



Scaling collaborative MBSE projects without complex setup, with Cloud for Capella



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MBSE Product Owner

2026-04-13

Agenda

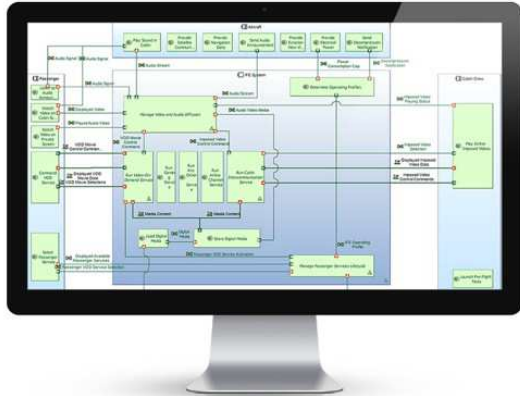
- **Short Introduction of Obeo**
- **Arcadia/Capella Overview**
- **Obeo's offer**
- **Cloud for Capella Overview**
- **Cloud for Capella Hands-on**
- **Q&A Session**



Short Introduction

Obeo | Visual Tools for Designing Innovations

We develop cutting-edge **modeling** software to empower teams **designing** or **transforming** complex systems



Domain-Specific Modeling



Model-Based Systems Engineering



Continuous Enterprise Architecture



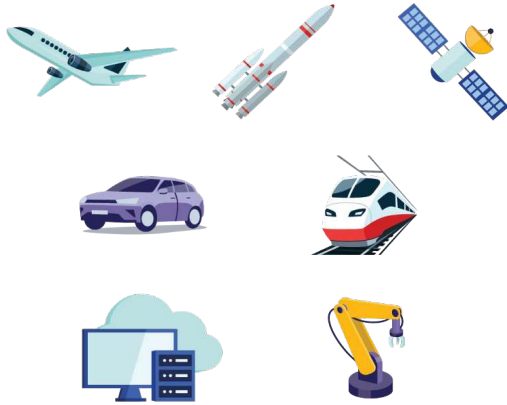
We are a global reference player in the field of open-source

2999

Number of FTE days of open-source contributions in 2024



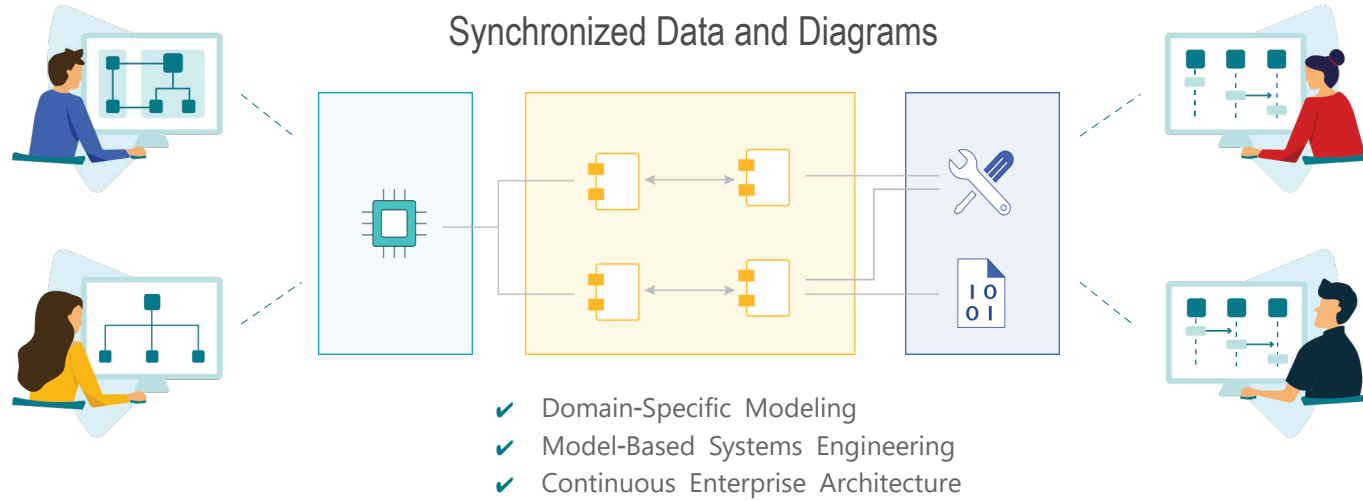
We Equip Organizations Worldwide | They Address the World of Tomorrow's Challenges



We provide them with highly **customizable software** to handle **complexity** with **methodology**

In various sectors:
Energy, Aerospace, Defense, Transportation,
Government, Finance, Services, Electronics, Healthcare, ...

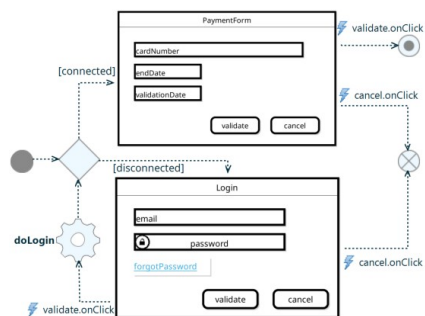
We Develop Modeling Technologies



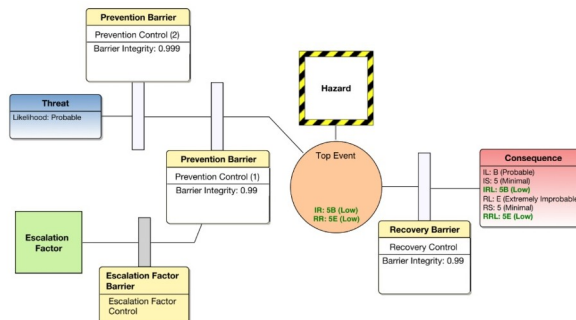
Enabling a **Digital Engineering** approach for teams to **elaborate** an **unified vision** of complex systems

Sirius | Domain-Specific Modeling

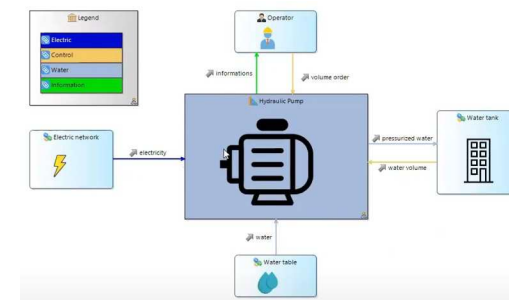
Development of
IT Business Applications



Safety Analysis of
Drones (UAVs)



Conception of
Complex Systems



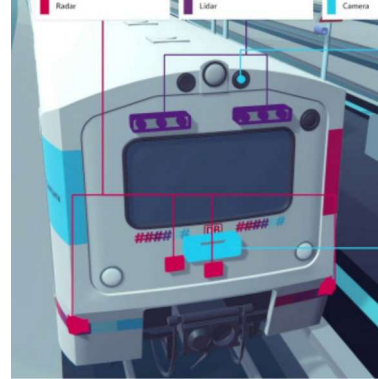
An **open-source** project to easily create
custom graphical modeling tools with a **low-code** approach

Capella | Model-Based Systems Engineering (MBSE)

Define the architecture of a large civil aerospace turbofan engine



Modernize and digitalize the future of railway operations



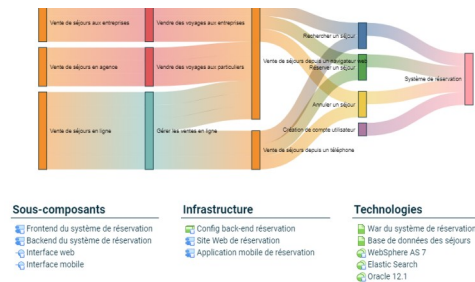
Develop an advanced electron microscopes



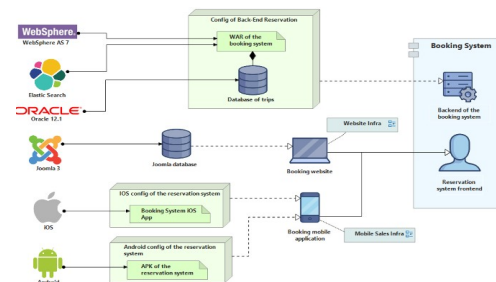
An open-source tool and commercial add-ons to **specify & design** products **architecture**

Obeo SmartEA | Continuous Enterprise Architecture

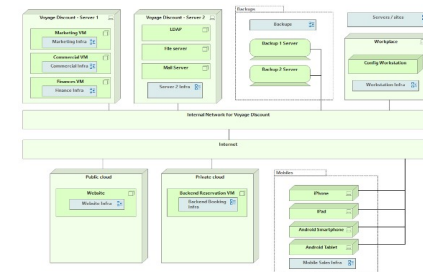
Modeling legacy, targets and trajectories for a global vision of transformations



Modeling the company to support its major business changes



Modeling IT infrastructure and indicators to optimize costs



Map business **needs** and **organization** with **IT applications** and **infrastructure**

Obeo Offer



Open-Source
Software



Commercial
Software



Services

Domain-Specific Modeling



Collaboration
add-ons

Cloud
Platform

- ✓ Custom Workbenches Development
- ✓ Open-Source Core Development
- ✓ Support & Expertise
- ✓ Training

Model-Based Systems Engineering



Collaboration
add-ons

System Modeling
Workbench

- ✓ Integration
- ✓ Add-ons Development
- ✓ Open-Source Core Development
- ✓ Training

Enterprise Architecture

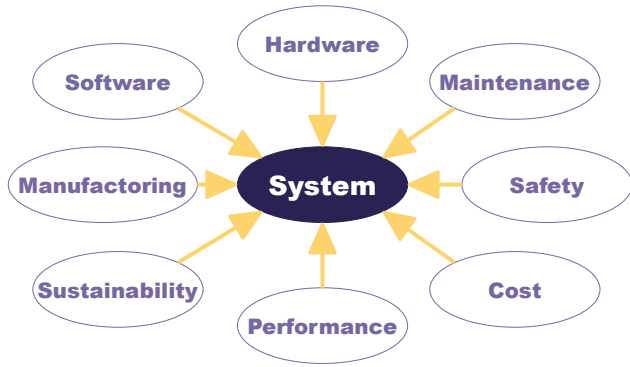


- ✓ Custom Development (connectors, extensions, ...)
- ✓ Expertise
- ✓ Training

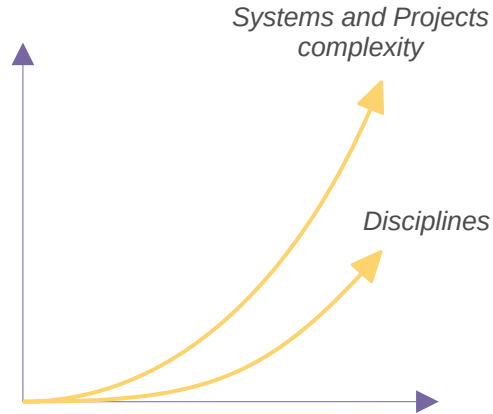


Arcadia / Capella Overview

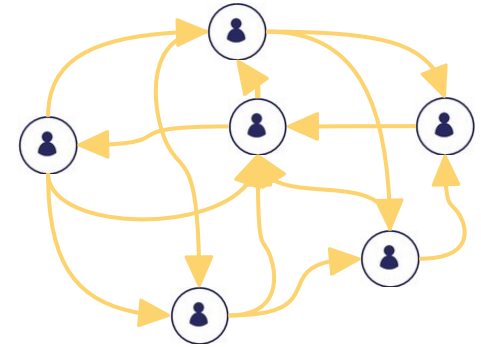
MBSE | Systems' increasing complexity



Products rely on an increasing number of technologies and interconnected systems



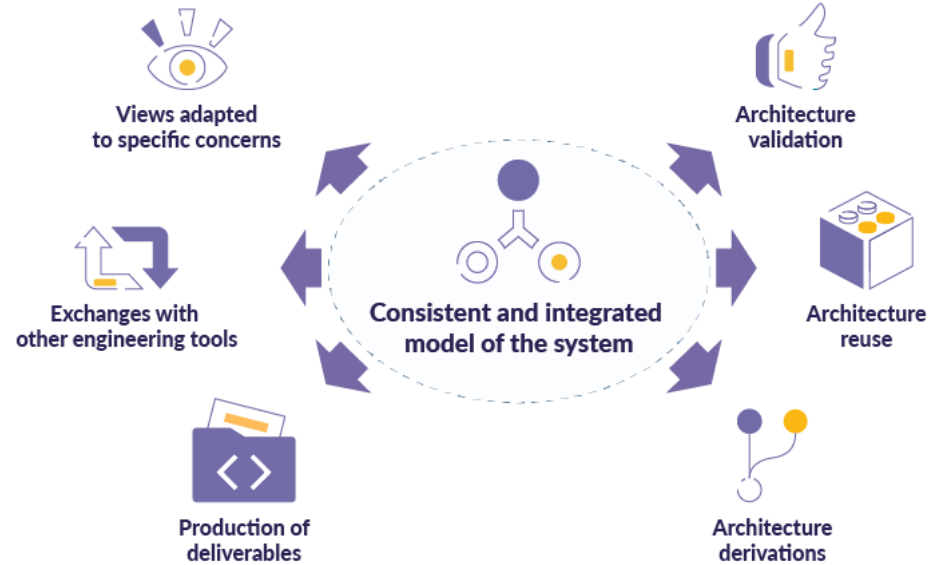
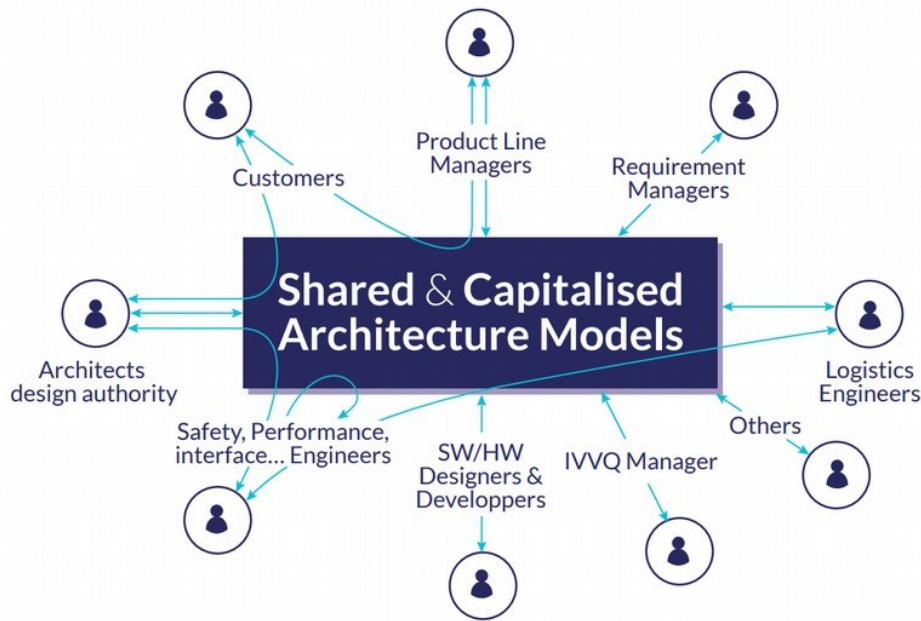
It necessitates a multitude of engineering disciplines to cope with this complexity



Engineers must cope with more demanding customers and collaborate with more peers

This creates a communication and data challenge.
Architecture models are the key for addressing this challenge

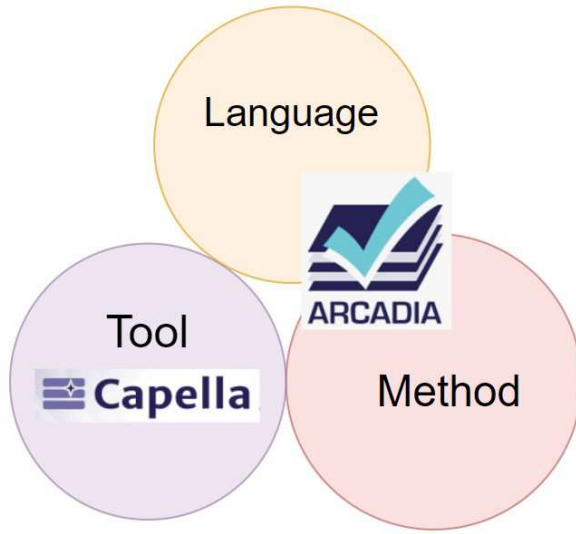
MBSE | Systems Engineering enables cross-engineering activities



MBSE | Arcadia and Capella cover MBSE needs

MBSE is based on **3 pillars** :

- a **language** : Formalization of element to represent a system as a model.
- a **method**: What, how and when use language elements to modelize the system .
- a **tool**: Tool in which the language and method is used to modelize and share system model.



- ✓ **Arcadia** defines the **language** but also defines a **method**

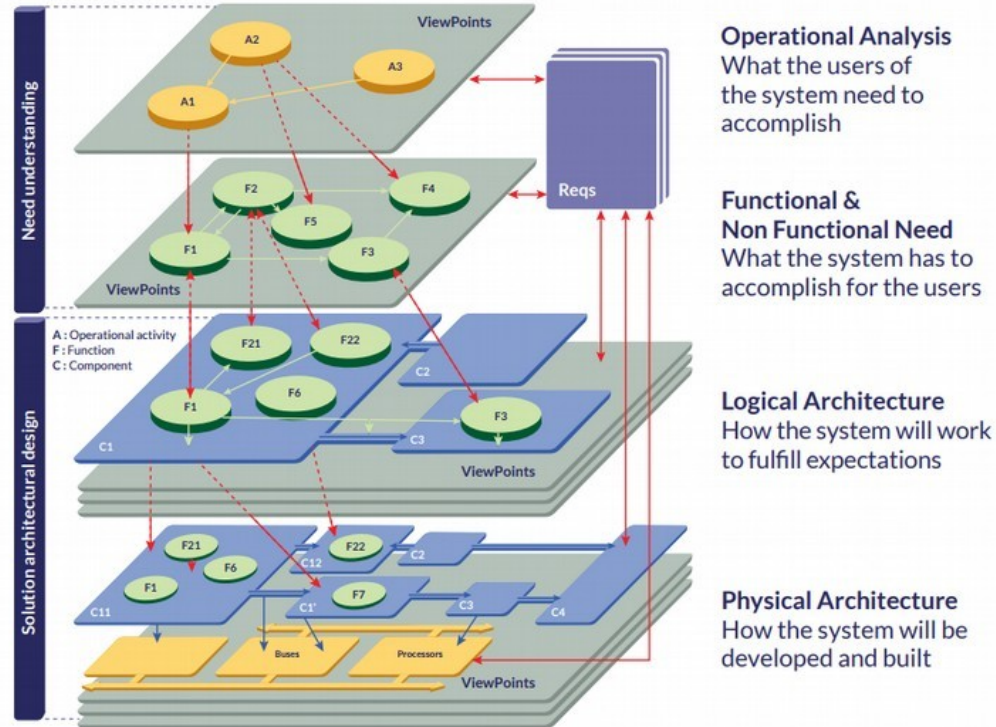


- ✓ **Capella** realizes Arcadia in an efficient **tool**

Arcadia | Clear separation between NEED and SOLUTION

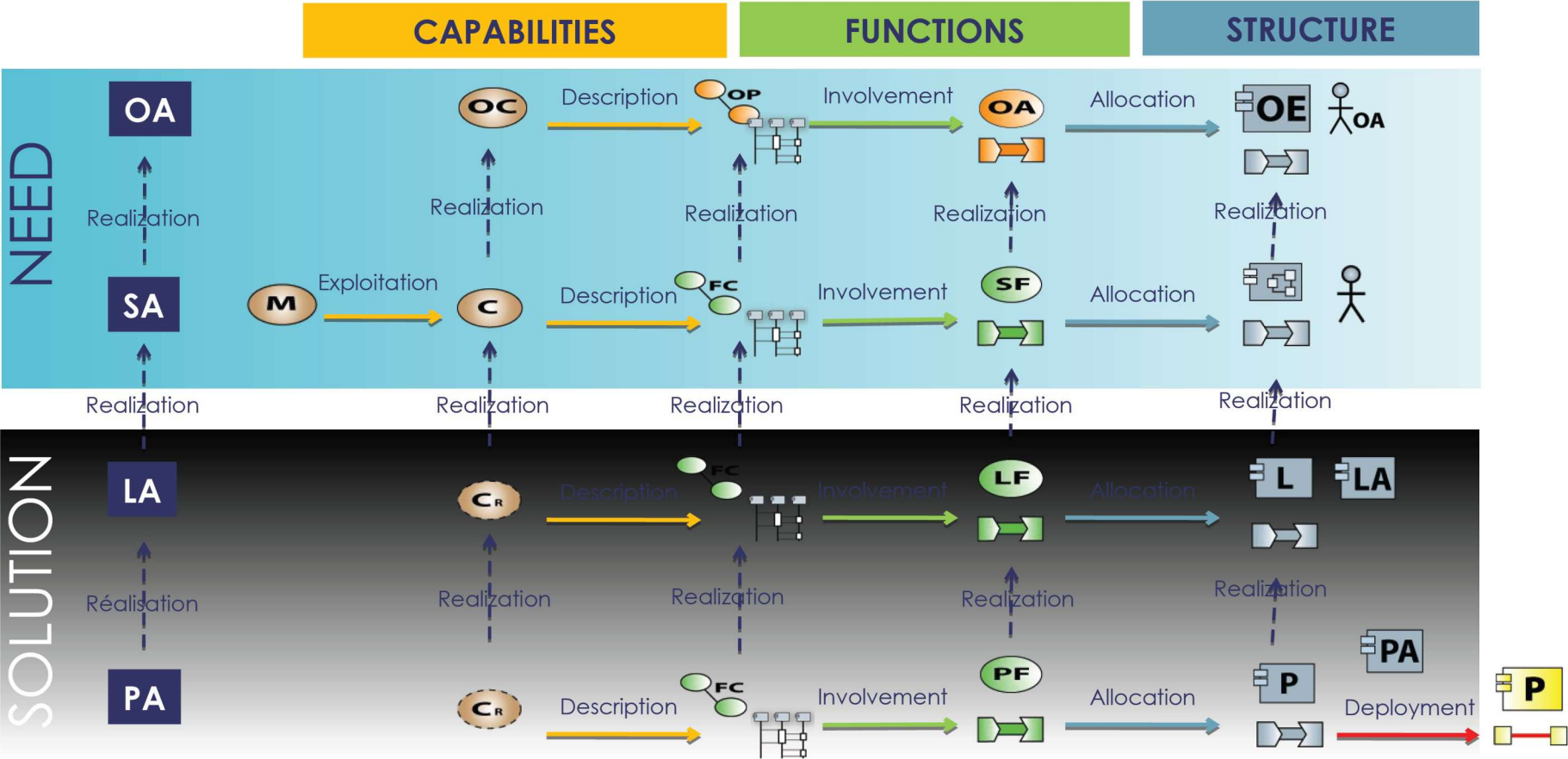


Traceability and impact
analysis
between engineering levels



Arcadia drives you to adopt certain **perspectives** to ensure the **consistency** and **completeness** of your architecture design.

Arcadia | Main Concepts

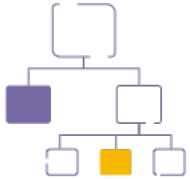
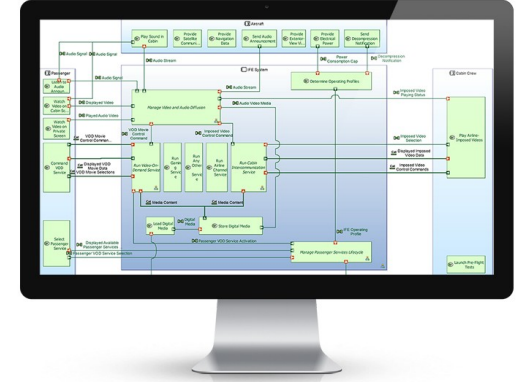


Capella | a comprehensive MBSE solution



Methodological guidance, intuitive model editing, and viewing capabilities for Systems, Software and Hardware Architects

- ✓ Better understand/define the customer need
- ✓ Define and share the solution among stakeholders
- ✓ Secure engineering-wide collaboration (Sys, SW, HW, sub-contractors)
- ✓ Early evaluate and justify architectural choices
- ✓ Prepare and master V&V
- ✓ Low learning curve



A focused scope:
System
Architecture



A pragmatic tool
with low learning
curve phase



A mature
method(Arcadia)
fully integrated

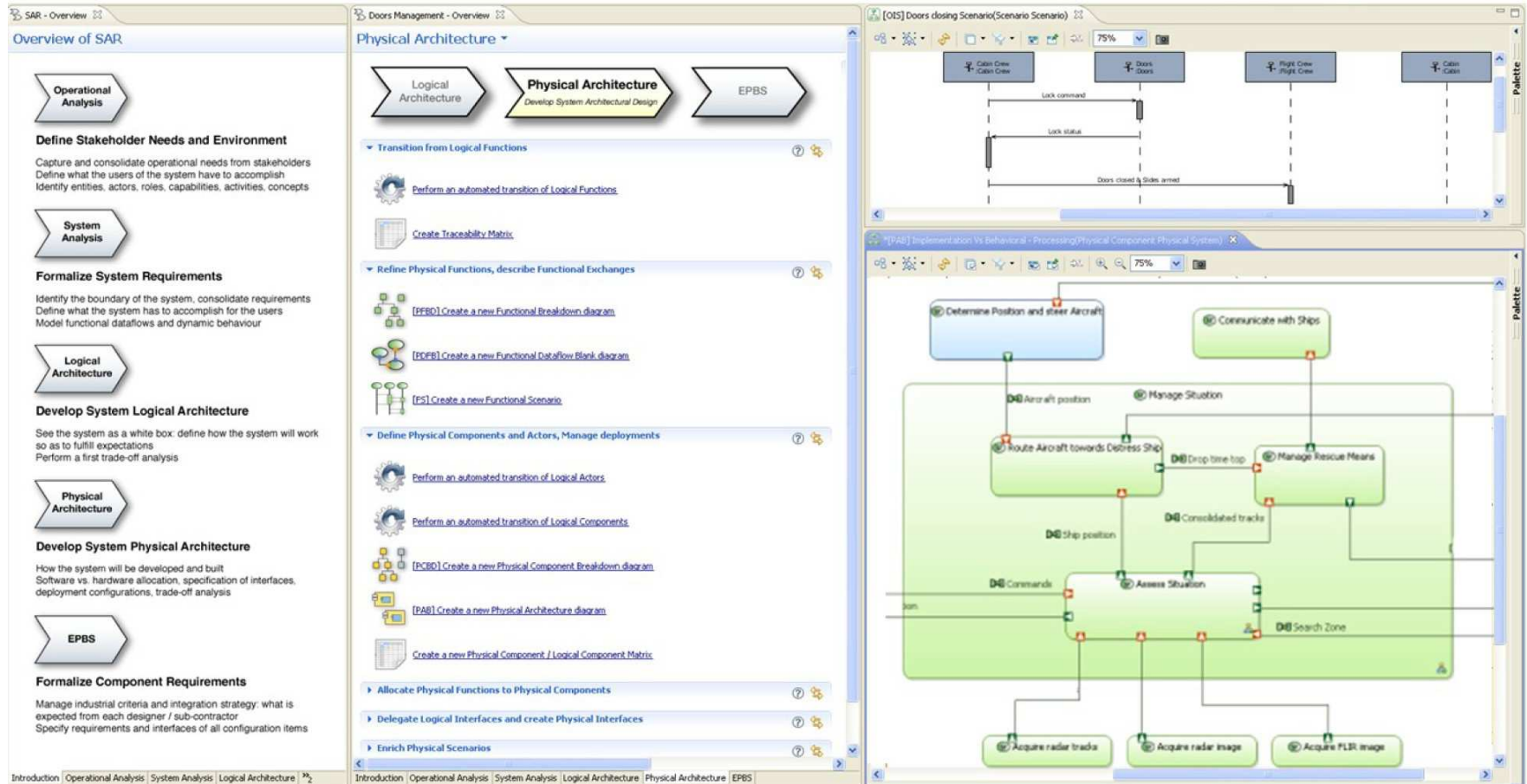


Available
for free

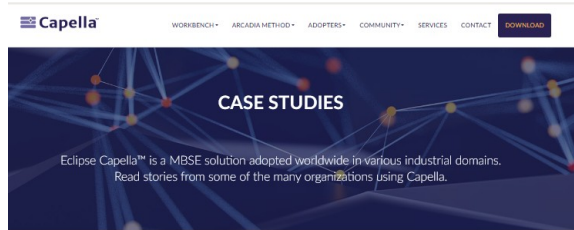


Adapt to Your
Specifics

Capella | Methodological guidance



Capella | 1000+ organizations are using Capella worldwide



HEALTHCARE
Thermo Fisher Scientific
Company-wide Architecting Assets
to Inform Design Decisions

[READ](#)



NAVAL & DEFENSE
Naval Group
From Document-Driven
to Digital-Native Engineering

[READ](#)



AIR TRAFFIC MANAGEMENT
Thales Australia
The Transformation of a Complex Air Traffic
Management System

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RAILWAYS
Digitalte Schiene Deutschland
Model-centric Engineering Environment to Design
the Future Railway System

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POWER
UK Atomic Energy Authority
Conceptual Design of the
STEP Fusion Power Plant

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AIRCRAFT
Rolls Royce
Arcadia and Capella for a
large complex mechanical system

[READ](#)



You will never be alone

Resources

Events, Workshops, Conferences,
Books, Webinars, Case studies, Resources...

Details

Website

- <https://www.eclipse.org/capella/>

Youtube channel

- <https://www.youtube.com/channel/UCfgwbb2h10V3tgI59sbGBnQ/videos>

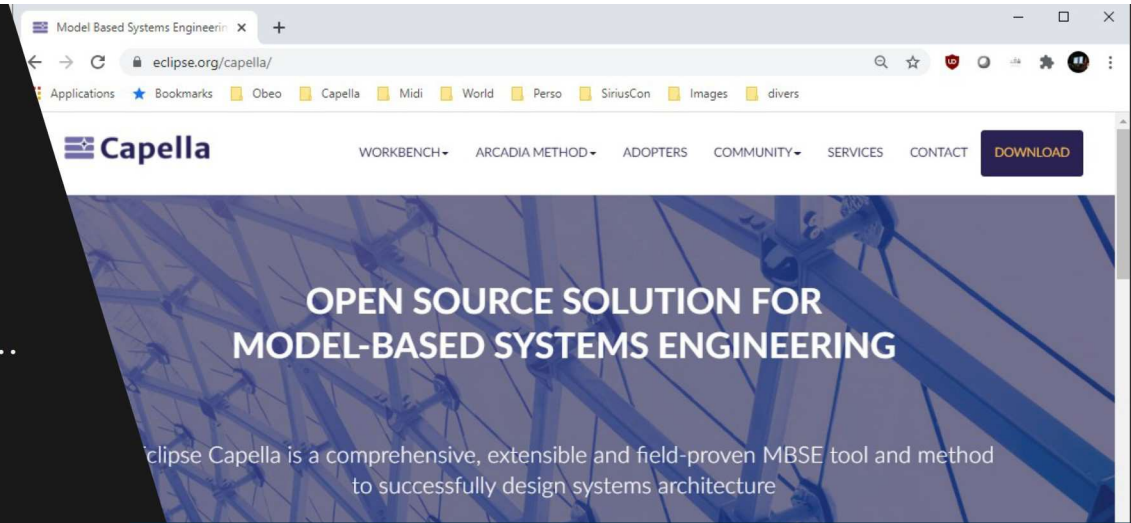
Forum

- <https://forum.mbse-capella.org/>

Linkedin group

- <https://www.linkedin.com/groups/8605600/>

...



Training & Coaching

Develop your team's skills on Capella: training, assistance for deployment, methodological coaching

Thales Offer ➔

Obeo Offer ➔

Artal Offer ➔

Samares Engineering Offer ➔



Integration & Customization

Integrate Capella with other tools and extend the workbench for your particular engineering concerns

Obeo Offer ➔

Artal Offer ➔

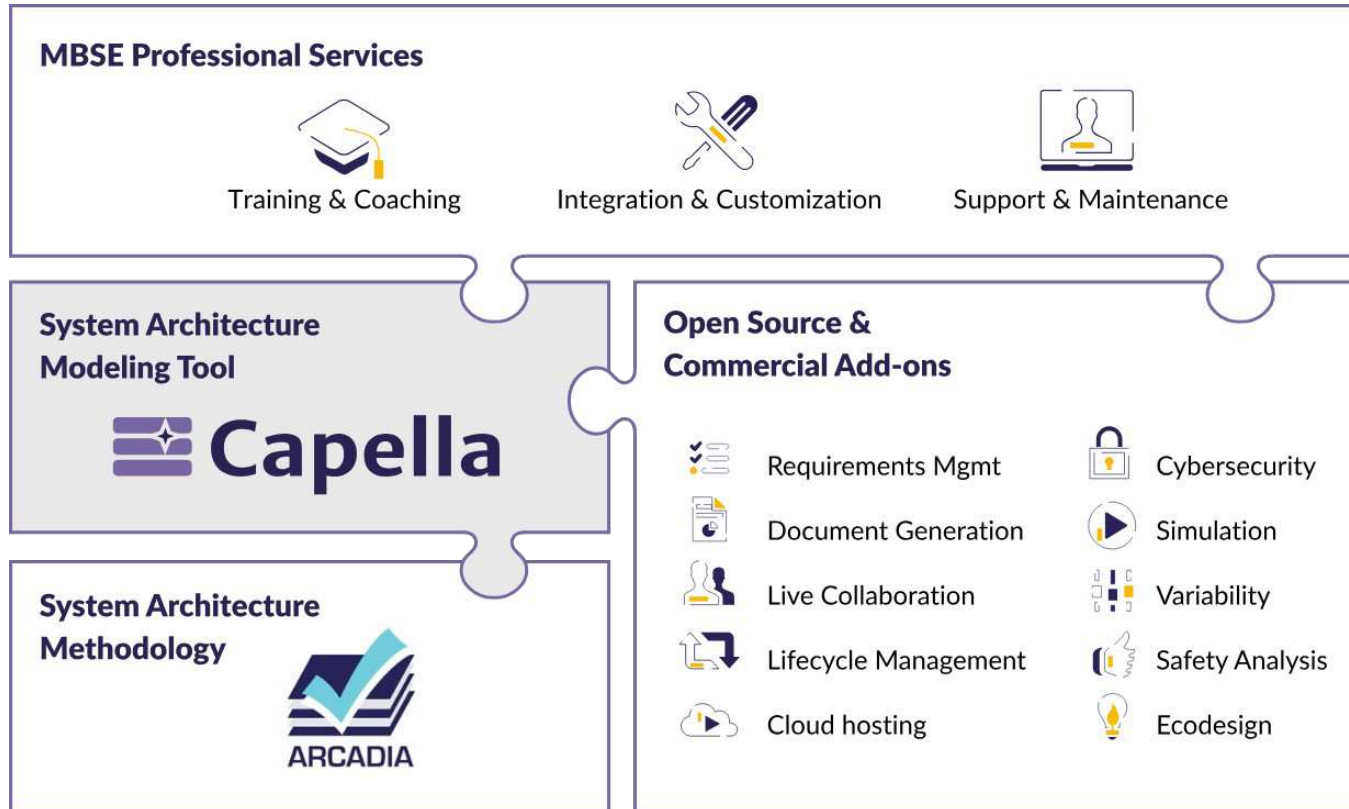


Support & Maintenance

Get a commitment regarding response times: answers to technical queries, bug fixes, change requests

Thales Offer ➔

An industrial-grade MBSE Workbench



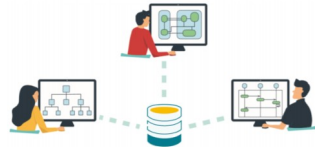


Obeo

Products & Services

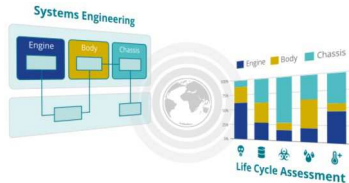
Obeo Products

Team for Capella



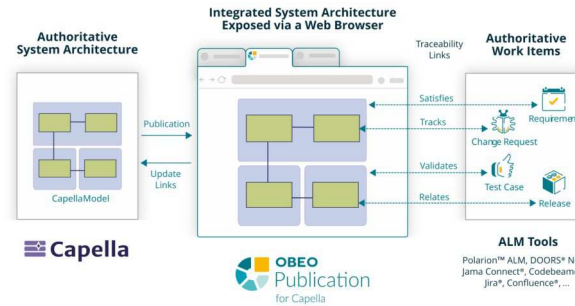
Capella add-on to work simultaneously with your team members on the same models from a shared server

Ecodesign for Capella



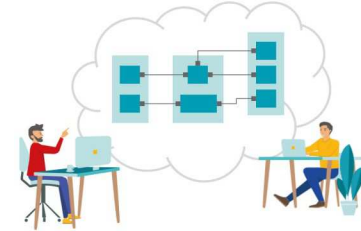
Bridge between Capella and Life Cycle Assessment tools

Publication for Capella



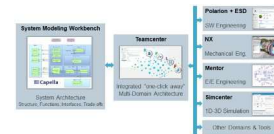
Fine-grained integration between Capella and OSLC-compliant third-party repositories (Polarion, Doors Next, Jazz, ...)

Cloud for Capella



A pre-configured, secure, and ready-to-use Cloud environment, enabling immediate collaboration with Capella

System Modeling Workbench



Capella integrated with Siemens Teamcenter



Enterprise Architecture solution based on ArchiMate And BPMN standards



Cloud for Capella

Overview

Setting Up Advanced IT for Engineering Tools = Rocket Science?



Startups & Small Companies

Can't / don't want to manage IT

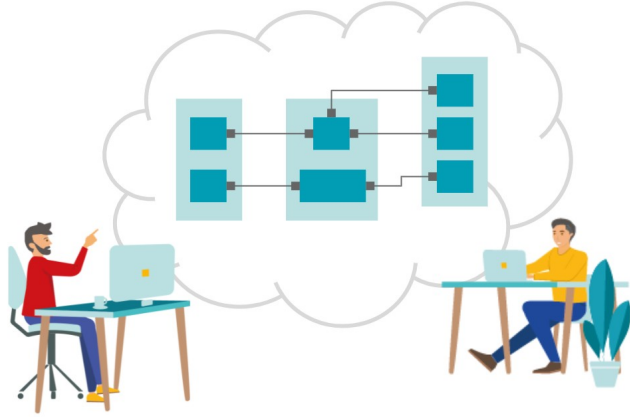
Collaborative Projects

Seek a neutral / efficient workspace

Large Corporations

Handle scaling up

Cloud for Capella



A SaaS solution offering a **secure, pre-configured**, and **ready-to-use** MBSE environment.

It enables immediate collaboration on the design and architecture of complex systems, streamlining your engineering processes

Access your Capella environment from anywhere

- ✓ No installation
- ✓ Pre-installed add-ons (Requirements, PVM T, M2Doc...)
- ✓ Team for Capella + Publication for Capella



Immediate Startup
in a **Ready-to-Use**
Environment



Team and Partners
all on the **Same Version**



Automatic
and Constant
Backups

Cloud for Capella | Main components for effective collaboration

C4C Team

**Simultaneously edit Eclipse Capella models
with your team members**

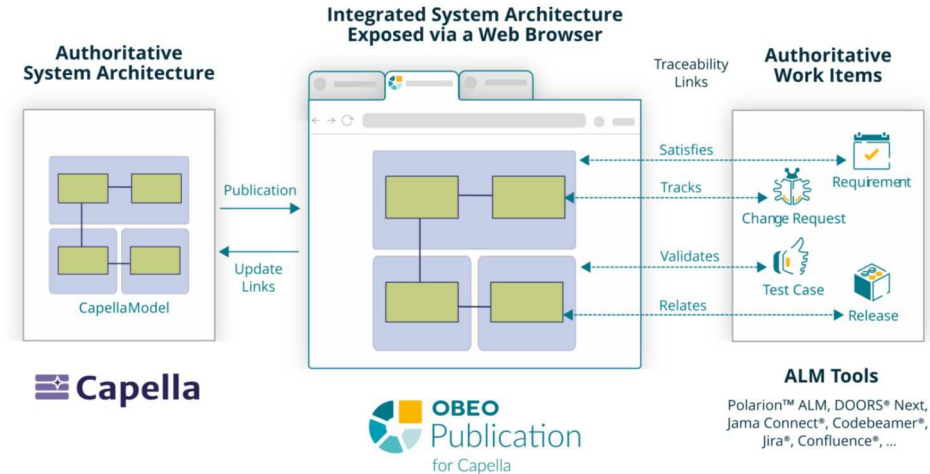
- Live collaboration
- Fine-grained & automated locking
- Standard and secured data access



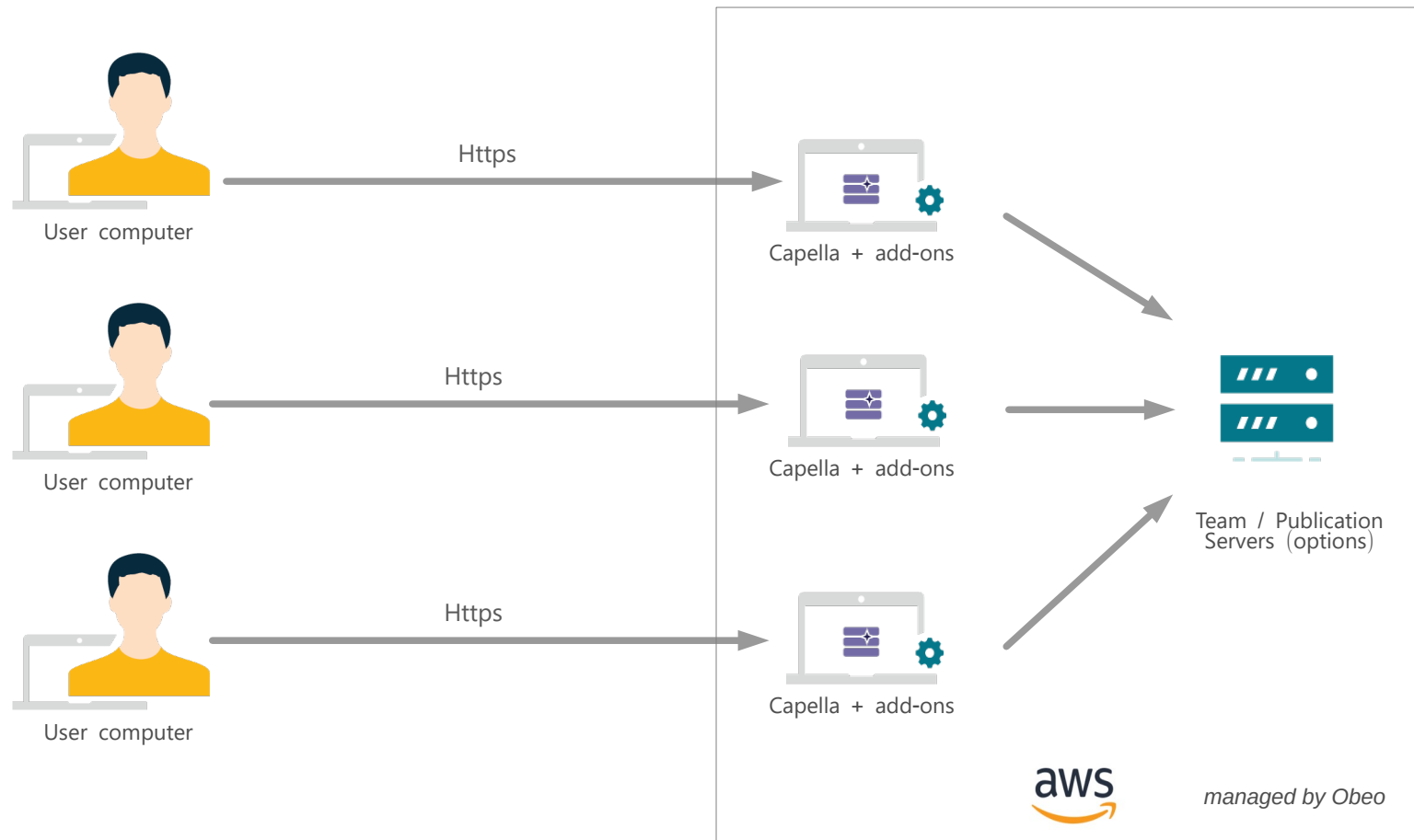
C4C Publication

**System architecture at the heart
of your engineering process**

- Publish Capella models on a web server
- Connect them with third-party repositories
- Use traceability links to requirements and work items



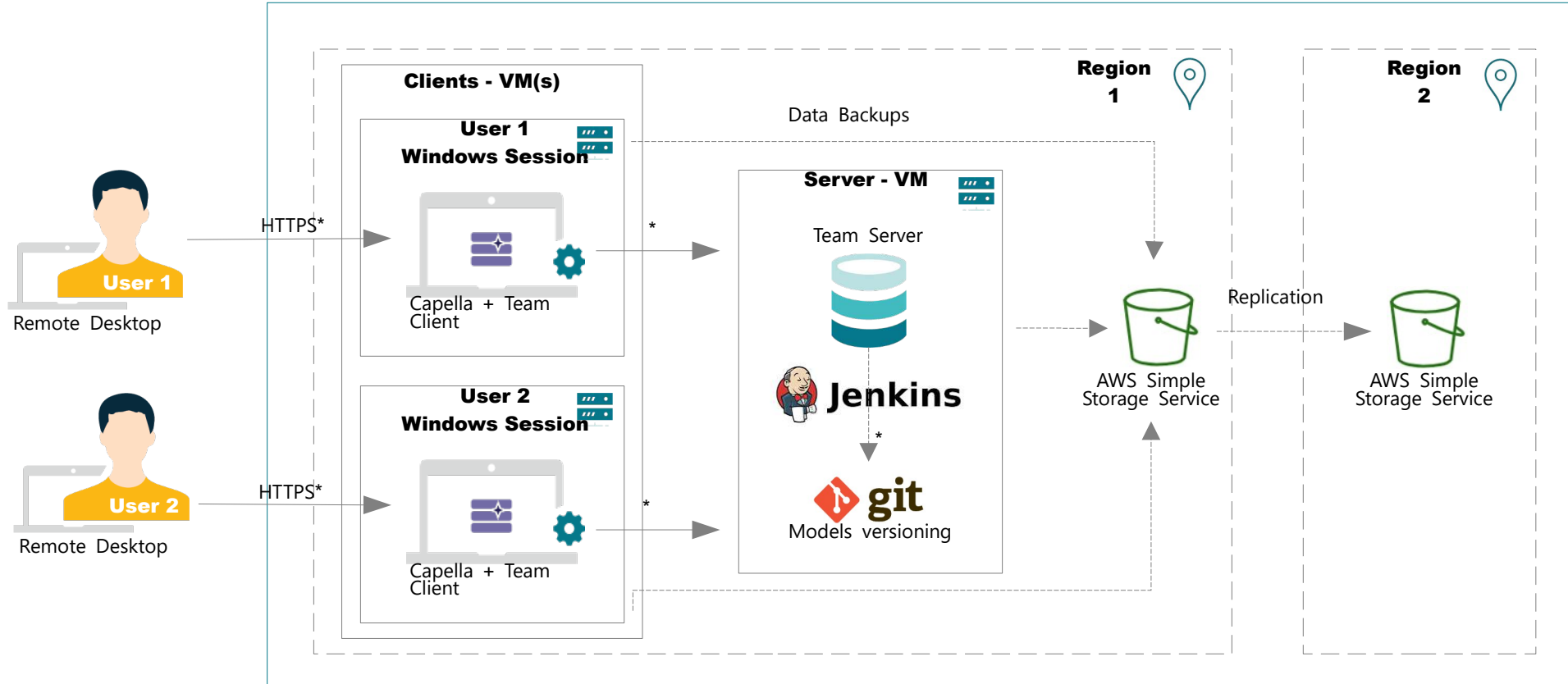
Cloud for Capella | General Architecture



C4C Team | Pre-integrated useful add-ons

Add-on	Description	Use-case
M2Doc	Generate an MS Doc documents from a Capella project	Share models through custom « purpose-oriented » documentation
XHTML Document Generation	Generate an HTML website from a Capella project	Share models with stakeholders not having Capella installed
Filtering	Create filtered models based on criteria	Derive specific products from a generic one
Requirements Viewpoint	Import a set of requirements from a ReqIF file and link them to model elements (traceability)	Justify system architecture
Property Values Management Tools	Easily define and set your own properties on Capella model elements	Create light-weight extensions to Capella for your specific needs
System to Subsystem Transition	Initialize a new Capella project from existing model and manage top/down update propagation.	Manage several levels of engineering

Note: installation of specific software, other add-ons, or Eclipse plugins is not allowed unless agreed by Obeo



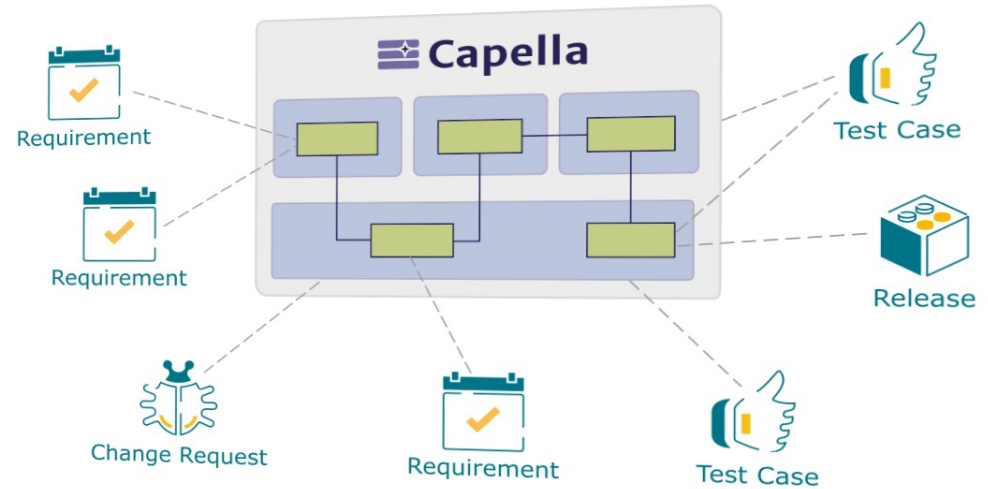
*** Possible Hybrid Cloud Architecture:**

- Delegated authentication via the client's identity provider (OpenID Connect & SAML)
- Backups stored in the client's GitHub repository

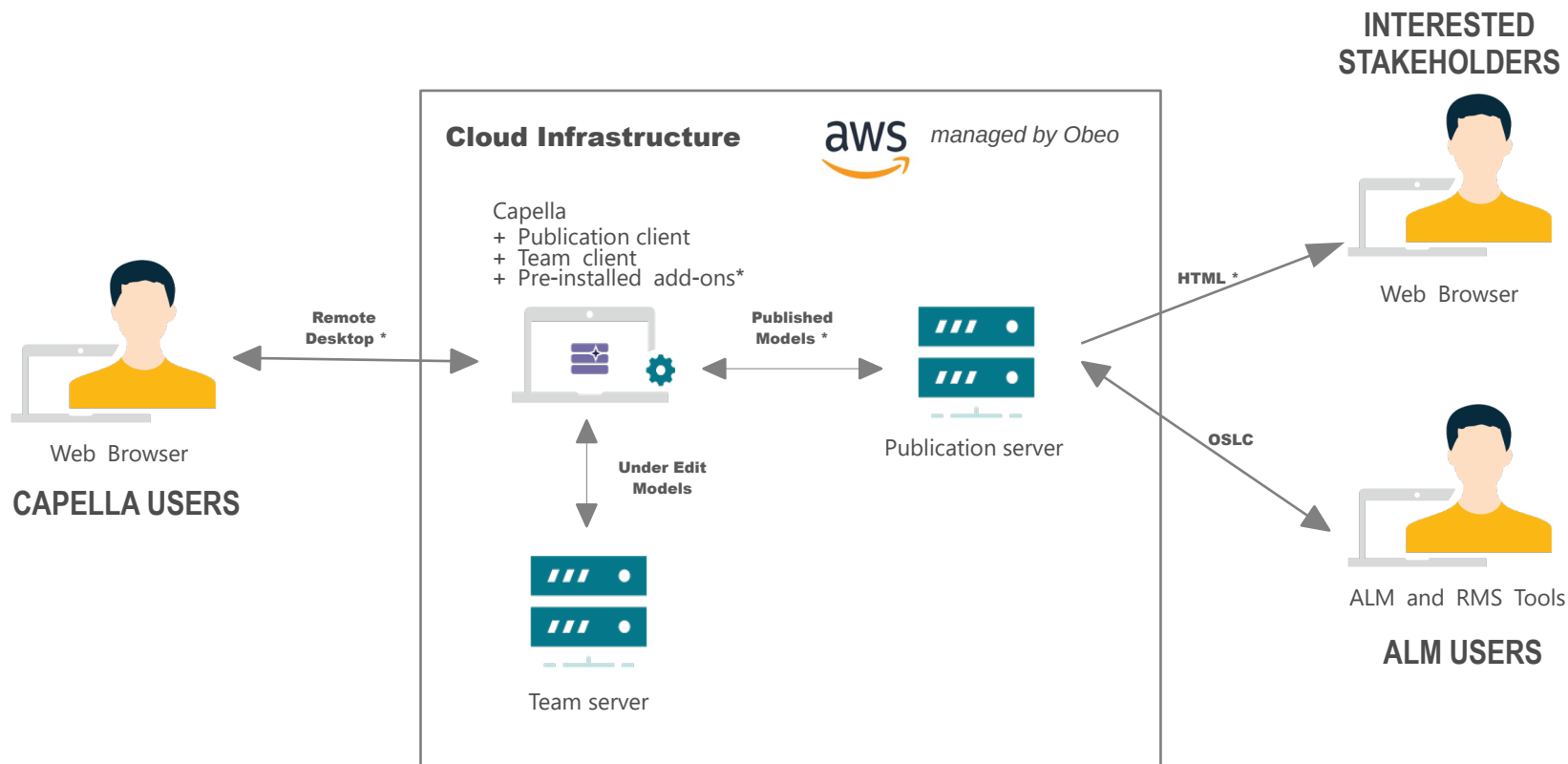
C4C Publication

A publication server to expose your Capella models, and connect them with ALM and Requirements management tools.

Connect your Capella models with *Siemens Polarion* and *IBM Doors Next* via a *Publication for Capella* server deployed and managed in the Cloud by Obeo.



C4C Publication | Architecture when deployed with C4C Team



* Possible Hybrid Cloud Architecture:

- Delegated authentication via the client's identity provider (OpenID Connect)
- Backups stored in the client's GitHub repository

C4C Publication | User-Based Licensing

- **Viewer :**
 - Read-only access to published projects and their traceability links.
- **Contributor :**
 - Write access to the publication server, including the ability to publish models, create, delete, and modify traceability links.
 - Includes all the *Viewer* rights.
- **Administrator :**
 - Administrative rights on projects, including projects creation, configuration and deletion.
 - Includes all the *Contributor* rights.
 - At least one *Administrator* license is required per Publication server.

Users account are created by Obeo based on the information declared by the client.

The activation/deactivation of user licenses is managed by Obeo, within the limits of the licenses acquired by the client.



Cloud for Capella

Hands-on



Q&A Session