MOORING

deployMent OrchestratiOn
pRovisIoniNG
SODALITE Stack 3

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825480

SODALITE MOORING is solving

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The Problem

Difficulty of manual deployments, lack of TOSCA compliance for deployment of complex application on heterogeneous infrastructure including HPC, cloud, edge

The Solution

Providing TOSCA-compliant means to the automation of the provisioning, deployment and orchestration of applications on target infrastructure

The Value

Agnostic to the choice between various HPC, private/public Cloud and Edge environments and the appropriate scalability of applications

Offering through IaC the choice between various HPC, Cloud
& Edge environments and scalability of applications

SODALITE MOORING Benefits

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Compliant

Builds runtime images supporting full or partial redeployment and refactoring of the TOSCA blueprints

Inclusive

Supports the heterogeneity of the building process using IaC and TOSCA with the orchestrator for building heterogeneous runtime images

Equipped

Enables the truly concurrent provisioning and configuration of infrastructure and deployment of applications, with lightweight orchestration in HPC

Robust

Ensure deployment, orchestration and provisioning, relying on mature technologies including the xOpera orchestrator and the application lifecycle management ALDE

Context on SODALITE solution

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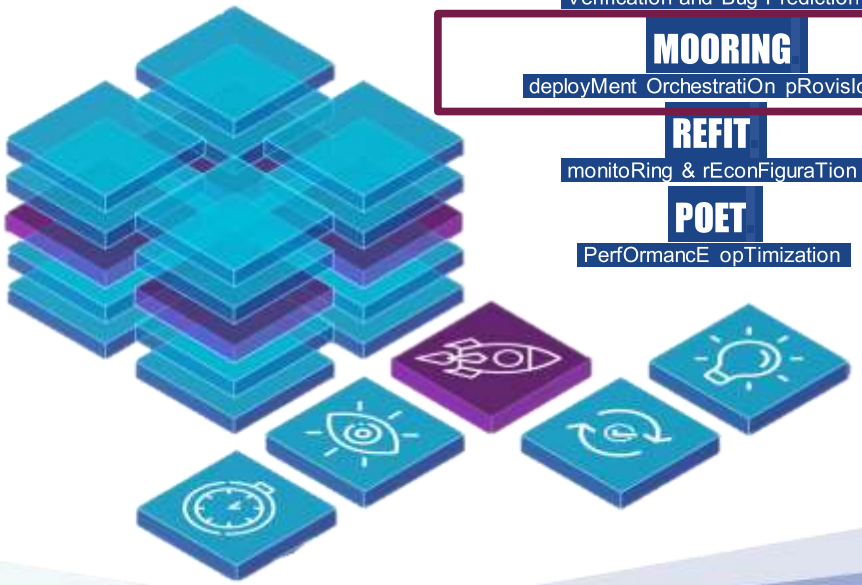
Innovation

- ★ ALDE
- ★ Image Builder
- ★ Image Registry
- ★ Orchestrator

Smooth your model application deployment, orchestration and provisioning with TOSCA-based parameterised libraries.



MOORING Demonstration

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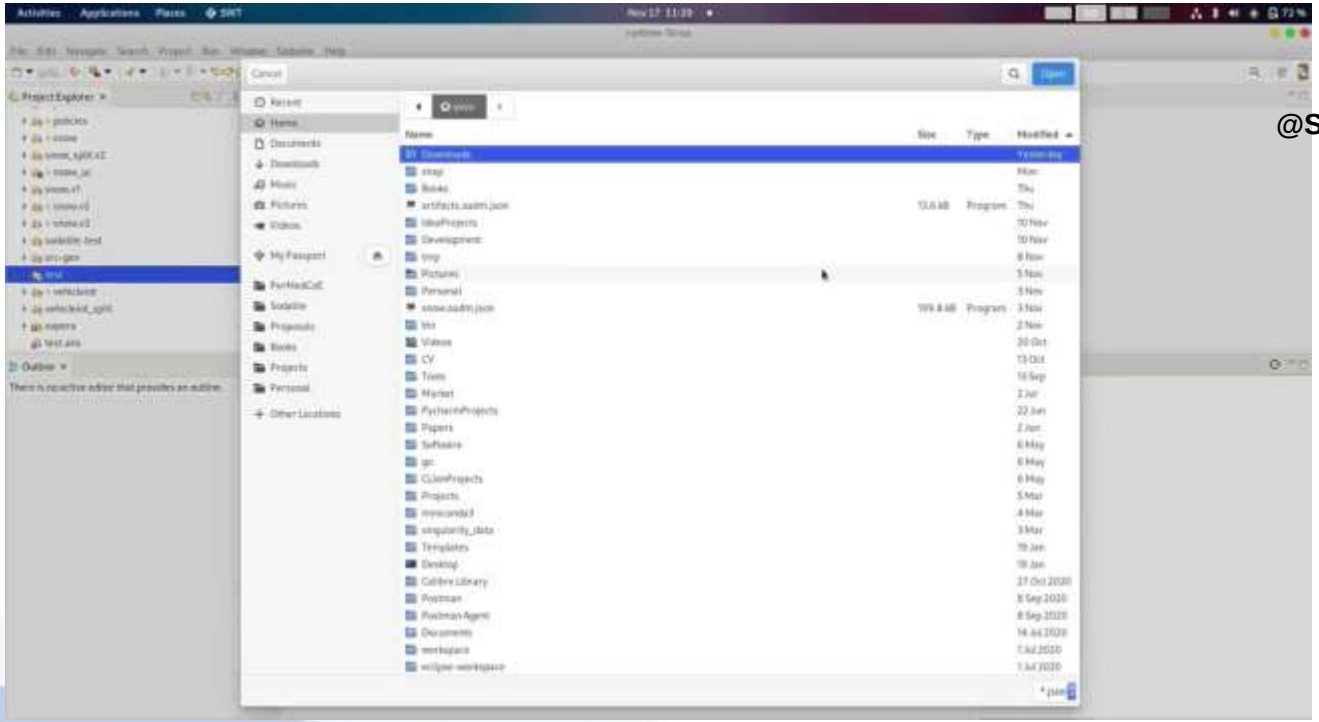
• LIVE

See Full Demo at

@SODALITE_H2020



SODALITE Business Plan

	Trial	Basic	High-End
	Testbed Access	Light SODALITE	Advanced SODALITE
	FREE	€	€€
Optimisation & Reconfiguration	✓	✓	✓
Own Infrastructure Access	x	✓	✓
Configuration	✓	✓	✓
Maintenance	x	€	✓
Support & Training	x	€	✓
Customisation	x	€	✓
	Premium Services €		

MOORING Early Adopters

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Environmental

Problem: The staging test and operation phases of an environm. monitoring process require the command of heterogeneous runtime platforms, each one with its own deployment processes.

Solution: The provision of an image repository and builder simplifies the transition from staging to testing to operation easing the migration from in house to external infrastructures.

Digital Health

Problem: The clinical case was realised as a workflow executed on particular HPC infrastructure provider, limiting the adoption of the developed methodology in biomechanical clinical trials for medical device manufacturers or medical research due to the specifics of the target execution environment of the use case. .

Solution: A tool or a service that orchestrates the deployment of clinical use case workflow into various infrastructures.

IoT Automotive

Problem: Application developers wish to deploy their applications across heterogeneous clusters without needing to know the specific capabilities of individual nodes.

Solution: Separation of the application and infrastructure models allow application developers to model the application-specific parts of the deployment, while infrastructure models derived dynamically from the platform discovery service allow for a flexible deployment and orchestration approach.

The SODALITE Team

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SINTEF

> *SODALITE has the potential to deliver solid innovations, validated in large pilots, towards the deployment and operation of the next generation of applications that will run on heterogeneous HPC and Cloud resources.*
>
> *Nicolas Ferry*

UNIVERSITÄT DUISBURG ESSEN

> *The SODALITE outcomes are an impressive next step to facilitate efficiently deploying and operating complex, adaptive software across the whole compute continuum.*
>
> *Andreas Metzger*

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Shaping the Infrastructure Management and Application Deployment of Tomorrow!

TALK TO US

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