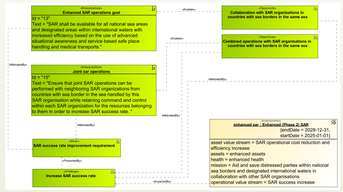
UAF OMG UNIFIED ARCHITECTURE FRAMEWORK®	Motivation Mv	Taxonomy Tx	Structure Sr	Connectivity Cn	Processes Pr	States St	Sequences Sq	Information If	Parameters Pm	Constraints Ct	Roadmap Rm	Traceability Tr
Architecture Management Am	Architecture Principles Am-Mv	Architecture Extensions Am-Tx	Architecture Views Am-Sr	Architectural References Am-Cn	Architecture Development Method Am-Pr	Architecture Status Am-St		Dictionary Am-If	Architecture Parameters Am-Pm	Architecture Constraints Am-Ct	Architecture Roadmap Am-Rm	Architecture Traceability Am-Tr
Summary & Overview Sm-Ov												
Strategic St	Strategic Motivation St-Mv	Strategic Taxonomy St-Tx	Strategic Structure St-Sr	Strategic Connectivity St-Cn	Strategic Processes St-Pr	Strategic States St-St		Strategic Information St-If	Environment En-Pm-E and Measurements Me-Pm-M and Risks Rk-Pm-R	Strategic Constraints St-Ct	Strategic Deployment, St-Rm-D Strategic Phasing St-Rm-P	Strategic Traceability St-Tr
Operational Op	Require-ments Rq-Mv	Operational Taxonomy Op-Tx	Operational Structure Op-Sr	Operational Connectivity Op-Cn	Operational Processes Op-Pr	Operational States Op-St	Operational Sequences Op-Sq	Operational Information Model Op-If		Operational Constraints Op-Ct		Operational Traceability Op-Tr
Services Sv		Services Taxonomy Sv-Tx	Services Structure Sv-Sr	Services Connectivity Sv-Cn	Services Processes Sv-Pr	Services States Sv-St	Services Sequences Sv-Sq			Services Constraints Sv-Ct	Services Roadmap Sv-Rm	Services Traceability Sv-Tr
Personnel Ps		Personnel Taxonomy Ps-Tx	Personnel Structure Ps-Sr	Personnel Connectivity Ps-Cn	Personnel Processes Ps-Pr	Personnel States Ps-St	Personnel Sequences Ps-Sq	Resources Information Model Rs-If		Competence, Drivers, Performance Ps-Ct	Personnel Availability Ps-Rm-A Personnel Evolution Ps-Rm-E Personnel Forecast Ps-Rm-F	Personnel Traceability Ps-Tr
Resources Rs		Resources Taxonomy Rs-Tx	Resources Structure Rs-Sr	Resources Connectivity Rs-Cn	Resources Processes Rs-Pr	Resources States Rs-St	Resources Sequences Rs-Sq			Resources Constraints Rs-Ct	Resources evolution Rs-Rm-E Resources forecast Rs-Rm-F	Resources Traceability Rs-Tr
Security Sc	Security Controls Sc-Mv	Security Taxonomy Sc-Tx	Security Structure Sc-Sr	Security Connectivity Sc-Cn	Security Processes Sc-Pr					Security Constraints Sc-Ct		Security Traceability Sc-Tr
Projects Pj		Projects Taxonomy Pj-Tx	Projects Structure Pj-Sr	Projects Connectivity Pj-Cn	Projects Processes Pj-Pr						Projects Roadmap Pj-Rm	Projects Traceability Pj-Tr
Standards Sd		Standards Taxonomy Sd-Tx	Standards Structure Sd-Sr								Standards Roadmap Sd-Rm	Standards Traceability Sd-Tr
Actual Resources Ar			Actual Resources Structure Ar-Sr	Actural Resources Connectivity Ar-Cn	Simulation					Parametric Execution/ Evaluation		

STRATEGIC VIEWPOINT

The **Strategic (St)** viewpoint provides a capability view of the enterprise. It shows the relationships between capabilities and between the capabilities and the resources required to realize them.

Strategic Motivation

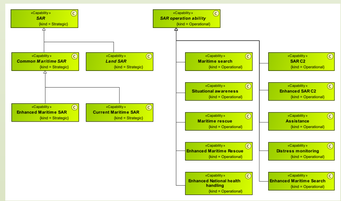
The **Strategic Motivation (St-Mv)** captures the Drivers, Challenges, and Opportunities that are applicable to the architecture. It also defines the desired outcomes, Goals and Objectives that are motivated by the Drivers, and the Opportunities that enable the Goals and Objectives.



Strategic Taxonomy

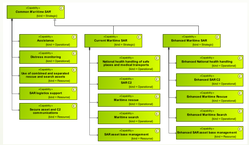
The **Strategic Taxonomy (St-Tx)** shows the taxonomy of Capabilities via generalization relationships.

Capability: The ability to achieve a desired effect under specified [performance] standards and conditions through combinations of ways and means [activities and resources] to perform a set of activities.



Strategic Structure

The **Strategic Structure (St-Sr)** shows the composition of Capabilities via composition and aggregation relationships.



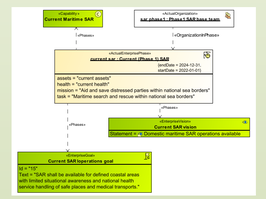
Strategic Connectivity

The **Strategic Connectivity (St-Cn)** diagram depicts relationships between Capabilities in which one Capability cannot succeed without some form of assistance from another capability.

Strategic Processes

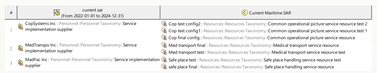
The **Strategic Processes (St-Pr)** diagram depicts a schedule for delivering the Capabilities of the Enterprise.

Actual Enterprise Phase: A portion of the enterprise that addresses a subset of capabilities toward the fulfillment of the Mission.



Strategic Roadmap

The **Strategic Deployment (St-Rm-D)** table shows the planned capability deployment for a resource and the responsible organization.



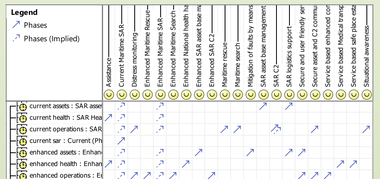
In the **Strategic Phasing (St-Rm-P)** diagram the Production Capability and its constituent Capabilities are arranged along the Time Line according to their Increment Dates. This illustrates the provisioning of the Production Capability over calendar time.

Necessary data for the chart is obtained from:

1. The Capability Configurations, as modeled in an Resource Taxonomy.
2. The tracing between Capabilities to Capability Configurations, as modeled in a Capability to Capability Configuration matrix.
3. Capability Increment Dates, as modeled in the Project Roadmap chart.

Strategic Traceability

The **Strategic Traceability (St-Tr)** matrix describes the mapping between the Capabilities required by an Enterprise and the phasing constructs.



OPERATIONAL VIEWPOINT

The **Operational (Op)** viewpoint identifies what needs to be accomplished by the enterprise and who needs to accomplish it. Domain describes the tasks and activities, operational elements and exchanges of information, systems and energy that are required to conduct the operations.

Operational Taxonomy

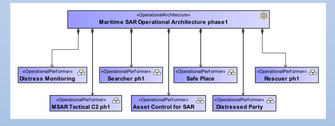
The **Operational Taxonomy (Op-Tx)** shows the taxonomy of main Operational Performers that participate in Operational Architecture.

Operational Performer: a logical entity that Is Capable To Perform Operational Activities which produce, consume and process Resources.

Operational Structure

The **Operational Structure (Op-Sr)** defines operational architecture and exchange requirements necessary to support a specific set of Capabilities.

Operational Architecture: A type used to denote a model of the Architecture, described from the Operational perspective.



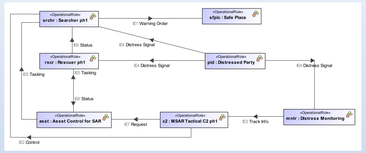
Operational Connectivity

The **Operational Internal Connectivity (Op-Cn)** diagram shows the interaction of Operational Performers within the enclosing Operational Architecture. An Operational Performer that is part of Operational Architecture appears as an Operational Role within this diagram. The diagram also shows the Operational Exchanges between Operational Roles.

Operational Role: Represents the internal elements (Operational Performers) of an Operational Architecture.

Operational Connector: An operational connector documents the requirement to exchange information between operational performers. The operational connector does not indicate how the information transfer is implemented.

Operational Exchange: Describes the characteristics of the item/s passed between Operational Performers such as an Information Exchange, OrganizationalExchange, EnergyExchange, MaterielExchange, ConfigurationExchange, or other.



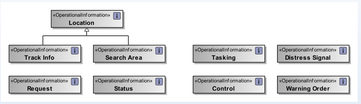
The **Operational Connectivity (Op-Cn)** table summarizes logical exchanges between Operational Performers of information, systems, personnel, energy etc. and the logical activities that produce and consume them. Measurements can optionally be included.

#	Exchange ID	Operational Exchange Item	Sending Operational Performer	Receiving Operational Performer	Producing Operational Activity	Consuming Operational Activity
1	OE27	I1 : Warning Order	Searcher ph1	Safe Place	Send Warning Order	Process Warning Order
2	OE28	I2 : Control	MSAR Tactical C2 ph1	Searcher ph1		
3	OE29	I3 : Track Info	Distress Monitoring	MSAR Tactical C2 ph1		
4	OE30	I4 : Distress Signal	Distressed Party	Distress Monitoring		
5	OE31	I4 : Distress Signal	Distressed Party	Searcher ph1	Send Distress Signal	Receive Distress Signal
6	OE32	I5 : Request	MSAR Tactical C2 ph1	Asset Control for SAR		
7	OE33	I6 : Tasking	Asset Control for SAR	Searcher ph1		
8	OE34	I4 : Distress Signal	Distressed Party	Rescuer ph1	Send Distress Signal	Receive Distress Signal
9	OE35	I7 : Status	Rescuer ph1	Searcher ph1		
10	OE36	I7 : Status	Rescuer ph1	Asset Control for SAR		
11	OE37	I6 : Tasking	Asset Control for SAR	Rescuer ph1		
12	OE38	I7 : Status	Searcher ph1	Rescuer ph1	Monitor Health	Provide Medical Assistance

Operational Information

The **Operational Information (If)** defines the high-level information elements used in the operational scenarios. It is used to document the business information requirements and structural business process rules of the architecture. It describes the information that is associated with the information of the architecture. Included are information items, their attributes or characteristics, and their inter-relationships.

Operational Information: An item of information that flows between Operational Performers and is produced and consumed by the Operational Activities that the Operational Performers are capable to perform.



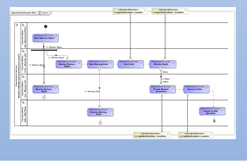
Operational Processes

The **Operational Processes (Op-Pr)** diagram describes the activities that are normally conducted in the course of achieving business goals that support a Capability.

Operational Activity: An activity is an action performed in conducting the business of an enterprise. It is a general term that does not imply a placement in a hierarchy (e.g., it could be a process or a task as defined in other documents and it could be at any level of the hierarchy of the Operational Processes).

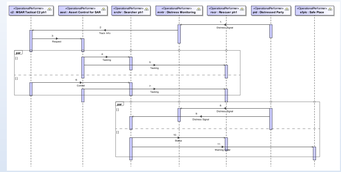
The **Operational Process Flow (Op-Pr)** diagram depicts a workflow, showing processes and information passing between processes. The diagram utilizes SysML Activity Diagram notation to model Control Flow and Object Flow between Operational Activities, including decision and merge, as well as fork and join logical operators.

Operational Activity Action: The Operational Activity Action is defined as a call behavior action that invokes the activity that needs to be performed.



Operational Sequences

The **Operational Sequences (Op-Sq)** express a time ordered examination of the Operational Exchanges as a result of a particular operational scenario.



Operational Constraints

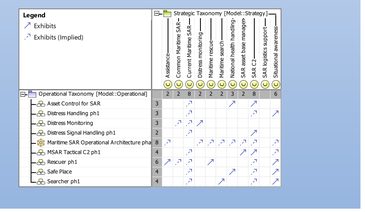
The **Operational Constraints (Op-Ct)** table specifies traditional textual operational or business rules that are constraints on the way that business is done in the enterprise.

Operational Constraint: A principle or condition that governs behavior; a prescribed guide for conduct or action.

#	Applies To	Rule Specification	Rule Kind
1	Send Distress Signal	The maximum range for distress signals shall be posted on all ports and marinas	Constraint
2	Search	Search personnel shall operate on a shift system to ensure they can perform to maximum efficiency	Constraint
3	Monitor For Distress Signal	Distress signals shall be monitored 24/7	Constraint

Operational Traceability

The **Operational Traceability (Op-Tr)** describes the mapping between the Capabilities required by an enterprise and the supporting Operational Activities and Operational Performers/ Operational Architectures.

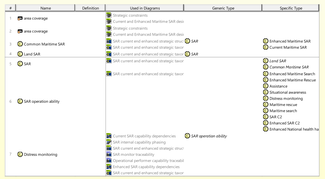


ARCHITECTURE MANAGEMENT VIEWPOINT

The **Architecture Management (Am)** viewpoint provides information pertinent to the entire architecture. It presents supporting information rather than architectural models.

Dictionary

The **Dictionary (Am-If)** is a table containing the definitions of terms used in the given architecture. The table also consists of textual definitions in the form of a glossary, their taxonomies, and their metadata (i.e., data about architecture data), including metadata for any custom-tailored views. Dictionary provides a central reference for a given architecture's data and metadata.

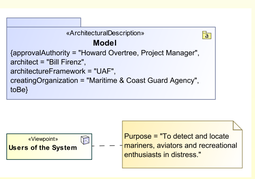


SUMMARY & OVERVIEW VIEWPOINT

The **Summary & Overview (Sm-Ov)** viewpoint provides executive-level summary information in a consistent form that allows quick reference and comparison between architectural descriptions. It includes assumptions, constraints, and limitations that may affect high-level decisions relating to an architecture-based work program.

Architectural Description: Provides the information that scopes the architecture in terms of purpose, artifacts, tools used, the architectural framework, approving authority and more.

Viewpoint: Represents conventions for the creation, interpretation and use of an architecture view to frame one or more concerns that governs the creation of views.



UAF® OMG UNIFIED ARCHITECTURE FRAMEWORK®

UAF Quick Reference Guide

AT A GLANCE

The Truth is in the Models®

CATIA

DASSAULT SYSTEMES

JOIN OUR GLOBAL COMMUNITY FOR SYSTEMS ENGINEERS AND ARCHITECTS AND MBSE EXPERTS TO NETWORK AND SHARE KNOWLEDGE.

UAF OMG UNIFIED ARCHITECTURE FRAMEWORK®

UAF Quick Reference Guide

AT A GLANCE

The Truth is in the Models®

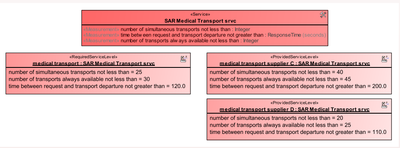
SERVICES VIEWPOINT

The **Services (Sv)** viewpoint provides a description of services and specifies required and provided service levels for the services needed to exhibit capabilities and to support operational activities.

Services Taxonomy

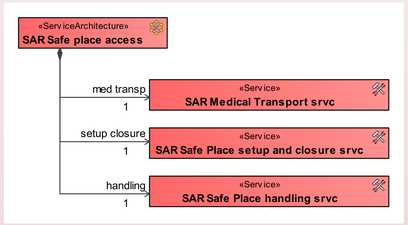
The **Services Taxonomy (Sv-Tx)** diagram captures the taxonomy of Services and the level of service that they are expected to provide or are required to meet.

Service: the specification of a set of functionalities provided by one element for the use of others.



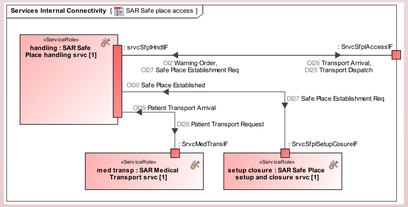
Services Structure

The **Services Structure (Sv-Sr)** shows the composition of Services and how Services are combined into a higher-level Service or Service Architecture required to exhibit a Capability or support an Operational Activity.



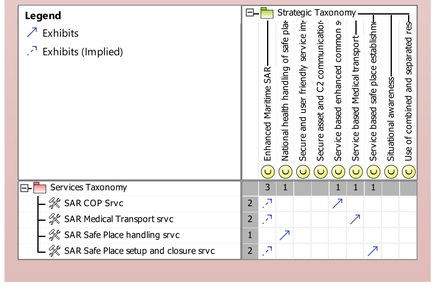
Services Connectivity

The **Services Connectivity (Sv-Cn)** shows the interoperability among Services. It specifies Service Interfaces to ensure compatibility and reusability of Services.



Service Traceability

The **Services Traceability (Sv-Tr)** captures the traceability between Operational Activities and Services that support them. It also shows how Services contribute to the achievement of a Capability.



RESOURCES VIEWPOINT

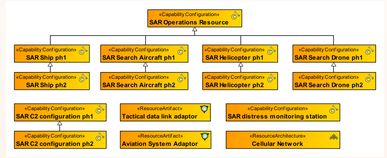
The **Resources (Rs)** viewpoint concerns at definition of solution architectures to implement operational requirements. It captures a solution architecture consisting of resources, e.g. organizational, software, artifacts, capability configurations, natural resources that implement the operational requirements.

Resources Taxonomy

The **Resources Taxonomy (Rs-Tx)** shows the taxonomy of resources types.

Capability Configuration: A composite structure representing the physical and human resources (and their interactions) in an enterprise, assembled to meet a Capability.

Resource Artifact: A type of man-made object that contains no human beings.



Resources Connectivity

The **Resources Internal Connectivity (Rs-Cn)** captures the resource structure, connectors and interfaces in a specific context. It defines the physical resources, e.g. capability configuration(s)/system(s) and interactions necessary to implement a specific set of Operational Performer(s).

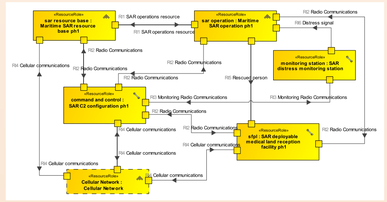
Resource Role: Usage of a Resource Performer in the context of another Resource Performer creating a whole-part relationship.

Resource Port: Port is an interaction point for a resource through which it can interact with the outside environment and which is defined by a Resource Interface.

Resource Connector: A channel for exchange between two Resource Roles.

Resource Interface: A contractual agreement between two resources. It is also intended to be an implementation of a specification of an Interface in the Business and/or Service layer.

Resource Exchange: Asserts that a flow can exist between resources (i.e. flows of data, people, material, or energy).

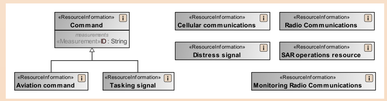


The **Resources Connectivity (Rs-Cn)** table summarizes the exchanges between resources of information, systems, personnel, natural resources etc. and the functions that produce and consume them.

#	Exchange ID	Resource Exchange Item	Sending Resource	Receiving Resource	Producing Function	Consuming Function
1	RE29	RI14 Activate radar	Drone SAR search control	Radio adaptor	Transmit activate radar comma	Activate radar
2	RE27	RI11 Aviation command	Drone SAR search control	Aviation System Adaptor	Transmit takoff command wh	Perform take off
3	RE12	RI4 Cellular communications	Maritime SAR resource base ph1	Cellular Network	Send take off preparation com	Start take off preparation and
4	RE24	RI12 Command response	Aviation System Adaptor	Drone SAR search control	Start take off preparation and	Check take of preparation com
5	RE6	RI1 Radio Communications	SAR C2 configuration ph1	Maritime SAR operation ph1		
6	RE15	RI3 Rescued person	Maritime SAR operation ph1	SAR deployable medical land r		
7	RE28	RI11 Sensor data	Aviation System Adaptor	Drone SAR search control	Perform take off	Transmit activate radar comma
8	RE26	RI11 Sensor signal	Aviation System Adaptor	Drone SAR search control	Start take off preparation and	Transmit takoff command whe
9	RE22	RI9 Tasking signal	Drone SAR search control	Tactical data link adaptor	Transmit search tasking ack w	Transmit tasking sig based on r

Resources Information

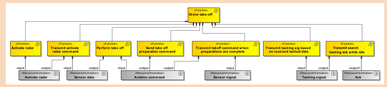
The **Resources Information (Rs-If)** shows the information perspective on resource architecture. It allows analysis of an architecture's information and data definition aspect, without consideration of implementation specific issues.



Resources Processes

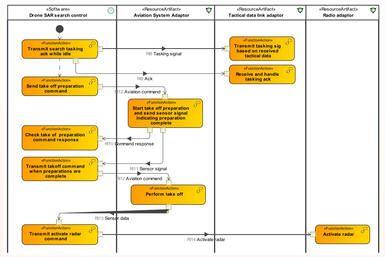
The **Resources Processes (Rs-Pr)** diagram describes the Functions that are normally conducted in the course of implementing Operational Activities in support of Capabilities.

Function: An Activity which is specified in the context of the Resource Performer (human or machine) that Is Capable Of Performing it.



The **Resources Process Flow (Rs-Pr)** diagram shows activity based behavior and flows. It describes the Functions, their inputs/outputs, Function Actions and flows between them.

Function Action: A call of a Function indicating that the Function is performed by a Resource Role in a specific context.

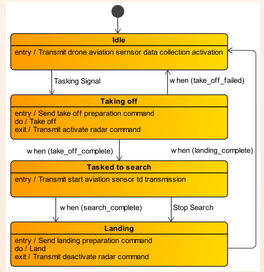


Resources States

The **Resources States (Rs-St)** describes the behavior of a Resource Performer, depicting how the Resource Performer responds to the various events and actions.

State: A description of the condition of an object in terms of the values of its various properties and relationships.

Transition: A change from one state to another, including an option Trigger, Signal, Operation Call, and guard conditions.



Resources Constraints

The **Resources Constraints (Rs-Ct)** table specifies traditional textual rules/non-functional requirements that are constraints on resources, their interactions, performed functions, and data.

Resource Constraint: A rule governing the structural or functional aspects of an implementation

#	Applies To	Rule Specification	Rule Kind
1	Aviation System Adaptor Radio adaptor	Communications shall be encrypted	Constraint

Resources Roadmap

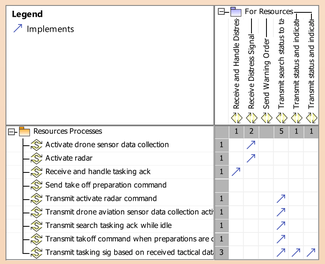
The **Resource Evolution (Rs-Rm-E)** provides an overview of how a resource structure changes over time. It shows the structure of several resources mapped against a timeline.

The **Resource Forecast (Rs-Rm-F)** defines the underlying current and expected supporting technologies.

#	Technology Area	current sar From: 2022-01-01 To: 2024-12-31	enhanced sar From: 2025-01-01 To: 2028-12-31
1	Maritime SAR Resource Architecture	Current Maritime SAR resource architecture	Enhanced Maritime SAR resource architecture
2	UAV Search Technology	SAR Search Drone ph1	SAR Search Drone ph2

Resources Traceability

The **Resources Traceability (Rs-Tr)** depicts the mapping of Functions to Operational Activities and thus identifies the transformation of an operational need into a purposeful function performed by a resource or solution.



PERSONNEL VIEWPOINT

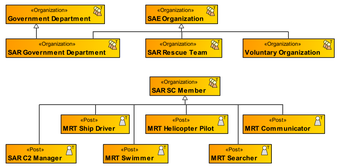
The **Personnel (Ps)** viewpoint shows the human factors with the aim to clarify the role of human factors when creating architectures in order to facilitate both Human Factors Integration and Systems Engineering.

Personnel Taxonomy

The **Personnel Taxonomy (Ps-Tx)** diagram defines kinds of organizational (human) resource elements required to support common or modular design and structure.

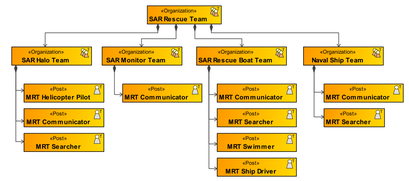
Organization: a group of organizational resources (Persons, Posts, Organizations and Responsibilities) that are associated for a purpose.

Post: a type of job title or position that a Person can fill.



Personnel Structure

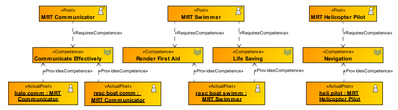
The **Personnel Structure (Ps-Sr)** diagram shows organizational structures and possible interactions between Organizational Resources.



Personnel Constraints

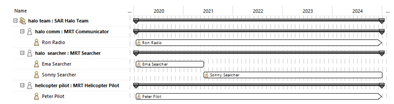
The **Personnel Constraints (Ps-Ct)** specifies requirements for actual organizational resources – by linking competencies and actual posts.

Competence: A specific set of abilities defined by knowledge, skills and aptitude.



Personnel Roadmap

The **Personnel Availability Roadmap (Ps-Rm-A)** shows the staffing and training of organizational resources. It defines the requirements and functions to ensure that Actual Persons with the right Competencies, and in the right numbers, are available to fulfill Actual Posts.



PROJECTS VIEWPOINT

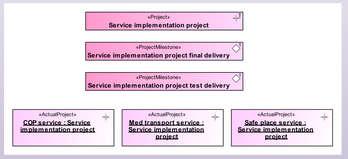
The **Projects (Pj)** viewpoint concerns at project portfolio, projects and project milestones. It describes projects and project milestones, how those projects deliver capabilities, the organizations contributing to the projects and dependencies between projects.

Projects Taxonomy

The **Projects Taxonomy (Pj-Tx)** view shows the taxonomy of Projects and Project Milestones.

Project: A planned endeavor executed by an Actual Organization responsible for developing, deploying or decommissioning Resource Performers in accordance with Actual Project Milestones.

Milestone: A type of event in a Project by which progress is measured.

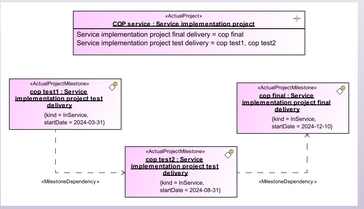


Projects Connectivity

The **Projects Connectivity (Pj-Cn)** shows how projects and project milestones are related in sequence

Actual Project: A time-limited planned endeavor executed by an Actual Organization responsible for developing, deploying or decommissioning Resource Performers in accordance with Actual Project Milestones.

Actual Project Milestone: An event with a start date in an Actual Project from which progress is measured.

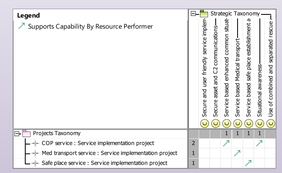


Projects Roadmap

The **Projects Roadmap (Pj-Rm)** chart provides a timeline perspective on programs or projects.

Projects Traceability

The **Projects Traceability (Pj-Tr)** is a matrix correlating Actual Projects to the Capabilities they deliver.

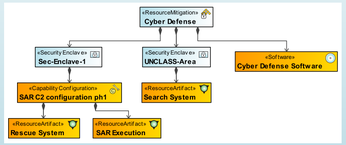


SECURITY VIEWPOINT

The **Security (Sc)** viewpoint illustrates the security assets, security constraints, security controls, families, and measures required to address specific security concerns.

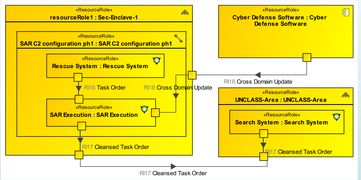
Security Structure

The **Security Structure (Sc-Sr)** captures the allocation of assets (operational and resource, information and data) across the Security Enclaves, shows applicable Security Controls necessary to protect organizations, systems and information during processing, while in storage (bdd), and during transmission (flows on an ibd).



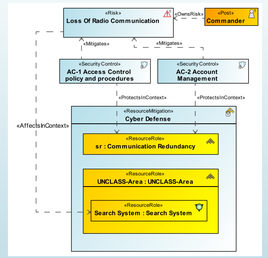
Security Connectivity

The **Security Connectivity (Sc-Cn)** lists security exchanges across security assets; the applicable Security Controls; and the Security Enclaves that house the producers and consumers of the exchanges.



Security Traceability

The **Security Traceability (Sc-Tr)** shows traceability between Risk and Risk owner, Risk mitigations, and affected asset roles

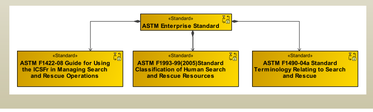


STANDARDS VIEWPOINT

Standards (Sd) viewpoint shows the technical, operational, and business Standards applicable to the architecture. Defines the underlying current and expected Standards.

Standards Taxonomy

The shows the taxonomy of types of technical, operational, and business standards, guidance, and policy applicable to the architecture.



Standards Roadmap

The **Standards Roadmap (Sd-Rm)** defines the underlying current and expected Standards. Expected Standards are those that can be reasonably forecast given the current state of technology and expected improvements / trends.

#	Technology Area	current sar From: 2022-01-01 To: 2024-12-31	enhanced sar From: 2025-01-01 To: 2028-12-31
1	Performance of Water Rescuer	ASTM F1739-96(2007)Standard Guide for Performance of a Water Rescuer-Level I	ASTM F1824-97(2007)Standard Guide for Performance of a Water Rescuer-Level II
2	Distress Monitoring	Global Maritime Distress and Safety System (GMDSS)	Global Maritime Distress and Safety System (GMDSS)

Standards Traceability

The **Standards Traceability (Sd-Tr)** shows the applicability of Standards to specific elements in the architecture.

#	System element	Standard / Policy
1	SAR Rescue Boat Team	ASTM F1739-96(2007)Standard Guide for Performance of a Water Rescuer-Level I ASTM F1824-97(2007)Standard Guide for Performance of a Water Rescuer-Level II
2	SAR distress monitoring sta...	Global Maritime Distress and Safety System (GMDSS)
3	SAR Ship ph1	ASTM F1739-96(2007)Standard Guide for Performance of a Water Rescuer-Level I

DASSAULT SYSTEMES CATIA