# Development / Deployment (CI/CD)

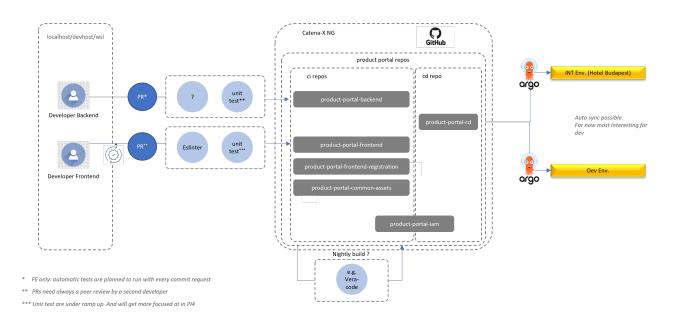
CX Core ART

Exported on 10/27/2022

# **Table of Contents**

1 GitHub workflows	5
2 Secrets	8
3 Access to databases	10
4 How to contribute to CX-Portal Dev	11
5 How to manage secrets	13
6 Password change for SMTP server	15

### Development / Deployment flow



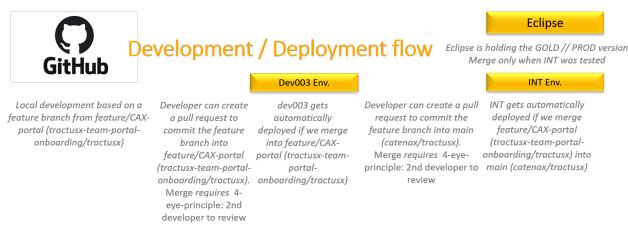
20220510\_Catena-X\_PLP\_Continuous Development.pptx

For portal team repositories please see: https://github.com/orgs/catenax-ng/teams/product-portal/repositories

Argo CD dev: https://argo.dev.demo.catena-x.net

Argo CD dev: https://argo.int.demo.catena-x.net

### Click here to expand the old process (retired on 8th of April 2022)



Catena-X\_PLP\_Deployment Handling.pptx

For deployment the most relevant component created, managed and used by the Portal Landing Page (PLP) team is Github Actions.

# 1 GitHub workflows

GitHub workflow	YAML	Description	GitHub Secrets	Enabled for tractusx-team- portal- onboarding/ tractusx (dev003)
0 Infrastructure	terraform.yml	Not a team specific workflow but it's used to deploy Azure Infrastructure, most relevant for us for the PostgresSQL databases (Azure Database for PostgreSQL servers)	secrets.AZURE_CREDENTIA LS secrets.AZURE_SUBSCRIPT ION_ID secrets.AZURE_AD_CLIENT _ID secrets.AZURE_AD_CLIENT _SECRET secrets.AZURE_AD_TENAN T_ID secrets.CATENAX_ADMIN_U SER secrets.CATENAX_ADMIN_P ASSWORD secrets.TFSTATE_STORAGE ACCOUNT_KEY	Not enabled due to upcoming changes in the context of DevOps (terraform my not be used any longer). Currently, there is also no need for new infrastructure.
8 Frontend Portal	portal.yml	Team specific workflow	secrets.AZURE_CREDENTIA LS secrets.CATENAX_USER secrets.CATENAX_PASSWO RD secrets.CATENAX_ADMIN_U SER secrets.CATENAX_ADMIN_P ASSWORD	

GitHub workflow	YAML	Description	GitHub Secrets	Enabled for tractusx-team- portal- onboarding/ tractusx (dev003)
IAM	iam.yml	Team specific workflow	secrets.AZURE_CREDENTIA LS secrets.AZURE_REGISTRY_ USERNAME secrets.AZURE_REGISTRY_ PASSWORD secrets.CATENAX_USER secrets.CATENAX_PASSWO RD secrets.KEYCLOAK_ADMIN_ USER secrets.KEYCLOAK_ADMIN_ PASSWORD	
Invitation- Service	invitation- service.yml	Team specific workflow	secrets.AZURE_CREDENTIA LS secrets.AZURE_REGISTRY_ USERNAME secrets.AZURE_REGISTRY_ PASSWORD secrets.INVITATION_SERVI CE_SECRETS	
registration- service.yml	registration- service.yml	Team specific workflow	secrets.AZURE_CREDENTIA LS secrets.AZURE_REGISTRY_ USERNAME secrets.AZURE_REGISTRY_ PASSWORD secrets.REGISTRATION_SE RVICE_SECRETS	

GitHub workflow	YAML	Description	GitHub Secrets	Enabled for tractusx-team- portal- onboarding/ tractusx (dev003)
Provisioning- Service	provisioning- service.yml	Team specific workflow	secrets.AZURE_CREDENTIA LS secrets.AZURE_REGISTRY_ USERNAME secrets.AZURE_REGISTRY_ PASSWORD secrets.PROVISIONING_SER VICE_SECRETS	

# 2 Secrets

Name	Description	Available within tractusx-team-portal-onboarding/tractusx	Secret Type within tractusx- team-portal- onboarding/ tractusx	Secret Type within catenax/ tractusx
AZURE_AD_CLIENT_ID	✓ App registration: GitHub	•	Organization	Environment dev/int, Organization
AZURE_AD_CLIENT_SECRET	✓ App registration: GitHub	•	Organization	Environment dev/int, Organization
AZURE_AD_TENANT_ID	✓ App registration: GitHub	•	Organization	Environment dev/int, Organization
AZURE_CREDENTIALS	?	•	Organization	Environment dev/int, Organization
AZURE_REGISTRY_PASSWOR D	•	•	Repository	Organization
AZURE_REGISTRY_USERNAM E	<b>?</b>	•	Repository	Organization
AZURE_SUBSCRIPTION_ID	from Microsoft Azure Sponsorship 2	•	Organization	Environment dev/int, Organization
CATENAX_ADMIN_PASSWORD	DB_PASSWOR	•	Organization	Organization
CATENAX_ADMIN_USER	✓ DB_USER (without host)	•	Organization	Organization
CATENAX_PASSWORD	DB_PASSWOR	•	Organization	Organization

Name	Description	Available within tractusx-team-portal-onboarding/tractusx	Secret Type within tractusx- team-portal- onboarding/ tractusx	Secret Type within catenax/ tractusx
CATENAX_USER	<b>⊘</b> DB_USER	•	Organization	Organization
INVITATION_SERVICE_SECRE TS	•	•	Environment dev003	Environment int
KEYCLOAK_ADMIN_PASSWOR D	•	•	Organization	Organization
KEYCLOAK_ADMIN_USER	•	•	Organization	Organization
PROVISIONING_SERVICE_SEC RETS	•	•	Environment dev003	Environment int
REGISTRATION_SERVICE_SEC RETS	•	•	Environment dev003	Environment int
TFSTATE_STORAGEACCOUNT _KEY	catenaxdevtfst ate	•	Organization	Organization

### Related stories:

- PLP-308 Enable Github workflows for comprehensive AKS deployment CLOSED
- PLP-381 Finalize enablement of Github workflows for deployment on AKS CLOSED

# 3 Access to databases

Due to missing direct access to the Catena-X-NG aks clusters (dev and int/hotel budapest) we are using pgAdmin4 (web based) as an auxiliary tool to directly access our postgres databases (portal-backend, centralidp, sharedidp):

pgAdmin4 is deployed as a dependency in the portal-backend helm chart in the CD repository:

Dev cluster: https://portal-pgadmin4.dev.demo.catena-x.net/ also https://portal-pgadmin4-pen.dev.demo.catena-x.net/

Int cluster: https://portal-pgadmin4.int.demo.catena-x.net/

For login information see CX Portal - Keepass

## 4 How to contribute to CX-Portal Dev

If you are not a a Team Member, the contribution to the portal code is still possible by using the GitHub Fork function.

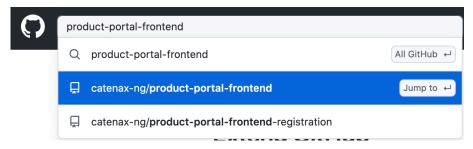
Below you can find the detailed "how to" for contribution

### #1 Login

Login or register to github. If you dont have an Github user yet, please create a new account by using he "Sign up" function.

### #2 Open the repo

Use the top right search to get to the repository to which you want to contribute



### #3 Create a fork

Open the repo and create a fork of the repo (top right menu)



### #4 Fork setup

Setup the fork name and make sure that you unselect the "main branch only" selection

# Create a new fork A fork is a copy of a repository. Forking a repository allows you to freely experiment with changes without affecting the original project. View existing forks. Owner \* Repository name \* By default, forks are named the same as their parent repository. You can customize the name to distinguish it Description (optional) Catena-X Portal Frontend Copy the main branch only Contribute back to catenax-ng/product-portal-frontend by adding your own branch. Learn more (i) You are creating a fork in your personal account. Create fork

Click "Create fork"

### #5 Fork work & commit

With your own fork, you can now start to contribute by creating a new branch (see info below) and start to implement the planned changes or develop new features.

Info:

- Branch naming should follow the naming convention => "{Ticketnumber}-{short summary}"
- · Ideally pre-discuss with the respective team from which original branch your own branch should get created from. In portal frontend we propose to use "dev" since "dev" has always the latest official state.

As soon as you are done, commit your change in your own branch and create a pull request against the original repository "DEV" branch.

Now, wait for the original repo owners to validate your pr and work on fix review comments as well as possible sonar or auto security/quality check findings.

As soon as all issues are solved, the repo owners will approve and merge the pr.

# 5 How to manage secrets

In the portal team context, secrets are mainly relevant for the portal backend, the keycloak instances and the corresponding postgres databases.

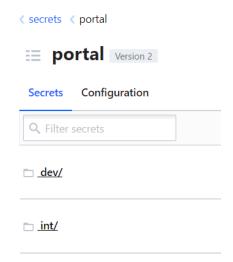
The management of all secret information occurs in the CX Portal - Keepass, there also the latest version of the <u>portal backend secrets</u> is managed.

In order to make secrets available on the aks clusters we use HashiCorp Vault: https://vault.demo.catena-x.net/which is provided by the devops team There, all the secrets are stored within the 'portal' directory:

To generate a Github token see https://catenax-ng.github.io/docs/guides/how-to-use-vault

# Cubbyhole/ cubbyhole/ cubbyhole\_d65a16d9 per-token private secret storage portal/ v2 kv\_bf3f9878 Secret engine for team Portal product-team-example/ v2 kv\_a1415f07

The secrets are environment dependent which is reflected by the directory structure:

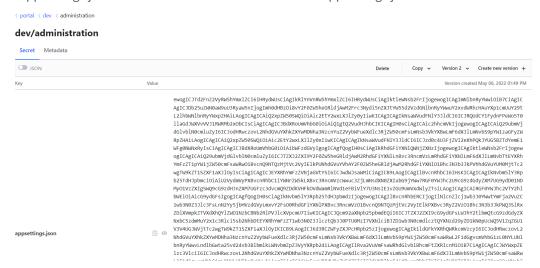


The secrets under the dev directory are used by the dev instance of Argo CD, the same is true respectively for int.

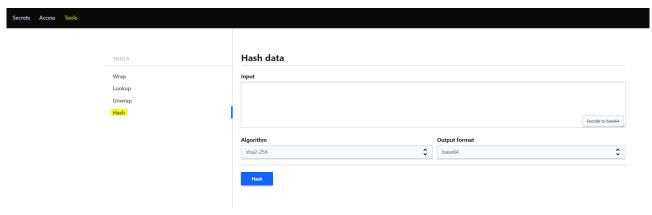
The integration between the Argo CD and HashiCorp Vault is done in the according secret within the helm chart.

For general information on the use of HashiCorp Vault within Catena-X powered by the DevSecOps and the **creation** of a secret please see https://catenax-ng.github.io/docs/guides/how-to-use-vault

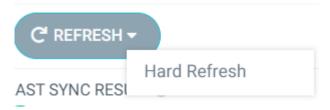
Specifically for portal backend and the management of the secrets with the appsettings.json: The key of the secret is 'appsettings.json' and the value is the base64 encoded appsettings.json:



To encode the appsettings.json to base64 you can use the 'Hash' tool' offered by HashiCorp Vault:



Please be aware when **updating a secret** (either by creating a new version or deleting and then recreating the secret): once you've updated the secret in HashiCorp Vault, you need to execute a "Hard Refresh" in Argo CD, this is necessary to force the synchronization of the updated secret:



It's not recommended to delete versions of secrets as this has proven to cause issues between Argo CD and the vault, see

O A1ODT-581 - Argo CD dev - Hashicorp Vault: base64 secrets encoded can't be handled any longer CLOSED

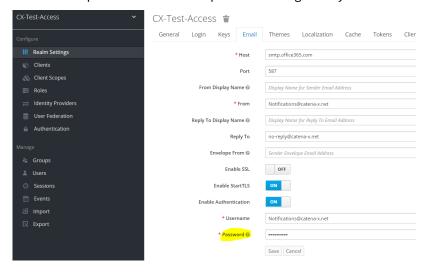
# 6 Password change for SMTP server

The Keycloak instances and some of the portal backend services use the smtp.office365.com account Notifications@catena-x.net for mailing functionality.

As this account is used by multiple times the password can be leaked from time to time which entails a password change.

As a consequence the password needs to be updated in our CX Portal - Keepass, in <u>all realms of the Keycloak instances</u> and <u>in the secrets of the backend services which support mailing functionality</u>.

Here an example screenshot for the password change in Keyloak:



For available Keycloak instances see Portal Env. Management.

For update the secrets of the backend services which support mailing functionality see How to manage secrets(see page 13).

✓CPLP-1171 - Notification Mail - Password Change + Docu of System Updates CLOSED