of: SegmentArchitecture
Parent Package: Segment Architecture

Description

An architectural perspective based on the representation of the business and enterprise services comprising the Business Service Segment.BusinessServiceSegment

Type: Class
Specialization of: Segment

Parent Package: Segment Architecture

Description

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.

Relationships

Name	Description	Source	Target
IsDefinedBy (Association)	BusinessServiceSegment IsDefinedBy BusinessService.	BusinessServiceSegment Role: businessServiceSegment Role Description: The BusinessServiceSegment that the BusinessService defines.	BusinessService Role: businessService Role Description: The BusinessService that defines the
		Cardinality: 01	BusinessServiceSegment. Cardinality: 0*

CoreMissionAreaArchitecture

Type: Class

Specialization of: SegmentArchitecture
Parent Package: Segment Architecture

Description

An architectural perspective based on the representation of the business and enterprise services comprising the Core Mission Area Segment.

Core Mission Area Segment

Type: <u>Class</u> Specialization of: <u>Segment</u>

Parent Package: Segment Architecture

Description

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 that cannot be used outside of a unique mission area should be included in a Core Mission segment.

Name	Description	Source	Target
Addresses	CoreMissionAreaSegment	CoreMissionAreaSegment	MissionArea
(Association)	addresses MissionArea.	Role: cmaSegment Role Description: The segment that addresses a mission area. Cardinality: 0*	Role: addressedMissionArea Role Description: The MissionArea addressed by the CoreMissionAreaSegment. Cardinality: 01
IsDefinedBy (Association)	CoreMissionAreaSegment is defined by BusinessFunction.	CoreMissionAreaSegment Role: coreMissionAreaSegment Role Description: The CoreMissionAreaSegment that is defined by BusinessFunction. Cardinality: 01	BusinessFunction Role: businessFunction Role Description: The BusinessFunction that the CoreMissionAreaSegment is defined by. Cardinality: 0*

EnterpriseServiceArchitecture

Type: Class

Specialization of: SegmentArchitecture
Parent Package: Segment Architecture

Description

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

Type: <u>Class</u> Specialization of: <u>Segment</u>

Parent Package: Segment Architecture

Description

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 that serve an enterprise-wide purpose should be mapped to a business service segment.

Name	Description	Source	Target
IsDefinedBy (Association)	EnterpriseServiceSegment is defined by SystemService	EnterpriseServiceSegment Role: Role Description: EnterpriseServiceSegment the SystemService defines. Cardinality: 01	SystemService Role: Role Description: The SystemService defining the EnterpriseServiceSegment. Cardinality: 0*

Segment

Type: <u>Class</u>
Specialization of: <u>MPGElement</u>
Parent Package: Segment Architecture

Description

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)

Attributes

Attribute	Type	Description
agencySegmentCode	Integer	The numeric identifier for the agency.
prioritySegment	YesNoNotDefined	Whether the segment is a priority segment.
segmentMaturity	SegmentMaturity	The maturity of the segment: notional, planned, in progress, or complete.

Relationships

	Keunonsnips					
	Name	Description	Source	Target		
	Supports	The Investment Alignment that	Investment Alignment	Segment		Comment [BD9]: Type Changed and Modified
ļ	(Association)	supports the Segment.	Role:	Role:	``\	per Resolution of Issue 15919
			<u>supportingInvestmentAlignmen</u>	s <u>upportedS</u> egment	\	Field Code Changed
ļ			<u>I</u>	Role Description:		
			Role Description: The InvestmentAlignment that supports the Segment.	The Segment supported by the Investment Alignment.		
l			Cardinality: 0*	Cardinality: 01		

HasStakeholder (Association)	Segment has stakeholder Organization.	Segment Role: monitoredSegment Role Description: This segment is of interest to the stakeholder. Cardinality: 0*	Organization Role: stakeholder Role Description: This organization has a stake in the definition of the segment. Cardinality: 0*
Supports (Association)	SegmentMilestone Supports Segment.	SegmentMilestone Role: segmentMilestone Role Description: The SegmentMilestone that supports the Segment. Cardinality: 0*	Segment Role: segment Role Description: The Segment that the SegmentMilestone supports. Cardinality: 0*
Describes (Association)	SegmentArchitecture Describes Segment.	SegmentArchitecture Role: segmentArchitecture Role Description: A SegmentArchitecture that describes a Segment. Cardinality: 0*	Segment Role: segment Role Description: The Segment that the SegmentArchitecture describes. Cardinality: 01
Owns (Association)	Organization owns Segment.	Organization Role: owner Role Description: Organization that owns the segment. Cardinality: 01	Segment Role: ownedSegment Role Description: A segment that is owned by the organization that plays the owner role. Cardinality: 0*
Categorizes (Association)	StandardSegmentCategory Categorizes Segment.	StandardSegmentCategory Role: standardSegmentCategory Role Description: The StandardSegmentCategory that categorizes a Segment. Cardinality: 01	Segment Role: segment Role Description: The Segment that the StandardSegmentCategory categorizes. Cardinality: 0*

SegmentArchitecture

Type: Class
Specialization of: MPGElement Parent Package: Segment Architecture

Description

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)

	Name	Description	Source	Target	
	Provides	SegmentArchitecture Provides	-SegmentArchitecture	CrossAgencyInitiative	 Comment [BD10]: Deleted per Resolution of
	(AssociationClass)	CrossAgencyInitiative.	Role:	Role:	Issue 15919
			segmentArchitecture	erossAgencyInitative	
			Role Description: The SegmentArchitecture that	Role Description:	
			The SegmentArchitecture that- provides a sharable service (or- other entity) to a CrossAgencyInitiative. Cardinality: 01	The CrossAgencyInitiative to- which the SegmentArchitecture- provides a shared service (or- other entity). Cardinality: 0*	
J	IdentifiesStateOf	SegmentArchitectureState	SegmentArchitectureState	SegmentArchitecture	
	(Aggregation)	identifies state of SegmentArchitecture.	Role: segmentArchitecture Role Description: SegmentArchitectureState that identifies the state described by the SegmentArchitecture. Cardinality: 01	Role: state Role Description: The state of the SegmentArchitecture that the SegmentArchitectureState identifies. Cardinality: 01	
	Supports (Association)	SegmentArchitecture supports CrossAgencyInitiative.	SegmentArchitecture Role: supportingSegmentArchitecture Role Description: The segmentArchitecture supporting some aspect of the CrossAgencyInitiative. Cardinality: 0*	CrossAgencyInitiative Role: supportedCrossAgencyInitiative Role Description: The CrossAgencyInitiative supported by some aspect of the SegmentArchitecture. Cardinality: 0*	 Comment [BD11]: Added per Resolution of Issue 15919

Uses	SegmentArchitecture uses	SegmentArchitecture	CrossAgencyInitiative	1	O
(Association)	CrossAgencyInitiative.	Role:	Role:		Comment [BD12]: Added per Resolution of Issue 15919
		usingSegmentArchitecture			10,11,
		Role Description:	usedCrossAgencyInitative		
		The SegmentArchitecture using	Role Description:		
		some aspect of the	The CrossAgencyInitiative used		
		CrossAgencyInitiative.	by the SegmentArchitecture.		
		Cardinality:	Cardinality:		
		0*	<u>0*</u>		
Supports	SegmentMilestone supports	SegmentMilestone	- SegmentArchitecture	l	
(Association)	SegmentArchitecture.	Role:	Role:		
<u>(======</u>	2-8	segmentMilestone			
		Role Description:	segmentArchitecture		
		The SegmentMilestone that	Role Description:		
		supports the	The SegmentArchitecture that		
		SegmentArchitecture.	the SegmentMilestone supports.		
		Cardinality:	Cardinality:		
		0*	0*		
n .	Consent Aughitentum Permine	8 44 124 4	Conner A non real relations	1	
Requires (AssociationClass)	SegmentArchitecture Requires CrossAgencyInitative.	-SegmentArchitecture	<u>CrossAgencyInitiative</u>		Comment [BD13]: Deleted per Resolution of Issue 15919
(MSSOCIATION CIASS)	Cross/rgeneyimative.	Role: segmentArchitecture	Role:		188uc 13919
			erossAgencyInitiative		
		Role Description: The SegmentArchitecture that	Role Description:		
		requires some entity provided	A CrossAgencyInitiative that		
		by a CrossAgencyInitiative.	provides an entity required by the SegmentArchitecture.		
		Cardinality:	_		
		0*	Cardinality:		
T 1 1	Consent Analitanton Trade do	-	***	I	
Includes (Association)	SegmentArchitecture Includes TechnicalArchitecture.	SegmentArchitecture	TechnicalArchitecture		
(Association)	reclinical Architecture.	Role: segmentArchitecture	Role:		
		_	technicalArchitecture		
		Role Description: The SegmentArchitecture that	Role Description:		
		includes the	The TechnicalArchitecture the		
		TechnicalArchitecture.	SegmentArchitecture includes.		
		Cardinality:	Cardinality:		
		01	01		
Includes	SegmentArchitecture includes	SegmentArchitecture	ServiceArchitecture		
(Association)	ServiceArchitecture.	Role:	Role:		
		segmentArchitecture	serviceArchitecture		
		Role Description:	Role Description:		
		The SegmentArchitecture that includes a ServiceArchitecture.	The ServiceArchitecture the		
		Cardinality:	SegmentArchitecture includes.		
		01	Cardinality:		
			01		
Describes	SegmentArchitecture Describes	SegmentArchitecture	Segment		
(Association)	Segment.	Role:	Role:		
		segmentArchitecture	segment		
		Role Description:	Role Description:		
		A SegmentArchitecture that	The Segment that the		
		describes a Segment.	SegmentArchitecture describes.		
		Cardinality:	Cardinality:		
		0*	01		
	1	Ĺ			

SegmentArchitectureState

Class Specialization of: MPGElement Parent Package: Segment Architecture

Description

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).

<u>Attribut</u>es

Attribute	Туре	Description
stateType	SegmentArchitectureStateType	Whether the segment architecture represents the current architecture of the segment, the target architecture for the segment, or an intermediate architecture for the segment (between current and target state).

Relationships

Name	Description	Source	Target
IdentifiesStateOf (Aggregation)	SegmentArchitectureState identifies state of SegmentArchitecture.	Role: SegmentArchitectureState Role: SegmentArchitecture Role Description: SegmentArchitectureState that identifies the state described by the SegmentArchitecture. Cardinality: 01	Role: SegmentArchitecture Role: state Role Description: The state of the SegmentArchitecture that the SegmentArchitectureState identifies. Cardinality: 01

SegmentMilestone

Type: Class
Specialization of: MPGElement
Parent Package: Segment Architecture

A significant point or event in the development of a Segment.

Attributes

Attribute	Type	Description	
milestoneID	String	Agency-defined identifier for the Milestone.	
targetCompletionDate	Date	The target date for completion of the segment milestone.	
actualCompletionDate	Date	The actual date of completion for the segment milestone.	
dependencies	String	Description of any dependencies for segment milestone completion.	
constraints	String	Description of any constraints on segment milestone completion.	

Name	Description	Source	Target
HasDependencyFor	SegmentMilestone	SegmentMilestone	SegmentMilestone
Completion (Association)	HasDependencyForCompletion SegmentMilestone.	Role: dependentSegmentMilestone Role Description: The SegmentMilestone that has the dependency. Cardinality: 0*	Role: segmentMilestone Role Description: The SegmentMilestone that supports the dependency. Cardinality: 0*
Supports (Association)	SegmentMilestone supports SegmentArchitecture.	SegmentMilestone Role: segmentMilestone Role Description: The SegmentMilestone that supports the SegmentArchitecture. Cardinality: 0*	SegmentArchitecture Role: segmentArchitecture Role Description: The SegmentArchitecture that the SegmentMilestone supports. Cardinality: 0*

Supports (Association) IsResponsibleFor (Association)	SegmentMilestone Supports Segment. Orgnization is responsible for SegmentMilestone.	SegmentMilestone Role: segmentMilestone Role Description: The SegmentMilestone that supports the Segment. Cardinality: 0* Organization Role: responsibleOrganization Role Description: The organization responsible for meeting the milestone. Cardinality: 01	Segment Role: segment Role Description: The Segment that the SegmentMilestone supports. Cardinality: 0* SegmentMilestone Role: milestone Role Description: A milestone in the lifecycle of the segment. Cardinality: 0*
RelatesTo (Association)	Program relates to SegmentMilestone.	Program Role: program Role Description: The Program related to the SegmentMilestone. Cardinality: 0*	SegmentMilestone Role: segmentMilestone Role Description: The SegmentMilestone to which the Program relates. Cardinality: 0*

StandardSegmentCategory

Type: Class
Specialization of: MPGElement
Parent Package: Segment Architecture

<u>Description</u>
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.

Attributes

Attribute	Туре	Description
standardSegmentCategoryCode	Integer	Numeric identifier for the standard segment
		category.

Name	Description	Source	Target

Categorizes	StandardSegmentCategory	StandardSegmentCategory	Segment
(Association)	Categorizes Segment.	Role: standardSegmentCategory Role Description: The StandardSegmentCategory that categorizes a Segment. Cardinality: 01	Role: segment Role Description: The Segment that the StandardSegmentCategory categorizes. Cardinality: 0*
			U "

Supports

Type: <u>AssociationClass</u>

Specialization of: n/a

Parent Package: Segment Architecture

Attributes

Attribute	Type	Description
segmentSupportsFTFInitaitve	YesNoNotDefined	Whether the segment supports a Federal
		Transition Framework cross-agency initiative.

Uses

Type: <u>AssociationClass</u>

Specialization of: n/a

Parent Package: Segment Architecture

Attributes

Attribute	Type	Description
segmentUsesFTFInitiative	YesNoNotDefined	Whether the segment uses (or reuses) some capability resulting from a Federal Transition Framework cross-agency initiative.
ifNotExplanation	String	If no Federal Transition Framework cross- agency initiative is used (or reused), an explanation of the reasons not.

Comment [BD14]: Deletions per Resolution of Issue 15919

Service Architecture

Type: Package Enterprise Architecture

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

 $\underline{\textbf{Service Architecture}} \text{-} (Package \ diagram)$

Model for Performance-Driven Government (MPG), Beta 2_

Description

This diagram shows the class elements from the MPG that are relevant to the Service Domain. Refer to the context diagrams that follow to see how these Service class elements are related to the architecture. Of special note is the distinction that is made between the "Business Service" and the "System Service.

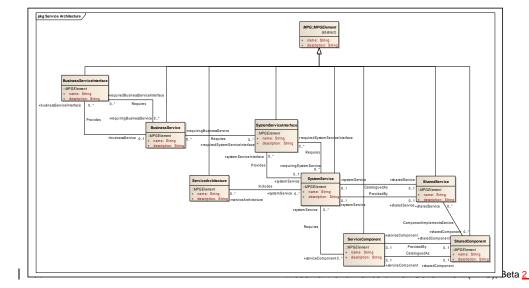


Figure 21 - Service Architecture

<u>Service Architecture Context</u> - (Logical diagram)

See Figure 22

Description

This diagram shows how Services are handled within the MPG. Note the distinction is made between what the "Business Service Segment" and the "Enterprise Service Segment" relate to.

A "Business Service Segment" is made up of a collection of "Business Services". An "Enterprise Service Segment" is made up of a collection of "System Services."

A "Business Process" provides a "Business Service" via "Service Component". "Service Components" are made available from "System Services" that define of the "Service Architecture."

In the lower left quadrant of the diagram, linkage is made to the Federal Enterprise Architecture Service Reference Model (FEA SRM) via the class elements of "Share Component" and "Shared Service."

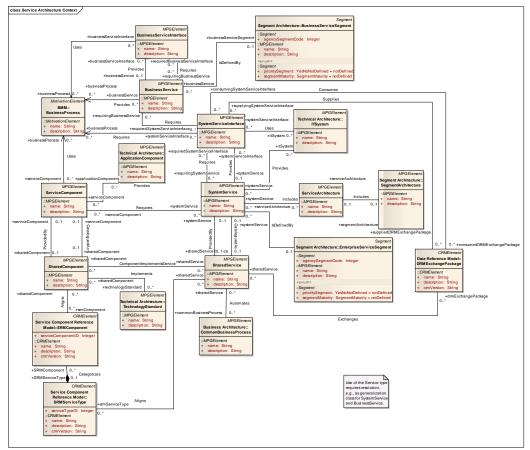


Figure 22 - Service Architecture Context

BusinessService

Type: <u>Class</u>
Specialization of: <u>MPGElement</u>
Parent Package: Service Architecture

Description

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.

Name	Description	Source	Target
Provides (Association)	BusinessService Provides BusinessServiceInterface.	BusinessService Role: businessService Role Description: The BusinessService that provides a BusinessServiceInterface. Cardinality: 01	BusinessServiceInterface Role: businessServiceInterface Role Description: The BusinessServiceInterface that the BusinessService provides. Cardinality: 0*
Provides (Association)	BusinessProcess Provides BusinessService.	BusinessProcess Role: businessProcess Role Description: The BusinessProcess that Provides the BusinessService. Cardinality: 0*	BusinessService Role: businessService Role Description: The BusinessProcess provides. Cardinality: 0*
IsDefinedBy (Association)	BusinessServiceSegment IsDefinedBy BusinessService.	BusinessServiceSegment Role: businessServiceSegment Role Description: The BusinessServiceSegment that the BusinessService defines. Cardinality: 01	BusinessService Role: businessService Role Description: The BusinessService that defines the BusinessServiceSegment. Cardinality: 0*
Requires (Association)	BusinessService requires BusinessServiceInterface.	BusinessService Role: requiringBusinessService Role Description: The BusinessService that requires the BusinessServiceInterface. Cardinality: 0*	BusinessServiceInterface Role: requiredBusinessServiceInterface Role Description: The BusinessServiceINterface required by the BusinessService. Cardinality: 0*

Requires	BusinessService requires	BusinessService	SystemServiceInterface
(Association)	SystemServiceInterface.	Role: requiringBusinessService Role Description: The BusinessService that requires the SystemServiceInterface. Cardinality: 0*	Role: requiredSystemServiceInterf ace Role Description: The SystemServiceInterface required by the BusinessService. Cardinality: 0*

BusinessServiceInterface

Type: <u>Class</u>
Specialization of: <u>MPGElement</u>
Parent Package: Service Architecture

Description

A description of the point of interaction where the Business Service is provided and the paramaters 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"

Name	Description	Source	Target
Provides	BusinessService Provides	BusinessService	BusinessServiceInterface
(Association)	BusinessServiceInterface.	Role: businessService Role Description: The BusinessService that provides a BusinessServiceInterface. Cardinality: 01	Role: businessServiceInterface Role Description: The BusinessServiceInterface that the BusinessService provides. Cardinality: 0*
Uses (Association)	BusinessProcess Uses BusinessServiceInterface.	BusinessProcess Role: businessProcess Role Description: The BusinessProcess that uses the BusinessServiceInterface. Cardinality: 0*	BusinessServiceInterface Role: businessServiceInterface Role Description: The BusinessServiceInterface that is used by the BusinessProcess. Cardinality: 0*

Requires	BusinessService requires	BusinessService	BusinessServiceInterface
(Association)	BusinessServiceInterface.	Role: requiringBusinessService Role Description: The BusinessService that requires the BusinessServiceInterface. Cardinality: 0*	Role: requiredBusinessServiceInter face Role Description: The BusinessServiceINterface required by the BusinessService. Cardinality: 0*

ServiceArchitecture

Type: Class
Specialization of: MPGElement Parent Package: Service Architecture

Description

An architectural perspective based on the representation of the services comprising the architecture. Services may include those provided by automated, as well as human means.

Relationships

Name	Description	Source	Target
Includes (Association)	SegmentArchitecture includes ServiceArchitecture.	SegmentArchitecture Role: segmentArchitecture	ServiceArchitecture Role: serviceArchitecture
		Role Description: The SegmentArchitecture that includes a ServiceArchitecture. Cardinality: 01	Role Description: The ServiceArchitecture the SegmentArchitecture includes. Cardinality: 01
Includes (Association)	ServiceArchitecture Includes SystemService.	ServiceArchitecture Role: serviceArchitecture Role Description: The ServiceArchitecture that includes a SystemService. Cardinality: 0*	SystemService Role: systemService Role Description: A SystemService that the ServiceArchitecture includes. Cardinality: 0*

ServiceComponent

Class Type:

Specialization of: MPGElement
Parent Package: Service Architecture

Description

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.

Name	Description	Source	Target
CataloguedAs	ServiceComponent CataloguedAs	ServiceComponent	SharedComponent
(Association)	SharedComponent.	Role:	Role:
		serviceComponent	sharedComponent
		Role Description:	Role Description:
		The ServiceComponent that is catalogued as the	The SharedComponent that
		SharedComponent.	catalogs the
		Cardinality:	ServiceComponent.
		01	Cardinality:
			01
ProvidedBy	SharedComponent ProvidedBy	SharedComponent	ServiceComponent
(Association)	ServiceComponent.	Role:	Role:
		sharedComponent	serviceComponent
		Role Description: The SharedComponent that	Role Description:
		the	The ServiceComponent that
		Service Component. provides.	provides the SharedComponent.
		Cardinality:	Cardinality:
		01	•
Uses	BusinessProcess Uses	BusinessProcess	01 ServiceComponent
(Association)	ServiceComponent.	Role:	Role:
	1	businessProcess	
		Role Description:	serviceComponent
		The BusinessProcess that	Role Description:
		uses the ServiceComponent.	The ServiceComponent that the BusinessProcess uses.
		Cardinality: 0*	Cardinality:
		V	0*
Provides	ApplicationComponent Provides	ApplicationComponent	ServiceComponent
(Association)	ServiceComponent.	Role:	Role:
		applicationComponent	serviceComponent
		Role Description:	Role Description:
		The ApplicationComponent that provides the	The ServiceComponent the
		ServiceComponent.	ApplicationComponent
		Cardinality:	provides.
		0*	Cardinality:
			0*
Requires (Association)	SystemService Requires ServiceComponent.	SystemService	ServiceComponent
(ASSOCIATION)	servicecomponent.	Role: systemService	Role:
		•	serviceComponent
		Role Description: The SystemService that requires the ServiceComponent.	Role Description:
			The ServiceComponent that the SystemService requires.
		Cardinality:	Cardinality:
		0*	0*
	1	1	1

SharedComponent

Type: Class
Specialization of: MPGElement
Parent Package: Service Architecture

Description

A representation of a service component that is used to identify and catalog the service component as one being made available for reuse.

SharedComponent Role: sharedComponent Role Description: The SharedComponent that catalogs the ServiceComponent. Cardinality: 01
sharedComponent Role Description: The SharedComponent that catalogs the ServiceComponent. Cardinality: 01
Role Description: The SharedComponent that catalogs the ServiceComponent. Cardinality: 01
The SharedComponent that catalogs the ServiceComponent. Cardinality: 01
The SharedComponent that catalogs the ServiceComponent. Cardinality: 01
catalogs the ServiceComponent. Cardinality: 01
Cardinality: 01
01
SharedService
Role:
sharedService
Role Description:
nt that The SharedService that the
SharedComponent
implements.
Cardinality:
0*
ServiceComponent
Role:
serviceComponent
Role Description:
nt that The ServiceComponent that
rovides. provides the
SharedComponent.
Cardinality:
01
TechnologyStandard
Role:
technologyStandard
Role Description:
nt that The technologyStandard that
the SharedComponent
implements.
Cardinality:
0*
r

Aligns	SRMComponent Aligns	SRMComponent	SharedComponent	
(Association)	SharedComponent.	Role: srmComponent Role Description: The SRMComponent that aligns a SharedComponent. Cardinality: 0*	Role: sharedComponent Role Description: The SharedComponent an SRMComponent aligns. Cardinality: 0*	

SharedService

Type: Class
Specialization of: MPGElement
Parent Package: Service Architecture

Description

A representation of a service that is used to identify and catalog the service as one being made available for reuse.

Name	Description	Source	Target
ComponentImplementsSer	SharedComponent	SharedComponent	SharedService
vice	ComponentImplementsService	Role:	Role:
(Association)	SharedService.	sharedComponent	sharedService
		Role Description:	Role Description:
		The SharedComponent that implements the SharedService.	The SharedService that the SharedComponent implements.
		Cardinality:	*
		0*	Cardinality:
			0*
CataloguedAs	SystemService CataloguedAs	SystemService	SharedService
(Association)	SharedService.	Role:	Role:
		systemService	sharedService
		Role Description: The SystemService that is catalogued as a SharedService.	Role Description:
			The SharedService that catalogs the SystemService.
			Cardinality:
		Cardinality: 01	01
		01	01
ProvidedBy	SharedService ProvidedBy	SharedService	SystemService
(Association)	SystemService.	Role:	Role:
		sharedService	systemService
		Role Description:	Role Description:
		The SharedService that the SystemService provides.	The SystemService that provides the SharedService.
		Cardinality: 01	Cardinality:
		01	01

Automates (Association)	SharedService Automates CommonBusinessProcess.	SharedService Role: sharedService Role Description: The SharedService that automates the CommonBusinessProcess. Cardinality: 0*	CommonBusinessProcess Role: commonBusinessProcess Role Description: The CommonBusinessProcess that the SharedService automates. Cardinality: 0*
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*
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*

SystemService
Type: Class
Specialization of: MPGElement
Parent Package: Service Architecture

Description

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.

Name	Description	Source	Target
Provides	SystemService Provides	SystemService	SystemServiceInterface
(Association)	SystemServiceInterface.	Role:	Role:
		systemService	systemServiceInterface
		Role Description:	Role Description:
		The SystemService that	The SystemServiceInterface
		provides the	that the SystemService
		SystemServiceInterface.	provides.
		Cardinality:	Cardinality:
		01	0*
Provides	ITSystem Provides	ITSystem	SystemService
(Association)	SystemService.	Role:	Role:
		itSystem	systemService
		Role Description:	Role Description:
		The ITSystem that provides a	The SystemService the
		SystemService.	ITSystem provides.
		Cardinality:	Cardinality:
		0*	0*
CataloguedAs	SystemService CataloguedAs	SystemService	SharedService
(Association)	SharedService.	Role:	Role:
		systemService	sharedService
		Role Description: The SystemService that is catalogued as a SharedService.	Role Description:
			The SharedService that
			catalogs the SystemService.
			Cardinality:
		Cardinality: 01	01
		01	01
ProvidedBy	SharedService ProvidedBy	SharedService	SystemService
(Association)	SystemService.	Role:	Role:
		sharedService	systemService
		Role Description:	Role Description:
		The SharedService that the	The SystemService that
		SystemService provides.	provides the SharedService.
		Cardinality: 01	Cardinality:
			01
			01
IsDefinedBy	EnterpriseServiceSegment is	EnterpriseServiceSegment	SystemService
(Association)	defined by SystemService	Role:	Role:
		Role Description:	Role Description:
		EnterpriseServiceSegment	The SystemService defining
		the SystemService defines.	the
		Cardinality: 01	EnterpriseServiceSegment.
			Cardinality:
			0*

Requires (Association)	SystemService requires SystemServiceInterface.	SystemService Role: requiringSystemService Role Description: The SystemService that requires the SystemServiceInterface. Cardinality: 0*	SystemServiceInterface Role: requiredSystemServiceInterf ace Role Description: The SystemServiceInterface required by the SystemService. Cardinality: 0*
Includes (Association)	ServiceArchitecture Includes SystemService.	ServiceArchitecture Role: serviceArchitecture Role Description: The ServiceArchitecture that includes a SystemService. Cardinality: 0*	SystemService Role: systemService Role Description: A SystemService that the ServiceArchitecture includes. Cardinality: 0*
Requires (Association)	SystemService Requires ServiceComponent.	SystemService Role: systemService Role Description: The SystemService that requires the ServiceComponent. Cardinality: 0*	ServiceComponent Role: serviceComponent Role Description: The ServiceComponent that the SystemService requires. Cardinality: 0*

SystemServiceInterface

Type: <u>Class</u> Specialization of: <u>MPGElement</u> Parent Package: Service Architecture

Description

- 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 paramaters 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"

Name	Description	Source	Target
Provides (Association)	SystemService Provides SystemServiceInterface.	SystemService Role:	SystemServiceInterface Role:
		systemService	systemServiceInterface
		Role Description: The SystemService that provides the SystemServiceInterface.	Role Description: The SystemServiceInterface that the SystemService provides.
		Cardinality: 01	Cardinality: 0*
Consumes	SystemServiceInterface	SystemServiceInterface	DRMExchangePackage
(Association)	Consumes DRMExchangePackage.	Role: consumingSystemServiceInt erface	Role: consumedDRMExchangePac kage
		Role Description: The SystemServiceInterface that consumes the DRMExchangePackage.	Role Description: The DRMExchangePackage that the
		Cardinality: 0*	SystemServiceInterface consumes. Cardinality:
			0*
Supplies (Association)	SystemServiceInterface Supplies DRMExchangePackage.	SystemServiceInterface Role: supplyingSystemServiceInterface	DRMExchangePackage Role: suppliedDRMExchangePack age
		Role Description: The SystemServiceInterface that supplies the DRMExchangePackage. Cardinality: 0.*	Role Description: The DRMExchangePackage that the
			SystemServiceInterface supplies.
			Cardinality: 0*
Uses (Association)	ITSystem Uses SystemServiceInterface.	ITSystem Role:	SystemServiceInterface Role:
		itSystem Role Description:	systemServiceInterface
		The ITsystem that uses the SystemServiceInterface.	Role Description: The SystemServiceInterface
		Cardinality: 0*	that the ITSystem uses. Cardinality: 0*

Requires (Association)	BusinessProcess Uses SystemServiceInterface.	BusinessProcess Role: businessProcess Role Description: The BusinessProcess that requires the SystemServiceInterface. Cardinality: 0*	SystemServiceInterface Role: systemServiceInterface Role Description: The SystemServiceInterface that the Business Process requires. Cardinality: 0*
Requires (Association)	SystemService requires SystemServiceInterface.	SystemService Role: requiringSystemService Role Description: The SystemService that requires the SystemServiceInterface. Cardinality: 0*	SystemServiceInterface Role: requiredSystemServiceInterf ace Role Description: The SystemServiceInterface required by the SystemService. Cardinality: 0*
Requires (Association)	BusinessService requires SystemServiceInterface.	BusinessService Role: requiringBusinessService Role Description: The BusinessService that requires the SystemServiceInterface. Cardinality: 0*	SystemServiceInterface Role: requiredSystemServiceInterf ace Role Description: The SystemServiceInterface requried by the BusinessService. Cardinality: 0*

Technical Architecture

Type: Package

Parent Package: Enterprise Architecture

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

<u>**Technical Architecture**</u> - (Package diagram)

See Figure 23

Description

This diagram shows the basic derived MPG class elements that are used to capture the "Technical Architecture."

"Technology Products" are broken down into "Hardware" and "Software Product Lines" that can then be identified down to the "Model" and "Version" levels respectively. These can then be used to implement a "Technology Standard."

At the System and Application level, "Technical Architecture" is described the IT Systems it is made up which is an implementation of "Application Components."

The next figure places these constructs in context with the other domains of the MPG.

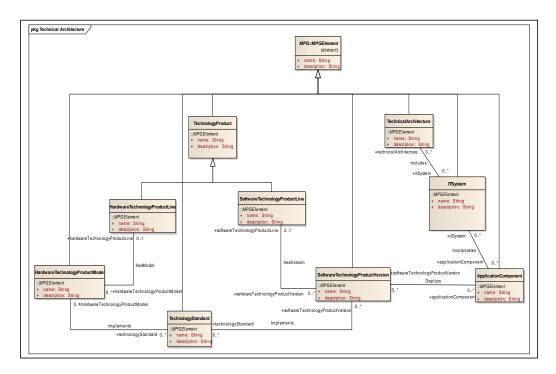


Figure 23 - Technical Architecture

$\underline{\textbf{Technical Architecture Context}} \text{-} (Logical \ diagram)$

See Figure 24

Description

This diagram shows the use of the "Technical Architecture" constructs in terms of the Investments and the IT Systems that are funded.

The relationship of Technology to the Investment is afforded two levels of granularity. At the higher level of model granularity, the Investment is shown with mappings to the FEA CRM Technical Reference Model (TRM) and the Service Reference Model (SRM) at the "TRM Service Standard" and the "SRM Component" and SRM. Both of these levels are provided by the OMB in its documentation of the Consolidated Reference Model (CRM).

A lower level of granularity affords this same mapping "up" to SRM and TRM via the Hardware and Software Products and the IT Systems that are to be implemented by the Investment.

With these two levels of granularity, the MPG provides for a high-level and low-level approach to the establishing the information that is required for cross Investment analysis.

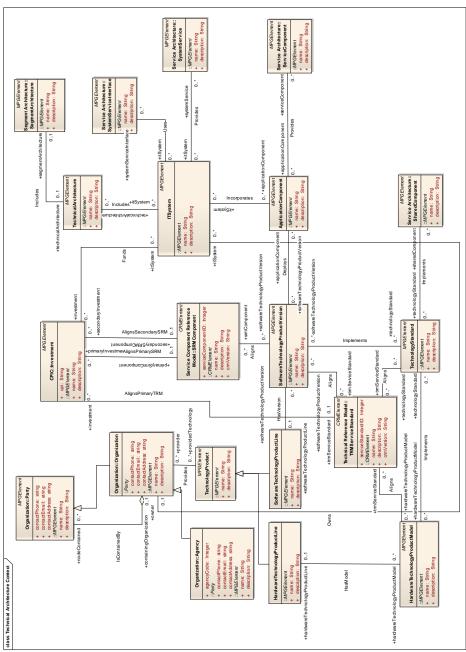


Figure 24 - Technical Architecture Context

ApplicationComponent

Type: Class
Specialization of: MPGElement
Parent Package: Technical Architecture

Description

A package or module of an application that is self contained.

Relationships

Name	Description	Source	Target
Incorporates	ITSystem Incorporates	ITSystem	ApplicationComponent
(Association)	ApplicationComponent.	Role:	Role:
		itSystem	applicationComponent
		Role Description:	Role Description:
		An ITSystem that incorporates the ApplicationComponent. Cardinality:	An ApplicationComponent that the ITSystem incorporates.
		0*	Cardinality:
			,
Deploys (Association)	ApplicationComponent Deploys SoftwareTechnologyProductVersion	ApplicationComponent Role:	0* SoftwareTechnologyProduct Version
	•	applicationComponent	Role:
		Role Description: An ApplicationComponent that	softwareTechnologyProduct Version
		deployes the SoftwareTechnologyProductVersi on. Cardinality: 0*	Role Description: A SoftwareTechnologyProduct Version that the
			ApplicationComponent deploys.
			Cardinality:
			0*
Provides	ApplicationComponent Provides	ApplicationComponent	ServiceComponent
(Association)	ServiceComponent.	Role:	Role:
		applicationComponent	serviceComponent
		Role Description:	Role Description:
		The ApplicationComponent that provides the ServiceComponent.	The ServiceComponent the ApplicationComponent
		Cardinality:	provides.
		0*	Cardinality:
			0*

HardwareTechnologyProductLine

Type: Class
Specialization of: TechnologyProduct
Parent Package: Technical Architecture

Description

A group of hardware products that are intended to support the same market and are closely related in terms of physical and manufacturing characteristics.

Name	Description	Source	Target
Name HasModel (Association)	Description HardwareTechnologyProductLine HasModel HardwareTechnologyProductModel.	HardwareTechnology ProductLine Role: hardwareTechnologyProductLine Role Description: The HardwareTechnologyProductLine that has the HardwareTechnologyProductModel.	Target HardwareTechnologyProduct Model Role: hardwareTechnologyProduct Model Role Description: A HardwareTechnologyProduct
		Cardinality: 01	Model that the HardwareTechnologyProduct Line has. Cardinality: 0*

HardwareTechnologyProductModel *Type:* Class

Type:

Specialization of: MPGElement
Parent Package: Technical Architecture

Description

A specific configuration within a Hardware Technology Product Line and offered for sale.

Name	Description	Source	Target
Aligns (Association)	TRMServiceStandard Aligns HardwareTechnologyProductModel.	TRMServiceStandard Role: trmServiceStandard Role Description: A TRMServiceStandard that aligns a HardwareTechnologyProductModel. Cardinality: 0*	HardwareTechnologyProduct Model Role: hardwareTechnologyProduct Model Role Description: A HardwareTechnologyProduct Model that a TRMServiceStandard aligns. Cardinality: 0*
Implements (Association)	HardwareTechnologyProductModel Implements TechnologyStandard.	HardwareTechnologyProduct Model Role: hardwareTechnologyProductModel Role Description: A HardwareTechnologyProductModel that implements a TechnologyStandard. Cardinality: 0*	TechnologyStandard Role: technologyStandard Role Description: A TechnologyStandard that a HardwareTechnologyProduct Model implements. Cardinality: 0*

HasModel (Association)	HardwareTechnologyProductLine HasModel HardwareTechnologyProductModel.	HardwareTechnologyProductLine Role: Role: Role Description: The HardwareTechnologyProductLine that has the HardwareTechnologyProductModel. Cardinality: 01	HardwareTechnologyProduct Model Role: hardwareTechnologyProduct Model Role Description: A HardwareTechnologyProduct Model that the HardwareTechnologyProduct Line has. Cardinality: 0*
---------------------------	--	--	--

ITSystem

Type: Class
Specialization of: MPGElement
Parent Package: Technical Architecture

Description

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."

Name	Description	Source	Target
Incorporates	ITSystem Incorporates	ITSystem	ApplicationComponent
(Association)	ApplicationComponent.	Role: itSystem Role Description: An ITSystem that incorporates the ApplicationComponent. Cardinality: 0*	Role: applicationComponent Role Description: An ApplicationComponent that the ITSystem incorporates. Cardinality: 0*
Provides (Association)	ITSystem Provides SystemService.	ITSystem Role: itSystem Role Description: The ITSystem that provides a SystemService. Cardinality: 0*	SystemService Role: systemService Role Description: The SystemService the ITSystem provides. Cardinality: 0*

Uses (Association)	ITSystem Uses SystemServiceInterface.	Role: itSystem Role Description: The ITsystem that uses the SystemServiceInterface. Cardinality: 0.*	SystemServiceInterface Role: systemServiceInterface Role Description: The SystemServiceInterface that the ITSystem uses. Cardinality: 0*
Owns (Association)	Organization owns ITSystem	Organization Role: owner Role Description: The owner of the IT system. Cardinality: 01	ITSystem Role: itSystem Role Description: An IT system owned by an organization. Cardinality: 0*
Includes (Association)	TechnicalArchitecture Includes ITSystem.	TechnicalArchitecture Role: technicalArchitecture Role Description: A TechnicalArchitecture that includes the ITSystem. Cardinality: 0*	ITSystem Role: itSystem Role Description: An ITSystem that the TechnicalArchitecture includes. 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*

SoftwareTechnologyProductLine
Type: Class
Specialization of: TechnologyProduct
Parent Package: Technical Architecture

Description

A group of software products that are intended to support the same market and are closely related in terms of functional, packaging or other characteristics.

Name	Description	Source	Target
HasVersion (Association)	SoftwareTechnologyProductLine HasVersion SoftwareTechnologyProductVersion	SoftwareTechnologyProductLine Role: softwareTechnologyProductLine Role Description: The SoftwareTechnologyProductLine that has the SoftwareTechnologyProductVersion. Cardinality: 01	SoftwareTechnologyProduct Version Role: softwareTechnologyProduct Version Role Description: A SoftwareTechnologyProduct Version that a SoftwareTechnologyProduct Line has. Cardinality: 0*

SoftwareTechnologyProductVersion

Type: Class
Specialization of: MPGElement
Parent Package: Technical Architecture

A specific configuration within a Software Technology Product Line and offered for sale.

Name	Description	Source	Target
Aligns (Association)	SRMComponent Aligns SoftwareTechnologyProduct Version.	SRMComponent Role: srmComponent Role Description: An SRMComponent that aligns a SoftwareTechnologyProductVersion. Cardinality: 0*	SoftwareTechnologyProduct Version Role: softwareTechnologyProduct Version Role Description: A SoftwareTechnologyProduct Version that an SRMComponent aligns. Cardinality: 0*

Aligns (Association)	TRMServiceStandard Aligns SoftwareTechnologyProduct Version.	TRMServiceStandard Role: trmServiceStandard Role Description: A TRMServiceStandard that aligns a SoftwareTechnologyProductVersion. Cardinality: 0*	SoftwareTechnologyProduct Version Role: softwareTechnologyProduct Version Role Description: A SoftwareTechnologyProduct Version that a TRMServiceStandard aligns. Cardinality: 0*
Implements (Association)	SoftwareTechnologyProduct Version Implements TechnologyStandard.	SoftwareTechnologyProductVersion Role: softwareTechnologyProductVersion Role Description: A SoftwareTechnologyProductVersion that implements a TechnologyStandard. Cardinality: 0*	TechnologyStandard Role: technologyStandard Role Description: A TechnologyStandard that a SoftwareTechnologyProductVersion implements. Cardinality: 0*
HasVersion (Association)	SoftwareTechnologyProduct Line HasVersion SoftwareTechnologyProduct Version.	SoftwareTechnologyProductLine Role: softwareTechnologyProductLine Role Description: The SoftwareTechnologyProductLine that has the SoftwareTechnologyProductVersion. Cardinality: 01	SoftwareTechnologyProductVersion Role: softwareTechnologyProductVersion Role Description: A SoftwareTechnologyProductVersion that a SoftwareTechnologyProductLine has. Cardinality: 0*
Deploys (Association)	ApplicationComponent Deploys SoftwareTechnologyProduct Version.	ApplicationComponent Role: applicationComponent Role Description: An ApplicationComponent that deployes the SoftwareTechnologyProductVersion. Cardinality: 0*	SoftwareTechnologyProductVersion Role: softwareTechnologyProductVersion Role Description: A SoftwareTechnologyProductVersion that the ApplicationComponent deploys. Cardinality: 0*

TechnicalArchitecture

Type: Class
Specialization of: MPGElement
Parent Package: Technical Architecture

Description

An architectural perspective based on the representation of the technical elements comprising the architecture. Technical elements include hardware and software entities.

Relationships

Description	Source	Target
SegmentArchitecture Includes	SegmentArchitecture	TechnicalArchitecture
TechnicalArchitecture.	Role:	Role:
	segmentArchitecture	technicalArchitecture
	Role Description:	Role Description:
	that includes the TechnicalArchitecture.	The TechnicalArchitecture the SegmentArchitecture includes.
	,	Cardinality:
	01	01
	TechnicalArchitecture	ITSystem
ITSystem.	Role:	Role:
	technicalArchitecture	itSystem
	Role Description:	Role Description:
		An ITSystem that the
	Cardinality:	TechnicalArchitecture includes.
	0*	Cardinality:
		,
		0*
		SegmentArchitecture Includes TechnicalArchitecture. SegmentArchitecture Role: segmentArchitecture Role Description: The SegmentArchitecture that includes the TechnicalArchitecture. Cardinality: 01 TechnicalArchitecture Includes ITSystem. TechnicalArchitecture Role: technicalArchitecture Role Description: A TechnicalArchitecture Role Description: A TechnicalArchitecture Cardinality: Cardinality:

TechnologyProduct

Type: Class
Specialization of: MPGElement
Parent Package: Technical Architecture

Description

An abstract type from which the Hardware Technology Product Line and Software Technology Product Line types are derived.

Name	Description	Source	Target
Provides (Association)	Organization provides TechnologyProduct.	Organization Role: provider Role Description: An organization that provides a technology. Cardinality:	TechnologyProduct Role: providedTechnology Role Description: A technology product provided by an organization.
		0*	Cardinality: 0*

TechnologyStandard

Type: Class
Specialization of: MPGElement
Parent Package: Technical Architecture

Description

A specification that establishes normative criteria regarding technology-related methods, processes, and practices.

Name	Description	Source	Target
Implements (Association)	SoftwareTechnologyProductVersion Implements TechnologyStandard.	SoftwareTechnologyProductVersion Role: softwareTechnologyProductVersion Role Description: A SoftwareTechnologyProductVersion that implements a TechnologyStandard. Cardinality: 0*	TechnologyStandard Role: technologyStandard Role Description: A TechnologyStandard that a SoftwareTechnologyProduct Version implements. Cardinality: 0*
Implements (Association)	SharedComponent Implements Technology Standard.	SharedComponent Role: sharedComponent Role Description: The SharedComponent that implements the TechnologyStandard. Cardinality: 0*	TechnologyStandard Role: technologyStandard Role Description: The technologyStandard that the SharedComponent implements. 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 TRMServiceStandard aligns. Cardinality: 0*
Implements (Association)	HardwareTechnologyProductModel Implements TechnologyStandard.	HardwareTechnologyProductModel Role: hardwareTechnologyProductModel Role Description: A HardwareTechnologyProductModel that implements a TechnologyStandard. Cardinality: 0*	TechnologyStandard Role: technologyStandard Role Description: A TechnologyStandard that a HardwareTechnologyProduct Model implements. Cardinality: 0*

Transition Planning

Type: Package

Parent Package: Enterprise Architecture

This package contains the set of types related to modeling Transition Planning concepts.

<u>Transition Planning</u> - (Package diagram)

See Figure 24

Description

This diagram shows the representation of the Cross Agency Initiative concept from the Federal Transition Framework as a member of the Transition Panning Domain.

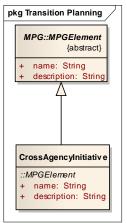


Figure 24 - Transition Planning

<u>Transition Planning Context</u> - (Logical diagram)

See Figure 25

Description

The diagram puts the CrossAgencyInitiative class into the context of the related Business Requirements being fulfilled by the Cross Agency Initiative. It also shows the high level approach used to associate Cross Agency Initiatives with the Segment Architectures that either provide capabilities as part of the Cross Agency Initiative or reuse (require) capabilities from existing Cross Agency Initiatives.

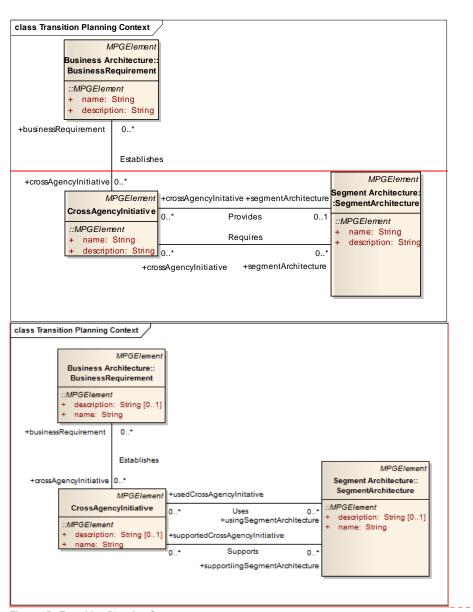


Figure 25 - Transition Planning Context

CrossAgencyInitiative

Type: <u>Class</u>
Specialization of: <u>MPGElement</u>
Parent Package: Transition Planning

Comment [BD15]: Replaced per Resolution of Issue 15919

Description

 $OMB\mbox{-sponsored initiatives such as E-Gov initiatives, Line of Business (LOB) initiatives, and other government-wide initiatives, such as Internet Protocol Version 6 (IPV6) and Homeland Security Presidential Directive 12 (HSPD-12).}$

Name	Description	Source	Target	
	SegmentArchitecture Provide		CrossAgencyInitiative	 Comment [BD16]: Deleted per Resolution of
AssociationClass)	CrossAgencyInitiative.	Role: segmentArchitecture Role Description: The SegmentArchitecture that provides a sharable- service (or other entity) to a CrossAgeneyInitiative. Cardinality: 01	Role: crossAgencyInitative Role Description: The-	 Issue 15919
Requires (AssociationClass)	SegmentArchitecture Requires CrossAgencyInitative.	Role: segmentArchitecture Role Description: The SegmentArchitecture that requires some entity provided by a CrossAgencyInitiative.	- CrossAgencyInitiative Role: crossAgencyInitiative Role Description: A CrossAgencyInitiative that provides an entity required- by the SegmentArchitecture.	 Comment [BD17]: Deleted per resolution of Issue 15919
	CrossAgencyInitiative. Ro	ole:	Cardinality: 0* - CrossAgencyInitiative Role:	 Comment [BD18]: Added per Resolution of Issue 15919
	Rc Th Su Cr	ole Description: ne segmentArchitecture pporting some aspect of the rossAgencyInitiative. ardinality: *	supportedCrossAgencyInitiative Role Description: The CrossAgencyInitiative supported by some aspect of the SegmentArchitecture. Cardinality:)*	
	CrossAgencyInitiative. Rc us Rc Th so Cr	ole: ingSegmentArchitecture ole Description: ne SegmentArchitecture using me aspect of the rossAgencyInitiative. ardinality:	CrossAgencyInitiative Role: usedCrossAgencyInitative Role Description: The CrossAgencyInitiative used by the SegmentArchitecture. Cardinality: 0*	 Comment [BD19]: Added per Resolution of Issue 15919

Establishes	CrossAgencyInitiative Establishes	CrossAgencyInitiative	BusinessRequirement
(Association)	BusinessRequirement.	Role: crossAgencyInitiative Role Description: The CrossAgencyInitiative that establishes the BusinessRequirement. Cardinality: 0*	Role: businessRequirement Role Description: The BusinessRequirement that the CrossAgencyInitative establishes. Cardinality: 0*

7.3.4 Organization

Type: Package: MPG

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

Organization - (Package diagram)

See Figure 26

Description

This diagram shows the basic derived MPG class elements that are used to capture the "Organizational Architecture" including both the aspects of the departmental structure of the organization as well as constructs for the human resource. These class elements are shown in context of the other MPG domains on the next diagram.

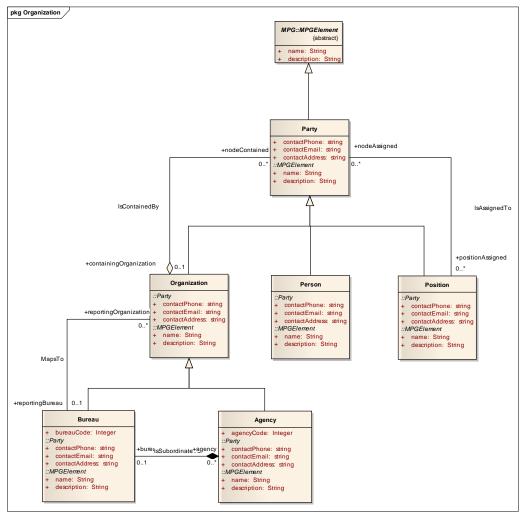


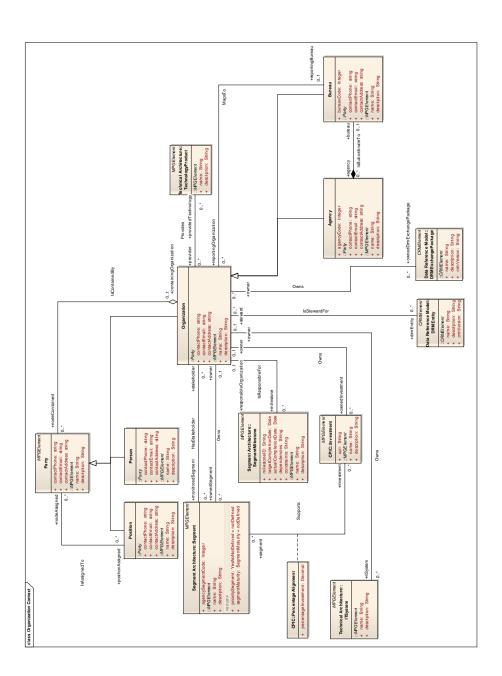
Figure 26 - Organization

 $\underline{Organization\ Context}\ \hbox{-}\ (Logical\ diagram)$

See Figure 27

Description

This diagram shows where organizational ownership is identified in the MPG. This ownership provides for reporting in terms of responsibility and accountability of Segments, Milestones of those Segments, Investments and IT Systems, Data, and the Technology (Hardware and Software) Products that are employed by the Enterprise.



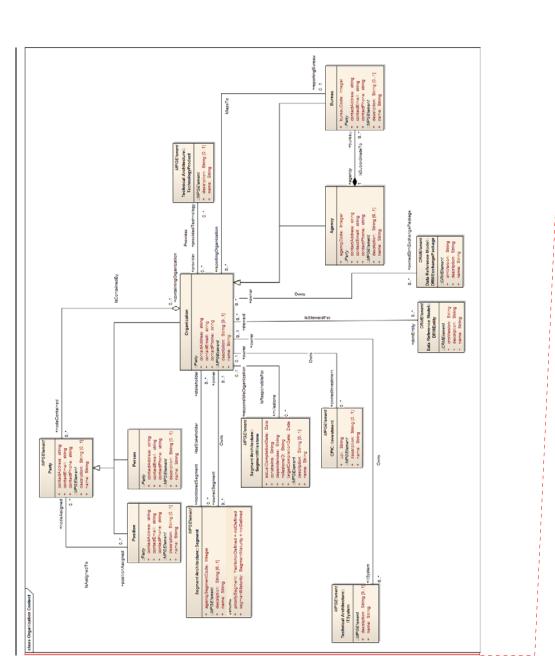


Figure 27 - Organization Context

Comment [BD20]: Replaced per Resolution of Issue 15919

Agency

Type: Class
Specialization of: Organization
Parent Package: Organization

Description

An administrative unit of the Executive Branch of the U.S. federal government.

Attributes

Attribute	Type	Description
agencyCode	Integer	The numeric code assigned to the agency
		for CPIC reporting purposes.

Relationships

Name	Description	Source	Target
IsSubordinateTo	Bureau is subordinate to Agency.	Bureau	Agency
(Aggregation)		Role:	Role:
		bureau	agency
		Role Description:	Role Description:
		Bureau that is subordinate to the Agency.	Agency to which the Bureau is subordinate.
		Cardinality: 01	Cardinality:
			0*

Bureau

Type: Class
Specialization of: Organization
Parent Package: Organization

Description

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.

Attributes

Attribute	Туре	Description
bureauCode	Integer	The numeric code assigned to the bureau
		for CPIC reporting purposes.

Name	Description	Source	Target
MapsTo	For A-11 reporting purposes, used	Organization	Bureau
(Association)	to identify the bureau that the	Role:	Role:
	organization reports through.	reportingOrganization	reportingBureau
		Role Description:	Role Description:
		An organizatin that reports through the bureau.	The bureau through which an
		Cardinality:	organization reports.
		0*	Cardinality:
			01
HasBudgetResource	Bureau has budget resource	Bureau	FundingSource
(Association)	FundingSource.	Role:	Role:
		bureau	fundingSource
		Role Description: Bureau with a particular budget source. Cardinality: 0*	Role Description:
			A source of funding for a
			bureau.
			Cardinality:
			0*
IsSubordinateTo	Bureau is subordinate to Agency.	Bureau	Agency
(Aggregation)		Role:	Role:
		bureau Role Description: Bureau that is subordinate to the Agency.	agency
			Role Description:
			Agency to which the Bureau
		5 7	is subordinate.
		Cardinality: 01	Cardinality:
			0*

Organization

Type: Class
Specialization of: Party
Parent Package: Organization

Description

Organization is used to represent the hierarchy of departments and the participants in each organization (Automaton's, Person's, Role's).

Name	Description	Source	Target
IsContainedBy	Organization is contained by	Party	Organization
(Aggregation)	Party.	Role: nodeContained Role Description: The Party contained by the Organization. Cardinality: 0.*	Role: containingOrganization Role Description: The Organization that contains the Party. Cardinality:
		V	01

HasStakeholder	Segment has stakeholder	Segment	Organization
(Association)	Organization.	Role: monitoredSegment Role Description: This segment is of interest to the stakeholder. Cardinality: 0*	Role: stakeholder Role Description: This organization has a stake in the definition of the segment. Cardinality: 0*
Owns (Association)	Organization owns Investment.	Organization Role: owner Role Description: The organization that owns the ownedInvestment. Cardinality: 01	Investment Role: ownedInvestment Role Description: This investment is owned by the organization playing the owner role. Cardinality: 0*
Provides (Association)	Organization provides TechnologyProduct.	Organization Role: provider Role Description: An organization that provides a technology. Cardinality: 0*	TechnologyProduct Role: providedTechnology Role Description: A technology product provided by an organization. Cardinality: 0*
MapsTo (Association)	For A-11 reporting purposes, used to identify the bureau that the organization reports through.	Organization Role: reportingOrganization Role Description: An organizatin that reports through the bureau. Cardinality: 0*	Bureau Role: reportingBureau Role Description: The bureau through which an organization reports. Cardinality: 01
Owns (Association)	The organization that owns the DRMExchangePackage.	Organization Role: owner Role Description: The organizatin that owns a particular DRM Exchange Package. Cardinality: 0*	DRMExchangePackage Role: ownedDrmExchangePackage Role Description: a DRM Exchange Package owned by an Organization. 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*
Owns (Association)	Organization owns ITSystem	Organization Role: owner Role Description: The owner of the IT system. Cardinality: 01	ITSystem Role: itSystem Role Description: An IT system owned by an organization. Cardinality: 0*
IsResponsibleFor (Association)	Orgnization is responsible for SegmentMilestone.	Organization Role: responsibleOrganization Role Description: The organization responsible for meeting the milestone. Cardinality: 01	SegmentMilestone Role: milestone Role Description: A milestone in the lifecycle of the segment. Cardinality: 0*
Owns (Association)	Organization owns Segment.	Organization Role: owner Role Description: Organization that owns the segment. Cardinality: 01	Segment Role: ownedSegment Role Description: A segment that is owned by the organization that plays the owner role. Cardinality: 0*

Party

Type: Class
Specialization of: MPGElement
Parent Package: Organization

Description

Party is the abstract supertype of all participants in the organization.

Attributes

Attribute	Type	Description
contactPhone	string	The phone number of the party.
contactEmail	string	The email address of the party.
contactAddress	string	The physical (mail) address of the party.

Relationships

Name	Description	Source	Target
IsAssignedTo	Party is assigned to Position.	Party	Position
(Association)		Role: nodeAssigned	Role: positionAssigned
		Role Description: The Party assigned to the Position. Cardinality: 0*	Role Description: The Position to which the Party is assigned. Cardinality: 0*
IsContainedBy (Aggregation)	Organization is contained by Party.	Party Role: nodeContained Role Description: The Party contained by the Organization. Cardinality: 0*	Organization Role: containingOrganization Role Description: The Organization that contains the Party. Cardinality: 01

Person

Type: Class
Specialization of: Party
Parent Package: Organization

Description

A human being.

Position

Type: Class
Specialization of: Party
Parent Package: Organization

Description

A Position is a formal post inside an organization held by one or more persons.

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Description	Source	Target
Party is assigned to Position.	Party	Position
	Role: nodeAssigned Role Description: The Party assigned to the Position. Cardinality: 0*	Role: positionAssigned Role Description: The Position to which the Party is assigned. Cardinality: 0*
		Party is assigned to Position. Party Role: nodeAssigned Role Description: The Party assigned to the Position. Cardinality: 0.**

7.3.5 Performance Management

Type: Package: MPG

This package contains the set of types related to modeling Performance Management concepts.

<u>Performance Management</u> - (Package diagram)

See Figure 28

Description

This diagram identifies the Outcome class as belonging to the Performance Management domain.

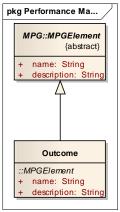


Figure 28 - Performance Management

Performance Management Context - (Logical diagram)

See Figure 29

Description

This diagram shows the association of Outcome to PRMMeasurementCateogry. The Outcome concept aligns to this level in the PRM. Also shown is the association to BusinessRequirement, used to identify how desired outcomes are tied to satisfaction of requirements.

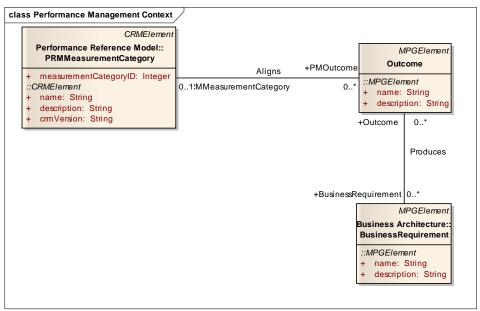


Figure 29 - Performance Management Context

Outcome

Type: Class

Specialization of: MPGElement
Parent Package: Performance Management

Description

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)

Name	Description	Source	Target
Aligns	PRMMeasurementCategory	PRMMeasurementCategory	Outcome
(Association)	aligns PMOutcome	Role: PRMMeasurementCategory Role Description: Cardinality: 01	Role: PMOutcome Role Description: Cardinality: 0*
Produces (Association)	BusinessRequirement produces Outcome.	BusinessRequirement Role: BusinessRequirement Role Description: The Business Requirement that when satisfied produces the Outcome. Cardinality: 0*	Outcome Role: Outcome Role Description: The Outcome desired to be rpoduced through satisfaction of the BusinessRequirement. Cardinality: 0*

7.3.6 Program Management

Type: Package: MPG

This package contains the set of types related to modeling Program Management concepts.

<u>Program Management</u> - (Package diagram)

See Figure 30

Description

This diagram shows that there is a single type of class object to address "Programs". The next diagram shows usage to "Programs" in the context of other class elements.

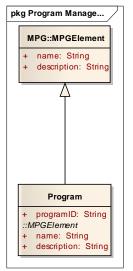


Figure 30 - Program Management

$\underline{\textbf{Program Management Context}} \text{-} (Logical \ diagram)$

See Figure 31

Description

This diagram places the Program class into the overall context of program management concepts. As can be seen, program management has direct associations to concepts in project management, capital planning, and performance management, including aspects of strategic management.

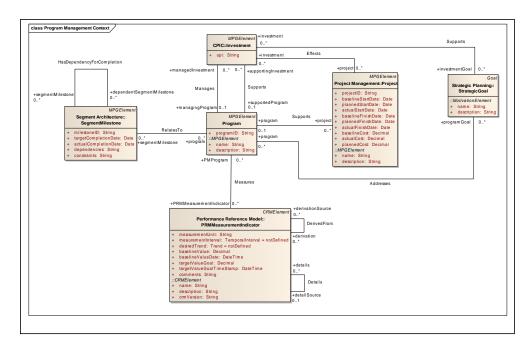


Figure 31 - Program Management Context

Program

Type: Class
Specialization of: MPGElement
Parent Package: Program Management

Description

A group of related project managed in a coordinated way to obtain benefits and control not available from managing them individually. (From PMBOK)

Attributes

Attribute	Туре	Description
programID	String	The identifier assigned to the program.

Name	Description	Source	Target
Supports	Project supports Program.	Project	Program
(Association)		Role:	Role:
		project	program
		Role Description:	Role Description:
		Project suppoting the Program. Cardinality: 0*	Program supported by the Project. Cardinality:
			01
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:
			01
Manages (Association)	Program manages Investment.	Program Role: managingProgram Role Description: Program that manages the investment. Cardinality: 01	Investment Role: managedInvestment Role Description: Investment managed by a program. Cardinality: 0*
Measures	PRMMeasurementIndicator	PRMMeasurementIndicator	Program
(Association)	measures PMProgram.	Role: PRMMeasurementIndicator Role Description: The PRMMeasurementIndicator that measures the performance of the Program. Cardinality: 0*	Role: PMProgram Role Description: The Program about which the PRMMeasurementIndicator measures performance. Cardinality: 0*
RelatesTo	Program relates to	Program	SegmentMilestone
(Association)	SegmentMilestone.	Role: program Role Description: The Program related to the SegmentMilestone. Cardinality: 0*	Role: segmentMilestone Role Description: The SegmentMilestone to which the Program relates. Cardinality: 0*

Addresses	Program addresses	Program	StrategicGoal
(Association)	StrategicGoal.	Role: program	Role:
		Role Description:	programGoal Role Description:
		A program that has goals. Cardinality:	A goal of the program.
		0*	Cardinality:
			0*

7.3.7 Project Management

Type: Package MPG

This package contains the set of types related to modeling Program Management concepts.

<u>Project Management</u> - (Package diagram)

See Figure 32

Description

This diagram identifies the classes modeled in the project management domain. The concepts represented were derived from the Program Management Book of Knowledge (PMBOK).

 $\underline{\textbf{Project Management}} \cdot (Package \ diagram)$

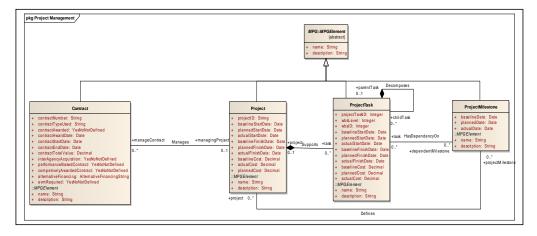


Figure 32 - Project Management

$\underline{\textbf{Project Management Context}} \text{ - } (Logical \ diagram)$

See Figure 33

Description

This diagram places the project management concepts into the overall context that includes consideration of costs (Investments), Contracts, and Programs.

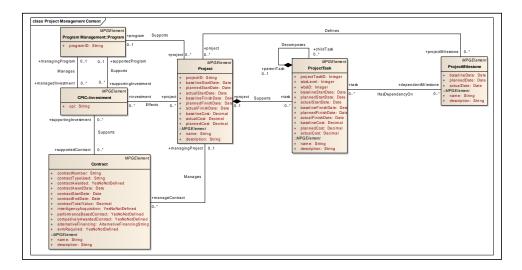


Figure 33 - Project Management Context

Contract

Type: <u>Class</u>
Specialization of: <u>MPGElement</u>
Parent Package: Project Management

Description

A binding agreement between two or more parties, as in a business agreement for the delivery of goods or services at a specified price.

Attributes

Attribute	Type Description	
contractNumber	String	The numeric identifier assigned to the contract.
contractTypeUsed	String	The type of contract used.

Attribute	Type	Description
contractAwarded	YesNoNotDefined	Whether the contract has been awarded.
contractAwardDate	Date	The date on which the contract was awarded.
contractStartDate	Date	The date on which the contract was started.
contractEndDate	Date	The date on which the contract ended.
contractTotalValue	Decimal	The total value of the contract.
interAgencyAcquisition	YesNoNotDefined	Whether the contract was an inter-agency acquisition.
performanceBasedContract	YesNoNotDefined	Whether the contract is performance based.
competivelyAwardedContract	YesNoNotDefined	Whether the contract was competitively awarded.
alternativeFinancing	AlternativeFinancingString	The kind of alternative financing used.
evmRequired	YesNoNotDefined	Whether earned value management is required.

Manages	Project manages Contract.	Project	Contract
(Association)		Role: managingProject Role Description: The project that manages a	Role: manageContract Role Description:
		contract. Cardinality: 01	A contract managed by a project. Cardinality: 0*
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*

Project

Type: <u>Class</u>
Specialization of: <u>MPGElement</u>
Parent Package: Project Management

Description

A temporary endeavor undertaken to create a unique product, service, or result. (From PMBOK)

Attributes

Attribute	Type	Description	
projectID	String	The identifier for the project.	
baselineStartDate	Date	Originally planned start date.	
plannedStartDate	Date	Currently planned start date.	
actualStartDate	Date	The date the project task actually started.	
baselineFinishDate	Date	Originally planned completion date.	
plannedFinishDate	Date	Currently planned completion date based on current project/task status.	
actualFinishDate	Date	Date the project task actually was completed.	
baselineCost	Decimal	Originally planned baseline (budgeted) cost in \$M.	
actualCost	Decimal	Actual cost of the completed task.	
plannedCost	Decimal	Currently planned cost based on current project/task status in \$M.	

Name	Description	Source	Target
Supports	Project supports Program.	Project	Program
(Association)		Role: project Role Description: Project suppoting the Program. Cardinality: 0*	Role: program Role Description: Program supported by the Project. Cardinality: 01
Manages (Association)	Project manages Contract.	Project Role: managingProject Role Description: The project that manages a contract. Cardinality: 01	Contract Role: manageContract Role Description: A contract managed by a project. Cardinality: 0*

Supports (Aggregation)	ProjectTask supports Project.	ProjectTask Role: task Role Description: A task supporting a project. Cardinality: 0*	Project Role: project Role Description: A project that is supported by a task. Cardinality: 01
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*
Defines (Association)	Project defines ProjectMilestone.	Project Role: project Role Description: The project to which a milestone applies. Cardinality: 0*	ProjectMilestone Role: projectMilestone Role Description: A milestone for a project. Cardinality: 0*

ProjectMilestone

Type: <u>Class</u>
Specialization of: <u>MPGElement</u>
Parent Package: Project Management

Description

A significant point or event in a project. (From PMBOK)

Attributes

Attribute	Type	Description
baselineDate	Date	Originally planned milestone date.
plannedDate	Date	Currently planned milestone date based on current project/task status.
actualDate	Date	Date the milestone was actually reached.

Name	Description	Source	Target
Defines	Project defines ProjectMilestone.	Project	ProjectMilestone
(Association)		Role:	Role:
		project	projectMilestone
		Role Description:	Role Description:
		The project to which a milestone applies.	A milestone for a project.
		Cardinality:	Cardinality:
		0*	0*
HasDependencyOn	ProjectMilestone has dependency	ProjectMilestone	ProjectTask
(Association)	on ProjectTask.	Role:	Role:
		dependentMilestone	task
		Role Description:	Role Description:
		A milestone that is dependent on a project task.	A project task on which a
		Cardinality:	milestone is dependent.
		O*	Cardinality:
			0*

ProjectTask

Type: Class
Specialization of: MPGElement
Parent Package: Project Management

Description

An activity with finite duration, requiring the application of resources, and delivering a concrete result, performed within the scope of a project.

Attributes

Attribute	Type	Description	
projectTaskID	Integer	The numeric ID of the project task. Project task IDs are unique at each level of the work breakdown structure within the scope of the parent project task.	
wbsLevel	Integer	The level of the project task in the work breakdown structure, expressed as an integer.	
wbsID	Integer	Identifier for the task within the work breakdown structure.	
baselineStartDate	Date	Originally planned start date.	
plannedStartDate	Date	Currently planned start date.	
actualStartDate	Date	The date the project task actually started.	
baselineFinishDate	Date	Originally planned completion date.	
plannedFinishDate	Date	Currently planned completion date based on current project/task status.	
actualFinishDate	Date	Date the project task actually was completed.	

Attribute	Type	Description	
baselineCost	Decimal	Originally planned baseline (budgeted) cost in \$M.	
plannedCost	Decimal	Currently planned cost based on current project/task status in \$M.	
actualCost	Decimal	Actual cost of the completed task.	

Supports	ProjectTask supports Project.	ProjectTask	Project
(Aggregation)		Role: task	Role: project
		Role Description: A task supporting a project. Cardinality: 0*	Role Description: A project that is supported by a task. Cardinality:
Decomposes	ProjectTask decomposes	ProjectTask	ProjectTask
(Aggregation)	ProjectTask.	Role: childTask Role Description: ProjectTask that decomposes the parent ProjectTask. Cardinality: 0*	Role: parentTask
			Role Description: ProjectTask that the child ProjectTask decomposes. Cardinality:
			01
HasDependencyOn (Association)	ProjectMilestone has dependency on ProjectTask.	ProjectMilestone Role: dependentMilestone	ProjectTask Role: task
		Role Description: A milestone that is dependent on a project task. Cardinality: 0*	Role Description: A project task on which a milestone is dependent. Cardinality: 0*

7.3.8 Strategic Planning

Type: Package: MPG

This package contains the set of types related to modeling Strategic Planning concepts.

<u>Strategic Planning</u> - (Package diagram)

See Figure 34

Description

This diagram shows the MPG class elements that provide for capture of strategic planning information. Objects with the BMM prefix come from the Business Motivation Model. Usage of these constructs is shown in the next context diagram.

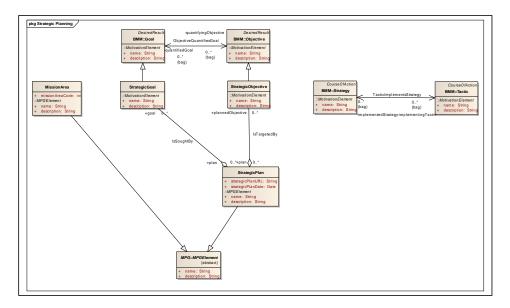


Figure 34 - Strategic Planning

$\underline{Strategic\ Planning\ Context} \ \hbox{-} \ (Logical\ diagram)$

See Figure 35

Description

This diagram shows how the Strategic Planning class elements from the Business Motivation Model can be tied in to the management of "Investments." This is intended to establish the alignment between the IT Investments and the Strategic Goals and Objectives that are to be satisfied.

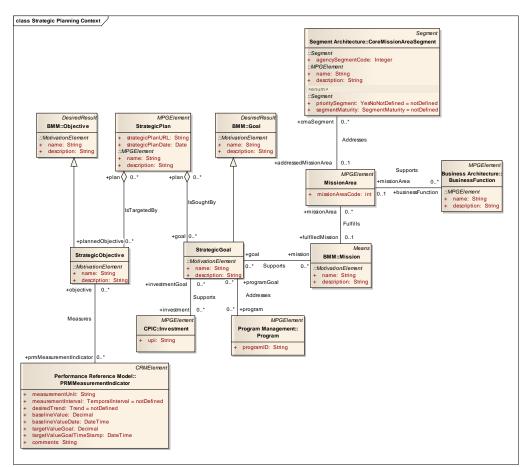


Figure 35 - Strategic Planning Context

MissionArea

Type: Class
Specialization of: MPGElement
Parent Package: Strategic Planning

Description

A mission area describes a functional capability that supports achievement of some aspect of a mission.

Attributes

Attribute	Туре	Description
missionAreaCode	Integer	Two digit code assigned to the Mission Area.

Relationships

Name	Description	Source	Target
Fulfills	MissionArea fulfills Mission.	MissionArea	Mission
(Association)		Role: missionArea Role Description: The MissionArea that fulfills the Mission. Cardinality: 0*	Role: fulfiledMission Role Description: The Mission a MissionArea fulfills. Cardinality: 01
Addresses (Association)	CoreMissionAreaSegment addresses MissionArea.	CoreMissionAreaSegment Role: cmaSegment Role Description: The segment that addresses a mission area. Cardinality: 0*	MissionArea Role: addressedMissionArea Role Description: The MissionArea addressed by the CoreMissionAreaSegment. Cardinality: 01
Supports (Association)	BusinessFunction supports MissionArea.	BusinessFunction Role: businessFunction Role Description: A business function that supports a mission area. Cardinality: 0*	MissionArea Role: missionArea Role Description: The mission area of a supporting business function Cardinality: 01

StrategicGoal

Type: Class
Specialization of: Goal
Parent Package: Strategic Planning

Description

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.

Relationships

Name	Description	Source	Target
Supports (Association)	StrategicGoal supports Mission.	StrategicGoal Role: goal Role Description: StrategicGoal that supports a Mission. Cardinality: 0*	Mission Role: mission Role Description: Mission that the StrategicGoal supports. Cardinality: 0*
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*
IsSoughtBy (Aggregation)	StrategicGoal is sought by StrategicPlan.	StrategicGoal Role: goal Role Description: A goal of a strategic plan. Cardinality: 0*	StrategicPlan Role: plan Role Description: The strategic plan that has a goal. Cardinality: 0*
Addresses (Association)	Program addresses StrategicGoal.	Program Role: program Role Description: A program that has goals. Cardinality: 0*	StrategicGoal Role: programGoal Role Description: A goal of the program. Cardinality: 0*

StrategicObjective

Type: <u>Class</u>
Specialization of: <u>Objective</u>
Parent Package: Strategic Planning

Description

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.

Relationships

Name	Description	Source	Target
Measures (Association)	PRMMeasurementIndicator measures StrategicObjective.	PRMMeasurement Indicator Role: prmMeasurementIndicator Role Description: A PRM measurement	StrategicObjective Role: objective Role Description: The objective measured by
I.TID	Strate is Objective in the control by	indicator for an objective. Cardinality: 0*	the indicator. Cardinality: 0*
IsTargetedBy (Aggregation)	StrategicObjective is targeted by StrategicPlan.	StrategicObjective Role: plannedObjective Role Description: A specific objective of a strategic plan. Cardinality: 0*	StrategicPlan Role: plan Role Description: A plan that includes the objective. Cardinality: 0*

StrategicPlan

Type: Class
Specialization of: MPGElement
Parent Package: Strategic Planning

Description

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.

Attributes

Attribute	Type	Description
strategicPlanURL	String	URL to publicly-available agency Strategic Plan.
strategicPlanDate	Date	The date at which the strategic plan was put into effect.

Relationships

IsSoughtBy	StrategicGoal is sought by	StrategicGoal	StrategicPlan
(Aggregation)	StrategicPlan.	Role: goal Role Description: A goal of a strategic plan. Cardinality: 0*	Role: plan Role Description: The strategic plan that has a goal. Cardinality: 0*
IsTargetedBy (Aggregation)	StrategicObjective is targeted by StrategicPlan.	StrategicObjective Role: plannedObjective Role Description: A specific objective of a strategic plan. Cardinality: 0*	StrategicPlan Role: plan Role Description: A plan that includes the objective. Cardinality: 0*

7.4 Enumerated Types

Type: Package MPG

Package that describes the enumerated types used in the Model for Performance-Driven Architecture.

 $\underline{\textbf{Enumerated Types}} \text{ - } (Package \ diagram)$

See Figure 36

Description

This diagram explicitly calls out certain enumerated types that are used by other class elements to provide standard selections of values.

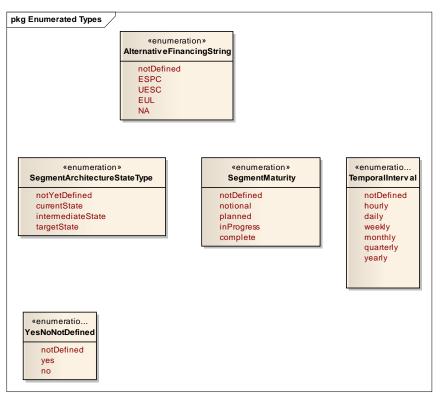


Figure 36 - Enumerated Types

7.5 Primitive Types

Type: **Package** Package: MPG

7.5.1 Boolean

Type:

<u>Class</u> Primitive Types Package:

7.5.2 Date

Type:

<u>Class</u> Primitive Types Package:

7.5.3 Integer

Class Type:

Package: Primitive Types

7.5.4 String

Type: Package:

<u>Class</u> Primitive Types

7.5.5 TimeStamp

Type: Package:

<u>Class</u> Primitive Types

7.5.6 Year

Type:

<u>Class</u> Primitive Types Package:

8 Model for Performance-Driven Government XML Schema

See OMG document dtc/2011-03-15gov/2010-02-03.

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9 Changes or Extensions to Existing OMG Specifications

None.

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 (eg. 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.

Core Mission Area Architecture

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.

Hardware Technology Product Line

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.

Hardware Technology Product Model

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 subtasks.

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.

Software Technology Product Version

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.

Technology	Stand	ard
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 $A\ specification\ that\ establishes\ normative\ criteria\ regarding\ technology-related\ methods,\ processes,\ and\ practices.$