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| ECOMP Model (ONAP)  ECOMP Class Model  Version 1.0 ● Proposed |
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# ECOMP Class Model

Package in package 'ECOMP Information Model (2017-08-21)'

Following is a collection of ECOMP class diagrams. These diagrams contain the foundation of the ECOMP information model, including key data entities, the relationships between these entities, as well as key attributes. This model should be a common basis for the various data models throughout ECOMP.

ECOMP Class Model

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/26/2015. Last modified 9/15/2016

## ECOMP Landscape diagram

Class diagram in package 'ECOMP Class Model'

The ECOMP Landscape touches on several key objects.

Given ECOMP is designed around a catalog based, model-driven architecture, CatalogItems, including OfferItems, ProductItems, ServiceItems, and ResourceItems can be seen depicted in figure 1. As explained in the ASDC White Paper, the composition of these CatalogItems is determined via ProductComposition, ServiceComposition, and ResourceComposition Classes, and how they are put together is determined by Recipes (ProductRecipe, ServiceRecipe, and ResourceRecipe).

Instantiation of these CatalogItems is brought about via Orders, including CustomerOrders, ProductOrders, ServiceOrders, ResourceOrdrers, and in some situations OperationsOrders. These instantiations result in the creation or assignment of resources in the various cloud operations environments. Inventory updates are then made,, including key configuration information, being stored in various InstanceItems, including ProductInstance, ServiceInstance, and ResourceInstance. Items will be instantiated only when demanded. While orders are temporal, configuration information will need to be retained in inventory across demands to provide information determining how to instantiate at future times.

Per figure 1, OfferItems are made up of one or more ProductCatalogItems. ProductCatalogItems can be made up of one or more ProductCatalogItems (a bundle situation) or of one or more ServiceCatalogItems. SerivceCatalogItems can then be composed of one or more ResourceCatalogItems. ServiceCatalogItems CANNOT be made up of ServiceCatalogItems. ProductInstance, ServiceInstance, and ResourceInstance follow the same pattern.

ECOMP Landscape

Version 1.0

KS0567 created on 10/19/2016. Last modified 8/28/2017



1. ECOMP Landscape

## Catalog

Package in package 'ECOMP Class Model'

Catalog

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/20/2016. Last modified 11/16/2016

### Catalog diagram

Class diagram in package 'Catalog'

To allow for dynamic definition of a catalog, we make use of the TMF Specification and Characteristic patterns. A Catalog therefore has a specification

Catalog

Version 1.0

KS0567 created on 7/20/2016. Last modified 8/15/2017



1. Catalog

### Catalog Candidates diagram

Class diagram in package 'Catalog'

A service provider can have a number of different types of catalogs, including product catalogs, service catalogs, and resource catalogs. Catalogs have catalog items, which is a specification.

Catalog Candidates

Version 1.0

KS0567 created on 7/21/2016. Last modified 8/15/2017



1. Catalog Candidates

### Catalog

Class in package 'Catalog'

Catalog

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/20/2016. Last modified 7/26/2016

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ProductCatalog to Catalog  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceCatalog to Catalog  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceCatalog to Catalog  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| ID : String Private  [ Is static False. Containment is Not Specified. ] |
| Name : String Private  [ Is static False. Containment is Not Specified. ] |
| type : String Private  [ Is static False. Containment is Not Specified. ] |
| validFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CatalogSpecDescribes | |
| Source: Public (Class) CatalogSpecification  Cardinality: [0..1] | Target: Public (Class) Catalog  Cardinality: [\*] |
| Association (direction: Unspecified) PartyRoleProvides | |
| Source: Public (Class) PartyRole  Cardinality: [0..1] | Target: Public (Class) Catalog  Cardinality: [\*] |
| Association (direction: Unspecified) CharacteristicValueDescribes | |
| Source: Public (Class) CharacteristicValue | Target: Public (Class) Catalog |

### CatalogSpecRelationship

AssociationClass in package 'Catalog'

CatalogSpecRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/20/2016. Last modified 7/20/2016

### CatalogSpecification

Class in package 'Catalog'

CatalogSpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/20/2016. Last modified 7/20/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CatalogSpecDescribes | |
| Source: Public (Class) CatalogSpecification  Cardinality: [0..1] | Target: Public (Class) Catalog  Cardinality: [\*] |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) CatalogSpecification  Cardinality: [\*] | Target: Public (Class) CatalogSpecification  Cardinality: [\*] |
| Association (direction: Unspecified) | |
| Source: Public (AssociationClass) ResourceCatalogItemCharUse | Target: Public (Class) CatalogSpecification |
| Association (direction: Unspecified) | |
| Source: Public (AssociationClass) ResourceCatalogItemCharUse | Target: Public (Class) CatalogSpecification |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) CatalogSpecification  Cardinality: [\*] | Target: Public (Class) CatalogSpecification  Cardinality: [\*] |

### ProductCatalog

Class in package 'Catalog'

ProductCatalog

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/20/2016. Last modified 7/29/2016

Extends Catalog

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ProductCatalog to Catalog  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ProductCatalogContains | |
| Source: Public (Class) ProductOfferingItem  Cardinality: [\*] | Target: Public (Class) ProductCatalog  Cardinality: [1] |

### ProductSpecification

Class in package 'Catalog'

ProductSpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/26/2016. Last modified 7/29/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ProdSpecMadeAvailabileAs | |
| Source: Public (Class) ProductSpecification  Cardinality: [1..] | Target: Public (Class) ProductCatalogItem  Cardinality: [\*] |

### ResCatalogResCandidate

AssociationClass in package 'Catalog'

ResCatalogResCandidate

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/26/2016. Last modified 7/26/2016

| ATTRIBUTES |
| --- |
| validFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |

### ResourceCatalog

Class in package 'Catalog'

ResourceCatalog

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/20/2016. Last modified 7/29/2016

Extends Catalog

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceCatalog to Catalog  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceCatalogItem to ResourceCatalog  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItem to ResourceCatalog  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItem to ResourceCatalog  [ Direction is 'Source -> Destination'. ] |

### ResourceSpecification

Class in package 'Catalog'

ResourceSpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/20/2016. Last modified 7/20/2016

### ServCatalogServCandidate

AssociationClass in package 'Catalog'

ServCatalogServCandidate

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/26/2016. Last modified 7/26/2016

| ATTRIBUTES |
| --- |
| validFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |

### ServiceCatalog

Class in package 'Catalog'

ServiceCatalog

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/20/2016. Last modified 7/29/2016

Extends Catalog

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceCatalog to Catalog  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceCatalogItem to ServiceCatalog  [ Direction is 'Source -> Destination'. ] |

### ServiceSpecification

Class in package 'Catalog'

ServiceSpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/26/2016. Last modified 7/29/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ServiceSpecificationMadeAvailabileAs | |
| Source: Public (Class) ServiceSpecification  Cardinality: [1..] | Target: Public (Class) ServiceCatalogItem  Cardinality: [0..1] |

## Common Business

Package in package 'ECOMP Class Model'

Common Business

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/6/2017. Last modified 4/6/2017

### Capacity

Package in package 'Common Business'

Capacity

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/6/2017. Last modified 4/6/2017

#### *Capacity diagram*

Class diagram in package 'Capacity'

Capacity

Version 1.0

KS0567 created on 4/6/2017. Last modified 8/15/2017



1. Capacity

#### *Capacity Types diagram*

Class diagram in package 'Capacity'

There are several types of **capacity**, namely **ProductCapacity**, **ServiceCapacity**, and **ResourceCapacity**. These subtypes can be related to each other, with **CapaictyRelationship** providing support for these interrelationships.

Capacity Types

Version 1.0

KS0567 created on 4/6/2017. Last modified 8/15/2017



1. Capacity Types

#### *ApplicableTimePeriod*

Class in package 'Capacity'

ApplicableTimePeriod

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/6/2017. Last modified 4/6/2017

| ATTRIBUTES |
| --- |
| daysOfWeek : String Private  [ Is static False. Containment is Not Specified. ] |
| fromToDateTime : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |
| rangeInterval : String Private  [ Is static False. Containment is Not Specified. ] |
| validFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CapacityAvaiableDuring | |
| Source: Public (Class) Capacity  Cardinality: [\*] | Target: Public (Class) ApplicableTimePeriod  Cardinality: [1] |

#### *AppliedCapacityDemand*

Class in package 'Capacity'

AppliedCapacityDemand

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/6/2017. Last modified 8/15/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CapaictyDemandDistributedAs | |
| Source: Public (Class) AppliedCapacityDemand  Cardinality: [\*] | Target: Public (Class) CapacityDemand  Cardinality: [1..] |
| Association (direction: Unspecified) CapacityAmountReducedBy | |
| Source: Public (Class) CapacityAmount  Cardinality: [1..] | Target: Public (Class) AppliedCapacityDemand  Cardinality: [\*] |

#### *Capacity*

Class in package 'Capacity'

**Capacity** is the ability to provide some capability.

Capacity

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/6/2017. Last modified 4/6/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from CapacityAmount to Capacity  [ Name is AvaiableCapacityExpressedAs. Direction is 'Source -> Destination'. ] |
| Generalization from ResourceCapacity to Capacity  [ Direction is 'Source -> Destination'. ] |
| Generalization from ProductCapacity to Capacity  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceCapacity to Capacity  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| PlannedOrActualCapacity : String Private  Specifies whether the capacity is planned or actual.  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) Capacity  Cardinality: [\*] | Target: Public (Class) Capacity  Cardinality: [\*] |
| Association (direction: Unspecified) CapacityAppliesTo | |
| Source: Public (Class) Capacity  Cardinality: [\*] | Target: Public (Class) GeographicPlace  Cardinality: [\*] |
| Association (direction: Unspecified) CapacityAvaiableDuring | |
| Source: Public (Class) Capacity  Cardinality: [\*] | Target: Public (Class) ApplicableTimePeriod  Cardinality: [1] |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) Capacity  Cardinality: [\*] | Target: Public (Class) Capacity  Cardinality: [\*] |

#### *CapacityAmount*

Class in package 'Capacity'

CapacityAmount

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/6/2017. Last modified 4/6/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from CapacityAmount to Capacity  [ Name is AvaiableCapacityExpressedAs. Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CapacityAmountReducedBy | |
| Source: Public (Class) CapacityAmount  Cardinality: [1..] | Target: Public (Class) AppliedCapacityDemand  Cardinality: [\*] |

#### *CapacityDemand*

Class in package 'Capacity'

CapacityDemand

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/6/2017. Last modified 4/6/2017

| ATTRIBUTES |
| --- |
| capacityDemandAmont : Quantity Private  [ Is static False. Containment is Not Specified. ] |
| capacityDemandAmountFrom : Quantity Private  [ Is static False. Containment is Not Specified. ] |
| capacityDemandAmountTo : Quantity Private  [ Is static False. Containment is Not Specified. ] |
| plannedOrAcdtualDemand : String Private  [ Is static False. Containment is Not Specified. ] |
| priority : String Private  [ Is static False. Containment is Not Specified. ] |
| rangeInterval : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CapaictyDemandDistributedAs | |
| Source: Public (Class) AppliedCapacityDemand  Cardinality: [\*] | Target: Public (Class) CapacityDemand  Cardinality: [1..] |

#### *CapacityRelationship*

AssociationClass in package 'Capacity'

**CapacityRelationship** provides the means to relate different types (subclasses) of capacity. ServiceCapacity might be based on ResourceCapacity as an example.

CapacityRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/6/2017. Last modified 4/6/2017

| ATTRIBUTES |
| --- |
| CapRelType : String Private  [ Is static False. Containment is Not Specified. ] |
| ValidFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |

#### *ProductCapacity*

Class in package 'Capacity'

ProductCapacity

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/6/2017. Last modified 8/18/2017

Extends Capacity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ProductCapacity to Capacity  [ Direction is 'Source -> Destination'. ] |

#### *ResourceCapacity*

Class in package 'Capacity'

ResourceCapacity

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/6/2017. Last modified 4/6/2017

Extends Capacity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceCapacity to Capacity  [ Direction is 'Source -> Destination'. ] |

#### *ServiceCapacity*

Class in package 'Capacity'

ServiceCapacity

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/6/2017. Last modified 4/6/2017

Extends Capacity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceCapacity to Capacity  [ Direction is 'Source -> Destination'. ] |

### Configuration

Package in package 'Common Business'

The **configuration** of products, services, and resources may consist of a number of processes, some of which can become very complex. This complexity can be reduced via the identification and (re)use of common patterns.

Use of a **Configuration** class is believed to provide a more complete model that represents how services are configured than resource facing and customer facing concepts. Also, if configuration is viewed as separate from ordering, establishing a separate class of configuration, and performing updates to that class is appropriate.

Configuration

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/25/2017. Last modified 5/12/2017

#### *Configuration Specification and Configuration Instances diagram*

Class diagram in package 'Configuration'

A **Configuration** defines how a product, service, or resource operates or functions. A **Configuration** may contain one or more parts, but is represented as a single entity. Configuration attributes may have fixed values or have a choice of values. Attributes can be defined using the entity specification and characteristic patterns.

A **Configuration** can be related to other configurations via the **ConfigRelationship** (instances) or **ConfigSpecRelationship** (specifications) or via the composte/atomic pattern. This collection of configurations can then represent the collection of items.

Pros and Cons for using Relationship versus the composite/atomic pattern.

1. Use of Relationship "hides" the fact that it is composite/atomic as an attribute (RelationshipType)

2. Relationship allows for many to many, while the composite/atomic only allows for one parent - requires code to prevent.

3. With Composite/atomic, it allows for attributes in the atomic that should only be in the composite - again - requires code to prevent.

Side note: Having a relationship at the superclass (Configuration) and having a composite/atomic down at the ResourceInstanceConfiguration elvel as an example makes for serious complexity.

Configuration Specification and Configuration Instances

Version 1.0

KS0567 created on 4/25/2017. Last modified 8/15/2017



1. Configuration Specification and Configuration Instances

#### *Configuration Specification Associations diagram*

Class diagram in package 'Configuration'

A given Configuration Instance could make use of different Configuration Specifications (time of day as an example).

Configuration Specification Associations

Version 1.0

KS0567 created on 4/25/2017. Last modified 6/14/2017



1. Configuration Specification Associations

#### *Configuration Specification and Configuration Characteristics diagram*

Class diagram in package 'Configuration'

Configuration Specification and Configuration Characteristics

Version 1.0

KS0567 created on 5/12/2017. Last modified 5/12/2017



1. Configuration Specification and Configuration Characteristics

#### *ConfigRelationship*

Class in package 'Configuration'

ConfigRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/25/2017. Last modified 4/25/2017

| ATTRIBUTES |
| --- |
| Status : String Private  [ Is static False. Containment is Not Specified. ] |
| validFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ConfigurationReferences | |
| Source: Public (Class) ConfigurationInstance  Cardinality: [1] | Target: Public (Class) ConfigRelationship  Cardinality: [0..\*] |
| Association (direction: Unspecified) ConfigurationReferencedBy | |
| Source: Public (Class) ConfigurationInstance  Cardinality: [1] | Target: Public (Class) ConfigRelationship  Cardinality: [0..\*] |

##### Product Configuration Example diagram

Object diagram in package 'Configuration'

Product Configuration Example

Version 1.0

KS0567 created on 5/12/2017. Last modified 6/6/2017



1. Product Configuration Example

#### *ConfigSpecRelationship*

Class in package 'Configuration'

ConfigSpecRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/25/2017. Last modified 4/25/2017

| ATTRIBUTES |
| --- |
| configSpecRelatiionshipType : String Private  [ Is static False. Containment is Not Specified. ] |
| validFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ConfigSpecReferences | |
| Source: Public (Class) ConfigurationSpecification  Cardinality: [1] | Target: Public (Class) ConfigSpecRelationship  Cardinality: [0..\*] |
| Association (direction: Unspecified) ConfigSpecReferencedBy | |
| Source: Public (Class) ConfigurationSpecification  Cardinality: [1] | Target: Public (Class) ConfigSpecRelationship  Cardinality: [0..\*] |

#### *ConfigurationInstance*

Class in package 'Configuration'

A **Configuration** (also reffered to as a profile) defines how a resource, service, or product operates or functions. A Configuration may be atomic or composite, and may contain zero or more characteristics (attributes). Attributes may be statically or dynamically defines, and may have fixed values or may have value options.

Characteristics that affect the behavior of the resource, service, or product should be stored within this class. Other attributes are to be stored within the CatalogItem.

ConfigurationInstance

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/25/2017. Last modified 5/12/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ProductInstanceConfiguration to ConfigurationInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceInstanceConfiguration to ConfigurationInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceInstanceConfiguration to ConfigurationInstance  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| dateCreated : DateTime Private  [ Is static False. Containment is Not Specified. ] |
| description : String Private  [ Is static False. Containment is Not Specified. ] |
| validFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |
| Version : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ConfigurationReferences | |
| Source: Public (Class) ConfigurationInstance  Cardinality: [1] | Target: Public (Class) ConfigRelationship  Cardinality: [0..\*] |
| Association (direction: Unspecified) ConfigurationReferencedBy | |
| Source: Public (Class) ConfigurationInstance  Cardinality: [1] | Target: Public (Class) ConfigRelationship  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceInstanceConfiguration | Target: Public (Class) ConfigurationInstance |
| Association (direction: Unspecified) | |
| Source: Public (Class) ProductInstanceConfiguration | Target: Public (Class) ConfigurationInstance |
| Association (direction: Unspecified) ConfigurationSpecificationDescribes | |
| Source: Public (Class) ConfigurationSpecification  Cardinality: [0..1] | Target: Public (Class) ConfigurationInstance  Cardinality: [0..\*] |

#### *ConfigurationSpecification*

Class in package 'Configuration'

ConfigurationSpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/25/2017. Last modified 6/27/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceConfigSpec to ConfigurationSpecification  [ Direction is 'Source -> Destination'. ] |
| Generalization from ProductConfigSpec to ConfigurationSpecification  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceConfigSpec to ConfigurationSpecification  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| description : String Private  [ Is static False. Containment is Not Specified. ] |
| ID : String Private  [ Is static False. Containment is Not Specified. ] |
| name : String Private  [ Is static False. Containment is Not Specified. ] |
| validFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |
| version : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ConfigSpecReferences | |
| Source: Public (Class) ConfigurationSpecification  Cardinality: [1] | Target: Public (Class) ConfigSpecRelationship  Cardinality: [0..\*] |
| Association (direction: Unspecified) ConfigSpecReferencedBy | |
| Source: Public (Class) ConfigurationSpecification  Cardinality: [1] | Target: Public (Class) ConfigSpecRelationship  Cardinality: [0..\*] |
| Association (direction: Unspecified) ConfigurationSpecificationDescribes | |
| Source: Public (Class) ConfigurationSpecification  Cardinality: [0..1] | Target: Public (Class) ConfigurationInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (AssociationClass) EntitySpecCharUse | Target: Public (Class) ConfigurationSpecification |

#### *ProductConfigSpec*

Class in package 'Configuration'

ProductConfigSpec

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/25/2017. Last modified 8/23/2017

Extends ConfigurationSpecification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ProductConfigSpec to ConfigurationSpecification  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ProductConfigSpecDescribes | |
| Source: Public (Class) ProductConfigSpec  Cardinality: [0..1] | Target: Public (Class) ProductInstanceConfiguration  Cardinality: [0..\*] |
| Association (direction: Unspecified) ProductConfigSpecDefinedFor | |
| Source: Public (Class) ProductCatalogItem  Cardinality: [1] | Target: Public (Class) ProductConfigSpec  Cardinality: [0..\*] |

#### *ProductInstanceConfiguration*

Class in package 'Configuration'

ProductInstanceConfiguration

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/25/2017. Last modified 4/25/2017

Extends ConfigurationInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ProductInstanceConfiguration to ConfigurationInstance  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) ProductInstanceConfiguration | Target: Public (Class) ConfigurationInstance |
| Association (direction: Unspecified) ProductConfigSpecDescribes | |
| Source: Public (Class) ProductConfigSpec  Cardinality: [0..1] | Target: Public (Class) ProductInstanceConfiguration  Cardinality: [0..\*] |
| Association (direction: Unspecified) ProductConfigurationDefinedFor | |
| Source: Public (Class) ProductInstance  Cardinality: [1] | Target: Public (Class) ProductInstanceConfiguration  Cardinality: [0..\*] |

#### *ResourceConfigSpec*

Class in package 'Configuration'

ResourceConfigSpec

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/25/2017. Last modified 8/23/2017

Extends ConfigurationSpecification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceConfigSpec to ConfigurationSpecification  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ResourceConfigSpecDescribes | |
| Source: Public (Class) ResourceConfigSpec  Cardinality: [0..1] | Target: Public (Class) ResourceInstanceConfiguration  Cardinality: [0..\*] |
| Association (direction: Unspecified) ResourceConfigSpecDefinedFor | |
| Source: Public (Class) ResourceCatalogItem  Cardinality: [1] | Target: Public (Class) ResourceConfigSpec  Cardinality: [0..\*] |

#### *ResourceInstanceConfiguration*

Class in package 'Configuration'

ResourceInstanceConfiguration

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/25/2017. Last modified 4/25/2017

Extends ConfigurationInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceInstanceConfiguration to ConfigurationInstance  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ResourceConfigSpecDescribes | |
| Source: Public (Class) ResourceConfigSpec  Cardinality: [0..1] | Target: Public (Class) ResourceInstanceConfiguration  Cardinality: [0..\*] |
| Association (direction: Unspecified) ResourceCOnfigurationDefinedFor | |
| Source: Public (Class) ResourceInstance  Cardinality: [1] | Target: Public (Class) ResourceInstanceConfiguration  Cardinality: [0..\*] |

#### *ServiceConfigSpec*

Class in package 'Configuration'

ServiceConfigSpec

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/25/2017. Last modified 8/23/2017

Extends ConfigurationSpecification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceConfigSpec to ConfigurationSpecification  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ServiceConfigSpecDescribes | |
| Source: Public (Class) ServiceConfigSpec  Cardinality: [0..1] | Target: Public (Class) ServiceInstanceConfiguration  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceConfigSpecDefinedFor | |
| Source: Public (Class) ServiceCatalogItem  Cardinality: [1] | Target: Public (Class) ServiceConfigSpec  Cardinality: [0..\*] |

#### *ServiceInstanceConfiguration*

Class in package 'Configuration'

ServiceInstanceConfiguration

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/25/2017. Last modified 4/25/2017

Extends ConfigurationInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceInstanceConfiguration to ConfigurationInstance  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceInstanceConfiguration | Target: Public (Class) ConfigurationInstance |
| Association (direction: Unspecified) ServiceConfigSpecDescribes | |
| Source: Public (Class) ServiceConfigSpec  Cardinality: [0..1] | Target: Public (Class) ServiceInstanceConfiguration  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceConfiruationDefinedFor | |
| Source: Public (Class) ServiceInstance  Cardinality: [1] | Target: Public (Class) ServiceInstanceConfiguration  Cardinality: [0..\*] |

#### *Bush Stadium Mobility Configuaraion - Game Time*

Object in package 'Configuration'

Bush Stadium Mobility Configuaraion - Game Time

Version 1.0 Phase 1.0 Proposed

ks0567 created on 8/30/2017. Last modified 8/30/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) Bush Stadium Mobility Configuaraion - Game Time | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) Bush Stadium Mobility Configuaraion - Game Time | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) Bush Stadium Mobility Configuaraion - Game Time | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) Bush Stadium Mobility Service | Target: Public (Object) Bush Stadium Mobility Configuaraion - Game Time |

#### *Bush Stadium Mobility Configuation - Non-Game Time*

Object in package 'Configuration'

Bush Stadium Mobility Configuation - Non-Game Time

Version 1.0 Phase 1.0 Proposed

ks0567 created on 8/30/2017. Last modified 8/30/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) Bush Stadium Mobility Configuation - Non-Game Time | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) Bush Stadium Mobility Configuation - Non-Game Time | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) Bush Stadium Mobility Configuation - Non-Game Time | Target: Public (Object) Bush Stadium Mobility Service |
| Association (direction: Unspecified) | |
| Source: Public (Object) Bush Stadium Mobility Configuation - Non-Game Time | Target: Public (Object) <anonymous> |

#### *Bush Stadium Mobility Service*

Object in package 'Configuration'

Bush Stadium Mobility Service

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/12/2017. Last modified 5/12/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) Bush Stadium Mobility Service | Target: Public (Object) Bush Stadium Mobility Configuaraion - Game Time |
| Association (direction: Unspecified) | |
| Source: Public (Object) Bush Stadium Mobility Configuation - Non-Game Time | Target: Public (Object) Bush Stadium Mobility Service |

#### *Product A Config Spec*

Object in package 'Configuration'

Product A Config Spec

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/17/2017. Last modified 7/17/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) Product A Config Spec | Target: Public (Object) Product Instance A |
| Association (direction: Unspecified) | |
| Source: Public (Object) Product A Config Spec | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) Product A | Target: Public (Object) Product A Config Spec |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) Product A Config Spec |

#### *Product A*

Object in package 'Configuration'

Product A

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/17/2017. Last modified 7/17/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) Product A | Target: Public (Object) ProductInstance A |
| Association (direction: Unspecified) | |
| Source: Public (Object) Product A | Target: Public (Object) Product A Config Spec |
| Association (direction: Unspecified) | |
| Source: Public (Object) Product A | Target: Public (Object) <anonymous> |

#### *Product A*

Object in package 'Configuration'

Product A

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/12/2017. Last modified 5/12/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) Product A |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) Product A |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) Product A |

#### *Product Instance A*

Object in package 'Configuration'

Product Instance A

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/17/2017. Last modified 7/17/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) Product Instance A | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) Product Instance A | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) Product A Config Spec | Target: Public (Object) Product Instance A |
| Association (direction: Unspecified) | |
| Source: Public (Object) ProductInstance A | Target: Public (Object) Product Instance A |

#### *ProductInstance A*

Object in package 'Configuration'

ProductInstance A

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/17/2017. Last modified 7/17/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) ProductInstance A | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) ProductInstance A | Target: Public (Object) Product Instance A |
| Association (direction: Unspecified) | |
| Source: Public (Object) Product A | Target: Public (Object) ProductInstance A |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) ProductInstance A |

#### *ResourceInstanceConfiguration 11*

Object in package 'Configuration'

ResourceInstanceConfiguration 11

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/12/2017. Last modified 5/12/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) ResourceInstanceConfiguration 11 | Target: Public (Object) <anonymous> |

#### *ResourceInstanceConfiguration 21*

Object in package 'Configuration'

ResourceInstanceConfiguration 21

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/12/2017. Last modified 5/12/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) ResourceInstanceConfiguration 21 | Target: Public (Object) <anonymous> |

#### *ResourceInstanceConfiguration 22*

Object in package 'Configuration'

ResourceInstanceConfiguration 22

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/12/2017. Last modified 5/12/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) ResourceInstanceConfiguration 22 |

#### *ResourceInstanceConfiguration Tower 1 - Not Game Night*

Object in package 'Configuration'

ResourceInstanceConfiguration Tower 1 - Not Game Night

Version 1.0 Phase 1.0 Proposed

ks0567 created on 8/30/2017. Last modified 8/30/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) ResourceInstanceConfiguration Tower 1 - Not Game Night |

#### *ResourceInstanceConfiguration Tower 2 - Not Game Night*

Object in package 'Configuration'

ResourceInstanceConfiguration Tower 2 - Not Game Night

Version 1.0 Phase 1.0 Proposed

ks0567 created on 8/30/2017. Last modified 8/30/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) ResourceInstanceConfiguration Tower 2 - Not Game Night |

#### *ResourceInstanceConfiguration Tower 3 - Not Game Night*

Object in package 'Configuration'

ResourceInstanceConfiguration Tower 3 - Not Game Night

Version 1.0 Phase 1.0 Proposed

ks0567 created on 8/30/2017. Last modified 8/30/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) ResourceInstanceConfiguration Tower 3 - Not Game Night |

#### *ResourceInstnaceConfiguaration Tower 1 - Game Night*

Object in package 'Configuration'

ResourceInstnaceConfiguaration Tower 1 - Game Night

Version 1.0 Phase 1.0 Proposed

ks0567 created on 8/30/2017. Last modified 8/30/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) ResourceInstnaceConfiguaration Tower 1 - Game Night |

#### *ResourceInstnaceConfiguaration Tower 2 - Game Night*

Object in package 'Configuration'

ResourceInstnaceConfiguaration Tower 2 - Game Night

Version 1.0 Phase 1.0 Proposed

ks0567 created on 8/30/2017. Last modified 8/30/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) ResourceInstnaceConfiguaration Tower 2 - Game Night |

#### *ResourceInstnaceConfiguaration Tower 3 - Game Night*

Object in package 'Configuration'

ResourceInstnaceConfiguaration Tower 3 - Game Night

Version 1.0 Phase 1.0 Proposed

ks0567 created on 8/30/2017. Last modified 8/30/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) ResourceInstnaceConfiguaration Tower 3 - Game Night |

#### *ServiceInstanceConfiguration 1*

Object in package 'Configuration'

ServiceInstanceConfiguration 1

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/12/2017. Last modified 5/12/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) ServiceInstanceConfiguration 1 | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) ServiceInstanceConfiguration 1 |

#### *ServiceInstanceConfiguration 2*

Object in package 'Configuration'

ServiceInstanceConfiguration 2

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/12/2017. Last modified 5/12/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) ServiceInstanceConfiguration 2 | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) ServiceInstanceConfiguration 2 | Target: Public (Object) <anonymous> |
| Association (direction: Unspecified) | |
| Source: Public (Object) <anonymous> | Target: Public (Object) ServiceInstanceConfiguration 2 |

### Location

Package in package 'Common Business'

Location

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/24/2016. Last modified 4/6/2017

#### *Place diagram*

Class diagram in package 'Location'

Location defined as: "A Defined Place".

A location has a unique code or name to allow textual identification.

Place (location) is split into GeographicPlace which relates to world (physical) centric places and LocalPlace. LocalPlace relates to defined coordinate systems (zone, aisle, rack, shelf, slot, port) within a GeographicPlace

Place

Version 1.0

KS0567 created on 1/6/2016. Last modified 8/16/2017



1. Place

#### *AbstractGeographicAddress*

Class in package 'Location'

AbstractGeographicAddress

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/13/2016. Last modified 7/26/2017

Extends GeographicPlace

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from AbstractGeographicAddress to GeographicPlace  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from GeographicAddress to AbstractGeographicAddress  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) LocalAddressDefinedRelativeToGeoAddress | |
| Source: Public (Class) LocalAddress  Cardinality: [\*] | Target: Public (Class) AbstractGeographicAddress  Cardinality: [0..1] |

#### *Address*

Class in package 'Location'

An address can refer to a physical location (e.g. street address, or a port number on a switch) or a logical entity (e.g., Various logical address labels include: EMAIL, MAC Address, IP address, URL, URI, or a computer/host system (e.g. EMAIL server).

Notes:

1). Addresses can change. (e.g. Streets renamed, emails can change, sbcglobal.net to att.net, etc.

2). Some address types can also be categorized as static or dynamic (e.g. IP or MAC address).

3). A static address referring to a physical location may be a composition of information usually used to describe a building or plot of land. A physical location address generally utilizes political boundaries (e.g. country, state/province, county/district, city) and street names as reference.

Can be used for mailing, billing, service, locating services and resources.

Address

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/7/2016. Last modified 2/24/2016

| ATTRIBUTES |
| --- |
| City/District : Char Private  [ Is static False. Containment is Not Specified. ] |
| Company : Char Private  [ Is static False. Containment is Not Specified. ] |
| country : char Private  [ Is static False. Containment is Not Specified. ] |
| County/state : char Private  [ Is static False. Containment is Not Specified. ] |
| Name : char Private  [ Is static False. Containment is Not Specified. ] |
| Province code/zip code : Char Private  [ Is static False. Containment is Not Specified. ] |
| Street1 : Char Private  [ Is static False. Containment is Not Specified. ] |
| Street2 : Char Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Address  Cardinality: [1..\*] | Target: Public (Class) Location (Place)  Cardinality: [1..\*] |

#### *GeographicAddress*

Class in package 'Location'

GeographicAddress is a structured textual way of describing how to find a place (location). It is usually composed of an ordered list of place names based on context specific rules. (e.g. US or International postal address format)

GeographicAddress caters for property and postal (physical) addresses

e.g.

1060 West Addison Street

Chicago, IL, 60608.

GeographicAddress

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/13/2016. Last modified 2/24/2016

Extends AbstractGeographicAddress

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from GeographicAddress to AbstractGeographicAddress  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| city/District : char Public  [ Is static False. Containment is Not Specified. ] |
| country : char Public = USA or country code  [ Is static False. Containment is Not Specified. ] |
| county/Borough : char Public  [ Is static False. Containment is Not Specified. ] |
| name/Company : char Public  [ Is static False. Containment is Not Specified. ] |
| state/Province : char Protected  [ Is static False. Containment is Not Specified. ] |
| street1 : char Public  [ Is static False. Containment is Not Specified. ] |
| street2 : char Public  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) GeographicAddressLocatedAt | |
| Source: Public (Class) GeographicAddress  Cardinality: [0..1] | Target: Public (Class) GeographicLocation  Cardinality: [\*] |

#### *GeographicArea*

Class in package 'Location'

A **GeographicArea** can include suburb, locality, city, town, etc.

GeographicArea

Version 1.0 Phase 1.0 Proposed

KS0567 created on 6/8/2017. Last modified 7/26/2017

Extends Place

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from GeographicArea to Place  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) MarketSegmentCovers | |
| Source: Public (Class) MarketSegment  Cardinality: [0..\*] | Target: Public (Class) GeographicArea  Cardinality: [0..\*] |

#### *GeographicLocation*

Class in package 'Location'

GeographicLocation

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/13/2016. Last modified 2/24/2016

Extends GeographicPlace

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from GeographicLocation to GeographicPlace  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from GeographicLocationName to GeographicLocation  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) GeographicLocation  Cardinality: [\*] | Target: Public (Class) GeographicLocation  Cardinality: [\*] |
| Association (direction: Unspecified) GeographicSiteIsRelatedTo | |
| Source: Public (Class) GeographicLocation  Cardinality: [0..1] | Target: Public (Class) GeographicSite  Cardinality: [0..1] |
| Association (direction: Unspecified) GeographicSite HasDatumPoint | |
| Source: Public (Class) GeographicSite  Cardinality: [\*] | Target: Public (Class) GeographicLocation  Cardinality: [0..1] |
| Association (direction: Unspecified) GeographicAddressLocatedAt | |
| Source: Public (Class) GeographicAddress  Cardinality: [0..1] | Target: Public (Class) GeographicLocation  Cardinality: [\*] |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) GeographicLocation  Cardinality: [\*] | Target: Public (Class) GeographicLocation  Cardinality: [\*] |

#### *GeographicLocationName*

Class in package 'Location'

A GeographicLocation may have many names. A name may change over time and could be defined in more than 1 language. A location may have more than 1 name in the same language or a European and native name (Ayers Rock is also known as Uluru).

GeographicLocationName

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/14/2016. Last modified 2/24/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from GeographicLocationName to GeographicLocation  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| name : char Public  [ Is static False. Containment is Not Specified. ] |
| nameType : char Public  [ Is static False. Containment is Not Specified. ] |
| validFor : char Public  [ Is static False. Containment is Not Specified. ] |

#### *GeographicLocationRelationship*

AssociationClass in package 'Location'

GeographicLocationRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 1/14/2016. Last modified 2/24/2016

#### *GeographicLocationRelationship*

Class in package 'Location'

GeographicLocationRelationship

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/13/2016. Last modified 2/24/2016

#### *GeographicPlace*

Class in package 'Location'

External Place. Drawn on a map, defined using a geographic coordinate system (absolute world centered/physical data and projection). Typically GeographicPlace is maintained using a GIS. One View Address Location System (OVALS) relates USPS service address to Global ID's (GLID).

GeographicPlace

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/13/2016. Last modified 7/26/2017

Extends Place

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from GeographicPlace to Place  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from AbstractGeographicAddress to GeographicPlace  [ Direction is 'Source -> Destination'. ] |
| Generalization from GeographicLocation to GeographicPlace  [ Direction is 'Source -> Destination'. ] |
| Generalization from GeographicSite to GeographicPlace  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CapacityAppliesTo | |
| Source: Public (Class) Capacity  Cardinality: [\*] | Target: Public (Class) GeographicPlace  Cardinality: [\*] |

#### *GeographicSite*

Class in package 'Location'

A GeographicSite such as an AIC compact node may be designated by either a 11-14 character Common Language Location Identifier (CLLI) code. A GeographicSite site may also be designated as a regional distribution center or warehouse location number within a Warehouse Management System (WMS).

Common Language Location Identifier (CLLI)

PPPPSSBBEEE- Entity code: 3 alpha numeric

||||\_Building code, 2AN

||||\_State/province/country, 2 alpha

||||\_Place code (city, town or borough), 4 AN or 3 AN with trailing space

e.g. SiteID may be an identifier such as Exchange312

with a status of Prospective (planned).

GeographicSite

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/13/2016. Last modified 7/26/2017

Extends GeographicPlace

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from GeographicSite to GeographicPlace  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| siteID : char Private = CLLI  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) GeographicSite HasDatumPoint | |
| Source: Public (Class) GeographicSite  Cardinality: [\*] | Target: Public (Class) GeographicLocation  Cardinality: [0..1] |
| Association (direction: Unspecified) GeographicSiteIsRelatedTo | |
| Source: Public (Class) GeographicLocation  Cardinality: [0..1] | Target: Public (Class) GeographicSite  Cardinality: [0..1] |

#### *LocalAddress*

Class in package 'Location'

LocalAddress caters for a level of granularity smaller than geographic address.

e.g.

Address

Building 1/Suite 137/Rack A/Magazine3/Slot 7

LocalAddress

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/13/2016. Last modified 7/26/2017

Extends LocalPlace

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from LocalAddress to LocalPlace  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) LocalAddressDefinedRelativeToGeoAddress | |
| Source: Public (Class) LocalAddress  Cardinality: [\*] | Target: Public (Class) AbstractGeographicAddress  Cardinality: [0..1] |
| Association (direction: Unspecified) LocalAddressLocatedAt | |
| Source: Public (Class) LocalAddress  Cardinality: [0..1] | Target: Public (Class) LocalLocation  Cardinality: [\*] |

#### *LocalLocation*

Class in package 'Location'

LocalLocation

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/13/2016. Last modified 7/26/2017

Extends LocalPlace

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from LocalLocation to LocalPlace  [ Direction is 'Source -> Destination'. ] |
| Aggregation from LocalLocation to  [ Direction is 'Source -> Destination'. ] |
| Aggregation from LocalLocation to  [ Direction is 'Source -> Destination'. ] |
| Aggregation from LocalLocation to  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) LocalLocation  Cardinality: [\*] | Target: Public (Class) LocalLocation  Cardinality: [\*] |
| Association (direction: Unspecified) LocalAddressLocatedAt | |
| Source: Public (Class) LocalAddress  Cardinality: [0..1] | Target: Public (Class) LocalLocation  Cardinality: [\*] |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) LocalLocation  Cardinality: [\*] | Target: Public (Class) LocalLocation  Cardinality: [\*] |

#### *LocalLocationRelationship*

AssociationClass in package 'Location'

LocalLocationRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 1/14/2016. Last modified 6/7/2016

#### *LocalPlace*

Class in package 'Location'

Drawn on floor plans (suite/rack positions) defined using a cartesian coordinate system relative to local datum, typically maintained in a CAD/CAM System. (e.g. 90 ft due west of building grid intersection 20490 N and 138/137 E-W

LocalPlace

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/13/2016. Last modified 7/26/2017

Extends Place

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from LocalPlace to PhysicalResourceInstance  [ Name is ResourceProvidesLocalPlaces. Direction is 'Source -> Destination'. ] |
| Generalization from LocalPlace to Place  [ Direction is 'Source -> Destination'. ] |
| Aggregation from LocalPlace to PNFnstance  [ Name is ResourceProvidesLocalPlaces. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from LocalLocation to LocalPlace  [ Direction is 'Source -> Destination'. ] |
| Generalization from LocalAddress to LocalPlace  [ Direction is 'Source -> Destination'. ] |

#### *Location (Place)*

Class in package 'Location'

A location is a physical position. The position may be a point, a line, or a polygon (the boundary of a geographical area). The physical position may be related to a postal or service address. A spatial (longitude/latitude/altitude) or GLID (Global ID) address may also refer to a location (includes altitude).

Outside plant network elements may be described with lose and structured location and address information. (e.g. Sealed Expansion Unit (VSEM-VDSL) on pole at rear of street address 1060 W Addison Street, Chicago, IL 60613

Less formal, loosely structured information may also be used to describe locations: “the old oak tree”.

Locations of interest may be on, under, or above land or water. For example: satellite position, undersea cable.

AT&T cloud nodes, warehouses, central offices and other building are identified with either an 11 or 14 character Common Language Location Identification (CLLI) code.

PPPPSSBBEEE- Entity code: 3 alpha numeric

|\_Building code, 2AN

|\_State/province/country, 2 alpha

|\_Place code (city, town or borough), 4 AN or 3 AN with trailing space

ECOMP/D2 platforms should not store composite addresses for service instances or vNF's but LocID such as GLID or CLLI code which can be translated to a unique address.

Categories: Loc

SubCat, relative or absolute (at a given point of time), Bldg, flr, aisle, rack, shelf, slot. An absolute location may change for instance if a data center zone is reconfigured

Street address, GLID, GEO coordinate

Location (Place)

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/27/2015. Last modified 8/28/2017

| ATTRIBUTES |
| --- |
| LocID : char Private  11 or 14 char CLLI code, or GLID (OVALS/NSP) which can be translated from other platforms to a composite address. LocID may also be an identifier such as a warehouse bin location which can then be transformed to a warehouse, aisle, row, rack, and slot.  [ Is static False. Containment is Not Specified. ] |
| Name : char Private  Free form alpha numeric name for a location ID. (e.g, service address, resource location, bin, mobile (connected car))  [ Is static False. Containment is Not Specified. ] |
| SubType : char Private  [ Is static False. Containment is Not Specified. ] |
| Type : char Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Location (Place) | Target: Public (Class) BusinessInteraction |
| Association (direction: Unspecified) | |
| Source: Public (Class) Location (Place) | Target: Public (Class) Design |
| Association (direction: Unspecified) | |
| Source: Public (Class) Location (Place)  Cardinality: [1..\*] | Target: Public (Class) Customer  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Address  Cardinality: [1..\*] | Target: Public (Class) Location (Place)  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ShoppingCartLineItem | Target: Public (Class) Location (Place) |

#### *Place*

Class in package 'Location'

A place (location) is a physical position. The position may be a point, a line, or a polygon (the boundary of a geographical area). The physical position may be related to a postal or service address. A spatial (longitude/latitude/altitude) or GLID (Global ID) address may also refer to a location (includes altitude).

Outside plant network elements may be described with lose and structured place and GeographicPlace. (e.g. Sealed Expansion Unit (VSEM-VDSL) on pole at rear of street address 1060 W Addison Street, Chicago, IL 60613

Less formal, loosely structured information may also be used to describe locations: “the old oak tree”.

Places of interest may be on, under, or above land or water. For example: satellite position, undersea cable.

AT&T cloud nodes, warehouses, central offices and other building are identified with either an 11 or 14 character Common Language Location Identification (CLLI) code.

Place

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/13/2016. Last modified 7/26/2017

Extends RootEntity

| STRUCTURAL PART OF Place |
| --- |
| Port1 : Port |

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Place to RootEntity  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from LocalPlace to Place  [ Direction is 'Source -> Destination'. ] |
| Generalization from GeographicArea to Place  [ Direction is 'Source -> Destination'. ] |
| Generalization from GeographicPlace to Place  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CustomerSubscriptionInstance PhysicalPlaceIsDescribedAs | |
| Source: Public (Class) Place  Cardinality: [0..\*] | Target: Public (Class) CustomerSubscriptionInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Place  Cardinality: [1..\*] | Target: Public (Class) Network  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Place  Cardinality: [1..\*] | Target: Public (Class) Network  Cardinality: [1] |
| Association (direction: Unspecified) CustomerHas | |
| Source: Public (Class) Place  Cardinality: [1..\*] | Target: Public (Class) Customer  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Place  Cardinality: [1..\*] | Target: Public (Class) Network  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) MarketHierarchy  Cardinality: [1..\*] | Target: Public (Class) Place  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) CustomerContract | Target: Public (Class) Place |
| Association (direction: Unspecified) | |
| Source: Public (Class) PhysicalResourceInstance  Cardinality: [1..\*] | Target: Public (Class) Place  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) MarketHierarchy  Cardinality: [1..\*] | Target: Public (Class) Place  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PNFnstance  Cardinality: [1..\*] | Target: Public (Class) Place  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Spine/Leaf  Cardinality: [1] | Target: Public (Class) Place  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) MarketHierarchy  Cardinality: [1..\*] | Target: Public (Class) Place  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) EntitlementInstance | Target: Public (Class) Place |

##### Port1

Port owned by 'Place', in package 'Location'

Port1

Version 1.0 Phase 1.0 Proposed

mm7817 created on 6/7/2016. Last modified 6/7/2016

### Policy

Package in package 'Common Business'

Policy

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/24/2016. Last modified 4/6/2017

#### *Basic Policy diagram*

Class diagram in package 'Policy'

A policy commonly has several key components, including an event, a condition, and an action. This event condition action grouping is sometimes referred to ECA.

A policy rule is triggered by one or more events, which will cause one or more PolicyConditions to be evaluated. If true, some number of PolicyActions will be taken.

A PolicyRule is versioned, and makes use of the Specification pattern to describe it.

Basic Policy

Version 1.0

KS0567 created on 8/1/2016. Last modified 8/30/2017



1. Basic Policy

#### *Policy Detailed diagram*

Class diagram in package 'Policy'

Policy. A policy has content and descriptive scope attributes. A policy element may include higher level instructions which includes a policy condition and a policy action. A policy Id has many multiple parts. A policy part may have multiple rules within. Policy can be triggered by an API (inquiry) as well as an event.

Policy Form. A policy may exist in a form of code, rule, table, model or even compiled object.

Policy Type versus Policy Domain. A policy may be associated with a primary policyType classification (e.g. security, network, operation, administration, management policy). A primary classification (policyType) may also have a policySubType. (e.g. policyType = Network Policy, policySubType=routing.

Descriptive Scope Attributes (DSA) allow a policy to be associated with multiple types for grouping purposes.

Policy Event & request handling. Policy runtime engine and automatic distribution engine supports event publication and description/ The event message data attributes are supported.

Policy non grouping data attributes. policyVersion, policyState, policyRelationship/dependency, policyType.

Policy Detailed

Version 1.0

ks0567 created on 1/26/2016. Last modified 8/16/2017



1. Policy Detailed

#### *Policy Condition diagram*

Class diagram in package 'Policy'

A PolicyCondition must be true in order for an action to be taken. A PolicyCondition can be made up of policy conditions, making use of the atomic/composite pattern. An atomic policy condition will be a policy statement that will be evaluated and be either true or false.

Policy Condition

Version 1.0

KS0567 created on 8/1/2016. Last modified 8/16/2017



1. Policy Condition

#### *Policy Action diagram*

Class diagram in package 'Policy'

Policy Action

Version 1.0

KS0567 created on 8/1/2016. Last modified 8/16/2017



1. Policy Action

#### *Policy Statement diagram*

Class diagram in package 'Policy'

Policy Statement

Version 1.0

KS0567 created on 8/1/2016. Last modified 8/16/2017



1. Policy Statement

#### *EventTriggerDetails*

AssociationClass in package 'Policy'

EventTriggerDetails

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 5/19/2017

#### *OperatorConstraintDetails*

AssociationClass in package 'Policy'

OperatorConstraintDetails

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/1/2016. Last modified 8/1/2016

| ATTRIBUTES |
| --- |
| operatorContraint : String Private  [ Is static False. Containment is Not Specified. ] |

#### *Policy*

Class in package 'Policy'

A policy may be invoked by an entity, relationship manager (security) and/or rule manager. Policies may be compounded or aggregated in a hierarchy. A policy element = policy content + descriptive scope attributes (DSA). A policy also contains an action. Policies may also contain rules for distribution.

Policy

Version 1.0 Phase 1.0 Proposed

ks0567 created on 10/28/2015. Last modified 10/6/2016

Extends PolicyDistributionMapping

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Policy to PolicyDistributionMapping  [ Direction is 'Source -> Destination'. ] |

| CONNECTORS |
| --- |
| Dependency Source -> Destination  From: Policy : Class, Public  To: RelationshipManager : Component, Public |

| ATTRIBUTES |
| --- |
| place : char Public  Market or applicable to AIC node.  [ Is static False. Containment is Not Specified. ] |
| policyContentType : string Public  Type of content for the policy. (e.g. rules, code, table, or model)  [ Is static False. Containment is Not Specified. ] |
| policyDescription : char Public  [ Is static False. Containment is Not Specified. ] |
| policyGroupId : UUID Protected  Optional. Globally Unique Identifier of the policy group (e.g. Individual policy is related to a group of policies).  [ Is static False. Containment is Not Specified. ] |
| policyId : UUID Protected  [ Is static False. Containment is Not Specified. ] |
| policyInEffectTime : timeframe Public  Policy in effect for this time frame range.  [ Is static False. Containment is Not Specified. ] |
| policyIntent : string Public  If Closed Loop (CL), UUID (with version) of each CL. If recipe associated, UUID (with version) or each recipe. is NOT Policy Intent and Domain the same thing??  [ Is static False. Containment is Not Specified. ] |
| policyName : char Public  [ Is static False. Containment is Not Specified. ] |
| policySubType : string Public  e.g. Integrity, infrastructure. any of the primary types can also be sub types to other categories.  [ Is static False. Containment is Not Specified. ] |
| policyType : char Public  e.g. infrastructure, IMS, Operations (closed loop) Security, OAM, network, customer operations.)  [ Is static False. Containment is Not Specified. ] |
| policyVersion : string Private  Current and prior versions of the policy.  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Policy  Cardinality: [0..\*] | Target: Public (Class) OwnerRoles  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Policy  Cardinality: [0..\*] | Target: Public (Class) Persona  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Policy  Cardinality: [0..\*] | Target: Public (Class) ProductRecipe  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Policy  Cardinality: [1..\*] | Target: Public (Class) PartyRole  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Policy  Cardinality: [1] | Target: Public (Class) PolicyOwnership&History  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceInstance  Cardinality: [1] | Target: Public (Class) Policy  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceInstance  Cardinality: [1] | Target: Public (Class) Policy  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) EventNotificationPreference | Target: Public (Class) Policy |

#### *PolicyAction*

Class in package 'Policy'

A **PolicyAction** clause is an aggregation of individual PolicyActions, and is treated as an atomic object that is aggregated by a PolicyRule. It represents the necessary actions that should be performed if the PolicyCondition clause evaluates to TRUE. These actions are applied to a set of managed objects, and have the effect of either maintaining an existing state, or transitioning to a new state, of those managed object.

PolicyAction

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 8/1/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyAction to PolicyRule  [ Name is PolicyActionInPolicyRule. Direction is 'Source -> Destination'. ] |
| Aggregation from PolicyAction to PolicyActionComposite  [ Name is HasPolicyActions. Direction is 'Source -> Destination'. ] |
| Aggregation from PolicyAction to PolicyAction  [ Name is ContainsPolicyActions. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PolicyActionComposite to PolicyAction  [ Direction is 'Source -> Destination'. ] |
| Aggregation from PolicyAction to PolicyAction  [ Name is ContainsPolicyActions. Direction is 'Source -> Destination'. ] |
| Generalization from PolicyActionAtomic to PolicyAction  [ Direction is 'Source -> Destination'. ] |

#### *PolicyActionAtomic*

Class in package 'Policy'

PolicyActionAtomic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/1/2016. Last modified 8/1/2016

Extends PolicyAction

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PolicyActionAtomic to PolicyAction  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyStatement to PolicyActionAtomic  [ Name is PolicyStatementInPolicyAction. Direction is 'Unspecified'. ] |

#### *PolicyActionComposite*

Class in package 'Policy'

PolicyActionComposite

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/1/2016. Last modified 8/1/2016

Extends PolicyAction

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PolicyActionComposite to PolicyAction  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyAction to PolicyActionComposite  [ Name is HasPolicyActions. Direction is 'Source -> Destination'. ] |

#### *PolicyActionVendor*

Class in package 'Policy'

PolicyActionVendor

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/1/2016. Last modified 8/1/2016

#### *PolicyCondition*

Class in package 'Policy'

A **PolicyCondition** is an abstract base class that represents how to form the condition clause of a PolicyRule. This class can be used to represent rule-specific or reusable policy conditions, which are discussed in the sub-section titled

A **PolicyCondition** clause is an aggregation of individual PolicyConditions, and is treated as an atomic object that is aggregated by a PolicyRule. It is represented as a Boolean expression, and defines the necessary state and/or prerequisites that define whether the actions aggregated by that same PolicyRule should be performed. This is signified when the PolicyCondition clause associated with a PolicyRule evaluates to TRUE.

PolicyCondition

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 2/24/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyCondition to PolicyRule  [ Name is PolicyCondition In PolicyRule. Direction is 'Source -> Destination'. ] |
| Aggregation from PolicyCondition to PolicyConditionComposite  [ Name is HasPolicyConditions. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PolicyConditionAtomic to PolicyCondition  [ Direction is 'Source -> Destination'. ] |
| Generalization from PolicyConditionComposite to PolicyCondition  [ Direction is 'Source -> Destination'. ] |

#### *PolicyConditionAtomic*

Class in package 'Policy'

A **PolicyConditionAtomic** object is the base class for all simple policy conditions. A simple policy condition consists of a single Boolean clause, which is used to test a single condition. This consists of a single occurrence of a PolicyStatement.

PolicyConditionAtomic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 8/1/2016

Extends PolicyCondition

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PolicyConditionAtomic to PolicyCondition  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyStatement to PolicyConditionAtomic  [ Name is PolicyStatementInPolicyCondition. Direction is 'Destination -> Source'. ] |

#### *PolicyConditionComposite*

Class in package 'Policy'

A **PolicyConditionComposite** entity consists of one or more PolicyConditions contained inside a higher-level PolicyConditionComposite entity. This is also called a compound PolicyCondition.

Conceptually, this is a stand-alone object that consists of one PolicyCondition that provides an overall context for either a nested or a group of subordinate PolicyConditions to be evaluated.

The PolicyConditionComposite class is designed to be an intelligent container. The PolicyConditionComposite class is the base class for all complex policy conditions. A complex policy condition consists of an aggregation of PolicyConditionAtomic and/or PolicyConditionComposite objects, which in turn form a complex Boolean statement. It is important to note that such an object still evaluates to a single Boolean TRUE or FALSE value.

PolicyConditionComposite

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 5/19/2017

Extends PolicyCondition

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PolicyConditionComposite to PolicyCondition  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyCondition to PolicyConditionComposite  [ Name is HasPolicyConditions. Direction is 'Source -> Destination'. ] |

#### *PolicyConditionRuleDetails*

AssociationClass in package 'Policy'

PolicyConditionRuleDetails

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 2/26/2016

#### *PolicyDistributionMapping*

Class in package 'Policy'

1). When a policy is created, it may exist in a common template for the purpose of central validation. However its destination domain may not support such a language format. Therefore a translation and mapping process will be triggered during policy distribution time.

2). as indicated, a policy may be mapped to multiple domains and therefore will include domain owners as well as policy domain mapping.

3). Policy distribution supports push or pull configurations.

PolicyDistributionMapping

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/26/2016. Last modified 2/24/2016

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Policy to PolicyDistributionMapping  [ Direction is 'Source -> Destination'. ] |

#### *PolicyGroup*

Class in package 'Policy'

A PolicyRule is designed to be used for a single purpose. Sometimes, a management system needs multiple separate policy decisions and actions to be conducted in concert. A **PolicyGroup** is a generalized aggregation container. It enables PolicyRules and/or PolicyGroups to be aggregated in a single container. Note that loops, including the degenerate case of a PolicyGroup that contains itself, are not allowed when PolicyGroups contain other PolicyGroups. PolicyGroups do not have associated specifications, as they are “just” containers.

A PolicyGroup, being a container, is a perfect way to distribute notifications of events to other components of the PolicyServer. This is done by associating one or more PolicyEvents with a PolicyGroup.

PolicyGroup

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 2/26/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) HasPolicyRules | |
| Source: Public (Class) PolicyGroup  Cardinality: [\*] | Target: Public (Class) PolicyRule  Cardinality: [0..1] |

#### *PolicyHistory&Ownership*

Class in package 'Policy'

PolicyHistory&Ownership

Version 1.0 Phase 1.0 Proposed

mm7817 created on 2/26/2016. Last modified 2/26/2016

| ATTRIBUTES |
| --- |
| CLUUID : int Private  [ Is static False. Containment is Not Specified. ] |
| CreatedBy : char Private  [ Is static False. Containment is Not Specified. ] |
| CreatedTimeStamp : timestamp Private  [ Is static False. Containment is Not Specified. ] |
| CreatedWhen : char Private  [ Is static False. Containment is Not Specified. ] |
| ModifiedBy : char Private  [ Is static False. Containment is Not Specified. ] |
| ModifiedWhen : timestamp Private  [ Is static False. Containment is Not Specified. ] |
| PolicyUUID : int Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PolicyVersionHas | |
| Source: Public (Class) PolicyHistory&Ownership  Cardinality: [1] | Target: Public (Class) PolicyVersion  Cardinality: [1] |

#### *PolicyOperator*

Class in package 'Policy'

A **PolicyOperator** is a class for modeling different types of operators in a PolicyStatement. By restricting the type of operator used in a PolicyStatement, one can effectively restrict the semantics of that PolicyStatement.

PolicyOperator

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 8/1/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyOperator to PolicyStatement  [ Name is UsesOperator. Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) PolicyVariable | Target: Public (Class) PolicyOperator |

#### *PolicyOwnership&History*

Class in package 'Policy'

PolicyOwnership&History

Version 1.0 Phase 1.0 Proposed

mm7817 created on 2/10/2016. Last modified 2/26/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Policy  Cardinality: [1] | Target: Public (Class) PolicyOwnership&History  Cardinality: [1..\*] |

#### *PolicyProfile*

Class in package 'Policy'

PolicyProfile

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/19/2016. Last modified 2/24/2016

#### *PolicyRule*

Class in package 'Policy'

A **PolicyRule** is an intelligent data container. It contains data that define how the PolicyRule is used in a managed environment as well as a specification of behavior that dictates how the managed entities that it applies to will interact. The contained data is of four types: (1) data and metadata that define the semantics and behavior of the policy rule and the behavior that it imposes on the rest of the system, (2) a group of events that can be used to trigger the evaluation of the condition clause of a policy rule, (3) a group of conditions aggregated by the PolicyRule, and (4) a group of actions aggregated by the PolicyRule.

PolicyRule

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 8/1/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyRule to PolicyRuleSpec  [ Name is SpecifiesPolicyRule. Direction is 'Source -> Destination'. ] |
| Aggregation from PolicyRule to PolicyRule  [ Name is ContainsPolicyRules. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyAction to PolicyRule  [ Name is PolicyActionInPolicyRule. Direction is 'Source -> Destination'. ] |
| Aggregation from ECOMP event to PolicyRule  [ Name is isTriggeredBy. Direction is 'Source -> Destination'. ] |
| Aggregation from PolicyCondition to PolicyRule  [ Name is PolicyCondition In PolicyRule. Direction is 'Source -> Destination'. ] |
| Aggregation from PolicyRule to PolicyRule  [ Name is ContainsPolicyRules. Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| hasSubRules : boolean Private  Indicates if the PolicyRule contains other PolicyRules.  [ Is static False. Containment is Not Specified. ] |
| isCNF : boolean Private  Indicates if the rule follows Conjunctive Normal Form.  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyRoleHas | |
| Source: Public (Class) PolicyRule  Cardinality: [\*] | Target: Public (Class) PartyRole  Cardinality: [\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PolicyRule | Target: Public (Class) EventNotificationPreference |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceRecipe | Target: Public (Class) PolicyRule |
| Association (direction: Unspecified) HasPolicyVersions | |
| Source: Public (Class) PolicyVersion  Cardinality: [1..\*] | Target: Public (Class) PolicyRule  Cardinality: [1] |
| Association (direction: Unspecified) HasPolicyRules | |
| Source: Public (Class) PolicyGroup  Cardinality: [\*] | Target: Public (Class) PolicyRule  Cardinality: [0..1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceInstance | Target: Public (Class) PolicyRule |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceInstance | Target: Public (Class) PolicyRule |

#### *PolicyRuleSpec*

Class in package 'Policy'

A **PolicyRuleSpec** defines the invariant characteristics (attribues, methods, contraints, and relationships) of a PolicyRule entity.

A **PolicyRuleSpec** acts as a mechanism to specify the invariant (i.e., non-changeable) features and behavior that makes up a Policy. Thus, all PolicyRules use the attributes, methods, constraints, and relationships that are contained in the PolicyRuleSpec from which they are derived. A PolicyRuleSpec has two important attributes that all PolicyRules have, called executionStrategy and sequencedActions.

The executionStrategy attribute is an enumerated integer that defines the strategy to be used when executing the sequenced actions aggregated by this PolicyRule. Defined execution strategies include:

* 1: Do Until Success
* 2: Do All
* 3: Do Until Failure
* 4: Do All Without Failure or Do Nothing

“Do Until Success” means that actions should be executed according to their predefined priority, until successful execution of a single action. At that point, the process should stop (even if there are additional actions that could be executed).

“Do All” means that all actions should be executed that are part of the set, according to their predefined priority. This should continue, even if one or more of the actions fails.

“Do Until Failure” means that all actions should be executed according to their predefined priority until an action fails to execute. At that point, the entire sequence should be stopped.

Finally, “Do All Without Failure or Do Nothing” means that all actions specified should be performed. However, if a failure occurs, then NONE of the actions should be performed. This implies EITHER the ability to look-ahead and ensure that the actions will be able to be performed successfully, or the ability to perform a rollback of that action and all previous actions in the PolicyRule when an error is encountered.

The sequencedActions attribute is an enumerated integer that defines how the ordering of the PolicyActions associated with this PolicyRule is to be interpreted. Values include:

* 1: Mandatory
* 2: Recommended
* 3: Best Effort

Mandatory means that the actions must be done in the indicated order, or else don’t do them at all. Recommended means that the actions should be done in the indicated order if possible; if this is not possible, then it is permissible for them to be done in another order. Best effort means that the actions should be done irrespective of whether they can be done in the specified order.

The combination of the executionStrategy and the sequencedActions attributes enables the behavior of PolicyActions to be specified. Note that this is a special case, compared to how PolicyConditions and PolicyEvents are handled. From the perspective of the PolicyRule, a single *clause* (i.e., a set of expressions) is used to represent conditions as well as events. For the case of the PolicyCondition, the PolicyRule need only check to see if the condition clause evaluated to TRUE – if it evaluated to FALSE, then no action need be taken1. For the case of the PolicyEvent, the PolicyRule sees a trigger to start the evaluation of its condition clause. It *usually* doesn’t care which event or how many events triggered the evaluation of the condition – it simply cares that something happened and now a check needs to be made to see if this PolicyRule is applicable or not.

There are three other important attributes of a PolicyRuleSpec. These are the policyEventSelectCriteria, policyConditionSelectCriteria, and policyActionSelectCriteria attributes. These attribute contain OCL expressions to prescribe any limitations on the types of PolicyEvents, PolicyConditions, and PolicyActions that can be used with any PolicyRules that are derived from this particular PolicyRuleSpec. This enables a PolicyRuleSpec to be built that defines what types of PolicyEvents, PolicyConditions, and PolicyActions can be used to build a particular set of PolicyRules. This in turn ensures that a given set of PolicyRules carry standard functionality. (Nothing further will be said about these three attributes, as they come into play more in the system view).

PolicyRuleSpec

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 8/16/2017

Extends EnitySpecification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PolicyRuleSpec to EnitySpecification  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyRule to PolicyRuleSpec  [ Name is SpecifiesPolicyRule. Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| CLUUID : int Private  [ Is static False. Containment is Not Specified. ] |
| ConflictDetectionAttributes : char Private  [ Is static False. Containment is Not Specified. ] |
| DistributionAttributes : char Private  [ Is static False. Containment is Not Specified. ] |
| executionStrategy : int Private  The **executionStrategy** attribute is an enumerated integer that defines the strategy to be used when executing the sequenced actions aggregated by this PolicyRule. Defined execution strategies include:   * 1: Do Until Success * 2: Do All * 3: Do Until Failure * 4: Do All Without Failure or Do Nothing   “Do Until Success” means that actions should be executed according to their predefined priority, until successful execution of a single action. At that point, the process should stop (even if there are additional actions that could be executed).  “Do All” means that all actions should be executed that are part of the set, according to their predefined priority. This should continue, even if one or more of the actions fails.  “Do Until Failure” means that all actions should be executed according to their predefined priority until an action fails to execute. At that point, the entire sequence should be stopped.  Finally, “Do All Without Failure or Do Nothing” means that all actions specified should be performed. However, if a failure occurs, then NONE of the actions should be performed. This implies EITHER the ability to look-ahead and ensure that the actions will be able to be performed successfully, or the ability to perform a rollback of that action and all previous actions in the PolicyRule when an error is encountered.  [ Is static False. Containment is Not Specified. ] |
| Modifiable : boolean Private  [ Is static False. Containment is Not Specified. ] |
| Modul UUID : int Private  [ Is static False. Containment is Not Specified. ] |
| OutputModelUUID : int Private  [ Is static False. Containment is Not Specified. ] |
| PointsOfUseAttributes : char Private  [ Is static False. Containment is Not Specified. ] |
| PolicyActionSelectCriteria : char Private  [ Is static False. Containment is Not Specified. ] |
| PolicyConditionSelectCriteria : char Private  [ Is static False. Containment is Not Specified. ] |
| PolicyDescription : char Private  [ Is static False. Containment is Not Specified. ] |
| PolicyEventSelectCriteria : char Private  [ Is static False. Containment is Not Specified. ] |
| PolicyHighLevelDomain : char Private  [ Is static False. Containment is Not Specified. ] |
| PolicyIntent : char Private  [ Is static False. Containment is Not Specified. ] |
| PolicyName : char Private  [ Is static False. Containment is Not Specified. ] |
| PolicyOwners : char Private  [ Is static False. Containment is Not Specified. ] |
| PolicyStatus : char Private  [ Is static False. Containment is Not Specified. ] |
| PolicyType : string Private  [ Is static False. Containment is Not Specified. ] |
| PolicyUUID : int Private  [ Is static False. Containment is Not Specified. ] |
| RecipeUUID : int Private  [ Is static False. Containment is Not Specified. ] |
| sequencedActions : int Private  The **sequencedActions** attribute is an enumerated integer that defines how the ordering of the PolicyActions associated with this PolicyRule is to be interpreted. Values include:   * 1: Mandatory * 2: Recommended * 3: Best Effort   Mandatory means that the actions must be done in the indicated order, or else don’t do them at all. Recommended means that the actions should be done in the indicated order if possible; if this is not possible, then it is permissible for them to be done in another order. Best effort means that the actions should be done irrespective of whether they can be done in the specified order.  [ Is static False. Containment is Not Specified. ] |
| Version : char Private  [ Is static False. Containment is Not Specified. ] |

#### *PolicyRunTime*

Class in package 'Policy'

Policy 234 may generate 234.DROOLS, 234.TOSCA, etc

PolicyRunTime

Version 1.0 Phase 1.0 Proposed

mm7817 created on 2/26/2016. Last modified 2/26/2016

#### *PolicyStatement*

Class in package 'Policy'

PolicyStatements can apply to both conditional statements (if, while, until, etc) as well as action or assignment statements (port = 21).

PolicyStatement

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 8/1/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyStatement to PolicyConditionAtomic  [ Name is PolicyStatementInPolicyCondition. Direction is 'Destination -> Source'. ] |
| Aggregation from PolicyStatement to PolicyActionAtomic  [ Name is PolicyStatementInPolicyAction. Direction is 'Unspecified'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyVariable to PolicyStatement  [ Name is UsesVariable. Direction is 'Source -> Destination'. ] |
| Aggregation from PolicyValue to PolicyStatement  [ Name is UsesValue. Direction is 'Source -> Destination'. ] |
| Aggregation from PolicyOperator to PolicyStatement  [ Name is UsesOperator. Direction is 'Source -> Destination'. ] |

#### *PolicyValue*

Class in package 'Policy'

The **PolicyValue** class is an abstract base class for modeling different types of values that occur in a PolicyStatement. The PolicyValue specifies an attribute that should either be set or cleared (if used in a PolicyAction) or matched or compared in some way to a value of the PolicyVariable in a PolicyCondition.

PolicyValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 8/1/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyValue to PolicyStatement  [ Name is UsesValue. Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) PolicyValue | Target: Public (Class) PolicyVariable |

#### *PolicyVariable*

Class in package 'Policy'

A **PolicyVariable** is an abstract class for modeling different types of variables that can be used to form a PolicyStatement. The variable specifies an attribute or concept that should either be matched or in some way compared to a value when the condition is evaluated.

PolicyVariable

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2016. Last modified 8/1/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PolicyVariable to PolicyStatement  [ Name is UsesVariable. Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) PolicyVariable | Target: Public (Class) PolicyOperator |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) PolicyValue | Target: Public (Class) PolicyVariable |

#### *PolicyVersion*

Class in package 'Policy'

PolicyVersion

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/19/2016. Last modified 2/26/2016

| ATTRIBUTES |
| --- |
| PolicyStatus : char Private  Active, retired, pending  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) HasPolicyVersions | |
| Source: Public (Class) PolicyVersion  Cardinality: [1..\*] | Target: Public (Class) PolicyRule  Cardinality: [1] |
| Association (direction: Unspecified) PolicyVersionHas | |
| Source: Public (Class) PolicyHistory&Ownership  Cardinality: [1] | Target: Public (Class) PolicyVersion  Cardinality: [1] |

#### *ValueContraintDetails*

AssociationClass in package 'Policy'

ValueContraintDetails

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/1/2016. Last modified 8/1/2016

| ATTRIBUTES |
| --- |
| valueContraint : String Private  [ Is static False. Containment is Not Specified. ] |

#### *RelationshipManager*

Component in package 'Policy'

RelationshipManager

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/29/2016. Last modified 2/24/2016

| CONNECTORS |
| --- |
| Dependency Source -> Destination  From: Persona : Class, Public  To: RelationshipManager : Component, Public |
| Dependency Source -> Destination  From: Policy : Class, Public  To: RelationshipManager : Component, Public |

| ATTRIBUTES |
| --- |
| descriptiveScopeAttributes : UUID Protected  [ Is static False. Containment is Not Specified. ] |
| personaId : UUID Protected  [ Is static False. Containment is Not Specified. ] |
| place : char Public  [ Is static False. Containment is Not Specified. ] |
| policyId : UUID Public  [ Is static False. Containment is Not Specified. ] |
| policyRuleSeq : int Public  [ Is static False. Containment is Not Specified. ] |

### Root

Package in package 'Common Business'

With the ECOMP information model, there are a collection of common entities that serve as an informational foundation. View these as the super classes (generalizations) that much of the rest of the model is built upon.

Rationale for 'rooting' an information model includes the following:

1. There are certain characteristics and behaviors that are common across a number of entities. These common characteristics and behaviors are generally independent of namespaces/packages/domains. These commonalities should be 'shared'.

2. To ensure that multiple incompatible definitions (attributes and behaviors) of the same concept are not created. The need to minimize incompatible definitions grows as one considers development, implementation, and deployment.

Root

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/25/2016. Last modified 4/6/2017

#### *Root Entity diagram*

Class diagram in package 'Root'

RootEntity provides selected attributes common to several other classes, including Specification, Entity, and Role. All these entities are abstract entities that other concrete entities will inherit from.

Root Entity

Version 1.0

KS0567 created on 8/16/2016. Last modified 8/25/2017



1. Root Entity

#### *Specification diagram*

Class diagram in package 'Root'

A **Specification** is a pattern used to define characteristics for ManagedEntities such as products, services, and resources, as well as other classes such as Place, BusinessInteractions, and Policies.

Specification

Version 1.0

KS0567 created on 2/25/2016. Last modified 8/16/2017



1. Specification

#### *Entity diagram*

Class diagram in package 'Root'

**Entity** is an abstract class that extends RootEntity, representing classes that are tied in to business functions. These entities can be either managed or unmanaged. Managed entities can include concrete classes such as ProductInstance, ServiceInstance, and ResourceInstance.

Entity

Version 1.0

KS0567 created on 8/16/2016. Last modified 8/16/2017



1. Entity

#### *Role diagram*

Class diagram in package 'Root'

A Role provides a means to extend the use and application of an object by modeling the different functions that object (class) can play as separate objects.

Role

Version 1.0

KS0567 created on 8/16/2016. Last modified 8/16/2017



1. Role

#### *Characteristics diagram*

Class diagram in package 'Root'

The SID Characteristics pattern allows for the dynamic creation of attributes for some specification (PartyRole, ProductCatalogItem, ServiceCatalogItem, ResourceCatalogItem, ....). These characterisics (attributes) can have possible values (attribute color choices of red, white, and blue), as well as an actual value - CharacteristicValue - when instantiated.

AT&T has chosen to rename the root characteristic from entityCharacteristic.... to just Characteristic, and then use these classes directly within the various specification and entity types (product, service, resource) rather than subclassing the characteristic to ResourceSpecCharacteristic

Add TMF SID definition of ROOT and ENTITY.

RootEntity provides selected attributes common to several other classes, including Specification, Entity, and Role. All these entities are abstract entities that other concrete entities will inherit from.

Characteristics

Version 1.0

KS0567 created on 3/8/2016. Last modified 8/16/2017



1. Characteristics

#### *Management Information diagram*

Class diagram in package 'Root'

Management Information

Version 1.0

KS0567 created on 8/22/2016. Last modified 8/16/2017



1. Management Information

#### *Item diagram*

Class diagram in package 'Root'

The ***Items*** concept is an alternative to the product/service/resource approach. In this approach, one simply has an item. An item can be sold or can be a building block of something that can be sold.

A given InstanceItem may be both sold and a building block of something else that can be sold, so it might have attributes that address both roles.

The end result then is that the stack can be one or infinite, depending on what is needed. There are no forced number of layers - just what is needed.

Item

Version 1.0

KS0567 created on 11/6/2015. Last modified 8/30/2017



1. Item

#### *CLIMethod*

Class in package 'Root'

CLIMethod

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/24/2016. Last modified 8/24/2016

Extends ManagementMethodEntity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CLIMethod to ManagementMethodEntity  [ Direction is 'Source -> Destination'. ] |

#### *CatalogItem*

Class in package 'Root'

CatalogItem

Version 1.0 Phase 1.0 Proposed

ks0567 created on 10/28/2015. Last modified 8/16/2017

Extends EnitySpecification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CatalogItem to EnitySpecification  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceCatalogItem to CatalogItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ProductCatalogItem to CatalogItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceCatalogItem to CatalogItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceCatalogItem to CatalogItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceCatalogItem to CatalogItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceCatalogItem to CatalogItem  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) CatalogItem | Target: Public (Class) InstanceItem |

#### *CharSpecValueRelationship*

AssociationClass in package 'Root'

CharSpecValueRelationship

Version 1.0 Phase 1.0 Proposed

ks0567 created on 3/9/2016. Last modified 2/17/2017

#### *CharacteristicSpecRelationship*

AssociationClass in package 'Root'

CharacteristicSpecRelationship is a means to bundle or group some number of characteristics together. Characteristics can be grouped together under some appropriate characteristic (electrical properties, power requirements, etc).

CharacteristicSPecRelationship can also be used for other relationships between characteristics, including mutually inclusive, exclusive, etc.

CharacteristicSpecRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/8/2016. Last modified 11/11/2016

#### *CharacteristicSpecValue*

Class in package 'Root'

A CharacteristicValue defines a set of attributes, each of which can be assigned to a corresponding CharacteristicValue.

CharacteristicSpecValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/8/2016. Last modified 5/12/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from CharacteristicSpecValue to CharacteristicSpecification  [ Name is CharacteristicSpecificationEnumeratedBy. Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| isDefault : boolean Private  [ Is static False. Containment is Not Specified. ] |
| rangeInterval : String Private  [ Is static False. Containment is Not Specified. ] |
| unitOfMeasure : String Private  [ Is static False. Containment is Not Specified. ] |
| value : String Private  [ Is static False. Containment is Not Specified. ] |
| valueFrom : String Private  [ Is static False. Containment is Not Specified. ] |
| ValueTo : String Private  [ Is static False. Containment is Not Specified. ] |
| valueType : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| AssociationClass (direction: Unspecified) ResourceCatalogItemCharUseDescribedBy | |
| Source: Public (Class) CharacteristicSpecValue  Cardinality: [0..\*] | Target: Public (AssociationClass) ResourceCatalogItemCharUse  Cardinality: [0..\*] |
| AssociationClass (direction: Unspecified) ResourceCatalogItemCharUseDescribedBy | |
| Source: Public (Class) CharacteristicSpecValue  Cardinality: [0..\*] | Target: Public (AssociationClass) ResourceCatalogItemCharUse  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) CharacteristicSpecValue | Target: Public (AssociationClass) EntitySpecCharUse |
| Association (direction: Unspecified) EntitySpecCharValueDefinedBy | |
| Source: Public (Class) CharacteristicSpecValue  Cardinality: [0..\*] | Target: Public (AssociationClass) PartySpecCharUse  Cardinality: [0..\*] |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) CharacteristicSpecValue  Cardinality: [\*] | Target: Public (Class) CharacteristicSpecValue  Cardinality: [\*] |
| Association (direction: Unspecified) CharacteristicSpecValueInstantiatedAs | |
| Source: Public (Class) CharacteristicValue  Cardinality: [\*] | Target: Public (Class) CharacteristicSpecValue  Cardinality: [0..1] |
| Association (direction: Unspecified) EntitySpecCharValueDefinedBy | |
| Source: Public (Class) EntitySpecCharValueUse  Cardinality: [0..\*] | Target: Public (Class) CharacteristicSpecValue  Cardinality: [1] |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) CharacteristicSpecValue  Cardinality: [\*] | Target: Public (Class) CharacteristicSpecValue  Cardinality: [\*] |

#### *CharacteristicSpecification*

Class in package 'Root'

A CharacteristicSpecification defines the characteristic features of a EntitySpecification (ResourceCatalogItem, ServiceCatalogItem, ProductCatalogItem, ...). Every EntitySpecification has a variety of important attributes, methods, constraints, and relationships which distinguish that EntitySpecification from other EntitySpecifications.

CharacteristicSpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/8/2016. Last modified 6/30/2017

Extends EnitySpecification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from CharacteristicSpecification to PartyRoleSpecification  [ Name is SpecificationFurtherEnumeratedBy. Direction is 'Unspecified'. ] |
| Aggregation from CharacteristicSpecification to EnitySpecification  [ Name is EntitySpecificationDescribedBy. Direction is 'Source -> Destination'. ] |
| Aggregation from CharacteristicSpecification to ResourceCatalogItem  [ Name is ResourceCatalogItemDescribedBy. Direction is 'Source -> Destination'. ] |
| Generalization from CharacteristicSpecification to EnitySpecification  [ Direction is 'Source -> Destination'. ] |
| Aggregation from CharacteristicSpecification to ResourceCatalogItem  [ Name is ResourceCatalogItemDescribedBy. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from CharacteristicSpecValue to CharacteristicSpecification  [ Name is CharacteristicSpecificationEnumeratedBy. Direction is 'Source -> Destination'. ] |
| Generalization from EntityCharacteristicSpecification\_child to CharacteristicSpecification  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| derivationFormula : char Private  [ Is static False. Containment is Not Specified. ] |
| description : char Private  [ Is static False. Containment is Not Specified. ] |
| extensible : boolean Private  [ Is static False. Containment is Not Specified. ] |
| ID : char Private  [ Is static False. Containment is Not Specified. ] |
| maxCardinality : int Private  [ Is static False. Containment is Not Specified. ] |
| minCardinality : int Private  [ Is static False. Containment is Not Specified. ] |
| name : char Private  [ Is static False. Containment is Not Specified. ] |
| unique : char Private  [ Is static False. Containment is Not Specified. ] |
| validFor : char Private  [ Is static False. Containment is Not Specified. ] |
| valueType : char Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) CharacteristicSpecification  Cardinality: [0..\*] | Target: Public (Class) InstanceItem  Cardinality: [0..\*] |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) CharacteristicSpecification  Cardinality: [\*] | Target: Public (Class) CharacteristicSpecification  Cardinality: [\*] |
| Association (direction: Unspecified) SpecCharacteristicEnumeratedBy | |
| Source: Public (Class) CharacteristicSpecification  Cardinality: [0..1] | Target: Public (Class) CharacteristicValue  Cardinality: [\*] |
| AssociationClass (direction: Unspecified) | |
| Source: Public (Class) CharacteristicSpecification  Cardinality: [\*] | Target: Public (Class) CharacteristicSpecification  Cardinality: [\*] |
| AssociationClass (direction: Unspecified) ttt | |
| Source: Public (Class) PartyPrivacyProfileTypeCharacteristic | Target: Public (Class) CharacteristicSpecification |
| Association (direction: Unspecified) CharacteristicSpecificationUsedToDefine | |
| Source: Public (Class) EntityTypeCharUse  Cardinality: [\*] | Target: Public (Class) CharacteristicSpecification  Cardinality: [1] |

#### *CharacteristicValue*

Class in package 'Root'

CharacteristicValue

Version 1.0 Phase 1.0 Proposed

ks0567 created on 3/9/2016. Last modified 5/12/2017

| ATTRIBUTES |
| --- |
| validFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |
| value : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) CharacteristicValue | Target: Public (Class) ResourceInstance |
| Association (direction: Unspecified) CharacteristicSpecValueInstantiatedAs | |
| Source: Public (Class) CharacteristicValue  Cardinality: [\*] | Target: Public (Class) CharacteristicSpecValue  Cardinality: [0..1] |
| Association (direction: Unspecified) CharacteristicValueDefinesTheConfigurationOf | |
| Source: Public (Class) CharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) InstanceItem  Cardinality: [1] |
| Association (direction: Unspecified) CharacteristicValueDefinesTheConfigurationOf | |
| Source: Public (Class) CharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) PartyRole  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) CharacteristicValue | Target: Public (Class) ResourceInstance |
| Association (direction: Unspecified) | |
| Source: Public (Class) CharacteristicValue | Target: Public (Class) ResourceInstance |
| Association (direction: Unspecified) CharacteristicValueDescribes | |
| Source: Public (Class) CharacteristicValue | Target: Public (Class) Catalog |
| Association (direction: Unspecified) SpecCharacteristicEnumeratedBy | |
| Source: Public (Class) CharacteristicSpecification  Cardinality: [0..1] | Target: Public (Class) CharacteristicValue  Cardinality: [\*] |

#### *DescribedMgmtInfoDetails*

AssociationClass in package 'Root'

DescribedMgmtInfoDetails

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/24/2016. Last modified 8/24/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ManagementInfoObtainedBy | |
| Source: Public (AssociationClass) DescribedMgmtInfoDetails | Target: Public (Class) ManagementMethodEntity |

#### *EnitySpecification*

Class in package 'Root'

A **Specification** is an abstract class used to define characteristics of an object.

EnitySpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/25/2016. Last modified 8/16/2017

Extends RootEntity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from EnitySpecification to RootEntity  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PartyRoleSpecification to EnitySpecification  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceCatalogItem to EnitySpecification  [ Direction is 'Source -> Destination'. ] |
| Aggregation from CharacteristicSpecification to EnitySpecification  [ Name is EntitySpecificationDescribedBy. Direction is 'Source -> Destination'. ] |
| Generalization from CharacteristicSpecification to EnitySpecification  [ Direction is 'Source -> Destination'. ] |
| Generalization from PlaceSpecification to EnitySpecification  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceCatalogItem to EnitySpecification  [ Direction is 'Source -> Destination'. ] |
| Generalization from CatalogItem to EnitySpecification  [ Direction is 'Source -> Destination'. ] |
| Generalization from PolicyRuleSpec to EnitySpecification  [ Direction is 'Source -> Destination'. ] |
| Generalization from BusinessInteractionSpec to EnitySpecification  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) EntitySpecificatoinMadeAvailableAs | |
| Source: Public (Class) EnitySpecification  Cardinality: [1] | Target: Public (Class) InstanceItem  Cardinality: [0..\*] |

#### *Entity*

Class in package 'Root'

Entity

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/25/2016. Last modified 6/21/2017

Extends RootEntity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Entity to RootEntity  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ManagedEntity to Entity  [ Direction is 'Source -> Destination'. ] |
| Generalization from UnManagedEntity to Entity  [ Direction is 'Source -> Destination'. ] |
| Generalization from ManagementInfo to Entity  [ Direction is 'Source -> Destination'. ] |
| Generalization from ManagementInfo to Entity  [ Direction is 'Source -> Destination'. ] |
| Generalization from ManagementMethodEntity to Entity  [ Direction is 'Source -> Destination'. ] |

#### *EntitySpecCharUse*

AssociationClass in package 'Root'

EntitySpecCharUse

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/17/2017. Last modified 5/12/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (AssociationClass) EntitySpecCharUse | Target: Public (Class) ConfigurationSpecification |
| Association (direction: Unspecified) | |
| Source: Public (Class) CharacteristicSpecValue | Target: Public (AssociationClass) EntitySpecCharUse |

#### *EntitySpecCharUseRelationship*

Class in package 'Root'

EntitySpecCharUseRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/8/2016. Last modified 2/17/2017

#### *EntitySpecCharValueUse*

Class in package 'Root'

EntitySpecCharValueUse can be used to limit the number of CharacteristicSpecValues that are being used in a certain situation (rainbow colors limited to 4)

EntitySpecCharValueUse

Version 1.0 Phase 1.0 Proposed

ks0567 created on 3/9/2016. Last modified 5/12/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) EntitySpecCharValueUse  Cardinality: [\*] | Target: Public (Class) EntitySpecCharValueUse  Cardinality: [\*] |
| Association (direction: Unspecified) EntitySpecCharUseEnumeratedBy | |
| Source: Public (Class) EntitySpecCharValueUse  Cardinality: [\*] | Target: Public (AssociationClass) ResourceCatalogItemCharUse  Cardinality: [1] |
| Association (direction: Unspecified) EntitySpecCharUseEnumeratedBy | |
| Source: Public (Class) EntitySpecCharValueUse  Cardinality: [\*] | Target: Public (AssociationClass) ResourceCatalogItemCharUse  Cardinality: [1] |
| Association (direction: Unspecified) EntitySpecCharValueDefinedBy | |
| Source: Public (Class) EntitySpecCharValueUse  Cardinality: [0..\*] | Target: Public (Class) CharacteristicSpecValue  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) EntitySpecCharValueUse  Cardinality: [\*] | Target: Public (Class) EntitySpecCharValueUse  Cardinality: [\*] |

#### *EntityTypeCharUse*

Class in package 'Root'

EntityTypeCharUse

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/17/2017. Last modified 3/1/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CharacteristicSpecificationUsedToDefine | |
| Source: Public (Class) EntityTypeCharUse  Cardinality: [\*] | Target: Public (Class) CharacteristicSpecification  Cardinality: [1] |
| Association (direction: Unspecified) PartyPrivacyProfileTypeCharactisticDefinedBy | |
| Source: Public (Class) PartyPrivacyProfileTypeCharacteristic  Cardinality: [\*] | Target: Public (Class) EntityTypeCharUse  Cardinality: [1..\*] |

#### *InstanceItem*

Class in package 'Root'

InstanceItem

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/8/2015. Last modified 10/21/2016

Extends ManagedEntity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from InstanceItem to ManagedEntity  [ Direction is 'Source -> Destination'. ] |
| Aggregation from InstanceItem to InstanceItem  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceInstance to InstanceItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from InstanceItem to InstanceItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ProductInstance to InstanceItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceInstance to InstanceItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceInstance to InstanceItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceInstance to InstanceItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceInstance to InstanceItem  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) CharacteristicSpecification  Cardinality: [0..\*] | Target: Public (Class) InstanceItem  Cardinality: [0..\*] |
| Association (direction: Unspecified) CharacteristicValueDefinesTheConfigurationOf | |
| Source: Public (Class) CharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) InstanceItem  Cardinality: [1] |
| Association (direction: Unspecified) EntitySpecificatoinMadeAvailableAs | |
| Source: Public (Class) EnitySpecification  Cardinality: [1] | Target: Public (Class) InstanceItem  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) CatalogItem | Target: Public (Class) InstanceItem |

#### *ManagedEntity*

Class in package 'Root'

ManagedEntity

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/25/2016. Last modified 10/21/2016

Extends Entity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ManagedEntity to Entity  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from InstanceItem to ManagedEntity  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ManagementMethodEntity to ManagedEntity  [ Name is SupportedMgmtMethods. Direction is 'Source -> Destination'. ] |
| Generalization from ResourceInstance to ManagedEntity  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceInstance to ManagedEntity  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ManagementInfo to ManagedEntity  [ Name is DescribedByMgmtInfo. Direction is 'Source -> Destination'. ] |

#### *ManagementInfo*

Class in package 'Root'

ManagementInfo is an abstract class used to represent entities that hold management information.

ManagementInfo

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/22/2016. Last modified 8/24/2016

Extends Entity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ManagementInfo to Entity  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ManagementInfo to ManagedEntity  [ Name is DescribedByMgmtInfo. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceStateInfo to ManagementInfo  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceStateInfo to ManagementInfo  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceStatisticalInfo to ManagementInfo  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceStatisticalInfo to ManagementInfo  [ Direction is 'Source -> Destination'. ] |

#### *ManagementInfo*

Class in package 'Root'

ManagementInfo

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/22/2016. Last modified 8/22/2016

Extends Entity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ManagementInfo to Entity  [ Direction is 'Source -> Destination'. ] |

#### *ManagementMethodEntity*

Class in package 'Root'

**ManagementMethodEntity** is an abstract class representing the different types of management methods that can be used to gather a particular type of management information.

ManagementMethodEntity

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/22/2016. Last modified 8/24/2016

Extends Entity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ManagementMethodEntity to Entity  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ManagementMethodEntity to ManagedEntity  [ Name is SupportedMgmtMethods. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ProprietaryMethod to ManagementMethodEntity  [ Direction is 'Source -> Destination'. ] |
| Generalization from SNMPMethod to ManagementMethodEntity  [ Direction is 'Source -> Destination'. ] |
| Generalization from WebServicesMethod to ManagementMethodEntity  [ Direction is 'Source -> Destination'. ] |
| Generalization from CLIMethod to ManagementMethodEntity  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ManagementInfoObtainedBy | |
| Source: Public (AssociationClass) DescribedMgmtInfoDetails | Target: Public (Class) ManagementMethodEntity |

#### *PlaceSpecification*

Class in package 'Root'

PlaceSpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/28/2016. Last modified 8/16/2017

Extends EnitySpecification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PlaceSpecification to EnitySpecification  [ Direction is 'Source -> Destination'. ] |

#### *ProprietaryMethod*

Class in package 'Root'

e.g. FOI, file oriented interface, specific by the vendor and VNF

ProprietaryMethod

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/22/2016. Last modified 5/24/2017

Extends ManagementMethodEntity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ProprietaryMethod to ManagementMethodEntity  [ Direction is 'Source -> Destination'. ] |

#### *Recipe*

Class in package 'Root'

Recipe

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/29/2015. Last modified 2/29/2016

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceRecipe to Recipe  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceRecipe to Recipe  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceRecipe to Recipe  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceRecipe to Recipe  [ Direction is 'Source -> Destination'. ] |
| Generalization from ProductRecipe to Recipe  [ Direction is 'Source -> Destination'. ] |

#### *ResourceStateInfo*

Class in package 'Root'

ResourceStateInfo

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/22/2016. Last modified 8/22/2016

Extends ManagementInfo

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceStateInfo to ManagementInfo  [ Direction is 'Source -> Destination'. ] |

#### *ResourceStatisticalInfo*

Class in package 'Root'

ResourceStatisticalInfo

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/22/2016. Last modified 8/22/2016

Extends ManagementInfo

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceStatisticalInfo to ManagementInfo  [ Direction is 'Source -> Destination'. ] |

#### *Role*

Class in package 'Root'

Role

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/25/2016. Last modified 6/21/2017

Extends RootEntity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Role to RootEntity  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PartyRole to Role  [ Direction is 'Source -> Destination'. ] |

#### *RootEntity*

Class in package 'Root'

The **RootEntity** class provides a superclass and set of attributes that are common to select Information Model entities.

RootEntity

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/25/2016. Last modified 8/16/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Role to RootEntity  [ Direction is 'Source -> Destination'. ] |
| Generalization from Entity to RootEntity  [ Direction is 'Source -> Destination'. ] |
| Generalization from EnitySpecification to RootEntity  [ Direction is 'Source -> Destination'. ] |
| Generalization from Place to RootEntity  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| commonName : char Private  [ Is static False. Containment is Not Specified. ] |
| description : char Private  [ Is static False. Containment is Not Specified. ] |
| UUID : char Private  [ Is static False. Containment is Not Specified. ] |
| Version : char Private  [ Is static False. Containment is Not Specified. ] |

#### *SNMPMethod*

Class in package 'Root'

SNMPMethod

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/22/2016. Last modified 8/24/2016

Extends ManagementMethodEntity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from SNMPMethod to ManagementMethodEntity  [ Direction is 'Source -> Destination'. ] |

#### *ServiceStateInfo*

Class in package 'Root'

ServiceStateInfo

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/22/2016. Last modified 8/22/2016

Extends ManagementInfo

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceStateInfo to ManagementInfo  [ Direction is 'Source -> Destination'. ] |

#### *ServiceStatisticalInfo*

Class in package 'Root'

ServiceStatisticalInfo

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/22/2016. Last modified 8/22/2016

Extends ManagementInfo

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceStatisticalInfo to ManagementInfo  [ Direction is 'Source -> Destination'. ] |

#### *UnManagedEntity*

Class in package 'Root'

UnManagedEntity

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/25/2016. Last modified 8/22/2016

Extends Entity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from UnManagedEntity to Entity  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from UnManagedResource to UnManagedEntity  [ Direction is 'Source -> Destination'. ] |

#### *UnManagedResource*

Class in package 'Root'

UnManagedResource

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/22/2016. Last modified 8/22/2016

Extends UnManagedEntity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from UnManagedResource to UnManagedEntity  [ Direction is 'Source -> Destination'. ] |

#### *WebServicesMethod*

Class in package 'Root'

WebServicesMethod

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/24/2016. Last modified 8/24/2016

Extends ManagementMethodEntity

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from WebServicesMethod to ManagementMethodEntity  [ Direction is 'Source -> Destination'. ] |

## Cloud

Package in package 'ECOMP Class Model'

Cloud

Version 1.0 Phase 1.0 Proposed

mm7817 created on 6/16/2016. Last modified 6/16/2016

### Cloud diagram

Class diagram in package 'Cloud'

Collection of blade servers

Cloud

Version 1.0

MM7817 created on 3/3/2017. Last modified 3/15/2017



1. Cloud

### vNF Networking diagram

Class diagram in package 'Cloud'

vNF Networking

Version 1.0

MM7817 created on 6/10/2016. Last modified 3/17/2017



1. vNF Networking

### AIC or 3'rd party cloud hosting location

Class in package 'Cloud'

refers to the AIC or 3rd party server hosting cloud's identification (e.g. name, type, owner,...).

AIC or 3'rd party cloud hosting location

Version 1.0 Phase 1.0 Proposed

av3163 created on 6/15/2016. Last modified 8/4/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Spine/Leaf  Cardinality: [1] | Target: Public (Class) AIC or 3'rd party cloud hosting location  Cardinality: [1] |

### Blase Server

Class in package 'Cloud'

Blase Server

Version 1.0 Phase 1.0 Proposed

MM7817 created on 3/3/2017. Last modified 3/3/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from Blase Server to Frame  [ Direction is 'Source -> Destination'. ] |

### Frame

Class in package 'Cloud'

Frame

Version 1.0 Phase 1.0 Proposed

MM7817 created on 3/3/2017. Last modified 3/3/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from Frame to Switch/TOR  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from Blase Server to Frame  [ Direction is 'Source -> Destination'. ] |
| Aggregation from Storage to Frame  [ Direction is 'Source -> Destination'. ] |
| Aggregation from pServer (host) to Frame  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Frame  Cardinality: [1..\*] | Target: Public (Class) Spine/Leaf  Cardinality: [1] |

### Spine/Leaf

Class in package 'Cloud'

Spine/Leaf

Version 1.0 Phase 1.0 Proposed

MM7817 created on 3/3/2017. Last modified 3/3/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Spine/Leaf  Cardinality: [1] | Target: Public (Class) AIC or 3'rd party cloud hosting location  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Spine/Leaf  Cardinality: [1] | Target: Public (Class) Place  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) LinkEnd  Cardinality: [1..\*] | Target: Public (Class) Spine/Leaf  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Frame  Cardinality: [1..\*] | Target: Public (Class) Spine/Leaf  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Switch/TOR | Target: Public (Class) Spine/Leaf |

### Storage

Class in package 'Cloud'

Storage

Version 1.0 Phase 1.0 Proposed

MM7817 created on 3/3/2017. Last modified 3/3/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from Storage to Frame  [ Direction is 'Source -> Destination'. ] |
| Aggregation from Storage to Switch/TOR  [ Direction is 'Source -> Destination'. ] |

### Switch/TOR

Class in package 'Cloud'

Switch/TOR

Version 1.0 Phase 1.0 Proposed

MM7817 created on 3/3/2017. Last modified 3/3/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from Frame to Switch/TOR  [ Direction is 'Source -> Destination'. ] |
| Aggregation from Storage to Switch/TOR  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Switch/TOR  Cardinality: [1..\*] | Target: Public (Class) FcSwitch  Cardinality: [1..] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Switch/TOR | Target: Public (Class) Spine/Leaf |

### Virtual Machine (Type 1 - vServer)

Class in package 'Cloud'

Cloud Orchestrator is aware of what image (O/S) is running on vServer, cloud is not aware of what vNF is running on vServer

Virtual Machine (Type 1 - vServer)

Version 1.0 Phase 1.0 Proposed

MM7817 created on 6/10/2016. Last modified 3/3/2017

Extends Bed

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Virtual Machine (Type 1 - vServer) to Bed  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from l-interface to Virtual Machine (Type 1 - vServer)  [ Name is hasLInterface. Direction is 'Source -> Destination'. ] |
| Aggregation from l-interface to Virtual Machine (Type 1 - vServer)  [ Name is hasLInterface. Direction is 'Source -> Destination'. ] |
| Aggregation from l-interface to Virtual Machine (Type 1 - vServer)  [ Name is hasLInterface. Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1..\*] | Target: Public (Class) Hypervisor  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1..\*] | Target: Public (Class) Hypervisor  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFC Instance  Cardinality: [1] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1..\*] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Network  Cardinality: [1] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) which runs containers | |
| Source: Public (Class) Docker or Linux Container Instance  Cardinality: [1..\*] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Network  Cardinality: [1] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Container Engine 2 | Target: Public (Class) Virtual Machine (Type 1 - vServer) |
| Association (direction: Unspecified) | |
| Source: Public (Class) Container Engine 2 | Target: Public (Class) Virtual Machine (Type 1 - vServer) |
| Association (direction: Unspecified) | |
| Source: Public (Class) Network  Cardinality: [1] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) which runs containers | |
| Source: Public (Class) Docker or Linux Container Instance  Cardinality: [1..\*] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFC Instance  Cardinality: [1] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFInstance  Cardinality: [1] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PhysicalResourceInstance  Cardinality: [1..] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PNFnstance  Cardinality: [1..] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [0..\*] |

### pServer (host)

Class in package 'Cloud'

Physical server (e.g. Blade/rack server) which is located in a geographic place (building) along with a Location (zone, floor, aisle, rack, shelf, slot)

pServer (host)

Version 1.0 Phase 1.0 Proposed

MM7817 created on 6/10/2016. Last modified 9/16/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from pServer (host) to Frame  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) pServer (host) | Target: Public (Class) ContainerEngine |
| Association (direction: Unspecified) | |
| Source: Public (Class) pServer (host) | Target: Public (Class) ContainerEngine |
| Association (direction: Unspecified) | |
| Source: Public (Class) Hypervisor  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) p-interface  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Hypervisor  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) p-interface  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux Container Instance (Type 3 - Bare Metal)  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1..] |
| Association (direction: Unspecified) (bare metal)  Vendors VNF image and all associated VNF Components (VNFC's) are running on a physical server | |
| Source: Public (Class) VNFInstance  Cardinality: [0..\*] | Target: Public (Class) pServer (host)  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) p-interface  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |
| Association (direction: Unspecified) Bare Metal | |
| Source: Public (Class) VNFInstance  Cardinality: [0..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |

## Customer ONAP

Package in package 'ECOMP Class Model'

Customer ONAP

Version 1.0 Phase 1.0 Proposed

EH6351 created on 8/15/2017. Last modified 8/15/2017

### Customer Subscription diagram

Class diagram in package 'Customer ONAP'

Customer Subscription

Version 1.0

EH6351 created on 8/15/2017. Last modified 8/30/2017



1. Customer Subscription

## Party

Package in package 'ECOMP Class Model'

Reflecting on the Zachman fundamental five questions of who, where, when, why, and what, the party concept covers the who.

Covered within this domain are concepts of party, party name, party identification, party role, contact medium, party role group, party role profile, as well as party demographics and party profile type.

Party

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/25/2016. Last modified 6/21/2016

### Party diagram

Class diagram in package 'Party'

A **Party** is generally a legal entity. It is something or someone that can be sued in a court of law.

A **party** can be an **individual** or an **organization**. An **organization** can be made up of parent company, subsidiary, division, department, or team as appropriate, making use of the **AtomicOrganization** / **CompositeOrganization** subclass.

**OrganizationDecompositionComponent** is used capture and manage the time element of organizational structure (department A was part of division 1 for this time period, and part of division 2 for some other time period), as well as to manage situations where an organizational component reports to more than one organizational unit.

Party

Version 1.0

KS0567 created on 12/9/2015. Last modified 8/25/2017



1. Party

### Party Names diagram

Class diagram in package 'Party'

A name is an informal way of identifying an entity. Individuals can change their name over time (withmarriage). Organizations can also change their name (from SBC to AT&T). Both individual and organization's names are modeled as separate classes, **IndividualName** and **OrganizationName** respectively.

Party Names

Version 1.0

KS0567 created on 3/22/2016. Last modified 8/30/2017



1. Party Names

### Party Identification diagram

Class diagram in package 'Party'

Given names are an informal means to describe a party, a formal means to identify some individual or organization is needed. Proof of identity is sometimes required. The **PartyIdentification** entity allows for this information to be stored and accessed as required. Similar to PartyName, separate classes are used to model both **OrganizationIdentification** and **IndividualIdentification**.

Party Identification

Version 1.0

KS0567 created on 3/29/2016. Last modified 8/16/2017



1. Party Identification

### Party Contact diagram

Class diagram in package 'Party'

Party Contact

Version 1.0

EH6351 created on 6/29/2017. Last modified 7/28/2017



1. Party Contact

### Contact Medium diagram

Class diagram in package 'Party'

A party can be contacted within some PartyRole via a contact medium. The **ContactMedium** can include types such as email, phone, fax, and postal mail. We model a PartyRole having contact mediums rather than party, allowing for role based contacts (an employee might use a different email address than the same party in the role of customer).

A given PartyRole might have some number of contact mediums.

Contact Medium

Version 1.0

KS0567 created on 6/14/2016. Last modified 8/16/2017



1. Contact Medium

### Skills diagram

Class diagram in package 'Party'

A **Skill** can be associated with a **Party** or a **PartyRole.** A **Skill** is defined via a **SkillSpecification**, with that specification being listed in a **SkillCatalog**..

Skills

Version 1.0

KS0567 created on 2/13/2017. Last modified 8/16/2017



1. Skills

### Names diagram

Class diagram in package 'Party'

Names

Version 1.0

KS0567 created on 2/14/2017. Last modified 8/16/2017



1. Names

### Party Role Group diagram

Class diagram in package 'Party'

Parties can be grouped together via PartyRole into **PartyRoleGroups**. Unlike the Party class, these **PartyRoleGroups** likely have no formal or legal standing.

**PartyRoleGroups** can model groups such as families or social clubs. A family can include a number of Individuals. The individuals are part of this family (PartyRoleGroup) via PartyRoles such as father, mother, son, and daughter. Similarly, Individuals can also be part of **PartyRoleGroups** such as a Bridge Club, with PartyRoles such as Member, Chairman/Chairwoman, Treasurer, etc.

As mentioned above, these **PartyRoleGroups** may or may not have any formal or legal standing, meaning they may not have a formal means to identify them (think Facebook groups) like an individual or organization, and could be quite fluid.

Similar to PartyRole, **PartyRoleGroups** may evolve over time, so rather than explicitly subclass, a PartyRoleGroupSpecification can be used to define the entity.

Party Role Group

Version 1.0

KS0567 created on 6/8/2016. Last modified 8/28/2017



1. Party Role Group

### Party Privacy diagram

Class diagram in package 'Party'

This diagram models how one can manage the privacy of a party's information. This is accomplished by putting several privacy classes between the PartyRoleSpecification and a given party characteristic.

The settings for **PartyPrivacyProfileTypeCharacteristic and PartyPrivacyProfileTYpeCharValue** for a given **PrivacyUsagePurpose** and **PartyPrivacyProfileType** and **PartyPrivacyProfileType** determines if a given characteristic is available or not.

Party Privacy

Version 1.0

KS0567 created on 2/15/2017. Last modified 8/16/2017



1. Party Privacy

### Party Privacy Example diagram

Class diagram in package 'Party'

Party Privacy Example

Version 1.0

KS0567 created on 2/23/2017. Last modified 3/1/2017



1. Party Privacy Example

### PartyRole, PartyPofile, and PartyProfileType diagram

Class diagram in package 'Party'

PartyRole, PartyPofile, and PartyProfileType

Version 1.0

KS0567 created on 5/10/2016. Last modified 8/16/2017



1. PartyRole, PartyPofile, and PartyProfileType

### PartyRoleSpecification diagram

Class diagram in package 'Party'

A Party can take on a large number of roles, including customer, employee, partner, supplier, service provider, vendor, ....). One could explicitly model these many different roles, but adding a new one using the generalization/specialization relationship requires a change to the model with each addition. This change could then impact databases, interfaces, and applications.

As an alternative, one can use the PartyRoleSpecification and PartyRole entities. These entities represent the application of the EntitySpecification/Entity Pattern.

This pattern enables new roles to be added for parties without explicitly modeling them. Making use of the characteristic pattern also allows the modeling of party attributes without explicitly modeling them as well.

PartyRoleSpecification

Version 1.0

KS0567 created on 3/7/2016. Last modified 8/16/2017



1. PartyRoleSpecification

### Party Demographic diagram

Class diagram in package 'Party'

Party Demographic

Version 1.0

KS0567 created on 4/26/2016. Last modified 11/9/2016



1. Party Demographic

### Party Profile Type diagram

Class diagram in package 'Party'

Party Profile Type

Version 1.0

ks0567 created on 5/2/2016. Last modified 8/16/2017



1. Party Profile Type

### 3rd Party Subscriber

Class in package 'Party'

A 3rd Party Subscriber is an End-Customer of our Customer.

Example: IBM is our Customer and in their role as Customer-Reseller they sell our products to their customers. In our role of support, we need to know who their End-Customers are.

3rd Party Subscriber

Version 1.0 Phase 1.0 Proposed

eh6351 created on 6/19/2017. Last modified 7/21/2017

Extends PartyRole

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from 3rd Party Subscriber to PartyRole  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) 3rd Party Subscriber Uses | |
| Source: Public (Class) 3rd Party Subscriber | Target: Public (Class) CustomerSubscriptionInstance |
| Association (direction: Unspecified) Is Customer of Reseller | |
| Source: Public (Class) Reseller | Target: Public (Class) 3rd Party Subscriber |

### AtomicDemographicCharacteristic

Class in package 'Party'

AtomicDemographicCharacteristic

Version 1.0 Phase 1.0 Proposed

ks0567 created on 5/2/2016. Last modified 5/2/2016

Extends DemographicCharacteristic

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from AtomicDemographicCharacteristic to DemographicCharacteristic  [ Direction is 'Source -> Destination'. ] |

### AtomicOrganization

Class in package 'Party'

An AtomicOrganization is a type of Organization that does not have any subordinate Organization.

AtomicOrganization

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/25/2016. Last modified 2/1/2017

Extends Organization

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from AtomicOrganization to Organization  [ Direction is 'Source -> Destination'. ] |

### AtomicPartyDemographic

Class in package 'Party'

AtomicPartyDemographic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/26/2016. Last modified 4/26/2016

Extends PartyDemographic

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from AtomicPartyDemographic to PartyDemographic  [ Direction is 'Source -> Destination'. ] |

### AtomicPartyProfileCharacteristic

Class in package 'Party'

AtomicPartyProfileCharacteristic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/10/2016. Last modified 5/10/2016

Extends PartyProfileCharacteristic

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from AtomicPartyProfileCharacteristic to PartyProfileCharacteristic  [ Direction is 'Source -> Destination'. ] |

### Authorization

Class in package 'Party'

8/25/17 Needs to be vetted with larger team. Customer could have authorization to purchase, versus a customer just being a contact. A customer could be authorized to procure and sell (multiple)

Authorization

Version 1.0 Phase 1.0 Proposed

EH6351 created on 7/19/2017. Last modified 8/25/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Authorization  Cardinality: [1] | Target: Public (Class) PartyRole  Cardinality: [0..\*] |

### AuthorizedUser

Class in package 'Party'

A user may be a person or a resource instance in support of customer services.

AuthorizedUser

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/21/2016. Last modified 7/28/2017

Extends Customer

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from AuthorizedUser to Customer  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) Authorized User Control | |
| Source: Public (Class) AuthorizedUser | Target: Public (Class) CustomerSubscriptionInstance |

### BirthCertificateIdentification

Class in package 'Party'

BirthCertificateIdentification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 3/29/2016

Extends IndividualIdentification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from BirthCertificateIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| certificateNumber : char Private  [ Is static False. Containment is Not Specified. ] |

### Club

Class in package 'Party'

Club

Version 1.0 Phase 1.0 Proposed

KS0567 created on 6/8/2016. Last modified 6/10/2016

Extends PartyRoleGroup

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Club to PartyRoleGroup  [ Direction is 'Source -> Destination'. ] |

### CompanyRegistration

Class in package 'Party'

CompanyRegistration

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 3/29/2016

Extends OrganizationIdentification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CompanyRegistration to OrganizationIdentification  [ Direction is 'Source -> Destination'. ] |

### Competitor

Class in package 'Party'

A Party playing a PartyRole that offers ProductOfferings similar to the enterprise's ProductOfferings in a MarketSegment.

Competitor

Version 1.0 Phase 1.0 Proposed

st2373 created on 6/23/2017. Last modified 8/24/2017

Extends PartyRole

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Competitor to PartyRole  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| dateCreated : Date Private  [ Is static False. Containment is Not Specified. ] |
| Description : String Private  [ Is static False. Containment is Not Specified. ] |
| id : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CompetitorAnaluzedUsing | |
| Source: Public (Class) Competitor  Cardinality: [0..\*] | Target: Public (Class) CompetitorIntelligence  Cardinality: [0..\*] |
| Association (direction: Unspecified) OpportunityCompetesWith | |
| Source: Public (Class) Competitor  Cardinality: [0..\*] | Target: Public (Class) Opportunity  Cardinality: [0..\*] |
| Association (direction: Unspecified) CompetitorDoseBusinessIn | |
| Source: Public (Class) Competitor  Cardinality: [0..\*] | Target: Public (Class) MarketSegment  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyRoleOwners | |
| Source: Public (Class) PartyRole  Cardinality: [0..\*] | Target: Public (Class) Competitor  Cardinality: [0..\*] |
| Association (direction: Unspecified) CompetitorOperatesWithin | |
| Source: Public (Class) CompetitorTier  Cardinality: [0..\*] | Target: Public (Class) Competitor  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) CompetitorSWOT  Cardinality: [0..\*] | Target: Public (Class) Competitor  Cardinality: [1] |

### CompositeDemographicCharacteristic

Class in package 'Party'

CompositeDemographicCharacteristic

Version 1.0 Phase 1.0 Proposed

ks0567 created on 5/2/2016. Last modified 5/2/2016

Extends DemographicCharacteristic

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CompositeDemographicCharacteristic to DemographicCharacteristic  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from DemographicCharacteristic to CompositeDemographicCharacteristic  [ Name is CompositeDemoCharacteristicComposedOf. Direction is 'Source -> Destination'. ] |

### CompositeOrganization

Class in package 'Party'

A CompositeOrganization is a type of Organization that is formed by aggregating other Organizations, which may be atomic Organizations or OrganizationDecompositionComponents.

CompositeOrganization

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/25/2016. Last modified 2/1/2017

Extends Organization

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CompositeOrganization to Organization  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| AssociationClass (direction: Unspecified) OrganizationComposedOf | |
| Source: Public (Class) CompositeOrganization  Cardinality: [1..\*] | Target: Public (Class) Organization  Cardinality: [1..\*] |

### CompositePartyDemographic

Class in package 'Party'

CompositePartyDemographic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/26/2016. Last modified 4/26/2016

Extends PartyDemographic

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CompositePartyDemographic to PartyDemographic  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyDemographic to CompositePartyDemographic  [ Name is DemographicComprisedOf. Direction is 'Source -> Destination'. ] |

### CompositePartyProfileCharacteristic

Class in package 'Party'

CompositePartyProfileCharacteristic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/10/2016. Last modified 5/10/2016

Extends PartyProfileCharacteristic

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CompositePartyProfileCharacteristic to PartyProfileCharacteristic  [ Direction is 'Source -> Destination'. ] |

### Contact

Class in package 'Party'

A **Contact** is a Party in the role of receiver of interactions, such as notifications, messages, phone calls, per their PartyRole or relationship with a PartyRole.

Contact

Version 1.0 Phase 1.0 Proposed

EH6351 created on 7/19/2017. Last modified 8/25/2017

Extends PartyRole

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Contact to PartyRole  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| AvailabilityTimes : Private  [ Is static False. Containment is Not Specified. ] |
| ContactID : Private  [ Is static False. Containment is Not Specified. ] |
| ContactName : Private  [ Is static False. Containment is Not Specified. ] |
| ContactType : Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CustomerSales AccountHas | |
| Source: Public (Class) Contact  Cardinality: [1..\*] | Target: Public (Class) CustomerSalesAccount  Cardinality: [0..\*] |
| Association (direction: Unspecified) LeadHas | |
| Source: Public (Class) Contact  Cardinality: [1..\*] | Target: Public (Class) Lead  Cardinality: [0..\*] |
| Association (direction: Unspecified) OpportunityHas | |
| Source: Public (Class) Contact  Cardinality: [1..\*] | Target: Public (Class) Opportunity  Cardinality: [0..\*] |
| Association (direction: Unspecified) CustomerHas | |
| Source: Public (Class) Contact  Cardinality: [1..\*] | Target: Public (Class) Customer  Cardinality: [0..\*] |
| Association (direction: Unspecified) CustomerContractHas | |
| Source: Public (Class) Contact  Cardinality: [1..\*] | Target: Public (Class) CustomerContract  Cardinality: [0..\*] |
| Association (direction: Unspecified) ShoppingCartHas | |
| Source: Public (Class) Contact  Cardinality: [1..\*] | Target: Public (Class) ShoppingCart  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyRoleHas | |
| Source: Public (Class) Contact  Cardinality: [0..\*] | Target: Public (Class) PartyRole  Cardinality: [1..\*] |
| Association (direction: Unspecified) CustomerBillingAccountHas | |
| Source: Public (Class) Contact  Cardinality: [1..\*] | Target: Public (Class) CustomerBillingAccount  Cardinality: [0..\*] |
| Association (direction: Unspecified) CustomerSubscriptionInstanceHas | |
| Source: Public (Class) CustomerSubscriptionInstance  Cardinality: [0..\*] | Target: Public (Class) Contact  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ContactMedium  Cardinality: [1..\*] | Target: Public (Class) Contact  Cardinality: [1..\*] |

### ContactMedium

Class in package 'Party'

ContactMedium

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/17/2016. Last modified 7/20/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from FaxNumber to ContactMedium  [ Direction is 'Source -> Destination'. ] |
| Generalization from emailContact to ContactMedium  [ Direction is 'Source -> Destination'. ] |
| Generalization from PostalContact to ContactMedium  [ Direction is 'Source -> Destination'. ] |
| Generalization from TelephoneNumber to ContactMedium  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) ContactMedium  Cardinality: [1..\*] | Target: Public (Class) Contact  Cardinality: [1..\*] |
| Association (direction: Unspecified) PartyRoleContactableVia | |
| Source: Public (Class) PartyRole  Cardinality: [0..\*] | Target: Public (Class) ContactMedium  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) CustomerNotificationPreference | Target: Public (Class) ContactMedium  Cardinality: [0..\*] |

### ContractorIdentification

Class in package 'Party'

ContractorIdentification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 5/24/2016

Extends IndividualIdentification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ContractorIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| contractorNumber : string Private  [ Is static False. Containment is Not Specified. ] |

### Country

Class in package 'Party'

Country

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/22/2016. Last modified 3/22/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) LanguageOfficiallyUsedIn | |
| Source: Public (Class) Country  Cardinality: [1..\*] | Target: Public (Class) Language  Cardinality: [\*] |

### Customer

Class in package 'Party'

A **Customer** includes the following:

* Someone who currently or in the past (some configurable period of time) consumed AT&T products, regardless of who paid for them.
* The payer for AT&T products regardless of if they consumed the product.
* Anyone we have had contact with regarding our products where we have captured enough information about them to pursue a lead or sales opportunity.
* Can be an individual, a household, or a business.

Customer

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/27/2015. Last modified 8/28/2017

Extends PartyRole

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Customer to PartyRole  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from User to Customer  [ Direction is 'Source -> Destination'. ] |
| Generalization from Reseller to Customer  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResponsibleParty to Customer  [ Direction is 'Source -> Destination'. ] |
| Generalization from Financially Responsible to Customer  [ Direction is 'Source -> Destination'. ] |
| Generalization from Owner to Customer  [ Direction is 'Source -> Destination'. ] |
| Generalization from User to Customer  [ Direction is 'Source -> Destination'. ] |
| Generalization from AuthorizedUser to Customer  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| EndDate : Private  [ Is static False. Containment is Not Specified. ] |
| StartDate : Private  [ Is static False. Containment is Not Specified. ] |
| Status : Private  [ Is static False. Containment is Not Specified. ] |
| StatusDate : Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CustomerPossesses | |
| Source: Public (Class) Customer  Cardinality: [1..\*] | Target: Public (Class) CustomerBillingAccount  Cardinality: [0..\*] |
| Association (direction: Unspecified) CustomerPlacesItemsIn | |
| Source: Public (Class) Customer  Cardinality: [1] | Target: Public (Class) ShoppingCart  Cardinality: [0..\*] |
| Association (direction: Unspecified) CustomerHas | |
| Source: Public (Class) Customer  Cardinality: [1..\*] | Target: Public (Class) CustomerDefinedSubscriptionGroup  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Customer | Target: Public (Class) Sales Proposal |
| Association (direction: Unspecified) CustomerHas | |
| Source: Public (Class) Customer  Cardinality: [1..\*] | Target: Public (Class) CustomerSubscriptionInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) LeadIsSetUpFor | |
| Source: Public (Class) Customer  Cardinality: [0..1] | Target: Public (Class) Lead  Cardinality: [0..\*] |
| Association (direction: Unspecified) CustomerPlaces | |
| Source: Public (Class) Customer  Cardinality: [1] | Target: Public (Class) CustomerOrder  Cardinality: [0..\*] |
| Association (direction: Unspecified) OpportunitySetUpFor | |
| Source: Public (Class) Opportunity  Cardinality: [0..\*] | Target: Public (Class) Customer  Cardinality: [1] |
| Association (direction: Unspecified) CustomerBoundBy | |
| Source: Public (Class) CustomerContract  Cardinality: [0..\*] | Target: Public (Class) Customer  Cardinality: [1..\*] |
| Association (direction: Unspecified) CustomerParticipatesIn | |
| Source: Public (Class) BusinessInteraction  Cardinality: [0..\*] | Target: Public (Class) Customer  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Location (Place)  Cardinality: [1..\*] | Target: Public (Class) Customer  Cardinality: [1..\*] |
| Association (direction: Unspecified) Customer(FinanciallyResponsible)Possess | |
| Source: Public (Class) CustomerFinancialAccount  Cardinality: [0..\*] | Target: Public (Class) Customer  Cardinality: [1..\*] |
| Association (direction: Unspecified) CustomerHas | |
| Source: Public (Class) Place  Cardinality: [1..\*] | Target: Public (Class) Customer  Cardinality: [0..\*] |
| Association (direction: Unspecified) CustomerHas | |
| Source: Public (Class) Contact  Cardinality: [1..\*] | Target: Public (Class) Customer  Cardinality: [0..\*] |
| Association (direction: Unspecified) CustomerPosseses | |
| Source: Public (Class) CustomerSalesAccount  Cardinality: [0..\*] | Target: Public (Class) Customer  Cardinality: [1..\*] |

### Customer's Agent

Class in package 'Party'

The Customer's Agent is a party who is authorized by the AT&T customer to conduct various business interactions with AT&T on behalf of the customer.

Customer's Agent

Version 1.0 Phase 1.0 Proposed

eh6351 created on 6/19/2017. Last modified 7/21/2017

Extends PartyRole

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Customer's Agent to PartyRole  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) Customer's Agents Can Act On | |
| Source: Public (Class) Customer's Agent | Target: Public (Class) CustomerSubscriptionInstance |

### DemoCharacteristicValue

Class in package 'Party'

DemoCharacteristicValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/26/2016. Last modified 5/2/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) DemoCharacteristicValueDefines | |
| Source: Public (Class) DemoCharacteristicValue  Cardinality: [0..1] | Target: Public (Class) PartyDemographicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) DemographicCharacteristicEnumeratedBy | |
| Source: Public (Class) DemographicCharacteristic  Cardinality: [1] | Target: Public (Class) DemoCharacteristicValue  Cardinality: [0..\*] |

### DemographicCharacteristic

Class in package 'Party'

A feature or quality used to make recognizable or to define somebody or something, such as age, income, education, revenue, and so forth.

DemographicCharacteristic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/26/2016. Last modified 5/2/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from DemographicCharacteristic to CompositeDemographicCharacteristic  [ Name is CompositeDemoCharacteristicComposedOf. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from AtomicDemographicCharacteristic to DemographicCharacteristic  [ Direction is 'Source -> Destination'. ] |
| Generalization from CompositeDemographicCharacteristic to DemographicCharacteristic  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) DenigraogucCgaracterustucDefines | |
| Source: Public (Class) DemographicCharacteristic  Cardinality: [0..1] | Target: Public (Class) PartyDemographicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) DemographicCharacteristicEnumeratedBy | |
| Source: Public (Class) DemographicCharacteristic  Cardinality: [1] | Target: Public (Class) DemoCharacteristicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PartyProfileTypeCharacteristic | Target: Public (Class) DemographicCharacteristic |

### DriversLicenseIdentification

Class in package 'Party'

DriversLicenseIdentification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 3/29/2016

Extends IndividualIdentification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from DriversLicenseIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| licenseNumber : char Private  [ Is static False. Containment is Not Specified. ] |

### EmployeeIdentification

Class in package 'Party'

EmployeeIdentification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 5/24/2016

Extends IndividualIdentification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from EmployeeIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| employeeNumber : char Private  [ Is static False. Containment is Not Specified. ] |

### EventNotificationPreference

Class in package 'Party'

EventNotificationPreference captures a PartyRole''s preference regarding being notified about a particular event or situation (e.g. - new product, bill ready notification, usage threshold, order status, ...) as well as the preferred contact medium.

Some notification types may not be optional or may have set contactmediums.

There will be some number of EventNotificationPreferences..

EventNotificationPreference

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/11/2016. Last modified 2/15/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from EventNotificationPreference to PartyRoleProfile  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| NotificationContactMediumSelection : char Private  NotificationContactMediumSelection repreesents the ContactMedium that the Party wants to be notified by.  [ Is static False. Containment is Not Specified. ] |
| NotificationFrequency : int Private  NotificationFrequency captures the frequency that the customer wants to be contacted (daily, weekly, monthly, ....).  [ Is static False. Containment is Not Specified. ] |
| NotificationSelection : char Private  NotificationSelection captures the customer's preference on if they want to receive the given CustomerNotification (Y or N). It is also possible that the notification is 'mandatory'.  [ Is static False. Containment is Not Specified. ] |
| NotificationTypeID : int Private  NotificationTypeID is the unique identification number for the given PartyNotificationPreference  [ Is static False. Containment is Not Specified. ] |
| NotificationTypeName : int Private  NotificationTypeName represents the AT&T specified name for the given CustomerNotification.  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) EventNotificationPreference | Target: Public (Class) CustomerFinancialAccount |
| Association (direction: Unspecified) | |
| Source: Public (Class) EventNotificationPreference  Cardinality: [0..1] | Target: Public (Class) Header  Cardinality: [1..] |
| Association (direction: Unspecified) | |
| Source: Public (Class) EventNotificationPreference | Target: Public (Class) CustomerSubscriptionInstance |
| Association (direction: Unspecified) | |
| Source: Public (Class) EventNotificationPreference | Target: Public (Class) CustomerBillingAccount |
| Association (direction: Unspecified) | |
| Source: Public (Class) EventNotificationPreference | Target: Public (Class) Agreement |
| Association (direction: Unspecified) | |
| Source: Public (Class) EventNotificationPreference | Target: Public (Class) Policy |
| Association (direction: Unspecified) | |
| Source: Public (Class) PolicyRule | Target: Public (Class) EventNotificationPreference |
| Association (direction: Unspecified) | |
| Source: Public (Class) PartyRole  Cardinality: [\*] | Target: Public (Class) EventNotificationPreference  Cardinality: [\*] |

### Family

Class in package 'Party'

Family

Version 1.0 Phase 1.0 Proposed

KS0567 created on 6/8/2016. Last modified 6/10/2016

Extends PartyRoleGroup

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Family to PartyRoleGroup  [ Direction is 'Source -> Destination'. ] |

### FaxNumber

Class in package 'Party'

FaxNumber

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/22/2016. Last modified 6/14/2016

Extends ContactMedium

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from FaxNumber to ContactMedium  [ Direction is 'Source -> Destination'. ] |

### Financially Responsible

Class in package 'Party'

A party who is financially responsible for a customer's financial account.

Financially Responsible

Version 1.0 Phase 1.0 Proposed

eh6351 created on 6/19/2017. Last modified 8/18/2017

Extends Customer

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Financially Responsible to Customer  [ Direction is 'Source -> Destination'. ] |

### Individual

Class in package 'Party'

An Individual is a type or specialization of Party. Individuals can be internal (employees or board members) or external to the Service Provider (customers, organizational contacts, or shareholders).

Individual

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/29/2016. Last modified 7/12/2017

Extends Party

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Individual to Party  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from IndividualIdentification to Individual  [ Direction is 'Source -> Destination'. ] |
| Aggregation from IndividualName to Individual  [ Name is IndividualIsNamedUsing. Direction is 'Unspecified'. ] |

| ATTRIBUTES |
| --- |
| aliveDuring : char Private  [ Is static False. Containment is Not Specified. ] |
| disabilities : char Private  [ Is static False. Containment is Not Specified. ] |
| gender : char Private    Constraints:  {gender valid\_values(femaile,male)} :  [ Is static False. Containment is Not Specified. ] |
| maritalStatus : char Private  [ Is static False. Containment is Not Specified. ] |
| nationality : char Private  [ Is static False. Containment is Not Specified. ] |
| placeOfBirth : char Private  [ Is static False. Containment is Not Specified. ] |

### IndividualIdentification

Class in package 'Party'

IndividualIdentification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 5/24/2016

Extends PartyIdentification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from IndividualIdentification to Individual  [ Direction is 'Source -> Destination'. ] |
| Generalization from IndividualIdentification to PartyIdentification  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from NationalIdentityCardIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |
| Generalization from BirthCertificateIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |
| Generalization from ContractorIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |
| Generalization from DriversLicenseIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |
| Generalization from EmployeeIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |
| Generalization from PassportIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |
| Generalization from SocialSecurityIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |

### IndividualName

Class in package 'Party'

IndividualName

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/22/2016. Last modified 3/22/2016

Extends PartyName

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from IndividualName to PartyName  [ Direction is 'Source -> Destination'. ] |
| Aggregation from IndividualName to Individual  [ Name is IndividualIsNamedUsing. Direction is 'Unspecified'. ] |

| ATTRIBUTES |
| --- |
| alias : Boolean Private  [ Is static False. Containment is Not Specified. ] |
| familyNames : char Private  [ Is static False. Containment is Not Specified. ] |
| formattedName : char Private  [ Is static False. Containment is Not Specified. ] |
| givenNames : char Private  [ Is static False. Containment is Not Specified. ] |
| legalName : char Private  [ Is static False. Containment is Not Specified. ] |
| middleNames : char Private  [ Is static False. Containment is Not Specified. ] |
| preferredGivenName : char Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyRoleNameUsing | |
| Source: Public (Class) IndividualName  Cardinality: [0..\*] | Target: Public (Class) PartyRole  Cardinality: [1] |

### Language

Class in package 'Party'

Language

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 3/29/2016

| ATTRIBUTES |
| --- |
| alphabetName : char Private  [ Is static False. Containment is Not Specified. ] |
| dialectNames : char Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyIdentificationWrittenIn | |
| Source: Public (Class) Language  Cardinality: [1] | Target: Public (Class) PartyIdentification  Cardinality: [\*] |
| Association (direction: Unspecified) PartyNameDefinedUsing | |
| Source: Public (Class) Language  Cardinality: [1..] | Target: Public (Class) PartyName  Cardinality: [\*] |
| Association (direction: Unspecified) LanguageOfficiallyUsedIn | |
| Source: Public (Class) Country  Cardinality: [1..\*] | Target: Public (Class) Language  Cardinality: [\*] |

### List of Elements in Package Party

ModelView «ModelView» in package 'Party'

List of Elements in Package Party

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/4/2016. Last modified 3/4/2016

### NationalIdentityCardIdentification

Class in package 'Party'

NationalIdentityCardIdentification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 3/29/2016

Extends IndividualIdentification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from NationalIdentityCardIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| cardNumber : Char Private  [ Is static False. Containment is Not Specified. ] |

### Organization

Class in package 'Party'

An Organization is a type or specialization of Party. An Organization can be a company, department, religious institution, club, government agency, charity, or social club.

AT&T and Organizations may define their own Organization hierarchy if they require functionality based upon their Organization hierarchy.

Organization

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/9/2015. Last modified 7/12/2017

Extends Party

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Organization to Party  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from OrganizationName to Organization  [ Name is OrganizationNamedUsing. Direction is 'Unspecified'. ] |
| Generalization from AtomicOrganization to Organization  [ Direction is 'Source -> Destination'. ] |
| Generalization from CompositeOrganization to Organization  [ Direction is 'Source -> Destination'. ] |
| Aggregation from OrganizationIdentification to Organization  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| existsDuring : char Private  [ Is static False. Containment is Not Specified. ] |
| isLegalEntity : boolean Private  [ Is static False. Containment is Not Specified. ] |
| type : char Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) OrganizationRepresentedAs | |
| Source: Public (Class) PartyRoleGroup  Cardinality: [0..\*] | Target: Public (Class) Organization  Cardinality: [0..\*] |
| AssociationClass (direction: Unspecified) OrganizationComposedOf | |
| Source: Public (Class) CompositeOrganization  Cardinality: [1..\*] | Target: Public (Class) Organization  Cardinality: [1..\*] |

### OrganizationDecompositionComponent

AssociationClass in package 'Party'

Organizations are frequently reorganizing. OrganizationDecompositionComponent captures the relationship between two organizations, and the time period for which that relationship is valid, meaning it can capture organizational structure history.

This class can also be used for situations where a given organization reports to multiple other organizations.

Note: In the TMF SID, they model this as a Class (reduces RationalRole check errors..

OrganizationDecompositionComponent

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/18/2016. Last modified 2/1/2017

| ATTRIBUTES |
| --- |
| ValidFor : DateRange Private  [ Is static False. Containment is Not Specified. ] |

### OrganizationIdentification

Class in package 'Party'

OrganizationIdentification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 5/24/2016

Extends PartyIdentification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from OrganizationIdentification to PartyIdentification  [ Direction is 'Source -> Destination'. ] |
| Aggregation from OrganizationIdentification to Organization  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CompanyRegistration to OrganizationIdentification  [ Direction is 'Source -> Destination'. ] |

### OrganizationName

Class in package 'Party'

OrganizationName

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/22/2016. Last modified 3/22/2016

Extends PartyName

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from OrganizationName to Organization  [ Name is OrganizationNamedUsing. Direction is 'Unspecified'. ] |
| Generalization from OrganizationName to PartyName  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| tradingName : char Private  [ Is static False. Containment is Not Specified. ] |

### Owner

Class in package 'Party'

May be a customer, support person (e.g. NOC or field technician) or machine/VM. A type of party role.

Owner

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/9/2015. Last modified 2/25/2016

Extends Customer

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Owner to Customer  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| ownerId : string Public  AT&T UUID, Billing Telephone Nbr (BTN), machine ID, SSN, CTN  [ Is static False. Containment is Not Specified. ] |
| ownerName : string Protected  from ownerSource system of record.  [ Is static False. Containment is Not Specified. ] |
| ownerSource : char Public  e.g. OCM, OMS, GIOM, MOMS, Enabler, UB, ATT - (A global NOC person)  [ Is static False. Containment is Not Specified. ] |
| ownerStatus : char Protected  e.g. active, inactive, suspended, terminated (from source system of record).  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Owner | Target: Public (Class) UsageAccounting |
| Association (direction: Unspecified) | |
| Source: Public (Class) Owner  Cardinality: [1] | Target: Public (Class) OwnerRoles  Cardinality: [0..\*] |

### Owning Entity (ATO 11 defn)

Class in package 'Party'

An **OwningEntity is a PartyRole** that possesses the right to hold, use, benefit-from, enjoy, convey, transfer, and otherwise dispose of an asset or property. An OwningEntity can be an employee, executive, or organization who has the principle responsiblity for a process, program, project or platform.

An owning entity (partyrole) can have one or more tenants (PartyRole)

A platform may be technology oriented, such as:

1. AIC / ECOMP

2. USP Voice (Wireline)

3. EPC – Mobility Core (Mobility)

4. Packet Core

5. Metro Packet Core

6. Optical Transport

7. Mobility Access

8. U-verse/DIRECTV (Entertainment Group)

9. Wireline

10. Premises

11. Firewall/Miscellaneous

Associated with resource consumption in the cloud. Services/VNF's consuming cloud resources.

An owning entity (partyrole) can have one or more tenants (PartyRole).

PartyRole that possesses the exclusive right to hold, use, benefit-from, enjoy, convey, transfer, and otherwise dispose of an asset or property

An **OwningEntity is a PartyRole** that possesses the exclusive right to hold, use, benefit-from, enjoy, convey, transfer, and otherwise dispose of an asset or property. An OwningEntity can be an employee, executive, or organization who has the principle responsiblity for a process, program, or project.

An **OwningEntity** may be technology oriented, such as:

1. AIC / ECOMP

2. USP Voice (Wireline)

3. EPC – Mobility Core (Mobility)

4. Packet Core

5. Metro Packet Core

6. Optical Transport

7. Mobility Access

8. U-verse/DIRECTV (Entertainment Group)

9. Wireline

10. Premises

11. Applications and Services

Associated with resource consumption in the cloud. Services/VNF's consuming cloud resources. Thought should technology/attribute be pulled out as a separate class, i.e. who can use the model versus the fiscal responsible entity.

An owning entity (partyrole) can have one or more tenants (PartyRole).

Owning Entity (ATO 11 defn)

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/11/2017. Last modified 7/21/2017

Extends PartyRole

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Owning Entity (ATO 11 defn) to PartyRole  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ProjectSponsoredBy | |
| Source: Public (Class) Owning Entity (ATO 11 defn)  Cardinality: [0..\*] | Target: Public (Class) Project  Cardinality: [0..\*] |
| Association (direction: Unspecified) PlatformManagedBy | |
| Source: Public (Class) Owning Entity (ATO 11 defn)  Cardinality: [1] | Target: Public (Class) Service Platform  Cardinality: [0..\*] |
| Association (direction: Unspecified) TenantAllocatedTo | |
| Source: Public (Class) Owning Entity (ATO 11 defn)  Cardinality: [1] | Target: Public (Class) Tenant (Cloud)  Cardinality: [0..\*] |
| Association (direction: Unspecified) CFS SponsoredByOwningEntity | |
| Source: Public (Class) Owning Entity (ATO 11 defn)  Cardinality: [0..1] | Target: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) SponseredByOwningEntity | |
| Source: Public (Class) Owning Entity (ATO 11 defn)  Cardinality: [0..\*] | Target: Public (Class) ResourceFacingServiceCatalogItem  Cardinality: [0..\*] |
| Association (direction: Unspecified) RFSSponsoredByOwningEntity | |
| Source: Public (Class) Owning Entity (ATO 11 defn)  Cardinality: [0..1] | Target: Public (Class) ResourceFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) SponseredByOwningEntity | |
| Source: Public (Class) Owning Entity (ATO 11 defn)  Cardinality: [0..\*] | Target: Public (Class) CustomerFacingServiceCatalogItem  Cardinality: [0..\*] |

### Partner

Class in package 'Party'

Partner may also be a 3rd party acting on behalf of AT&T.

Partner

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/10/2015. Last modified 7/21/2017

Extends PartyRole

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Partner to PartyRole  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartnerMayParticipateIn | |
| Source: Public (Class) Partner  Cardinality: [0..\*] | Target: Public (Class) Opportunity  Cardinality: [0..\*] |
| Association (direction: Unspecified) Partner Supports | |
| Source: Public (Class) Partner | Target: Public (Class) CustomerSubscriptionInstance |

### Party

Class in package 'Party'

The Party concept covers one of the 5 fundamental architectural concepts. Those concepts being who, what, when, why, and where. Party covers the 'who' concept.

A party is a person (individual) or group of persons (an organization).

A party is a legal entity, something or someone that can be sued in a court of law.

Party

Version 1.0 Phase 1.0 Proposed

ks0567 created on 10/28/2015. Last modified 8/25/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Individual to Party  [ Direction is 'Source -> Destination'. ] |
| Aggregation from PartyRole to Party  [ Direction is 'Source -> Destination'. ] |
| Generalization from Organization to Party  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| PartyID : char Private  [ Is static False. Containment is Not Specified. ] |
| validFor : char Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Party  Cardinality: [1] | Target: Public (Class) PartyRole  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyInteractionRoleIdentifiedByParty | |
| Source: Public (Class) Party  Cardinality: [0..1] | Target: Public (Class) PartyInteractionRole  Cardinality: [\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) User Agent  Cardinality: [0..\*] | Target: Public (Class) Party  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ProductComposition | Target: Public (Class) Party |
| Association (direction: Unspecified) PartyHasSkill | |
| Source: Public (Class) Skill  Cardinality: [0..\*] | Target: Public (Class) Party  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Persona  Cardinality: [0..\*] | Target: Public (Class) Party  Cardinality: [1] |

### PartyAuthorizationProfile

Class in package 'Party'

The PartyAuthorizationProfile provides data to allow a partyrole access or control based on what they are permitted to do.

PartyAuthorizationProfile

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/21/2015. Last modified 2/17/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyAuthorizationProfile to PartyRoleProfile  [ Direction is 'Source -> Destination'. ] |

### PartyDemographic

Class in package 'Party'

PartyDemographic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/26/2016. Last modified 4/26/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyDemographic to PartyRole  [ Name is PartyDemographicProfiles. Direction is 'Source -> Destination'. ] |
| Aggregation from PartyDemographic to CompositePartyDemographic  [ Name is DemographicComprisedOf. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from AtomicPartyDemographic to PartyDemographic  [ Direction is 'Source -> Destination'. ] |
| Generalization from CompositePartyDemographic to PartyDemographic  [ Direction is 'Source -> Destination'. ] |
| Aggregation from PartyDemographicValue to PartyDemographic  [ Name is PartyDemographicDefinedBy. Direction is 'Source -> Destination'. ] |

### PartyDemographicValue

Class in package 'Party'

PartyDemographicValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/26/2016. Last modified 4/26/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyDemographicValue to PartyDemographic  [ Name is PartyDemographicDefinedBy. Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) DenigraogucCgaracterustucDefines | |
| Source: Public (Class) DemographicCharacteristic  Cardinality: [0..1] | Target: Public (Class) PartyDemographicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) DemoCharacteristicValueDefines | |
| Source: Public (Class) DemoCharacteristicValue  Cardinality: [0..1] | Target: Public (Class) PartyDemographicValue  Cardinality: [0..\*] |

### PartyIdentification

Class in package 'Party'

PartyIdentification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 3/29/2016

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from IndividualIdentification to PartyIdentification  [ Direction is 'Source -> Destination'. ] |
| Generalization from OrganizationIdentification to PartyIdentification  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| issueDate : char Private  [ Is static False. Containment is Not Specified. ] |
| validFor : char Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyIdentificationWrittenIn | |
| Source: Public (Class) Language  Cardinality: [1] | Target: Public (Class) PartyIdentification  Cardinality: [\*] |

### PartyName

Class in package 'Party'

PartyName

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/22/2016. Last modified 3/22/2016

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from OrganizationName to PartyName  [ Direction is 'Source -> Destination'. ] |
| Generalization from IndividualName to PartyName  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| validFor : char Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyNameDefinedUsing | |
| Source: Public (Class) Language  Cardinality: [1..] | Target: Public (Class) PartyName  Cardinality: [\*] |

### PartyPreferences

Class in package 'Party'

PartyPreferences include the following:

* Language of a given document (bill as an example)
* Can the party be contacted for a given ting (news, adversticemnet, etc),
* Marketing information delivery options, and
* Bill delivery options.

CustomerNotification captures a customer's preference regarding being contacted about a particular event or situation (e.g. - new product, bill ready notification, usage threshold, order status, ...) as well as the preferred contact medium.

Some notification types may not be optional or may have set contactmediums.

There will be some number of CustomerNotifications.

PartyPreferences

Version 1.0 Phase 1.0 Proposed

ks0567 created on 5/12/2016. Last modified 5/16/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyPreferences to PartyRoleProfile  [ Name is PartyProfileHas. Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| emailLanguagePreference : char Private  [ Is static False. Containment is Not Specified. ] |
| paperDocumentLanguagePreference : char Private  [ Is static False. Containment is Not Specified. ] |
| voiceLanguagePreference : char Private  [ Is static False. Containment is Not Specified. ] |

### PartyPrivacyProfileType

Class in package 'Party'

**PartyPrivacyProfileType** specifies for a Party playing some role, available options for information with privacy concerns.

PartyPrivacyProfileType

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2017. Last modified 2/24/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) /PartyPrivacyProfileTypeDescribedBy | |
| Source: Public (Class) PartyPrivacyProfileType  Cardinality: [0..\*] | Target: Public (Class) PartyPrivacyProfileTypeCharacteristic  Cardinality: [0..\*] |
| Association (direction: Unspecified) /PartyPrivacyRoleProfileTypeDescribedBy | |
| Source: Public (Class) PartyPrivacyProfileType  Cardinality: [0..\*] | Target: Public (Class) PartyPrivacyProfileTypeCharValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) PatyPrivacyProfileTypeApplicableFor | |
| Source: Public (Class) PartyRoleSpecification  Cardinality: [0..\*] | Target: Public (Class) PartyPrivacyProfileType  Cardinality: [0..\*] |

### PartyPrivacyProfileTypeCharValue

Class in package 'Party'

PartyPrivacyProfileTypeCharValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2017. Last modified 2/15/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PartyPrivacyProfileTypeCharValue\_child to PartyPrivacyProfileTypeCharValue  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| isDefault : boolean Private  [ Is static False. Containment is Not Specified. ] |
| validityDuration : Duration Private  [ Is static False. Containment is Not Specified. ] |
| value : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) /PartyPrivacyRoleProfileTypeDescribedBy | |
| Source: Public (Class) PartyPrivacyProfileType  Cardinality: [0..\*] | Target: Public (Class) PartyPrivacyProfileTypeCharValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PartyPrivacyProfileTypeCharacteristic | Target: Public (Class) PartyPrivacyProfileTypeCharValue |

### PartyPrivacyProfileTypeCharValue\_child

Class in package 'Party'

PartyPrivacyProfileTypeCharValue\_child

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/24/2017. Last modified 2/24/2017

Extends PartyPrivacyProfileTypeCharValue

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PartyPrivacyProfileTypeCharValue\_child to PartyPrivacyProfileTypeCharValue  [ Direction is 'Source -> Destination'. ] |

### PartyPrivacyProfileTypeCharacteristic

Class in package 'Party'

PartyPrivacyProfileTypeCharacteristic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/15/2017. Last modified 2/24/2017

| ATTRIBUTES |
| --- |
| criticityLevel : String Private  [ Is static False. Containment is Not Specified. ] |
| privacyType : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyPrivacyProfileTypeCharactisticDefinedBy | |
| Source: Public (Class) PartyPrivacyProfileTypeCharacteristic  Cardinality: [\*] | Target: Public (Class) EntityTypeCharUse  Cardinality: [1..\*] |
| AssociationClass (direction: Unspecified) ttt | |
| Source: Public (Class) PartyPrivacyProfileTypeCharacteristic | Target: Public (Class) CharacteristicSpecification |
| Association (direction: Unspecified) | |
| Source: Public (Class) PartyPrivacyProfileTypeCharacteristic | Target: Public (Class) PartyPrivacyProfileTypeCharValue |
| Association (direction: Unspecified) /PartyPrivacyProfileTypeDescribedBy | |
| Source: Public (Class) PartyPrivacyProfileType  Cardinality: [0..\*] | Target: Public (Class) PartyPrivacyProfileTypeCharacteristic  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyPrivacyProfileTypeCharacteristicDefinedForPartyRoleSpec | |
| Source: Public (Class) PartyRoleSpecification  Cardinality: [\*] | Target: Public (Class) PartyPrivacyProfileTypeCharacteristic  Cardinality: [\*] |
| Association (direction: Unspecified) PartyPrivacyProfileTypeCharDefinedFor | |
| Source: Public (Class) PrivacyUsagePurpose  Cardinality: [0..1] | Target: Public (Class) PartyPrivacyProfileTypeCharacteristic  Cardinality: [\*] |
| Association (direction: Unspecified) PartyPrivacyProfileTypeCharCategorizedBy | |
| Source: Public (Class) PrivacyCategory  Cardinality: [1] | Target: Public (Class) PartyPrivacyProfileTypeCharacteristic  Cardinality: [\*] |

### PartyPrivacyTypeUse

AssociationClass in package 'Party'

PartyPrivacyTypeUse

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/27/2017. Last modified 3/1/2017

### PartyProfileCharValue

Class in package 'Party'

PartyProfileCharValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/10/2016. Last modified 5/10/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyProfileCharValue to PartyProfileCharacteristic  [ Direction is 'Source -> Destination'. ] |

### PartyProfileCharacteristic

Class in package 'Party'

PartyProfileCharacteristic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/10/2016. Last modified 5/10/2016

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CompositePartyProfileCharacteristic to PartyProfileCharacteristic  [ Direction is 'Source -> Destination'. ] |
| Aggregation from PartyProfileCharValue to PartyProfileCharacteristic  [ Direction is 'Source -> Destination'. ] |
| Aggregation from PartyProfileValue to PartyProfileCharacteristic  [ Direction is 'Source -> Destination'. ] |
| Generalization from AtomicPartyProfileCharacteristic to PartyProfileCharacteristic  [ Direction is 'Source -> Destination'. ] |

### PartyProfileType

Class in package 'Party'

**PartyProfileType** provides characteristics used to group Parties for the formulation and targeting of MarketingCampaigns. ProfileTypes can be based on PartyDemographics, GeographicAreas, ProductOfferings, and MarketSegments. User-defined DataPoints can also be specified.

PartyProfileType

Version 1.0 Phase 1.0 Proposed

ks0567 created on 5/2/2016. Last modified 7/27/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyProfileTypeTargets | |
| Source: Public (Class) PartyProfileType  Cardinality: [0..\*] | Target: Public (Class) ProductOfferingItem  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyProfileTypeDescribedByPartyProfileTypeCharacteristic | |
| Source: Public (Class) PartyProfileType  Cardinality: [0..\*] | Target: Public (Class) PartyProfileTypeCharacteristic  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyProfileMatchedWith | |
| Source: Public (Class) PartyProfileType | Target: Public (Class) PartyRoleProfile |
| Association (direction: Unspecified) MarketingCampaignTargetsPartyProfileType | |
| Source: Public (Class) PartyProfileType  Cardinality: [0..\*] | Target: Public (Class) MarketingCampaign  Cardinality: [0..\*] |
| Association (direction: Unspecified) MarketSegmentProfiledBy | |
| Source: Public (Class) MarketSegment  Cardinality: [0..\*] | Target: Public (Class) PartyProfileType  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyProfileTypeCategorizedBy | |
| Source: Public (Class) PartyRoleSpecification  Cardinality: [1] | Target: Public (Class) PartyProfileType  Cardinality: [0..\*] |

### PartyProfileTypeCharacteristic

Class in package 'Party'

PartyProfileTypeCharacteristic

Version 1.0 Phase 1.0 Proposed

ks0567 created on 5/2/2016. Last modified 5/2/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyProfileTypeCharacteristicEnumeratedBy | |
| Source: Public (Class) PartyProfileTypeCharacteristic  Cardinality: [1] | Target: Public (Class) PartyProfileTypeCharacteristicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PartyProfileTypeCharacteristic | Target: Public (Class) DemographicCharacteristic |
| Association (direction: Unspecified) PartyProfileTypeDescribedByPartyProfileTypeCharacteristic | |
| Source: Public (Class) PartyProfileType  Cardinality: [0..\*] | Target: Public (Class) PartyProfileTypeCharacteristic  Cardinality: [0..\*] |

### PartyProfileTypeCharacteristicValue

Class in package 'Party'

PartyProfileTypeCharacteristicValue

Version 1.0 Phase 1.0 Proposed

ks0567 created on 5/2/2016. Last modified 5/2/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyProfileTypeCharacteristicEnumeratedBy | |
| Source: Public (Class) PartyProfileTypeCharacteristic  Cardinality: [1] | Target: Public (Class) PartyProfileTypeCharacteristicValue  Cardinality: [0..\*] |

### PartyProfileValue

Class in package 'Party'

PartyProfileValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/10/2016. Last modified 5/10/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyProfileValue to PartyProfileCharacteristic  [ Direction is 'Source -> Destination'. ] |

### PartyRole

Class in package 'Party'

**PartyRole** represents the common behaviors by a **Party** when acting in a given role.

A **Party** (Individuals or Organizations) can exhibit complex behavior. Behavior can be grouped based on a particular context or participation in a certain interaction.

As examples, a child at school will behave as a student and an adult may behave as a teacher. A person playing baseball may behave as a pitcher, a batter, a shortstop, or an outfielder.

Behavior groups may change over time and will cause problems if modeled using inheritance (specialization). Also, a Party may play more than one role at any given point in time (an employee may also be a customer, a graduate student may also be a tutor). Therefore, **PartyRole** is a simple relationship with **Party**.

Modeling **PartyRole** as a separate concept from **Party** allows for proper representation of these complex sets of behaviors and related attributes. Roles represent activities that businesses can engage in. Relationships are established between the roles, and can have varied duration. By focusing on roles rather than organizations, a more flexible business relationship context model can be achieved.

It is also beneficial to model and manage the multiple roles a party can play. Employees who use a company's products get a discount, or suppliers who use our products are 'preferred suppliers'.

**PartyRole** entities can be modeled explicitly, however, by doing so, it will likely require changes to the model every time a new role is added. Such changes can impact databases, interfaces, and applications. Making use of **PartyRoleSpecification** and the **EntitySpecification** pattern along with the **Characteristic** pattern eliminates that problem.

PartyRole

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/9/2015. Last modified 8/25/2017

Extends Role

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyRole to Party  [ Direction is 'Source -> Destination'. ] |
| Aggregation from PartyRole to Persona  [ Direction is 'Source -> Destination'. ] |
| Generalization from PartyRole to Role  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Tenant (Cloud) to PartyRole  [ Direction is 'Source -> Destination'. ] |
| Generalization from Competitor to PartyRole  [ Direction is 'Source -> Destination'. ] |
| Generalization from Supplier to PartyRole  [ Direction is 'Source -> Destination'. ] |
| Generalization from Contact to PartyRole  [ Direction is 'Source -> Destination'. ] |
| Generalization from Customer to PartyRole  [ Direction is 'Source -> Destination'. ] |
| Aggregation from PartyDemographic to PartyRole  [ Name is PartyDemographicProfiles. Direction is 'Source -> Destination'. ] |
| Generalization from Owning Entity (ATO 11 defn) to PartyRole  [ Direction is 'Source -> Destination'. ] |
| Generalization from Partner to PartyRole  [ Direction is 'Source -> Destination'. ] |
| Generalization from Vendor/Supplier to PartyRole  [ Direction is 'Source -> Destination'. ] |
| Generalization from Customer's Agent to PartyRole  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceProviderEmployee to PartyRole  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceProvider to PartyRole  [ Direction is 'Source -> Destination'. ] |
| Generalization from 3rd Party Subscriber to PartyRole  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyRoleContactableVia | |
| Source: Public (Class) PartyRole  Cardinality: [0..\*] | Target: Public (Class) ContactMedium  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyRoleOwners | |
| Source: Public (Class) PartyRole  Cardinality: [0..\*] | Target: Public (Class) Competitor  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyInteractionRoleIdentifiedByPartyRole | |
| Source: Public (Class) PartyRole  Cardinality: [0..1] | Target: Public (Class) PartyInteractionRole  Cardinality: [\*] |
| Association (direction: Unspecified) PartyProfile Categorizes | |
| Source: Public (Class) PartyRole  Cardinality: [\*] | Target: Public (Class) PartyRoleProfile  Cardinality: [\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PartyRole  Cardinality: [\*] | Target: Public (Class) EventNotificationPreference  Cardinality: [\*] |
| AssociationClass (direction: Unspecified) PartyRoleSpecificationDescribes | |
| Source: Public (Class) PartyRole  Cardinality: [\*] | Target: Public (Class) PartyRoleSpecification  Cardinality: [0..1] |
| Association (direction: Unspecified) PartyRoleProvides | |
| Source: Public (Class) PartyRole  Cardinality: [0..1] | Target: Public (Class) Catalog  Cardinality: [\*] |
| Association (direction: Unspecified) MarketStatisticMeasuresPerfomanceOf | |
| Source: Public (Class) PartyRole  Cardinality: [0..\*] | Target: Public (Class) MarketStatistic  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Party  Cardinality: [1] | Target: Public (Class) PartyRole  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyRoleHas | |
| Source: Public (Class) PolicyRule  Cardinality: [\*] | Target: Public (Class) PartyRole  Cardinality: [\*] |
| Association (direction: Unspecified) PartyRoleGroupContains | |
| Source: Public (Class) PartyRoleGroup  Cardinality: [\*] | Target: Public (Class) PartyRole  Cardinality: [\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Authorization  Cardinality: [1] | Target: Public (Class) PartyRole  Cardinality: [0..\*] |
| Association (direction: Unspecified) CharacteristicValueDefinesTheConfigurationOf | |
| Source: Public (Class) CharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) PartyRole  Cardinality: [1] |
| Association (direction: Unspecified) PartyRoleNameUsing | |
| Source: Public (Class) IndividualName  Cardinality: [0..\*] | Target: Public (Class) PartyRole  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceInstance | Target: Public (Class) PartyRole |
| Association (direction: Unspecified) | |
| Source: Public (Class) BusinessInteraction | Target: Public (Class) PartyRole |
| Association (direction: Unspecified) PartyRoleImipliesSkill | |
| Source: Public (Class) Skill  Cardinality: [0..\*] | Target: Public (Class) PartyRole  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyRoleHas | |
| Source: Public (Class) Contact  Cardinality: [0..\*] | Target: Public (Class) PartyRole  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceInstance | Target: Public (Class) PartyRole |
| Association (direction: Unspecified) | |
| Source: Public (Class) Policy  Cardinality: [1..\*] | Target: Public (Class) PartyRole  Cardinality: [1] |
| Association (direction: Unspecified) PartyRoleInvolvedWIth | |
| Source: Public (Class) PartyRoleAssociation  Cardinality: [\*] | Target: Public (Class) PartyRole  Cardinality: [1..] |
| Association (direction: Unspecified) PartyRoleInvolves | |
| Source: Public (Class) PartyRoleAssociation  Cardinality: [\*] | Target: Public (Class) PartyRole  Cardinality: [1] |

### PartyRoleAssociation

Class in package 'Party'

**PartyRoleAssociation** is used to capture the relationship between two party roles. Associations can be between organizational units, between an organizational unit an individual in the role of employee, between individuals in some role determining household makeup, etc.

PartyRoleAssociation

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/4/2016. Last modified 7/21/2017

| ATTRIBUTES |
| --- |
| associationType : String Private  associationType value of 'subclass of' is used to capture situation where one PartyRole is a subclass of another party role (a Customer who is further subclassed as an AuthorizedUser or just a simple user).  [ Is static False. Containment is Not Specified. ] |
| status : String Private  [ Is static False. Containment is Not Specified. ] |
| validFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyRoleInvolvedWIth | |
| Source: Public (Class) PartyRoleAssociation  Cardinality: [\*] | Target: Public (Class) PartyRole  Cardinality: [1..] |
| Association (direction: Unspecified) PartyRoleInvolves | |
| Source: Public (Class) PartyRoleAssociation  Cardinality: [\*] | Target: Public (Class) PartyRole  Cardinality: [1] |

### PartyRoleAuthenticationProfile

Class in package 'Party'

PartyRoleAuthenticationProfile captures data to assist in verifying that the Party in a given role is indeed who they claim to be.

PartyRoleAuthenticationProfile

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/21/2015. Last modified 2/17/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyRoleAuthenticationProfile to PartyRoleProfile  [ Direction is 'Source -> Destination'. ] |

### PartyRoleConsent

Class in package 'Party'

PartyRoleConsent provides the Party Role's position on various elections. Examples includes the following:

* Direction on if we can call the Party Role or not (Do not call),
* Handling of Party Role's Customer Proprietary Network Information (CPNI),
* Direction concerning emailing the Party Role
* Handling of their information for aggregate reporting

PartyRoleConsent

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/21/2015. Last modified 2/17/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyRoleConsent to PartyRoleProfile  [ Direction is 'Source -> Destination'. ] |

### PartyRoleGroup

Class in package 'Party'

**PartyRoleGroup** represents a group of PartyRoles. PartyRoleGroup can correspond to a family, a household, a social group, or club.

PartyRoleGroup does not have a legal status, standing, or formal 'registration', meaning tax ID, registration ID, etc.

Includes MDUs (Multi Dwelling Unit).

PartyRoleGroup

Version 1.0 Phase 1.0 Proposed

ks0567 created on 5/31/2016. Last modified 7/31/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Family to PartyRoleGroup  [ Direction is 'Source -> Destination'. ] |
| Generalization from Club to PartyRoleGroup  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| PartyRoleGroupDescription : string Private  [ Is static False. Containment is Not Specified. ] |
| partyRoleGroupID : string Private  [ Is static False. Containment is Not Specified. ] |
| PartyRoleGroupName : string Private  [ Is static False. Containment is Not Specified. ] |
| validFor : TimePeriod Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) OrganizationRepresentedAs | |
| Source: Public (Class) PartyRoleGroup  Cardinality: [0..\*] | Target: Public (Class) Organization  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyRoleGroupContains | |
| Source: Public (Class) PartyRoleGroup  Cardinality: [\*] | Target: Public (Class) PartyRole  Cardinality: [\*] |
| Association (direction: Unspecified) PartyRoleGroupSpecificationDescribes | |
| Source: Public (Class) PartyRoleGroup  Cardinality: [\*] | Target: Public (Class) PartyRoleGroupSpecification  Cardinality: [0..1] |
| Association (direction: Unspecified) MarketingCampaignTargetsPartRoleGroup | |
| Source: Public (Class) PartyRoleGroup  Cardinality: [0..\*] | Target: Public (Class) MarketingCampaign  Cardinality: [0..\*] |

### PartyRoleGroupSpecification

Class in package 'Party'

PartyRoleGroupSpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 6/8/2016. Last modified 6/8/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyRoleGroupSpecificationDescribes | |
| Source: Public (Class) PartyRoleGroup  Cardinality: [\*] | Target: Public (Class) PartyRoleGroupSpecification  Cardinality: [0..1] |

### PartyRoleProfile

Class in package 'Party'

**PartyRoleProfile** is a collection important information (an overall sketch) about a party in a given role. This is modeled as an composition of classes and attributers, including the following:

* credit profile,
* authorization profile,
* authentication profile,
* language preferences
* consents
* event notification preferences

PartyRoleProfile

Version 1.0 Phase 1.0 Proposed

KS0567 created on 5/10/2016. Last modified 6/21/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyRoleAuthenticationProfile to PartyRoleProfile  [ Direction is 'Source -> Destination'. ] |
| Aggregation from PartyPreferences to PartyRoleProfile  [ Name is PartyProfileHas. Direction is 'Source -> Destination'. ] |
| Aggregation from LanguagePreferences to PartyRoleProfile  [ Direction is 'Source -> Destination'. ] |
| Aggregation from PartyRoleCreditProfile to PartyRoleProfile  [ Direction is 'Source -> Destination'. ] |
| Aggregation from EventNotificationPreference to PartyRoleProfile  [ Direction is 'Source -> Destination'. ] |
| Aggregation from PartyRoleConsent to PartyRoleProfile  [ Direction is 'Source -> Destination'. ] |
| Aggregation from PartyAuthorizationProfile to PartyRoleProfile  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) PartyRoleSpecification | Target: Public (Class) PartyRoleProfile |
| Association (direction: Unspecified) PartyProfile Categorizes | |
| Source: Public (Class) PartyRole  Cardinality: [\*] | Target: Public (Class) PartyRoleProfile  Cardinality: [\*] |
| Association (direction: Unspecified) PartyProfileMatchedWith | |
| Source: Public (Class) PartyProfileType | Target: Public (Class) PartyRoleProfile |

### PartyRoleSpecCharRelationship

AssociationClass in package 'Party'

PartyRoleSpecCharRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/7/2016. Last modified 3/7/2016

### PartyRoleSpecCharUse

AssociationClass in package 'Party'

PartyRoleSpecCharUse

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/7/2016. Last modified 3/7/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (AssociationClass) PartyRoleSpecCharUse | Target: Public (Class) PartyRoleSpecValue |

### PartyRoleSpecCharacteristic

Class in package 'Party'

PartyRoleSpecCharacteristic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/7/2016. Last modified 3/8/2016

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyRoleSpecValue to PartyRoleSpecCharacteristic  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) PartyRoleSpecCharacteristic | Target: Public (Class) PartyRoleSpecification |
| AssociationClass (direction: Unspecified) PartyRoleSpecCharacteristicReferences | |
| Source: Public (Class) PartyRoleSpecCharacteristic  Cardinality: [\*] | Target: Public (Class) PartyRoleSpecCharacteristic  Cardinality: [\*] |
| AssociationClass (direction: Unspecified) PartyRoleSpecCharacteristicReferences | |
| Source: Public (Class) PartyRoleSpecCharacteristic  Cardinality: [\*] | Target: Public (Class) PartyRoleSpecCharacteristic  Cardinality: [\*] |

### PartyRoleSpecValue

Class in package 'Party'

PartyRoleSpecValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/7/2016. Last modified 3/7/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from PartyRoleSpecValue to PartyRoleSpecCharacteristic  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (AssociationClass) PartyRoleSpecCharUse | Target: Public (Class) PartyRoleSpecValue |

### PartyRoleSpecification

Class in package 'Party'

**PartyRoleSpecification** provides a flexible means to specify new party roles without explicitly modeling them. This is done via a specialization class and use of the dynamic characteristic pattern.

PartyRoleSpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/3/2016. Last modified 8/16/2017

Extends EnitySpecification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PartyRoleSpecification to EnitySpecification  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from CharacteristicSpecification to PartyRoleSpecification  [ Name is SpecificationFurtherEnumeratedBy. Direction is 'Unspecified'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyPrivacyProfileTypeCharacteristicDefinedForPartyRoleSpec | |
| Source: Public (Class) PartyRoleSpecification  Cardinality: [\*] | Target: Public (Class) PartyPrivacyProfileTypeCharacteristic  Cardinality: [\*] |
| Association (direction: Unspecified) PartyRoleSpecificationReferencedBy | |
| Source: Public (Class) PartyRoleSpecification  Cardinality: [1] | Target: Public (Class) PartyRoleSpecificationRelationship  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PartyRoleSpecification | Target: Public (Class) PartyRoleProfile |
| Association (direction: Unspecified) PartyRoleSpecificationReferences | |
| Source: Public (Class) PartyRoleSpecification  Cardinality: [1] | Target: Public (Class) PartyRoleSpecificationRelationship  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyProfileTypeCategorizedBy | |
| Source: Public (Class) PartyRoleSpecification  Cardinality: [1] | Target: Public (Class) PartyProfileType  Cardinality: [0..\*] |
| Association (direction: Unspecified) PatyPrivacyProfileTypeApplicableFor | |
| Source: Public (Class) PartyRoleSpecification  Cardinality: [0..\*] | Target: Public (Class) PartyPrivacyProfileType  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PartyRoleSpecCharacteristic | Target: Public (Class) PartyRoleSpecification |
| Association (direction: Unspecified) PartyRoleSpecificationFurtherDefinedBy | |
| Source: Public (AssociationClass) ResourceCatalogItemCharUse  Cardinality: [\*] | Target: Public (Class) PartyRoleSpecification  Cardinality: [0..1] |
| Association (direction: Unspecified) PartyRoleSpecificationFurtherDefinedBy | |
| Source: Public (AssociationClass) ResourceCatalogItemCharUse  Cardinality: [\*] | Target: Public (Class) PartyRoleSpecification  Cardinality: [0..1] |
| AssociationClass (direction: Unspecified) PartyRoleSpecificationDescribes | |
| Source: Public (Class) PartyRole  Cardinality: [\*] | Target: Public (Class) PartyRoleSpecification  Cardinality: [0..1] |

### PartyRoleSpecificationRelationship

Class in package 'Party'

**PartyRoleRelationship** is used to capture the relationship between two PartyRoleSpecifications. Specifications can be subclasses of specifications.

PartyRoleSpecificationRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 1/31/2017. Last modified 1/31/2017

| ATTRIBUTES |
| --- |
| associationType : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyRoleSpecificationReferencedBy | |
| Source: Public (Class) PartyRoleSpecification  Cardinality: [1] | Target: Public (Class) PartyRoleSpecificationRelationship  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyRoleSpecificationReferences | |
| Source: Public (Class) PartyRoleSpecification  Cardinality: [1] | Target: Public (Class) PartyRoleSpecificationRelationship  Cardinality: [0..\*] |

### PartySpeCharValueRelationship

Class in package 'Party'

PartySpeCharValueRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/17/2017. Last modified 2/17/2017

### PartySpecCharUse

AssociationClass in package 'Party'

PartySpecCharUse

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/17/2017. Last modified 2/17/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) EntitySpecCharValueDefinedBy | |
| Source: Public (Class) CharacteristicSpecValue  Cardinality: [0..\*] | Target: Public (AssociationClass) PartySpecCharUse  Cardinality: [0..\*] |

### PartySpecCharacteristic

Class in package 'Party'

PartySpecCharacteristic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/3/2016. Last modified 3/3/2016

### PassportIdentification

Class in package 'Party'

PassportIdentification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 3/29/2016

Extends IndividualIdentification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PassportIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| issuingCountry : char Private  [ Is static False. Containment is Not Specified. ] |
| passportNumber : char Private  [ Is static False. Containment is Not Specified. ] |

### PostalContact

Class in package 'Party'

PostalContact

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/22/2016. Last modified 6/14/2016

Extends ContactMedium

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PostalContact to ContactMedium  [ Direction is 'Source -> Destination'. ] |

### PrivacyCategory

Class in package 'Party'

PrivacyCategory

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/17/2017. Last modified 2/23/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyPrivacyProfileTypeCharCategorizedBy | |
| Source: Public (Class) PrivacyCategory  Cardinality: [1] | Target: Public (Class) PartyPrivacyProfileTypeCharacteristic  Cardinality: [\*] |

### PrivacyUsagePurpose

Class in package 'Party'

PrivacyUsagePurpose

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/17/2017. Last modified 2/17/2017

| ATTRIBUTES |
| --- |
| name : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PartyPrivacyProfileTypeCharDefinedFor | |
| Source: Public (Class) PrivacyUsagePurpose  Cardinality: [0..1] | Target: Public (Class) PartyPrivacyProfileTypeCharacteristic  Cardinality: [\*] |

### Reseller

Class in package 'Party'

Generally these customers are buying our retail products for the purpose of resale.

This relationship is a wholesale one vs. a retail one.

Reseller

Version 1.0 Phase 1.0 Proposed

eh6351 created on 6/19/2017. Last modified 7/28/2017

Extends Customer

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Reseller to Customer  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) Is Customer of Reseller | |
| Source: Public (Class) Reseller | Target: Public (Class) 3rd Party Subscriber |
| Association (direction: Unspecified) Customer Reseller Has | |
| Source: Public (Class) Reseller | Target: Public (Class) CustomerSubscriptionInstance |

### ResponsibleParty

Class in package 'Party'

ResponsibleParty

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/10/2015. Last modified 2/25/2016

Extends Customer

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResponsibleParty to Customer  [ Direction is 'Source -> Destination'. ] |

### ServiceProvider

Class in package 'Party'

ServiceProvider

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/9/2015. Last modified 7/21/2017

Extends PartyRole

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceProvider to PartyRole  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceProvider  Cardinality: [1] | Target: Public (Class) Tenant (Cloud)  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceProvider | Target: Public (Class) Supplier Contract |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceProvider  Cardinality: [1] | Target: Public (Class) CustomerContract  Cardinality: [0..\*] |

### ServiceProviderBillingAcctMgr

Class in package 'Party'

ServiceProviderBillingAcctMgr

Version 1.0 Phase 1.0 Proposed

EH6351 created on 7/21/2017. Last modified 7/21/2017

Extends ServiceProviderEmployee

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceProviderBillingAcctMgr to ServiceProviderEmployee  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceProviderBillingAcctMgr | Target: Public (Class) CustomerBillingAccount |

### ServiceProviderEmployee

Class in package 'Party'

This PartyRole is for employees of the Service Provider. Employees can take on many different types of roles such as Sales Agent, Billing Account Manager, Project Manager, Service Manager, etc. Some of these employee roles are sub-classed in the model for understanding purposes.

ServiceProviderEmployee

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/9/2015. Last modified 8/25/2017

Extends PartyRole

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceProviderEmployee to PartyRole  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceProviderProjectMgr to ServiceProviderEmployee  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceProviderBillingAcctMgr to ServiceProviderEmployee  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceProviderSalesAgent to ServiceProviderEmployee  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ServiceProviderEmployees ParticipateIn | |
| Source: Public (Class) ServiceProviderEmployee  Cardinality: [0..\*] | Target: Public (Class) Opportunity  Cardinality: [0..\*] |

### ServiceProviderProjectMgr

Class in package 'Party'

ServiceProviderProjectMgr

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/7/2016. Last modified 7/21/2017

Extends ServiceProviderEmployee

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceProviderProjectMgr to ServiceProviderEmployee  [ Direction is 'Source -> Destination'. ] |

### ServiceProviderSalesAgent

Class in package 'Party'

ServiceProviderSalesAgent

Version 1.0 Phase 1.0 Proposed

KS0567 created on 6/21/2017. Last modified 8/30/2017

Extends ServiceProviderEmployee

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceProviderSalesAgent to ServiceProviderEmployee  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) LeadIsAssignedTo | |
| Source: Public (Class) ServiceProviderSalesAgent  Cardinality: [0..\*] | Target: Public (Class) Lead  Cardinality: [0..\*] |
| Association (direction: Unspecified) SalesAgentOwns | |
| Source: Public (Class) ServiceProviderSalesAgent  Cardinality: [1] | Target: Public (Class) Opportunity  Cardinality: [0..\*] |
| Association (direction: Unspecified) ProviderSalesAgentIsAssignedTo | |
| Source: Public (Class) ServiceProviderSalesAgent | Target: Public (Class) CustomerSalesAccount |
| Association (direction: Unspecified) Agent Is Compensated | |
| Source: Public (Class) ServiceProviderSalesAgent | Target: Public (Class) CustomerSubscriptionInstance |

### Skill

Class in package 'Party'

A **Skill** is a developed aptitude or ability.

Skill

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/13/2017. Last modified 2/13/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) SkillSpecDescribes | |
| Source: Public (Class) Skill  Cardinality: [0..\*] | Target: Public (Class) SkillSpecification  Cardinality: [1] |
| Association (direction: Unspecified) PartyRoleImipliesSkill | |
| Source: Public (Class) Skill  Cardinality: [0..\*] | Target: Public (Class) PartyRole  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyHasSkill | |
| Source: Public (Class) Skill  Cardinality: [0..\*] | Target: Public (Class) Party  Cardinality: [1] |

### SkillCatalog

Class in package 'Party'

SkillCatalog

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/13/2017. Last modified 2/13/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from SkillSpecification to SkillCatalog  [ Name is SkillSpecIncludedInSkillCatalog. Direction is 'Source -> Destination'. ] |

### SkillSpecification

Class in package 'Party'

SkillSpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/13/2017. Last modified 2/13/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from SkillSpecification to SkillCatalog  [ Name is SkillSpecIncludedInSkillCatalog. Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) SkillSpecDescribes | |
| Source: Public (Class) Skill  Cardinality: [0..\*] | Target: Public (Class) SkillSpecification  Cardinality: [1] |

### SocialSecurityIdentification

Class in package 'Party'

SocialSecurityIdentification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/29/2016. Last modified 5/24/2016

Extends IndividualIdentification

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from SocialSecurityIdentification to IndividualIdentification  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| socialSecurityNumber : char Private  [ Is static False. Containment is Not Specified. ] |

### Supplier

Class in package 'Party'

Supplier

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/8/2016. Last modified 7/21/2017

Extends PartyRole

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Supplier to PartyRole  [ Direction is 'Source -> Destination'. ] |

### TelephoneNumber

Class in package 'Party'

TelephoneNumber

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/22/2016. Last modified 6/14/2016

Extends ContactMedium

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from TelephoneNumber to ContactMedium  [ Direction is 'Source -> Destination'. ] |

### User

Class in package 'Party'

User

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/6/2016. Last modified 7/28/2017

Extends Customer

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from User to Customer  [ Direction is 'Source -> Destination'. ] |

### User

Class in package 'Party'

User

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/10/2015. Last modified 2/25/2016

Extends Customer

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from User to Customer  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) Uses | |
| Source: Public (Class) User | Target: Public (Class) CustomerSubscriptionInstance |

### User Agent

Class in package 'Party'

Machine/BOT acting on behalf of Party. Automation with various capabilities and knowledge which acts on behalf of the user. (ISAAC, IP Service Assurance and Analyses of Connections) workflow.

ECOMP portal acts as a user agent for ECOMP. Service Designers, Control Loop, Operations.

User Agent

Version 1.0 Phase 1.0 Proposed

mm7817 created on 3/2/2016. Last modified 6/19/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) User Agent  Cardinality: [0..\*] | Target: Public (Class) Party  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) User Agent | Target: Public (Class) CustomerSubscriptionInstance |

### Vendor/Supplier

Class in package 'Party'

AT&T vendor. Sources: Oracle Financials, ERP-EPIC (SAP), VPMO (e.g. also referred to as supplier). Vendor may also be a 3rd party acting on behalf of AT&T

Vendor/Supplier

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/22/2016. Last modified 2/25/2016

Extends PartyRole

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Vendor/Supplier to PartyRole  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| vendorName : char Protected  Vendor Name from financial system of record.  [ Is static False. Containment is Not Specified. ] |
| vendorNbr : string Protected  AT&T assigned vendor number  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Vendor/Supplier | Target: Public (Class) Supplier Contract |

### emailContact

Class in package 'Party'

emailContact

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/22/2016. Last modified 6/14/2016

Extends ContactMedium

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from emailContact to ContactMedium  [ Direction is 'Source -> Destination'. ] |

## Resource

Package in package 'ECOMP Class Model'

Resource

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/25/2016. Last modified 2/25/2016

### Resource Instance Types diagram

Class diagram in package 'Resource'

The Resource is where *the action is* for Network Function Virtualization (NFV). A ResourceInstance (as well as a ResourceCatalogItem) can be:

* a controller (application, infrastructure, or network),
* a virtual function, including a virtual network function,
* a virtual machine or container,
* at some point, perhaps a physical resource, as well as
* an entitlement.

Virtual functions are managed via controllers, and run within some virtual machine or container on some commodity hardware in some cloud and data center.

A Resource can have some number of functions grouped together for which entitlements can be managed.

Resource Instance Types

Version 1.0

KS0567 created on 11/16/2015. Last modified 8/24/2017



1. Resource Instance Types

### Resource Types, Catalog Items, and Instances diagram

Class diagram in package 'Resource'

ResourceCatalogItems are made available as ResourceInstances. The association is made at the subclass, given a VNFCatalogItem should not be made available at a PNFInstance, which would be allowable if the relationship was made at the Resource level.

Resource Types, Catalog Items, and Instances

Version 1.0

KS0567 created on 6/19/2017. Last modified 8/30/2017



1. Resource Types, Catalog Items, and Instances

### vNF Deployment diagram

Class diagram in package 'Resource'

vNF Deployment

Version 1.0

mm7817 created on 7/13/2016. Last modified 3/15/2017



1. vNF Deployment

### Resource Instance Interrelationships diagram

Class diagram in package 'Resource'

Resource Instance Interrelationships

Version 1.0

KS0567 created on 10/28/2016. Last modified 8/18/2017



1. Resource Instance Interrelationships

### Resource Details diagram

Class diagram in package 'Resource'

Similar to the product and service characteristic pattern, resources can have some number of characteristics (attributes). These characteristics per ASDC design can be common, meaning all resources have them, or additional, meaning unique to this resource. These characteristics can be modeled as a CharacteristicSpecification. Each Resource CatalogItem will have some number of CharacteristicSpecifications. A CharacteristicSpecification can have zero or more possible CharacteristicSpecValues of which a CharacteristicValue will select one. CharacteristicSpecifications can have CharacteristicSpecifications, meaning they can be grouped together in some meaningful way.

Resource Details

Version 1.0

KS0567 created on 3/28/2016. Last modified 7/18/2017



1. Resource Details

### Network Function diagram

Class diagram in package 'Resource'

Network Function

Version 1.0

KS0567 created on 9/9/2016. Last modified 8/18/2017



1. Network Function

### Application Controller

Class in package 'Resource'

VF's which are managed by application controller are: web servers, database servers, media servers, business support systems (BSS), Content Distribution and Delivery (CDN). These application VF's may be managed by one (1) or more application controllers.

Application Controller

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/27/2015. Last modified 11/9/2016

Extends ControllerInstance (Management Software)

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Application Controller to ControllerInstance (Management Software)  [ Direction is 'Source -> Destination'. ] |

### Class1

Class in package 'Resource'

Class1

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/25/2017. Last modified 8/25/2017

### Container Engine 2

Class in package 'Resource'

Container Engine 2

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/21/2016. Last modified 12/21/2016

Extends Infrastructure Controller

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Container Engine 2 to Infrastructure Controller  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Container Engine 2 | Target: Public (Class) Virtual Machine (Type 1 - vServer) |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [0..\*] | Target: Public (Class) Container Engine 2  Cardinality: [1] |

### Container Infrastructure

Class in package 'Resource'

e.g. Docker, Kubernetes

Container Infrastructure

Version 1.0 Phase 1.0 Proposed

MM7817 created on 7/6/2016. Last modified 7/13/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Container Infrastructure  Cardinality: [1] | Target: Public (Class) PNFnstance  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1..\*] | Target: Public (Class) Container Infrastructure  Cardinality: [1] |

### ContainerEngine

Class in package 'Resource'

ContainerEngine

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/21/2016. Last modified 12/21/2016

Extends Infrastructure Controller

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ContainerEngine to Infrastructure Controller  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux Container Instance (Type 3 - Bare Metal)  Cardinality: [1..\*] | Target: Public (Class) ContainerEngine  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) pServer (host) | Target: Public (Class) ContainerEngine |

### ControllerInstance (Management Software)

Class in package 'Resource'

A Controller is a type of Resource. Controllers also manage Resources. As an example, an Application Controller can manage zero or more Virtual Function type Resources, and has some capacity as to the number it can manage. There are several types of controllers, namely Application Controllers, Infrastructure Controllers, and Network Controllers.

ControllerInstance (Management Software)

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/27/2015. Last modified 1/5/2017

Extends ResourceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ControllerInstance (Management Software) to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from ControllerInstance (Management Software) to ResourceInstance  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Infrastructure Controller to ControllerInstance (Management Software)  [ Direction is 'Source -> Destination'. ] |
| Generalization from «SdnController» SdnGc to ControllerInstance (Management Software)  [ Direction is 'Source -> Destination'. ] |
| Generalization from Application Controller to ControllerInstance (Management Software)  [ Direction is 'Source -> Destination'. ] |
| Generalization from Network Controller to ControllerInstance (Management Software)  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) Controller Manages | |
| Source: Public (Class) ControllerInstance (Management Software)  Cardinality: [1] | Target: Public (Class) ResourceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) ControllerManages | |
| Source: Public (Class) ControllerInstance (Management Software) | Target: Public (Class) VNFInstance |
| Association (direction: Unspecified) Controller Manages | |
| Source: Public (Class) ControllerInstance (Management Software)  Cardinality: [1] | Target: Public (Class) ResourceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) EntitlementInstanceSpecifiesRightToUse | |
| Source: Public (Class) ControllerInstance (Management Software)  Cardinality: [0..\*] | Target: Public (Class) EntitlementInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PNFnstance | Target: Public (Class) ControllerInstance (Management Software) |
| Association (direction: Unspecified) LicenseKeyInstanceProvidesProofOfAuthorizationFor | |
| Source: Public (Class) LicenseKeyInstance  Cardinality: [0..\*] | Target: Public (Class) ControllerInstance (Management Software)  Cardinality: [0..\*] |

### CustomerLicenseKey

Class in package 'Resource'

CustomerLicenseKey

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/17/2017. Last modified 8/23/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ProductHas | |
| Source: Public (Class) CustomerLicenseKey  Cardinality: [0..\*] | Target: Public (Class) VNFInstance  Cardinality: [0..1] |

### Docker or Linux Container Instance

Class in package 'Resource'

A 'type' of a container.

Docker or Linux Container Instance

Version 1.0 Phase 1.0 Proposed

mm7817 created on 7/13/2016. Last modified 9/23/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) which runs containers | |
| Source: Public (Class) Docker or Linux Container Instance  Cardinality: [1..\*] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFC Instance  Cardinality: [1] | Target: Public (Class) Docker or Linux Container Instance  Cardinality: [1] |

### Docker or Linux Container Instance (Type 3 - Bare Metal)

Class in package 'Resource'

Docker or Linux Container Instance (Type 3 - Bare Metal)

Version 1.0 Phase 1.0 Proposed

mm7817 created on 7/13/2016. Last modified 3/3/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux Container Instance (Type 3 - Bare Metal)  Cardinality: [1..\*] | Target: Public (Class) ContainerEngine  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux Container Instance (Type 3 - Bare Metal)  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1..] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFC Instance  Cardinality: [1] | Target: Public (Class) Docker or Linux Container Instance (Type 3 - Bare Metal)  Cardinality: [1] |

### Docker or Linux ContainerInstance (Type 2)

Class in package 'Resource'

Hypervisor managing VM, container running on the VM.

A Virtual Machine/Container is the environment that a given virtual (network) function runs. VMs are managed by Infrastructure Controllers.

For ECOMP purposes, 'ContainerInstance' currently refers to a deployed (usually on a VM) docker image.

Docker or Linux ContainerInstance (Type 2)

Version 1.0 Phase 1.0 Proposed

ks0567 created on 10/28/2015. Last modified 5/24/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1..\*] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [0..\*] | Target: Public (Class) Container Engine 2  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [0..\*] | Target: Public (Class) VM Virtual Machime  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1..\*] | Target: Public (Class) Container Infrastructure  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFInstance  Cardinality: [1..\*] | Target: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) l-interface  Cardinality: [1..\*] | Target: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) l-interface  Cardinality: [1..\*] | Target: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFC Instance  Cardinality: [1] | Target: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) l-interface  Cardinality: [1..\*] | Target: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1] |

### EntitlementInstance

Class in package 'Resource'

Specific AT&T use rights for the software as described by the license. The use rights may be quantified by various metrics: # users, # software instances, # units. Customer RTU is within the customer subscription. Entitlement is related to how we purchase the software from the supplier, 1 RTU may equate to 5 instances of the software. License Keys are treated as resources also and follow the same Zero-many relationship to vF instances. Either no key, universal key, or unique key per instance required.

EntitlementInstance

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/12/2015. Last modified 3/24/2017

Extends ResourceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from EntitlementInstance to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from EntitlementInstance to Metrics  [ Direction is 'Source -> Destination'. ] |
| Aggregation from EntitlementInstance to Resource/Supplier partner License  [ Name is Resource/SupplierPartnerLicenseHas. Direction is 'Source -> Destination'. ] |
| Generalization from EntitlementInstance to ResourceInstance  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| ResourceDisplayName : String Private  [ Is static False. Containment is Not Specified. ] |
| ResourceSystemName : int Private  [ Is static False. Containment is Not Specified. ] |
| UUID : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) EntitlementInstance  Cardinality: [1..\*] | Target: Public (Class) SoftwareLicense  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) EntitlementInstance | Target: Public (Class) Place |
| Association (direction: Unspecified) EntitlementInstanceSpecifiiesRightToUse | |
| Source: Public (Class) VNFInstance  Cardinality: [0..\*] | Target: Public (Class) EntitlementInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) EntitlementInstanceSpecifiesRightToUse | |
| Source: Public (Class) ControllerInstance (Management Software)  Cardinality: [0..\*] | Target: Public (Class) EntitlementInstance  Cardinality: [0..\*] |

### FeatureGroupItem

Class in package 'Resource'

A feature group is a container for defining 1 or more capabilities offered by a collection of software and/or hardware.

FeatureGroupItem

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/16/2015. Last modified 11/28/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from FeatureGroupItem to ResourceInstance  [ Name is ResourceContains. Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) LicenseKeyFileCatlogItem | Target: Public (Class) FeatureGroupItem |
| Association (direction: Unspecified) ResourceCatalogItemContains | |
| Source: Public (Class) ResourceCatalogItem  Cardinality: [1..] | Target: Public (Class) FeatureGroupItem  Cardinality: [0..\*] |

### Hypervisor

Class in package 'Resource'

Hypervisor

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/21/2016. Last modified 12/21/2016

Extends Infrastructure Controller

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Hypervisor to Infrastructure Controller  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) Hypervisor  Cardinality: [1..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1..\*] | Target: Public (Class) Hypervisor  Cardinality: [1] |

### Infrastructure Controller

Class in package 'Resource'

Manages the aspects of instantiating a container or virtual machine (VM) within VMware (hypervisor). Infrastructure controller may also manage spin up of additional instances dues to volume or failure and/or placement moves for efficiency and resiliency.

Infrastructure Controller

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/27/2015. Last modified 12/21/2016

Extends ControllerInstance (Management Software)

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Infrastructure Controller to ControllerInstance (Management Software)  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ContainerEngine to Infrastructure Controller  [ Direction is 'Source -> Destination'. ] |
| Generalization from Hypervisor to Infrastructure Controller  [ Direction is 'Source -> Destination'. ] |
| Generalization from Container Engine 2 to Infrastructure Controller  [ Direction is 'Source -> Destination'. ] |

### LicenseKeyFileCatlogItem

Class in package 'Resource'

A license key is an identifier for the right to use arrangement between the customer (AT&T) and the supplier of the software product. License keys ***provide a proof of license*** and are associated with each instance of the software. *Key = unique series of numbers and/or letters*.

LicenseKeyFileCatlogItem

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/21/2016. Last modified 5/19/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) LicenseKeyFileCatlogItem | Target: Public (Class) FeatureGroupItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) LicenseKeyFileCatlogItem | Target: Public (Class) CustomerSubscriptionInstance |
| Association (direction: Unspecified) | |
| Source: Public (Class) SoftwareLicense  Cardinality: [1] | Target: Public (Class) LicenseKeyFileCatlogItem  Cardinality: [1] |

### LicenseKeyInstance

Class in package 'Resource'

Keys may be universal or unique. Keys may be necessary when instantiating an instance of the vNF (e.g. vCE)

LicenseKeyInstance

Version 1.0 Phase 1.0 Proposed

MM7817 created on 8/31/2016. Last modified 8/23/2017

Extends ResourceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from LicenseKeyInstance to ResourceInstance  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) LicenseKeyInstance | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) LicenseKeyInstance  Cardinality: [0..\*] | Target: Public (Class) Resource/Supplier partner License  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) LicenseKeyInstance | Target: Public (Class) ResourceCapability |
| Association (direction: Unspecified) | |
| Source: Public (Class) LicenseKeyInstance | Target: Public (Class) ResourceCapability |
| Association (direction: Unspecified) | |
| Source: Public (Class) LicenseKeyInstance  Cardinality: [0..\*] | Target: Public (Class) SoftwareLicense  Cardinality: [1] |
| Association (direction: Unspecified) LicenseKeyInstanceProvidesProofOfAuthorizationFor | |
| Source: Public (Class) LicenseKeyInstance  Cardinality: [0..\*] | Target: Public (Class) ControllerInstance (Management Software)  Cardinality: [0..\*] |
| Association (direction: Unspecified) LicenseKeyInstanceProvidesProofOfAuthorizationFor | |
| Source: Public (Class) LicenseKeyInstance  Cardinality: [0..\*] | Target: Public (Class) VNFInstance  Cardinality: [0..\*] |

### NFDescription

Class in package 'Resource'

NFDescription

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/12/2017. Last modified 7/12/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from NFDescription to PNFnstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from NFDescription to PNFCatalogItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from NFDescription to VNFInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from NFDescription to VNFCatalogItem  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| NF-CODE : String Private  Short code that is used in VNF, PNF, and VM instance naming. The NF Code can be the same value or a different value than the NF Role. Naming convention examples:  NVP VF Naming Convention:<complex\_code><sequence\_number><**function\_code**>  US Name Example: abrva301vn2 ; MOW Name Example: GBLOND1001vn2  NVP VM Naming Convention: <loc-id>v<cluster-number><**function-code**><count>  VM Naming Example: abrvav0vn2b001.  **function code** = **NF Code**  Mobility VM Naming Convention: Z<cloud\_zone\_id><**VF\_name (vvvv)>** <VF\_instance\_number><vm\_identifier (PPP)><VM\_instance\_number>  **VVVV = NF code**  VUSP/Trinity VM Naming Convention:  <**function\_code(FC)**><VF\_instance\_number>V<vm\_id\_number><virtual\_component(VC)><vitrual\_componentid>  **FC = NF code**  [ Is static False. Containment is Not Specified. ] |
| NF-FUNCTION : Sring Private  Provides an English description of Network function that the specific VNF or PNF deployment is providing. Assigned as part of the customization of a VNF in a service : SDN Gateway, Provider Edge Router, Cache  [ Is static False. Containment is Not Specified. ] |
| NF-Role : String Private  Short code that defines a Network Device that the Vendor Software or PNF is providing;  Examples of Network\_Role: vCE, vARM, vBNG, vPE, vASE, vSeGW (resource models in ASDC).  **Note:** The same Vendor software (e.g. Brocade Vyatta 5600) can be used to create multiple VF Resource definitions. (See Spreadsheet examples); Allow entry of new value when a VNF/PNF Resource Model is being created however values must be agreed to by Service Teams and Ops; The same value used for different vendor products providing the same role.  [ Is static False. Containment is Not Specified. ] |
| NF-TYPE : String Private  Generic description of the type of Network Device (VNF and PNFs)  Examples: Router Switch, Firewall, Application Server  [ Is static False. Containment is Not Specified. ] |
| NFC-Naming\_Code : String Private  Short code that is used in VM instance (vserver) naming. The NFC Naming Code will be used in the following naming convention examples:  Mobility VM Naming Convention: Z<cloud\_zone\_id><VF\_name (vvvv)> <VF\_instance\_number><**vm\_identifier (PPP**)><VM\_instance\_number>  **PPP = NFC Naming code**  VUSP/Trinity VM Naming Convention:  <function\_code(FC)><VF\_instance\_number>V<vm\_id\_number><**virtual\_component(VC)**><vitrual\_componentid>  **VC = NFC Naming code**  [ Is static False. Containment is Not Specified. ] |

### Network

Class in package 'Resource'

Network

Version 1.0 Phase 1.0 Proposed

KS0567 created on 6/3/2016. Last modified 6/3/2016

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceInstance to Network  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstance to Network  [ Direction is 'Source -> Destination'. ] |

### Network Controller

Class in package 'Resource'

Software Defined Network local and global controllers (SDN-C, SDN-G). Network controllers are used to establish L2 or L3 connectivity for a network VF such as a virtual Premise Edge router (vPE).

Network Controller

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/27/2015. Last modified 11/4/2016

Extends ControllerInstance (Management Software)

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from Network Controller to ControllerInstance (Management Software)  [ Direction is 'Source -> Destination'. ] |

### NetworkFunction

Class in package 'Resource'

A **NetworkFunction** is a type of Resource. It is a Functional Block (FB) within a network infrastructure that has well-defined external interfaces and well-defined functional behavior.

NetworkFunction

Version 1.0 Phase 1.0 Proposed

KS0567 created on 9/9/2016. Last modified 9/16/2016

Extends ResourceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from NetworkFunction to NetworkService  [ Direction is 'Source -> Destination'. ] |
| Aggregation from NetworkFunction to NetworkFunctionComposite  [ Name is HasNetworkFunctions. Direction is 'Source -> Destination'. ] |
| Generalization from NetworkFunction to ResourceInstance  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from NetworkFunctionComposite to NetworkFunction  [ Direction is 'Source -> Destination'. ] |
| Generalization from NetworkFunctionAtomic to NetworkFunction  [ Direction is 'Source -> Destination'. ] |

### NetworkFunctionAtomic

Class in package 'Resource'

A **NetworkFunctionAtomic** is a NetworkFunction that is not further decomposed into finer grained NetworkFunctions. It can therefore be used as a stand-alone entity.

NetworkFunctionAtomic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 9/9/2016. Last modified 9/14/2016

Extends NetworkFunction

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from NetworkFunctionAtomic to NetworkFunction  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from VNFC Instance to NetworkFunctionAtomic  [ Direction is 'Source -> Destination'. ] |
| Generalization from PNFnstance to NetworkFunctionAtomic  [ Direction is 'Source -> Destination'. ] |
| Generalization from VNFInstance to NetworkFunctionAtomic  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) PNFnstance | Target: Public (Class) NetworkFunctionAtomic |

### NetworkFunctionComposite

Class in package 'Resource'

A **NetworkFunctionComposite** is a collection of Atomic and Composite NetworkFunctions.

NetworkFunctionComposite

Version 1.0 Phase 1.0 Proposed

KS0567 created on 9/9/2016. Last modified 9/14/2016

Extends NetworkFunction

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from NetworkFunctionComposite to NetworkFunction  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from NetworkFunction to NetworkFunctionComposite  [ Name is HasNetworkFunctions. Direction is 'Source -> Destination'. ] |

### PNFCatalogItem

Class in package 'Resource'

PNFCatalogItem

Version 1.0 Phase 1.0 Proposed

KS0567 created on 6/19/2017. Last modified 6/22/2017

Extends ResourceCatalogItem

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PNFCatalogItem to ResourceCatalogItem  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from NFDescription to PNFCatalogItem  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) PNFCatalogItemMadeAvailableAs | |
| Source: Public (Class) PNFCatalogItem  Cardinality: [1] | Target: Public (Class) PNFnstance  Cardinality: [0] |

### PNFnstance

Class in package 'Resource'

Traditional network access iron such as ALU7330 VRAD or 7342/7360 PON Optical Line terminal (OLT). May also represent a blade server running VM's capable of supporting vNF's such as vBNG (Border Network Gateway). A vBNG would replace traditional ALU7750 routing and switch aggregation within the Lightspeed overlay network.

May also represent:

- cabling (eg CU, fiber,...)

- software controlled switches/routers leaf/spine fabric (e.g. NCS 550x)

A **PNF** is an implementation of a NetworkFunction for which all the LogicalResources it is being provided are hosted directly by PhysicalResources.

PNFnstance

Version 1.0 Phase 1.0 Proposed

mm7817 created on 1/13/2016. Last modified 6/22/2017

Extends NetworkFunctionAtomic, ResourceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PNFnstance to NetworkFunctionAtomic  [ Direction is 'Source -> Destination'. ] |
| Generalization from PNFnstance to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from PNFnstance to ResourceInstance  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from PNF to PNFnstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from NFDescription to PNFnstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from LocalPlace to PNFnstance  [ Name is ResourceProvidesLocalPlaces. Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| manufactureDate : char Public  [ Is static False. Containment is Not Specified. ] |
| otherIdentifier : char Public  [ Is static False. Containment is Not Specified. ] |
| powerState : int Public  [ Is static False. Containment is Not Specified. ] |
| serialNumber : char Public  [ Is static False. Containment is Not Specified. ] |
| versionNumber : char Public  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) PNFnstance | Target: Public (Class) ControllerInstance (Management Software) |
| Association (direction: Unspecified) | |
| Source: Public (Class) PNFnstance  Cardinality: [1..\*] | Target: Public (Class) Place  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) PNFnstance | Target: Public (Class) NetworkFunctionAtomic |
| Association (direction: Unspecified) | |
| Source: Public (Class) PNFnstance  Cardinality: [1..] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VM Virtual Machime  Cardinality: [1..\*] | Target: Public (Class) PNFnstance  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Container Infrastructure  Cardinality: [1] | Target: Public (Class) PNFnstance  Cardinality: [1..\*] |
| Association (direction: Unspecified) PNFCatalogItemMadeAvailableAs | |
| Source: Public (Class) PNFCatalogItem  Cardinality: [1] | Target: Public (Class) PNFnstance  Cardinality: [0] |

### Resource Configuration

Class in package 'Resource'

Resource Configuration

Version 1.0 Phase 1.0 Proposed

ks0567 created on 11/5/2015. Last modified 2/25/2016

### ResourceCatalogItem

Class in package 'Resource'

ResourceCatalogItems represent physical and non-physical (virtual) components which are owned / managed by the business or provided by a Supplier and are used to construct services.

ResourceCatalogItems may be, for example: human resources (skills and expertise), devices and accessories, components drawn from the Application, Computing and Network domains (network elements, software, computing resources), or information (data).

Multiple Suppliers may provide the same resource. Depending on availability and cost, a Service may be fulfilled using the Resources from one Supplier or another when ordered by a customer.

SID calls a "ResourceCatalogItem" a "ResourceSpecification"

A ResourceCatalogItem is an entity that enables the ResourceSpecifications to a catalog. A ResourceCandidate and its ResourceSpecification may be “published” - made visible - in any number of ResourceCatalogs, or in none.

ResourceCatalogItem

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/27/2015. Last modified 8/23/2017

Extends CatalogItem

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceCatalogItem to CatalogItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceCatalogItem to CatalogItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItem to DirectedGraph  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItem to ServiceCatalogItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItem to ResourceCatalog  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItem to ResourceCatalogItem  [ Name is ResourceCatalogItemReferences. Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItem to ServiceComponentCatalogItem  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceItemCharacteristic to ResourceCatalogItem  [ Name is ResourceCatalogItemDescribedBy. Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItemVersion to ResourceCatalogItem  [ Name is ResourceCatalogItemModificationsRecordedAs. Direction is 'Source -> Destination'. ] |
| Aggregation from CharacteristicSpecification to ResourceCatalogItem  [ Name is ResourceCatalogItemDescribedBy. Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItem to ResourceCatalogItem  [ Name is ResourceCatalogItemReferences. Direction is 'Source -> Destination'. ] |
| Generalization from VNFCatalogItem to ResourceCatalogItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from PNFCatalogItem to ResourceCatalogItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItemType to ResourceCatalogItem  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| AT&TContact : char Private  This is the technology owner. ATT UID. Future click on UID and launch mail client. Multiple contacts should be supported.  [ Is static False. Containment is Not Specified. ] |
| Capacity : Document Private  Obtain from vendor if available; tester can add additional information  [ Is static False. Containment is Not Specified. ] |
| Catagory : DropDown Private  Designer cannot define new Category. Process required to add/change/delete  [ Is static False. Containment is Not Specified. ] |
| Constraints : char Private  From the TOSCA model. Multiple fields. Could include thresholds and policies. Vendor upgrade requirements should also be included here.  [ Is static False. Containment is Not Specified. ] |
| Cost : char Private  2015: will be blank and not mandatory. 2016 may be accessed by role (TBD) and will be a mandatory field.  [ Is static False. Containment is Not Specified. ] |
| D2RequirementsChecklist : Document Private  Spreadsheet with input constraints, entries will be searchable  [ Is static False. Containment is Not Specified. ] |
| EntitlementID : char Private  Composite ID of contract and entitlement number from myprocurement  [ Is static False. Containment is Not Specified. ] |
| EntitlementUnitType : char Private  From contract/entitlement  [ Is static False. Containment is Not Specified. ] |
| EntitlemnetUnitNumber : char Private  From contract/entitlement  [ Is static False. Containment is Not Specified. ] |
| FaultRequirements : Document Private  Obtain from vendor  [ Is static False. Containment is Not Specified. ] |
| Features : Document Private  Obtain from vendor  [ Is static False. Containment is Not Specified. ] |
| History : char Private  Keeping all major events, i.e., author, creation date, any modification, check in and check out with ATT UID  [ Is static False. Containment is Not Specified. ] |
| Icon : Image Private  [ Is static False. Containment is Not Specified. ] |
| LicensingModel : DropDown Private  Multiple fields. Categories of licenses planned; type, unit.  [ Is static False. Containment is Not Specified. ] |
| Performance : Document Private  Obtain from vendor if available; tester can add additional information  [ Is static False. Containment is Not Specified. ] |
| Requirements : Private  Multiple fields. Includes connectivity  [ Is static False. Containment is Not Specified. ] |
| Resource Type : char Private  [ Is static False. Containment is Not Specified. ] |
| ResourceDescription : char Private  Visible when the user hovers over this resource in the design studio UI.  [ Is static False. Containment is Not Specified. ] |
| ResourceDisplayName : char Private  Human readable resource name. The display name is used in the ASDC catalog and the workspaces for each role.  - Max length of 25 characters  - Allowed characters: alphanumeric, space, underscore, dash, dot.  - Defined by the designer during the resource onboarding process (create/import).  - Can be modified until the Resource is submitted for testing. Display name is not editable once the resource is in release 1.0.  - Name must be unique and is searchable.  [ Is static False. Containment is Not Specified. ] |
| ResourceSystemName : int Private  This field will be used in URLs and not exposed in create/import resource UI; will be displayed in design studio.  Meaningful resource name used in API. The system name is used in the distribution studio (distribution notification and distribution API).  - Max length of 25 characters  - Allowed characters: alphanumeric, underscore, dash, dot.  - Autocreated based upon the Resource Display Name: spaces are trimmed, each word starts with a capital letter, on the first letter of abbreviation and acronyms are capitalized.  - If the Resource Display name changes, the Resource System name will automatically be updated.  - Resource System name is not editable by the designer.  - Name must be unique and is searchable.  [ Is static False. Containment is Not Specified. ] |
| ResourceUUID : String Private  This is a cross-ECOMP resource version identifier. UUID generated by algorithm. Will be different for every x.1 version of the resource It is not editable and cannot be changed.  [ Is static False. Containment is Not Specified. ] |
| Status : char Private  3 roles in 1507 (user, tester, admin). Operations = user, Governance = admin. 5 roles are supported in 1510. Designers = 'users'; testers = 'testers'; operations = 'operations'; governance = 'governance'; admin = 'admin'. 2016 may expand number of roles. Whatever state you're in, whoever is responsible for incrementing state could also decrement state.  [ Is static False. Containment is Not Specified. ] |
| Subcategory : DropDown Private  Flat list in 1507. In 1510, UI will be separated to different field from Category.  [ Is static False. Containment is Not Specified. ] |
| Tags/Keywords : char Private  Must accept multiple keywords.  [ Is static False. Containment is Not Specified. ] |
| Template : DropDown Private  Need to define a list of templates. Tied to Category. Designer cannot create new template (must be created by development team). Process required to add/change/delete. Could consider designer ability to create / modify template in 1602.  [ Is static False. Containment is Not Specified. ] |
| TestScripts : Document Private  [ Is static False. Containment is Not Specified. ] |
| Vendor : char Private  Admin and tester can make changes beyond State 3. 1510: should not be free text - should be searched and obtained from myprocurement.  [ Is static False. Containment is Not Specified. ] |
| VendorRelease : char Private  Admin and tester can make changes beyond State 3.  [ Is static False. Containment is Not Specified. ] |
| VendorTestResults : Document Private  Access may be restricted in future  [ Is static False. Containment is Not Specified. ] |
| Version : char Private  [ Is static False. Containment is Not Specified. ] |
| VF-SpecificPolicies : File Private  Part of the lifecycle management of the artifact.  [ Is static False. Containment is Not Specified. ] |
| VFArtifacts : char Private  Artifact name stored in Swift. Artifacts are searchable / indexable.  [ Is static False. Containment is Not Specified. ] |
| VFConfigParameters : File Private  Scripts are an artifact, this may be redundant  [ Is static False. Containment is Not Specified. ] |
| VFImage : char Private  URL to file stored in Glance or Swift, depending upon image vs. binary  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ProjectDeliverableEnablesResourceCatalogItem | |
| Source: Public (Class) ResourceCatalogItem  Cardinality: [0..1] | Target: Public (Class) ProjectDeliverable  Cardinality: [0..\*] |
| Association (direction: Unspecified) ResourceCatalogItemMadeAvailableAs | |
| Source: Public (Class) ResourceCatalogItem  Cardinality: [1] | Target: Public (Class) ResourceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) ResourceConfigSpecDefinedFor | |
| Source: Public (Class) ResourceCatalogItem  Cardinality: [1] | Target: Public (Class) ResourceConfigSpec  Cardinality: [0..\*] |
| Association (direction: Unspecified) ResourceCatalogItemContains | |
| Source: Public (Class) ResourceCatalogItem  Cardinality: [1..] | Target: Public (Class) FeatureGroupItem  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ResourceCatalogItem  Cardinality: [1..] | Target: Public (Class) ResourceOrder  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) LicenseKeyInstance | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFCatalogItem | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) ServiceCompositionProvides | |
| Source: Public (Class) ServiceComposition | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) ResourceSpecificationMadeAvailableAs | |
| Source: Public (Class) ResourceSpecification  Cardinality: [1] | Target: Public (Class) ResourceCatalogItem  Cardinality: [0..1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ResourceSLO | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) ServiceCompositionProvides | |
| Source: Public (Class) ServiceComposition | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFCCatalogItem | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) ResourceCompositionProvidesComponentsFor | |
| Source: Public (Class) ResourceComposition | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) ResourceHas | |
| Source: Public (Class) ResourceCapability  Cardinality: [1..\*] | Target: Public (Class) ResourceCatalogItem  Cardinality: [0..1] |

### ResourceCatalogItemCharUse

Class in package 'Resource'

ResourceCatalogItemCharUse

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/15/2016. Last modified 11/15/2016

### ResourceCatalogItemCharUse

AssociationClass in package 'Resource'

SpecCharUse is the 'hook' into the Characteristic Pattern. It can also include 'overrides' to the given CharacteristicSpecification for the given Specification.

ResourceCatalogItemCharUse

Version 1.0 Phase 1.0 Proposed

KS0567 created on 3/8/2016. Last modified 11/15/2016

| ATTRIBUTES |
| --- |
| canBeOveridden : boolean Private  [ Is static False. Containment is Not Specified. ] |
| description : char Private  [ Is static False. Containment is Not Specified. ] |
| extensible : boolean Private  [ Is static False. Containment is Not Specified. ] |
| isPackage : boolean Private  [ Is static False. Containment is Not Specified. ] |
| maxCardinality : int Private  [ Is static False. Containment is Not Specified. ] |
| minCardinality : int Private  [ Is static False. Containment is Not Specified. ] |
| name : char Private  [ Is static False. Containment is Not Specified. ] |
| unique : char Private  [ Is static False. Containment is Not Specified. ] |
| validFor : char Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ResourceCatalogItemFurtherDefinedBy | |
| Source: Public (AssociationClass) ResourceCatalogItemCharUse | Target: Public (Class) ResourceCatalogItem  Cardinality: [0..\*] |
| Association (direction: Unspecified) PartyRoleSpecificationFurtherDefinedBy | |
| Source: Public (AssociationClass) ResourceCatalogItemCharUse  Cardinality: [\*] | Target: Public (Class) PartyRoleSpecification  Cardinality: [0..1] |
| Association (direction: Unspecified) | |
| Source: Public (AssociationClass) ResourceCatalogItemCharUse | Target: Public (Class) CatalogSpecification |
| AssociationClass (direction: Unspecified) ResourceCatalogItemCharUseDescribedBy | |
| Source: Public (Class) CharacteristicSpecValue  Cardinality: [0..\*] | Target: Public (AssociationClass) ResourceCatalogItemCharUse  Cardinality: [0..\*] |
| Association (direction: Unspecified) EntitySpecCharUseEnumeratedBy | |
| Source: Public (Class) EntitySpecCharValueUse  Cardinality: [\*] | Target: Public (AssociationClass) ResourceCatalogItemCharUse  Cardinality: [1] |

### ResourceCatalogItemCharacteristicRelationship

AssociationClass in package 'Resource'

ResourceCatalogItemCharacteristicRelationship is used to group or bundle Characteristics together. This entity can also be used to specify other relationships between characteristics, such as mutually exclusive, inclusive, etc.

ResourceCatalogItemCharacteristicRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/24/2015. Last modified 11/29/2016

### ResourceCatalogItemCharacteristicUse

AssociationClass in package 'Resource'

ResourceCatalogItemCharacteristicUse

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/24/2015. Last modified 11/29/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ResorceCatalogItemCharUseDescribedBy | |
| Source: Public (Class) ResourceCatalogItemCharacteristicValue  Cardinality: [\*] | Target: Public (AssociationClass) ResourceCatalogItemCharacteristicUse  Cardinality: [\*] |

### ResourceCatalogItemCharacteristicValue

Class in package 'Resource'

A ResourceCharacteristicValue defines a set of attributes, each of which can be assigned to a corresonding ResourceInstanceCharacteristicValue.

ResourceCatalogItemCharacteristicValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/17/2015. Last modified 11/29/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceCatalogItemCharacteristicValue to ResourceItemCharacteristic  [ Name is ResourceCatalotItemCharacteristicEnumeratedBy. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceInstanceCharacteristicValue to ResourceCatalogItemCharacteristicValue  [ Name is ResourceSpecCharacteristicValueInstantiatedAs. Direction is 'Source -> Destination'. ] |
| Generalization from vmme\_vlc to ResourceCatalogItemCharacteristicValue  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| AssociationClass (direction: Unspecified) ResourceCatalogItemCharacteristicValueReferences | |
| Source: Public (Class) ResourceCatalogItemCharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) ResourceCatalogItemCharacteristicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) ResorceCatalogItemCharUseDescribedBy | |
| Source: Public (Class) ResourceCatalogItemCharacteristicValue  Cardinality: [\*] | Target: Public (AssociationClass) ResourceCatalogItemCharacteristicUse  Cardinality: [\*] |
| Association (direction: Unspecified) ProductCatalogItemCharacteristicValueTranslatesTo ResourceCatlogItemCharacteristicValue | |
| Source: Public (Class) ProducCatalogItemCharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) ResourceCatalogItemCharacteristicValue  Cardinality: [0..\*] |
| AssociationClass (direction: Unspecified) ResourceCatalogItemCharacteristicValueReferences | |
| Source: Public (Class) ResourceCatalogItemCharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) ResourceCatalogItemCharacteristicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceCatalogItemCharacteristicValueTranslatesTo ResourceCatalogCharacteristicValue | |
| Source: Public (Class) ServiceCatalogItemCharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) ResourceCatalogItemCharacteristicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceCatalogItemCharacteristicValueTranslatesTo ResourceCatalogCharacteristicValue | |
| Source: Public (Class) ServiceCatalogItemCharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) ResourceCatalogItemCharacteristicValue  Cardinality: [0..\*] |

### ResourceCatalogItemCharacteristicValueRelationship

AssociationClass in package 'Resource'

ResourceCatalogItemCharacteristicValueRelationship (and the CharacteristicValueRelationship pattern in general) is used to relate/manage dependencies between the values of two ResourceItemCharacteristicValuess. An example could be if one characteristic's value is blue, another characteristic's value must be black. This is done using the ProductCatalogItemCharacteristicValueRelationship with charValueRelationshipType set to 'inclusive'.

ResourceCatalogItemCharacteristicValueRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/24/2015. Last modified 11/29/2016

### ResourceCatalogItemType

Class in package 'Resource'

ResourceCatalogItemType

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/17/2015. Last modified 2/25/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceCatalogItemType to ResourceCatalogItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItemType to ResourceCatalogItem  [ Direction is 'Source -> Destination'. ] |

### ResourceCatalogItemVersion

Class in package 'Resource'

ResourceCatalogItemVersion

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/17/2015. Last modified 11/29/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceCatalogItemVersion to ResourceCatalogItem  [ Name is ResourceCatalogItemModificationsRecordedAs. Direction is 'Source -> Destination'. ] |

### ResourceComposition

Class in package 'Resource'

ResourceComposition

Version 1.0 Phase 1.0 Proposed

ks0567 created on 10/28/2015. Last modified 7/29/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ResourceCompositionProvidesComponentsFor | |
| Source: Public (Class) ResourceComposition | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) ResourceCompositionProvidesComponentsFor | |
| Source: Public (Class) ResourceComposition | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) ResourceRecipeProvidesInstructionsFor | |
| Source: Public (Class) ResourceRecipe | Target: Public (Class) ResourceComposition |

### ResourceInstance

Class in package 'Resource'

Resource Instance is the instantiation of a given ASDC Service Catalog Item. A resource could be a controller, a virtual function, a virtual machine, or a physical resource. A Resource Instance can consist of zero or more Resource Instances. A Resource Instance can also be prebuilt, meaning it does not have to be associated to a Service Instance. It can also be a shared resource, meaning it can be associated to more than one Service Instances.

SID calls a "Resource Instance" a "Resource"

ResourceInstance

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/26/2015. Last modified 8/15/2017

Extends InstanceItem

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceInstance to Tenant (delete) - use Party based tenant  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstance to ServiceInstance  [ Name is ServiceInstanceRealizedAs. Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstance to ServiceInstance  [ Name is ServiceInstanceRealizedAs. Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstance to ResourceFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstance to DirectedGraphInstance  [ Name is ServiceInstanceRealizedAs. Direction is 'Source -> Destination'. ] |
| Generalization from ResourceInstance to InstanceItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstance to Network  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstance to ResourceWrapping Service  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceInstance to InstanceItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstance to ServiceComponentInstance  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceInstanceCharacteristicSet to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from EntitlementInstance to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from vHNPortal - Primary. to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstanceCharacteristicValue to ResourceInstance  [ Name is ResourceInstanceCharacteristivValue DefinesTheConfigurationOf. Direction is 'Source -> Destination'. ] |
| Generalization from VNFInstance to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from ControllerInstance (Management Software) to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from NetworkFunction to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from LicenseKeyInstance to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from PNFnstance to ResourceInstance  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) Resource Instances References | |
| Source: Public (Class) ResourceInstance  Cardinality: [0..\*] | Target: Public (Class) ResourceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) ResourceCOnfigurationDefinedFor | |
| Source: Public (Class) ResourceInstance  Cardinality: [1] | Target: Public (Class) ResourceInstanceConfiguration  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) CharacteristicValue | Target: Public (Class) ResourceInstance |
| Association (direction: Unspecified) ResourceCatalogItemMadeAvailableAs | |
| Source: Public (Class) ResourceCatalogItem  Cardinality: [1] | Target: Public (Class) ResourceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) Resource Instances References | |
| Source: Public (Class) ResourceInstance  Cardinality: [0..\*] | Target: Public (Class) ResourceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Network  Cardinality: [1] | Target: Public (Class) ResourceInstance  Cardinality: [1..\*] |
| Association (direction: Unspecified) ResourceOrderDelivers | |
| Source: Public (Class) ResourceOrder  Cardinality: [1] | Target: Public (Class) ResourceInstance  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Network  Cardinality: [1] | Target: Public (Class) ResourceInstance  Cardinality: [1..\*] |
| Association (direction: Unspecified) Controller Manages | |
| Source: Public (Class) ControllerInstance (Management Software)  Cardinality: [1] | Target: Public (Class) ResourceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Network  Cardinality: [1] | Target: Public (Class) ResourceInstance  Cardinality: [1..\*] |
| Association (direction: Unspecified) ResourceInstanceEnumberatedBy | |
| Source: Public (Class) ResourceItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ResourceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ResourceSLO | Target: Public (Class) ResourceInstance |

### ResourceInstanceCharacteristicSet

Class in package 'Resource'

ResourceInstanceCharacteristicSet

Version 1.0 Phase 1.0 Proposed

mm7817 created on 2/12/2016. Last modified 2/25/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceInstanceCharacteristicSet to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstanceCharacteristicSet to ResourceInstance  [ Direction is 'Source -> Destination'. ] |

### ResourceInstanceCharacteristicValue

Class in package 'Resource'

ResourceInstanceCharacteristicValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/17/2015. Last modified 11/29/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceInstanceCharacteristicValue to ResourceCatalogItemCharacteristicValue  [ Name is ResourceSpecCharacteristicValueInstantiatedAs. Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstanceCharacteristicValue to ResourceInstance  [ Name is ResourceInstanceCharacteristivValue DefinesTheConfigurationOf. Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstanceCharacteristicValue to ResourceInstance  [ Name is ResourceInstanceCharacteristivValue DefinesTheConfigurationOf. Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ResourceInstanceCharacteristicValueReferences | |
| Source: Public (Class) ResourceInstanceCharacteristicValue  Cardinality: [0..1] | Target: Public (Class) ResourceInstanceCharacteristicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) ResourceInstanceCharacteristicValueReferences | |
| Source: Public (Class) ResourceInstanceCharacteristicValue  Cardinality: [0..1] | Target: Public (Class) ResourceInstanceCharacteristicValue  Cardinality: [0..\*] |

### ResourceItemCharacteristic

Class in package 'Resource'

A ResourceItemCharacteristic defines the characteristic features of a ResourceCatalotItem. Every ResourceCatalogItem has a variety of important attributes, methods, constraints, and relationships which distinguish that ResourceCatalogItem from other ResourceCatalogItems.

ResourceItemCharacteristic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/17/2015. Last modified 11/29/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceItemCharacteristic to ResourceCatalogItem  [ Name is ResourceCatalogItemDescribedBy. Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceItemCharacteristic to ResourceCatalogItem  [ Name is ResourceCatalogItemDescribedBy. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceCatalogItemCharacteristicValue to ResourceItemCharacteristic  [ Name is ResourceCatalotItemCharacteristicEnumeratedBy. Direction is 'Source -> Destination'. ] |
| Generalization from ResourceItemCharacteristic\_child to ResourceItemCharacteristic  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| AssociationClass (direction: Unspecified) ServiceCatalogItemCharacteristicReferences | |
| Source: Public (Class) ResourceItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ResourceItemCharacteristic  Cardinality: [0..\*] |
| Association (direction: Unspecified) ResourceInstanceEnumberatedBy | |
| Source: Public (Class) ResourceItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ResourceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) ResourceInstanceEnumberatedBy | |
| Source: Public (Class) ResourceItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ResourceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) ProductCatalogItemCharacteristicTranslatesto ResourceCatalogItemCharacteristic | |
| Source: Public (Class) ProductItemCharacteristic | Target: Public (Class) ResourceItemCharacteristic |
| Association (direction: Unspecified) ServiceCatalogItemCharacteristicTranslatesToResourceCatalogItemCharacteristic | |
| Source: Public (Class) ServiceItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ResourceItemCharacteristic  Cardinality: [0..\*] |
| AssociationClass (direction: Unspecified) ServiceCatalogItemCharacteristicReferences | |
| Source: Public (Class) ResourceItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ResourceItemCharacteristic  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceCatalogItemCharacteristicTranslatesToResourceCatalogItemCharacteristic | |
| Source: Public (Class) ServiceItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ResourceItemCharacteristic  Cardinality: [0..\*] |

### ResourceRecipe

Class in package 'Resource'

ResourceRecipe

Version 1.0 Phase 1.0 Proposed

ks0567 created on 10/28/2015. Last modified 7/29/2016

Extends Recipe

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceRecipe to Recipe  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ResourceRecipeProvidesInstructionsFor | |
| Source: Public (Class) ResourceRecipe | Target: Public (Class) ResourceComposition |

### ResourceSpecCharValueUse

AssociationClass in package 'Resource'

ResourceSpecCharValueUse

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/15/2016. Last modified 11/15/2016

### ResourceSpecification

Class in package 'Resource'

ResourceSpecification

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/20/2016. Last modified 7/29/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ResourceSpecificationMadeAvailableAs | |
| Source: Public (Class) ResourceSpecification  Cardinality: [1] | Target: Public (Class) ResourceCatalogItem  Cardinality: [0..1] |
| Association (direction: Unspecified) ResourceSpecificationMadeAvailableAs | |
| Source: Public (Class) ResourceSpecification  Cardinality: [1] | Target: Public (Class) ResourceCatalogItem  Cardinality: [0..1] |

### Storage (file or Object)

Class in package 'Resource'

Storage (file or Object)

Version 1.0 Phase 1.0 Proposed

mm7817 created on 7/13/2016. Last modified 7/13/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Source -> Destination) specifies deployment of | |
| Source: Public (Class) VNF Module (Deployment Group)  Cardinality: [1] | Target: Public (Class) Storage (file or Object)  Cardinality: [0..\*] |

### VF Deployment Group (aka VF Module)

Class in package 'Resource'

ECOMP supports the concept of VF Modularity. With this approach, a single VF may be composed from one or more Heat templates, each of which represents some subset of the overall VF. These component parts are referred to as “VF Modules”. During orchestration, these modules may be deployed incrementally to build up the complete VF.

To accommodate shared resources across the entire VF (private networks, server groups, etc.), one module is designated as a “base” module. Any resources defined in the base module template can be exposed to all other modules by declaring their resource UUIDs as Heat outputs. Those outputs will be provided by ECOMP as input parameters to all other templates. This mechanism is analogous to ECOMP handling of persistent Cinder volumes.

VF modules contain the instructions needed to instantiate a VF instance. For example in the OpenStack environment a single VF module represents a single HEAT stack. A VF module may represent an initial base deployment of VFCs or an incremental deployment t of VFCs hat can be added/removed for scale.

A VF Module can contain one or more VFC types associated with a particular VF Instance

VF Deployment Group (aka VF Module)

Version 1.0 Phase 1.0 Proposed

mm7817 created on 6/22/2016. Last modified 7/13/2016

| ASSOCIATED FILES |
| --- |
| Web Address. https://tspace.web.att.com/files/app#/file/61874965-5bdf-40f4-aa96-0f7159ab4858  TSPACE Link for VM Module definition |

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from VF Deployment Group (aka VF Module) to VNFInstance  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| AvailabilityZoneCounts : int Private  Quantity of Availability Zones needed for this VF-Module. Extracted from VF-Module HEAT template. Quantity of unique Availability Zone names in the VF-module HEAT template  [ Is static False. Containment is Not Specified. ] |
| ContrailServiceInstance : boolean Private  "Y" indicates that this VNF contains a Contrail Service Instance  [ Is static False. Containment is Not Specified. ] |
| ModuleAssignements : int Private  [ Is static False. Containment is Not Specified. ] |
| VF-ModuleDescription : string Private  Description of the VF-modules contents and purpose (e.g. "Front-End" or "Database Cluster")  [ Is static False. Containment is Not Specified. ] |
| VF-ModuleLabel : string Private  Alternate textual key used to reference this VF-Module model. Must be unique within the VNF model  [ Is static False. Containment is Not Specified. ] |
| VF-ModuleModelUUID : int Private  Internal ASDC VF-Module model identifier. (Uniquely identifies the module, but may need to contain metadata to tie it back to the parent VNF)  [ Is static False. Containment is Not Specified. ] |
| VF-ModuleModelVersion : string Private  Internal ASDC VF-Module model version  [ Is static False. Containment is Not Specified. ] |
| VF-ModuleModuleType : Enumerated Private  "Base" or "Expansion". Base module HEAT template must include all of the intra-VNF networks that are used across VF-modules. Networks that are self-contained to a VF-module are allowed in Expansion modules. Assume intra-VNF networks use private addressing defined in the HEAT template, therefore no network assignment needed  [ Is static False. Containment is Not Specified. ] |
| VMAssignmentsFile : FILE Private  [ Is static False. Containment is Not Specified. ] |
| VMAssignmentssPrompt : boolean Private  [ Is static False. Containment is Not Specified. ] |
| VolumeGroup : boolean Private  "Y" indicates that this VF Module model requires attachment to a Volume Group. VID operator must select the Volume Group instance to atach to a VF-Module at deployment time.  [ Is static False. Containment is Not Specified. ] |

### VM Virtual Machime

Class in package 'Resource'

VM Virtual Machime

Version 1.0 Phase 1.0 Proposed

MM7817 created on 7/6/2016. Last modified 7/6/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) VM Virtual Machime  Cardinality: [1..\*] | Target: Public (Class) PNFnstance  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [0..\*] | Target: Public (Class) VM Virtual Machime  Cardinality: [1] |

### VNF Module (Deployment Group)

Class in package 'Resource'

ECOMP supports the concept of VF Modularity. With this approach, a single VF may be composed from one or more Heat templates, each of which represents some subset of the overall VF. These component parts are referred to as “VF Modules”. During orchestration, these modules may be deployed incrementally to build up the complete VF.

To accommodate shared resources across the entire VF (private networks, server groups, etc.), one module is designated as a “base” module. Any resources defined in the base module template can be exposed to all other modules by declaring their resource UUIDs as Heat outputs. Those outputs will be provided by ECOMP as input parameters to all other templates. This mechanism is analogous to ECOMP handling of persistent Cinder volumes.

VF modules contain the instructions needed to instantiate a VF instance. For example in the OpenStack environment a single VF module represents a single HEAT stack. A VF module may represent an initial base deployment of VFCs or an incremental deployment t of VFCs hat can be added/removed for scale.

A VF Module can contain one or more VFC types associated with a particular VF Instance

VNF Module (Deployment Group)

Version 1.0 Phase 1.0 Proposed

mm7817 created on 7/13/2016. Last modified 7/13/2016

| CONNECTORS |
| --- |
| Dependency realizedBy Source -> Destination  From: VNF Module (Deployment Group) : Class, Public  To: Heat Stack : DataType, Public |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Source -> Destination) specifiesConncetivity | |
| Source: Public (Class) VNF Module (Deployment Group)  Cardinality: [1] | Target: Public (Class) Network  Cardinality: [0..\*] |
| Association (direction: Source -> Destination) specifiesConncetivity | |
| Source: Public (Class) VNF Module (Deployment Group)  Cardinality: [1] | Target: Public (Class) Network  Cardinality: [0..\*] |
| Association (direction: Source -> Destination) specifiesConncetivity | |
| Source: Public (Class) VNF Module (Deployment Group)  Cardinality: [1] | Target: Public (Class) Network  Cardinality: [0..\*] |
| Association (direction: Source -> Destination) specifies deployment of | |
| Source: Public (Class) VNF Module (Deployment Group)  Cardinality: [1] | Target: Public (Class) Storage (file or Object)  Cardinality: [0..\*] |
| Association (direction: Source -> Destination) Lifecycle operations use | |
| Source: Public (Class) VNFInstance | Target: Public (Class) VNF Module (Deployment Group) |

### VNFC Instance

Class in package 'Resource'

1. A VNFC Instance is an internal component of a VNF Instance, providing a defined sub-set of the VNF's functionality.
2. One VNFC instance per VM is an AT&T imposed constraint. It is in alignment with ETSI. The constraint is violated by some VNF's in Hosted VoIP (provided by Alcatel-Lucent/Nokia)

VNFC Instance

Version 1.0 Phase 1.0 Proposed

mm7817 created on 7/13/2016. Last modified 4/3/2017

Extends NetworkFunctionAtomic

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from VNFC Instance to NetworkFunctionAtomic  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFC Instance  Cardinality: [1] | Target: Public (Class) Docker or Linux Container Instance  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFC Instance  Cardinality: [1] | Target: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFC Instance  Cardinality: [1] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFC Instance  Cardinality: [1] | Target: Public (Class) Docker or Linux Container Instance (Type 3 - Bare Metal)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFInstance  Cardinality: [1] | Target: Public (Class) VNFC Instance  Cardinality: [1..\*] |

### VNFCCatalogItem

Class in package 'Resource'

VNFCCatalogItem

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/17/2017. Last modified 8/23/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFCCatalogItem | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFCCatalogItem | Target: Public (Class) VNFCatalogItem  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFCConfiguration | Target: Public (Class) VNFCCatalogItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFCCapability  Cardinality: [1..\*] | Target: Public (Class) VNFCCatalogItem |

### VNFCConfiguration

Class in package 'Resource'

VNFCConfiguration

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/17/2017. Last modified 8/23/2017

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFCConfiguration | Target: Public (Class) VNFCCatalogItem |

### VNFCatalogItem

Class in package 'Resource'

VNFCatalogItem

Version 1.0 Phase 1.0 Proposed

KS0567 created on 6/19/2017. Last modified 8/23/2017

Extends ResourceCatalogItem

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from VNFCatalogItem to ResourceCatalogItem  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from NFDescription to VNFCatalogItem  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| description : String Private  Description of the VNFD.  [ Is static False. Containment is Not Specified. ] |
| id : String Private  [ Is static False. Containment is Not Specified. ] |
| logo : String Private  File path of the vendor-specific logo.  [ Is static False. Containment is Not Specified. ] |
| name : String Private  VNFD name.  [ Is static False. Containment is Not Specified. ] |
| short-name : String Private  VNFD short name to use as a label in the UI.  [ Is static False. Containment is Not Specified. ] |
| vendor : String Private  Provider of the VNFD  [ Is static False. Containment is Not Specified. ] |
| version : String Private  Version of the VNFD.  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFCatalogItem | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFCatalogItem | Target: Public (Class) VNFConfiguration |
| Association (direction: Unspecified) | |
| Source: Public (Class) InternalVLD  Cardinality: [0..\*] | Target: Public (Class) VNFCatalogItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) MgmtInterface  Cardinality: [1] | Target: Public (Class) VNFCatalogItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFCCatalogItem | Target: Public (Class) VNFCatalogItem  Cardinality: [0..\*] |

### VNFImage

Class in package 'Resource'

VNFImage

Version 1.0 Phase 1.0 Proposed

mm7817 created on 7/13/2016. Last modified 7/13/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFImage  Cardinality: [1] | Target: Public (Class) VNFInstance  Cardinality: [1] |

### VNFInstance

Class in package 'Resource'

A Virtual Function (VF) is a type of resource. This resource performs some function as part of a service and then a product, consumed by some customer.

VF's will be managed via Software Defined Network (SDN-C) and application controllers. VF's are instantiated via Master Service Orchestrator (MSO). Homing rules and VM allocation may specify all VFC;s need to run within localized containers and hardware, hence we do not have a relationship between VFInstance and PhysicalResourceInstance. That relationship can be derived by examining the VFC containers.

VNFInstance

Version 1.0 Phase 1.0 Proposed

ks0567 created on 10/28/2015. Last modified 8/23/2017

Extends NetworkFunctionAtomic, ResourceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from VNFInstance to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from VNFInstance to ResourceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from VNFInstance to NetworkFunctionAtomic  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from VF Deployment Group (aka VF Module) to VNFInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from NFDescription to VNFInstance  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| Homing Policy : Homing Policy ID Private  Reference to VNF-level homing policy that ECOMP will use when VNF deployment target node is auto-selected  [ Is static False. Containment is Not Specified. ] |
| Network Role : Enumerated Private  Sourced from set of all network roles that will exist in inventory. Network Role must exist in inventory at orchestration time for this VNF  [ Is static False. Containment is Not Specified. ] |
| Target Node Prompt : boolean Private  "Y" indicates operator-supplied VNF instance target deployment node required. Present prompt to operator: "Enter target node for deployment of this VNF instance"  "N" indicates that the target deployment node for this VNF instance will be auto-selected by ECOMP  [ Is static False. Containment is Not Specified. ] |
| VF Type : string Private  Human readable VNF type description  [ Is static False. Containment is Not Specified. ] |
| VLAN Range Plan : VLAN Range Plan ID Private  Identifies the VNF-level VLAN Range Plan that must be used by ECOMP to assign VLAN tags to an instance of this VNF type  [ Is static False. Containment is Not Specified. ] |
| VNF Model ID : VNF Model UUID Private  Internal ASDC VNF model identifier.  [ Is static False. Containment is Not Specified. ] |
| VNF Model Version : VNF Model Version UUID Private  Internal ASDC VNF Model version  [ Is static False. Containment is Not Specified. ] |
| VNF Name Prompt : boolean Private  "Y" indicates operator-supplied VNF name required. Present prompt to operator: "Enter the name for this VNF instance"  "N" indicates that the name for the VNF instance will be auto-generated by ECOMP  [ Is static False. Containment is Not Specified. ] |
| VNF Naming Policy : boolean Private  Reference to VNF-level naming policy that ECOMP will use when VNF-level name is auto-generated  [ Is static False. Containment is Not Specified. ] |
| VNF Network Tag : Enumerated Private  Must correlate to the set of defined “network-role” identifiers from the associated HEAT templates  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) EntitlementInstanceSpecifiiesRightToUse | |
| Source: Public (Class) VNFInstance  Cardinality: [0..\*] | Target: Public (Class) EntitlementInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFInstance  Cardinality: [1..\*] | Target: Public (Class) Docker or Linux ContainerInstance (Type 2)  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFInstance  Cardinality: [1..\*] | Target: Public (Class) Network  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFInstance  Cardinality: [1..\*] | Target: Public (Class) Network  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFInstance  Cardinality: [0..\*] | Target: Public (Class) L3 Network  Cardinality: [1..\*] |
| Association (direction: Source -> Destination) Lifecycle operations use | |
| Source: Public (Class) VNFInstance | Target: Public (Class) VNF Module (Deployment Group) |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFInstance  Cardinality: [1..\*] | Target: Public (Class) Network  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFInstance  Cardinality: [1] | Target: Public (Class) VNFC Instance  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFInstance  Cardinality: [1] | Target: Public (Class) Virtual Machine (Type 1 - vServer)  Cardinality: [1] |
| Association (direction: Unspecified) Bare Metal | |
| Source: Public (Class) VNFInstance  Cardinality: [0..\*] | Target: Public (Class) pServer (host)  Cardinality: [1] |
| Association (direction: Unspecified) ProductHas | |
| Source: Public (Class) CustomerLicenseKey  Cardinality: [0..\*] | Target: Public (Class) VNFInstance  Cardinality: [0..1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) VNFImage  Cardinality: [1] | Target: Public (Class) VNFInstance  Cardinality: [1] |
| Association (direction: Unspecified) ControllerManages | |
| Source: Public (Class) ControllerInstance (Management Software) | Target: Public (Class) VNFInstance |
| Association (direction: Unspecified) LicenseKeyInstanceProvidesProofOfAuthorizationFor | |
| Source: Public (Class) LicenseKeyInstance  Cardinality: [0..\*] | Target: Public (Class) VNFInstance  Cardinality: [0..\*] |

### Network A

Object in package 'Resource'

Network A

Version 1.0 Phase 1.0 Proposed

KS0567 created on 6/3/2016. Last modified 6/3/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) Router A | Target: Public (Object) Network A |
| Association (direction: Unspecified) | |
| Source: Public (Object) Router B | Target: Public (Object) Network A |

### Router A

Object in package 'Resource'

Router A

Version 1.0 Phase 1.0 Proposed

KS0567 created on 6/3/2016. Last modified 6/3/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) Router A | Target: Public (Object) Network A |

### Router B

Object in package 'Resource'

Router B

Version 1.0 Phase 1.0 Proposed

KS0567 created on 6/3/2016. Last modified 6/3/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Object) Router B | Target: Public (Object) Network A |

### Change1

Change in package 'Resource'

Change1

Version 1.0 Phase 1.0 Proposed

mm7817 created on 7/13/2016. Last modified 7/13/2016

### Heat Stack

DataType in package 'Resource'

Heat Stack

Version 1.0 Phase 1.0 Proposed

mm7817 created on 7/13/2016. Last modified 7/13/2016

| CONNECTORS |
| --- |
| Dependency realizedBy Source -> Destination  From: VNF Module (Deployment Group) : Class, Public  To: Heat Stack : DataType, Public |

### Heat Stack (Open Stack)

DataType in package 'Resource'

Heat Stack (Open Stack)

Version 1.0 Phase 1.0 Proposed

mm7817 created on 7/13/2016. Last modified 7/13/2016

### IP subnet & Pool

Association in package 'Resource'

IP subnet & Pool

Version 1.0 Phase 1.0 Proposed

mm7817 created on 6/8/2016. Last modified 6/8/2016

### IP subnet/pool

DataType in package 'Resource'

IP subnet/pool

Version 1.0 Phase 1.0 Proposed

mm7817 created on 6/8/2016. Last modified 6/8/2016

### IP subnet/pool

Association in package 'Resource'

IP subnet/pool

Version 1.0 Phase 1.0 Proposed

mm7817 created on 6/8/2016. Last modified 6/8/2016

## Service

Package in package 'ECOMP Class Model'

Service

Version 1.0 Phase 1.0 Proposed

KS0567 created on 2/25/2016. Last modified 2/25/2016

### Service Components diagram

Class diagram in package 'Service'

Products are made up of services (ServiceCatalogItems on the design side, ServiceInstances on the runtime side). Services are made up of service components. A service component is not seen or known to products like SID ResourceFacingServices are not seen by products.

A ServiceComponent can be made up of ServiceComponents or resources.

Services can be composed of other Services and may be referred to as complex services.

Service Components

Version 1.0

KS0567 created on 8/11/2017. Last modified 8/30/2017



1. Service Components

### ServiceCatalogItems (CFS/RFS) - Do Not Use diagram

Class diagram in package 'Service'

ServiceCatalogItems (CFS/RFS) - Do Not Use

Version 1.0

KS0567 created on 4/20/2017. Last modified 8/18/2017



1. ServiceCatalogItems (CFS/RFS) - Do Not Use

### Services - (CFS, RFS, NS, Atomic/Composite) - Do Not Use diagram

Class diagram in package 'Service'

Customer Facing Service (CFS) and Resource Facing Service (RFS) are concepts from the TMF SID. The CFS/RFS concept was modeled to address some process and the associated model running directly on a specialized piece of equipment. It is also a means to limit what is being shared with northbound or southbound. This same idea can be solved in a much more general way with the Characteristic pattern. The CFS and RFS concept does not therefore need to be implemented.

Services - (CFS, RFS, NS, Atomic/Composite) - Do Not Use

Version 1.0

KS0567 created on 12/21/2015. Last modified 8/18/2017



1. Services - (CFS, RFS, NS, Atomic/Composite) - Do Not Use

### Service Characteristics diagram

Class diagram in package 'Service'

Similar to the product pattern, a ServiceCatalogItem can have some number of characteristics (attributes). In this diagram, a number of ASDC 'common attributes', meaning attributes that all services should have, have been specified. These attributes may be handled as ServiceCatalogItemCharacteristics. These Characteristics can be grouped, given the ServiceCatalogItemCharacteristic can have ServiceCatalogItemCharacteristics. A given ServiceCatalogItemCharacteirstic can also have a ServiceCatalogItemCharactristicValue (or some number of possible values). Also, the ServiceInstance can also have a ServiceInstanceCharactieristicValue (one of the options of the ServiceCatalogItemCharacteristicValues).

Service Characteristics

Version 1.0

KS0567 created on 10/26/2015. Last modified 8/18/2017



1. Service Characteristics

### ServiceInstance Aggregation diagram

Class diagram in package 'Service'

ServiceInstance Aggregation

Version 1.0

KS0567 created on 4/20/2017. Last modified 8/18/2017



1. ServiceInstance Aggregation

### CloudConfig

Class in package 'Service'

Configure the list of users and public keys to be injected as part of network service instantiation.

CloudConfig

Version 1.0 Phase 1.0 Proposed

KS0567 created on 7/28/2017. Last modified 8/3/2017

| ATTRIBUTES |
| --- |
| key-pair : list Private  Multiplicity: ( [0..n], Allow duplicates: 0, Is ordered: False )  Used to configure the list of public keys  [ Is static False. Containment is Not Specified. ] |
| user : list Private  LIst of users to be added through cloud-config.  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) NetworkService | Target: Public (Class) CloudConfig  Cardinality: [0..\*] |

### CustomerFacingServiceAtomic

Class in package 'Service'

CustomerFacingServiceAtomic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/20/2017. Last modified 4/20/2017

Extends CustomerFacingServiceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CustomerFacingServiceAtomic to CustomerFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |

### CustomerFacingServiceCatalogItem

Class in package 'Service'

CustomerFacingServiceCatalogItem

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/20/2017. Last modified 4/26/2017

Extends ServiceCatalogItem

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CustomerFacingServiceCatalogItem to ServiceCatalogItem  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) RequiresResourceFacingServiceCatalogItem | |
| Source: Public (Class) CustomerFacingServiceCatalogItem  Cardinality: [0..\*] | Target: Public (Class) ResourceFacingServiceCatalogItem  Cardinality: [1..\*] |
| Association (direction: Unspecified) SpecifiesCustomerFacingServiceInstance | |
| Source: Public (Class) CustomerFacingServiceCatalogItem  Cardinality: [1] | Target: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) UsesResourcesOfTenant | |
| Source: Public (Class) Tenant (Cloud)  Cardinality: [0..\*] | Target: Public (Class) CustomerFacingServiceCatalogItem  Cardinality: [0..\*] |
| Association (direction: Unspecified) Uses | |
| Source: Public (Class) Project  Cardinality: [0..\*] | Target: Public (Class) CustomerFacingServiceCatalogItem  Cardinality: [0..\*] |
| Association (direction: Unspecified) ProductRealizedBy | |
| Source: Public (Class) Line-of-Business (ProductCatalogItem)  Cardinality: [1..\*] | Target: Public (Class) CustomerFacingServiceCatalogItem  Cardinality: [1..\*] |
| Association (direction: Unspecified) SponseredByOwningEntity | |
| Source: Public (Class) Owning Entity (ATO 11 defn)  Cardinality: [0..\*] | Target: Public (Class) CustomerFacingServiceCatalogItem  Cardinality: [0..\*] |

### CustomerFacingServiceComposite

Class in package 'Service'

CustomerFacingServiceComposite

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/20/2017. Last modified 4/20/2017

Extends CustomerFacingServiceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CustomerFacingServiceComposite to CustomerFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from CustomerFacingServiceInstance to CustomerFacingServiceComposite  [ Name is CFSComposteHasCFSServices. Direction is 'Source -> Destination'. ] |

### CustomerFacingServiceInstance

Class in package 'Service'

A service (TMF **CustomerFacingService)** is a service that is obtained as a Product by a Customer. The Customer may have specific control over this Service via its associated Product.

Tenant is a unit of isolation and a method of aggregating isolated services or resources (CFS, RFS, infrastructure, etc). A tenant can provide services to multiple customer (sublease).

CustomerFacingServiceInstance

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/21/2015. Last modified 8/10/2017

Extends ServiceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CustomerFacingServiceInstance to ServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from CustomerFacingServiceInstance to ServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from CustomerFacingServiceInstance to CustomerFacingServiceComposite  [ Name is CFSComposteHasCFSServices. Direction is 'Source -> Destination'. ] |
| Aggregation from CustomerFacingServiceInstance to Tenant (delete) - use Party based tenant  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from CustomerFacingServiceComposite to CustomerFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from CustomerFacingServiceAtomic to CustomerFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from DHV Service Instance to CustomerFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) Uses | |
| Source: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] | Target: Public (Class) Service Platform  Cardinality: [0..1] |
| Association (direction: Unspecified) ServiceInstanceHostedOn | |
| Source: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] | Target: Public (Class) PlatformInstance  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) CustomerFacingServiceInstance | Target: Public (Class) ServiceCatalogItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) CustomerFacingServiceInstance | Target: Public (Class) InfrastructureService |
| Association (direction: Unspecified) | |
| Source: Public (Class) CustomerFacingServiceInstance | Target: Public (Class) OwningEntity |
| Association (direction: Unspecified) TenantPlansCapacity | |
| Source: Public (Class) Tenant (Cloud)  Cardinality: [0..1] | Target: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceInstanceDeployedBy | |
| Source: Public (Class) Project  Cardinality: [0..\*] | Target: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) ProductRealizedAsCFSService | |
| Source: Public (Class) ProductInstance  Cardinality: [0..\*] | Target: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) CFS SponsoredByOwningEntity | |
| Source: Public (Class) Owning Entity (ATO 11 defn)  Cardinality: [0..1] | Target: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) Service Allocated To | |
| Source: Public (Class) Line-of-Business (ProductCatalogItem)  Cardinality: [0..\*] | Target: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) CFServiceInstanceRequiresRFServices | |
| Source: Public (Class) ResourceFacingServiceInstance  Cardinality: [0..\*] | Target: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) SpecifiesCustomerFacingServiceInstance | |
| Source: Public (Class) CustomerFacingServiceCatalogItem  Cardinality: [1] | Target: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] |

### NetworkService

Class in package 'Service'

A **NetworkService** is a composition of NetworkFunctions and is defined by its functional and behavioral specification.

NetworkService

Version 1.0 Phase 1.0 Proposed

KS0567 created on 9/9/2016. Last modified 8/3/2017

Extends ServiceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from NetworkService to NetworkServiceComposite  [ Direction is 'Source -> Destination'. ] |
| Generalization from NetworkService to ServiceInstance  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from NetworkFunction to NetworkService  [ Direction is 'Source -> Destination'. ] |
| Aggregation from NetworkFunction to NetworkService  [ Direction is 'Source -> Destination'. ] |
| Generalization from NetworkServiceComposite to NetworkService  [ Direction is 'Source -> Destination'. ] |
| Generalization from NetworkServiceAtomic to NetworkService  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) NetworkService | Target: Public (Class) VirtualLinkDescriptor (VLD)  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) NetworkService | Target: Public (Class) InitialConfigPrimitive  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) NetworkService | Target: Public (Class) ConstituentVNFD  Cardinality: [1..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) NetworkService  Cardinality: [0..\*] | Target: Public (Class) VNFForwardingGraphDescriptor |
| Association (direction: Unspecified) | |
| Source: Public (Class) NetworkService | Target: Public (Class) ParameterPool  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) NetworkService | Target: Public (Class) ServiceInputParameters  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) NetworkService | Target: Public (Class) CloudConfig  Cardinality: [0..\*] |
| Association (direction: Unspecified) VNFsInPlacementGroup | |
| Source: Public (Class) NetworkService | Target: Public (Class) NSPlacementGroup  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceMonitoringParam  Cardinality: [0..\*] | Target: Public (Class) NetworkService |
| Association (direction: Unspecified) | |
| Source: Public (Class) NSvnfDependency  Cardinality: [0..\*] | Target: Public (Class) NetworkService |
| Association (direction: Unspecified) | |
| Source: Public (Class) NSConnectionPoint  Cardinality: [0..\*] | Target: Public (Class) NetworkService |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServicePrimitive  Cardinality: [0..\*] | Target: Public (Class) NetworkService |

### NetworkServiceAtomic

Class in package 'Service'

A **NetworkServiceAtomic** is a NetworkService that is not further decomposed into finer grained networkServices.

NetworkServiceAtomic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 9/9/2016. Last modified 9/14/2016

Extends NetworkService

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from NetworkServiceAtomic to NetworkService  [ Direction is 'Source -> Destination'. ] |

### NetworkServiceComposite

Class in package 'Service'

A **NetworkServiceComposite** is a collection of Atomic and Composite NetworkServices.

NetworkServiceComposite

Version 1.0 Phase 1.0 Proposed

KS0567 created on 9/9/2016. Last modified 9/14/2016

Extends NetworkService

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from NetworkServiceComposite to NetworkService  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from NetworkService to NetworkServiceComposite  [ Direction is 'Source -> Destination'. ] |

### ResourceFacingServiceCatalogItem

Class in package 'Service'

ResourceFacingServiceCatalogItem

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/20/2017. Last modified 4/26/2017

Extends ServiceCatalogItem

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceFacingServiceCatalogItem to ServiceCatalogItem  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) Uses | |
| Source: Public (Class) ResourceFacingServiceCatalogItem  Cardinality: [0..\*] | Target: Public (Class) Project  Cardinality: [0..\*] |
| Association (direction: Unspecified) SpecifiesResourceFacingServiceInstance | |
| Source: Public (Class) ResourceFacingServiceCatalogItem  Cardinality: [1] | Target: Public (Class) ResourceFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) RequiresResourceFacingServiceCatalogItem | |
| Source: Public (Class) CustomerFacingServiceCatalogItem  Cardinality: [0..\*] | Target: Public (Class) ResourceFacingServiceCatalogItem  Cardinality: [1..\*] |
| Association (direction: Unspecified) UsesResourcesOfTenant | |
| Source: Public (Class) Tenant (Cloud)  Cardinality: [0..\*] | Target: Public (Class) ResourceFacingServiceCatalogItem  Cardinality: [0..\*] |
| Association (direction: Unspecified) SponseredByOwningEntity | |
| Source: Public (Class) Owning Entity (ATO 11 defn)  Cardinality: [0..\*] | Target: Public (Class) ResourceFacingServiceCatalogItem  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceInstanceHostedOn | |
| Source: Public (Class) PlatformInstance  Cardinality: [1] | Target: Public (Class) ResourceFacingServiceCatalogItem  Cardinality: [0..\*] |

### ResourceFacingServiceInstance

Class in package 'Service'

A Service Component (TMF SID **ResourceFacingService)**  is not obtained as a Product by a customer. A customer never knows explicitly which **ResourceFacingServices** are being used to support a CustomerFacingService, nor do they need to know.

An **InfrastructureService** is a **ResourceFacingService.**

ResourceFacingServiceInstance

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/21/2015. Last modified 8/10/2017

Extends ServiceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceFacingServiceInstance to ServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceFacingServiceInstance to ResourceFacingServiceInstanceComposite  [ Name is RFSCompostieHasRFServices. Direction is 'Source -> Destination'. ] |
| Generalization from ResourceFacingServiceInstance to ServiceInstance  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceInstance to ResourceFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceWrapping Service to ResourceFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceFacingServiceInstanceAtomic to ResourceFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceFacingServiceInstanceComposite to ResourceFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) CFServiceInstanceRequiresRFServices | |
| Source: Public (Class) ResourceFacingServiceInstance  Cardinality: [0..\*] | Target: Public (Class) CustomerFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) Uses | |
| Source: Public (Class) ResourceFacingServiceInstance  Cardinality: [0..\*] | Target: Public (Class) Service Platform  Cardinality: [0..1] |
| Association (direction: Unspecified) ProductRealizedBy | |
| Source: Public (Class) Line-of-Business (ProductCatalogItem)  Cardinality: [0..\*] | Target: Public (Class) ResourceFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceInstanceDeployedBy | |
| Source: Public (Class) Project  Cardinality: [0..\*] | Target: Public (Class) ResourceFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) DeploymentFlavor  Cardinality: [0..\*] | Target: Public (Class) ResourceFacingServiceInstance  Cardinality: [1] |
| Association (direction: Unspecified) RFSSponsoredByOwningEntity | |
| Source: Public (Class) Owning Entity (ATO 11 defn)  Cardinality: [0..1] | Target: Public (Class) ResourceFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) SpecifiesResourceFacingServiceInstance | |
| Source: Public (Class) ResourceFacingServiceCatalogItem  Cardinality: [1] | Target: Public (Class) ResourceFacingServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) TenantPlansCapacity  Manages capacity of certain resources in the context of the service. | |
| Source: Public (Class) Tenant (Cloud)  Cardinality: [0..1] | Target: Public (Class) ResourceFacingServiceInstance  Cardinality: [0..\*] |

### ResourceFacingServiceInstanceAtomic

Class in package 'Service'

ResourceFacingServiceInstanceAtomic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/20/2017. Last modified 4/20/2017

Extends ResourceFacingServiceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceFacingServiceInstanceAtomic to ResourceFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |

### ResourceFacingServiceInstanceComposite

Class in package 'Service'

ResourceFacingServiceInstanceComposite

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/20/2017. Last modified 4/20/2017

Extends ResourceFacingServiceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceFacingServiceInstanceComposite to ResourceFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceFacingServiceInstance to ResourceFacingServiceInstanceComposite  [ Name is RFSCompostieHasRFServices. Direction is 'Source -> Destination'. ] |

### ResourceWrapping Service

Class in package 'Service'

ResourceWrapping Service

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/7/2017. Last modified 4/14/2017

Extends ResourceFacingServiceInstance

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ResourceWrapping Service to ResourceFacingServiceInstance  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceInstance to ResourceWrapping Service  [ Direction is 'Source -> Destination'. ] |

### ServiceCatalogItem

Class in package 'Service'

A **ServiceCatalogItem** represents assets (Resources) assembled by the business for use in the realization/implementation of a delivered capability (Product) and/or for use within the organization.

A **ServiceCatalogItem** represents the operationalized capabilities (ResourceCatalogItems) and when enhanced with additional product commercialization parameters, can be the basis of **ProductCatalogItems**.

A **ServiceCatalogItem** may be the basis of many **ProductCatalogItems**.

The business may develop **ServiceCatalogItems** using **ResourceCatalogItems** produced and managed by multiple organizations.

***Special Notes:***

* In everyday use, service may refer to:

- the time, skills, and expertise offered by a human

- the products offered by public utilities (e.g. water).

* In telecom, there has been a tradition of referring to use of the network assets as a service (a remnant from the days when telecom was often thought of as a public utility).
* In computing, a service is defined as a unit of work to be performed on behalf of some computing entity, such as a human user or another program (aka Web Service, SOA Service).

***This definition of Service is broader, including components that reflect intangible assets as well as tangible assets. In fact, a Service may be composed of both types of assets.***

SID calls a "Service Catalog Item" a "ServiceSpecification

ServiceCatalogItem

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/27/2015. Last modified 8/23/2017

Extends CatalogItem

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceCatalogItem to ServiceCatalog  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceCatalogItem to CatalogItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from ServiceCatalogItem to CatalogItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ServiceCatalogItem to ServiceCatalogItem  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceCatalogItemType to ServiceCatalogItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceCatalogItem to ServiceCatalogItem  [ Direction is 'Source -> Destination'. ] |
| Generalization from CustomerFacingServiceCatalogItem to ServiceCatalogItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ServiceComponentCatalogItem to ServiceCatalogItem  [ Name is ServiceComposedOf. Direction is 'Source -> Destination'. ] |
| Aggregation from ServiceItemCharacteristic to ServiceCatalogItem  [ Name is ServiceCatalogItemDescribedBy. Direction is 'Source -> Destination'. ] |
| Aggregation from ServiceCatalogItem to ServiceCatalogItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ServiceCatalogItemVersion to ServiceCatalogItem  [ Name is ServiceCatalogItemModificationsRecordedAs. Direction is 'Source -> Destination'. ] |
| Generalization from ResourceFacingServiceCatalogItem to ServiceCatalogItem  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| AT&TContact : char Private  This is the technology owner. ATT UID. Future click on UID and launch mail client. Multiple contacts should be supported.  [ Is static False. Containment is Not Specified. ] |
| Capacity : Document Private  Obtain from vendor if available; tester can add additional information  [ Is static False. Containment is Not Specified. ] |
| Category : DropDown Private  Designer cannot define new Category. Process required to add/change/delete  [ Is static False. Containment is Not Specified. ] |
| Constraints : Private  From the TOSCA model. Multiple fields. Could include thresholds and policies. Vendor upgrade requirements should also be included here.  [ Is static False. Containment is Not Specified. ] |
| Cost : char Private  2015: will be blank and not mandatory. 2016 may be accessed by role (TBD) and will be a mandatory field.  [ Is static False. Containment is Not Specified. ] |
| D2RequirementsChecklist : Document Private  Spreadsheet with input constraints, entries will be searchable  [ Is static False. Containment is Not Specified. ] |
| EntitlementID : char Private  Composite ID of contract and entitlement number from myprocurement  [ Is static False. Containment is Not Specified. ] |
| EntitlementUnitNumber : char Private  From contract/entitlement  [ Is static False. Containment is Not Specified. ] |
| EntitlementUnitType : char Private  From contract/entitlement  [ Is static False. Containment is Not Specified. ] |
| FaultRequirements : Document Private  Obtain from vendor  [ Is static False. Containment is Not Specified. ] |
| Features : Document Private  Obtain from vendor  [ Is static False. Containment is Not Specified. ] |
| History : char Private  Keeping all major events, i.e., creation date, any modification, check in and check out with ATT UID.  [ Is static False. Containment is Not Specified. ] |
| Icon : Image Private  Process required to add new icon.  [ Is static False. Containment is Not Specified. ] |
| LicensingModel : DropDown Private  Multiple fields. Categories of licenses planned; type, unit.  [ Is static False. Containment is Not Specified. ] |
| Performance : Document Private  Obtain from vendor if available; tester can add additional information  [ Is static False. Containment is Not Specified. ] |
| Requirements : Private  Multiple fields. Includes connectivity  [ Is static False. Containment is Not Specified. ] |
| ServiceDescription : char Private  Visible when the user hovers over this service in the design studio UI.  [ Is static False. Containment is Not Specified. ] |
| ServiceDisplayName : char Private  Human readable service name. The display name is used in the ASDC catalog and the workspaces for each role.  - Max length of 25 characters  - Allowed characters: alphanumeric, space, underscore, dash, dot.  - Defined by the designer during the service creation process (create/import).  - Can be modified until the Service is submitted for testing. Display name is not editable once the service is in release 1.0.  - Name must be unique and is searchable.  [ Is static False. Containment is Not Specified. ] |
| ServiceSystemName : Char Private  This field will be used in URLs and not exposed in create service UI; will be displayed in design studio.  Meaningful service name used in API. The system name is used in the distribution studio (distribution notification and distribution API).  - Max length of 25 characters  - Allowed characters: alphanumeric, underscore, dash, dot.  - Autocreated based upon the Service Display Name: spaces are trimmed, each word starts with a capital letter, on the first letter of abbreviation and acronyms are capitalized.  - If the Service Display name changes, the Service System name will automatically be updated.  - Service System name is not editable by the designer.  - Name must be unique and is searchable.  [ Is static False. Containment is Not Specified. ] |
| ServiceUUID : char Private  his is a cross-ECOMP service version identifier. UUID generated by algorithm. Will be different for every x.1 version of the service. It is not editable and cannot be changed.  [ Is static False. Containment is Not Specified. ] |
| Status : char Private  3 roles in 1507 (user, tester, admin). Operations = user, Governance = admin. 5 roles are supported in 1510. Designers = 'users'; testers = 'testers'; operations = 'operations'; governance = 'governance'; admin = 'admin'. 2016 may expand number of roles. Whatever state you're in, whoever is responsible for incrementing state could also decrement state.  [ Is static False. Containment is Not Specified. ] |
| Subcategory : DropDown Private  Flat list in 1507. In 1510, UI will be separated to different field from Category.  [ Is static False. Containment is Not Specified. ] |
| Tags/Keywords : Char Private  Must accept multiple keywords  [ Is static False. Containment is Not Specified. ] |
| Template : DropDown Private  Need to define a list of templates. Tied to Category. Designer cannot create new template (must be created by development team). Process required to add/change/delete. Could consider designer ability to create / modify template in 1602.  [ Is static False. Containment is Not Specified. ] |
| TestScripts : Document Private  [ Is static False. Containment is Not Specified. ] |
| VendorTestResults : Document Private  Access May be restricted in future  [ Is static False. Containment is Not Specified. ] |
| Version : char Private  Note a new version (x.x) will result in a new service UUID.  [ Is static False. Containment is Not Specified. ] |
| VF-SpecificPolicies : File Private  Part of the lifecycle management of the artifact.  [ Is static False. Containment is Not Specified. ] |
| VFArtifacts : char Private  Artifact name stored in Swift. Artifacts are searchable / indexable.  [ Is static False. Containment is Not Specified. ] |
| VFConfigParameters : File Private  Scripts are an artifact, this may be redundant  [ Is static False. Containment is Not Specified. ] |
| VFImage : char Private  URL to file stored in Glance or Swift, depending upon image vs. binary  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ServiceConfigSpecDefinedFor | |
| Source: Public (Class) ServiceCatalogItem  Cardinality: [1] | Target: Public (Class) ServiceConfigSpec  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceCatalogItem  Cardinality: [0..\*] | Target: Public (Class) Network  Cardinality: [1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceCatalogItem  Cardinality: [0..\*] | Target: Public (Class) Network  Cardinality: [1] |
| Association (direction: Unspecified) ServiceCatalogItemMadeAvailableAs | |
| Source: Public (Class) ServiceCatalogItem  Cardinality: [1..] | Target: Public (Class) ServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceCatalogItem  Cardinality: [1] | Target: Public (Class) ServiceOrder  Cardinality: [0..\*] |
| Association (direction: Unspecified) ProjectDeliverableEnablesServiceCatalogItem | |
| Source: Public (Class) ServiceCatalogItem  Cardinality: [0..1] | Target: Public (Class) ProjectDeliverable  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceCatalogItem  Cardinality: [0..\*] | Target: Public (Class) Network  Cardinality: [1] |
| Association (direction: Unspecified) ServiceSpecificationMadeAvailabileAs | |
| Source: Public (Class) ServiceSpecification  Cardinality: [1..] | Target: Public (Class) ServiceCatalogItem  Cardinality: [0..1] |
| Association (direction: Unspecified) ServiceCompositionProvidesComponentsFor | |
| Source: Public (Class) ServiceComposition | Target: Public (Class) ServiceCatalogItem |
| Association (direction: Unspecified) ProductCompositionProvides | |
| Source: Public (Class) ProductComposition | Target: Public (Class) ServiceCatalogItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceRecipe  Cardinality: [0..\*] | Target: Public (Class) ServiceCatalogItem  Cardinality: [1] |
| Association (direction: Unspecified) ServiceHas | |
| Source: Public (Class) ServiceCapability  Cardinality: [0..\*] | Target: Public (Class) ServiceCatalogItem  Cardinality: [0..1] |
| Association (direction: Unspecified) | |
| Source: Public (Class) CustomerFacingServiceInstance | Target: Public (Class) ServiceCatalogItem |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceSLO | Target: Public (Class) ServiceCatalogItem |

### ServiceCatalogItemCharacteristicRelationship

AssociationClass in package 'Service'

ServiceCatalogItemCharacteristicRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/20/2015. Last modified 2/25/2016

### ServiceCatalogItemCharacteristicUse

AssociationClass in package 'Service'

ServiceCatalogItemCharacteristicUse

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/20/2015. Last modified 7/27/2016

| ATTRIBUTES |
| --- |
| CanBeOverridden : boolean Private  [ Is static False. Containment is Not Specified. ] |
| MaxCardinality : int Private  [ Is static False. Containment is Not Specified. ] |
| MinCardinality : int Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ServiceCatlogItemCharUseDescribedBy | |
| Source: Public (AssociationClass) ServiceCatalogItemCharacteristicUse  Cardinality: [0..\*] | Target: Public (Class) ServiceCatalogItemCharacteristicValue  Cardinality: [0..\*] |

### ServiceCatalogItemCharacteristicValue

Class in package 'Service'

See GB922 Service Overview - Figure SO. 23

ServiceCatalogItemCharacteristicValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/11/2015. Last modified 8/3/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceCatalogItemCharacteristicValue to ServiceItemCharacteristic  [ Name is ServiceCatalogItemEnumeratedBy. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceInstanceCharacteristicValue to ServiceCatalogItemCharacteristicValue  [ Name is ServiceCatalogItemCharacteristicValueInstanciatedAs. Direction is 'Source -> Destination'. ] |
| Generalization from ServiceCatalogItemCharacteristicValue\_child to ServiceCatalogItemCharacteristicValue  [ Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| unitOfMeasure : String Private  [ Is static False. Containment is Not Specified. ] |
| value : String Private  [ Is static False. Containment is Not Specified. ] |
| valueType : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ServiceCatalogItemCharacteristicValueTranslatesTo ResourceCatalogCharacteristicValue | |
| Source: Public (Class) ServiceCatalogItemCharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) ResourceCatalogItemCharacteristicValue  Cardinality: [0..\*] |
| AssociationClass (direction: Unspecified) ServiceCatalogItemCharacteristicValueReferences | |
| Source: Public (Class) ServiceCatalogItemCharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) ServiceCatalogItemCharacteristicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceCatalogItemCharacteristicValueTranslatesTo ResourceCatalogCharacteristicValue | |
| Source: Public (Class) ServiceCatalogItemCharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) ResourceCatalogItemCharacteristicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) ProductCatalogItemCharacteristicValueTranslatesTo | |
| Source: Public (Class) ProducCatalogItemCharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) ServiceCatalogItemCharacteristicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceCatlogItemCharUseDescribedBy | |
| Source: Public (AssociationClass) ServiceCatalogItemCharacteristicUse  Cardinality: [0..\*] | Target: Public (Class) ServiceCatalogItemCharacteristicValue  Cardinality: [0..\*] |
| AssociationClass (direction: Unspecified) ServiceCatalogItemCharacteristicValueReferences | |
| Source: Public (Class) ServiceCatalogItemCharacteristicValue  Cardinality: [0..\*] | Target: Public (Class) ServiceCatalogItemCharacteristicValue  Cardinality: [0..\*] |

### ServiceCatalogItemCharacteristicValueRelationship

AssociationClass in package 'Service'

ServiceCatalogItemCharacteristicValueRelationship

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/20/2015. Last modified 2/25/2016

### ServiceCatalogItemType

Class in package 'Service'

ServiceCatalogItemType

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/11/2015. Last modified 2/25/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceCatalogItemType to ServiceCatalogItem  [ Direction is 'Source -> Destination'. ] |

### ServiceCatalogItemVersion

Class in package 'Service'

ServiceCatalogItemVersion

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/9/2015. Last modified 2/25/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceCatalogItemVersion to ServiceCatalogItem  [ Name is ServiceCatalogItemModificationsRecordedAs. Direction is 'Source -> Destination'. ] |

### ServiceComponentCatalogItem

Class in package 'Service'

ServiceComponentCatalogItem

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/11/2017. Last modified 8/23/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceComponentCatalogItem to ServiceCatalogItem  [ Name is ServiceComposedOf. Direction is 'Source -> Destination'. ] |
| Aggregation from ServiceComponentCatalogItem to ServiceComponentCatalogItem  [ Name is Service Components Have. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceCatalogItem to ServiceComponentCatalogItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ServiceComponentCatalogItem to ServiceComponentCatalogItem  [ Name is Service Components Have. Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceComponentCatalogItem | Target: Public (Class) ServiceComponentInstance |
| Association (direction: Unspecified) ServiceComponentHas | |
| Source: Public (Class) ServiceComponentCatalogItem  Cardinality: [0..\*] | Target: Public (Class) ServiceComponentCapability  Cardinality: [1..\*] |

### ServiceComponentInstance

Class in package 'Service'

ServiceComponentInstance

Version 1.0 Phase 1.0 Proposed

KS0567 created on 8/11/2017. Last modified 8/11/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceComponentInstance to ServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ServiceComponentInstance to ServiceComponentInstance  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceComponentInstance to ServiceComponentInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstance to ServiceComponentInstance  [ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceComponentCatalogItem | Target: Public (Class) ServiceComponentInstance |

### ServiceComposition

Class in package 'Service'

ServiceComposition

Version 1.0 Phase 1.0 Proposed

ks0567 created on 10/28/2015. Last modified 7/29/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ServiceCompositionProvidesComponentsFor | |
| Source: Public (Class) ServiceComposition | Target: Public (Class) ServiceCatalogItem |
| Association (direction: Unspecified) ServiceCompositionProvides | |
| Source: Public (Class) ServiceComposition | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) ServiceCompositionProvides | |
| Source: Public (Class) ServiceComposition | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) ServiceCompositionProvides | |
| Source: Public (Class) ServiceComposition | Target: Public (Class) ResourceCatalogItem |
| Association (direction: Unspecified) ServiceRecipeProvidesInstructionsFor | |
| Source: Public (Class) ServiceRecipe  Cardinality: [1..] | Target: Public (Class) ServiceComposition |

### ServiceInstance

Class in package 'Service'

A ServiceInstance is the instantiation of a given ASDC ServiceCatalogItem. It can consist of zero or more ServiceInstances or zero or more ResourceInstances.

A ServiceInstance can be prebuilt, meaning it does not have to be associated to a ProductInstance.

The TMF SID calls a "ServiceInstance" a "Service"

ServiceInstance

Version 1.0 Phase 1.0 Proposed

KS0567 created on 10/26/2015. Last modified 8/18/2017

Extends InstanceItem

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceInstance to InstanceItem  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ServiceInstance to ProductInstance  [ Name is ProductInstanceRealizedAs. Direction is 'Source -> Destination'. ] |
| Generalization from ServiceInstance to InstanceItem  [ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceInstance to ServiceInstance  [ Name is ServiceInstanceRelizedAs. Direction is 'Source -> Destination'. ] |
| Generalization from CustomerFacingServiceInstance to ServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ResourceInstance to ServiceInstance  [ Name is ServiceInstanceRealizedAs. Direction is 'Source -> Destination'. ] |
| Aggregation from ServiceComponentInstance to ServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Aggregation from ServiceInstanceCharacteristicSet to ServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from ResourceFacingServiceInstance to ServiceInstance  [ Direction is 'Source -> Destination'. ] |
| Generalization from NetworkService to ServiceInstance  [ Direction is 'Source -> Destination'. ] |

| CONNECTORS |
| --- |
| Usage flow Source -> Destination  From: DirectedGraphInstance : Component, Public  To: ServiceInstance : Class, Public |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceInstance  Cardinality: [1] | Target: Public (Class) Policy  Cardinality: [1..\*] |
| Association (direction: Unspecified) ServiceConfiruationDefinedFor | |
| Source: Public (Class) ServiceInstance  Cardinality: [1] | Target: Public (Class) ServiceInstanceConfiguration  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceInstance | Target: Public (Class) PartyRole |
| Association (direction: Unspecified) Requires | |
| Source: Public (Class) ServiceInstance  Cardinality: [0..\*] | Target: Public (Class) ServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceInstance | Target: Public (Class) PolicyRule |
| Association (direction: Unspecified) ServiceInstanceCharactieristicValue DefinesTheConfigurationOf | |
| Source: Public (Class) ServiceInstance  Cardinality: [1] | Target: Public (Class) ServiceInstanceCharacteristicValue  Cardinality: [\*] |
| Association (direction: Unspecified) ServiceNetworkAssociation | |
| Source: Public (Class) ServiceInstance  Cardinality: [1] | Target: Public (Class) ServiceNetworkAssociation  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceItemCharacteristic | Target: Public (Class) ServiceInstance |
| Association (direction: Unspecified) ServiceOrderDelivers | |
| Source: Public (Class) ServiceOrder  Cardinality: [1] | Target: Public (Class) ServiceInstance  Cardinality: [1] |
| Association (direction: Unspecified) Requires | |
| Source: Public (Class) ServiceInstance  Cardinality: [0..\*] | Target: Public (Class) ServiceInstance  Cardinality: [0..\*] |
| Association (direction: Unspecified) Platform Hosts Services | |
| Source: Public (Class) Service Platform | Target: Public (Class) ServiceInstance |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceSLO | Target: Public (Class) ServiceInstance |
| Association (direction: Unspecified) | |
| Source: Public (Class) DirectedGraphInstance  Cardinality: [1] | Target: Public (Class) ServiceInstance  Cardinality: [1] |
| Association (direction: Unspecified) ServiceCatalogItemMadeAvailableAs | |
| Source: Public (Class) ServiceCatalogItem  Cardinality: [1..] | Target: Public (Class) ServiceInstance  Cardinality: [0..\*] |

### ServiceInstanceCharacteristicSet

Class in package 'Service'

ServiceInstanceCharacteristicSet

Version 1.0 Phase 1.0 Proposed

KS0567 created on 12/1/2015. Last modified 2/25/2016

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceInstanceCharacteristicSet to ServiceInstance  [ Direction is 'Source -> Destination'. ] |

### ServiceInstanceCharacteristicValue

Class in package 'Service'

ServiceInstanceCharacteristicValue

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/11/2015. Last modified 8/3/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceInstanceCharacteristicValue to ServiceCatalogItemCharacteristicValue  [ Name is ServiceCatalogItemCharacteristicValueInstanciatedAs. Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ServiceInstanceCharacteristicValueReferences | |
| Source: Public (Class) ServiceInstanceCharacteristicValue  Cardinality: [0..1] | Target: Public (Class) ServiceInstanceCharacteristicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceInstanceCharacteristicValueReferences | |
| Source: Public (Class) ServiceInstanceCharacteristicValue  Cardinality: [0..1] | Target: Public (Class) ServiceInstanceCharacteristicValue  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceInstanceCharactieristicValue DefinesTheConfigurationOf | |
| Source: Public (Class) ServiceInstance  Cardinality: [1] | Target: Public (Class) ServiceInstanceCharacteristicValue  Cardinality: [\*] |
| Association (direction: Unspecified) ServiceSpecDescribes | |
| Source: Public (Class) ServiceItemCharacteristic  Cardinality: [0..1] | Target: Public (Class) ServiceInstanceCharacteristicValue  Cardinality: [\*] |

### ServiceItemCharacteristic

Class in package 'Service'

ServiceItemCharacteristic

Version 1.0 Phase 1.0 Proposed

KS0567 created on 11/9/2015. Last modified 8/3/2017

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceItemCharacteristic to ServiceCatalogItem  [ Name is ServiceCatalogItemDescribedBy. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ServiceCatalogItemCharacteristicValue to ServiceItemCharacteristic  [ Name is ServiceCatalogItemEnumeratedBy. Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
| Description : String Private  [ Is static False. Containment is Not Specified. ] |
| Name : String Private  [ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ServiceCatalogItemCharacteristicTranslatesToResourceCatalogItemCharacteristic | |
| Source: Public (Class) ServiceItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ResourceItemCharacteristic  Cardinality: [0..\*] |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceItemCharacteristic | Target: Public (Class) ServiceInstance |
| AssociationClass (direction: Unspecified) ServiceCatalogItemCharacteristicReferences | |
| Source: Public (Class) ServiceItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ServiceItemCharacteristic  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceCatalogItemCharacteristicTranslatesToResourceCatalogItemCharacteristic | |
| Source: Public (Class) ServiceItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ResourceItemCharacteristic  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceSpecDescribes | |
| Source: Public (Class) ServiceItemCharacteristic  Cardinality: [0..1] | Target: Public (Class) ServiceInstanceCharacteristicValue  Cardinality: [\*] |
| Association (direction: Unspecified) ProductCatalogItemCharacteristicTranslatesTo | |
| Source: Public (Class) ProductItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ServiceItemCharacteristic  Cardinality: [0..\*] |
| AssociationClass (direction: Unspecified) ServiceCatalogItemCharacteristicReferences | |
| Source: Public (Class) ServiceItemCharacteristic  Cardinality: [0..\*] | Target: Public (Class) ServiceItemCharacteristic  Cardinality: [0..\*] |

### ServiceNetworkAssociation

Class in package 'Service'

ServiceNetworkAssociation

Version 1.0 Phase 1.0 Proposed

mm7817 created on 6/7/2016. Last modified 6/8/2016

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) ServiceNetworkAssociation | |
| Source: Public (Class) Network  Cardinality: [0..\*] | Target: Public (Class) ServiceNetworkAssociation  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceNetworkAssociation | |
| Source: Public (Class) Network  Cardinality: [0..\*] | Target: Public (Class) ServiceNetworkAssociation  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceNetworkAssociation | |
| Source: Public (Class) Network  Cardinality: [0..\*] | Target: Public (Class) ServiceNetworkAssociation  Cardinality: [0..\*] |
| Association (direction: Unspecified) ServiceNetworkAssociation | |
| Source: Public (Class) ServiceInstance  Cardinality: [1] | Target: Public (Class) ServiceNetworkAssociation  Cardinality: [0..\*] |

### ServiceRecipe

Class in package 'Service'

A BPM or BPEL workflow which defines how the service is to be instantiated. MSO (Orchestration) will execute the service recipe which could include for example installing the vFC components on multiple VM's and establishing the network connectivity via a Directed Graph

ServiceRecipe

Version 1.0 Phase 1.0 Proposed

ks0567 created on 10/28/2015. Last modified 7/29/2016

Extends Recipe

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
| Generalization from ServiceRecipe to Recipe  [ Direction is 'Source -> Destination'. ] |

| CONNECTORS |
| --- |
| Usage «flow» Source -> Destination  From: DirectedGraph : Component, Public  To: ServiceRecipe : Class, Public |

| ASSOCIATIONS | |
| --- | --- |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceRecipe | Target: Public (Class) PolicyRule |
| Association (direction: Unspecified) | |
| Source: Public (Class) ServiceRecipe  Cardinality: [0..\*] | Target: Public (Class) ServiceCatalogItem  Cardinality: [1] |
| Association (direction: Unspecified)  ServiceRecipeProvidesInstructionsFor | |
| Source: Public (Class) ServiceRecipe  Cardinality: [1..] | Target: Public (Class) ServiceComposition |
| Association (direction: Unspecified) | |
| Source: Public (Class) DirectedGraph  Cardinality: [0..\*] | Target: Public (Class) ServiceRecipe  Cardinality: [0..\*] |

### Tenant (delete) - use Party based tenant

Class in package 'Service'

A tenant is a service provider (a party in the partyrole of service provider).

A tenant is a means to isolate services in the cloud environment.

An owning entity (partyrole) can have one or more tenants.

A tenant is a logical unit that drives isolation, usage, billing, and may have allotted capacity.

Customer is not a tenant

what do I allocate out for this service to consume

Isolates cloud resources

Controls who sees what

Roles up to one or more ops teams

An Openstack tenant/project is a set of any resources (compute, network, storage, etc.) assigned to an isolated group of users.

Master Tenant??

Tenant (delete) - use Party based tenant

Version 1.0 Phase 1.0 Proposed

KS0567 created on 4/7/2017. Last modified 4/12/2017

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
| Aggregation from ResourceInstance to Tenant (delete) - use Party based tenant  [ Direction is 'Source -> Destination'. ] |
| Aggregation from CustomerFacingServiceInstance to Tenant (delete) - use Party based tenant  [ Direction is 'Source -> Destination'. ] |
| Generalization from Tenant\_child to Tenant (delete) - use Party based tenant  [ Direction is 'Source -> Destination'. ] |

### DirectedGraph

Component in package 'Service'

DirectedGraph

Version 1.0 Phase 1.0 Proposed

mm7817 created on 6/8/2016. Last modified 6/8/2016

| CONNECTORS |
| --- |
| Usage «flow» Source -> Destination  From: DirectedGraph : Component, Public  To: ServiceRecipe : Class, Public |