# **NDS Labs Project GUI Requirements**

This page captures basic requirements for the NDS Labs GUI.

## Scenario:

An NDS Labs pilot project has been approved and compute and storage quotas allocated. The **project administrator** has been sent credentials to access the NDS Labs project administration GUI

## Definitions:

- Service: An individual Kubernetes service
- Stack: A named set of related services (e.g., clowder services)
- Endpoint: A publicly accessible endpoint for a service (e.g., NodePort)

## Project Admin GUI Use cases:

### **Prerequisites:**

Project admin has credentials to access the NDS Labs GUI

### Use cases

#### Login

- If the project admin enters a valid username/password, they are logged in for the duration of a session or until they hit logout.
- If an invalid username or password are entered, an error message is displayed.

#### Logout

• Selecting "logout" terminates the session. The user must re-login to make changes to the system.

#### View list of available services

- · A list of available services is displayed ordered by name
- The admin can search the list of services or add/configure a service

#### Search list of available services

• The admin can search the list of available services by name or keyword (tag)

#### Add service or set of services (stack) - configuration wizard

- · The admin selects the "add" button next to a service
- The admin is prompted to complete a configuration workflow:
  - The system displays descriptive information about the selected service
  - ° The system displays a list of required (pre-selected) and optional dependencies
  - The admin can select or deselect optional dependencies
  - ° The system displays volume requirements.
    - The system displays project storage quota and available space
      - For each required volume, the system displays the minimum recommended storage (default). The user can specify storage allocation for each volume.
    - If a volume exists for this service, the user is prompted to reuse or reinitialize the existing volume
  - Confirmation
    - The system displays a complete list of required and optional dependencies, volumes and allocations
  - ° Finish
    - The selected services are added as a "stack" to the inactive part of the namespace with status "not started"

## Configured services:

- For each service stack, the system displays the following:
  - A table of services grouped by "stack" name
  - Start/stop/remove
  - Endpoint URL
  - Service and stack status
- From this interface, the project admin can start, stop or remove a stack
- From this interface, the project admin can add optional services to an existing stack

## Start/stop service

- The project admin can start or stop a service stack. The stack status is displayed as services are started.
- The admin is prompted to confirm stopping a service stack.
- If the service is stopped, the endpoint URL is no longer available

#### Add/remove optional services from stack

#### Precondition:

Stack is stopped

#### Primary flow:

• The project admin can add or remove optional services from an existing stack

#### Alternative flows

• The project admin cannot remove required subservices of optional services (e.g., you cannot remove Rabbit without first removing Image Preview in Clowder)

#### **Remove stack**

- The project admin can remove a stack.
- They are prompted to confirm removal
- They are prompted to remove or retain allocated storage for the stack.

#### Save stack

• (Tentative) The project admin can save the stack configuration.

#### View stack status

• The project admin can view the status of a running stack

#### Endpoints

- The project admin can view the list of available endpoints for a service stack.
- The project admin can remotely access or share service endpoint URLs.

#### Logs:

• Tentative: The project admin can view logs for a service

#### Console

• The project admin can access the console of running stack services.

### Assumptions/Questions

- A service can only be deployed once in a given a project? (or stack) but may be restarted/reconfigured.
- How can we support deploying multiple versions of the same service?

## **UI Mockups**

## **Express Setup**

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| clowder-01-mongo        | 100 GB Resize   | Raw Reformat   | Clowder-01  |
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| Volume                  | es leftover fr  |  |   |
| Name                    | Size Current Storage:<br>400 / 600 GB Available<br>After Resize<br>222 / 600 GB Available | Cancel Accept Clowder-0  | 0   |
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| clowder-01-mongo        | 100 GB Resize   | Raw this volume will be<br>permanently lost. Are y<br>sure this is what you wa | bu der-<br>permanently lost. Are you<br>sure this is what you want? |
| clowder-00-mongo-orphan | 100 GB Resize   | Raw Reformat   | None Attach Delete  |

## Expert Setup

| NDS Labs               |     | Express Setup     | Expert Setup |      |
|------------------------|-----|-------------------|--------------|------|
| Services               |     | Current Configura | tion         |      |
| Search                 |     |                   |              | <br> |
| lowder                 | Add |                   |              |      |
| lataVerse              | Add |                   |              |      |
| nage Preview Extractor | Add |                   |              |      |
| longoDB                | Add |                   |              |      |
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| abbitMQ                | Add |                   |              |      |
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