

Core feature set:

- An interface for launching docker images (e.g: Jupyter, RStudio) on demand on a Kubernetes cluster.
 The catalog of available images is not part of the app, you can create your own. (here is the catalog we build for the institute's needs.)
- Users can define the amount of RAM, CPU and GPU they would like to allocate to their containers.
- Specify a custom init script to be executed at launch.
- Define environnement variables to be made available in the containers.
- Save and restore your service service configurations
- Deep integration with S3 for working with data (S3 as the open standard, not the AWS service) and with Vault (for secret management)
- Keycloak integration.

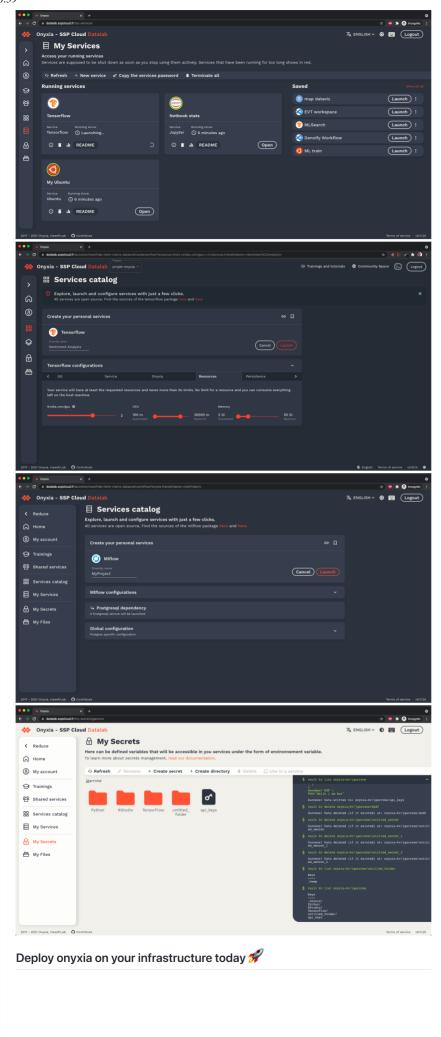
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 - Deploy onyxia on your infrastructure today **

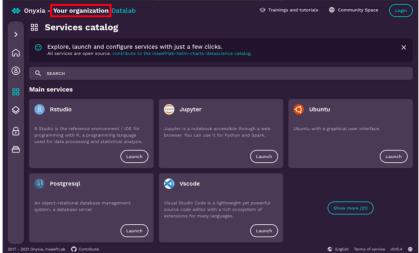
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Screenshots







The simplest way to install Onyxia is to use Helm.

helm repo add inseefrlab https://inseefrlab.github.io/helm-charts helm install onyxia inseefrlab/onyxia —-set ingress.enabled=true —-set ingress.hosts[0].host=datalab.yourdomain.com

Browse to http://datalab.yourdomain.com and enjoy:)

Note that this is only a bare installation of Onyxia with some major limitations (no authentication, deployed services won't be accessible ...). Read below for more configuration options.

Installation & configuration

See Installation

Modules

Onyxia is split into several modules :

Module	Description	Status
Onyxia WEB	Web UI (React)	$\overline{\mathbf{V}}$
Onyxia API	Kubernetes API (Java / Spring-boot)	V
Onyxia-UI	Design system and React UI toolkit	V
Onyxia CLI	Command line application (Go)	\rightarrow

Services catalogs

Onyxia relies on catalogs to provide users with a selection of services they can install in one click. You can either create your own repositories or use the default ones:

Repository	Purpose	Status
Helm charts datascience	Datascience catalog using Helm (for Kubernetes) format	V

Docker images for services

InseeFRLab maintains various Docker images that extends standard images so that they work nicely inside the datalab.

You can browse them here : Repositories using $\, {\tt docker-image} \, \, {\tt tag} \, {\tt on} \, \, {\tt InseeFRLab}$

Cloudshell

Onyxia integrates a cloudshell that is based on a WebSSH docker image. The docker image used is codenamed Shelly and is available here: Shelly

Miscellaneous

Repository	Purpose	Status
Helm charts	Collection of Helm charts including Onyxia's Helm chart	V

Repository	Purpose	Status
Simple default backend	ault A simple loading webpage that gets displayed for services that are not yet ready	V

Infrastructure scripts

The cloud-scripts repository is a collection of scripts we used at some point at Insee. They are provided as is with minimal to no documentation and support. They are, currently at least, used as memo and not production grade code.

The repository is available here: cloud-scripts

Media





Roadmap 🐜

The Onyxia project is actively developed. We are constantly working on new functionalities to meet our users needs at Insee. Do not hesitate to get in touch with us to ask questions or share your ideas!

Recently released 🎁

- New services: Argo CD, Argo Workflow, Pinot
- Step by step Onyxia deployment guide
- Customizable UI themes
- Onyxia installation documentation
- Project documentation (${\tt CONTRIBUTING.md}$...)

Coming soon

- · Projects and collaboration
- Transform File Explorer into Data Explorer

WIP I

- Onyxia installation documentation
- Project documentation (CONTRIBUTING.md ...)
- New UI for FileExplorer

Ideas 💡

- End user documentation
- Extend the catalog of data science services
- Data governance (data & metadata management, data cataloging, data lineage, data quality management)
- What data management features does a user need in Onyxia (objects explorer, PV manager...)?
- Billing, monitoring & housekeeping of services
- Onyxia deployment automation
- Instance administration (users & groups...)