MODAF M3 version 1.2.004

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1. MODAF 1.2.004

1.1 Description of the work performed

This document contains the MODAF M3 version 1.2.004 views as figures and a table of all of the MODAF elements that are contained in MODAF M3 version 1.2.004.

The document contains the following sections:

- MODAF All views
- MODAF Strategic Views
- MODAF Operational Views
- MODAF Service Views
- MODAF System Views
- MODAF Technical Standards Views
- MODAF Acquisition Views

The sections or *Viewpoints* all contain several individual views from which the M3 meta-model can be viewed. Each of the above *Viewpoints* contains a descriptive figure that tries to summarize the Viewpoint as a whole. This is followed by individual figures for each of the views within the viewpoint and this in turn is followed by a list of all of the elements that are owned by a viewpoint.

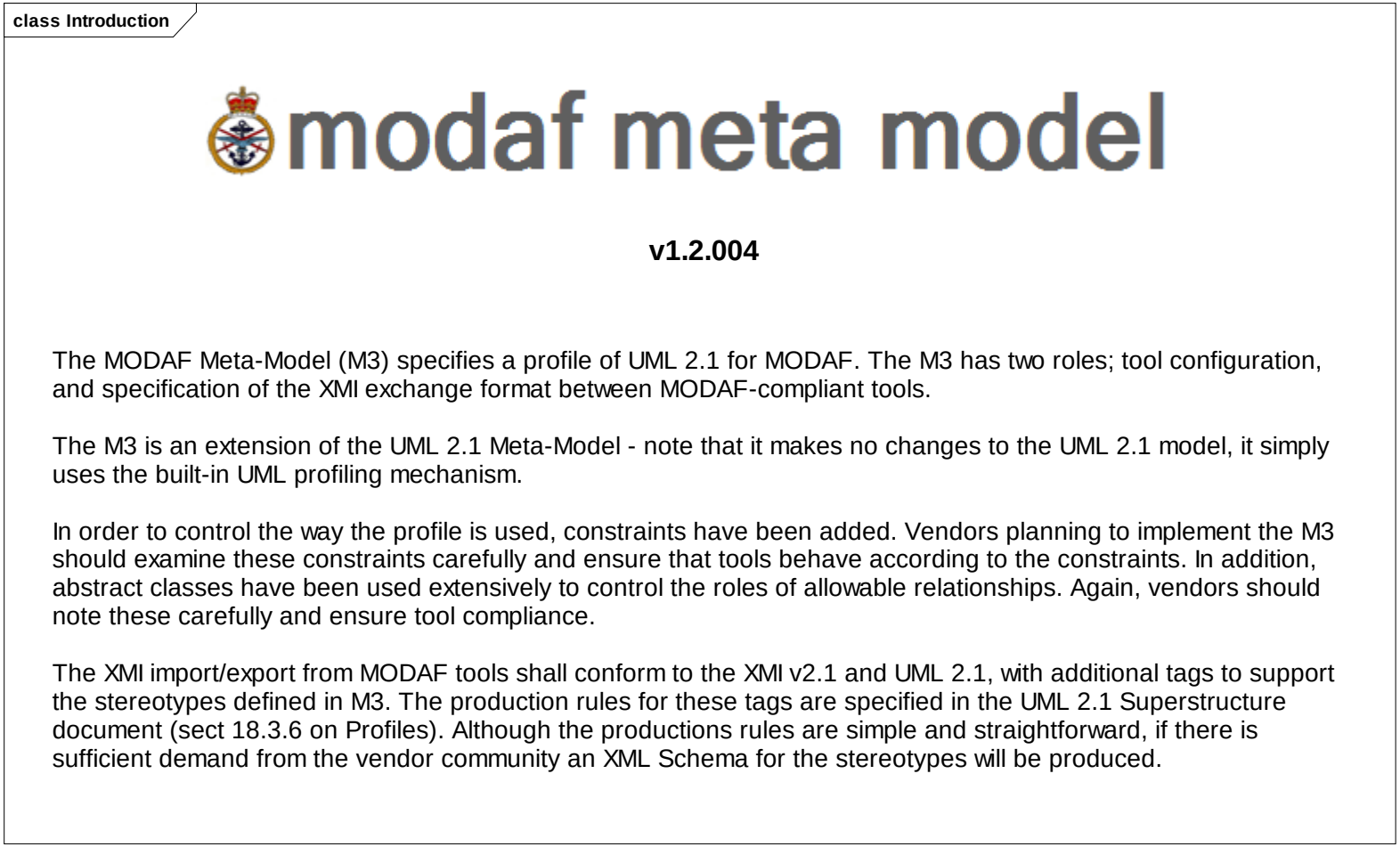

Figure 1: MODAF meta-model introduction

1.2 All Views

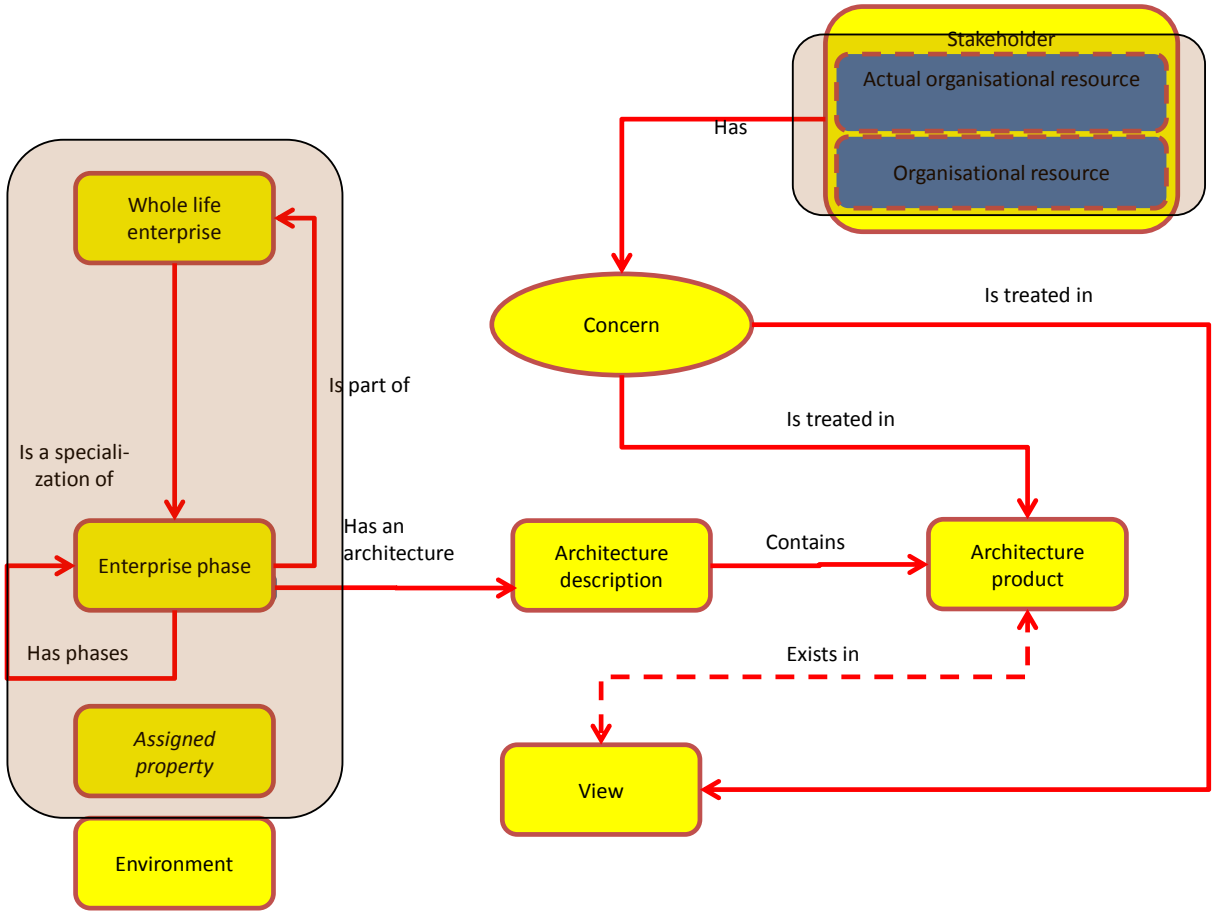

Figure 2: All Views MODAF M3 elements summary

1.2.1 AV-1: Overview and summary information

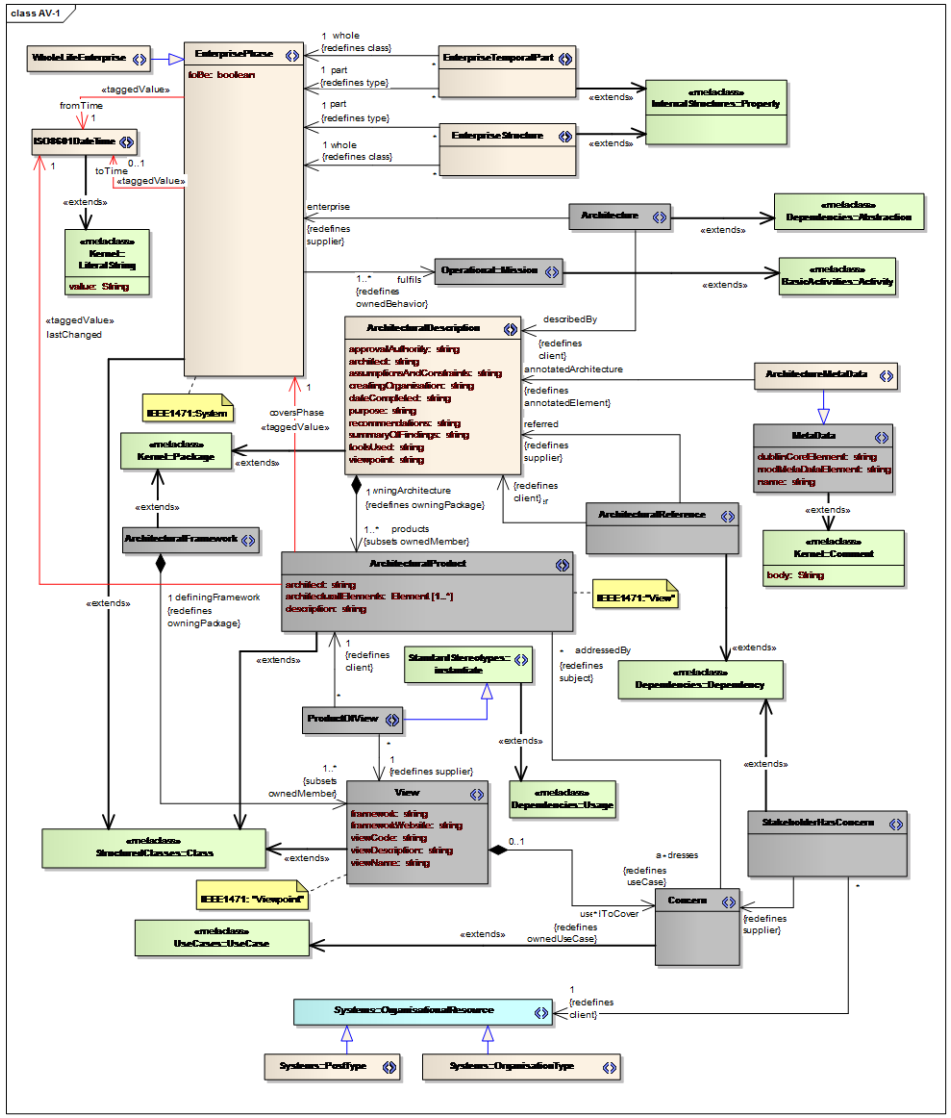

Figure 3: AV-1 meta-model in M3

1.2.2 AV-2: Integrated dictionary

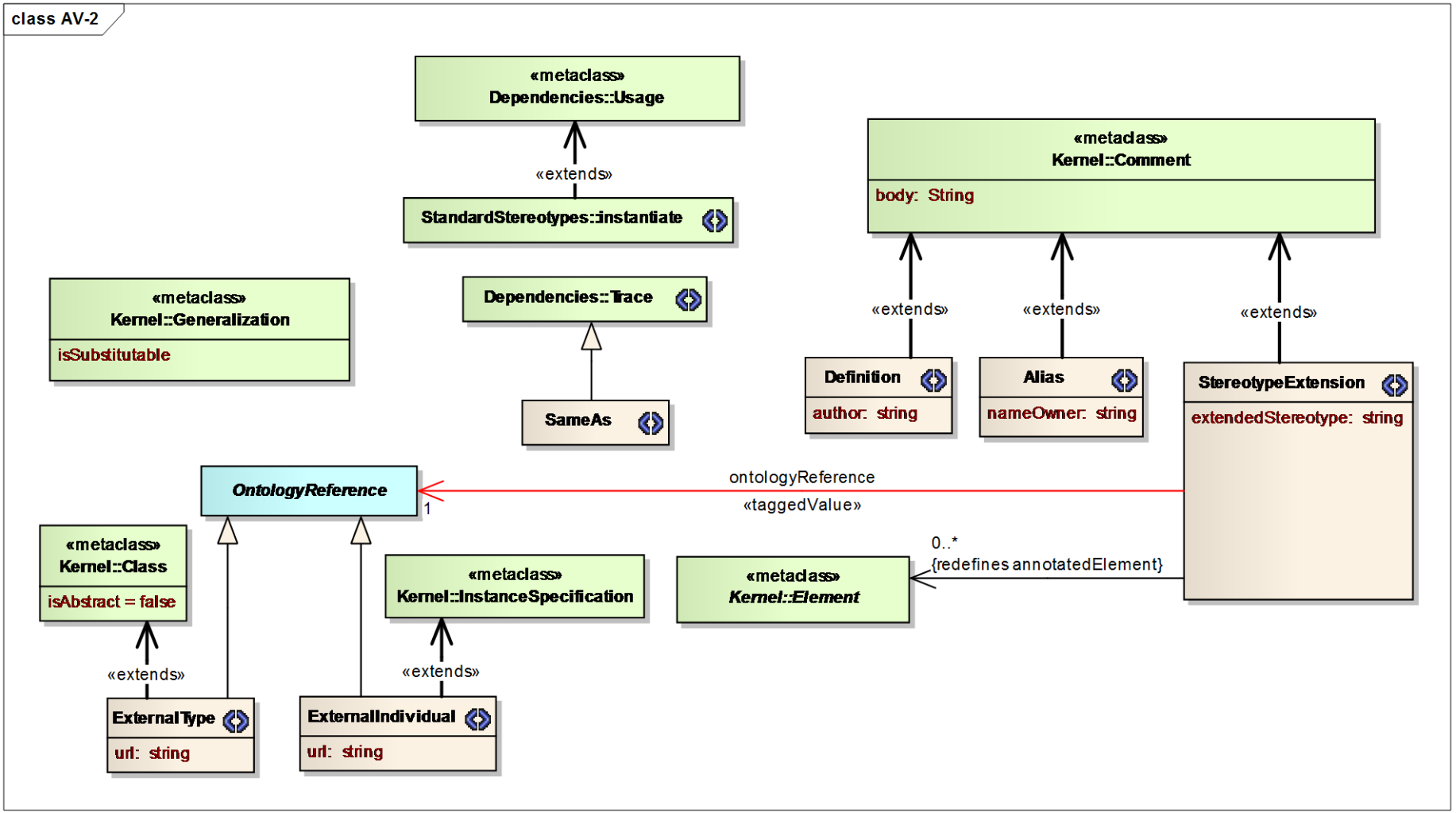

Figure 4: AV-2 in M3

1.2.3 Environment and measurement handling

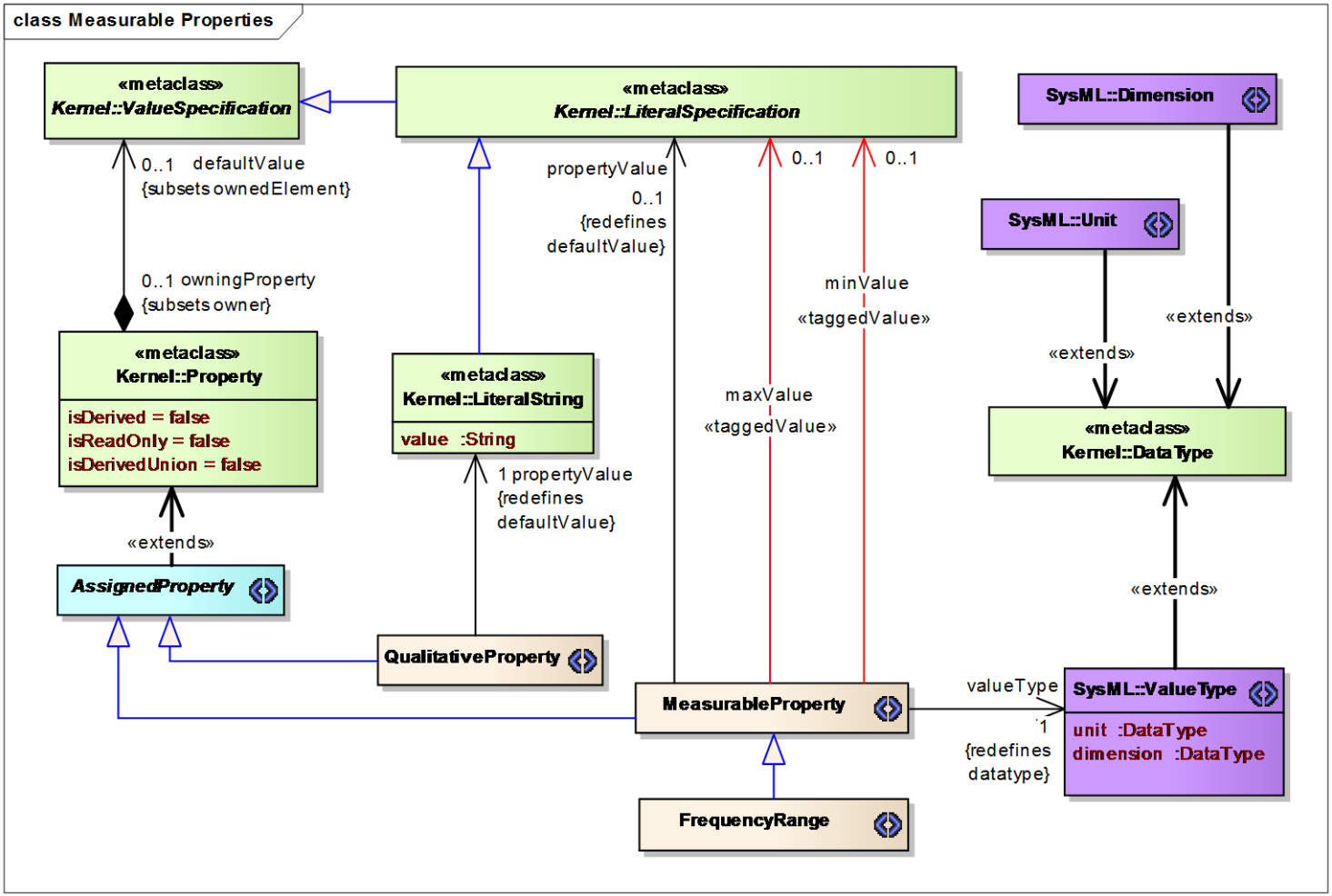

Figure 5: Measurement handling in M3

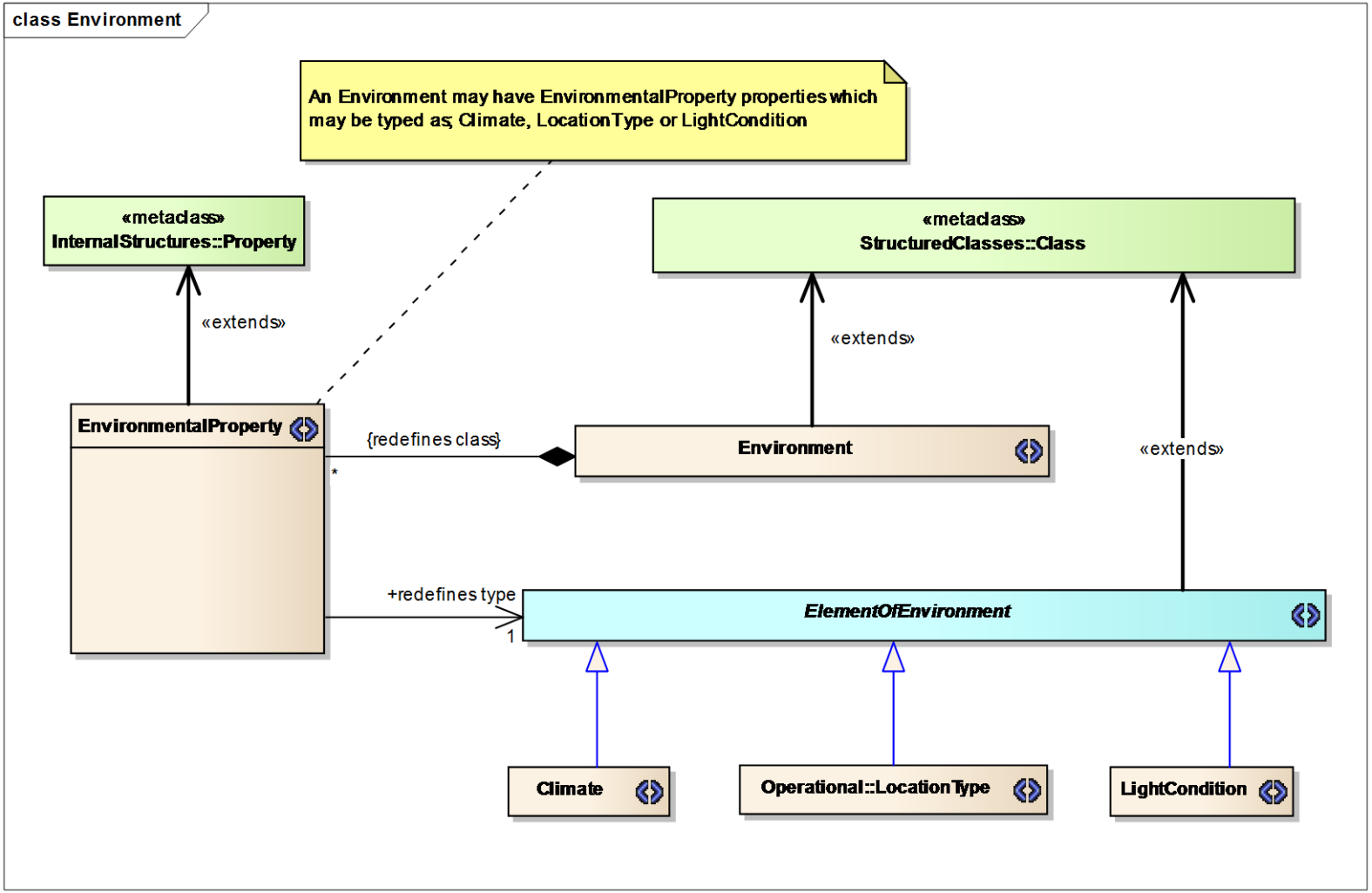

Figure 6: Environment handling in M3

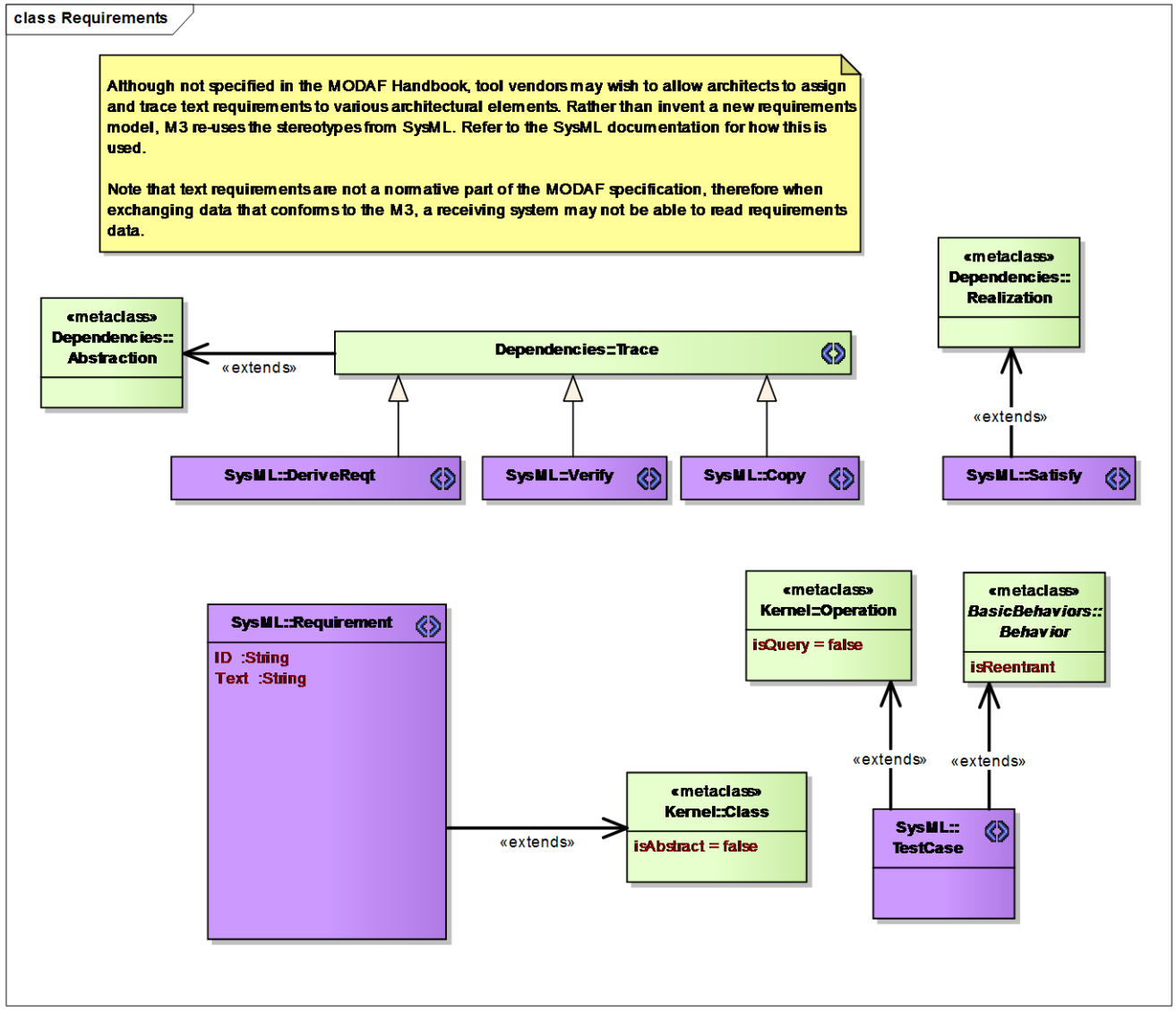

Figure 7: Requirements handling in M3

1.2.4 All Views elements table

MODAF 1.2.004 All Views
Alias «stereotype» *Associations:* - *Extension:* Alias «extends» Comment *Attributes:* nameOwner An alternative name for an element.
ArchitecturalDescription «stereotype» *Associations:* ArchitecturalDescription - ArchitecturalProduct *Extension:* ArchitecturalDescription «extends» Package *Attributes:* approvalAuthority architect assumptionsAndConstraints creatingOrganisation dateCompleted purpose recommendations summaryOfindings toolsUsed viewpoint A specification of a system of systems at a technical level which also provides the business context for the system of systems. IEEE1471 describes an architectural description as "a collection of products to document the architecture of a system". This is something of a circular definition (as product in this sense is an architectural product), and also assumes a technical system, whereas architectures complying with this meta-model describe an enterprise - i.e. the system of systems and the human processes they support.

ArchitecturalFramework «stereotype»
Associations:
ArchitecturalFramework - View
Extension:
ArchitecturalFramework «extends» Package
Attributes:
-

A set of connected View specifications which serve to define how an Enterprise may be represented by an ArchitecturalDescription.

ArchitecturalProduct «stereotype»
Associations:
ArchitecturalProduct - Concern
ArchitecturalProduct «taggedValue» EnterprisePhase
ArchitecturalProduct «taggedValue» ISO8601DateTime
Extension:
ArchitecturalProduct «extends» Class
Attributes:
architect
architecturalElements
description

A connected and coherent set of Architectural Elements which conform to a View.

ArchitecturalReference «stereotype»
Associations:
ArchitecturalReference - ArchitecturalDescription
ArchitecturalReference - ArchitecturalDescription
Extension:
ArchitecturalReference «extends» Dependency
Attributes:
-

Asserts that one architectural description (referrer) refers to another (referred).

Architecture «stereotype»
Associations:
Architecture - ArchitecturalDescription
Architecture - EnterprisePhase
Extension:
Architecture «extends» Abstraction
Attributes:
-

An abstraction of an Enterprise, represented by an ArchitecturalDescription.

ArchitectureMetaData «stereotype»
Associations:
ArchitectureMetaData - ArchitecturalDescription
Generalization:
ArchitectureMetaData - MetaData
Attributes:
-

A Metadata element that applies to the whole architecture.

ArchitectureRealisation «stereotype»
Associations:
ArchitectureRealisation - PhysicalArchitecture
ArchitectureRealisation - LogicalArchitecture
Extension:
ArchitectureRealisation «extends» Realization
Attributes:
-

An assertion that a PhysicalArchitecture is a realisation of a LogicalArchitecture.

AssignedProperty «stereotype»
Associations:
-
Extension:
AssignedProperty «extends» Property
Attributes:
-

A property with a value assigned.

Climate «stereotype»
Associations:
-
Generalization:
Climate - ElementOfEnvironment
Attributes:
-

A type of weather condition, or combination of weather conditions (e.g. high temperature & dry).

Concern «stereotype»
Associations:
-
Extension:
Concern «extends» UseCase
Attributes:
-

An interest in a subject held by one or more stakeholder OrganisationalResource.

ConformsTo «stereotype»
Associations:
ConformsTo - Standard
Extension:
ConformsTo «extends» Dependency
Attributes:
-

Asserts that an element in the architecture conforms to a Standard.

Definition «stereotype»
Associations:
-
Extension:
Definition «extends» Comment
Attributes:
author

A definition of an element in the architecture. Note - every element added by an architect must have a definition.

ElementOfEnvironment «stereotype»
Associations:
-
Extension:
ElementOfEnvironment «extends» Class
Attributes:
-

Any MODAF element that forms part of an Environment.

EnterprisePhase «stereotype»
Associations:
EnterprisePhase - Mission
EnterprisePhase «taggedValue» EnterpriseVision
EnterprisePhase «taggedValue» Capability
EnterprisePhase «taggedValue» ISO8601DateTime
EnterprisePhase «taggedValue» ISO8601DateTime
Extension:
EnterprisePhase «extends» Class
Attributes:
toBe

A current or future state of a WholeLifeEnterprise or another EnterprisePhase.

EnterpriseStructure «stereotype»
Associations:
EnterpriseStructure - EnterprisePhase
EnterpriseStructure - EnterprisePhase
Extension:
EnterpriseStructure «extends» Property
Attributes:
-

Asserts that one EnterprisePhase is a spatial part of another. Note: This is a topological structuring relationship, hence the parent EnterprisePhase may be physically disjoint.

EnterpriseTemporalPart «stereotype»
Associations:
EnterpriseTemporalPart - EnterprisePhase
EnterpriseTemporalPart - EnterprisePhase
Extension:
EnterpriseTemporalPart «extends» Property
Attributes:
-

Asserts that one EnterprisePhase is a temporal part of another (i.e. it is a phase of the other). Note: This means that both EnterprisePhases have the same spatial extent - i.e. this is only a temporal structure.

Environment «stereotype»
Associations:
-
Extension:
Environment «extends» Class
Attributes:
-

A definition of the conditions in which something exists or functions. An Environment may be specified in terms of LocationType (e.g. terrain), Climate (e.g. tropical), and LightCondition (e.g. dark, light, dusk, etc.).

EnvironmentalProperty «stereotype»
Associations:
EnvironmentalProperty - Environment
EnvironmentalProperty - ElementOfEnvironment
Extension:
EnvironmentalProperty «extends» Property
Attributes:
-

Asserts that an Environment has one or more properties. These may be Climate, LocationType, or LightCondition.

ExternalIndividual «stereotype»
Associations:
-
Extension:
ExternalIndividual «extends» InstanceSpecification
Generalization:
ExternalIndividual - OntologyReference
Attributes:
url

An individual (i.e. something which has spatial and temporal extent) defined by an external ontology.

ExternalType «stereotype»
Associations:
-
Extension:
ExternalType «extends» Class
Generalization:
ExternalType - OntologyReference
Attributes:
url

A type defined by an external ontology. Note: this may be higher-order - i.e. a type of a type.

FrequencyRange «stereotype»
Associations:
-
Generalization:
FrequencyRange - MeasurableProperty
Attributes:
-

A MeasureableProperty that specifies maximum and minimum frequencies, measured in Hertz as real numbers.

ISO8601DateTime «stereotype»
Associations:
-
Extension:
ISO8601DateTime «extends» LiteralString
Attributes:
-

A date and time specified in the ISO8601 date-time format including time zone designator (TZD): YYYY-MM-DDThh:mm:ssTZD So, 7:20pm and 30 seconds on 30th July 2005 in the CET timezone would be represented as "2005-07-30T19:20:30+01:00". The date time string is represented by the value attribute of UML::LiteralString.

InformationModel «stereotype»
Associations:
-
Generalization:
InformationModel - ArchitecturalProduct
Attributes:
-

An ArchitecturalProduct that represents the structure of information - e.g. a logical or physical data model.

LightCondition «stereotype»
Associations:
-
Generalization:
LightCondition - ElementOfEnvironment
Attributes:
-

A specification of environmental lighting conditions. Examples would be daylight, dusk, night, moonlight, artificial.

Matrix «stereotype»
Associations:
-
Generalization:
Matrix - ArchitecturalProduct
Attributes:
-

An ArchitecturalProduct that presents information in a tabular form.

MeasurableProperty «stereotype»
Associations:
MeasurableProperty - ValueType
MeasurableProperty - LiteralSpecification
MeasurableProperty«taggedValue»LiteralSpecification
MeasurableProperty«taggedValue»LiteralSpecification
Generalization:
MeasurableProperty - AssignedProperty
Attributes:
-

An AssignedProperty of something in the physical world, expressed in amounts of a unit of measure. The property may have a required value - either specified by the [defaultValue] from uml::property attribute, or the [minValue] and [maxValue] to specify a required range.

MetaData «stereotype»
Associations:
-
Extension:
MetaData «extends» Comment
Attributes:
name
dublinCoreElement
modMetaDataElement

Annotation that can be applied to any element in the architecture. Note: wherever possible, standard Meta-Data types should be used - e.g. conforming to Dublin Core. Note for MOD Users: The MOD Meta Data Standard categories shall be used.

Ontology «stereotype»
Associations:
-
Generalization:
Ontology - ArchitecturalProduct
Attributes:
-

An ArchitecturalProduct that represents real-world individuals and classes, and the relationships between them.

OntologyReference
Associations:
-
Attributes:
-

A reference to an element in a recognised external ontology or taxonomy.

ProductOfView «stereotype»
Associations:
ProductOfView - View
ProductOfView - ArchitecturalProduct
Generalization:
ProductOfView - instantiate
Attributes:
-

Asserts that an ArchitecturalProduct conforms to a View specification.

QualitativeProperty «stereotype»
Associations:
QualitativeProperty - LiteralString
Generalization:
QualitativeProperty - AssignedProperty
Association:
Attributes:
-

An AssignedProperty whose value is a text literal (string).

SameAs «stereotype»
Associations:
-
Generalization:
SameAs - Trace
Attributes:
-

Asserts that two elements refer to the same real-world thing.

StakeholderHasConcern «stereotype»
Associations:
StakeholderHasConcern - Concern
StakeholderHasConcern - OrganisationalResource
Extension:
StakeholderHasConcern «extends» Dependency
Attributes:
-

An assertion that a OrganisationalResource has a Concern.

Standard «stereotype»
Associations:
-
Extension:
Standard «extends» Class
Generalization:
Standard - SubjectOforecast
Attributes:
identifier
publishedWebsite
publisher
ratificationDate
version
withdrawalDate

A ratified and peer-reviewed specification that is used to guide or constrain the architecture. A Standard may be applied to any element in the architecture via the [constrainedItem] property of UML::Constraint.

StereotypeExtension «stereotype»
Associations:
StereotypeExtension – Element
StereotypeExtension «taggedValue» OntologyReference
Extension
Stereotype*Extension* «extends» Comment
Attributes:
extendedStereotype

Defines an additional stereotype used in the architecture which is not defined in this meta-model. The body attribute contains the name of the new stereotype. The extendedStereotype tagged value shall contain the name of the meta-model stereotype which is extended. The ontologyReference tagged value shall be populated with a reference to the external ontology element represented by the new stereotype.

Note: this is effectively a short-hand method for representing ontology items in the architecture. New stereotype names can be created at will by the architect, provided that they reference an element in a recognised external ontology.

Note: Any stereotypes added by the architect which do not have a corresponding Stereotype*Extension* will be deemed non-compliant and ignored by tools importing data compliant to this meta-model.

TextProduct «stereotype»
Associations:
-
Generalization:
TextProduct - ArchitecturalProduct
Attributes:
-

An ArchitecturalProduct that is represented as text.

View «stereotype»
Associations:
View - Concern
Extension:
View «extends» Class
Attributes:
viewCode
viewName
viewDescription
framework
frameworkWebsite

A specification of a way to present an aspect of the architecture. Views are defined with one or more purposes in mind - e.g. showing the logical topology of the enterprise, describing a process model, defining a data model, etc.

WholeLifeEnterprise «stereotype»
Associations:
WholeLifeEnterprise «taggedValue» ActualOrganisation
WholeLifeEnterprise «taggedValue» Project
Generalization:
WholeLifeEnterprise - EnterprisePhase
Attributes:
-

An EnterprisePhase that represents the whole existance of an enterprise.

1.3 Strategic views

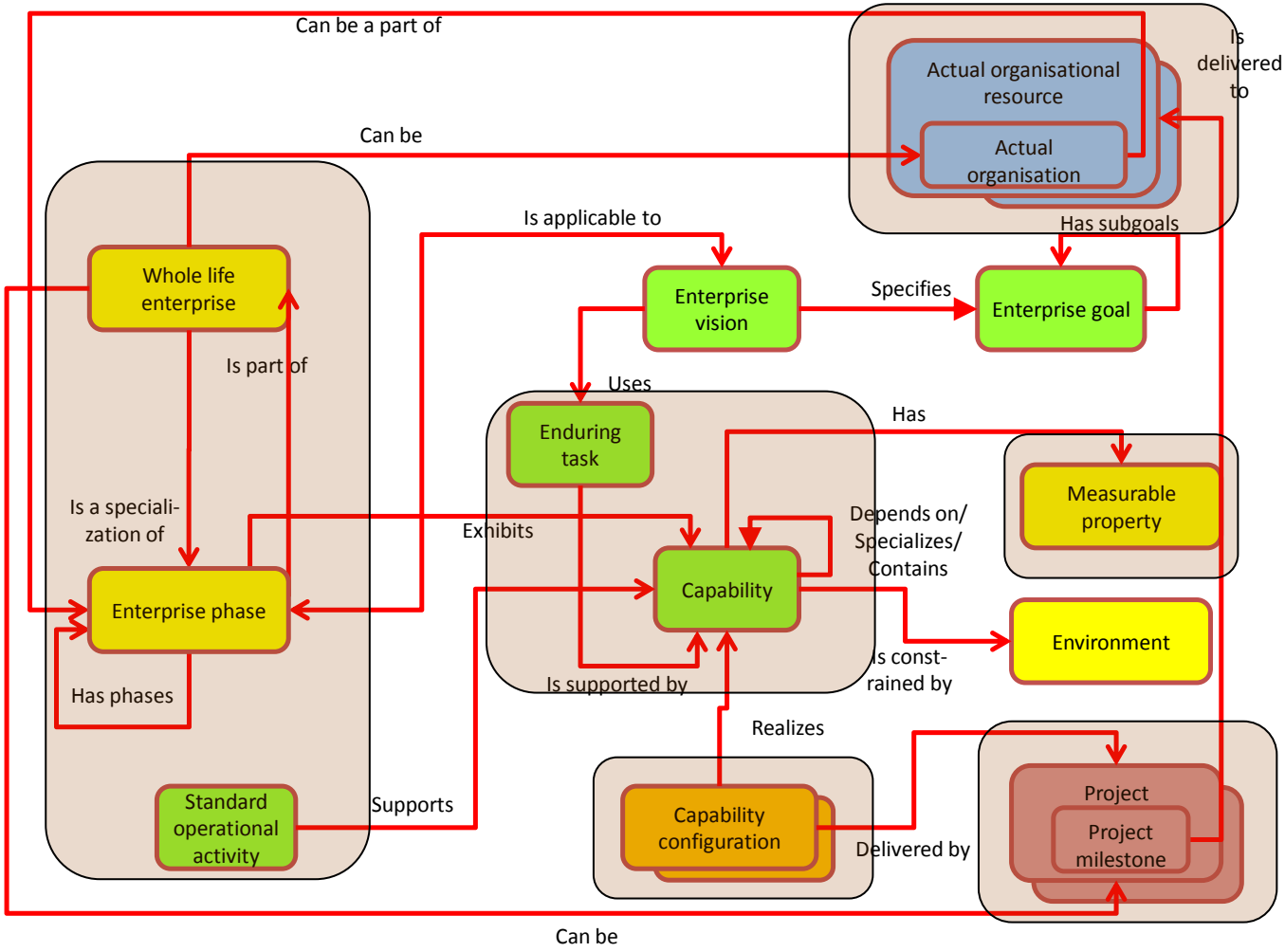

Figure 8: Strategic Views MODAF M3 elements summary

1.3.1 StV-1: Enterprise vision

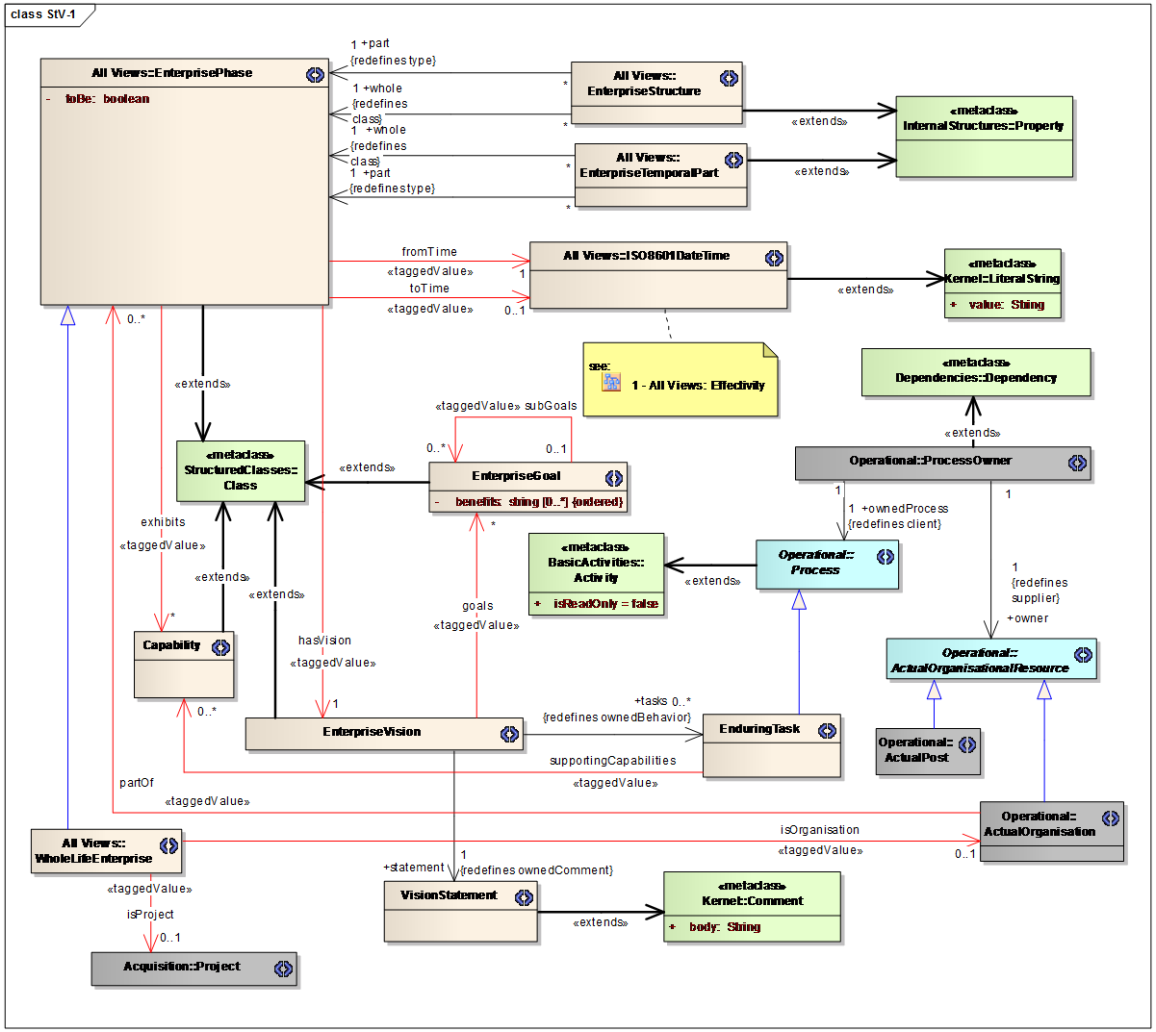

Figure 9: StV-1 in M3

1.3.2 StV-2: Capability taxonomy

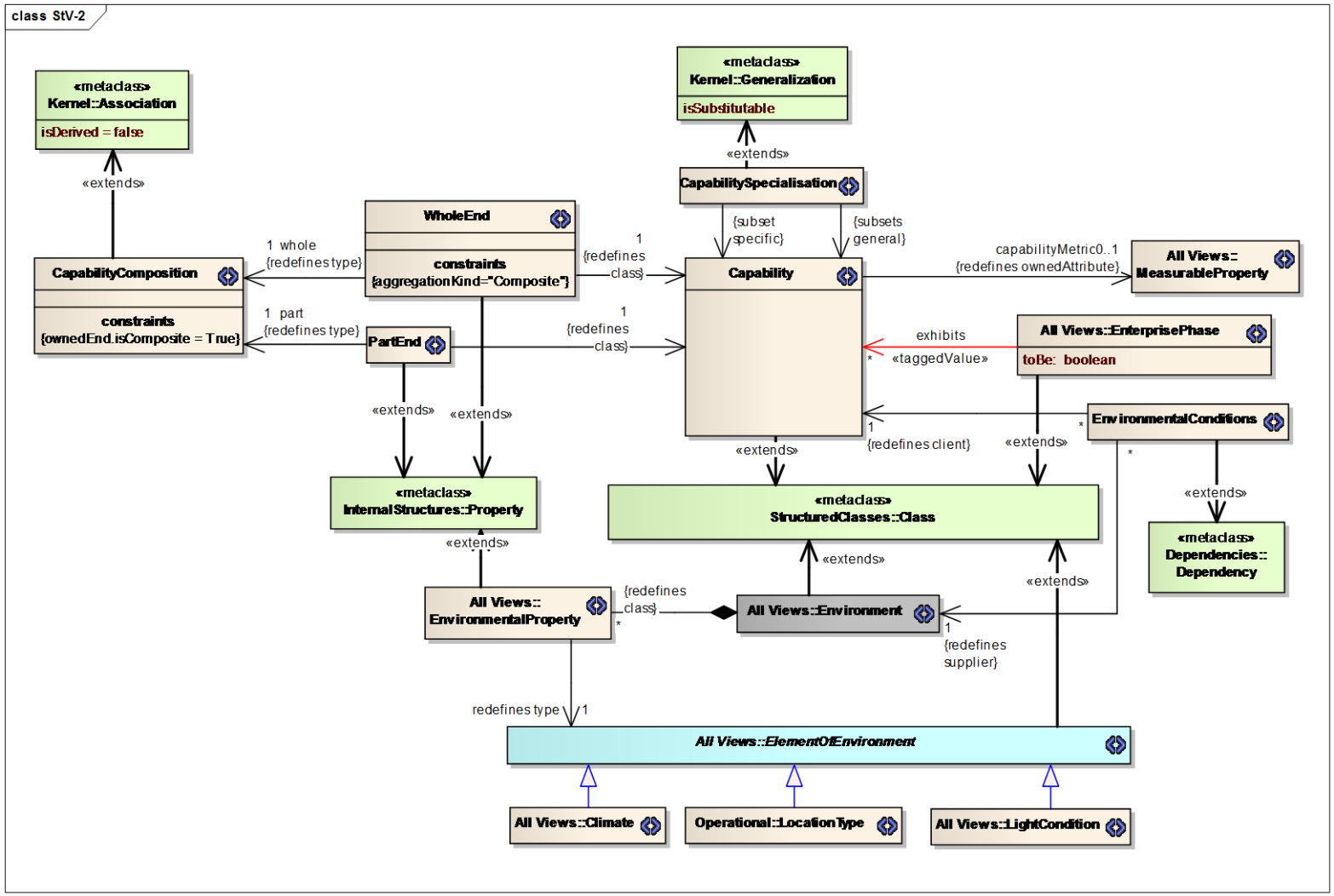

Figure 10: StV-2 in M3

1.3.3 StV-3: Capability phasing

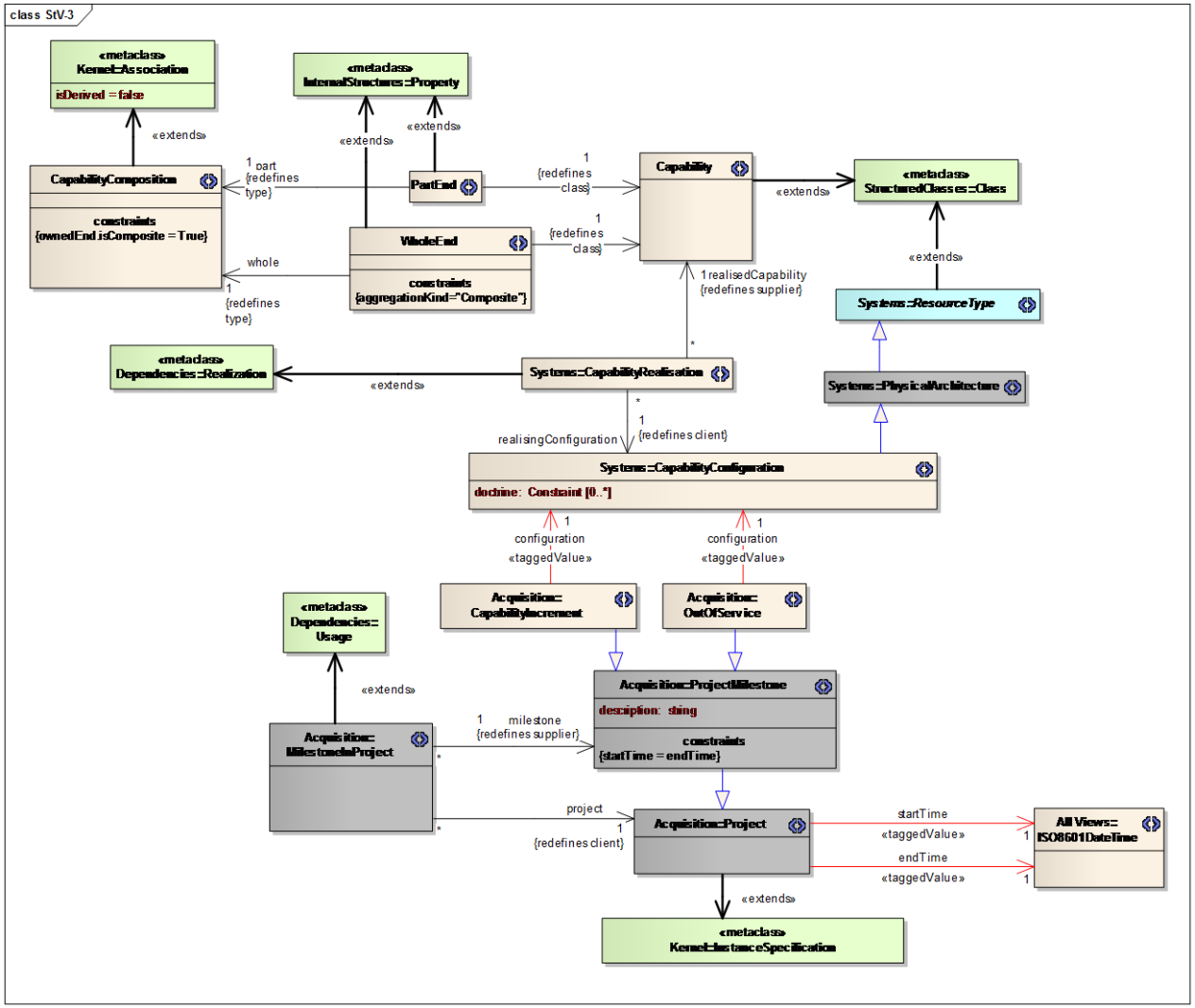

Figure 11: StV-3 in M3

1.3.4 StV-4: Capability dependencies

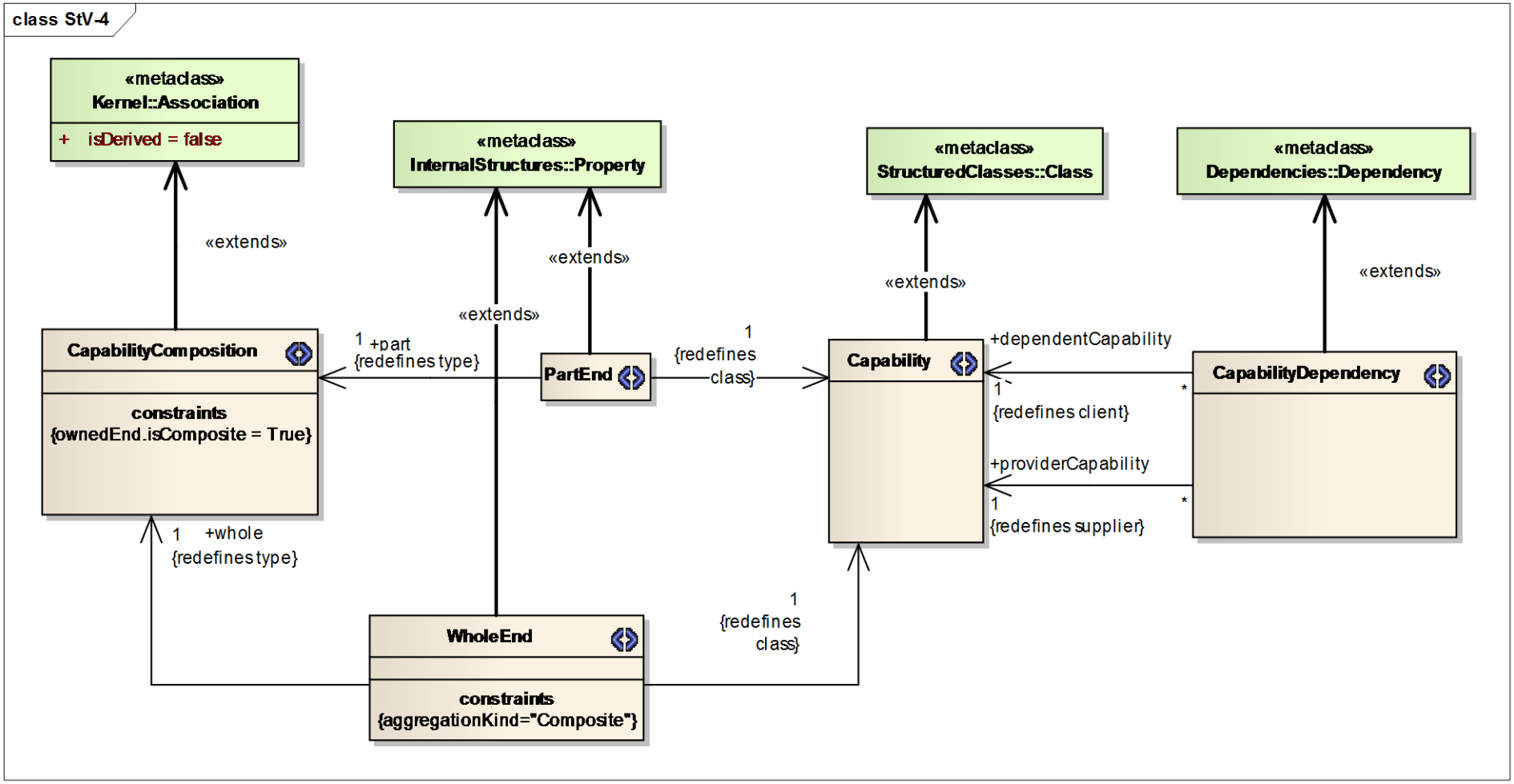

Figure 12: StV-4 in M3

1.3.5 StV-5: Capability to organisational deployment mapping

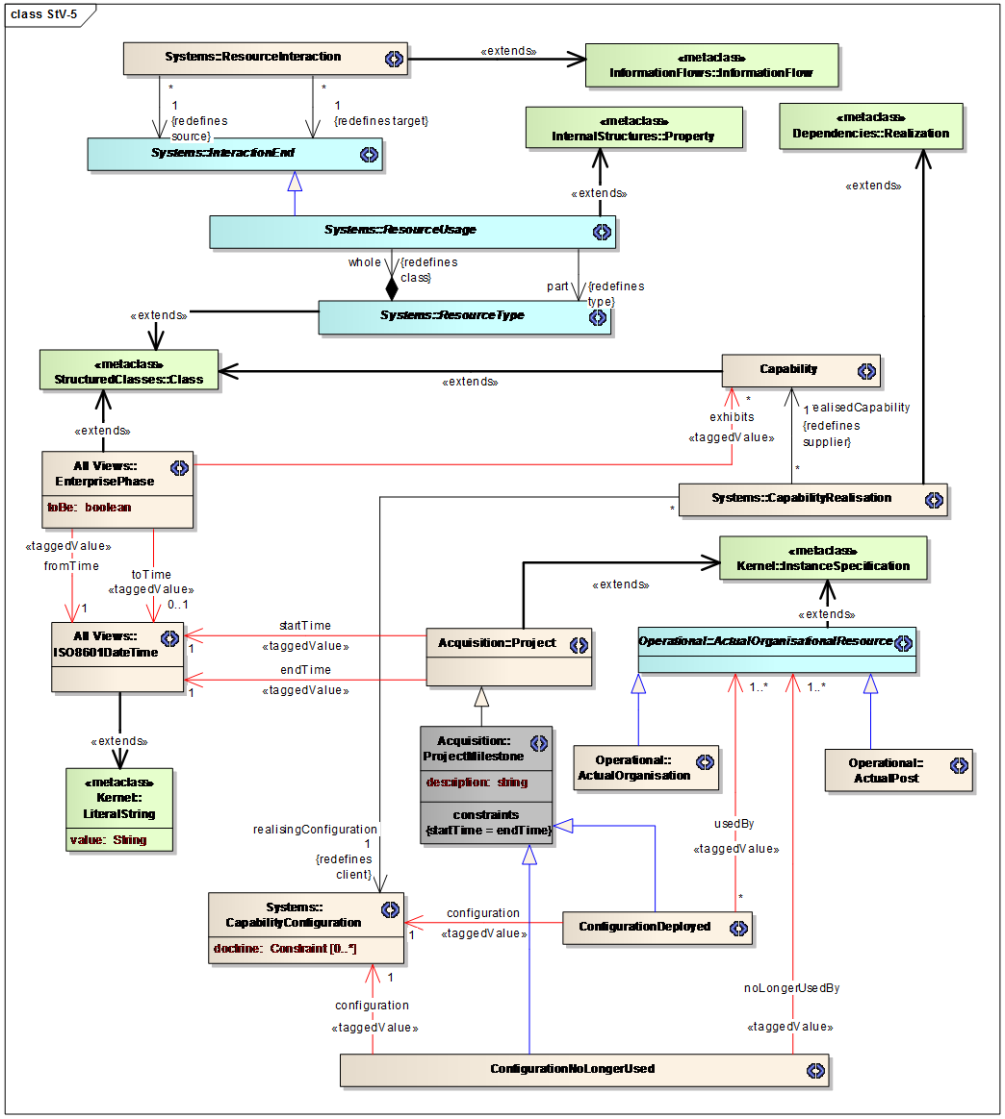

Figure 13: StV-5 in M3

1.3.6 StV-6: Operational activity to capability mapping

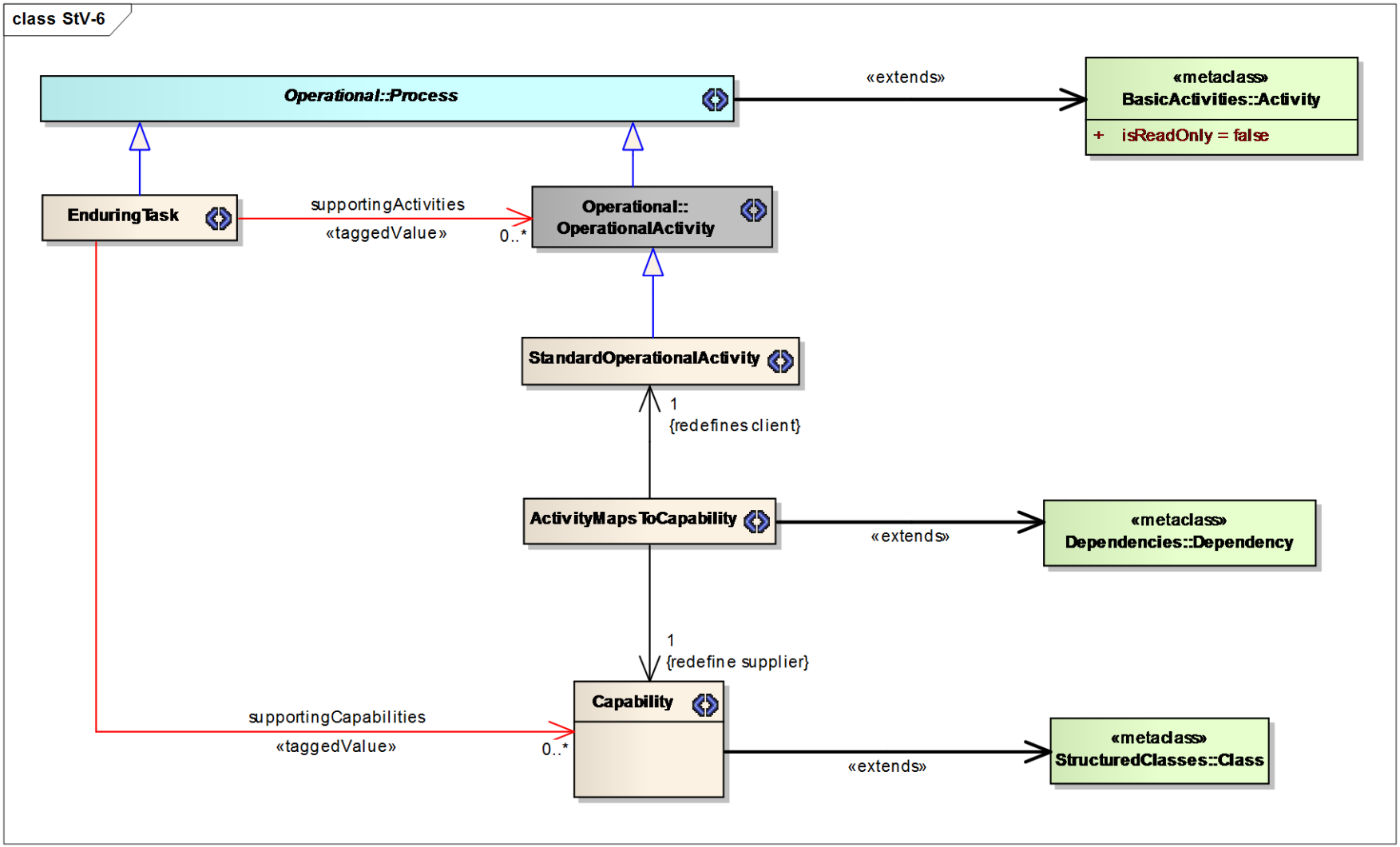

Figure 14: StV-6 in M3

1.3.7 Strategic Views elements table

MODAF 1.2.004 Strategic Views
ActivityMapsToCapability «stereotype» *Associations:* ActivityMapsToCapability - Capability ActivityMapsToCapability - StandardOperationalActivity *Extension:* ActivityMapsToCapability «extends» Dependency *Attributes:* - Asserts that a StandardOperationalActivity is in some way part of a capability. The nature of the mapping should be specified in the name of the dependency.
Capability «stereotype» *Associations:* Capability - CapabilityDependency Capability - CapabilityDependency Capability - MeasurableProperty *Generalization:* Capability - SubjectOforecast *Extension:* Capability «extends» Class *Attributes:* - A high level specification of the enterprise's ability. Note: A capability is specified independently of how it is implemented. or example, a "target acquisition" capability might be implemented by a forward observation team, a UAV or an aircraft targeting system. Note: Capabilities are dispositional. A given system or organisation that has a capability (i.e. it is disposed to do something) may never actually have manifested it. IDEAS defines a capability as being the set of things that are disposed to achieve a particular effect.

CapabilityComposition «stereotype»
Associations:
-
Extension:
CapabilityComposition «extends» Association
Attributes:
-

A whole-part relationship between two capabilities - i.e. the relationship indicates one capability (child) is a part of the other (parent).

Note: This indicates one capability is a part of another, and should be used in conjunction with the other capability relationships; CapabilitySpecialisation and CapabilityDependency.

CapabilityDependency «stereotype»
Associations:
-
Extension:
CapabilityDependency «extends» Dependency
Attributes:
-

A relationship which asserts that a capability (toCapability) is dependent on another (fromCapability) capability in the context of an overall capability.

CapabilitySpecialisation «stereotype»
Associations:
CapabilitySpecialisation - Capability
CapabilitySpecialisation - Capability
Extension:
CapabilitySpecialisation «extends» Generalization
Attributes:
-

Asserts that one Capability is a special case of the other.

ConfigurationDeployed «stereotype»
Associations:
ConfigurationDeployed «taggedValue» CapabilityConfiguration
ConfigurationDeployed «taggedValue» ActualOrganisationalResource
Generalization:
ConfigurationDeployed - ProjectMilestone
Attributes:
-

Asserts that an ActualOrganisationResource started to use, or is slated to start using a CapabilityConfiguration from a specific point in time. This is used to describe capabilities going into service with specific organisations or posts.

ConfigurationNoLongerUsed «stereotype»
Associations:
ConfigurationNoLongerUsed «taggedValue» CapabilityConfiguration
ConfigurationNoLongerUsed «taggedValue» ActualOrganisationalResource
Generalization:
ConfigurationNoLongerUsed - ProjectMilestone
Attributes:
-

Asserts that an ActualOrganisationResource ceased to use or is slated to cease using a CapabilityConfiguration from a specific point in time. This is used to describe capabilities going out of service with specific organisations or posts.

EnduringTask «stereotype»
Associations:
EnduringTask «taggedValue» Capability
EnduringTask «taggedValue» OperationalActivity
Generalization:
EnduringTask - Process
Attributes:
-
A type of behaviour recognised by an enterprise as being essential to achieving its goals - i.e. a strategic specification of what the enterprise does.

EnterpriseGoal «stereotype»
Associations:
EnterpriseGoal «taggedValue» EnterpriseGoal
Extension:
EnterpriseGoal «extends» Class
Attributes:
benefits

A specific, required objective of the enterprise that the architecture represents. Note: Benefits of achieving the goal are presented as a list of textual items.

EnterpriseVision «stereotype»
Associations:
EnterpriseVision - VisionStatement
EnterpriseVision - EnduringTask
EnterpriseVision «taggedValue» EnterpriseGoal
Extension:
EnterpriseVision «extends» Class
Attributes:
-

The overall aims of an enterprise over a given period of time.

EnvironmentalConditions «stereotype»
Associations:
EnvironmentalConditions - Environment
EnvironmentalConditions - Capability
Extension:
EnvironmentalConditions «extends» Dependency
Attributes:
-

Asserts that a Capability's capabilityMetric (MeasureableProperty) is valid for a particular environment. Example - a capability with a rate of advance of 40 km per day must be qualified by the environment for which this is specified - e.g. desert conditions.

PartEnd «stereotype»
Associations:
PartEnd – Capability
PartEnd - CapabilityComposition
Extension:
PartEnd «extends» Property
Attributes:
-

The end of a CapabilityComposition relationship that represents the "part" Capability.

StandardOperationalActivity «stereotype»
Associations:
-
Generalization:
StandardOperationalActivity - OperationalActivity
Attributes:
-

An OperationalActivity that is a standard procedure (e.g. doctrinal tasks). Note: This is equivalent to what some defence organisations call JETLs.

VisionStatement «stereotype»
Associations:
-
Extension:
VisionStatement «extends» Comment
Attributes:
-

A high-level textual description of a EnterpriseVision. Note: VisionStatement is a stereotype of UML::Comment and the [body] of the comment shall be represented as XHTML. If plain text is required, then no HMTL tags should be embedded.

WholeEnd «stereotype»
Associations:
WholeEnd – Capability
WholeEnd - CapabilityComposition
Extension:
WholeEnd «extends» Property
Attributes:
-

The end of a CapabilityComposition relationship that represents the "whole" Capability.

1.4 Operational views

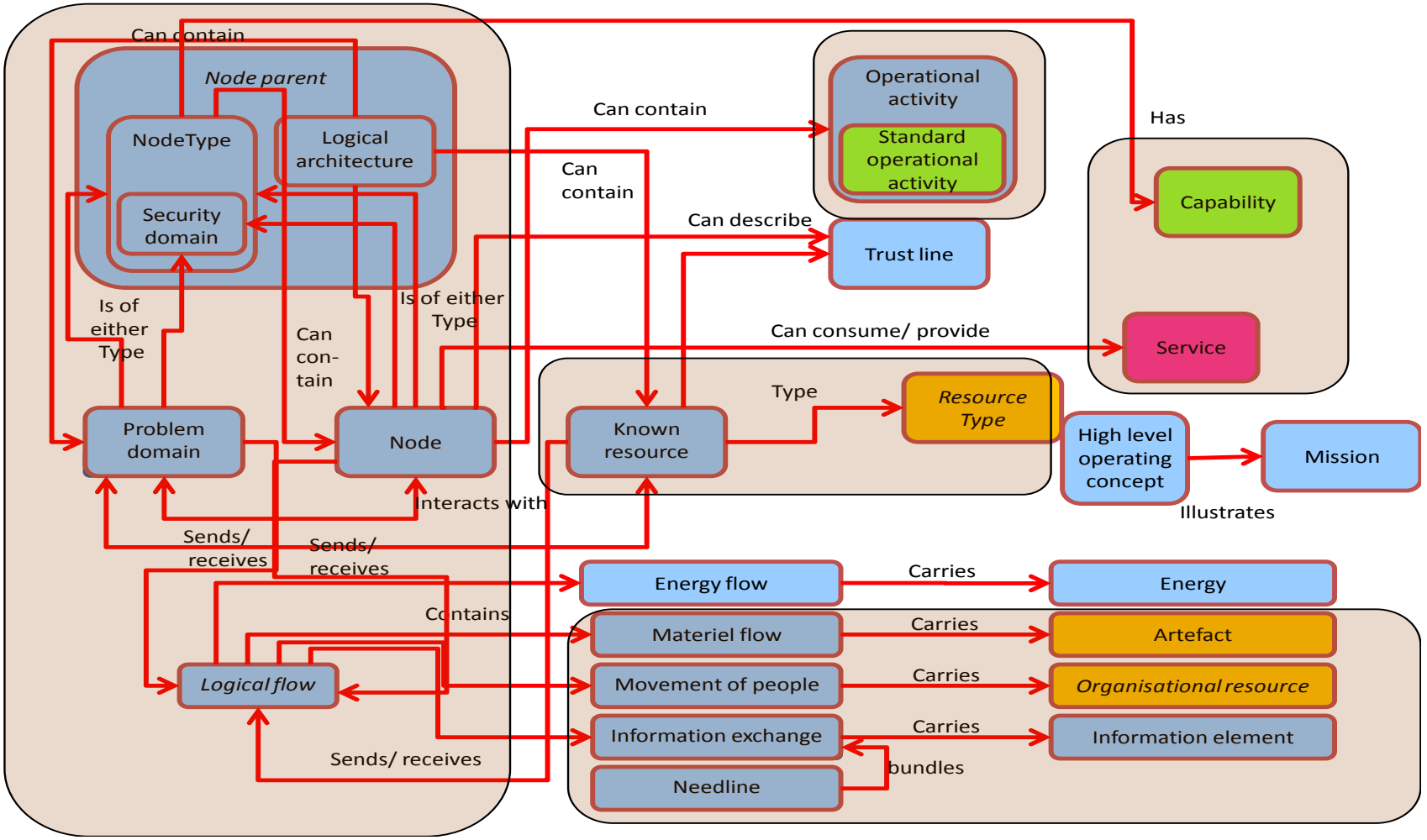

Figure 15: Operatonal Views MODAF M3 elements summary

1.4.1 OV-1: High level operational concept graphic (a, b, c)

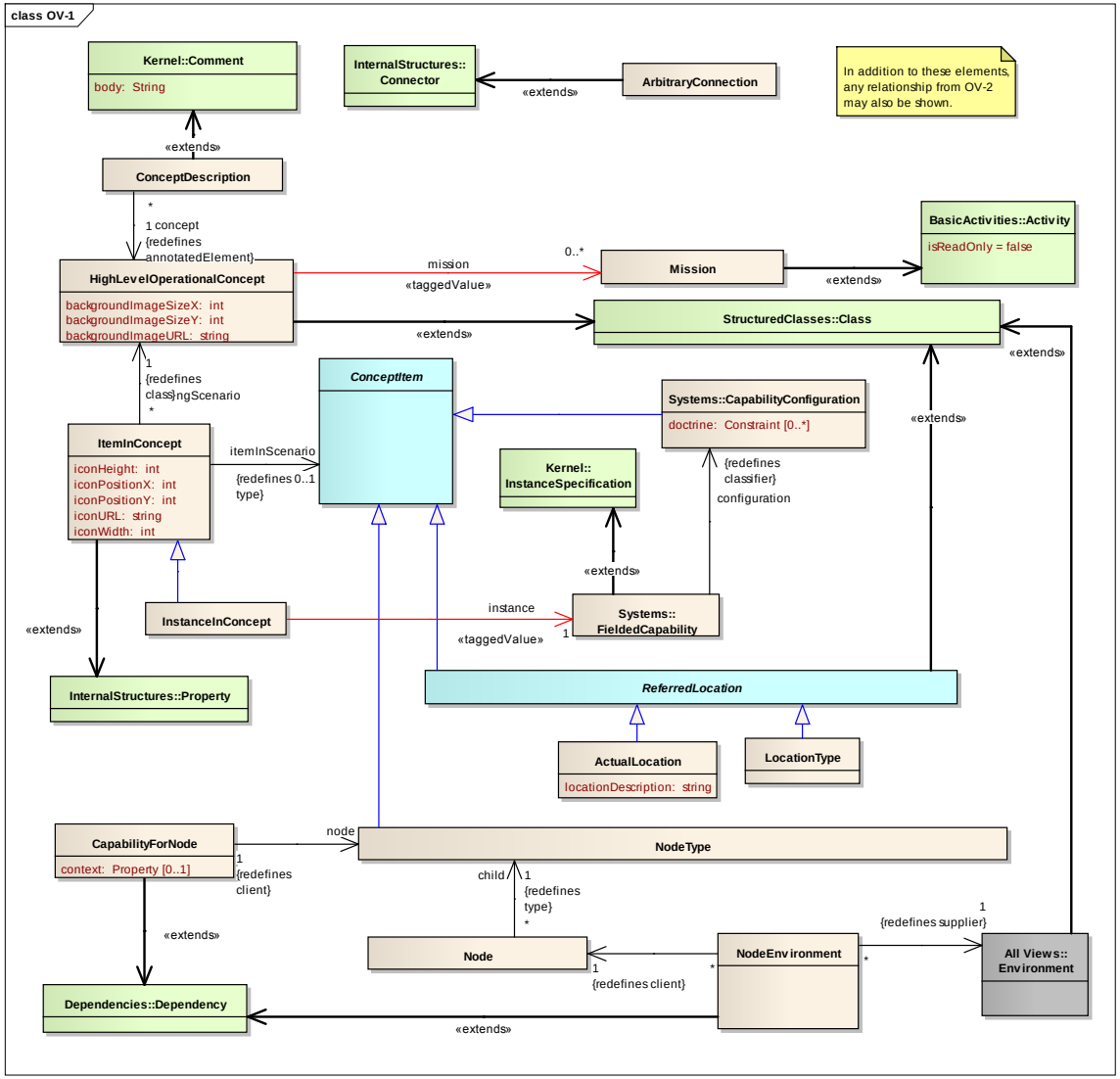

Figure 16: OV-1 in M3

1.4.2 OV-2: Operational node relationship description

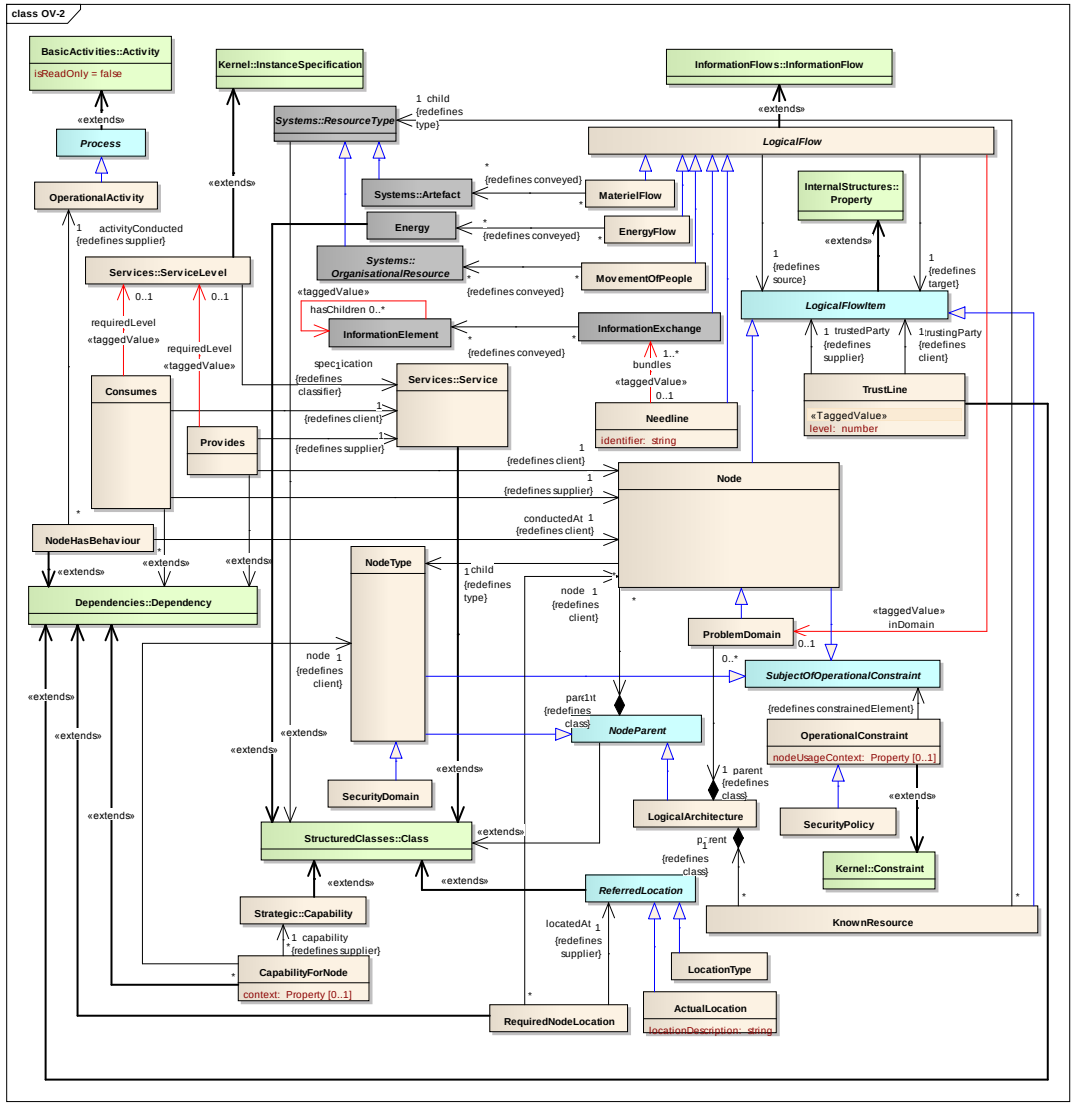

Figure 17: OV-2 in M3

1.4.3 OV-3: Operational information exchange matrix

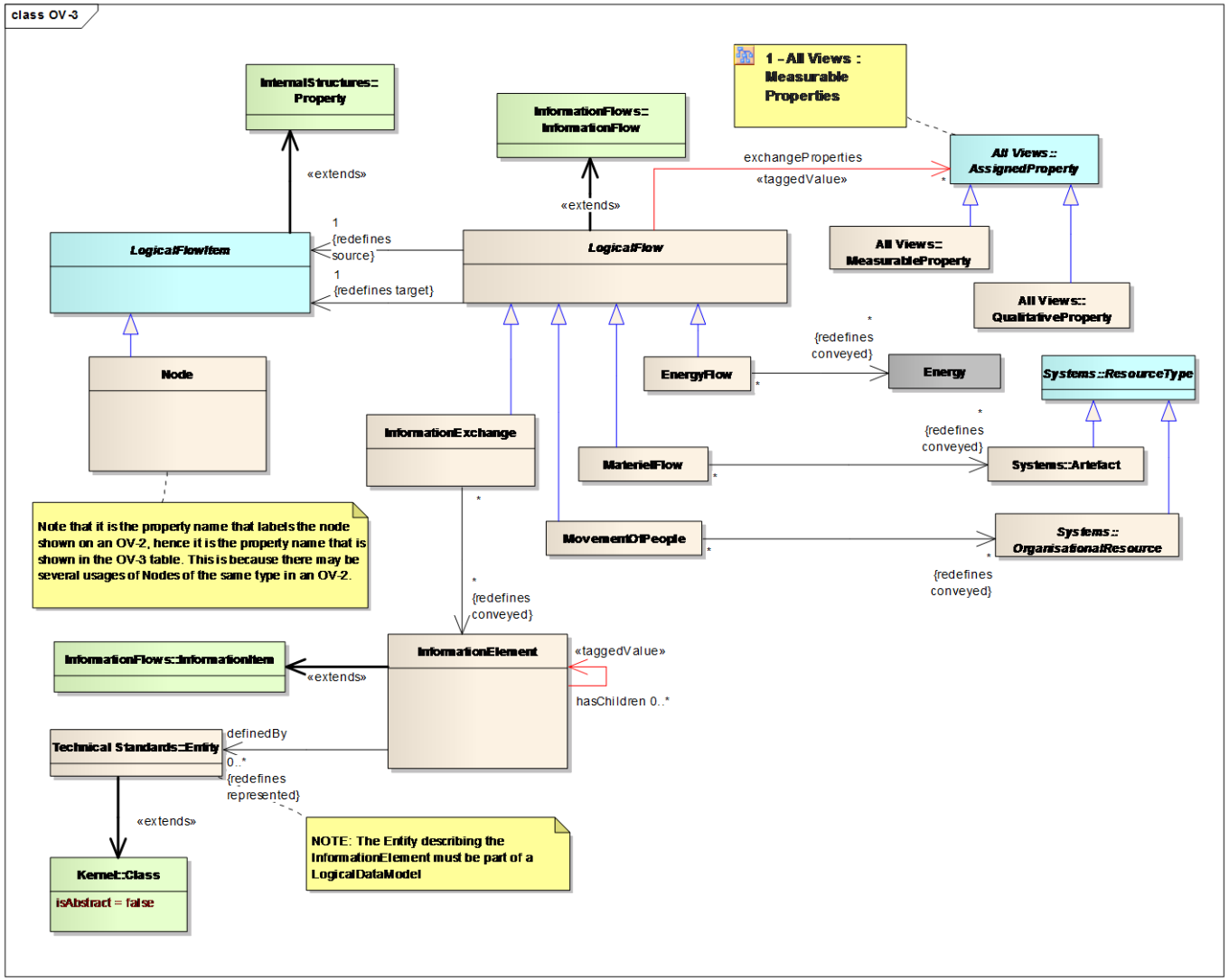

Figure 18: OV-3 in M3

1.4.4 OV-4: Organisational relationships chart

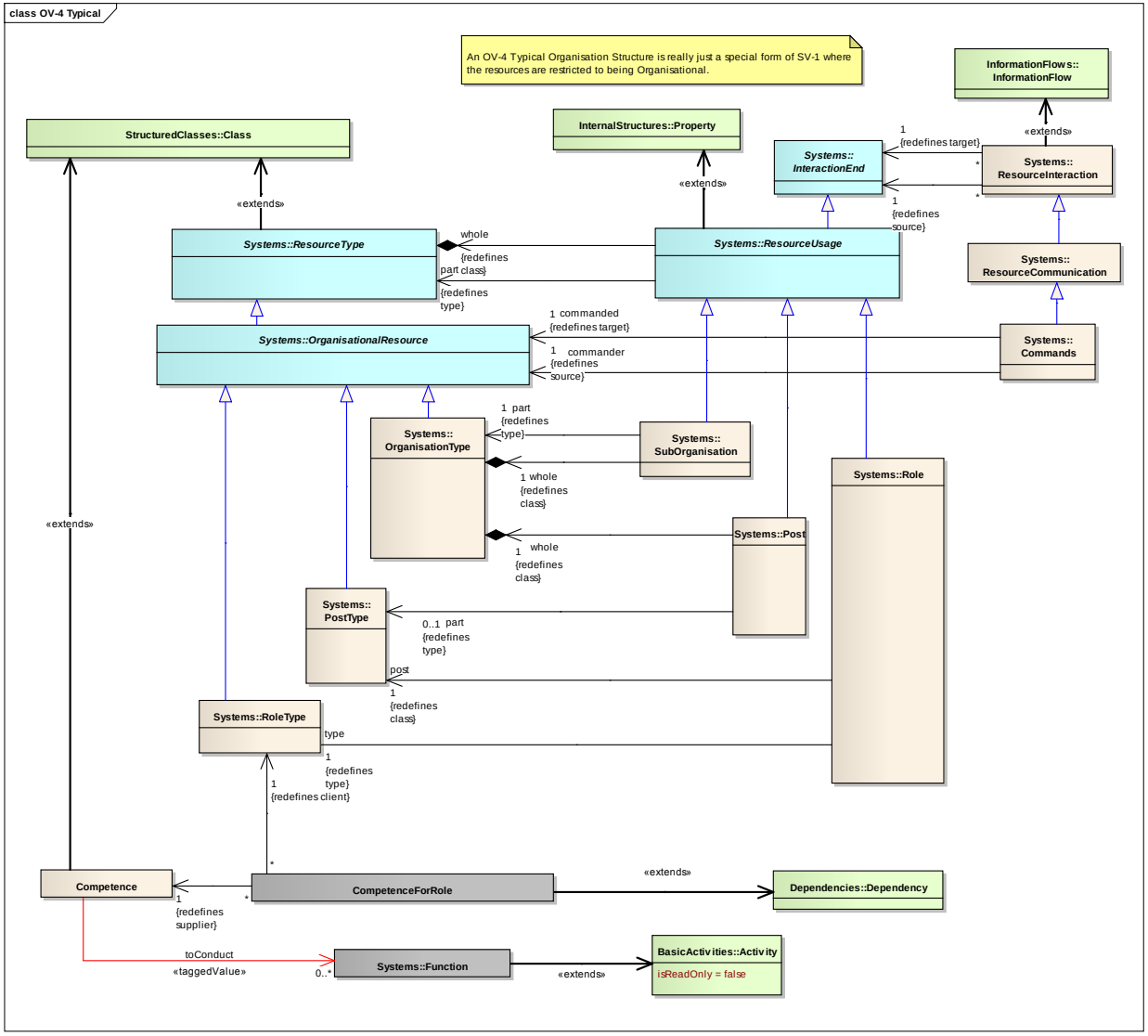

Figure 19: OV-4 typical in M3

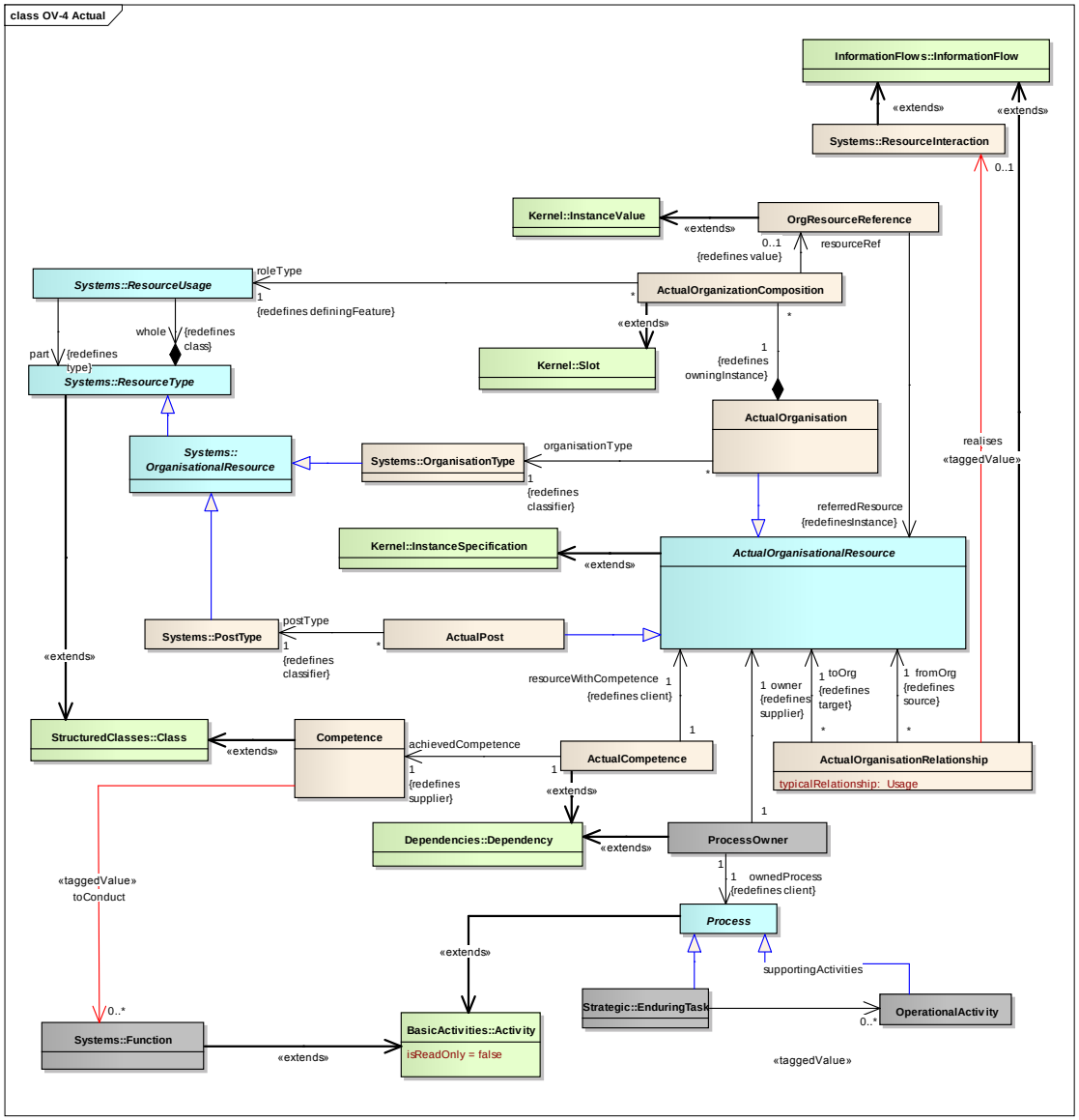

Figure 20: OV-4 actual in M3

1.4.5 OV-5: Operational activity model

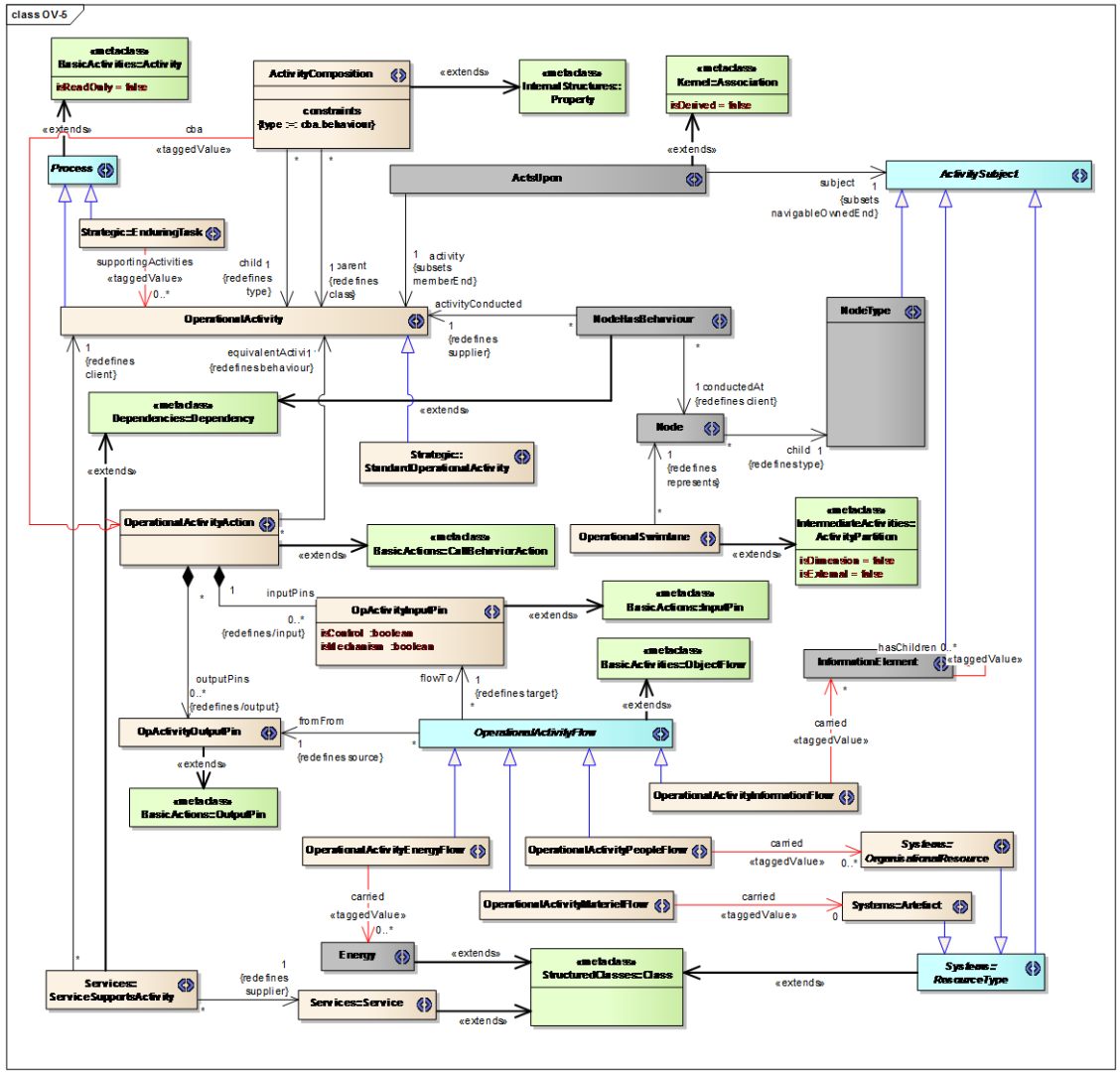

Figure 21: OV-5 in M3

1.4.6 OV-6: Operational rules, state descriptions and event-trace description

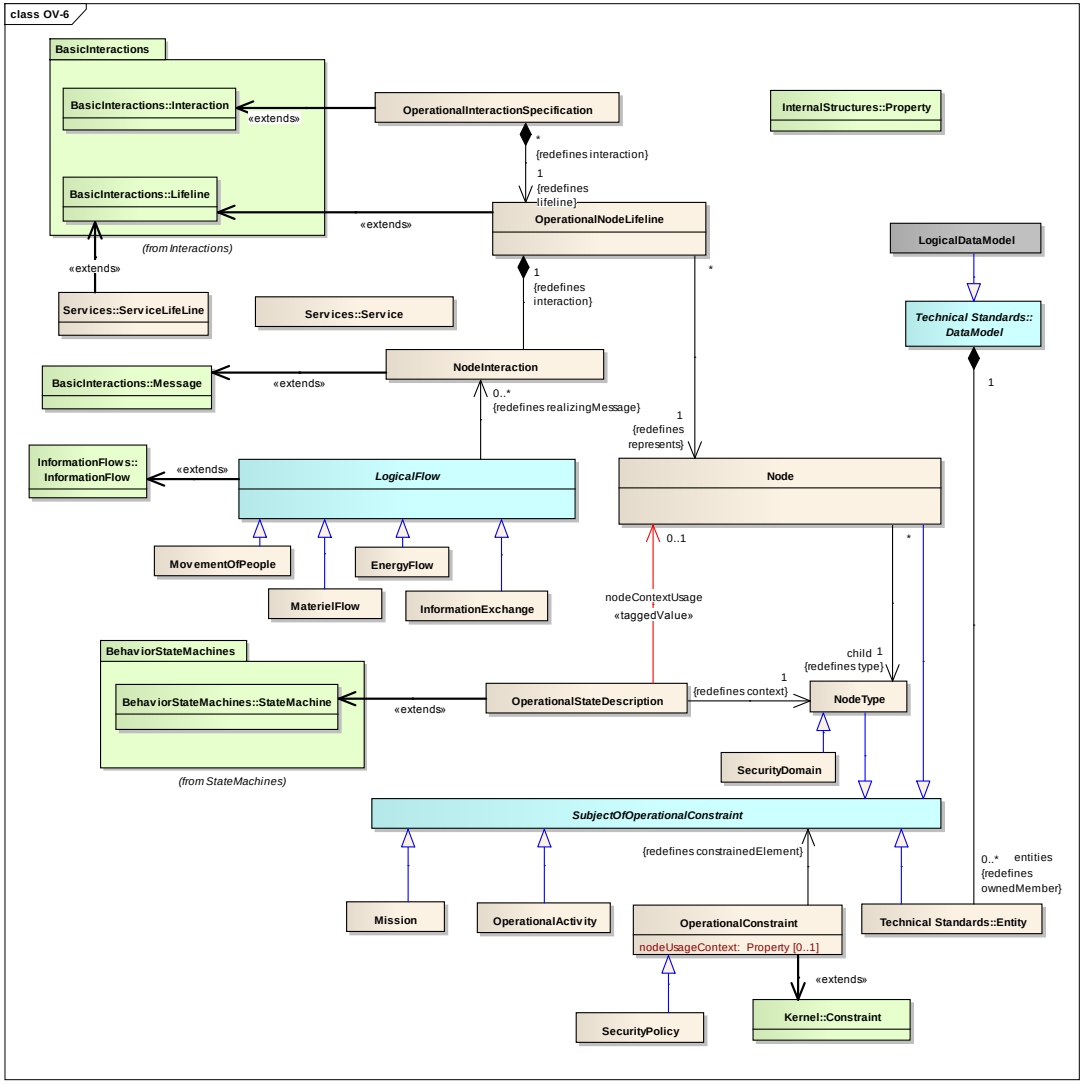

Figure 22: OV-6 in M3

1.4.7 OV-7: Information model

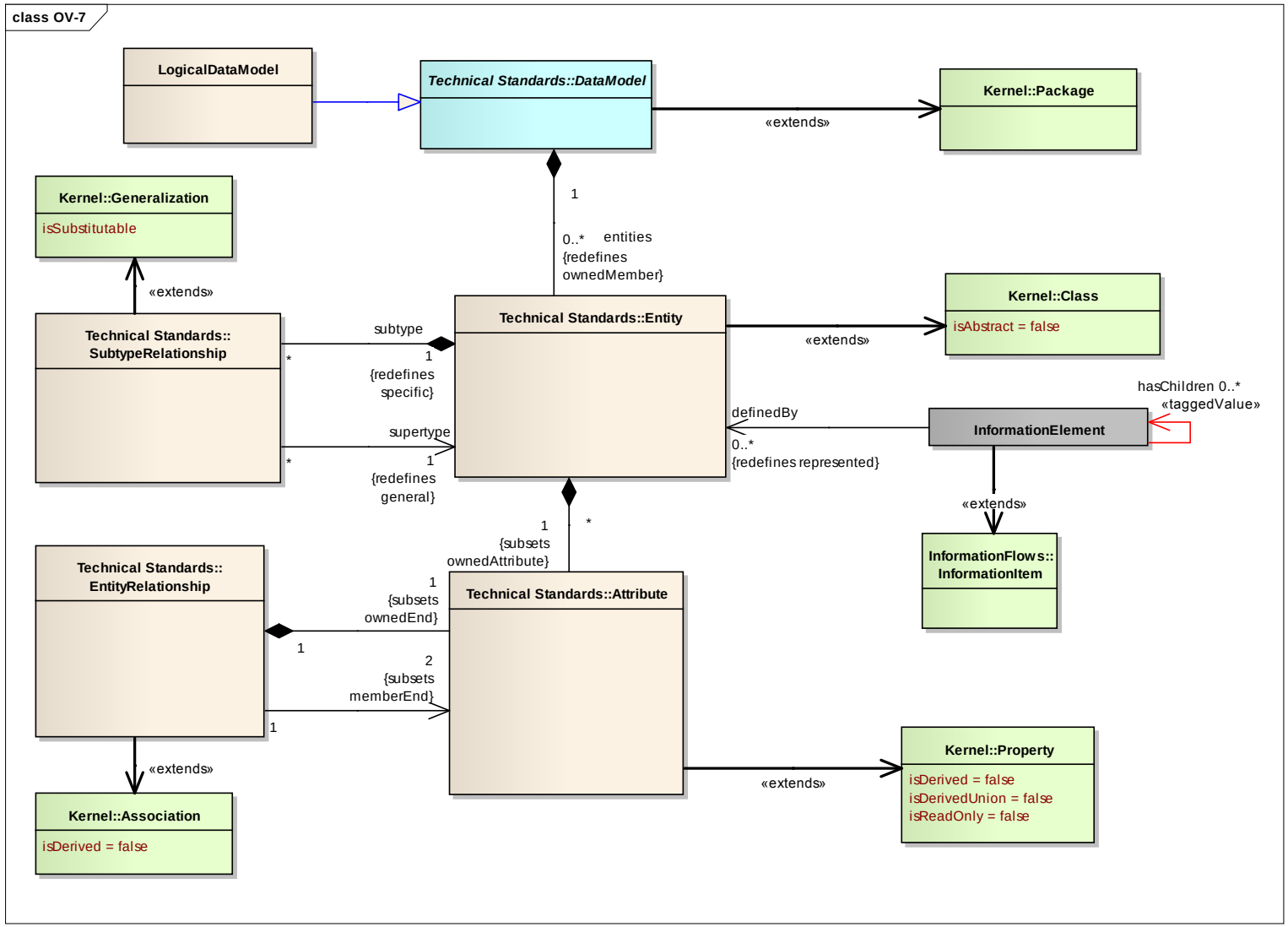

Figure 23: OV-7 in M3

1.4.8 Operational Views elements table

MODAF 1.2.004 Operational Views
ActivityComposition «stereotype» *Associations:* ActivityComposition – OperationalActivity ActivityComposition - OperationalActivity ActivityComposition «taggedValue» OperationalActivityAction *Extension:* ActivityComposition «extends» Property *Attributes:* - An assertion that the parent activity has the child as a part - i.e. the child activity is conducted as part of conducting the parent activity. Note: Unfortunately, UML offers two ways to do this; by composite class properties (i.e. this stereotype) and by UML::CallBehaviourAction. To prevent ambiguity, this meta-model forces both approaches to be used in parallel (SysML takes the same approach). Any ActivityComposition must be accompanied by a corresponding OperationalActivityAction. Hopefully, a future version of UML may be more coherent in this department, and this duplication can be removed.
ActivitySubject «stereotype» *Associations:* - *Extension:* ActivitySubject «extends» Classifier *Attributes:* - Anything that is acted upon by an OperationalActivity.

ActsUpon «stereotype»
Associations:
ActsUpon - OperationalActivity
ActsUpon - ActivitySubject
Extension:
ActsUpon «extends» Association
Attributes:
-

Asserts that something (subject) is acted upon by an OperationalActivity (activity).

ActualCompetence «stereotype»
Associations:
-
Extension:
ActualCompetence «extends» Dependency
Attributes:
-

Asserts that an ActualOrganisationalResource actually has a Competence.

ActualLocation «stereotype»
Associations:
-
Generalization:
ActualLocation - ReferredLocation
Attributes:
locationDescription

A location anywhere on the earth. The means of describing the location is a string (locationDescription). The information contained in that string is governed by the taxonomy reference - e.g. if the ActualLocation is a “GPS reference”, the string will contain the GPS coordinates.

ActualOrganisation «stereotype»
Associations:
ActualOrganisation «taggedValue» EnterprisePhase
Generalization:
ActualOrganisation - ActualOrganisationalResource
Attributes:
-

An actual specific organisation, an instance of an OrganisationType. Example: "The US Department of Defense".

ActualOrganisationRelationship «stereotype»
Associations:
ActualOrganisationRelationship «taggedValue» ResourceInteraction
Extension:
ActualOrganisationRelationship «extends» InformationFlow
Attributes:
typicalRelationship

A relationship between two actual specific organisations or parts of an organisation. Note1: the TypicalOrganisationRelationship which is realised by the ActualOrganisationRelationship is referred to via the typicalRelationship attribute.

ActualOrganisationalResource «stereotype»
Associations:
ActualOrganisationalResource - ProcessOwner
ActualOrganisationalResource - ActualCompetence
ActualOrganisationalResource - OrganisationProjectRelationship
ActualOrganisationalResource - ActualOrganisationRelationship
ActualOrganisationalResource - ActualOrganisationRelationship
Extension:
ActualOrganisationalResource «extends» InstanceSpecification
Attributes:
-

An instance of either an actual organisation or an actual post. [ABSTRACT]

ActualOrganizationComposition «stereotype»
Associations:
ActualOrganizationComposition - ActualOrganisation
ActualOrganizationComposition - OrgResourceReference
Extension:
ActualOrganizationComposition «extends» Slot
Attributes:
-

Relates an actual specific organisation to an actual specific organisational resource that fulfills a role in that organisation.

ActualPost «stereotype»
Associations:
PostType - ActualPost
Generalization:
ActualPost - ActualOrganisationalResource
Attributes:
-

An actual, specific post, an instance of a PostType. Example: "President of the United States of America"

ArbitraryConnection «stereotype»
Associations:
-
Extension:
ArbitraryConnection «extends» Connector
Attributes:
-

Represents a visual indication of connection used in high level operational concept diagrams. The connections are purely indicative and cannot be related to any architectural semantics.

CapabilityForNode «stereotype»
Associations:
CapabilityForNode - NodeType
CapabilityForNode - Capability
Extension:
CapabilityForNode «extends» Dependency
Attributes:
context

An assertion that a Node is required to have a Capability.

Competence «stereotype»
Associations:
Competence - ActualCompetence
Competence «taggedValue» unction
Extension:
Competence «extends» Class
Generalization:
Competence - SubjectOforecast
Attributes:
-

A specific set of abilities defined by knowledge, skills and attitude.

CompetenceForRole «stereotype»
Associations:
CompetenceForRole - RoleType
CompetenceForRole - Competence
Extension:
CompetenceForRole «extends» Dependency
Attributes:
-

Asserts that an Role requires a Competence.

ConceptDescription «stereotype»
Associations:
-
Extension:
ConceptDescription «extends» Comment
Attributes:
-

A textual representation of a HighLevelOperationalConcept.

ConceptItem
Associations:
-
Attributes:
-

An item which may feature in a high level operational concept. [ABSTRACT]

Consumes «stereotype»
Associations:
Consumes - Service
Consumes - Node
Consumes «taggedValue» ServiceLevel
Extension:
Consumes «extends» Dependency
Attributes:
-

Asserts that a node consumes a service. It is not required to know what provides the service.

Energy «stereotype»
Associations:
-
Extension:
Energy «extends» Class
Generalization:
Energy - FunctionSubject
Attributes:
-

A unit of energy that flows along an EnergyFlow or OperationalActivityEnergyFlow.

EnergyFlow «stereotype»
Associations:
EnergyFlow - Energy
EnergyFlow - ResourceEnergyFlow
Generalization:
EnergyFlow - LogicalFlow
Attributes:
-

A LogicalFlow where energy is flowed from one node to another.

HighLevelOperationalConcept «stereotype»
Associations:
HighLevelOperationalConcept - ConceptDescription
HighLevelOperationalConcept - ItemInConcept
HighLevelOperationalConcept «taggedValue» Mission
Extension:
HighLevelOperationalConcept «extends» Class
Attributes:
backgroundImageSizeX
backgroundImageSizeY
backgroundImageURL

A generalized model for operations. Note: a background image may be associated with the HLOC, which is referred to by the backgroundImageURL attribute. Scaling information is also provided about the image, so that when an ItemInConcept is shown in the diagram, it can be properly located and scaled. No units are specified, but the same length unit shall be used throughout a single product.

InformationElement «stereotype»
Associations:
InformationElement - InformationExchange
InformationElement - Entity
InformationElement «taggedValue» InformationElement
Generalization:
InformationElement - ActivitySubject
Extension:
InformationElement «extends» InformationItem
Attributes:
-

An item of information that flows between Operational Actitivities and Nodes. The structure of an InformationElement may be defined using a LogicalDataModel.

InformationExchange «stereotype»
Associations:
InformationExchange - ResourceCommunication
Generalization:
InformationExchange - LogicalFlow
Attributes:
-

A LogicalFlow that carries InformationElements between Nodes.

InstanceInConcept «stereotype»
Associations:
InstanceInConcept «taggedValue» FieldedCapability
Generalization:
InstanceInConcept - ItemInConcept
Attributes:
-
Asserts that a FieldedCapability is in a HighLevelOperationalConcept. Note: the position and URL tagged values are inherited. Note: the relationship to ConceptItem should not be set.

ItemInConcept «stereotype»
Associations:
ItemInConcept - ConceptItem
Extension:
ItemInConcept «extends» Property
Attributes:
iconHeight
iconPositionX
iconURL
iconWidth
iconPositionY
A relationship which asserts that a ConceptItem forms part of the high level operational concept.

KnownResource «stereotype»
Associations:
KnownResource - LogicalArchitecture
KnownResource - ResourceType
Generalization:
KnownResource - LogicalFlowItem
Attributes:
-
Asserts that a known Resource plays a part in a LogicalArchitecture. Note: An OV-2 is meant to show logical interactions between nodes. However, sometimes it is known.

LocationType «stereotype»
Associations:
-
Generalization:
LocationType - ReferredLocation
LocationType - ElementOfEnvironment
Attributes:
-

A general specification of the surroundings / scenario in which an operation may take place. Examples would be: "desert", "arctic", "at sea", etc.

LogicalArchitecture «stereotype»
Associations:
-
Generalization:
LogicalArchitecture - NodeParent
LogicalArchitecture - ArchitecturalProduct
Attributes:
-

A CompositeStructureModel whose parts are either Nodes, KnownResources or ProblemDomains.

LogicalDataModel «stereotype»
Associations:
-
Generalization:
LogicalDataModel - DataModel
Attributes:
-

A LogicalDataModel is a specification of business information requirements as a formal data structure, where relationships and classes (entities) are used to specify the logic which underpins the information.

LogicalFlow «stereotype»
Associations:
LogicalFlow – NodeInteraction
LogicalFlow - LogicalFlowItem
LogicalFlow - LogicalFlowItem
LogicalFlow «taggedValue» AssignedProperty
LogicalFlow «taggedValue» ProblemDomain
Extension:
LogicalFlow «extends» InformationFlow
Attributes:
-
Asserts that a flow exists or is required between Nodes (e.g. flows of information, people, materiel, or energy). A LogicalFlow itself may be part of a ProblemDomain - i.e. there may be options for implementing the LogicalFlow which could be outlined in alternative SV suites. If so, this is asserted using the inDomain tagged value.

LogicalFlowItem «stereotype»
Associations:
-
Extension:
LogicalFlowItem «extends» Property
Attributes:
-
An element in a LogicalArchitecture which may be either the source or target of a LogicalFlow.

MaterielFlow «stereotype»
Associations:
MaterielFlow - Artefact
MaterielFlow - ResourceMaterielFlow
Generalization:
MaterielFlow - LogicalFlow
Association:
Attributes:
-

A LogicalFlow where materiel (Artefacts) flows between Nodes.

Mission «stereotype»
Associations:
-
Extension:
Mission «extends» Activity
Generalization:
Mission - SubjectOfOperationalConstraint
Attributes:
-

A purpose to which a person, organisation or autonomous system is tasked.

MovementOfPeople «stereotype»
Associations:
MovementOfPeople - OrganisationalResource
MovementOfPeople - ResourcePersonFlow
Generalization:
MovementOfPeople - LogicalFlow
Attributes:
-

A LogicalFlow where human resources (PostTypes, RoleTypes) flow between Nodes.

Needline «stereotype»
Associations:
Needline «taggedValue» InformationExchange
Generalization:
Needline - LogicalFlow
Attributes:
identifier

A relationship between Nodes representing a bundle of InformationExchanges.

Node «stereotype»
Associations:
Node - NodeRealisation
Node - NodeHasBehaviour
Node - OperationalNodeLifeline
Generalization:
Node - SubjectOfOperationalConstraint
Node - LogicalFlowItem
Attributes:
-

The usage of a NodeType in another NodeType or LogicalArchitecture.

NodeEnvironment «stereotype»
Associations:
NodeEnvironment – Node
NodeEnvironment - Environment
Extension:
NodeEnvironment «extends» Dependency
Attributes:
-

A specification of the Environment in which the node operates or is required to operate.

NodeHasBehaviour «stereotype»
Associations:
-
Extension:
NodeHasBehaviour «extends» Dependency
Attributes:
-

Asserts that an OperationalActivity is conducted by a Node.

NodeInteraction «stereotype»
Associations:
NodeInteraction - OperationalNodeLifeline
Extension:
NodeInteraction «extends» Message
Attributes:
-

An interaction representing the exchange of information, energy, materiel or people, defined by a LogicalFlow.

NodeParent «stereotype»
Associations:
NodeParent - Node
Extension:
NodeParent «extends» Class
Attributes:
-

The abstract supertype of all elements that can have child Nodes (LogicalArchitecture, ProblemDomain & NodeType).

NodeType «stereotype»
Associations:
NodeType - Node
Generalization:
NodeType - ActivitySubject
NodeType - SubjectOfOperationalConstraint
NodeType - ConceptItem
NodeType - NodeParent
Attributes:
-

A logical agent that performs operational activities.

OpActivityInputPin «stereotype»
Associations:
OpActivityInputPin - OperationalActivityFlow
OpActivityInputPin - OperationalActivityAction
Extension:
OpActivityInputPin «extends» InputPin
Attributes:
isControl
isMechanism
A port for flows that feed into an activity.

OpActivityOutputPin «stereotype»
Associations:
OpActivityOutputPin - OperationalActivityFlow
OpActivityOutputPin - OperationalActivityAction
Extension:
OpActivityOutputPin «extends» OutputPin
Attributes:
-
A port for flows that leave an activity.

OperationalActivity «stereotype»
Associations:
OperationalActivity - NodeHasBehaviour
OperationalActivity - ActivityToFunctionMapping
OperationalActivity - OperationalActivityAction
Generalization:
OperationalActivity - SubjectOfOperationalConstraint
OperationalActivity - Process
Attributes:
-
A logical process, specified independently of how the process is carried out. Note: an OperationalActivity may only be carried out by a Node.

OperationalActivityAction «stereotype»
Associations:
-
Extension:
OperationalActivityAction «extends» CallBehaviorAction
Attributes:
-

Used to relate an OperationalActivity to its sub-activities. Note1: An OperationalActivityAction will be created for every OperationalActivity to provide a way to manage sub-activities, and to allow flows between activities. Note2: See also ActivityComposition. Note3: Also provides a means for attaching information (properties) to an activity.

OperationalActivityEnergyFlow «stereotype»
Associations:
OperationalActivityEnergyFlow «taggedValue» Energy
Generalization:
OperationalActivityEnergyFlow - OperationalActivityFlow
Attributes:
-

A flow of energy between OperationalActivities.

OperationalActivityFlow «stereotype»
Associations:
OperationalActivityFlow - InformationExchange
Extension:
OperationalActivityFlow «extends» ObjectFlow
Attributes:
-

A flow of information, people, energy or materiel from one activity to another.

OperationalActivityInformationFlow «stereotype»
Associations:
OperationalActivityInformationFlow «taggedValue» InformationElement
Generalization:
OperationalActivityInformationFlow - OperationalActivityFlow
Attributes:
-

An OperationalActivityFlow where InformationElements are conveyed.

OperationalActivityMaterielFlow «stereotype»
Associations:
OperationalActivityMaterielFlow «taggedValue» Artefact
Generalization:
OperationalActivityMaterielFlow - OperationalActivityFlow
Attributes:
-

An OperationalActivityFlow where materiel (Artefacts) are conveyed.

OperationalActivityPeopleFlow «stereotype»
Associations:
OperationalActivityPeopleFlow «taggedValue» OrganisationalResource
Generalization:
OperationalActivityPeopleFlow - OperationalActivityFlow
Attributes:
-

An OperationalActivityFlow where OrganisationalResources are conveyed. Note: this was added on request from the Swedish Armed Forces.

OperationalConstraint «stereotype»
Associations:
OperationalConstraint - SubjectOfOperationalConstraint
Extension:
OperationalConstraint «extends» Constraint
Attributes:
nodeUsageContext

A rule governing an operational behaviour or property.

OperationalInteractionSpecification «stereotype»
Associations:
-
Extension:
OperationalInteractionSpecification «extends» Interaction
Attributes:
-

A specification of the interactions between nodes in an operational architecture.

OperationalNodeLifeline «stereotype»
Associations:
OperationalNodeLifeline - OperationalInteractionSpecification
Extension:
OperationalNodeLifeline «extends» Lifeline
Attributes:
-

A lifeline which represents a usage of a node in an operational architecture.

OperationalStateDescription «stereotype»
Associations:
OperationalStateDescription - NodeType
OperationalStateDescription «taggedValue» Node
Extension:
OperationalStateDescription «extends» StateMachine
Attributes:
-

A state machine that describes the possible state transitions a Node may have.

OperationalSwimlane «stereotype»
Associations:
OperationalSwimlane - Node
Extension:
OperationalSwimlane «extends» ActivityPartition
Attributes:
-

A visual representation of nodes which conduct activities, shown as "swimlanes".

OrgResourceReference «stereotype»
Associations:
OrgResourceReference - ActualOrganisationalResource
Extension:
OrgResourceReference «extends» InstanceValue
Attributes:
-

A reference to an ActualPost or ActualOrganisation.

ProblemDomain «stereotype»
Associations:
ProblemDomain - LogicalArchitecture
Generalization:
ProblemDomain - Node
Attributes:
-

The boundary containing those Nodes which may be realised by physical resources specified in SV-1. There may be more than one alternative solution for a given ProblemDomain specified as a set of SV suites. There may be only one ProblemDomain in a LogicalArchitecture.

Process «stereotype»
Associations:
Process - ProcessOwner
Extension:
Process «extends» Activity
Attributes:
-

The abstract supertype of OperationalActivity and EnduringTask.

ProcessOwner «stereotype»
Associations:
-
Extension:
ProcessOwner «extends» Dependency
Attributes:
-

Asserts that an OrganisationalResource has responsibility for an OperationalActivity or EnduringTask. Note this does not imply the resource conducts the activity, merely that it has managerial responsibility for it.

Provides «stereotype»
Associations:
Provides - Service
Provides - Node
Provides «taggedValue» ServiceLevel
Extension:
Provides «extends» Dependency
Attributes:
-

Asserts that a node provides a service.

ReferredLocation «stereotype»
Associations:
ReferredLocation - RequiredNodeLocation
Extension:
ReferredLocation «extends» Class
Generalization:
ReferredLocation - ConceptItem
Attributes:
-

Either an actual location, or a type of location at/in which operations may be conducted. [ABSTRACT]

RequiredNodeLocation «stereotype»
Associations:
RequiredNodeLocation - Node
Extension:
RequiredNodeLocation «extends» Dependency
Attributes:
-

Relates a node to a location to assert that the operational node is required to be situated at that location.

SecurityDomain «stereotype»
Associations:
-
Generalization:
SecurityDomain - NodeType
Attributes:
-

A NodeType whose members (other Nodes, KnownResources) all share a common security policy.

SecurityPolicy «stereotype»
Associations:
-
Generalization:
SecurityPolicy - OperationalConstraint
Attributes:
-

An OperationalConstraint that specifies policy for information handling, physical security, encryption, etc.

SubjectOfOperationalConstraint
Associations:
-
Attributes:
-

An element of the architecture that may be subject to an OperationalConstraint. [ABSTRACT]

TrustLine «stereotype»
Associations:
TrustLine - LogicalFlowItem
TrustLine - LogicalFlowItem
Extension:
TrustLine «extends» Dependency
Attributes:
level

Asserts that the trustingParty (either a Node or a KnownResource) trusts the trustedParty to a given level (indicated by the level attribute). Note: No unit of measure is associated with the level - security architects muist define their own scale of trust levels for a given architecture or set of architectures.

1.5 Service views

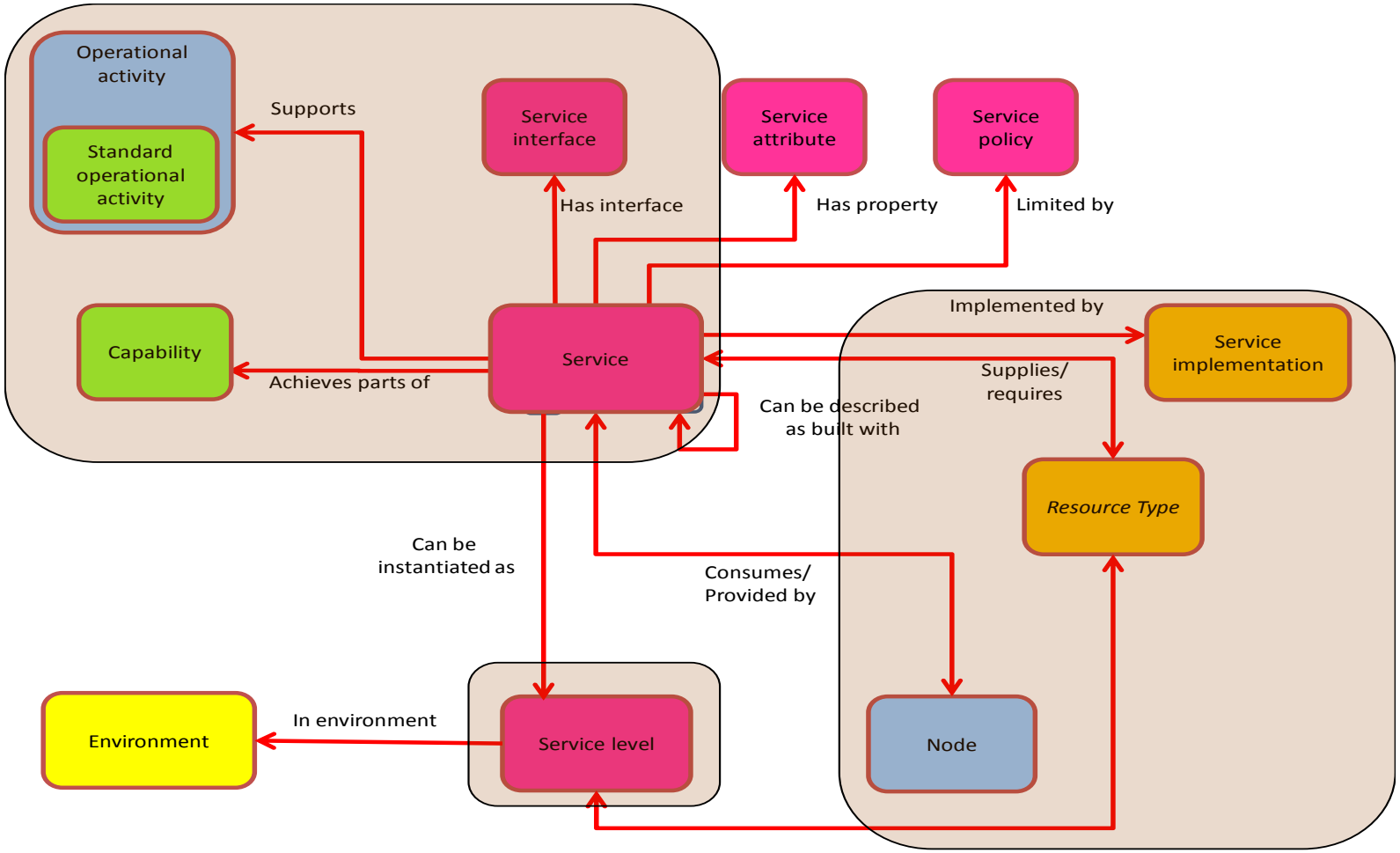

Figure 24: Service Views MODAF M3 elements summary

1.5.1 SOV-1: Service taxonomy

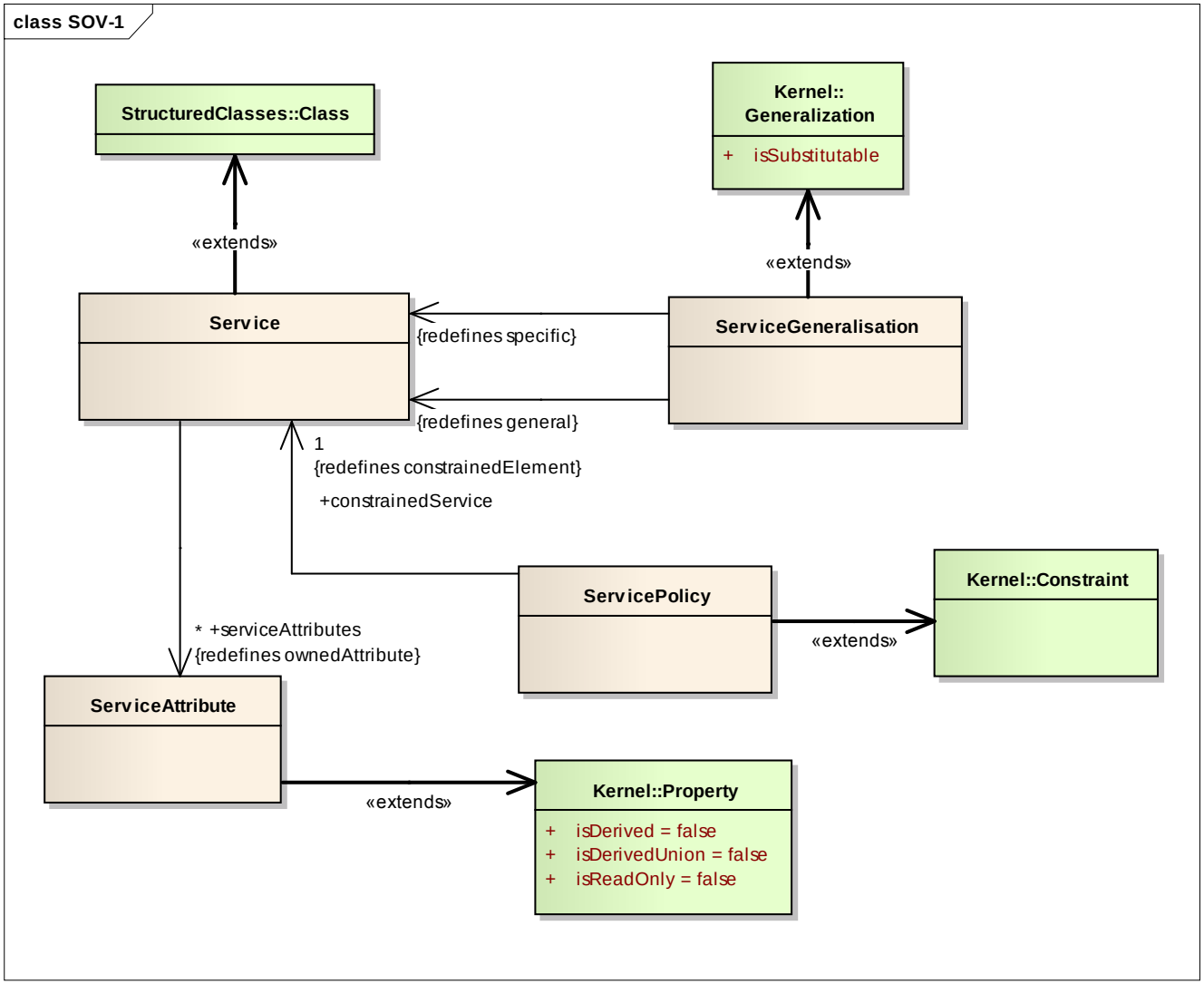

Figure 25: SOV-1 in M3

1.5.2 SOV-2: Service interface specification

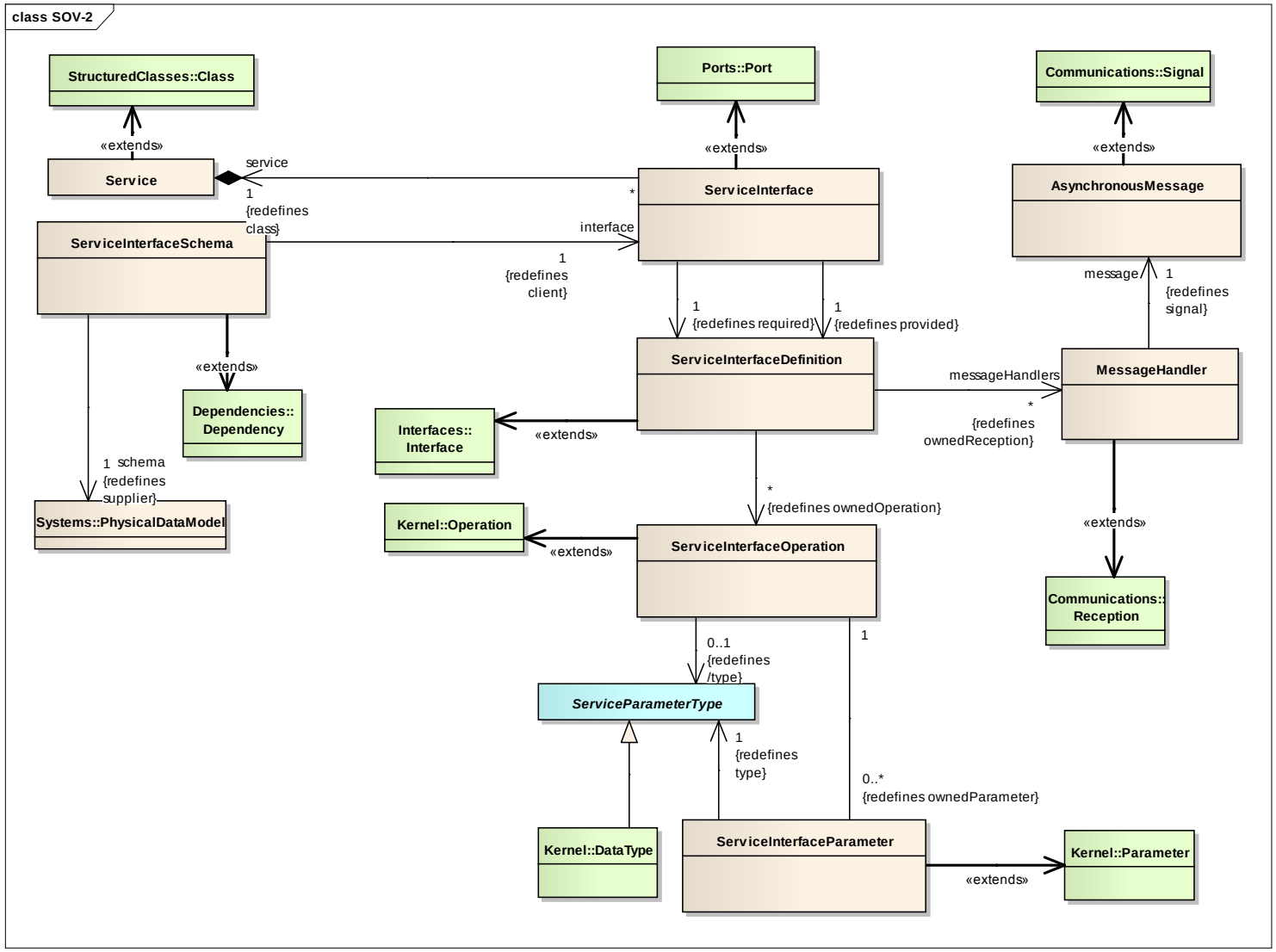

Figure 26: SOV-2 in M3

1.5.3 SOV-3: Capability to service mapping

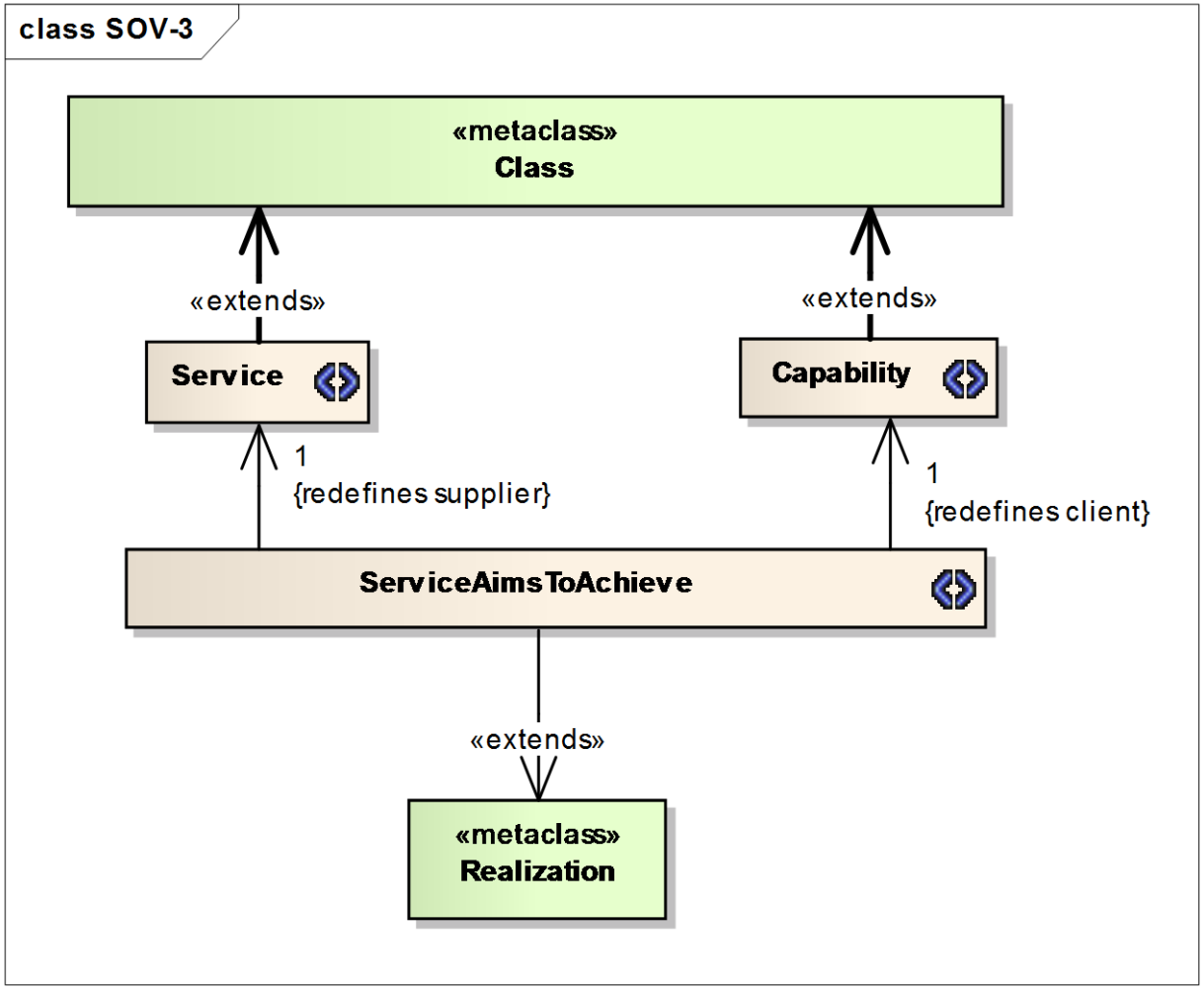

Figure 27: SOV-3 in M3

1.5.4 SOV-4: Service constraints, state model and interaction specification

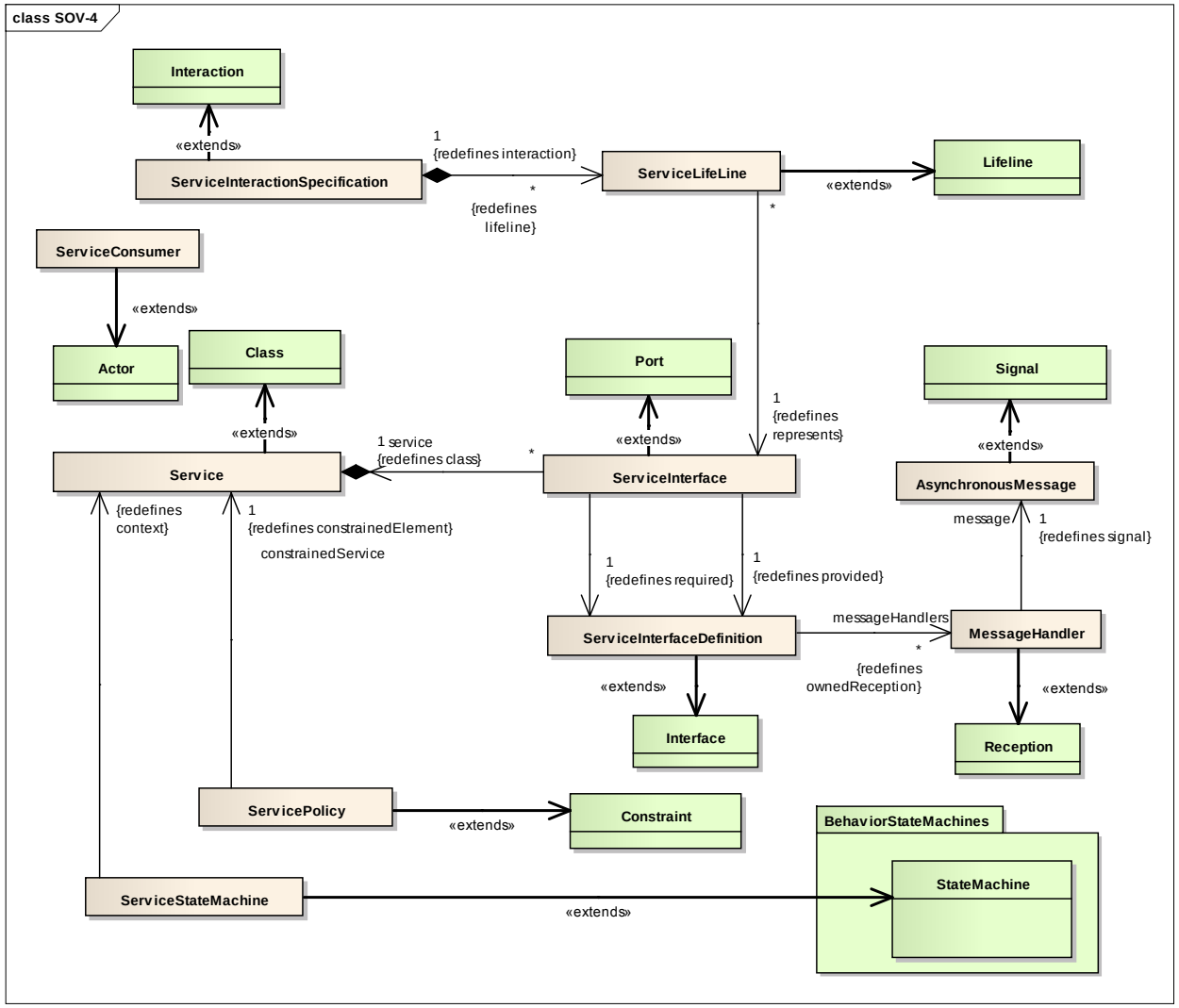

Figure 28: SOV-4 in M3

1.5.5 SOV-5: Service functionality

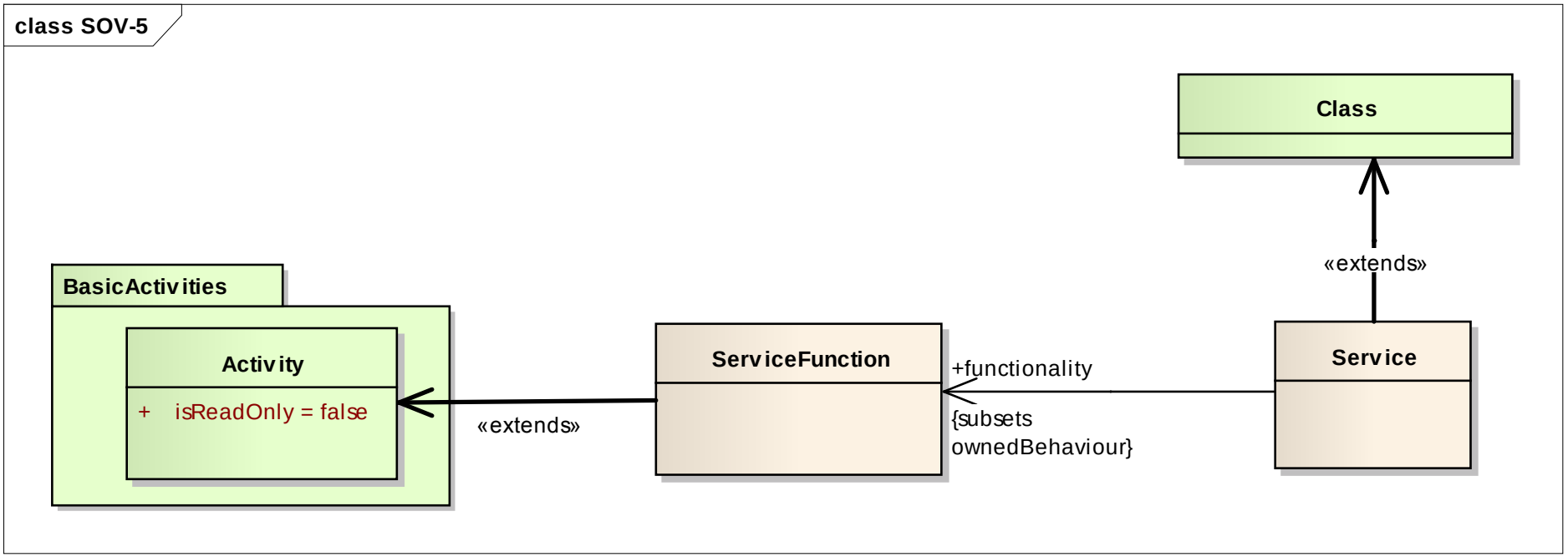

Figure 29: SOV-5 in M3

1.5.6 Service Views elements table

MODAF 1.2.004 Service Views
AsynchronousMessage «stereotype» *Associations:* - *Extension:* AsynchronousMessage «extends» Signal *Attributes:* - A signal which is transmitted irregularly with respect to time. Note: An asynchronous message is not guaranteed to arrive in a specific time following a request.
MessageHandler «stereotype» *Associations:* MessageHandler - AsynchronousMessage *Extension:* MessageHandler «extends» Reception *Attributes:* - An aspect of a ServiceInterfaceDefinition which receives incoming AsynchronousMessages.
ProvidedService «stereotype» *Associations:* ProvidedService - ResourceType ProvidedService - Service ProvidedService «taggedValue» ServiceLevel *Extension:* ProvidedService «extends» Realization *Attributes:* concurrentServices An assertion that a Resource delivers a Service to a specified ServiceLevel.

RequiredService «stereotype»
Associations:
RequiredService - ResourceType
RequiredService – Service
RequiredService «taggedValue» ServiceLevel
Extension:
RequiredService «extends» Usage
Attributes:
-

Asserts that a Resource requires a Service to be provided in order to function correctly.

Service «stereotype»
Associations:
Service - ServiceComposition
Service - ServiceComposition
Service - ServiceInterface
Service – ServiceAttribute
Service - ServiceFunction
Extension:
Service «extends» Class
Attributes:
-

A type of delivered functionality, specified independently of the resources that provide it. Note: A service may or may not have a physical effect on its environment OASIS Definition: A service is a mechanism to enable access to a set of one or more capabilities, where the access is provided using a prescribed interface and is exercised consistent with constraints and policies as specified by the service description.

ServiceAimsToAchieve «stereotype»
Associations:
ServiceAimsToAchieve - Capability
ServiceAimsToAchieve - Service
Extension:
ServiceAimsToAchieve «extends» Realization
Attributes:
-

Asserts that a Service is intended to deliver a Capability. Note: multiple instantiations of this element may be required, as it is likely that more than one service is required to achieve a capability.

ServiceAttribute «stereotype»
Associations:
-
Extension:
ServiceAttribute «extends» Property
Attributes:
-

A property of Service. Example: availability.

ServiceConnectorEnd «stereotype»
Associations:
ServiceConnectorEnd -ServiceComposition
ServiceConnectorEnd - ServiceInterface
Generalization:
ServiceConnectorEnd - NestedConnectorEnd
Association:
Attributes:
serviceInterfaceDefinition

One of two ends of a ServiceNeedline.

ServiceConsumer «stereotype»
Associations:
-
Extension:
ServiceConsumer «extends» Actor
Attributes:
-

A UML::Actor representing an unknown service user.

ServiceFunction «stereotype»
Associations:
-
Extension:
ServiceFunction «extends» Activity
Attributes:
-

A type of activity describing the functionality of a service.

ServiceGeneralisation «stereotype»
Associations:
ServiceGeneralisation - Service
ServiceGeneralisation - Service
Extension:
ServiceGeneralisation «extends» Generalization
Attributes:
-

An assertion that one Service class is a specialisation of another.

ServiceInteractionSpecification «stereotype»
Associations:
ServiceInteractionSpecification - ServiceLifeLine
Extension:
ServiceInteractionSpecification «extends» Interaction
Attributes:
-

A model representing how a set of Service classes interacts with one another.

ServiceInterface «stereotype»
Associations:
-
Extension:
ServiceInterface «extends» Port
Attributes:
-

The mechanism by which a Service communicates. Note: a ServiceInterface specifies the ServiceInterfaceDefinition provided and required by the Service.

ServiceInterfaceDefinition «stereotype»
Associations:
ServiceInterfaceDefinition - ServiceInterface
ServiceInterfaceDefinition - ServiceInterface
ServiceInterfaceDefinition - ServiceInterfaceOperation
ServiceInterfaceDefinition - MessageHandler
Extension:
ServiceInterfaceDefinition «extends» Interface
Attributes:
-

The type of provided or required communication method exposed by a ServiceInterface.

ServiceInterfaceOperation «stereotype»
Associations:
ServiceInterfaceOperation - ServiceInterfaceParameter
ServiceInterfaceOperation - ServiceParameterType
Extension:
ServiceInterfaceOperation «extends» Operation
Attributes:
-

A function or procedure which enables programmatic communication with a Service via a ServiceInterface.

ServiceInterfaceParameter «stereotype»
Associations:
ServiceInterfaceParameter - ServiceParameterType
Extension:
ServiceInterfaceParameter «extends» Parameter
Attributes:
-

A constant or variable passed into or out of a ServiceInterface as part of the execution of a ServiceInterfaceOperation.

ServiceInterfaceSchema «stereotype»
Associations:
ServiceInterfaceSchema - PhysicalDataModel
ServiceInterfaceSchema - ServiceInterface
Extension:
ServiceInterfaceSchema «extends» Dependency
Attributes:
-

An assertion that a PhysicalDataModel defines the data structure used by a ServiceInterface when communicating with a Service or client.

ServiceLevel «stereotype»
Associations:
ServiceLevel - Service
ServiceLevel «taggedValue» Environment
Extension:
ServiceLevel «extends» InstanceSpecification
Attributes:
-

A value specification for a set of ServiceAttributes indicating the level to which a Resource delivers a Service, in a particular environment. Example: A ServiceAttribute "availability" may be defined against a Service. A given Resource could have a corresponding ServiceLevel - e.g. "90%".

ServiceLifeLine «stereotype»
Associations:
ServiceLifeLine - ServiceInterface
Extension:
ServiceLifeLine «extends» Lifeline
Attributes:
-

A part of a ServiceInteractionSpecification denoting the role of a ServiceInterface.

ServiceNeedline «stereotype»
Associations:
ServiceNeedline - ServiceConnectorEnd
Extension:
ServiceNeedline «extends» Connector
Attributes:
-

An assertion that two Services need to communicate when assembled together under another Service.

ServiceParameterType
Associations:
-
Attributes:
-

Either a UML::DataType or a ServiceInterfaceParameter. [ABSTRACT]

ServicePolicy «stereotype»
Associations:
ServicePolicy – Service
Extension:
ServicePolicy «extends» Constraint
Attributes:
-

A constraint governing one or more Services.

ServiceStateMachine «stereotype»
Associations:
ServiceStateMachine - Service
Extension:
ServiceStateMachine «extends» StateMachine
Attributes:
-

A model representing the changes of state which are possible for a Service.

ServiceSupportsActivity «stereotype»
Associations:
ServiceSupportsActivity - OperationalActivity
ServiceSupportsActivity - Service
Extension:
ServiceSupportsActivity «extends» Dependency
Attributes:
-

An assertion that a Service in some way contributes or assists in the execution of an OperationalActivity.

1.6 System views

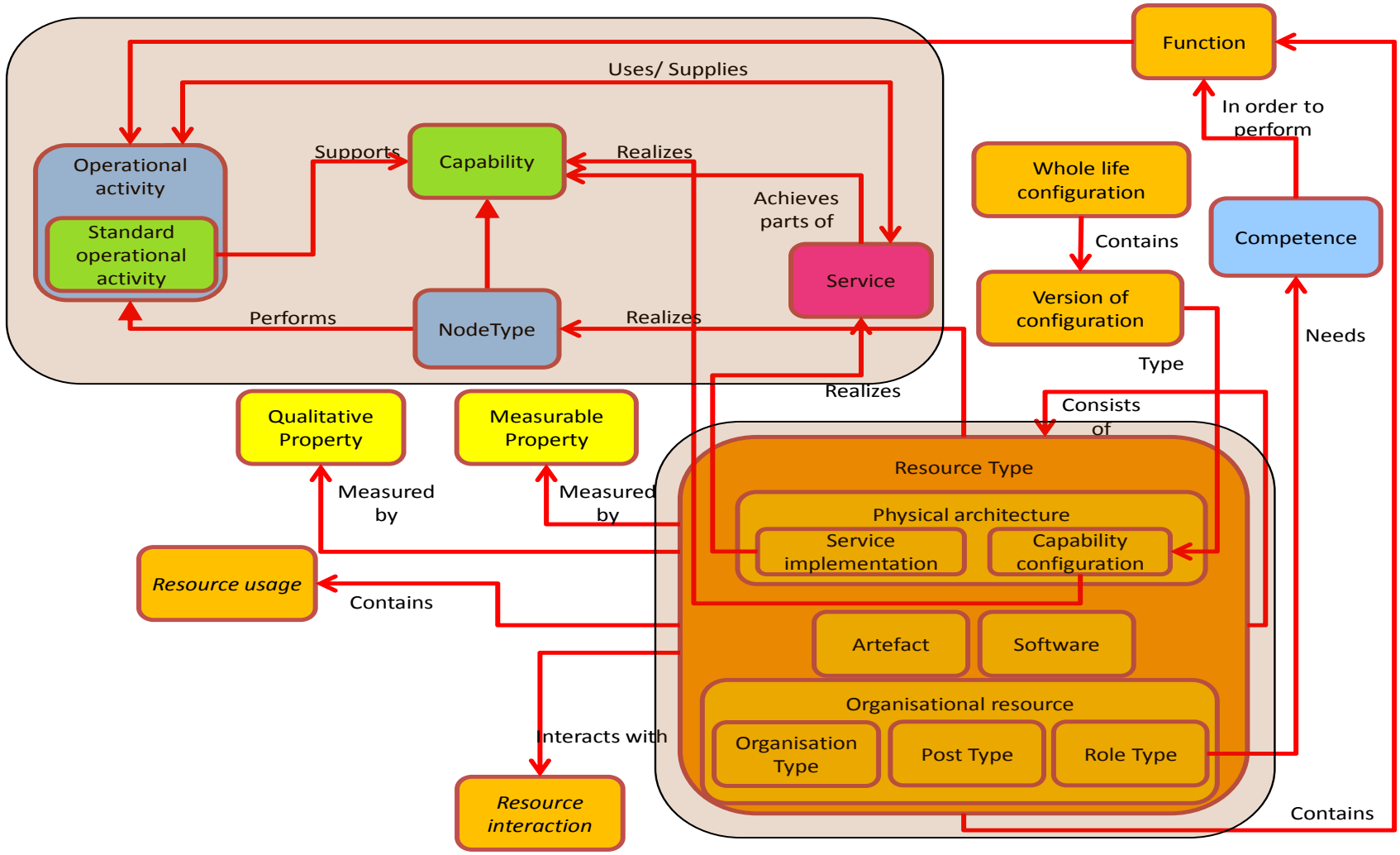

Figure 30: System Views MODAF M3 elements summary

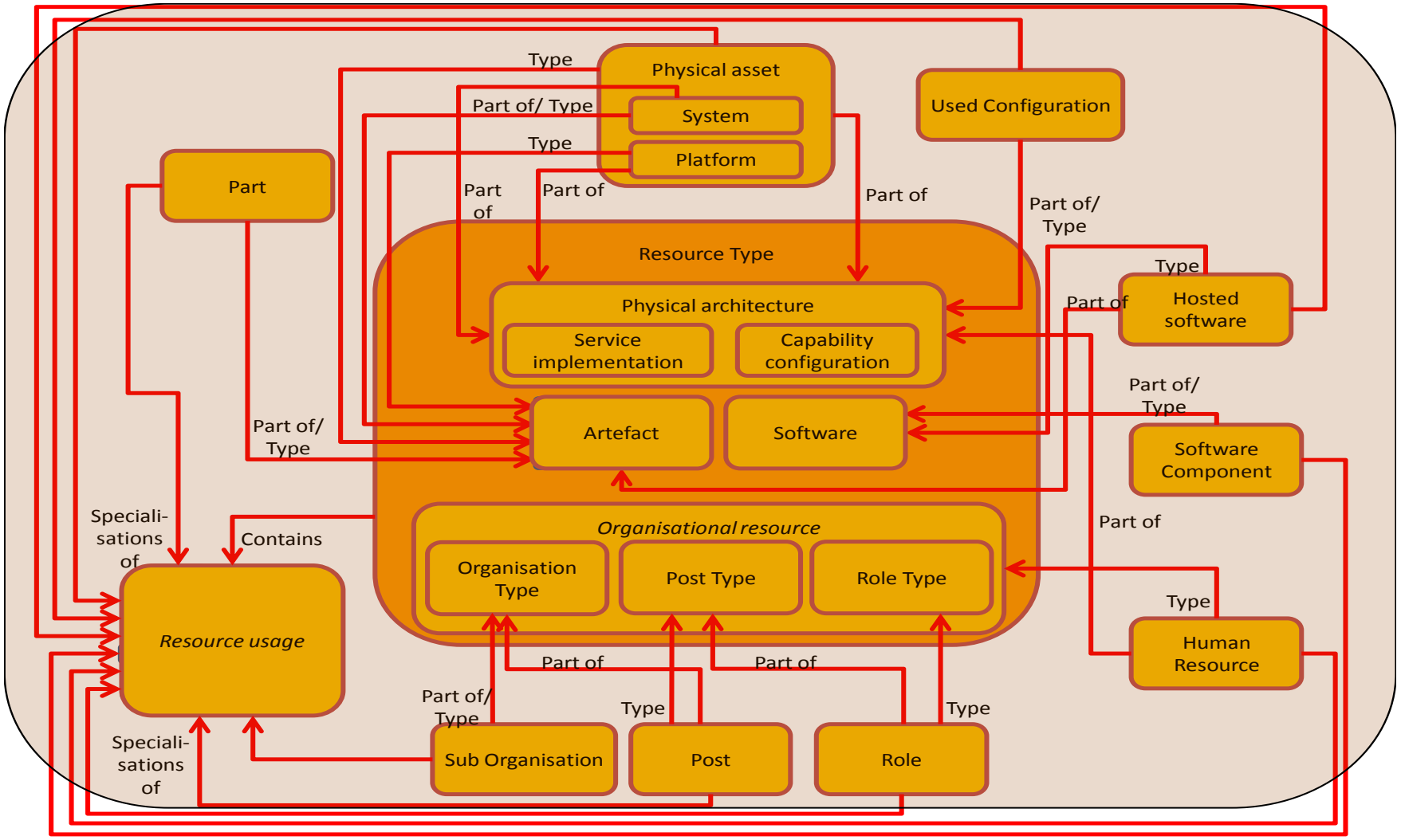

Figure 31: System Views MODAF M3 elements summary: resource usage

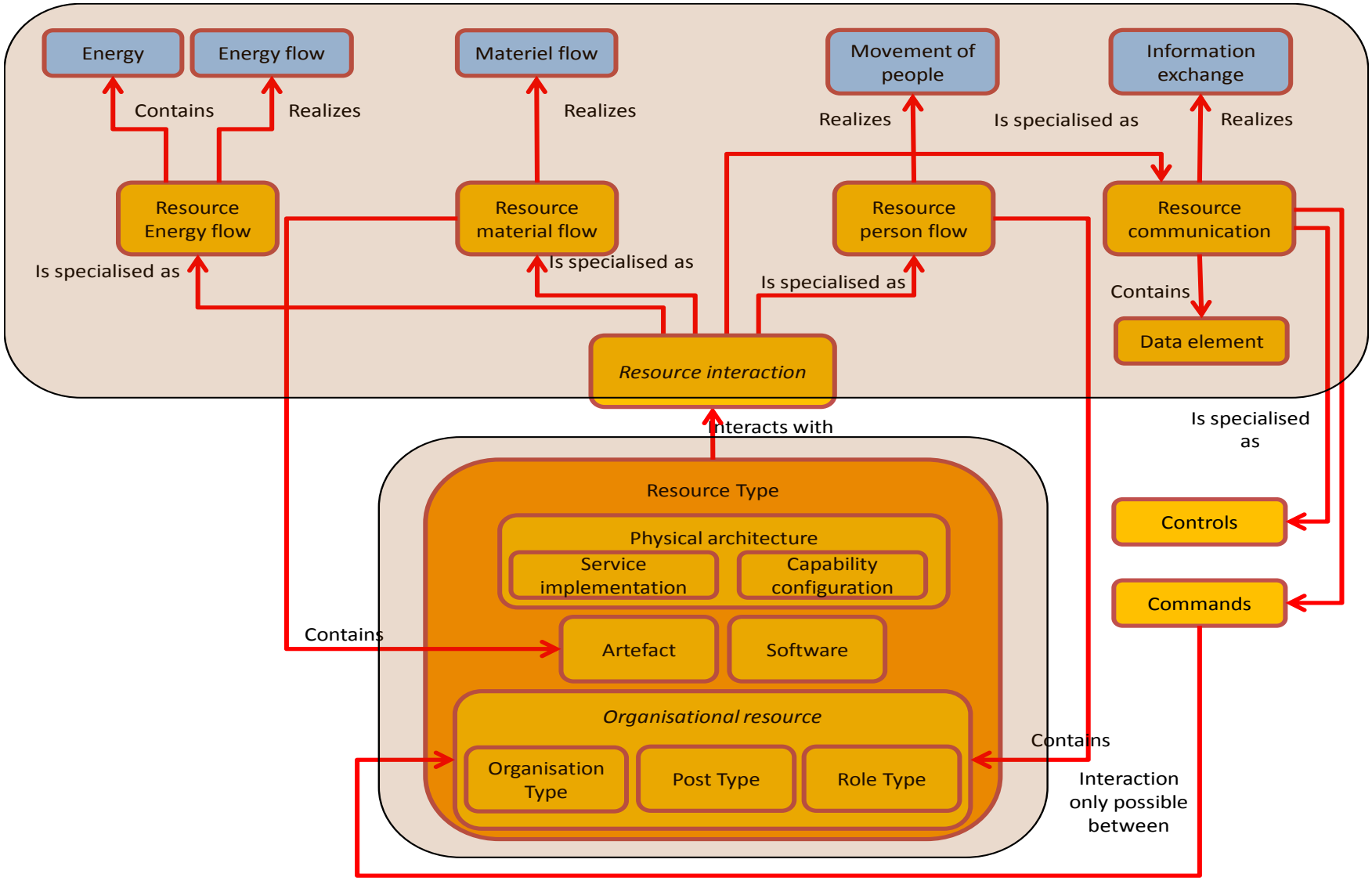

Figure 32: System Views MODAF M3 elements summary: resource interaction

1.6.1 SV-1: Resource interaction specification

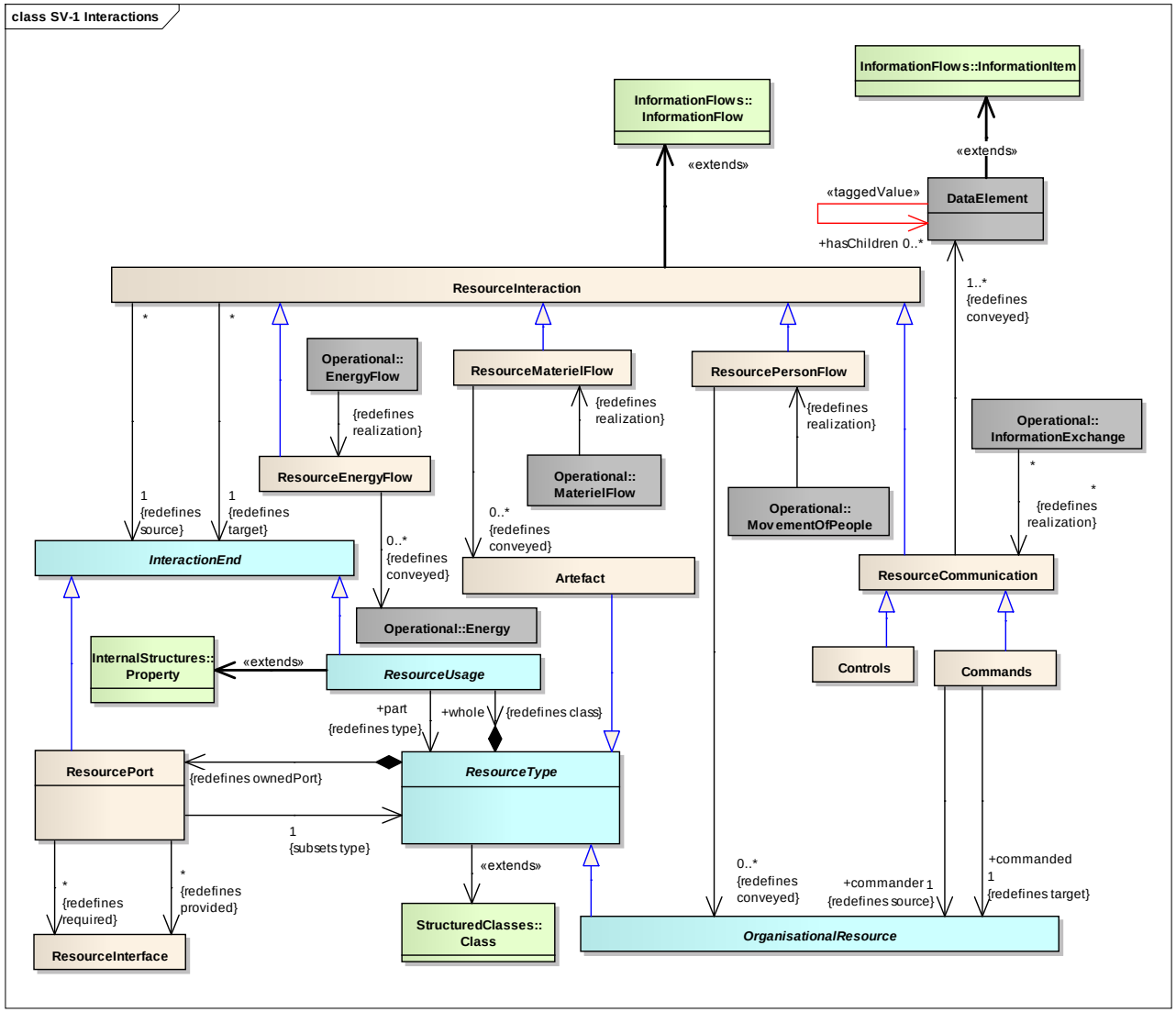

Figure 33: SV-1 in M3: resource interaction

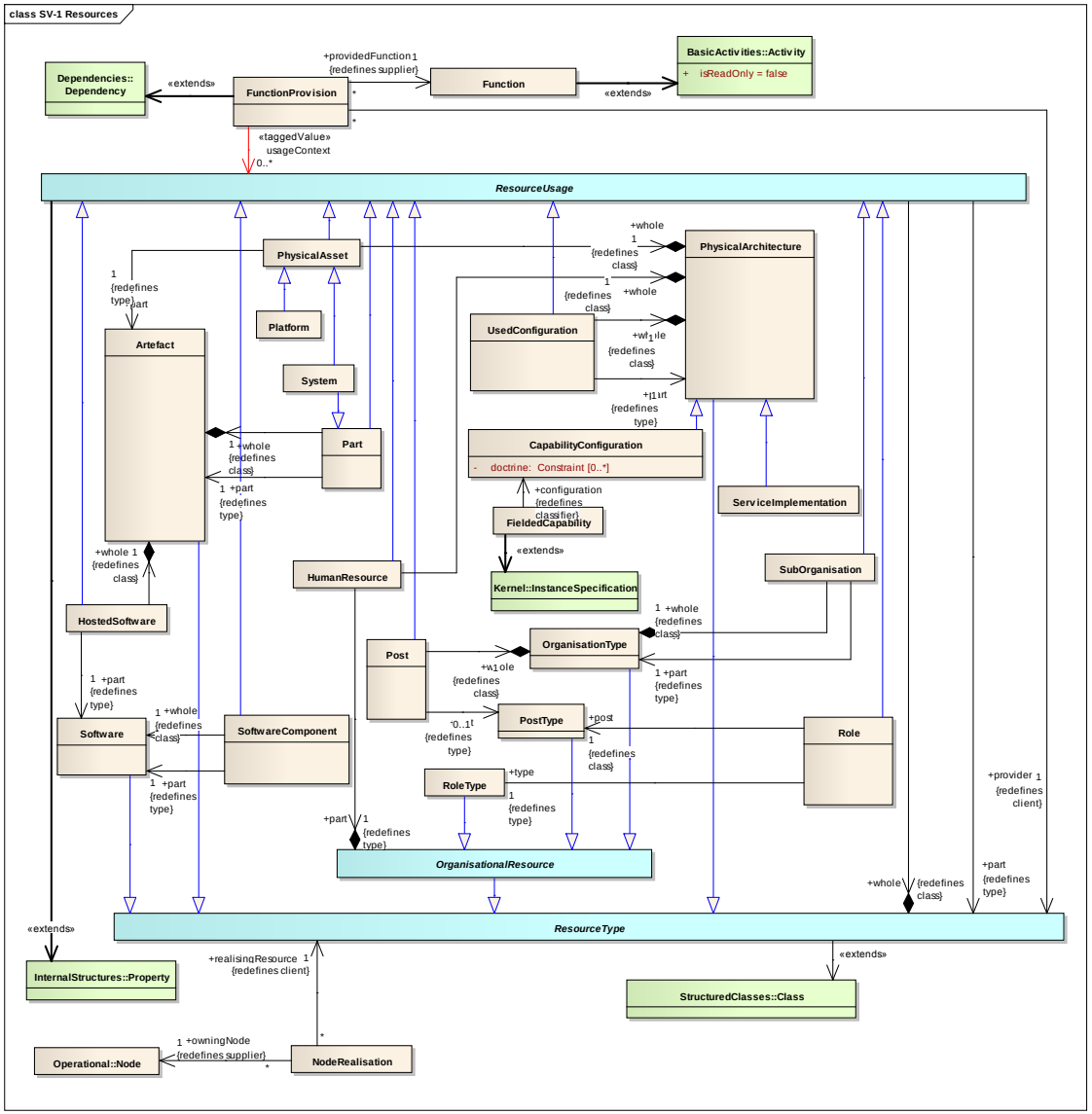

Figure 34: SV-1 in M3: resource configuration

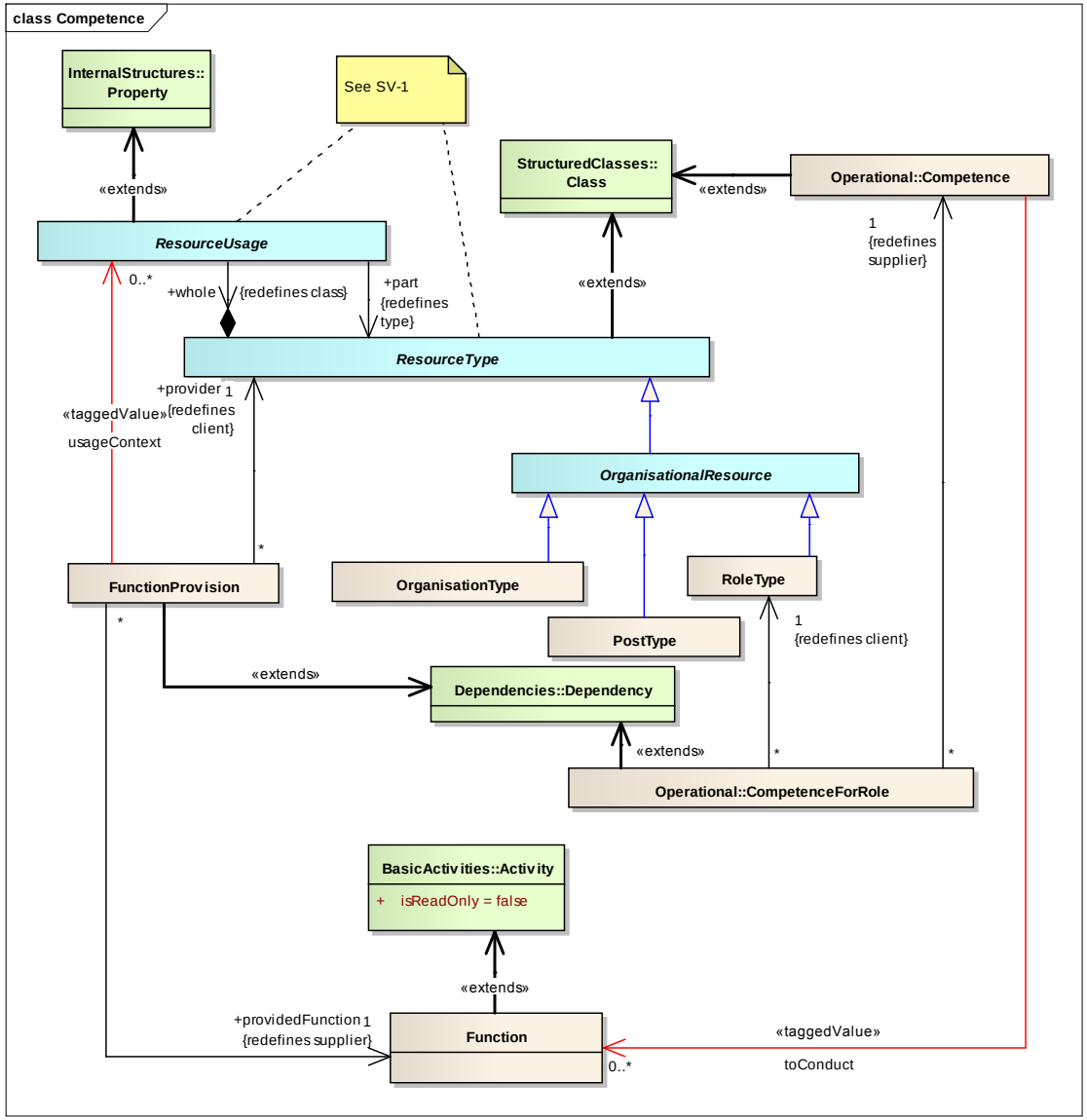

Figure 35: SV-1 in M3: Competence

1.6.2 SV-2: System port specification, connectivity description and clusters

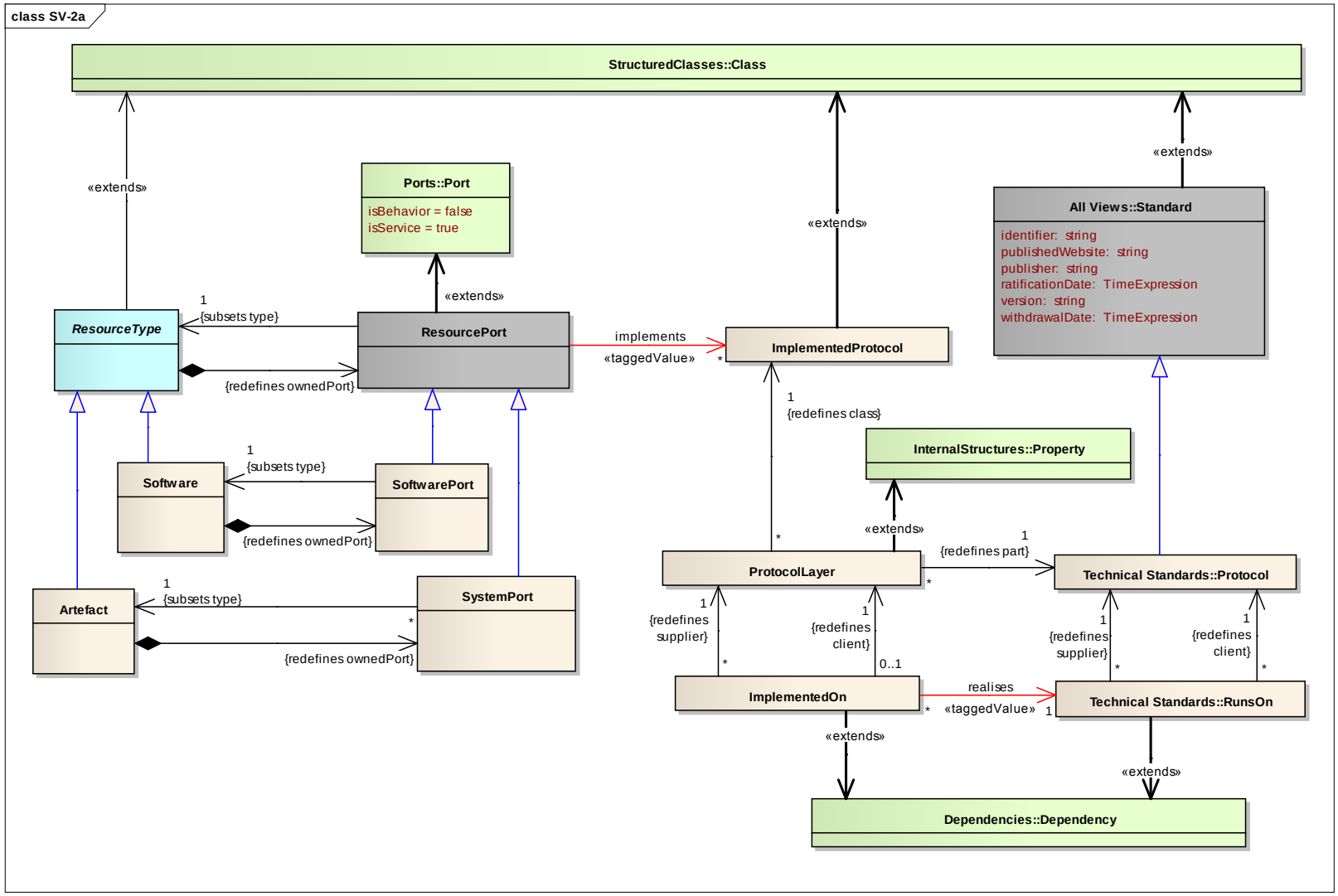

Figure 36: SV-2a in M3: Port specification

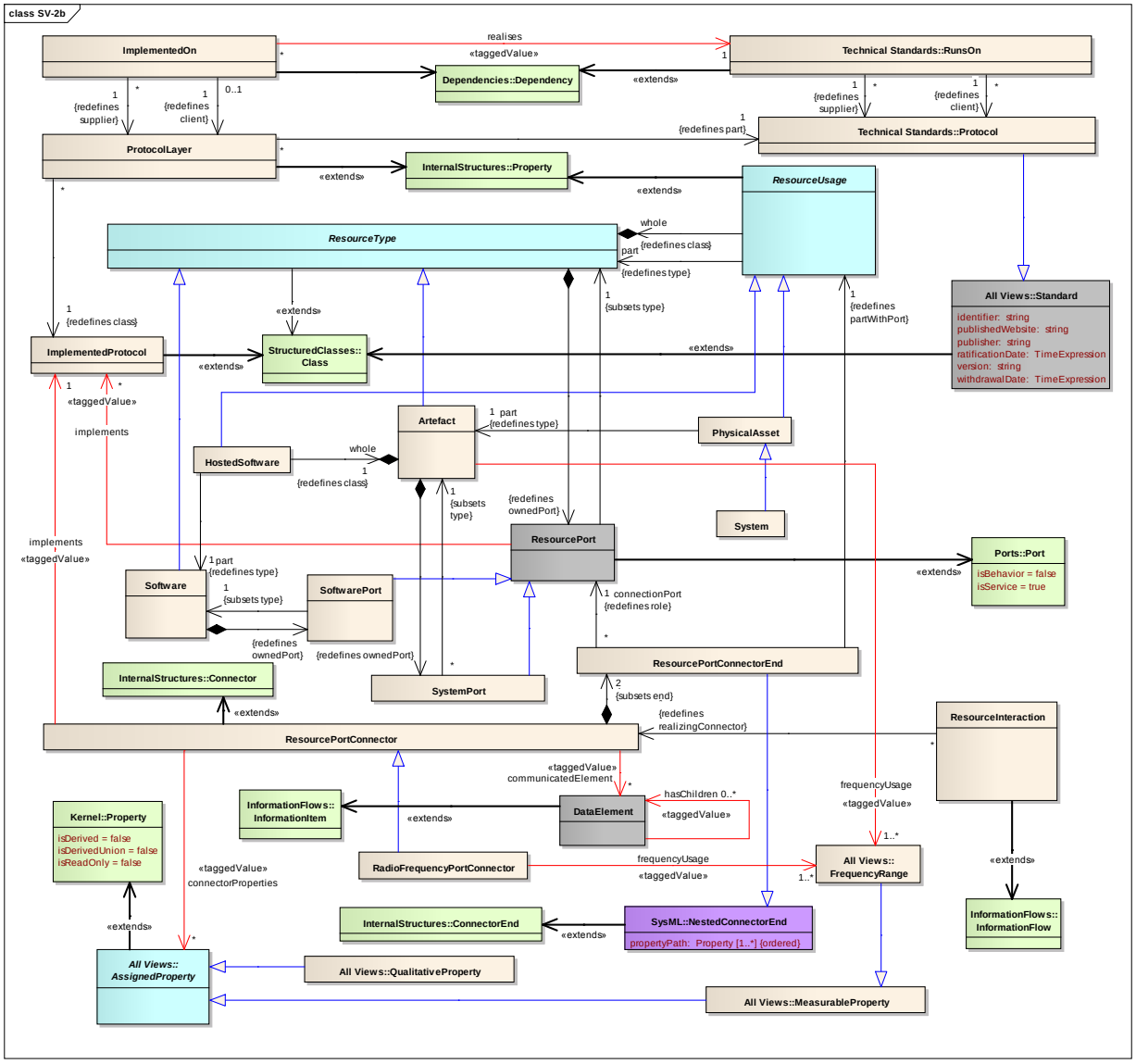

Figure 37: SV-2b in M3: Connectivity description

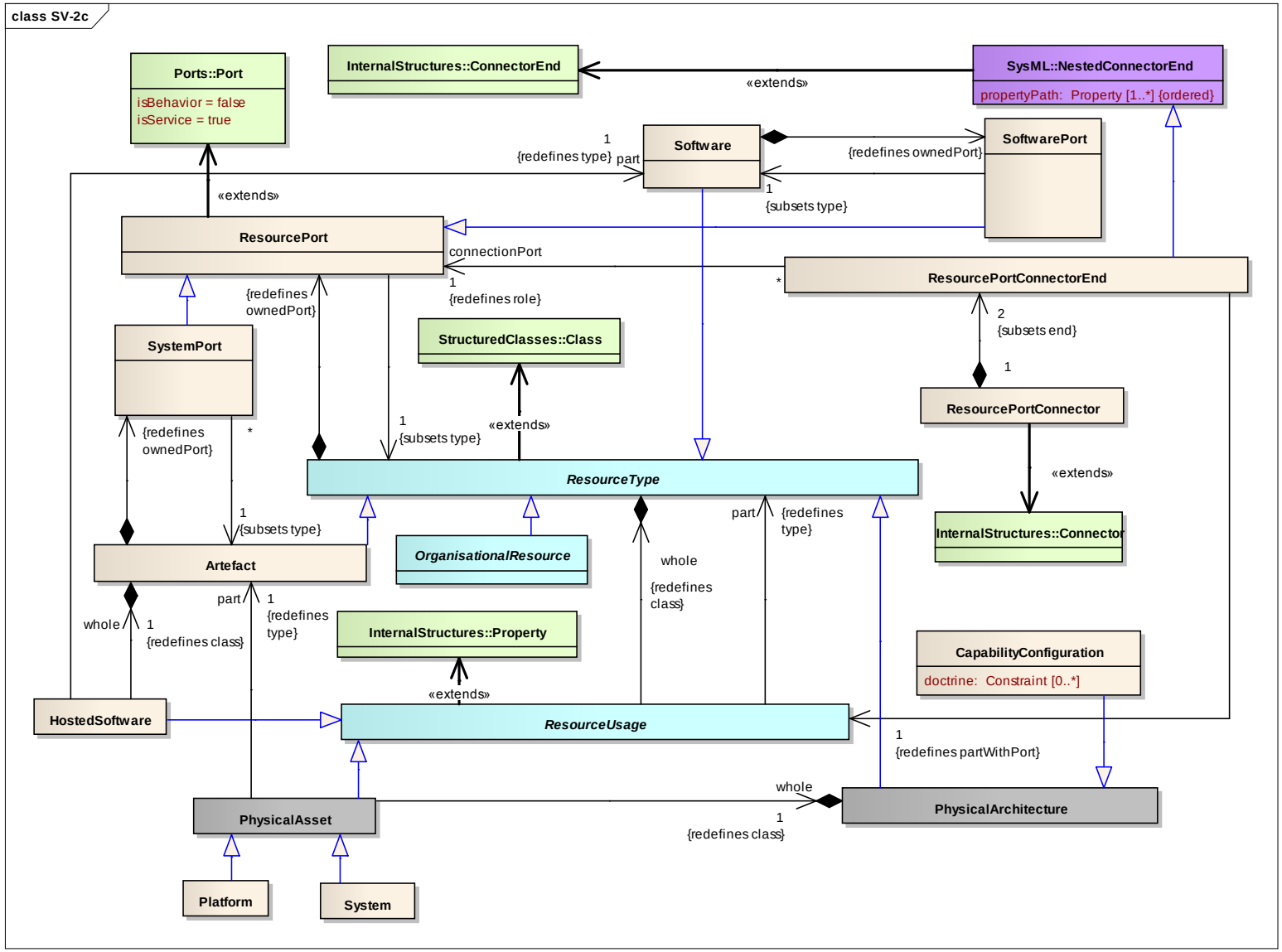

Figure 38: SV-2c in M3: Connectivity clusters

1.6.3 SV-3: Resource interaction matrix

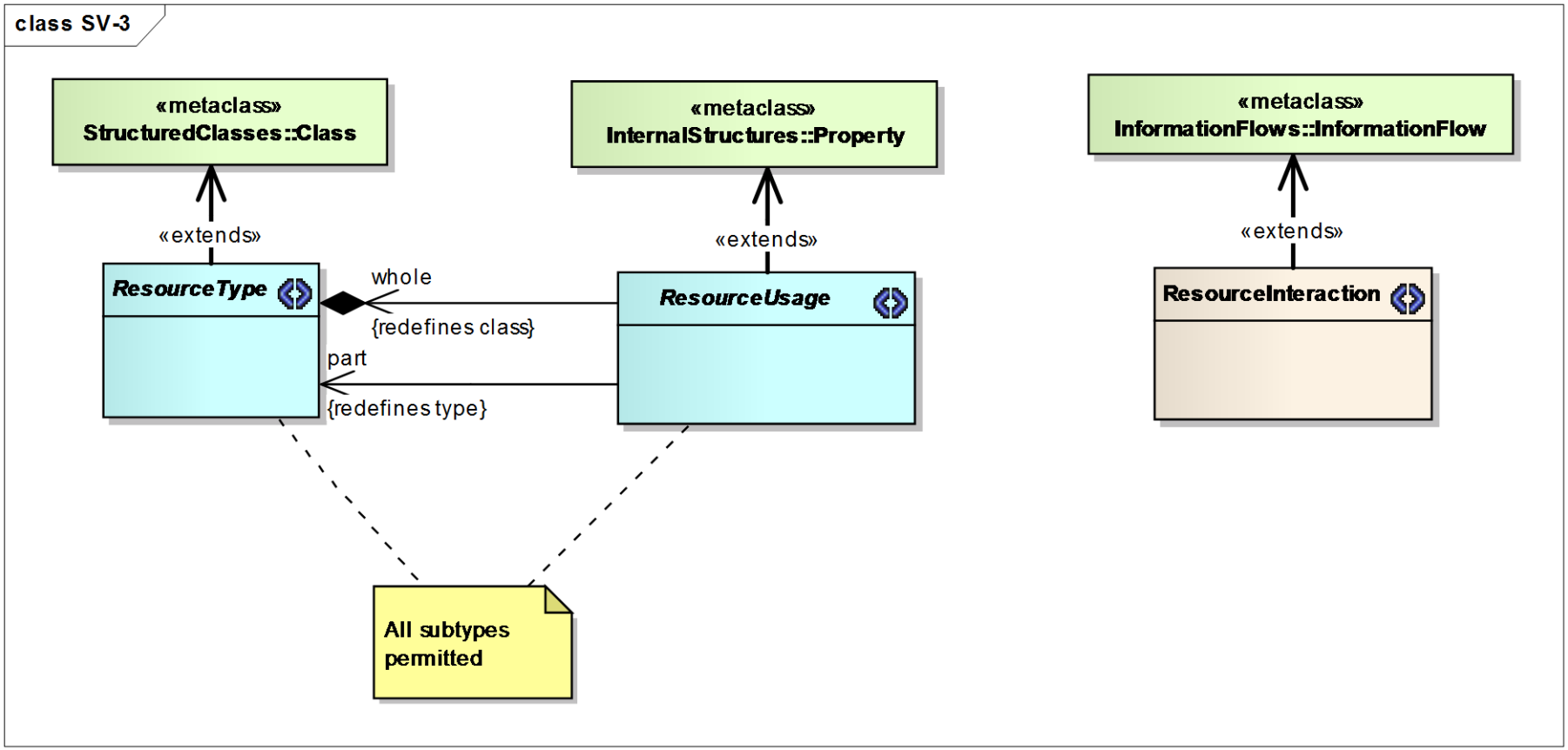

Figure 39: SV-3 in M3

1.6.4 SV-4: Functionality description

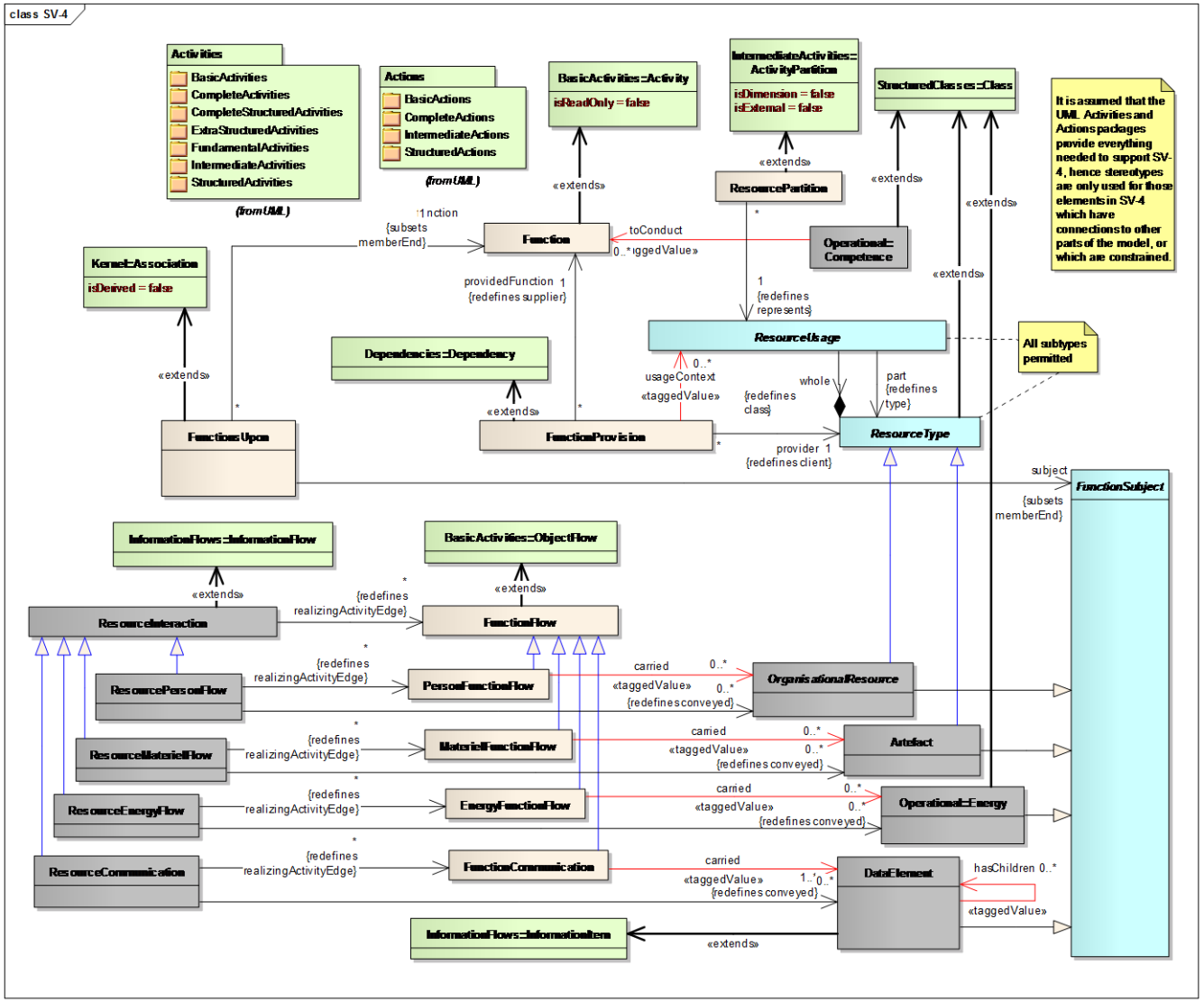

Figure 40: SV-4 in M3

1.6.5 SV-5: Function operational activity/ service function traceability matrix

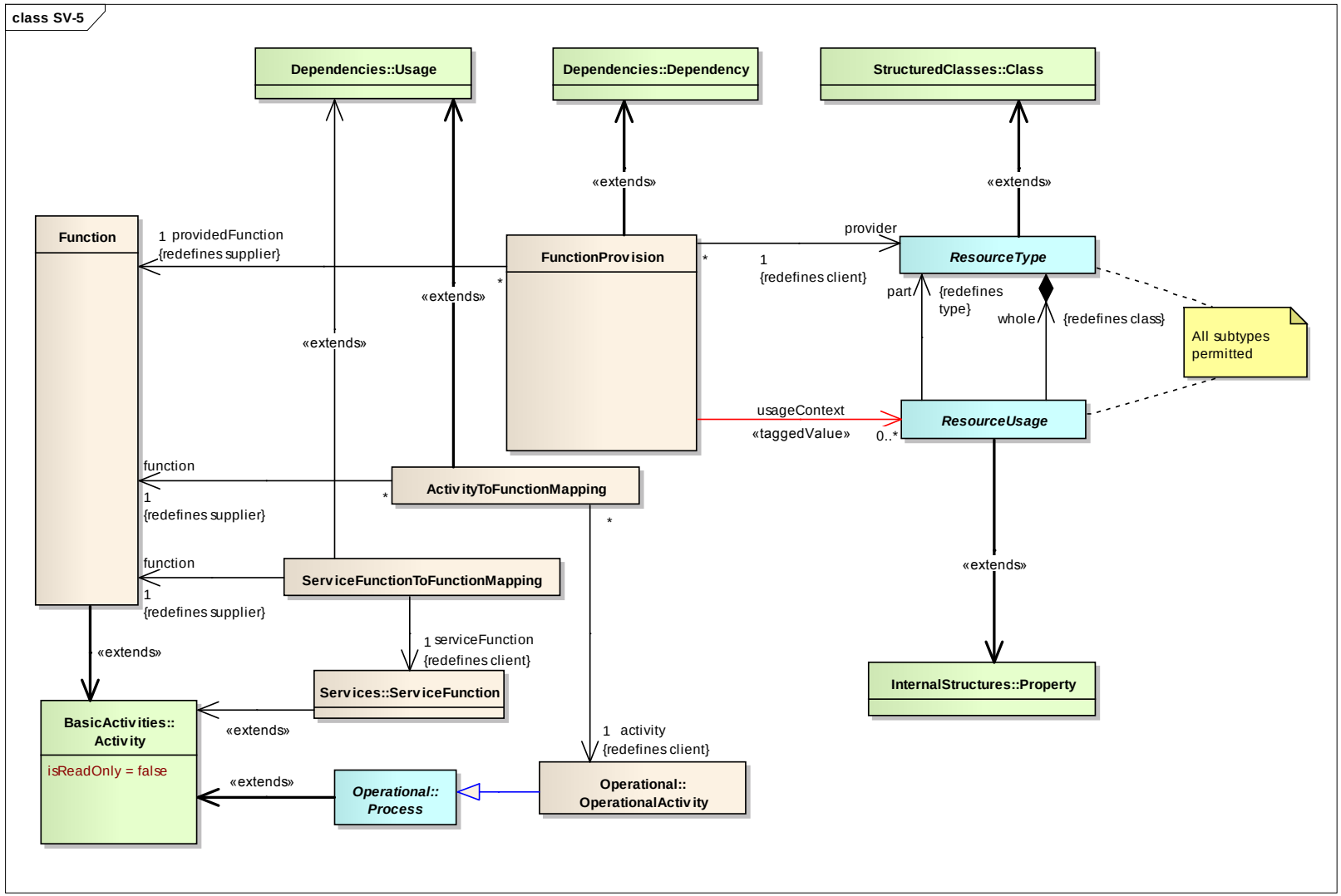

Figure 41: SV-5 in M3

1.6.6 SV-6: Systems data exchange matrix

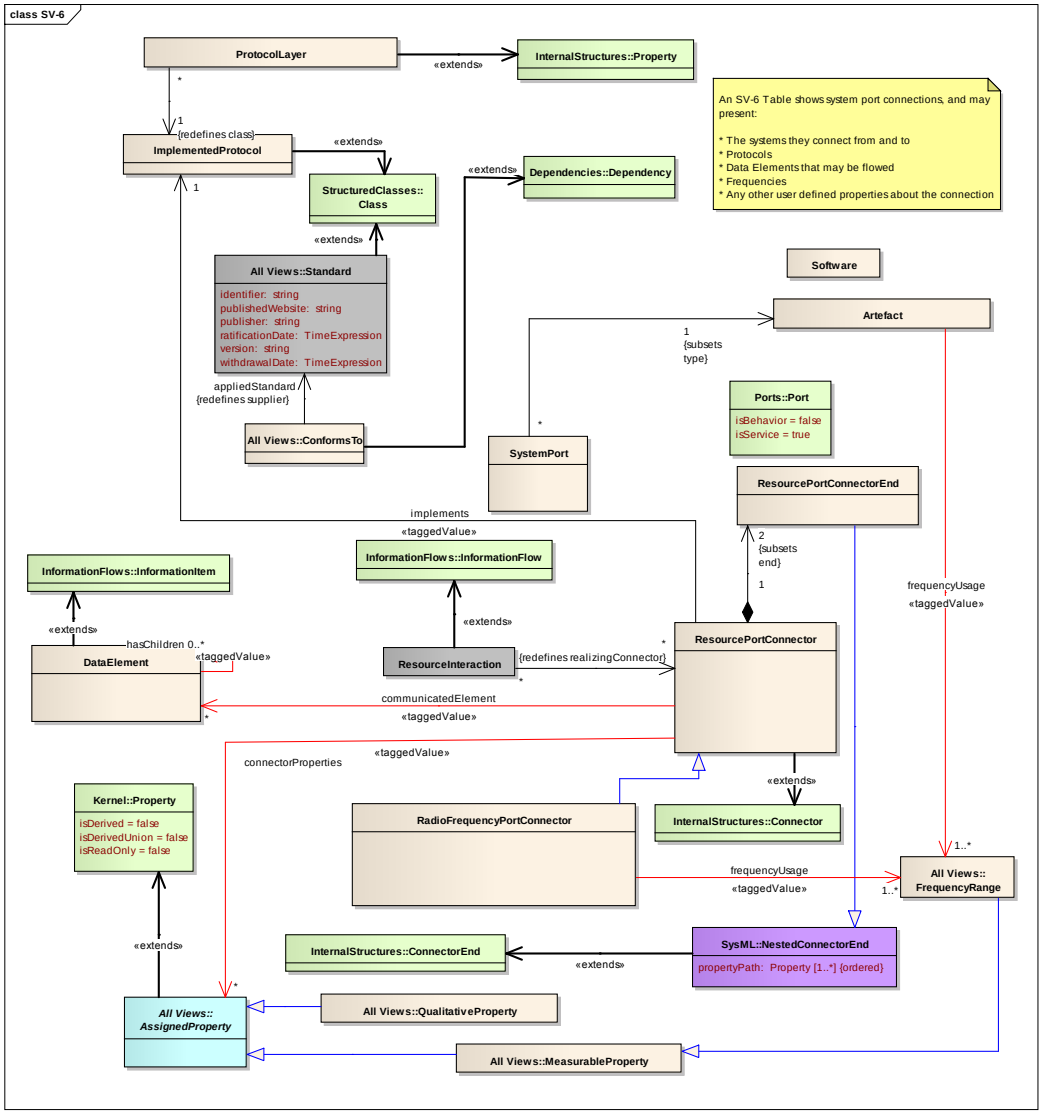

Figure 42: SV-6 in M3

1.6.7 SV-7: Resource performance parameters matrix

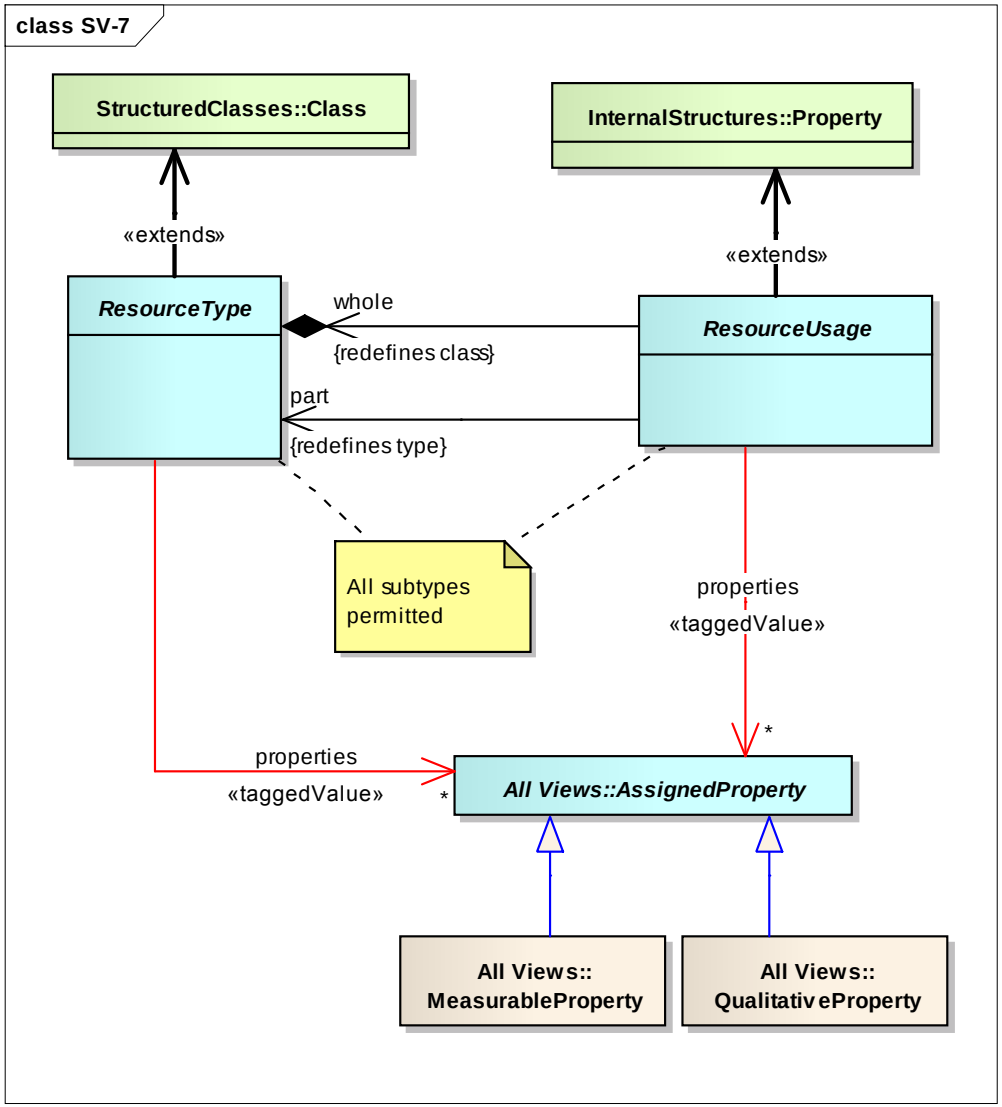

Figure 43: SV-7 in M3

1.6.8 SV-8: Capability configuration management

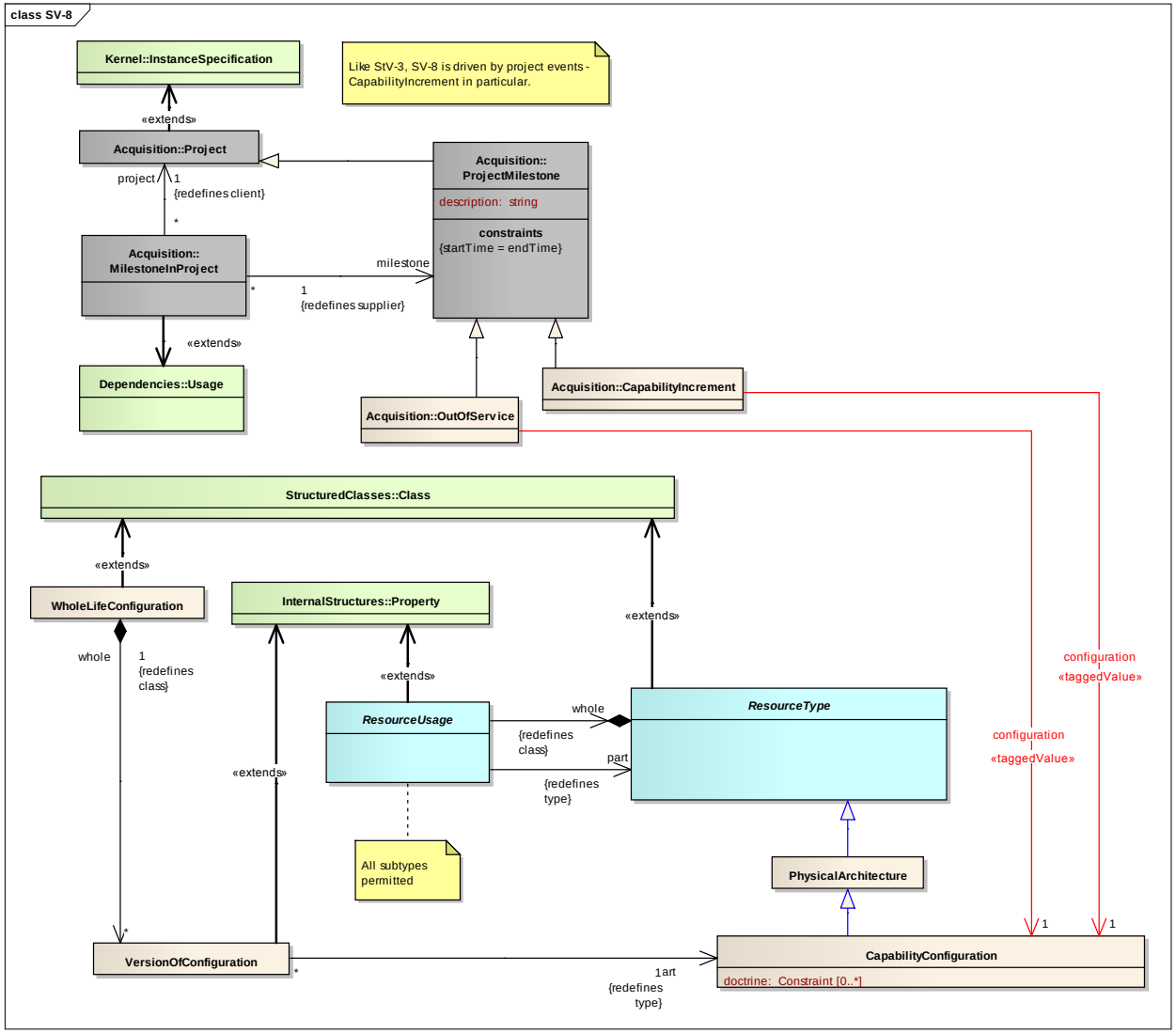

Figure 44: SV-8 in M3

1.6.9 SV-9: Technology and skills forecast

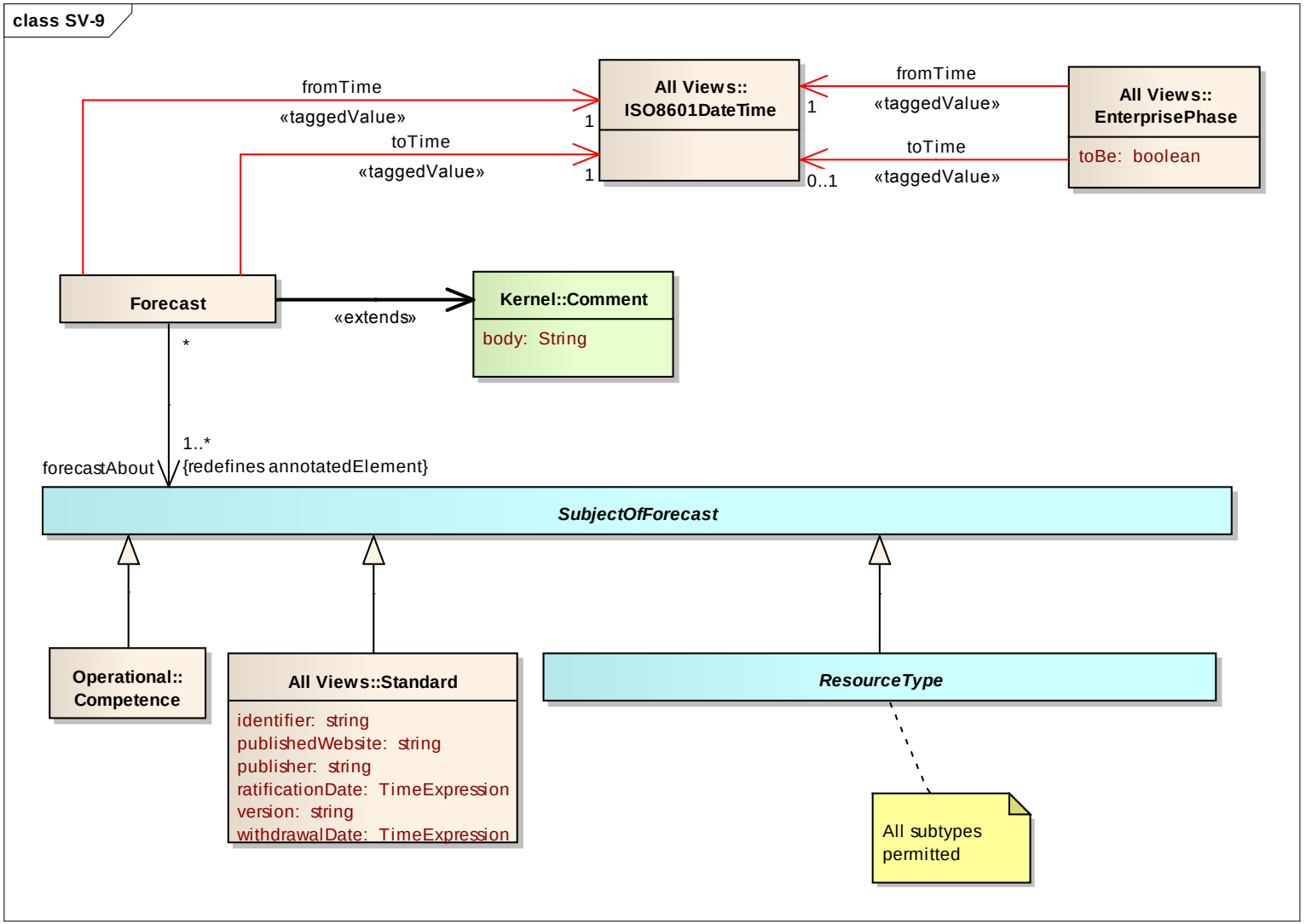

Figure 45: SV-9 in M3

1.6.10 SV-10: Resource constraints, state transition and event-trace description

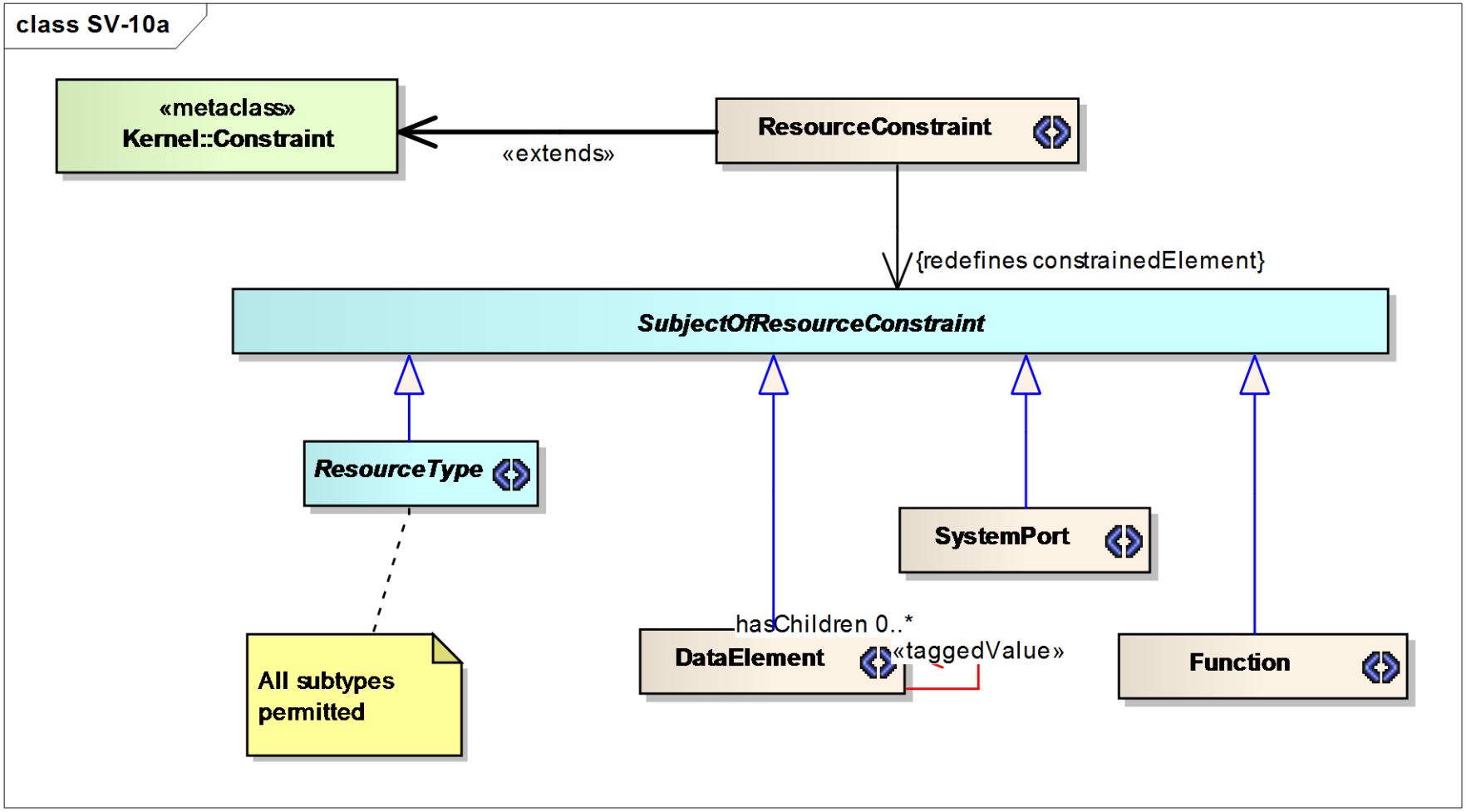

Figure 46: SV-10a in M3

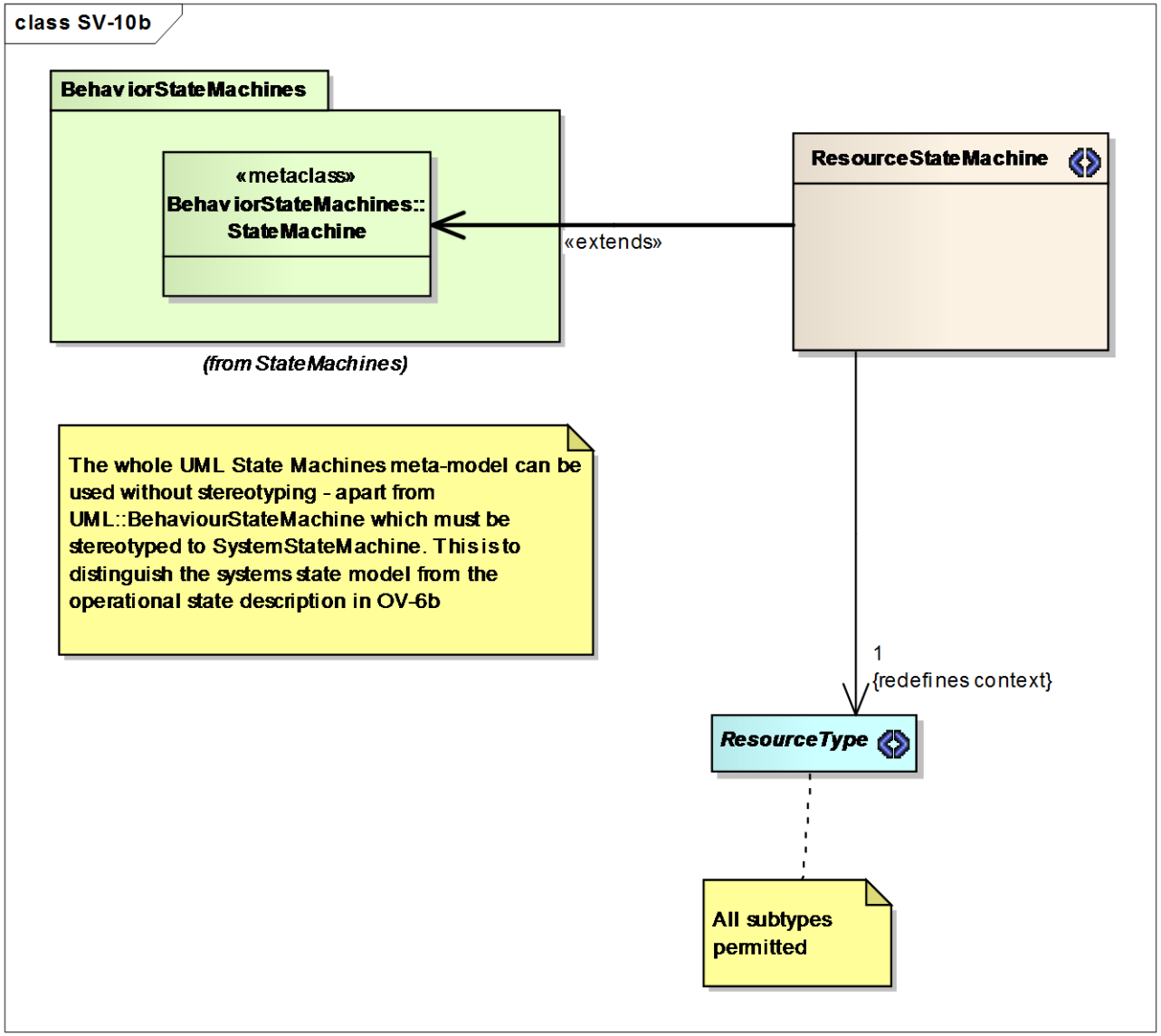

Figure 47: SV-10b in M3

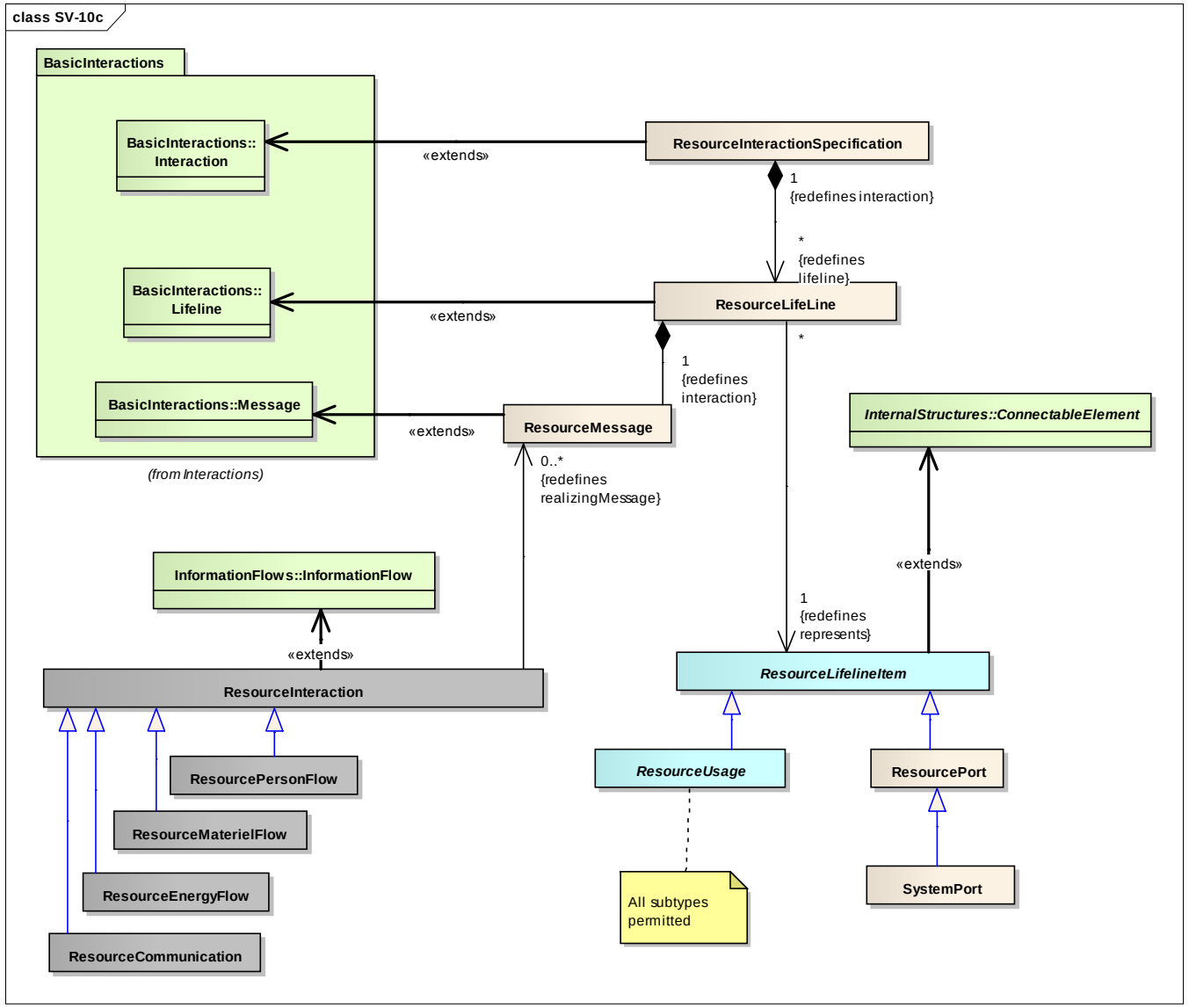

Figure 48: SV-10c in M3

1.6.11 SV-11: Physical schema

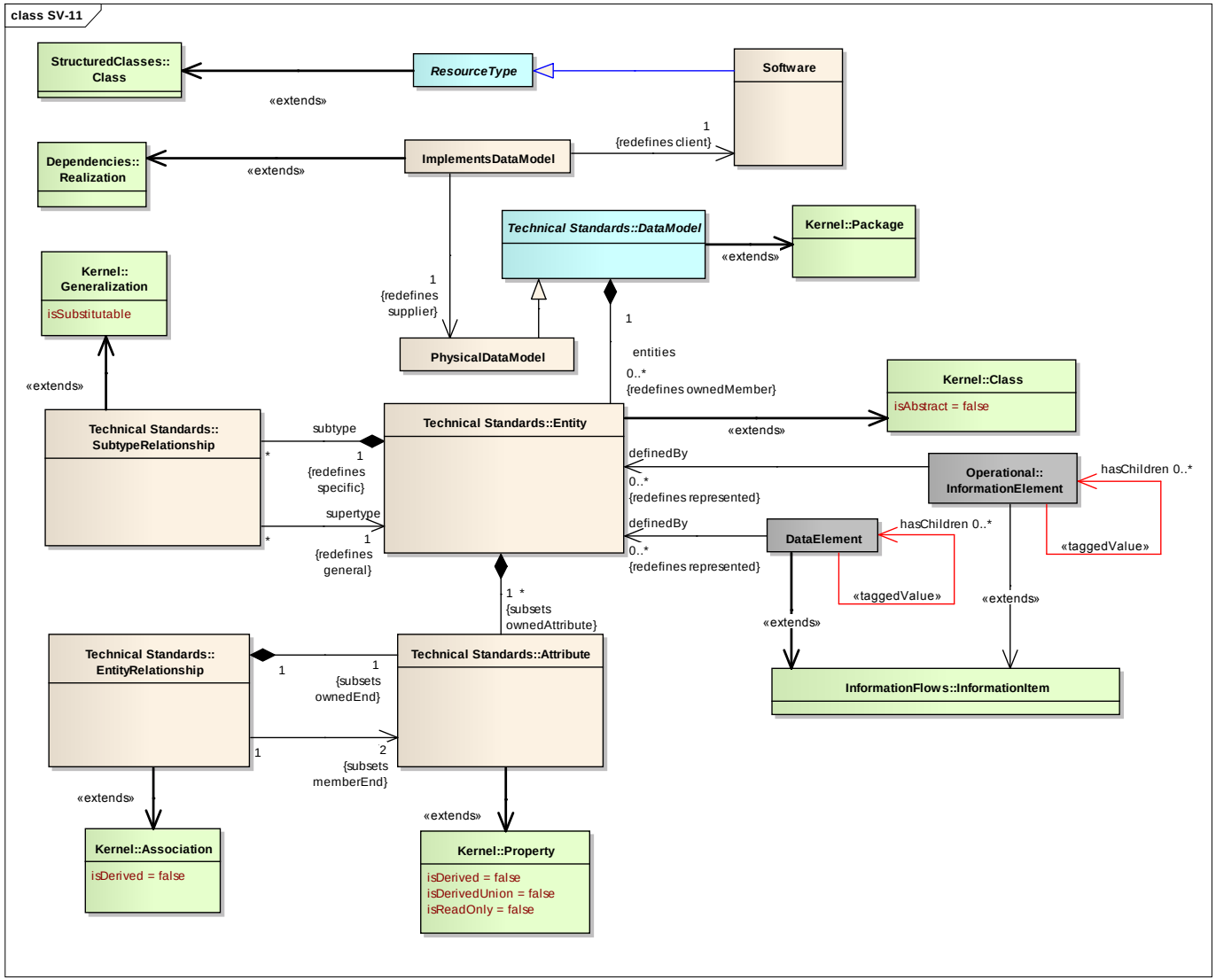

Figure 49: SV-11 in M3

1.6.12 SV-12: Service provision and service composition

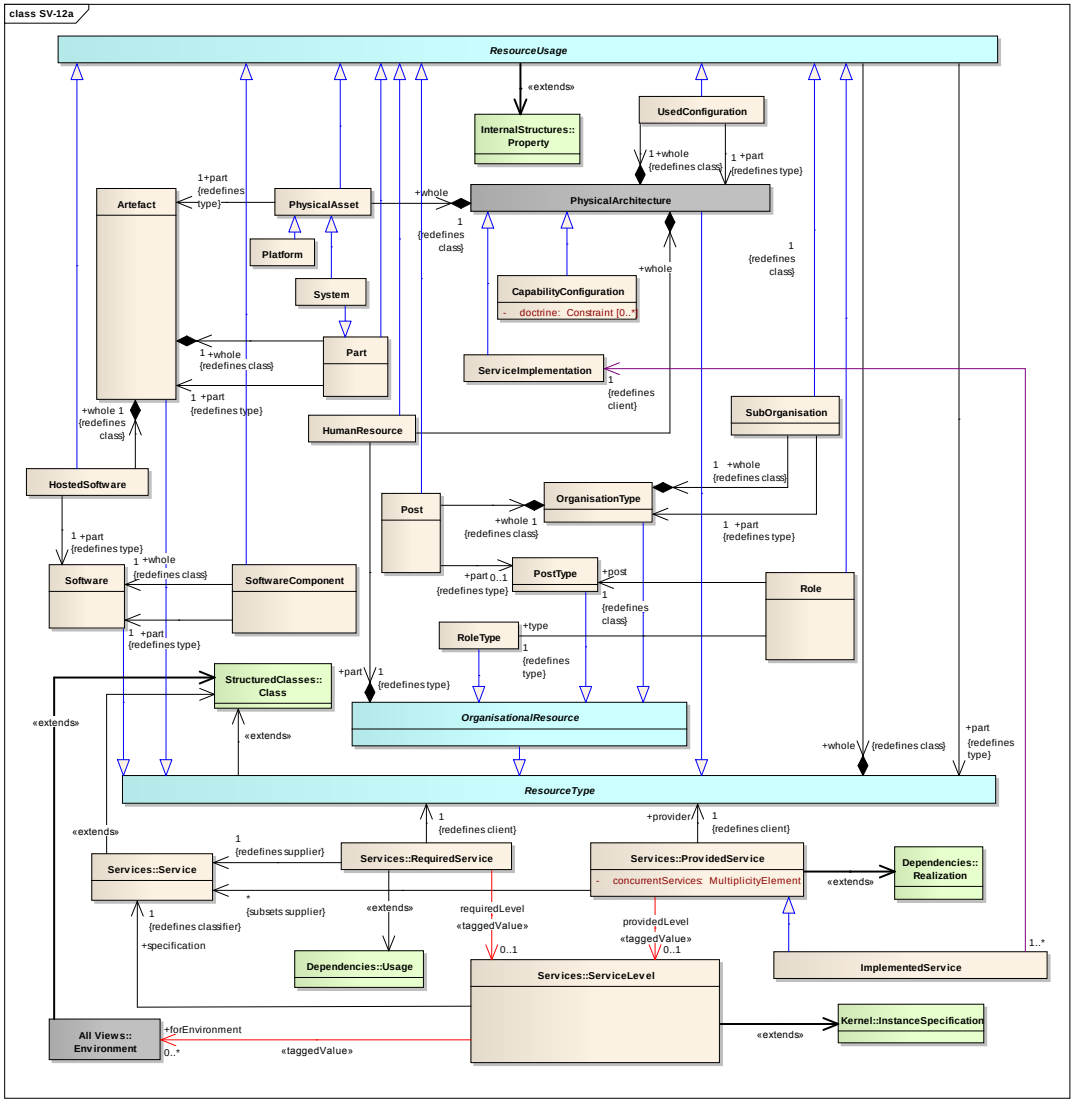

Figure 50: SV-12a in M3

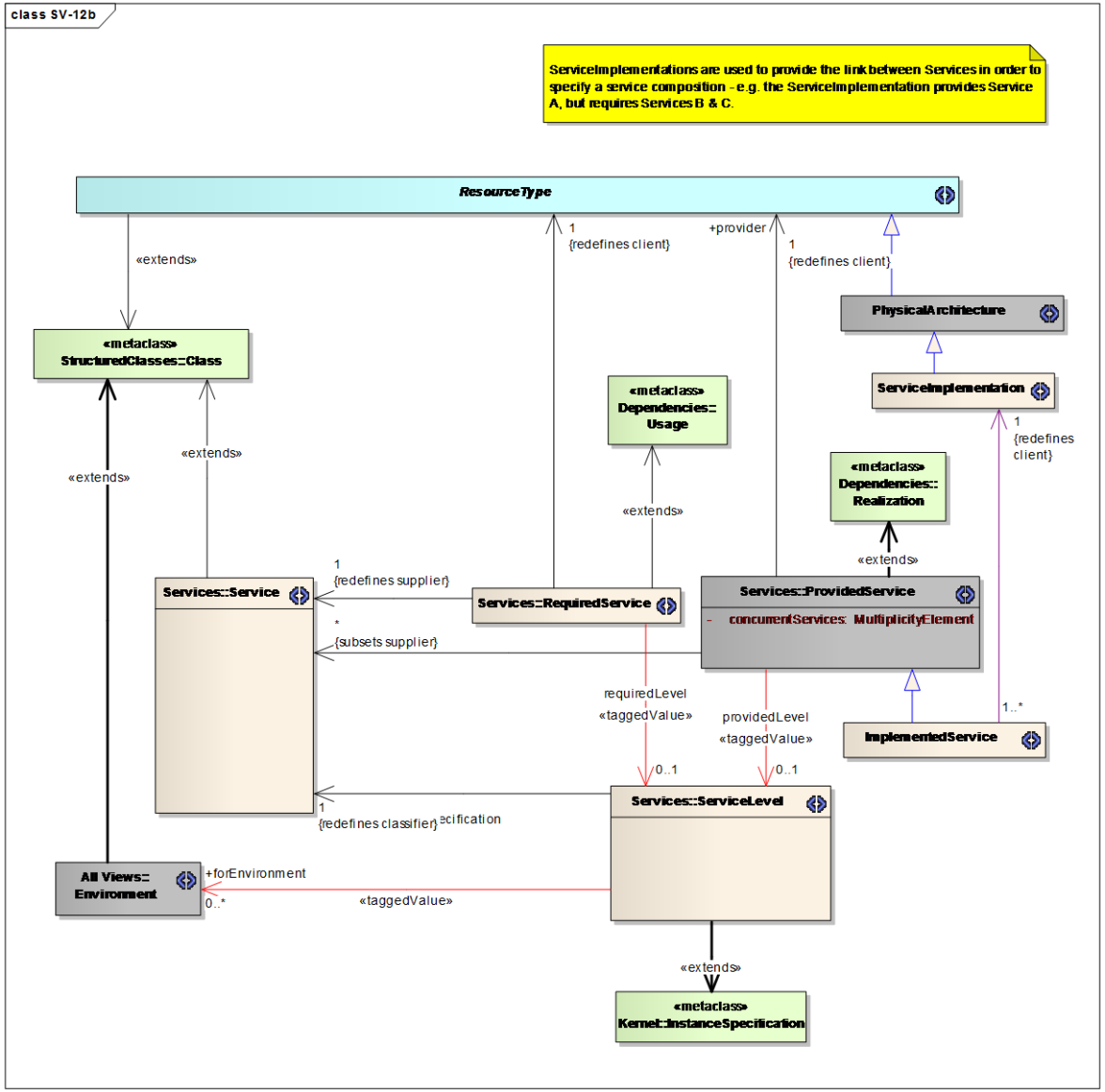

Figure 51: SV-12b in M3

1.6.13 System Views elements table

MODAF 1.2.004 System Views
ActivityToFunctionMapping «stereotype» *Associations:* ActivityToFunctionMapping – unction *Extension:* ActivityToFunctionMapping «extends» Usage *Attributes:* - Asserts that a Function (at least in part) performs or assists in the conducting of an OperationalActivity.
Artefact «stereotype» *Associations:* Artefact - SystemPort Artefact – FunctionSubject Artefact «taggedValue» FrequencyRange *Generalization:* Artefact - ResourceType *Attributes:* - A type of man-made object. Examples are "car", "radio", "diesel", etc.
CapabilityConfiguration «stereotype» *Associations:* - *Generalization:* CapabilityConfiguration - ConceptItem CapabilityConfiguration - PhysicalArchitecture *Attributes:* doctrine A composite structure representing the physical and human resources (and their interactions) that when brought together provide one or

more Capabilities.

A CapabilityConfiguration is a set of Resources configured to provide a capability, and should be guided by [doctrine] which may take the form of Standard or OperationalConstraint stereotypes.

CapabilityRealisation «stereotype»
Associations:
CapabilityRealisation - Capability
CapabilityRealisation - CapabilityConfiguration
Extension:
CapabilityRealisation «extends» Realization
Attributes:
-

Asserts that a CapabilityConfiguration is capable of achieving a Capability.

Commands «stereotype»
Associations:
Commands - OrganisationalResource
Commands – OrganisationalResource
Generalization:
Commands - ResourceCommunication
Attributes:
-

Asserts that one OrganisationalResource (source) commands another (target).

Controls «stereotype»
Associations:
-
Generalization:
Controls - ResourceCommunication
Attributes:
-

A type of ResourceInteraction where one Resource (source) controls another (target). Examples - the driver of a tank, one organisation

having operational control of another, a fire control system controlling a weapons system.

DataElement «stereotype»
Associations:
DataElement - Entity
DataElement «taggedValue» DataElement
Generalization:
DataElement - SubjectOfResourceConstraint
DataElement - FunctionSubject
Extension:
DataElement «extends» InformationItem
Attributes:
-

A formalised representation of data which is managed by or exchanged between resources.

EnergyFunctionFlow «stereotype»
Associations:
EnergyFunctionFlow «taggedValue» Energy
Generalization:
EnergyFunctionFlow - FunctionFlow
Attributes:
-

A flow of Energy between Functions.

FieldedCapability «stereotype»
Associations:
FieldedCapability - CapabilityConfiguration
Extension:
FieldedCapability «extends» InstanceSpecification
Attributes:
-

An actual, fully-realised capability. A FieldedCapability must indicate its configuration CapabilityConfiguration. Example: "HMS Iron

Duke, configured and crewed, operating under the appropriate doctrine". Note - the CapabilityConfiguration that this realises would specify a UK Type 23 rigate, the crew, the weapons systems, etc.

Forecast «stereotype»
Associations:
Forecast – SubjectOforecast
Forecast «taggedValue» ISO8601DateTime
Forecast «taggedValue» ISO8601DateTime
Extension:
Forecast «extends» Comment
Attributes:
-

A statement about the future state of one or more types of system or standard. Note, this is an EffectivityConstrainedItem - i.e. the forecast is effective for a given period.

Function «stereotype»
Associations:
-
Extension:
Function «extends» Activity
Generalization:
Function - SubjectOfResourceConstraint
Attributes:
-

A process performed by a Resource. Note1: Contrast with OperationalActivity, where the actor performing the activity is not known (i.e. it is just a logical node). A Function is implementation-specific. Note2: Should the Function be specific to one usage of a type of system, then the usageContext is specified by a reference to the composite structure property ResourceComposition typed by the system.

FunctionCommunication «stereotype»
Associations:
FunctionCommunication «taggedValue» DataElement
Generalization:
FunctionCommunication - FunctionFlow
Attributes:
-

A flow of information between Functions.

FunctionFlow «stereotype»
Associations:
-
Extension:
FunctionFlow «extends» ObjectFlow
Attributes:
-

A UML::ObjectFlow between Functions.

FunctionProvision «stereotype»
Associations:
FunctionProvision - Function
FunctionProvision - ResourceType
FunctionProvision «taggedValue» ResourceUsage
Extension:
FunctionProvision «extends» Dependency
Attributes:
-

Asserts that a Resource performs a Function.

FunctionSubject
Associations:
-
Attributes:
-

An element that can be the subject of a Function.

FunctionsUpon «stereotype»
Associations:
FunctionsUpon - FunctionSubject
FunctionsUpon - Function
Extension:
FunctionsUpon «extends» Association
Attributes:
-

Asserts that a Function has some effect on an DataElement.

HostedSoftware «stereotype»
Associations:
HostedSoftware - Artefact
HostedSoftware - Software
Generalization:
HostedSoftware - ResourceUsage
Attributes:
-

Asserts that Software is hosted on an Artefact (which means the artefact is some kind of computer system).

HumanResource «stereotype»
Associations:
HumanResource - PhysicalArchitecture
HumanResource - OrganisationalResource
Generalization:
HumanResource - ResourceUsage
Attributes:
-

The role of an OrganisationalResource in a PhysicalArchitecture.

ImplementedOn «stereotype»
Associations:
ImplementedOn - ProtocolLayer
ImplementedOn - ProtocolLayer
ImplementedOn «taggedValue» RunsOn
Extension:
ImplementedOn «extends» Dependency
Attributes:
-

Asserts that one Protocol (client) may be implemented on another (supplier).

ImplementedProtocol «stereotype»
Associations:
-
Extension:
ImplementedProtocol «extends» Class
Attributes:
-

A specific protocol or set of protocols (ordered into a stack) that may be implemented by a SystemPort or SystemPortConnector.

ImplementedService «stereotype»
Associations:
ImplementedService - ServiceImplementation
Generalization:
ImplementedService - ProvidedService
Attributes:
-

A ProvidedService Realization relationship that asserts the mandatory link from a ServiceImplementation to the Service it implements.

ImplementsDataModel «stereotype»
Associations:
ImplementsDataModel – PhysicalDataModel
ImplementsDataModel - Software
Extension:
ImplementsDataModel «extends» Realization
Attributes:
-

An assertion that Software implements a PhysicalDataModel.

InteractionEnd
Associations:
-
Attributes:
-

An element that can be at either end of a ResourceInteraction. (ABSTRACT)

MaterielFunctionFlow «stereotype»
Associations:
MaterielFunctionFlow «taggedValue» Artefact
Generalization:
MaterielFunctionFlow - FunctionFlow
Attributes:
-

A flow of materiel (artefacts) between Functions.

NodeRealisation «stereotype»
Associations:
NodeRealisation – ResourceType
Extension:
NodeRealisation «extends» Realization
Attributes:
-

An assertion that a ResourceType provides the functionality specified by an operational node.

OrganisationType «stereotype»
Associations:
OrganisationType - ActualOrganisation
Generalization:
OrganisationType - OrganisationalResource
Attributes:
-

A type of ActualOrganisation. Examples: Government Department, Commercial Company, Accounting Department.

OrganisationalResource «stereotype»
Associations:
-
Generalization:
OrganisationalResource - ResourceType
OrganisationalResource - unctionSubject
Attributes:
-

A ResourceType that is human (i.e. a PostType, OrganisationType or RoleType). [ABSTRACT]

Part «stereotype»
Associations:
Part - Artefact
Part - Artefact
Generalization:
Part - ResourceUsage
Attributes:
-

Usage of an Artefact as a part of another Artefact.

PersonFunctionFlow «stereotype»
Associations:
PersonFunctionFlow «taggedValue» OrganisationalResource
Generalization:
PersonFunctionFlow - FunctionFlow
Attributes:
-

A flow of human resources between Functions.

PhysicalArchitecture «stereotype»
Associations:
-
Generalization:
PhysicalArchitecture - ResourceType
PhysicalArchitecture - ArchitecturalProduct
Attributes:
-

A configuration of Resources for a purpose.

PhysicalAsset «stereotype»
Associations:
PhysicalAsset - PhysicalArchitecture
PhysicalAsset - Artefact
Generalization:
PhysicalAsset - ResourceUsage
Attributes:
-

Usage of an Artefact as a component of a PhysicalArchitecture.

PhysicalDataModel «stereotype»
Associations:
-
Generalization:
PhysicalDataModel - DataModel
Attributes:
-

A PhysicalDataModel is an implementable specification of a data structure. A PhysicalDataModel realises a LogicalDataModel, taking into account implementation restrictions and performance issues whilst still enforcing the constraints, relationships and typing of the logical model.

Platform «stereotype»
Associations:
-
Generalization:
Platform - PhysicalAsset
Attributes:
-

Usage of an Artefact as a platform (e.g. vessel, aircraft, etc.) in a particular PhysicalArchitecture.

Post «stereotype»
Associations:
Post - OrganisationType
Post - PostType
Generalization:
Post - ResourceUsage
Attributes:
-

Asserts that a post exists in an OrganisationType of the type specified by the related PostType. Note: posts in organisations may or may not be filled.

PostType «stereotype»
Associations:
PostType - ActualPost
Generalization:
PostType - OrganisationalResource
Attributes:
-

A type of point of contact or responsible person. Note that this is the type of post - e.g. Desk Officer, Commander Land Component, etc.

ProtocolLayer «stereotype»
Associations:
ProtocolLayer – ImplementedProtocol
ProtocolLayer - Protocol
Extension:
ProtocolLayer «extends» Property
Attributes:
-

Asserts that an ImplementedProtocol uses a protocol.

RadioFrequencyPortConnector «stereotype»
Associations:
RadioFrequencyPortConnector «taggedValue» FrequencyRange
Generalization:
RadioFrequencyPortConnector - ResourcePortConnector
Attributes:
-

A SystemPortConnector that connects two ports which are typed as RadioFrequencyPort.

ResourceCommunication «stereotype»
Associations:
ResourceCommunication - DataElement
ResourceCommunication - FunctionCommunication
Generalization:
ResourceCommunication - ResourceInteraction
Attributes:
-

A ResourceInteraction where data is exchanged.

ResourceConstraint «stereotype»
Associations:
ResourceConstraint - SubjectOfResourceConstraint
Extension:
ResourceConstraint «extends» Constraint
Attributes:
-

A rule governing the structural or functional aspects of an implementation - this may also include constraints on OrganisationalResources that are part of an implementation.

ResourceEnergyFlow «stereotype»
Associations:
ResourceEnergyFlow - Energy
ResourceEnergyFlow - EnergyFunctionFlow
Generalization:
ResourceEnergyFlow - ResourceInteraction
Attributes:
-

A ResourceInteraction where energy flows between the Resources.

ResourceInteraction «stereotype»
Associations:
ResourceInteraction - InteractionEnd
ResourceInteraction - InteractionEnd
ResourceInteraction - ResourcePortConnector
ResourceInteraction - FunctionFlow
ResourceInteraction - ResourceMessage
Extension:
ResourceInteraction «extends» InformationFlow
Attributes:
-

An assertion that two FunctionalResources interact. Examples: data exchange between systems, conversations between people, people using

systems, flows of materiel from one resource to another, etc.
ResourceInteractionSpecification «stereotype» *Associations:* - *Extension:* ResourceInteractionSpecification «extends» Interaction *Attributes:* - A specification of the interactions between aspects of a Resources architecture.
ResourceInterface «stereotype» *Associations:* - *Attributes:* - A specification of an interface provided or required by a ResourcePort. Note: ResourceInterface should only be used in the case of tight-coupled architectures. In Service-Oriented Architectures, resources should provide or require services, but there should be no coupling of those resources through their services.
ResourceLifeLine «stereotype» *Associations:* ResourceLifeLine - ResourceInteractionSpecification ResourceLifeLine - ResourceLifelineItem *Extension:* ResourceLifeLine «extends» Lifeline *Attributes:* - A UML::Lifeline that represents a ResourceLifelineItem that interacts with another ResourceLifelineItem.

ResourceLifelineItem
Associations:
-
Extension:
ResourceLifelineItem «extends» ConnectableElement
Attributes:
-

An element that may be represented as a ResourceLifeLine in a ResourceInteractionSpecification. [ABSTRACT]

ResourceMaterielFlow «stereotype»
Associations:
ResourceMaterielFlow - Artefact
ResourceMaterielFlow - MaterielFunctionFlow
Generalization:
ResourceMaterielFlow - ResourceInteraction
Attributes:
-

A ResourceInteraction where materiel (Artefacts) flow between resources.

ResourceMessage «stereotype»
Associations:
ResourceMessage - ResourceLifeLine
Extension:
ResourceMessage «extends» Message
Attributes:
-

An element that passes between one resource and another in a ResourceInteractionSpecification.

ResourcePartition «stereotype»
Associations:
ResourcePartition - ResourceUsage
Extension:
ResourcePartition «extends» ActivityPartition
Attributes:
-

A swimlane representing a usage of a Resource.

ResourcePersonFlow «stereotype»
Associations:
ResourcePersonFlow - OrganisationalResource
ResourcePersonFlow - PersonFunctionFlow
Generalization:
ResourcePersonFlow - ResourceInteraction
Attributes:
-

A ResourceInteraction where HumanResources are flowed from one resource to another.

ResourcePort «stereotype»
Associations:
ResourcePort - ResourcePortConnectorEnd
ResourcePort - ResourceType
ResourcePort - ResourceInterface
ResourcePort - ResourceInterface
ResourcePort «taggedValue» ImplementedProtocol
Extension:
ResourcePort «extends» Port
Generalization:
ResourcePort - ResourceLifelineItem
ResourcePort - InteractionEnd
Attributes:

-

A port or interface provided by a Resource.

ResourcePortConnector «stereotype»
Associations:
ResourcePortConnector - ResourcePortConnectorEnd
ResourcePortConnector «taggedValue» DataElement
ResourcePortConnector «taggedValue» AssignedProperty
ResourcePortConnector «taggedValue» ImplementedProtocol
Extension:
ResourcePortConnector «extends» Connector
Attributes:
-

Asserts that a connection exists between two resource ports.

ResourcePortConnectorEnd «stereotype»
Associations:
ResourcePortConnectorEnd - ResourceUsage
Generalization:
ResourcePortConnectorEnd - NestedConnectorEnd
Attributes:
-

The end of a connector between resource ports.

ResourceStateMachine «stereotype»
Associations:
ResourceStateMachine - ResourceType
Extension:
ResourceStateMachine «extends» StateMachine
Attributes:
-

A state transition model which represents the behaviour of a Resource.

ResourceType «stereotype»
Associations:
ResourceType «taggedValue» AssignedProperty
Generalization:
ResourceType - ActivitySubject
ResourceType - SubjectOfResourceConstraint
ResourceType - SubjectOforecast
Extension:
ResourceType «extends» Class
Attributes:
-

A physical item, man-made or otherwise, which may also include types of human resource and software. [ABSTRACT]

ResourceUsage «stereotype»
Associations:
ResourceUsage - ActualOrganizationComposition
ResourceUsage - ResourceType
ResourceUsage «taggedValue» AssignedProperty
Extension:
ResourceUsage «extends» Property
Generalization:
ResourceUsage - ResourceLifelineItem
ResourceUsage - InteractionEnd
Attributes:
-

A relationship between ResourceTypes that asserts one ResourceType is part of the other (i.e. composition). The relationship is abstract, and one of its subtypes should be used to describe *how* one ResourceType is part of another.

Role «stereotype»
Associations:
Role - PostType
Role - RoleType
Generalization:
Role - ResourceUsage
Attributes:
-

A ResourceUsage that asserts a given PostType has a RoleType.

RoleType «stereotype»
Associations:
-
Generalization:
RoleType - OrganisationalResource
Attributes:
-

An aspect of a person or organization that enables them to fulfil a particular function.

ServiceFunctionToFunctionMapping «stereotype»
Associations:
ServiceFunctionToFunctionMapping - ServiceFunction
ServiceFunctionToFunctionMapping - Function
Extension:
ServiceFunctionToFunctionMapping «extends» Usage
Attributes:
-

Asserts that a ServiceFunction is implemented by a Function.

ServiceImplementation «stereotype»
Associations:
-
Generalization:
ServiceImplementation - PhysicalArchitecture
Attributes:
-

A PhysicalArchitecture that implements one or more Services.

Software «stereotype»
Associations:
Software - SoftwarePort
Generalization:
Software - ResourceType
Attributes:
-

An executable computer programme, or fragment of an executable programme (e.g. a subroutine, class, etc.).

SoftwareComponent «stereotype»
Associations:
SoftwareComponent - Software
SoftwareComponent - Software
Generalization:
SoftwareComponent - ResourceUsage
Attributes:
-

Asserts that Software is a component of another Software. Example - Java classes forming part of a Java applet. Example - multiple Pascal units in a Pascal programme.

SoftwarePort «stereotype»
Associations:
SoftwarePort - Software
Generalization:
SoftwarePort - ResourcePort
Attributes:
-

A ResourcePort that is provided by Software.

SubOrganisation «stereotype»
Associations:
SubOrganisation - OrganisationType
SubOrganisation - OrganisationType
Generalization:
SubOrganisation - ResourceUsage
Attributes:
-

Asserts that one OrganisationType is typically the parent of another - e.g. a squadron may be part of a batallion.

SubjectOfForecast
Associations:
-
Attributes:
-

Any element that may be subject to a Forecast.

SubjectOfResourceConstraint
Associations:
-
Attributes:
-

Anything that may be constrained by a ResourceConstraint.

System «stereotype»
Associations:
-
Generalization:
System - PhysicalAsset
System - Part
Attributes:
-

The usage of an artefact as a System in a PhysicalArchitecture.

SystemPort «stereotype»
Associations:
-
Generalization:
SystemPort - SubjectOfResourceConstraint
SystemPort - ResourcePort
Attributes:
-

An interface provided by an Artefact that is used as a System. A SystemPort may implement a PortType, though there is no requirement for SystemPorts to be typed.

UsedConfiguration «stereotype»
Associations:
UsedConfiguration - PhysicalArchitecture
UsedConfiguration - PhysicalArchitecture
Generalization:
UsedConfiguration - ResourceUsage
Attributes:
-

The usage of a PhysicalArchitecture in another PhysicalArchitecture.

VersionOfConfiguration «stereotype»
Associations:
Generalization:
VersionOfConfiguration - ResourceLifelineItem
VersionOfConfiguration - WholeLifeConfiguration
VersionOfConfiguration - CapabilityConfiguration
Extension:
VersionOfConfiguration «extends» Property
Attributes:
-

Asserts that a CapabilityConfiguration is a version of a WholeLifeConfiguration.

WholeLifeConfiguration «stereotype»
Associations:
-
Extension:
WholeLifeConfiguration «extends» Class
Attributes:
-

A set of versions of a CapabilityConfiguration over time.

WholeLifeConfiguration is used to collect together successive versions of CapabilityConfiguraitons from the first design to the last.

1.7 Technical standards views

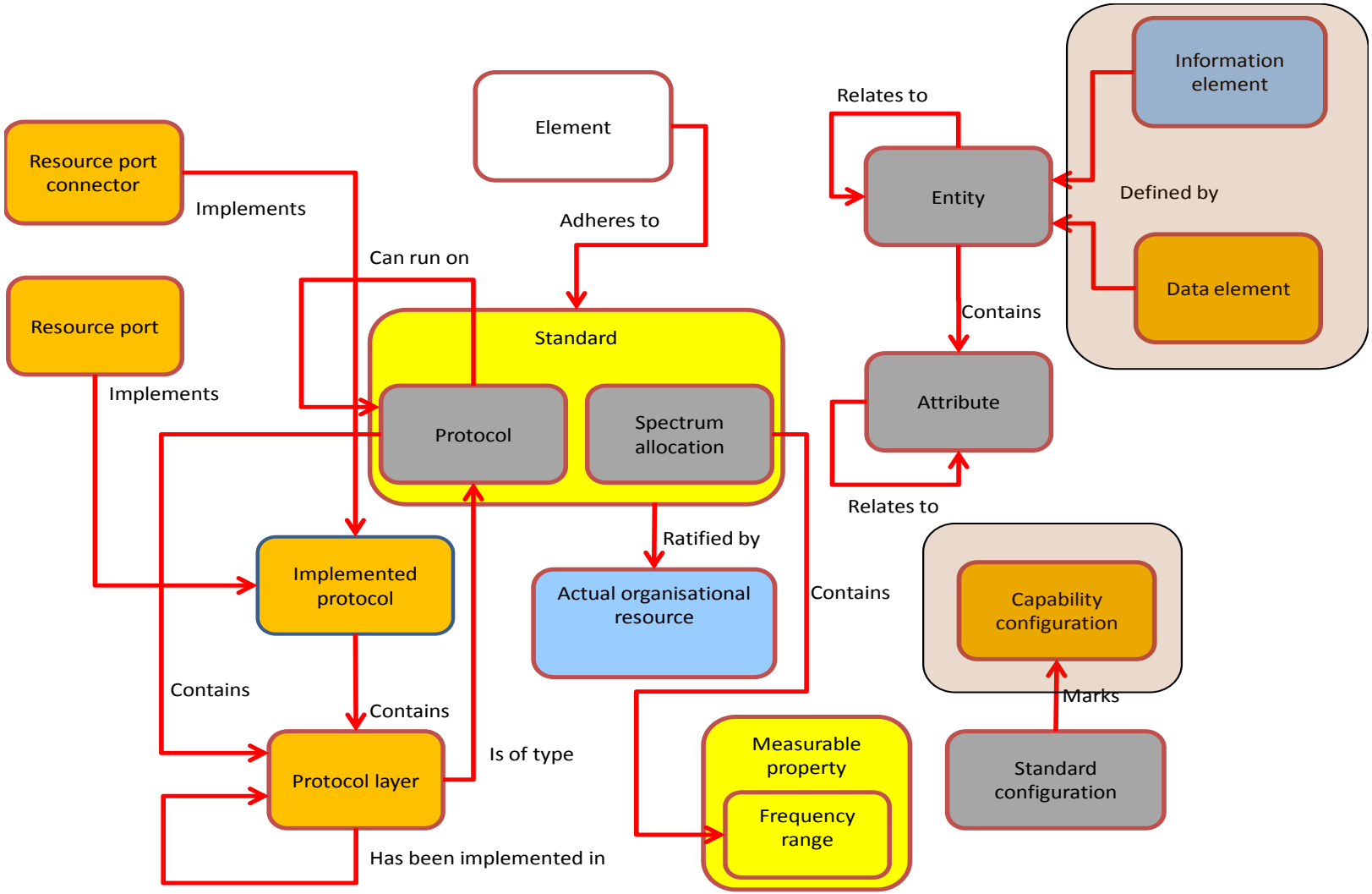

Figure 52: Technical Standards Views MODAF M3 elements summary

1.7.1 TV-1: Standards profile, TV-2: Standards forecast

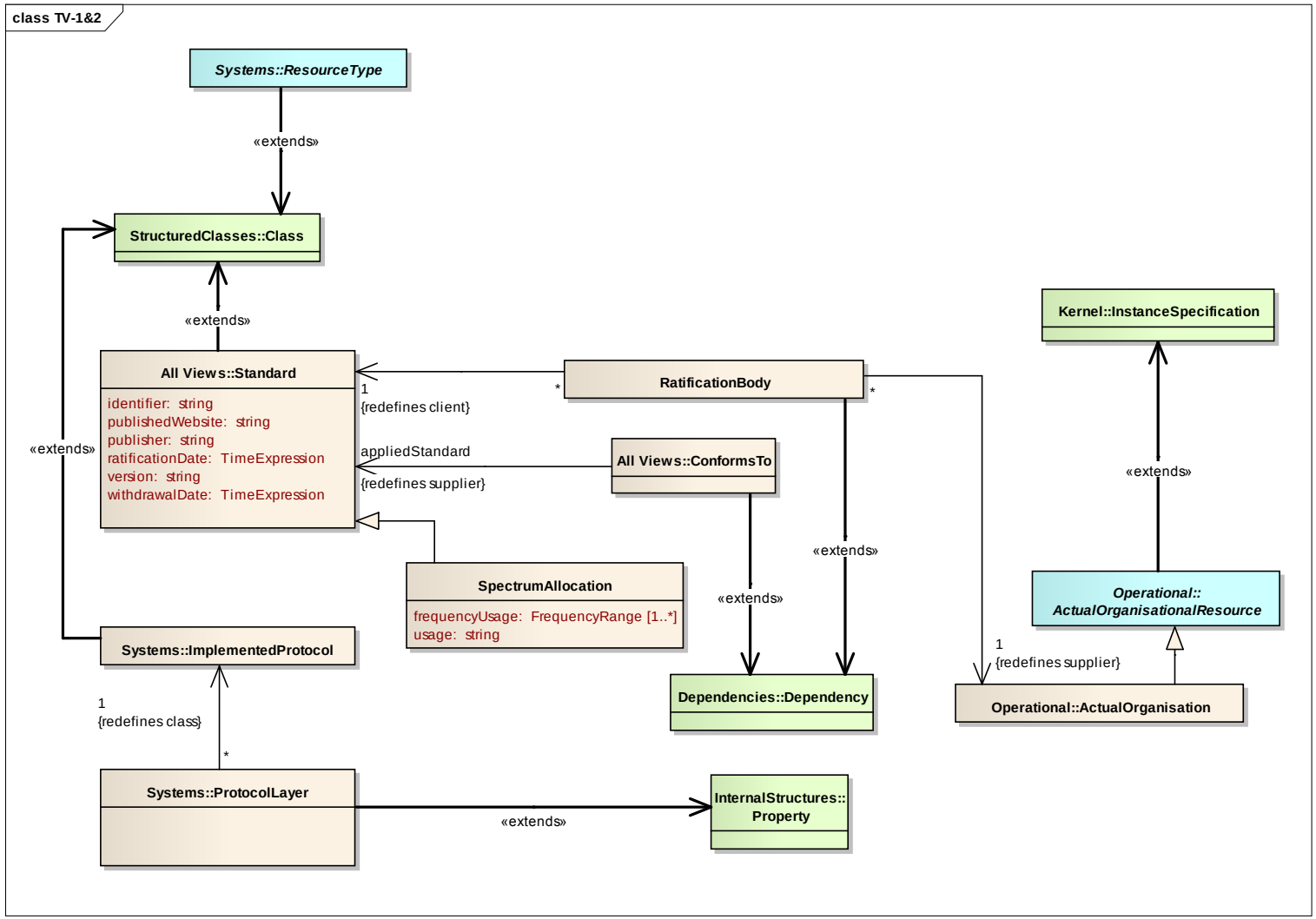

Figure 53: TV-1&2 in M3

1.7.2 TV-3: Standard configuration

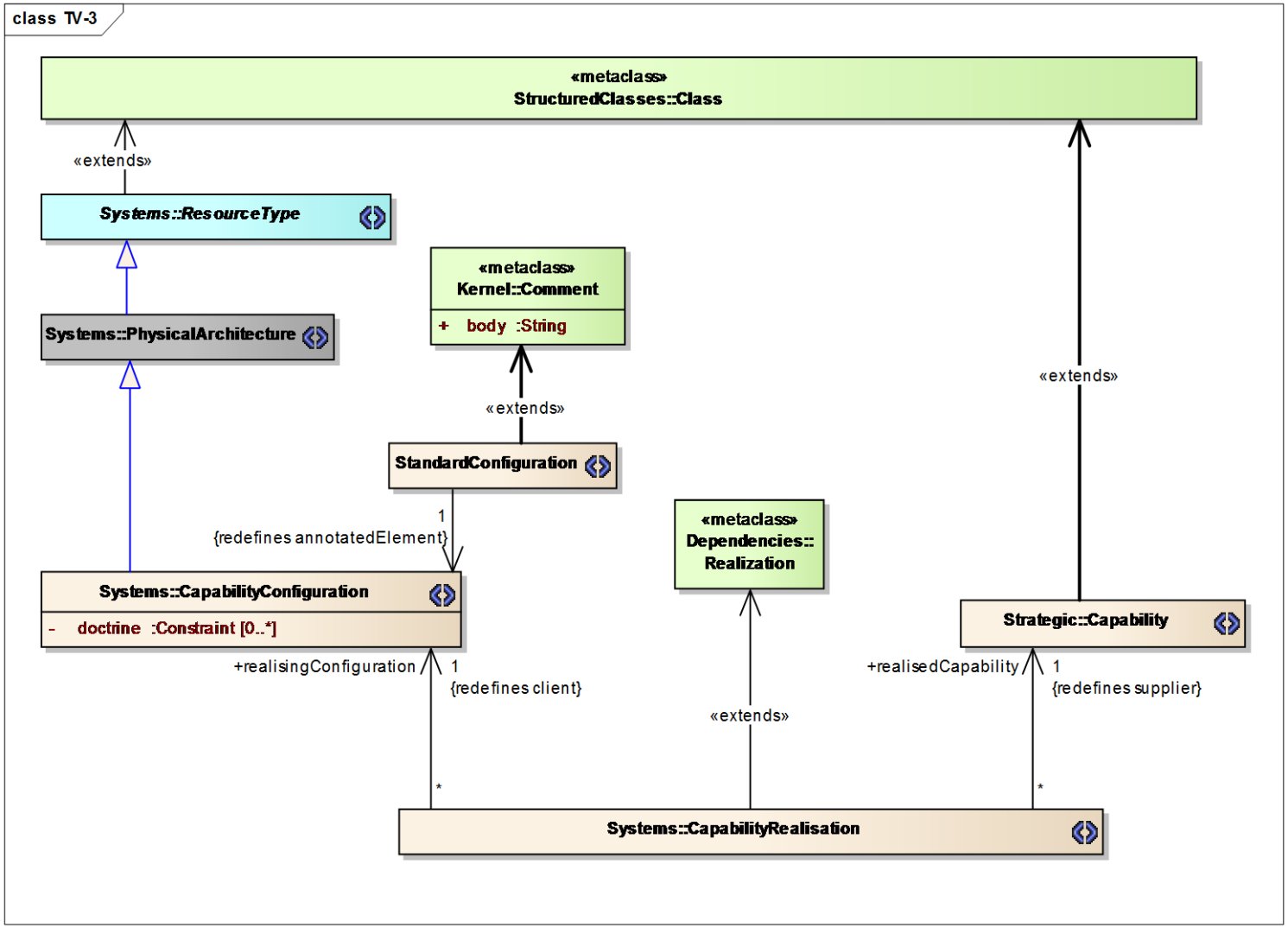

Figure 54: TV-3 in M3

1.7.3 Protocols

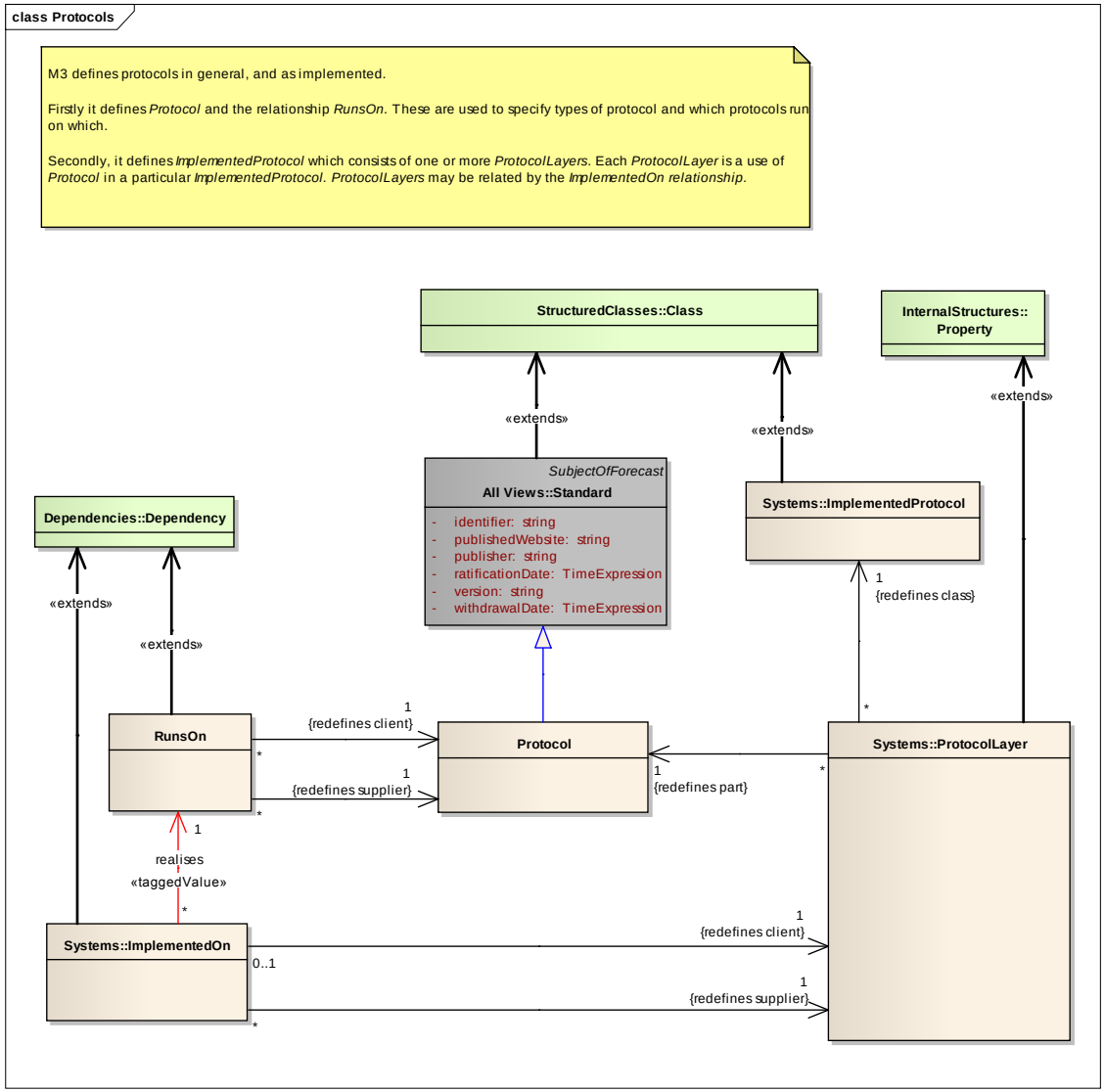

Figure 55: Protocols in M3

1.7.4 Technical standards Views elements table

MODAF 1.2.004 Technical Standard Views
Attribute «stereotype» *Associations:* Attribute - EntityRelationship Attribute - EntityRelationship Attribute - Entity *Extension:* Attribute «extends» Property *Attributes:* - A defined property of an Entity.
DataModel *Associations:* - *Extension:* DataModel «extends» Package *Attributes:* - A structural specification of data, showing classifications of data elements and relationships between them. [ABSTRACT]
Entity «stereotype» *Associations:* Entity - DataModel Entity - SubtypeRelationship *Extension:* Entity «extends» Class *Generalization:* Entity - ServiceParameterType Entity - SubjectOfOperationalConstraint

Attributes:
-

A definition (type) of an item of interest.

EntityRelationship «stereotype»
Associations:
-
Extension:
EntityRelationship «extends» Association
Attributes:
-

Asserts that there is a relationship between two entities.

Protocol «stereotype»
Associations:
-
Generalization:
Protocol - Standard
Attributes:
-

A Standard for communication.

RatificationBody «stereotype»
Associations:
RatificationBody - ActualOrganisation
RatificationBody - Standard
Extension:
RatificationBody «extends» Dependency
Attributes:
-

Asserts than an ActualOrganisation is responsible for the ratification of a standard.

RunsOn «stereotype»
Associations:
RunsOn - Protocol
RunsOn - Protocol
Extension:
RunsOn «extends» Dependency
Attributes:
-

Asserts that one Protocol (client) may be implemented on another (supplier).

SpectrumAllocation «stereotype»
Associations:
-
Generalization:
SpectrumAllocation - Standard
Attributes:
usage
frequencyUsage

A Standard specifying a particular frequency range of the electromagnetic spectrum that is allotted to a particular usage.

StandardConfiguration «stereotype»
Associations:
StandardConfiguration - CapabilityConfiguration
Extension:
StandardConfiguration «extends» Comment
Attributes:
-

A UML::Comment that when attached to a CapabilityConfiguration indicates that it is a standard pattern for re-use in the architecture.

SubtypeRelationship «stereotype»
Associations:
SubtypeRelationship - Entity
Extension:
SubtypeRelationship «extends» Generalization
Attributes:
-

Asserts that one Entity (subtype) is a specialization of the other (supertype).

1.8 Acquisition views

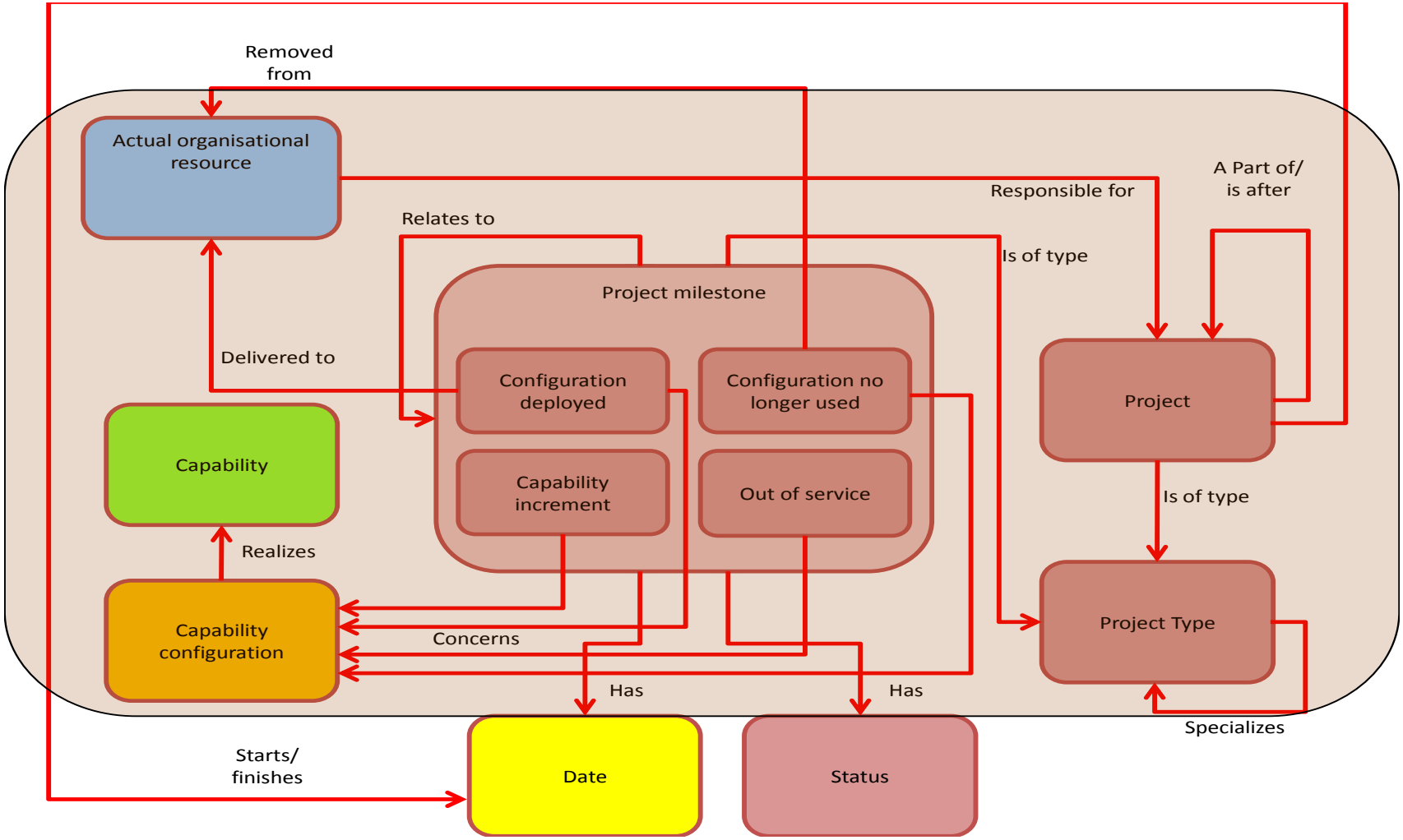

Figure 56: Acquisition Views MODAF M3 elements summary

1.8.1 AcV-1: Acquisition clusters

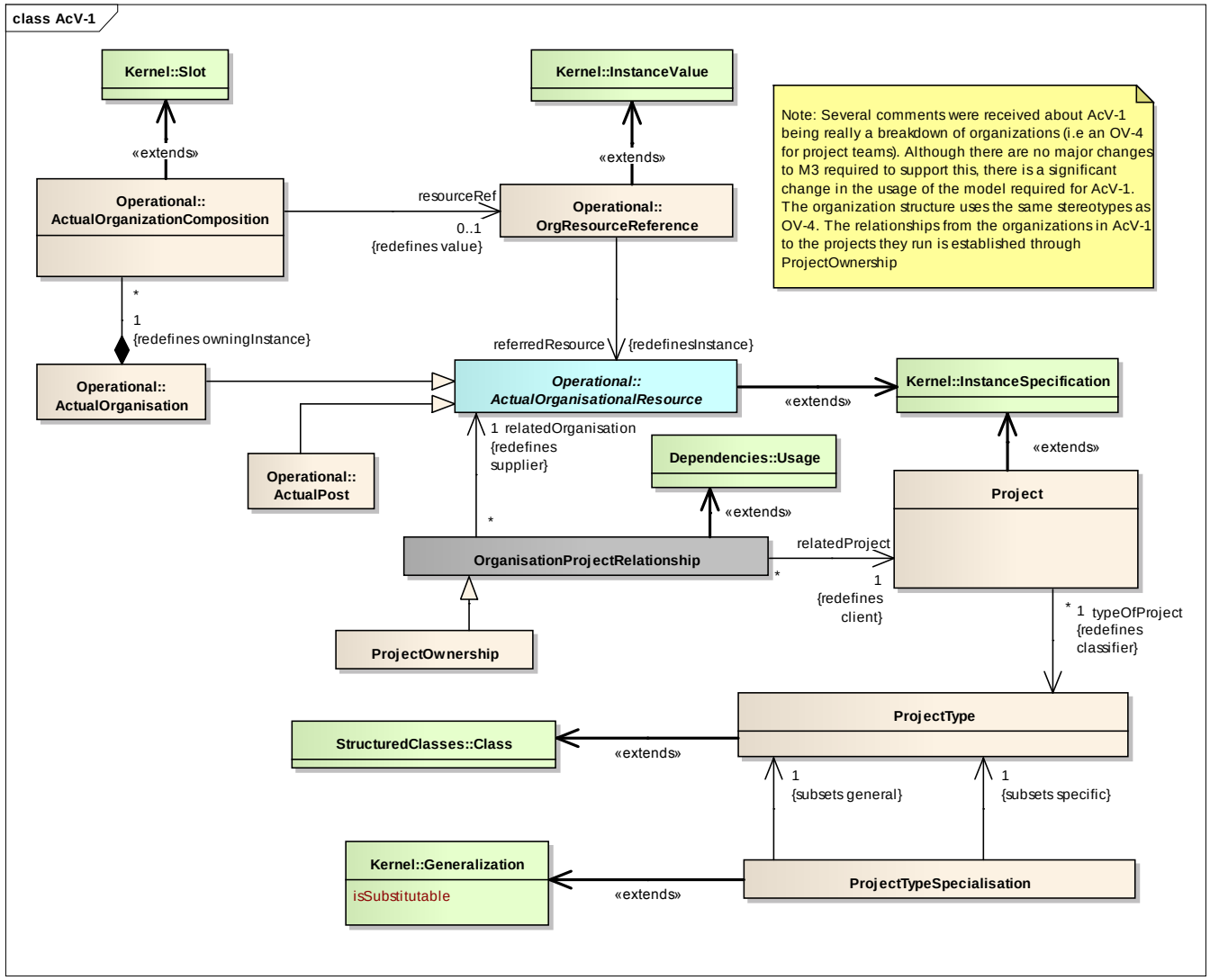

Figure 57: AcV-1 in M3

1.8.2 AcV-2: Programme timelines

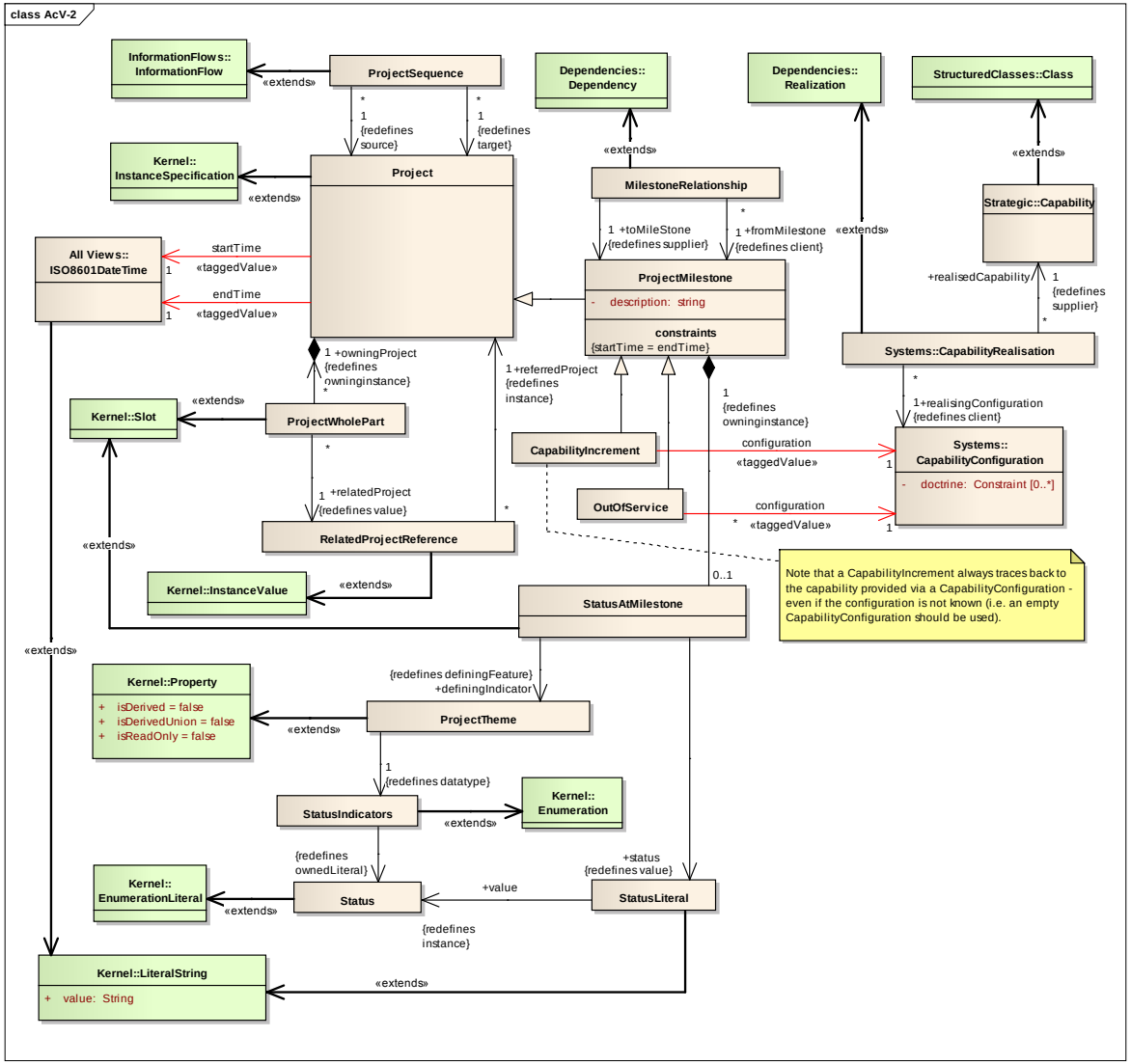

Figure 58 : AcV-2 in M3

1.8.3 Acquisition Views elements table

MODAF 1.2.004 Acquisition Views
CapabilityIncrement «stereotype» *Associations:* CapabilityIncrement «taggedValue» CapabilityConfiguration *Generalization:* CapabilityIncrement - ProjectMilestone *Attributes:* - A ProjectMilestone that indicates the point in time at which a project is predicted to deliver or has delivered a Capability. Example: When a project reaches Initial Operating Capability (IOC) it may deliver a Capability with a given set of metrics then deliver a second Capability corresponding to the same Capability when it reaches ull Operational Capability (OC). Both the IOC and OC milestones would be instances of CapabilityIncrement.
MilestoneInProject «stereotype» *Associations:* - *Extension:* MilestoneInProject «extends» Usage *Attributes:* - Asserts that a ProjectMilestone belongs to a project. A milestone shall not belong to more than one project.
MilestoneRelationship «stereotype» *Associations:* - *Extension:* MilestoneRelationship «extends» Dependency *Attributes:* - A relationship between two milestones signifying that one milestone must be reached before the other one can be reached (dependency).

OrganisationProjectRelationship «stereotype»
Associations:
-
Extension:
OrganisationProjectRelationship «extends» Usage
Attributes:
-

A relationship between an ActualOrganisation and a Project. Example: ownership.

Example: supplier.

OutOfService «stereotype»
Associations:
OutOfService «taggedValue» CapabilityConfiguration
Generalization:
OutOfService - ProjectMilestone
Attributes:
-

A ProjectMilestone that indicates a project's deliverable is to go out of service.

Project «stereotype»
Associations:
Project - MilestoneInProject
Project - OrganisationProjectRelationship
Project - ProjectType
Project - RelatedProjectReference
Project - ProjectWholePart
Project «taggedValue» ISO8601DateTime
Project «taggedValue» ISO8601DateTime
Extension:
Project «extends» InstanceSpecification
Attributes:

-

A time-limited endeavour to create a specific set of products or services.

ProjectMilestone «stereotype»
Associations:
ProjectMilestone - MilestoneInProject
ProjectMilestone - MilestoneRelationship
ProjectMilestone - MilestoneRelationship
Generalization:
ProjectMilestone - Project
Attributes:
description

An event in a Project by which progress is measured - modelled as a Project of zero duration. Note: in the case of an acquisition project, there are two key types of milestone which shall be represented using subtypes - CapabilityIncrement and OutOfService.

ProjectOwnership «stereotype»
Associations:
-
Generalization:
ProjectOwnership - OrganisationProjectRelationship
Attributes:
-

A type of OrganisationProjectRelationship where the organisation is the party responsible for the project.

ProjectSequence «stereotype»
Associations:
ProjectSequence - Project
ProjectSequence - Project
Extension:
ProjectSequence «extends» InformationFlow
Attributes:
-

Asserts that one Project follows from another - i.e. the target Project cannot start until the source Project has ended.

ProjectTheme «stereotype»
Associations:
ProjectTheme - StatusIndicators
Extension:
ProjectTheme «extends» Property
Attributes:
-

An aspect by which the progress of various Projects may be measured. In UK MOD, this could be one of the defence lines of development, or DOTMLP in the US.

ProjectType «stereotype»
Associations:
-
Extension:
ProjectType «extends» Class
Attributes:
-

A category of Project. Example: "Programme". Example: "Acquisition Project". Example: "Training Programme".

ProjectTypeSpecialisation «stereotype»
Associations:
ProjectTypeSpecialisation - ProjectType
ProjectTypeSpecialisation - ProjectType
Extension:
ProjectTypeSpecialisation «extends» Generalization
Attributes:
-

An assertion that one ProjectType is a special type of another.

ProjectWholePart «stereotype»
Associations:
-
Extension:
ProjectWholePart «extends» Slot
Attributes:
-

Relates a parent project (owningProject) to a sub-project (relatedProject).

RelatedProjectReference «stereotype»
Associations:
RelatedProjectReference - ProjectWholePart
Extension:
RelatedProjectReference «extends» InstanceValue
Attributes:
-

A reference to a sub-project from a ProjectWholePart relationship.

Status «stereotype»
Associations:
-
Extension:
Status «extends» EnumerationLiteral
Attributes:
-

An allowable value for a StatusIndicator. Example – 3. Example – amber.

StatusAtMilestone «stereotype»
Associations:
StatusAtMilestone - StatusLiteral
StatusAtMilestone - ProjectTheme
StatusAtMilestone - ProjectMilestone
Extension:
StatusAtMilestone «extends» Slot
Attributes:
-

A relationship between a Status and a milestone which asserts the status (i.e. level of progress) of a ProjectTheme for the project at the time of the milestone. or example, a procurement project may have workstreams corresponding to lines of development. The status of each of workstream is summarised on the milestone.

StatusIndicators «stereotype»
Associations:
StatusIndicators - Status
Extension:
StatusIndicators «extends» Enumeration
Attributes:
-

An enumeration of the possible statuses for one or more ProjectThemes. Example - 1 to 5, Example - red, amber, green.

StatusLiteral «stereotype»
Associations:
StatusLiteral - Status
Extension:
StatusLiteral «extends» LiteralString
Attributes:
-

A literal value corresponding to a Status.

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