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| ECOMP Model ReportServiceVersion 1.0 ● Proposed |
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# Service

Package in package 'ECOMP Class Model'

Service

Version 1.0 Phase 1.0 Proposed

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## Services diagram

Class diagram in package 'Service'

Services

Version 1.0

mm7817 created on 9/8/2017. Last modified 10/31/2017



1. Services

## ONAP 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 Service can be made up of ServiceComponents.

We are allowing for a Service being composed of other Services, but it is unclear how much this will or should be used.

A Service may also be referred to as an offered service, given it is being offered to the BSS layer and associated to a product.

A Service must have at least one ServiceComponent. A service cannot be associated to a resource directly.

The service/servicecomponent pattern is also used in a similar way with a vnf and vnfc.

ONAP Service Components

Version 1.0

KS0567 created on 8/11/2017. Last modified 11/8/2017



1. ONAP Service Components

## 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 11/8/2017



1. Service Characteristics

## ServiceCatalogItemCharacteristicRelationship

AssociationClass in package 'Service'

ServiceCatalogItemCharacteristicRelationship

Version 1.0 Phase 1.0 Proposed

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## ServiceCatalogItemCharacteristicUse

AssociationClass in package 'Service'

ServiceCatalogItemCharacteristicUse

Version 1.0 Phase 1.0 Proposed

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| 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 |
| --- |
|  Generalization from ServiceCatalogItemCharacteristicValue\_child to ServiceCatalogItemCharacteristicValue[ Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceInstanceCharacteristicValue to ServiceCatalogItemCharacteristicValue[ Name is ServiceCatalogItemCharacteristicValueInstanciatedAs. 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 |
| --- |
|  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) ServiceCatalogItemCharacteristicValueTranslatesTo ResourceCatalogCharacteristicValue |
| Source: Public (Class) ServiceCatalogItemCharacteristicValue Cardinality: [0..\*] | Target: Public (Class) ResourceCatalogItemCharacteristicValue 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..\*] |
|  Association (direction: Unspecified) ProductCatalogItemCharacteristicValueTranslatesTo |
| Source: Public (Class) ProducCatalogItemCharacteristicValue Cardinality: [0..\*] | Target: Public (Class) ServiceCatalogItemCharacteristicValue Cardinality: [0..\*] |

## ServiceCatalogItemCharacteristicValueRelationship

AssociationClass in package 'Service'

ServiceCatalogItemCharacteristicValueRelationship

Version 1.0 Phase 1.0 Proposed

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## ServiceCatalogItemType

Class in package 'Service'

ServiceCatalogItemType

Version 1.0 Phase 1.0 Proposed

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| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
|  Aggregation from ServiceCatalogItemType to ServiceDesc (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 ServiceDesc (ServiceCatalogItem)[ Name is ServiceCatalogItemModificationsRecordedAs. Direction is 'Source -> Destination'. ] |

## ServiceComponentDesc (ServiceComponentCatalogItem)

Class in package 'Service'

ServiceComponentCatalogItem is not exposed to become part of a product, but rather contains instructions on how to instantiate the service.

ServiceComponentDesc (ServiceComponentCatalogItem)

Version 1.0 Phase 1.0 Proposed

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| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
|  Aggregation from ServiceComponentDesc (ServiceComponentCatalogItem) to ServiceDesc (ServiceCatalogItem)[ Name is ServiceComposedOf. Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceComponentDesc (ServiceComponentCatalogItem) to ServiceComponentDesc (ServiceComponentCatalogItem)[ Name is ServiceComponentComprisedOf. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
|  Aggregation from ResourceCatalogItem to ServiceComponentDesc (ServiceComponentCatalogItem)[ Name is ServiceComponentMadeUpOf. Direction is 'Source -> Destination'. ] |
|  Generalization from InfrastructureServiceDesc to ServiceComponentDesc (ServiceComponentCatalogItem)[ Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceComponentDesc (ServiceComponentCatalogItem) to ServiceComponentDesc (ServiceComponentCatalogItem)[ Name is ServiceComponentComprisedOf. Direction is 'Source -> Destination'. ] |
|  Generalization from AllottedResource to ServiceComponentDesc (ServiceComponentCatalogItem)[ Direction is 'Source -> Destination'. ] |

| ASSOCIATIONS |
| --- |
|  Association (direction: Unspecified) ServiceComponentHas |
| Source: Public (Class) ServiceComponentDesc (ServiceComponentCatalogItem) Cardinality: [0..\*] | Target: Public (Class) ServiceComponentCapability Cardinality: [1..\*] |
|  Association (direction: Unspecified) ServiceComponentCatalogItemMadeAvailableAs |
| Source: Public (Class) ServiceComponentDesc (ServiceComponentCatalogItem) Cardinality: [1] | Target: Public (Class) ServiceComponentInstance Cardinality: [0..\*] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ElementGroup  | Target: Public (Class) ServiceComponentDesc (ServiceComponentCatalogItem)  |

## ServiceComponentInstance

Class in package 'Service'

A **ServiceComponent** represents a portion or segment of the **Customer or Network Service** and typically spans a single administrative domain.

A ***ServiceComponentInstance c***an be composed of **ServiceComponentInstancess** or of ResourceInstances.

ServiceComponentInstance

Version 1.0 Phase 1.0 Proposed

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

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

| ASSOCIATIONS |
| --- |
|  Association (direction: Unspecified) Requires |
| Source: Public (Class) ServiceComponentInstance Cardinality: [0..\*] | Target: Public (Class) ServiceComponentInstance Cardinality: [0..\*] |
|  Association (direction: Unspecified) Requires |
| Source: Public (Class) ServiceComponentInstance Cardinality: [0..\*] | Target: Public (Class) ServiceComponentInstance Cardinality: [0..\*] |
|  Association (direction: Unspecified) ServiceComponentCatalogItemMadeAvailableAs |
| Source: Public (Class) ServiceComponentDesc (ServiceComponentCatalogItem) Cardinality: [1] | Target: Public (Class) ServiceComponentInstance Cardinality: [0..\*] |

## 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) ServiceCompositionProvides |
| Source: Public (Class) ServiceComposition  | Target: Public (Class) ResourceCatalogItem  |
|  Association (direction: Unspecified) ServiceCompositionProvidesComponentsFor |
| Source: Public (Class) ServiceComposition  | Target: Public (Class) ServiceDesc (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) ServiceRecipeProvidesInstructionsFor |
| Source: Public (Class) ServiceRecipe Cardinality: [1..] | Target: Public (Class) ServiceComposition  |

## ServiceDesc (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

ServiceDesc (ServiceCatalogItem)

Version 1.0 Phase 1.0 Proposed

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Extends CatalogItem

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
|  Generalization from ServiceDesc (ServiceCatalogItem) to CatalogItem[ Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceDesc (ServiceCatalogItem) to ServiceCatalog[ Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceDesc (ServiceCatalogItem) to ServiceDesc (ServiceCatalogItem)[ Name is ServiceComprisedOf. Direction is 'Source -> Destination'. ] |
|  Generalization from ServiceDesc (ServiceCatalogItem) to CatalogItem[ Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
|  Aggregation from ServiceCatalogItemVersion to ServiceDesc (ServiceCatalogItem)[ Name is ServiceCatalogItemModificationsRecordedAs. Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceComponentDesc (ServiceComponentCatalogItem) to ServiceDesc (ServiceCatalogItem)[ Name is ServiceComposedOf. Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceDesc (ServiceCatalogItem) to ServiceDesc (ServiceCatalogItem)[ Name is ServiceComprisedOf. Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceCatalogItemType to ServiceDesc (ServiceCatalogItem)[ Direction is 'Source -> Destination'. ] |
|  Generalization from CustomerFacingServiceCatalogItem to ServiceDesc (ServiceCatalogItem)[ Direction is 'Source -> Destination'. ] |
|  Generalization from ResourceFacingServiceCatalogItem to ServiceDesc (ServiceCatalogItem)[ Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceItemCharacteristic to ServiceDesc (ServiceCatalogItem)[ Name is ServiceCatalogItemDescribedBy. Direction is 'Source -> Destination'. ] |

| ATTRIBUTES |
| --- |
|  AT&TContact : char PrivateThis 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 PrivateObtain from vendor if available; tester can add additional information[ Is static False. Containment is Not Specified. ] |
|  Category : DropDown PrivateDesigner cannot define new Category. Process required to add/change/delete[ Is static False. Containment is Not Specified. ] |
|  Constraints : PrivateFrom 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 Private2015: 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 PrivateSpreadsheet with input constraints, entries will be searchable[ Is static False. Containment is Not Specified. ] |
|  EntitlementID : char PrivateComposite ID of contract and entitlement number from myprocurement[ Is static False. Containment is Not Specified. ] |
|  EntitlementUnitNumber : char PrivateFrom contract/entitlement[ Is static False. Containment is Not Specified. ] |
|  EntitlementUnitType : char PrivateFrom contract/entitlement[ Is static False. Containment is Not Specified. ] |
|  FaultRequirements : Document PrivateObtain from vendor[ Is static False. Containment is Not Specified. ] |
|  Features : Document PrivateObtain from vendor[ Is static False. Containment is Not Specified. ] |
|  History : char PrivateKeeping 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 PrivateProcess required to add new icon. [ Is static False. Containment is Not Specified. ] |
|  LicensingModel : DropDown PrivateMultiple fields. Categories of licenses planned; type, unit.[ Is static False. Containment is Not Specified. ] |
|  Performance : Document PrivateObtain from vendor if available; tester can add additional information[ Is static False. Containment is Not Specified. ] |
|  Requirements : PrivateMultiple fields. Includes connectivity[ Is static False. Containment is Not Specified. ] |
|  ServiceDescription : char PrivateVisible when the user hovers over this service in the design studio UI.[ Is static False. Containment is Not Specified. ] |
|  ServiceDisplayName : char PrivateHuman 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 PrivateThis 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 Privatehis 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 Private3 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 PrivateFlat list in 1507. In 1510, UI will be separated to different field from Category.[ Is static False. Containment is Not Specified. ] |
|  Tags/Keywords : Char PrivateMust accept multiple keywords[ Is static False. Containment is Not Specified. ] |
|  Template : DropDown PrivateNeed 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 PrivateAccess May be restricted in future[ Is static False. Containment is Not Specified. ] |
|  Version : char PrivateNote a new version (x.x) will result in a new service UUID.[ Is static False. Containment is Not Specified. ] |
|  VF-SpecificPolicies : File PrivatePart of the lifecycle management of the artifact.[ Is static False. Containment is Not Specified. ] |
|  VFArtifacts : char PrivateArtifact name stored in Swift. Artifacts are searchable / indexable.[ Is static False. Containment is Not Specified. ] |
|  VFConfigParameters : File PrivateScripts are an artifact, this may be redundant[ Is static False. Containment is Not Specified. ] |
|  VFImage : char PrivateURL to file stored in Glance or Swift, depending upon image vs. binary[ Is static False. Containment is Not Specified. ] |

| ASSOCIATIONS |
| --- |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [0..\*] | Target: Public (Class) Network Cardinality: [1] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [0..\*] | Target: Public (Class) Network Cardinality: [1] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceDesc (ServiceCatalogItem)  | Target: Public (Class) CustomerContract  |
|  Association (direction: Unspecified) ProjectDeliverableEnablesServiceCatalogItem |
| Source: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [0..1] | Target: Public (Class) ProjectDeliverable Cardinality: [0..\*] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [1] | Target: Public (Class) ServiceOrder Cardinality: [0..\*] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceDesc (ServiceCatalogItem)  | Target: Public (Class) Customer  |
|  Association (direction: Unspecified) ServiceConfigSpecDefinedFor |
| Source: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [1] | Target: Public (Class) ServiceConfigSpec Cardinality: [0..\*] |
|  Association (direction: Unspecified) ServiceCatalogItemMadeAvailableAs |
| Source: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [1..] | Target: Public (Class) ServiceInstance Cardinality: [0..\*] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceDesc (ServiceCatalogItem)  | Target: Public (Class) CustomerSubscriptionInstance  |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [0..\*] | Target: Public (Class) Network Cardinality: [1] |
|  Association (direction: Unspecified) ServiceHas |
| Source: Public (Class) ServiceCapability Cardinality: [0..\*] | Target: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [0..1] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceRecipe Cardinality: [0..\*] | Target: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [1] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceSLO  | Target: Public (Class) ServiceDesc (ServiceCatalogItem)  |
|  Association (direction: Unspecified)  |
| Source: Public (Class) Service  | Target: Public (Class) ServiceDesc (ServiceCatalogItem)  |
|  Association (direction: Unspecified) ServiceSpecificationMadeAvailabileAs |
| Source: Public (Class) ServiceSpecification Cardinality: [1..] | Target: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [0..1] |
|  Association (direction: Unspecified) ServiceCompositionProvidesComponentsFor |
| Source: Public (Class) ServiceComposition  | Target: Public (Class) ServiceDesc (ServiceCatalogItem)  |
|  Association (direction: Unspecified) ProductCompositionProvides |
| Source: Public (Class) ProductComposition  | Target: Public (Class) ServiceDesc (ServiceCatalogItem)  |
|  Association (direction: Unspecified)  |
| Source: Public (Class) CustomerFacingServiceInstance  | Target: Public (Class) ServiceDesc (ServiceCatalogItem)  |

## ServiceInstance

Class in package 'Service'

A ServiceInstance is the instantiation of a given ASDC ServiceCatalogItem. It can consist of zero or more ServiceComponentInstances.

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

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Extends InstanceItem

| OUTGOING STRUCTURAL RELATIONSHIPS |
| --- |
|  Generalization from ServiceInstance to InstanceItem[ Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceInstance to ServiceInstance[ Name is ServiceComposedOf. Direction is 'Source -> Destination'. ] |
|  Generalization from ServiceInstance to InstanceItem[ Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceInstance to ProductInstance[ Name is ProductInstanceRealizedAs. Direction is 'Source -> Destination'. ] |

| INCOMING STRUCTURAL RELATIONSHIPS |
| --- |
|  Aggregation from ServiceInstance to ServiceInstance[ Name is ServiceComposedOf. Direction is 'Source -> Destination'. ] |
|  Generalization from ResourceFacingServiceInstance to ServiceInstance[ Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceComponentInstance to ServiceInstance[ Direction is 'Source -> Destination'. ] |
|  Aggregation from ResourceInstance to ServiceInstance[ Name is ServiceInstanceRelizedAs. Direction is 'Source -> Destination'. ] |
|  Aggregation from ServiceInstanceCharacteristicSet to ServiceInstance[ Direction is 'Source -> Destination'. ] |
|  Generalization from CustomerFacingServiceInstance to ServiceInstance[ Direction is 'Source -> Destination'. ] |
|  Generalization from NetworkService to ServiceInstance[ Direction is 'Source -> Destination'. ] |

| CONNECTORS |
| --- |
|  Usage flow Source -> DestinationFrom: DirectedGraphInstance : Component, Public To: ServiceInstance : Class, Public  |

| ASSOCIATIONS |
| --- |
|  Association (direction: Unspecified) ServiceConfiruationDefinedFor |
| Source: Public (Class) ServiceInstance Cardinality: [1] | Target: Public (Class) ServiceInstanceConfiguration Cardinality: [0..\*] |
|  Association (direction: Unspecified) ServiceNetworkAssociation |
| Source: Public (Class) ServiceInstance Cardinality: [1] | Target: Public (Class) ServiceNetworkAssociation Cardinality: [0..\*] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceInstance Cardinality: [1] | Target: Public (Class) Policy Cardinality: [1..\*] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceInstance  | Target: Public (Class) PolicyRule  |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceInstance  | Target: Public (Class) PartyRole  |
|  Association (direction: Unspecified) ServiceInstanceCharactieristicValue DefinesTheConfigurationOf |
| Source: Public (Class) ServiceInstance Cardinality: [1] | Target: Public (Class) ServiceInstanceCharacteristicValue Cardinality: [\*] |
|  Association (direction: Unspecified) ServiceOrderDelivers |
| Source: Public (Class) ServiceOrder Cardinality: [1] | Target: Public (Class) ServiceInstance Cardinality: [1] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceItemCharacteristic  | Target: Public (Class) ServiceInstance  |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceSLO  | Target: Public (Class) ServiceInstance  |
|  Association (direction: Unspecified)  |
| Source: Public (Class) CustomerServiceAccount  | Target: Public (Class) ServiceInstance  |
|  Association (direction: Unspecified) Do we need to track which user is using which Service Instance and if so, do we need this relationship? |
| Source: Public (Class) User  | Target: Public (Class) ServiceInstance  |
|  Association (direction: Unspecified) ServiceCatalogItemMadeAvailableAs |
| Source: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [1..] | 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) DirectedGraphInstance Cardinality: [1] | Target: Public (Class) ServiceInstance Cardinality: [1] |

## ServiceInstanceCharacteristicSet

Class in package 'Service'

ServiceInstanceCharacteristicSet

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

## ServiceInstanceCharacteristicValue

Class in package 'Service'

ServiceInstanceCharacteristicValue

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| 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) ServiceSpecDescribes |
| Source: Public (Class) ServiceItemCharacteristic Cardinality: [0..1] | Target: Public (Class) ServiceInstanceCharacteristicValue Cardinality: [\*] |
|  Association (direction: Unspecified) ServiceInstanceCharactieristicValue DefinesTheConfigurationOf |
| Source: Public (Class) ServiceInstance Cardinality: [1] | Target: Public (Class) ServiceInstanceCharacteristicValue Cardinality: [\*] |
|  Association (direction: Unspecified) ServiceInstanceCharacteristicValueReferences |
| Source: Public (Class) ServiceInstanceCharacteristicValue Cardinality: [0..1] | Target: Public (Class) ServiceInstanceCharacteristicValue Cardinality: [0..\*] |

## 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 ServiceDesc (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 |
| --- |
|  AssociationClass (direction: Unspecified) ServiceCatalogItemCharacteristicReferences |
| Source: Public (Class) ServiceItemCharacteristic Cardinality: [0..\*] | Target: Public (Class) ServiceItemCharacteristic Cardinality: [0..\*] |
|  Association (direction: Unspecified) ServiceSpecDescribes |
| Source: Public (Class) ServiceItemCharacteristic Cardinality: [0..1] | Target: Public (Class) ServiceInstanceCharacteristicValue Cardinality: [\*] |
|  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  |
|  Association (direction: Unspecified) ServiceCatalogItemCharacteristicTranslatesToResourceCatalogItemCharacteristic |
| Source: Public (Class) ServiceItemCharacteristic Cardinality: [0..\*] | Target: Public (Class) ResourceItemCharacteristic Cardinality: [0..\*] |
|  AssociationClass (direction: Unspecified) ServiceCatalogItemCharacteristicReferences |
| Source: Public (Class) ServiceItemCharacteristic Cardinality: [0..\*] | Target: Public (Class) ServiceItemCharacteristic Cardinality: [0..\*] |
|  Association (direction: Unspecified) ProductCatalogItemCharacteristicTranslatesTo |
| Source: Public (Class) ProductItemCharacteristic 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) ServiceInstance Cardinality: [1] | Target: Public (Class) ServiceNetworkAssociation Cardinality: [0..\*] |
|  Association (direction: Unspecified) ServiceNetworkAssociation |
| Source: Public (Class) Network Cardinality: [0..\*] | 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 9/27/2017

Extends Recipe

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

| ASSOCIATIONS |
| --- |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceRecipe  | Target: Public (Class) PolicyRule  |
|  Association (direction: Unspecified)  ServiceRecipeProvidesInstructionsFor |
| Source: Public (Class) ServiceRecipe Cardinality: [1..] | Target: Public (Class) ServiceComposition  |
|  Association (direction: Unspecified)  |
| Source: Public (Class) ServiceRecipe Cardinality: [0..\*] | Target: Public (Class) ServiceDesc (ServiceCatalogItem) Cardinality: [1] |
|  Association (direction: Unspecified)  |
| Source: Public (Class) DirectedGraph Cardinality: [0..\*] | Target: Public (Class) ServiceRecipe Cardinality: [0..\*] |