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TIBCO CLOUD PLATFORM – BWD 6.5 CE

INFRASTRUCTURE OPERATIONS MANUAL

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Contenu

1. INTRODUCTION

The purpose of the Infrastructure Operation Manual is to describe the required operational activities to ensure successful services operation from an Infrastructure perspective.

1.1. Related Documents

Doc ID	Title
IS_1614874	AS - Architecture Specifications - Tibco Cloud Platform
IS_1614876	ICA - Infrastucture Criticality Assessment - Tibco Cloud Platform
IS_1614882	QP - Qualification Plan - Tibco Cloud Platform
IS_1614885	TRP - Technical Recovery Plan - Tibco Cloud Platform
IS_1618205	PP - Project Plan - Tibco Cloud Platform
IS_1620153	AS - Architecture specification - TIBCO BWCE Runtime v.1.8
IS_1620911	AFU - Authorization for Use - Tibco Cloud Platform

1.1. Glossary

Term or Acronym	Definition
EAI	Enterprise Integration Application
EMS	Enterprise Message Service
JMS	Java Message Service
TEA	Tibco Enterprise Administrator
Bwagent	BusinessWorks Agent
JDK	Java Development Toolkit

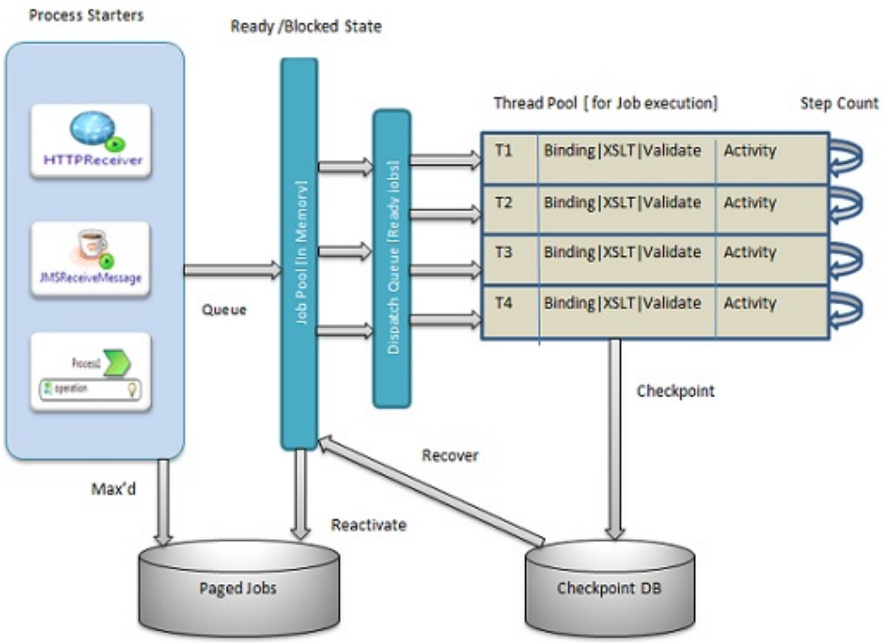
2. SYSTEM DESCRIPTION

2.1. High-Level Architecture

Tibco Run cloud platform is mainly container runtime running on OpenShift platform.

Some extra components are not containerise as EMS and DB feature.This document identify every components and the actions to perform to maintaine it.

2.1.1. BusinessWorks 6.x Architecture



2.1.2. Product Architecture

The architecture includes clients running the services, a messaging server, a database server.

Clients: Systems or processes that want their services monitored. For example, in a TIBCO ActiveMatrix environment, the development and administrator nodes that have ActiveMatrix service probes installed on them which publish the service hits, faults, execution time information using the Client API. For ActiveMatrix BusinessWorks environment, the container have service probes installed on them which publishes the jobs, activities information from process executions.

Transport: TIBCO Enterprise Message Service (EMS) as the transport.

2.1.3. Platform infrastructure

The platform's components & related infrastructure covered by this document are detailed in the AS - Architecture Specifications - Tibco Cloud Platform - BWD 6.5.x (IS_1614874).

All components, servers, databases added to the Platform will be described in the Architecture Specification document, and are compatible with this document, and by so, covered by the present Infrastructure Operating Manual (IOM)

2.1.4. Production Environment

2.1.4.1. General Description

Refer to the GeodIS AS deliverable IS_1614874 AS - Architecture Specifications - Tibco Cloud Platform - BWD 6.5.x which contains all the details.

2.1.5. Other Environments

2.1.5.1. Development Environment

Refer to the GeodIS AS deliverable IS_1614874 AS - Architecture Specifications - Tibco Cloud Platform - BWD 6.5.x which contains all the details.

2.1.5.2. INT Environment

Refer to the GeodIS AS deliverable IS_1614874 AS - Architecture Specifications - Tibco Cloud Platform - BWD 6.5.x which contains all the details.

2.1.5.3. UAT Environment (PreProduction)

Refer to the GeodIS AS deliverable IS_1614874 AS - Architecture Specifications - Tibco Cloud Platform - BWD 6.5.x which contains all the details.

2.2. Ecosystem of TIBCO BW6.4.x

2.2.1. Build Server : **Maven**

Apache Maven is a software project management and comprehension tool. Based on the concept of a project object model (POM), Maven can manage a project's build, reporting and documentation from a central piece of information.

In the platform context:

- Maven archetype feature is used to generate Tibco Projects “Shells” embedding Tibco Framework features (audit / router…)
- Tibco Projects generated above are also Maven projects that allows build automation managing dependencies and versioning
- Tibco editor provides a Maven Plugin allowing building and deploying applications
- Maven is part of the DevOps chain
    - Input data (source code & configuration) are hosted on Git
    - Binaries built with Maven are hosted in Nexus repository
    - Maven commands are triggered with Jenkins

2.2.2. Automation Server : **Jenkins**

Jenkins is an open source automation server written in Java. Jenkins helps to automate the non-human part of the software development process, with continuous integration and facilitating technical aspects of continuous delivery. It is a server-based system that runs in servlet containers such as Apache Tomcat.

In the platform context:

- Jenkins jobs can be triggered through Jenkins Web Interface (Shared Module deployment or External Profile upload)
- But jobs are mainly triggered by Llama using REST API to
    - Create Tibco Projects (using Maven Archetypes)
    - Update configuration repositories.
    - Launch Code Review with Sonarqube tool
    - Output data (binaries) are pushed on Nexus repository
- Jenkins is part of the DevOps chain
    - Input data (source code & configuration) are hosted on Git
    - Jenkins triggers Maven Activities
    - Deploy or Transport applications on OpenShift Platform

2.2.3. Repository Manager : **Nexus**

Nexus Repository OSS is an artifact repository manager. It is a central location to store projects resources.

In the platform context:

- Every application or dependency built by the DevOps chain is pushed into Nexus at the Development phase
- It is seamless for the end-user since Jenkins jobs are taking care of the building and releasing processes by calling the correct Maven commands with the proper Nexus connection

- For further environment (INT,UAT & PROD) we use the term Transport which means that binaries (EAR) are retreived from Nexus and deployed on Openshift Platform
- Nexus allows a single location for binaries and strategy we used ensure us to deploy the same code over environments

2.2.4. Runtime BWCE base image

Runtime BWCE image is a docker image created by ICOE to allow projects to easily start and maintain Tibco BWCE components on OpenShift environment.

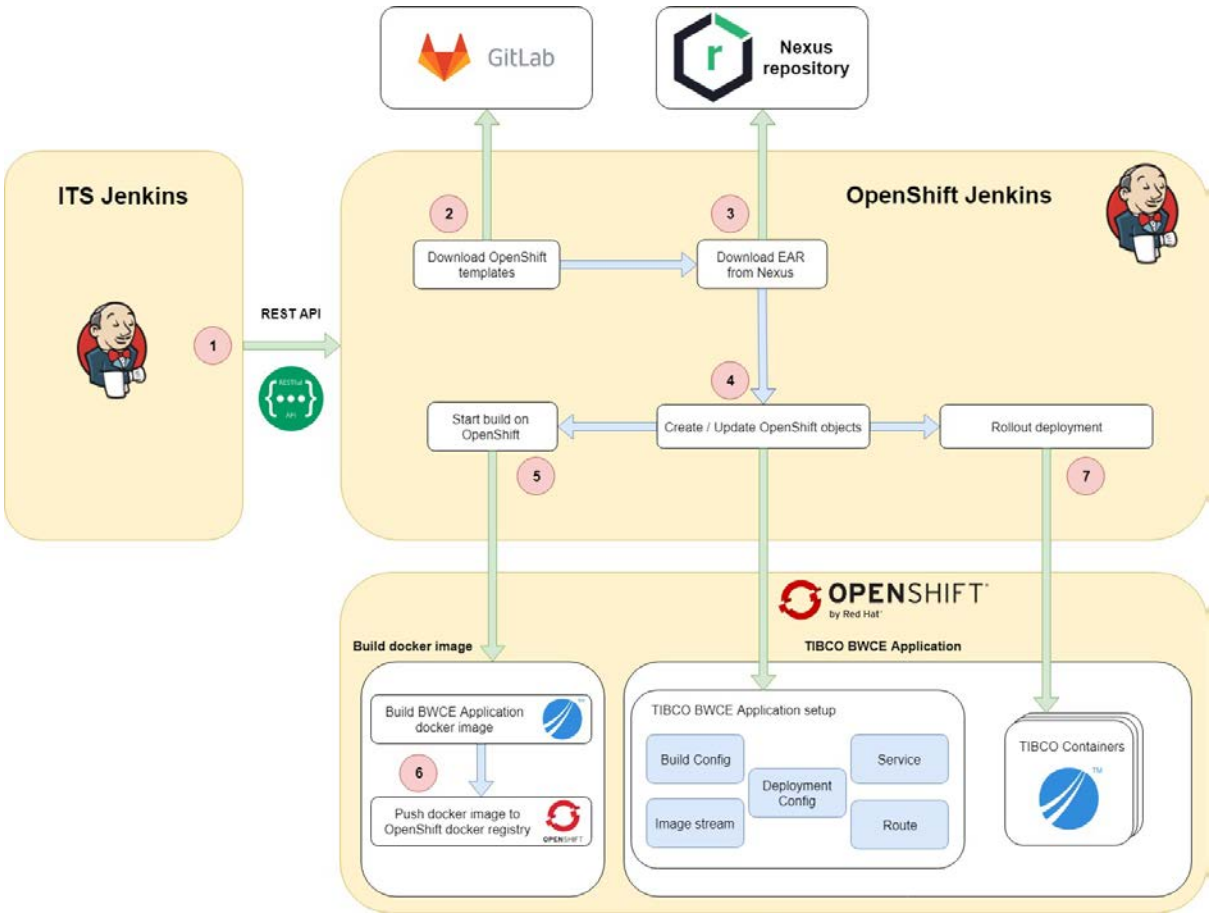
This image already contains Tibco BWCE Runtime, plugins, adapters and necessary tools. So component started apon this image will contain them as well as will be monitored using standard Sanofi monitoring tools.

BWCE base image version is based on BWD (section 2.3.6), which means, that Tibco BWCE runtime, adatpers and plugins are in the same version as in BWD. In that manner, we're sure, that components are started on the same version as they were developed.

Runtime BWCE base image is built on OpenShift from git based repository. Each version has its own directory, where you can find its dockerfile and scripts needed to correctly start Tibco component.

2.2.5. Deployement Jenkins

Jenkins is a leading open source automation server and we're using it to deploy Tibco BWCE components on OpenShift platform. Following picture briefly describes how this process works:



During the deployment process, Jenkins is collecting EAR file from Nexus, configuration from GitLab and other parameters from Llama. Those attributes alow us, to determine where and how to deploy given Tibco component. After that, Jenkins job is creating all necessary OpenShift objects, like build config, image stream, deployment config and optionaly services and routes. All needed labels are updated in previously created objects.

After that process, component can be started.

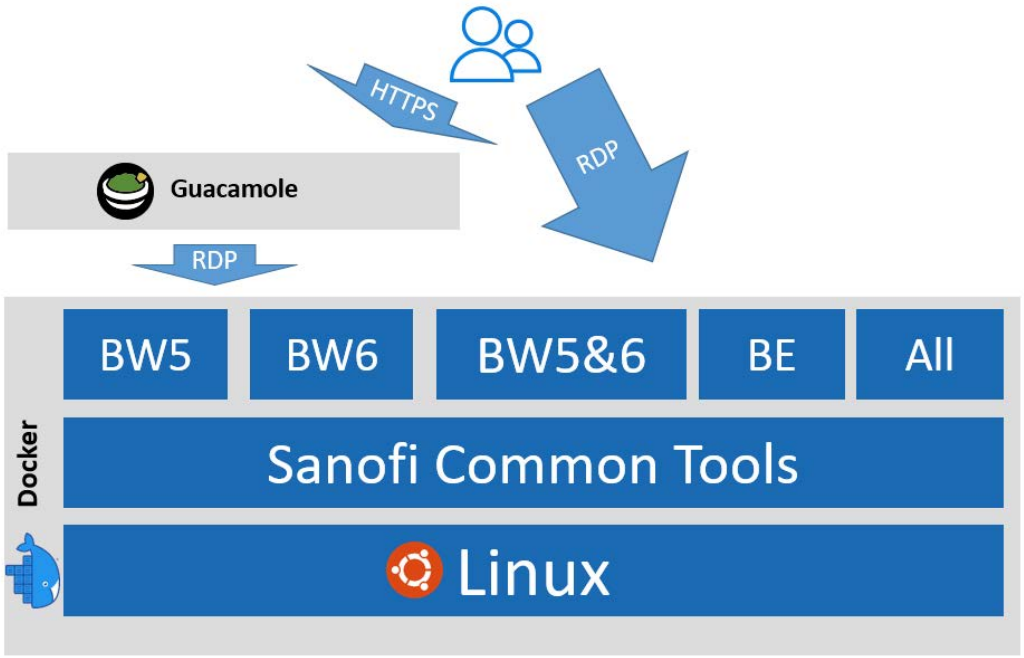
OpenShift Jenkins is a docker image and is placed on xspl50s399s.pharma.aventis.com server. So in case of any issues all you need to do is to restart the container.

2.2.6. BWD

2.2.6.1. Introduction to BxD

BxD is an acronym from Sanofi TIBCO **B**usiness**W**orks/**E**vents **D**eveloper Workstation. A standardized & dockerized environment for BusinessWorks 5 & 6 and BusinessEvents® 5 development available as a service (WaaS).

2.2.6.2. Architecture



BxD is a standard Docker image. It is based on:

1. Ubuntu 18.04.4 LTS (Bionic Beaver) with Mate & RDP,
2. Sanofi Common Tools (the collection of useful applications like LDAP browser, DB client, SOAP/REST client & text editor).

BxD is built on the top of these images as separate images with all or selected TIBCO applications installed.

BxD supports *container on-demand* approach. When a container is not active for a long time (currently 24 hours) it is shut down to save server resources. Once the user connects again it is started automatically.

2.2.6.3. Applications

Currently in release 1.14.1 there are 5 separate images:

1. **BWD** with BW 5.14 HF008 & 6.5.1 HF003 and BE 5.5.0 HF008
2. **BWD56** with BW 5.14 HF008 & 6.5.1 HF003
3. **BWD5** with BW 5.14 HF008
4. **BWD6** with 6.5.1 HF003
5. **BED5** with BE 5.5.0 HF008

All the TIBCO applications can be found in "Sanofi submenu" in main menu. Moreover you may find there a lot of other useful tools (Apache Directory Studio, DBeaver, GEMS, SoapUI, Visual Studio Code).

2.2.6.4. Versions

BxD is regularly (every 3-4 weeks) updated & enhanced (see changelog) and available in Sanofi Nexus Docker repository.

The versions of TIBCO software installed can be checked here. Other versions of applications are here.

2.2.6.5. Infrastructure

Host	OS	# of CPU	CPU speed	RAM	BxD
xspl50k370p.pharma.aventis.com	RHEL 7.4	8	2,6 GHz	94 GB	3xx
xspl50p409x.pharma.aventis.com	RHEL 7.3	8	2,6 GHz	94 GB	0xx
xspl50s603w.pharma.aventis.com	RHEL 7.4	8	2,6 GHz	32 GB	2xx
xspl50s385f.pharma.aventis.com	RHEL 7.4	6	2,6 Ghz	60 GB	4xx

2.2.6.6. Data persistence

All files stored in /home/tibco and subdirectories are persistent. They will be available regardless container restart/upgrade. Files saved outside home directory will be lost.

2.2.6.7. Data backup

The data is not backed up. So please push regularly your code to Git repository to avoid data loss.

2.2.6.8. Access

The most important factor when connecting to BxD is **network latency**. If it's low (max ~50 ms) the work is smooth. So please use a reliable and fast connection to network before accessing Sanofi VDI/network.

2.2.6.8.1. Guacamole

To access your BxD via Guacamole you should navigate to Guacamole homepage and login there using the credentials provided in the e-mail sent when your BxD was created. You may change the default password after login.

The Guacamole user is your Sanofi ID (e.g. e1234567). Initial password is in the e-mail sent when your BxD was created.

Useful links

1. Sanofi Guacamole homepage
2. Guacamole documentation (TL;DR - direct link)

2.2.6.8.2. RDP

Use your favourite RDP client to connect to your BxD container. Connection details are provided individually when BxD instance is created.

At first connection the container is started and it takes some time. That's why you may get timeout error. Please try again after a while.

If you're using standard Windows Desktop Client you may use the following command:

mstsc /v server.pharma.aventis.com:port

2.2.6.9. Basic procedures

2.2.6.9.1. BxD management

2.2.6.9.1.1 Creating a new BxD container

To add a new container the following Docker Compose file has to be created.

```
version: '3'
services:
   bwdXYY: ❶
     image: nexus-its-infra-emea.pharma.aventis.com:5543/sanofi/1.14.1 ❷
     container_name: bwdXYY  ❶
     hostname: bwdXYY  ❶
     restart: unless-stopped
     ports:
       #- 20XYY reserved for systemd socket  ❶
       - '21XYY:3389' ❶
       - '22XYY:22' ❶
       - '23XYY:80' ❶
       - '24XYY:443' ❶
     volumes:
       - bwdXYY_ssh:/etc/ssh/ ❶
       - bwdXYY_home:/home/ ❶
     shm_size: 1g
     networks:
       - bwdXYY_network ❶
     environment:
     - USERLOGIN=e0176276 ❸
     - USERPASS=changeme ❹
     labels:
      - "developer_name=Wnuk, Krzysztof /PL/EXT <Krzysztof.Wnuk@sanofi.com>" ❺

networks:
  bwdXYY_network:  ❶
    driver: bridge

volumes:
  bwdXYY_ssh: ❶
  bwdXYY_home: ❶
```

❶	BxD unique ID
❷	BxD version
❸	BxD user's Sanofi ID
❹	Not used for now
❺	BxD user's details

BxD unique ID has a format of XYY where:

- X is determined by the docker server the container is going to be run on.
- YY is a unique sequential number on the X server

2.2.6.9.1.2 *Enabling* container on-demand

Once the *container on-demand* scripts are installed on a docker host only a few steps have to be performed to enable this solution for a new BxD container:

1. Put the docker compose file to Git directory
2. git pull on the server where the container is going to be run on.
3. As a root run

```
export BWD=XYZ ❶
systemctl start bwd-proxy@${BWD}.socket
```

❶	e.g. export BWD=101

Done!

2.2.6.9.1.3 *BxD upgrade*

To upgrade BxD change the image version in Docker Compose file and restart the container.

```
version: '3'
services:
   bwdXYY:
     image: nexus-its-infra-emea.pharma.aventis.com:5543/sanofi/1.14.1 ❶
     container_name: bwdXYY
...
```

❶ Image version

2.2.6.9.2. Connection management in Guacamole

2.2.6.9.2.1 Adding a new connection

1. Log in to Guacamole as an administrator.
2. Go to Admin ▸ Settings ▸ Connections
3. Click **New Connection** button to open the add connection form. Alternatively you can open an existing connection and click **Clone**.
4. Fill in all the obligatory user details
   - Name
   - Location
   - Protocol - RDP
   - Parameters
     - Network
       - Hostname
       - Port - 20XYY
     - Authentication
       - Username
       - Password

- Display
  - Color depth - for better performance use 256 color mode
- SFTP
  - Enable SFTP
  - Hostname
  - Port - 22XYY
    - Username
    - Password
    - File browser root directory - /home/tibco
    - Default upload directory - /home/tibco

5. To create a connection press **Save** button.

2.2.6.9.2.2 Removing a connection

1. Log in to Guacamole as an administrator.
2. Go to Admin ▸ Settings ▸ Connections
3. Find the connection to be deleted on the list and click on it.
4. Bo to the bottom of the page and click **Delete** button.

2.2.6.9.3. User management in Guacamole

The list of BxD instances with associated users can be found here.

2.2.6.9.3.1 Adding a new user

1. Log in to Guacamole as an administrator.
2. Go to Admin ▸ Settings ▸ User

3. Click **New User** button to open the add user form. Alternatively you can open an existing user and click **Clone**.

4. Fill in all the obligatory user details

   - Username - Sanofi ID
   - Password with confirmation
   - Full name - e.g. Wnuk, Krzysztof /PL/EXT
   - Email address
   - Change own password

5. Assign the BxD connection.

6. To create a user press **Save** button.

2.2.6.9.3.2Removing a user

1. Log in to Guacamole as an administrator.

2. Go to Admin ▸ Settings ▸ User

3. Find the user to be deleted on the list and click on it.

4. Bo to the bottom of the page and click **Delete** button.

2.2.7. Source Manager : **Git**

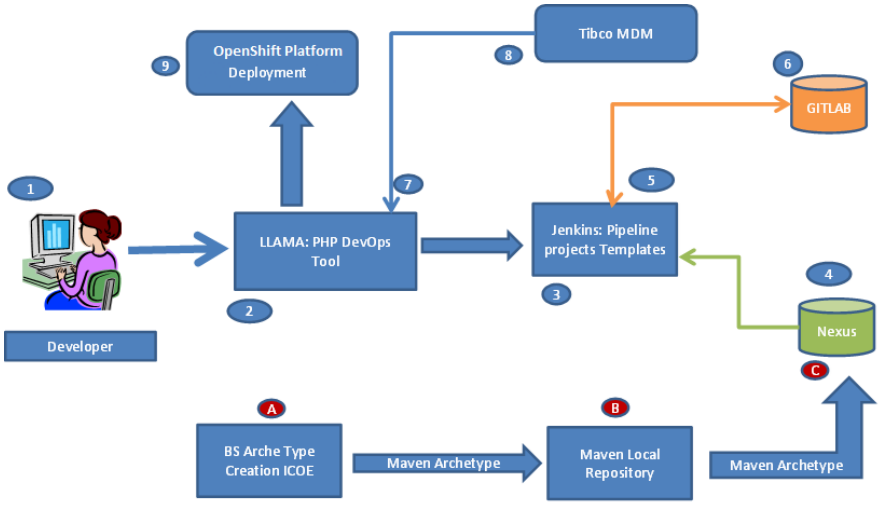
Git is a version control system for tracking changes in computer files and coordinating work on those files among multiple people. It is primarily used for source code management.

- In the platform context whe chose Gitlab product:
- We chose Gitlab Omnibus as implementation
- We use groups
  - To group project per Business entity (ex: gbo, ia)
  - To group modules inside a same application (ex: Shift)
- We use Git to store almost anything
  - Platform software components (core..) code & configuration
  - Business code & configuration
- DevOps chain includes
  - Automatic project generation (pushed in Git)
  - Automatic deployment with configuration (pulled from Git)

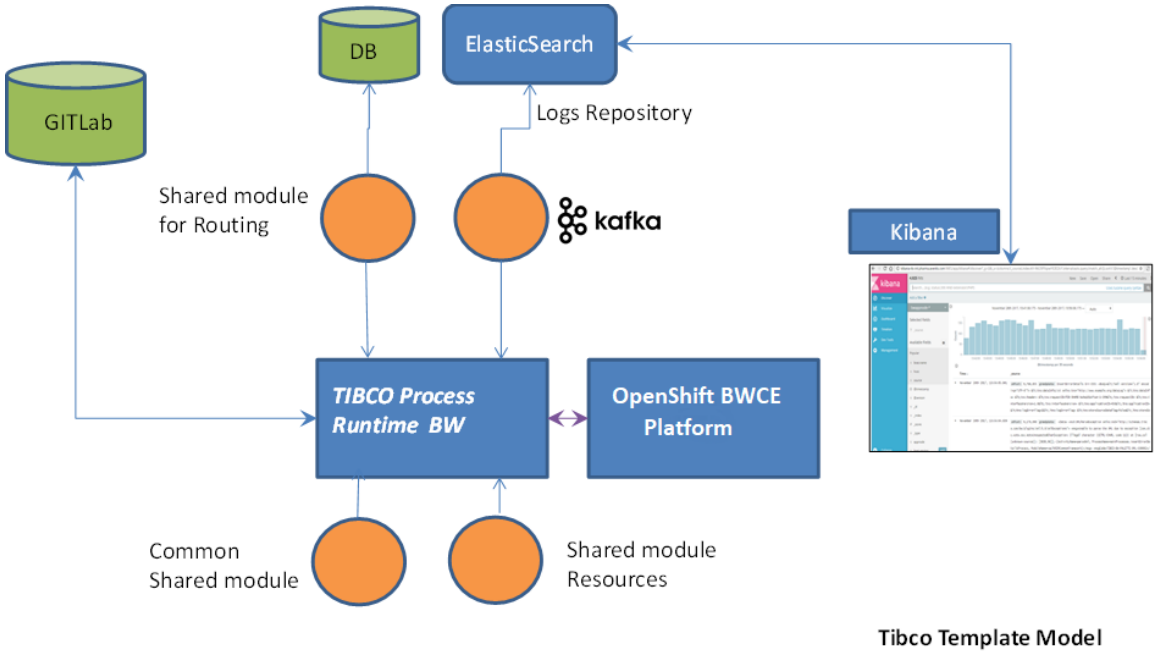
- Connection to Git is made with REST from Llama and with standard Git client for developers and operationnal activities (TortoiseGit, GitBash…)

2.2.8. Framework

2.2.8.1. TIBCO FrameWork

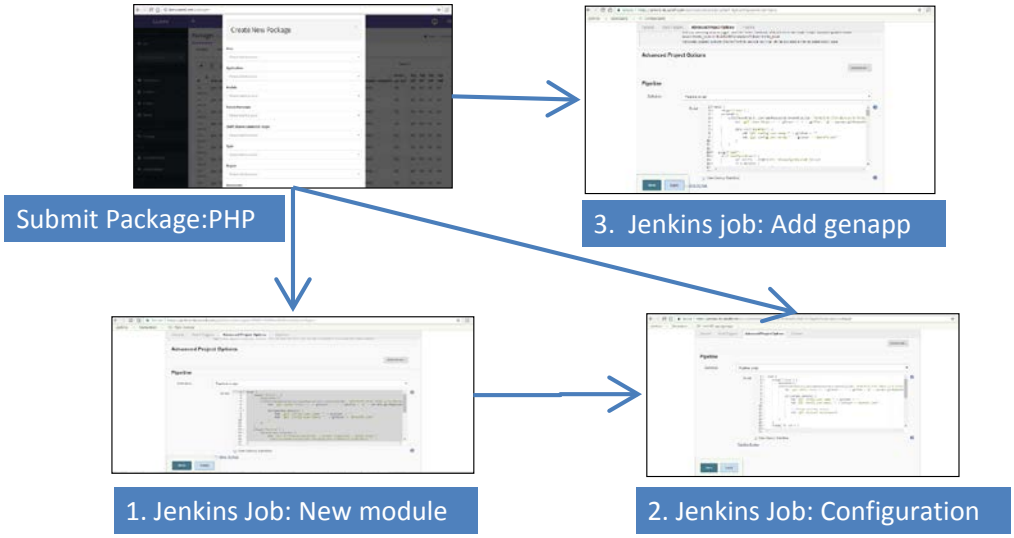


2.2.8.2. TIBCO Process Transactions (part 1)



Tibco Template Model

2.2.8.3. TIBCO Process Transactions (part 2)



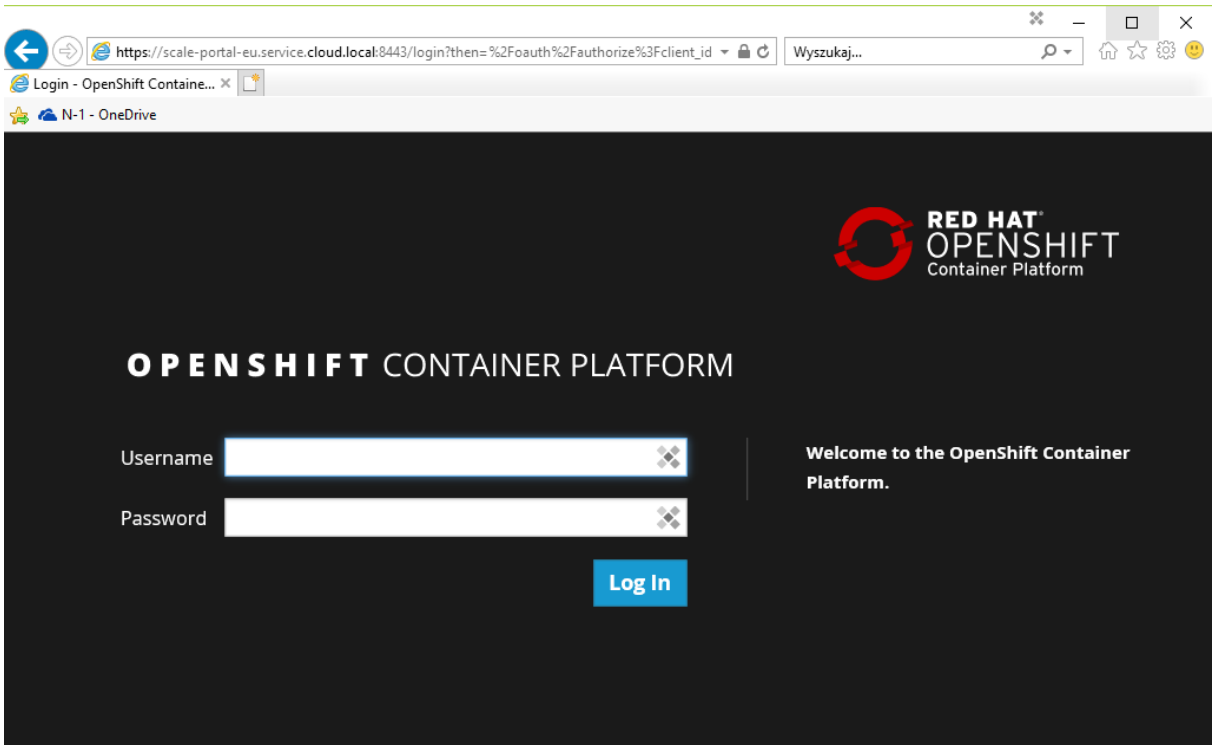
2.2.9. Manage Openshift console

To access Openshift console direct your browser to one of the following URLs:

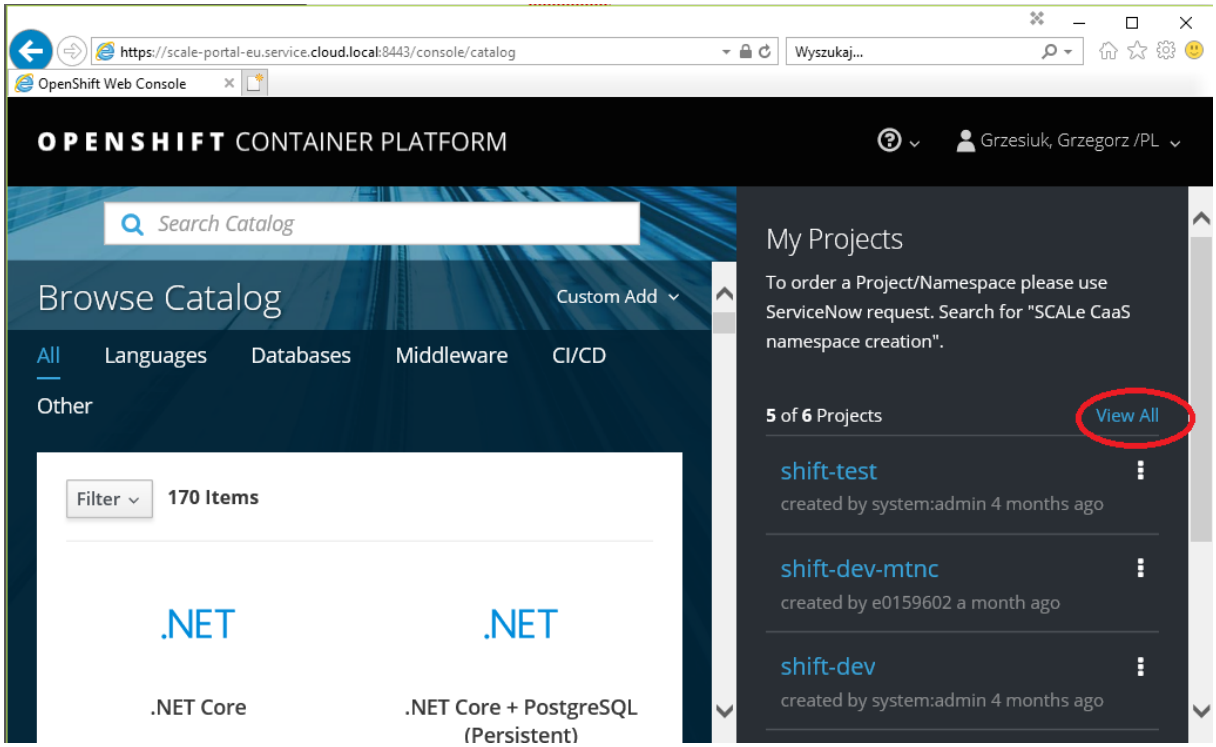
Openshift cluster in local room E11: https://oscp-e11.scale.sanofi.com:8443/login

Openshift cluster in local room E21: https://oscp-e21.scale.sanofi.com:8443/login

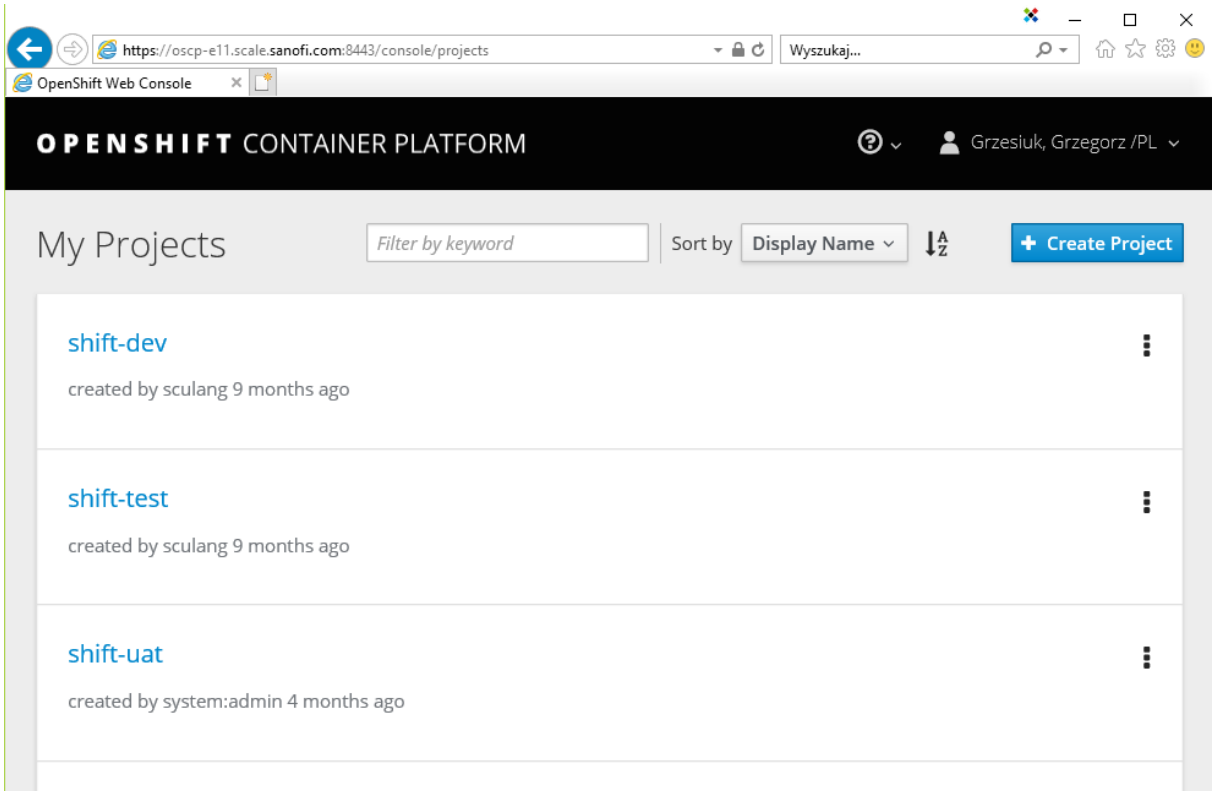
Openshift cluser in AWS EMEA: https://scale-portal-eu.service.cloud.local:8443/login



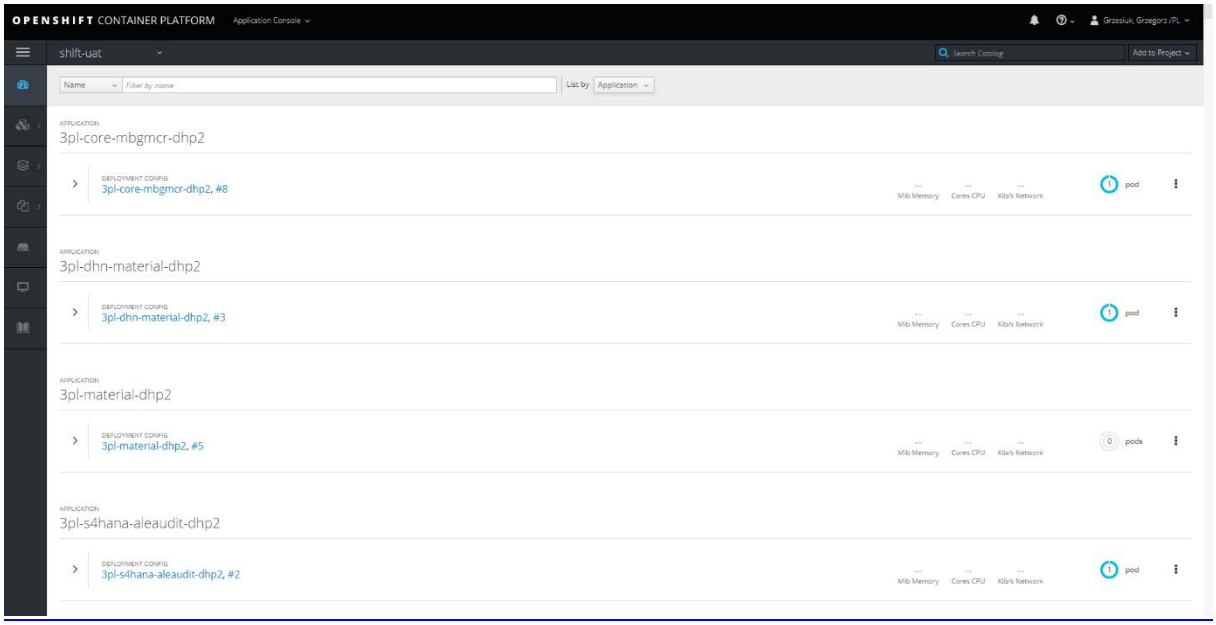
Enter your AD username and password and click ‘Log In’ button. Once you log in you will see a list of your project to which you have access to.



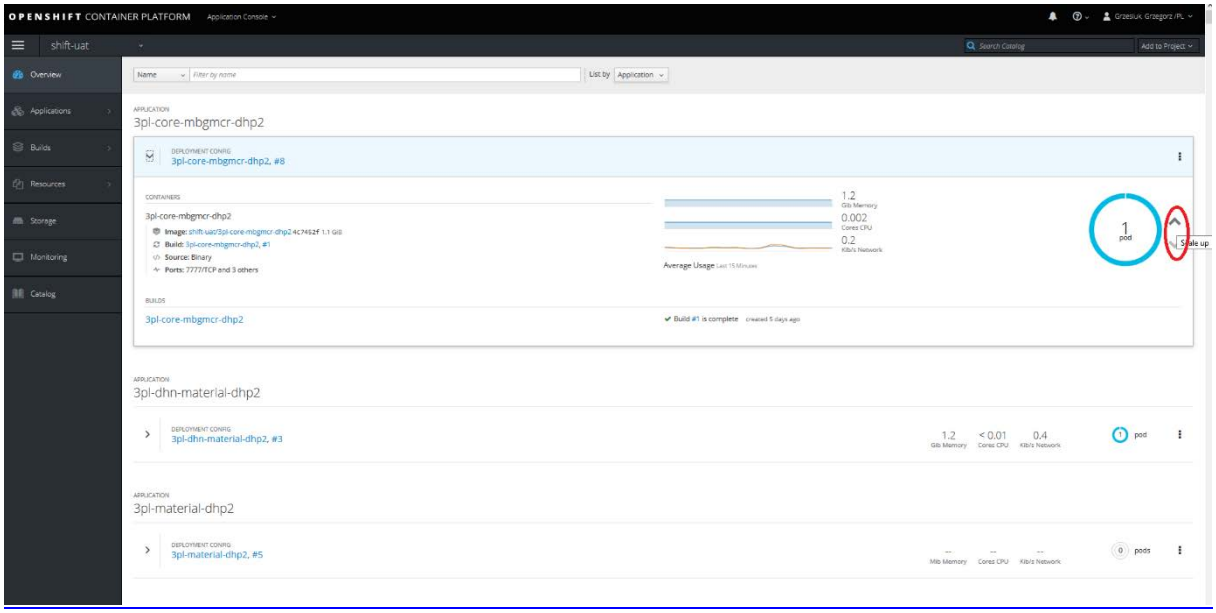
Click on the 'View All' link to explore the projects. Click on the link for your selected projects.



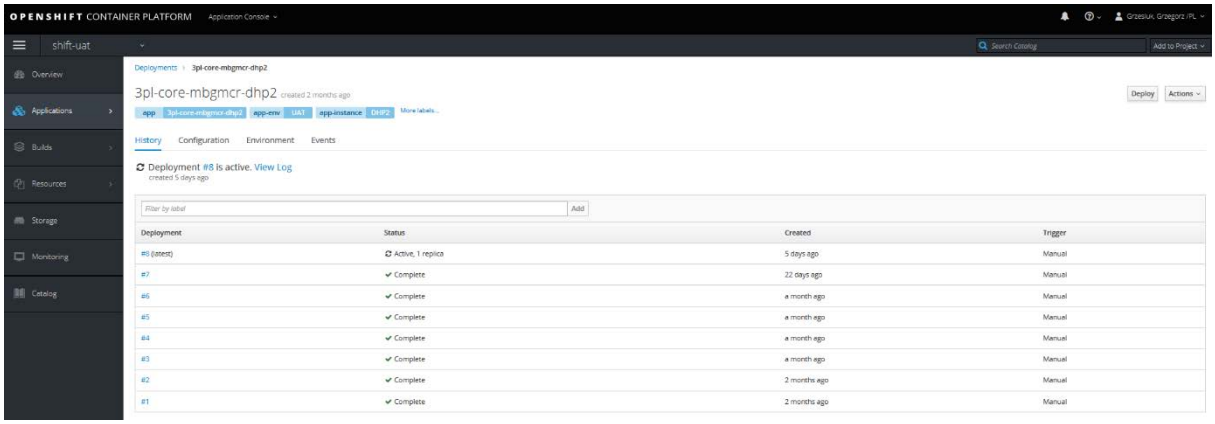
Once you select a project you can explore all the deployed pods (Overview tab).



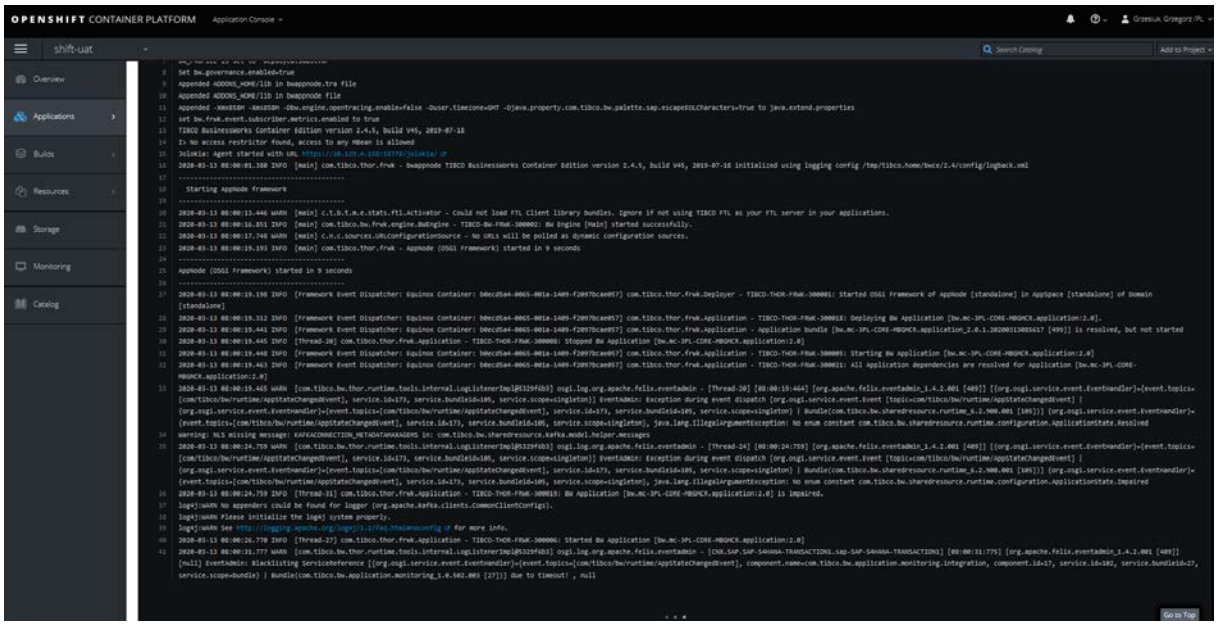
When you select particular pod you are presented basic information of on the used container , the average usage of resources over some period of time and you have the option to scale the po up and down (highlighted in red).



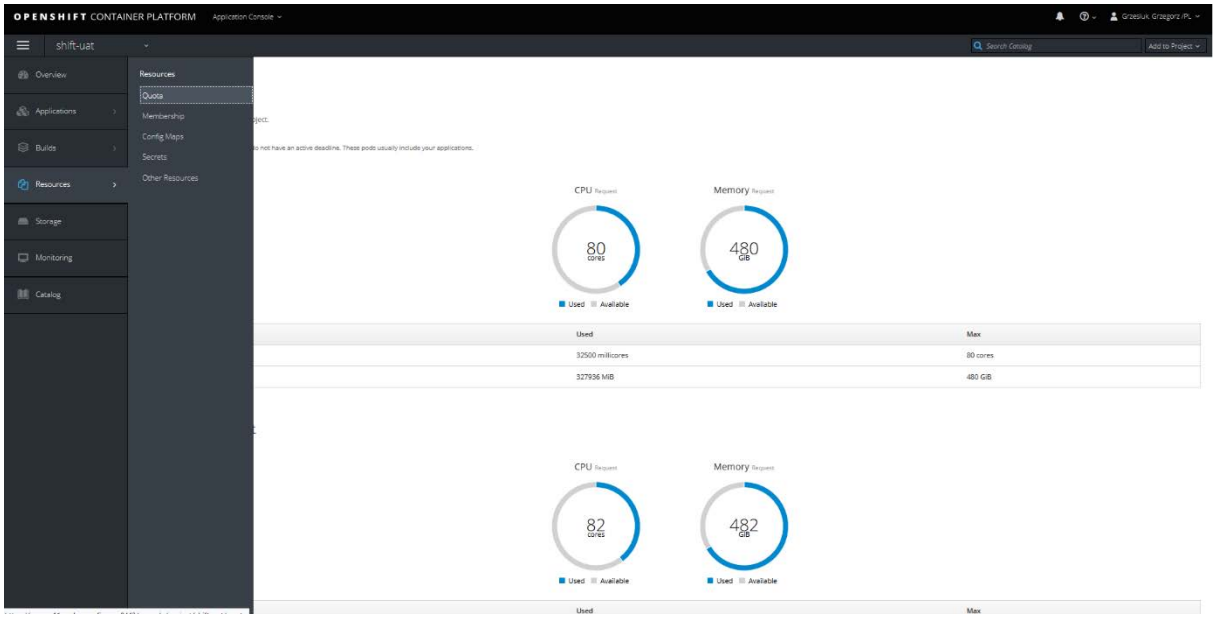
By clicking on the pod name you are moved to the detailed view of deployment history. You can also explore container's configuration.



By clicking on the ‘View logs’ link a pods logs are presented.



By clicking on the ‘Resources’ and then ‘Quota’ links you have visibility of the total resources for your project/namespace and currently used resources.



2.2.10. Elasticsearch

Elasticsearch is a search engine based on Lucene. It provides a distributed, multitenant-capable full-text search engine with an HTTP web interface and schema-free JSON documents. Elasticsearch is developed in Java and is released as open source under the terms of the Apache License. Official clients are available in Java, .NET (C#), PHP, Python, Apache Groovy, Ruby and many other languages. According to the DB-Engines ranking, Elasticsearch is the most popular enterprise search engine followed by Apache Solr, also based on Lucene.

Elasticsearch is developed alongside a data-collection and log-parsing engine called Logstash, and an analytics and visualisation platform called Kibana. The three products are designed for use as an integrated solution, referred to as the "Elastic Stack" (formerly the "ELK stack").

2.2.11. Kibana

Kibana is an open source data visualization plugin for Elasticsearch. It provides visualization capabilities on top of the content indexed on an Elasticsearch cluster. Users can create bar, line and scatter plots, or pie charts and maps on top of large volumes of data.

The combination of Elasticsearch, Logstash, and Kibana, referred to as the "Elastic Stack" (formerly the "ELK stack"), is available as a product or service. Logstash provides an input stream to Elastic for storage and search, and Kibana accesses the data for visualizations such as dashboards.

2.2.12. Grafana

The analytics platform for all your metrics

Grafana allows you to query, visualize, alert on and understand your metrics no matter where they are stored. Create, explore, and share dashboards with your team and foster a data driven culture.

2.2.13. Logstash

Logstash is an open source, server-side data processing pipeline that ingests data from a multitude of sources simultaneously, transforms it, and then sends it to your favorite “stash.” (Ours is Elasticsearch, naturally.)

2.2.14. Beats

Beats is the platform for single-purpose data shippers. They install as lightweight agents and send data from hundreds or thousands of machines to Logstash or Elasticsearch.

2.2.14.1. Filebeat

Filebeat helps you keep the simple things simple by offering a lightweight way to forward and centralize logs and files.

2.2.14.2. Metricbeat

Metricbeat comes with internal modules that collect metrics from services. Installation is easy, requiring absolutely zero dependencies. Just enable the modules you want in the configuration file.

And if you don't see the module you're looking for, build your own. Written in Go, creating a new Metricbeat module is simple.

3. SERVICES LEVEL DESCRIPTION

3.1. System Availability

The EAI platform will be available 24 hours a day, 7 days a week with the following exceptions.

- ITS-IS will perform an offline, full backup of the EAI platform once a week during non-business hours.
- ITS-IS will reserve a maintenance window for planned maintenance of 2 hours every other week when the system will be unavailable to users. The maintenance window will be scheduled outside of normal business hours.
- If through system failure the platform becomes unusable, it will be restored following the rules defined in the Continuity Management section.

Scheduled Infrastructure unavailability	Definition
Each Sunday 8:00am to 8:00pm (France TZ)	Weekly offline backups
Planned Monday 6:00am to 8:00am (France TZ)	Maintenance window for operational tasks

NOTE: The application maintenance will be managed through a regular Change Management process. The Change requestor will define the unavailability window and will define the associated communication plan.

3.2. Call Management

The standard Call management process is applicable. The EAI users will call their corresponding HelpDesk to declare incidents and to ask for support.

3.3. Incident Management

The standard Incident Management process is applicable. The management and the follow-up of the incidents will be performed with the Sanofi Service Now platform. The 3 regular levels of support are:

Application Support Level 1	Operational Support Level 1
Local HelpDesk	Operations Team
Application Support Level 2	**Operational Support Level 2**
Functional Support Group per EAI applications	Accenture EAI Operational Support Group
Application Support Level 3	**Operational Support Level 3**
Functional Support Group per EAI applications	Accenture EAI Operational Support Group

3.4. Change Control

The standard Change Management process is applicable. The management and the follow-up of the changes will be performed with the Sanofi Service Now platform.

All changes will be handled under the “ITS Technology Tower 11 – Application Services”.

3.4.1. Infrastructure update

For infrastructure updates that increase the number of CPUs on the EAI platform, the process needs to take into account that an update of the EAI license would be required. If a new license is required, it would need to be requested and installed (See License update below).

The Change Manager and coordinator will be part of the SH-WW-IN3-APP_SERV_RESEARCH Support group.

3.4.2. Software update

All evolutions of the software will be identified and defined by the EAI platform owner. The deployment process will be defined based on the following criteria:

1 – Manageable by the identified Operations Support Level 2/3

Depending on the impact of the modification (plugins, configuration, hotfixes), the support group will perform all needed updates and will be responsible to deliver or update the associated documentation.

2 – Project mode

In case of actual impact to the existing platform, a dedicated project will be initialized. As any IT project, the platform owner will contact the ITS-IS Business partner to identify this project in the project portfolio (ITBM) and define together the expected planning and the associated workload.

3.5. Hosting and Operations

3.5.1. Standard Monitoring

The platform requires the standard enterprise monitoring system on servers:

- CPU usage
- Disk usage
- Memory usage

All standard process monitoring (alert threshold, priority…etc) are describe in Monitoring service catalog document :
https://teams.collab.sanofi.com/ws/GIS_Monitoring_Services/GENERAL%20DOCUMENT/0001%20MONITORING%20REQUEST%20PROCESS/Monitoring%20Service%20Catalog.docx

The standard Oracle database monitoring is also required.

3.5.2. Process Monitoring

The EAI application needs to be monitored.
In addition to standard supervision, the following services and processes are monitored
The monitoring is carried out by Patrol according to the standard process.

For Linux server, incident handling is performed according to the work instructions described in KB0028165 (Article IRIS: TIB06 | TIBCO Linux services alert)

On LINUX server following processes and services needs to be monitored :

HP-UX processes	EMS Server	BuisnessWorks servers	Others servers	Actions on errors
Tibco EMS	**X**			Restart Tibco EMS process
Kibana			**X**	Restart kibana service
grafana-server			**X**	Restart grafana-server service
Logstash			**X**	Restart Logstash service
BWCE Monitoring			**X**	N/A Autoremediation by openshift platforme

3.5.3. Framework Monitoring

Some framework alert needs to be monitored
The monitoring is carried out by BPPM according to the standard process.
Here is the list of rule who are defined and monitored :

- Message Count Increasing
- EMS Server Down
- EMSServer in 'Error' or 'RunningWithError' status
- Receiver Count 0
- Receiver Count 2
- Pending Messages >900
- Old First Message in the queue
- Queue having more than 1000 Pending Messages.

Incident handling is performed according to the work instructions described in KB0029761 (Article IRIS: TIB07 | TIBCO Infrastructure Alert)

3.6. Service Continuity Management

For its initial implementation, the EAI BPM platform doesn't provide specific high-availability or fault-tolerance mechanism.

The standard ITS-IS continuity for Linux virtual servers in NGDC is applicable, based on SLA. The ITS-IS EAI Plaltform Technical Recovery Plan Document (IS_579308) details the specific mechanism & procedures relative to Disater Recovery.

3.7. Security Management

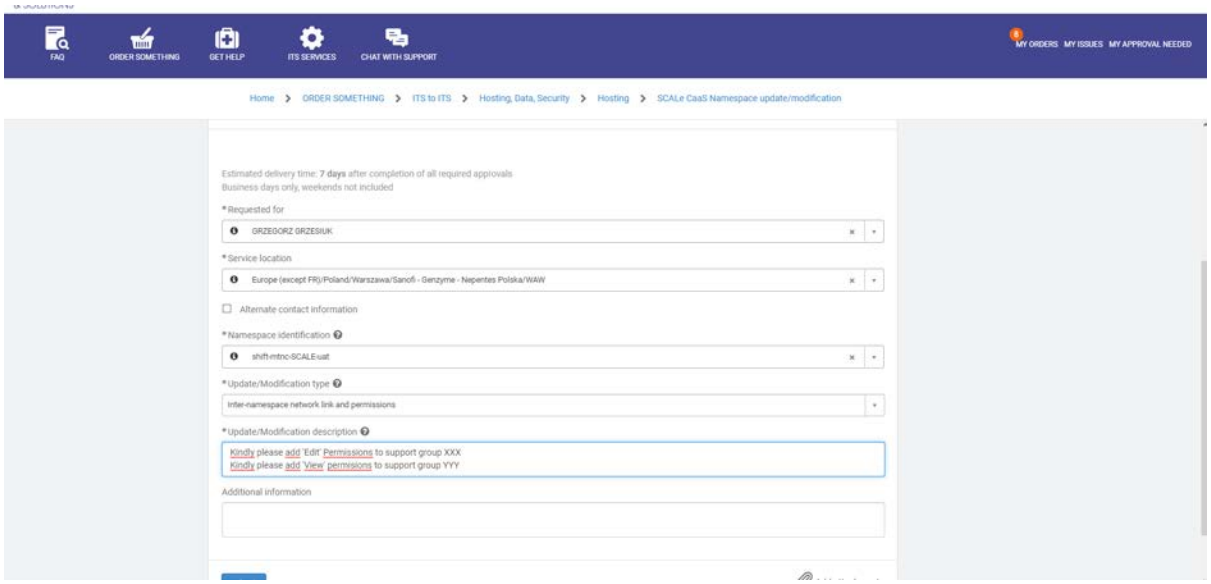
3.7.1. Infrastructure accesses (Only for EMS and ELK)

The EAI BPM platform is deployed in the Sanofi EMEA NGDC. All system accesses are managed by the ITS-IS Access Management team. The request must be sent through a Promise Change to the SH-FR-IN2-ACCESS_MANAGEMENT support group.

3.7.2. Openshift Console Accesses

By default, the EAI BPM platform manages 2 levels of account privileges: Basic User and Super Administrator. At the installation of the platform, the project team listed the names of the “Super Administrator” accounts.

The management of the Administrator privilege is under the responsibility of the platform owner and is performed by the Operational Support groups. Application support group can request a particular support group to be granted ‘Edit’ access to SCALe platform. In order to request a particular group to get access to Openshift a SNOW ‘SCALe CaaS Namespace update/modification” request need to be submitted.



3.7.1. EAI Users accesses

The authentication of users is handled by the Sanofi Virtual Directory System (VDS) which involves all authentication domains of the Sanofi company. By this way, the EAI administrators are able to declare any Sanofi users. No specific infrastructure change is needed.

3.7.1. EAI External Users accesses

The EAI BPM platform is accessible by external users through the Secure Access Gateway (SAG). Only accounts belonging to the FX domain are able to access EAI from the external network. For Sanofi accounts, a VPN connection must be established.

4. OPERATING SCHEDULE

As OpenShift is a high-availability platform, there are no maintenance windows planed. Each change to adapter/runtime/plugin version can be done online, without stopping components nor platform.

DRP will be handled by Bison application (See IS_1649137).

5. OPERATING INSTRUCTION

5.1. Maintenance in Operational Condition

XSPW50A293X is the main integration server with host reverse proxy to extra service.

5.1.1. Build Server : **Maven**

Dependencies	Java 1.8 installed on the same machine
Software version	3.5.0
Server hostname	XSPW50A293X
Maven location	D:\maven
Maven configuration	D:\maven\conf\settings.xml (Git & Nexus connection parameters)
Maven repository	D:\maven\repository

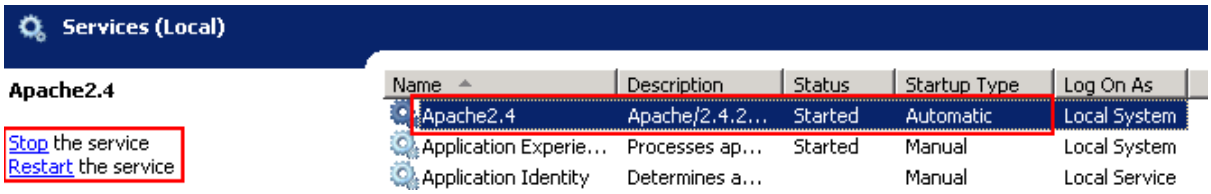
There is normally no maintenance operations required except is Git or Nexus connection parameters have changed.

5.1.2. Automation Server : **Jenkins**

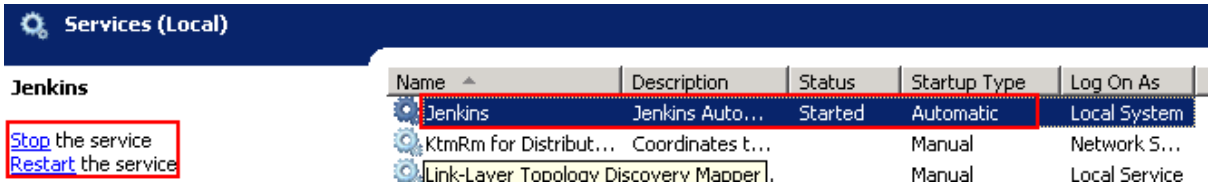
Dependencies	Java 1.8 installed on the same machine / Apache Front-end	
Launches	Maven commands	
Software version	2.79	
Server hostname	XSPW50A293X	
Jenkins location	D:\jenkins	
Jobs location	D:\jenkins\jobs	
Jenkins URL	Through Apache	https://jenkins-its.sanofi.com
	Direct URL	http://xspw50a293x:8080

If Jenkins is unavailable either Apache Front-End is unavailable or Jenkins is unavailable. Try Jenkins direct URL to identify service to restart.

To restart Apache restart the **Apache2.4** service on **XSPW50A293X**



To restart Jenkins restart the **Jenkins** service on **XSPW50A293X**

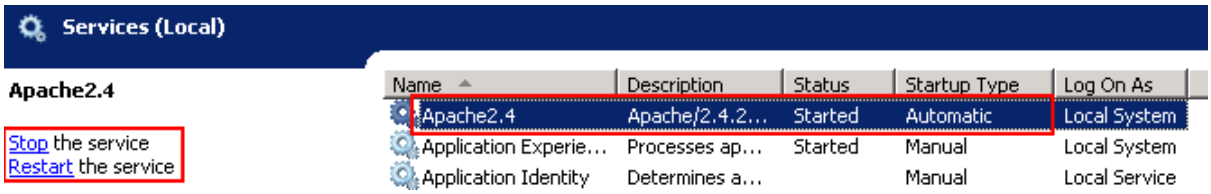


5.1.3. Repository Manager : **Nexus**

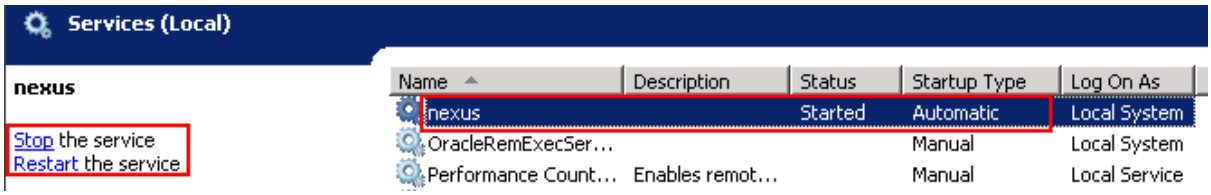
Dependencies	Java 1.8 installed on the same machine / Apache Front-end	
Software version	Nexus Repository OSS 3.3.0	
Server hostname	XSPW50A293X	
Nexus location	D:\nexus\	
Nexus work folder	D:\nexus\sonatype-work\nexus3	
Jenkins URL	Through Apache	https://nexus-its.sanofi.com
	Direct URL	http://xspw50a293x:9081

If Nexus is unavailable either Apache Front-End is unavailable or Nexus is unavailable. Try Nexus direct URL to identify service to restart.

To restart Apache restart the **Apache2.4** service on **XSPW50A293X**



To restart Nexus restart the **nexus** service on **XSPW50A293X**

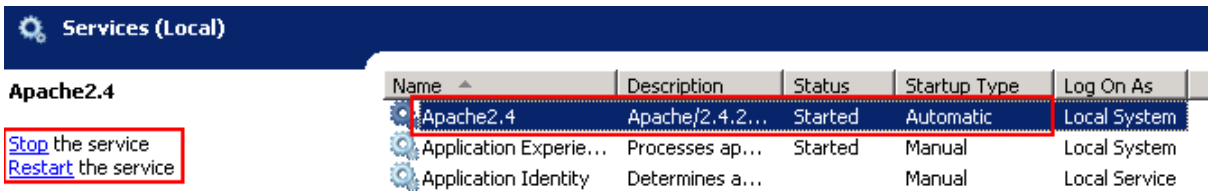


5.1.4. Source Manager : **Git**

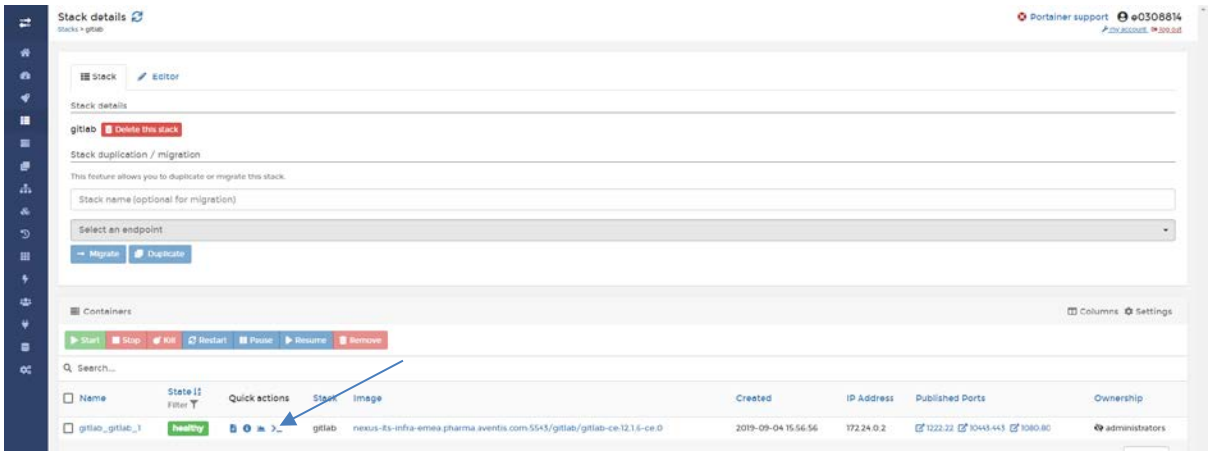
Software version	Gitlab CE 12.1.6 (Omnibus version)	
Server hostname	xspl50s398f/	
Gitlab location	/opt/gitlab/	
Gitlab configuration	/etc/gitlab/gitlab.rb	
Repositories location	/data/git-data/repositories	
Internal PostgreSQL	/data/postgresql	
Gitlab URL	Through Apache	https://gitlab-its.sanofi.com

If Gitlab is unavailable either Apache Front-End is unavailable or Gitlab is unavailable.

To restart Apache restart the **Apache2.4** service on **XSPW50A293X**



To execute some operations on **Gitlab**, connect to http://xspl50s398f:9000/#/auth and use following commands



Get Status	gitlab-ctl status
Stop	gitlab-ctl stop
Start	gitlab-ctl start

5.1.5. Framework

The objective is to provide detailed step by step instructions of all LLAMA functionalities that have been implemented concerning the new Tibco BW6.5+ platform

If you are facing any issue, please contact ITS-IS-COE-DEVOPS (ITS-IS-COE-DEVOPS@emailph4.aventis.com) distribution list.

5.1.5.1. Create a new area

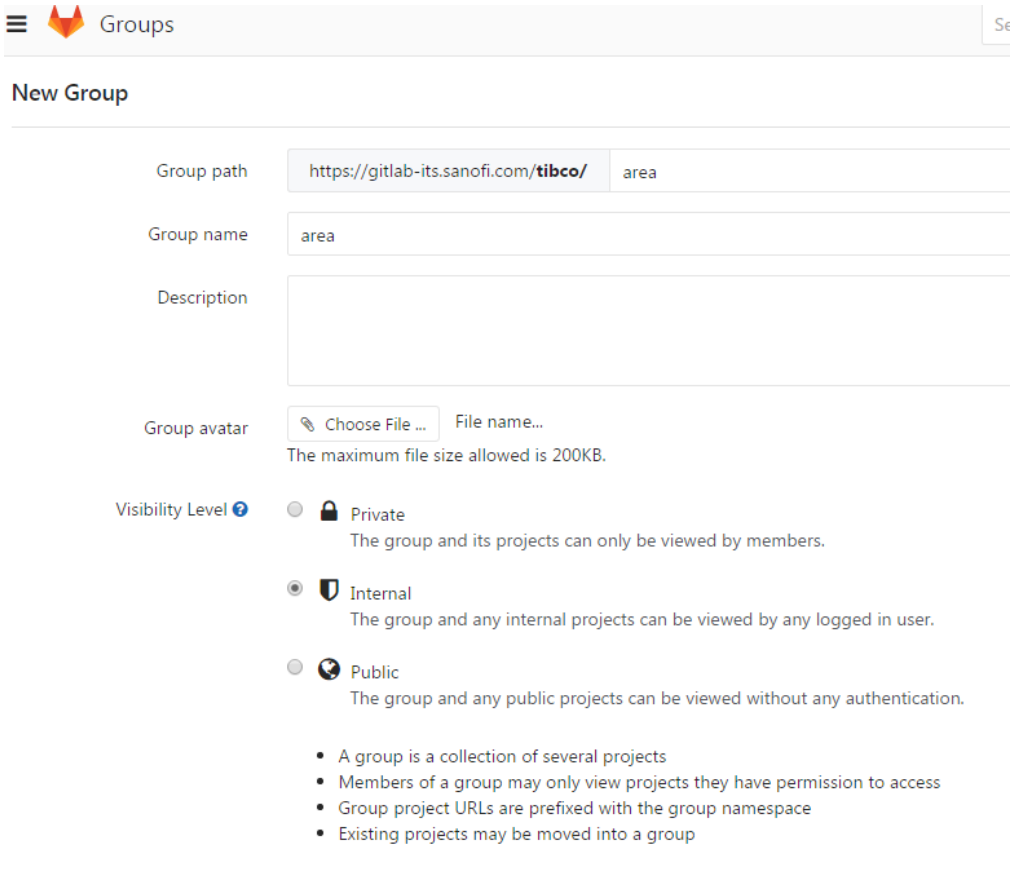
5.1.5.1.1. On Gitlab

1. In order to create new “AREA” in llama, you must visit the Tibco COE Gitlab server at the following URL:

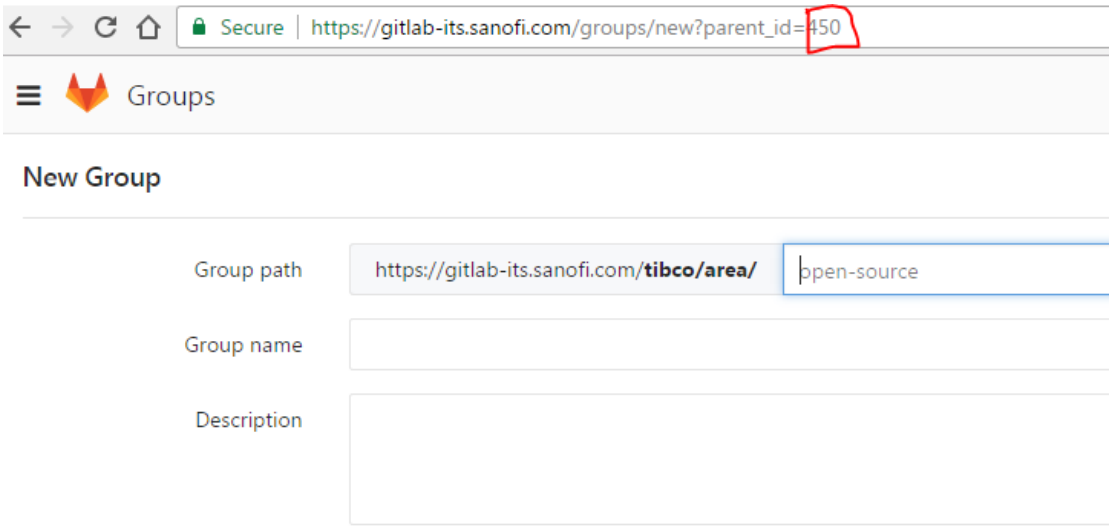
   https://gitlab-its.sanofi.com/tibco

   Click on the “Subgroups” menu and click on the “New Subgroup” button displayed on the right in order to create a new subgroup with the **SANOFI BU**

   Set the Visibility level as “Internal” and click on the “Create group” button.

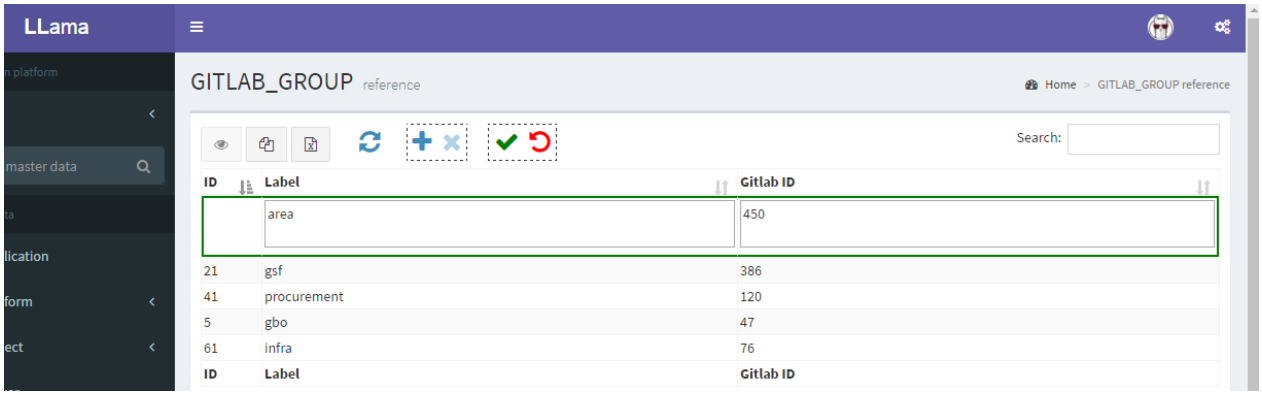


2. Go into the subgroup you just created, click on the “Subgroups” menu and click on the “New Subgroup” button displayed.
   Copy the parent_id value (see screenshot below) and use it to register the new area on LLAMA.



5.1.5.1.2. On LLAMA

Go onto LLAMA at the following URL: http://llama.sanofi.com/reference/gitlab_group
Add the new area with the label you registered into GIT with its ID associated (as per the screenshot example below):



5.1.5.2. Create new Tibco (EAI) instance (if it is does not exist)

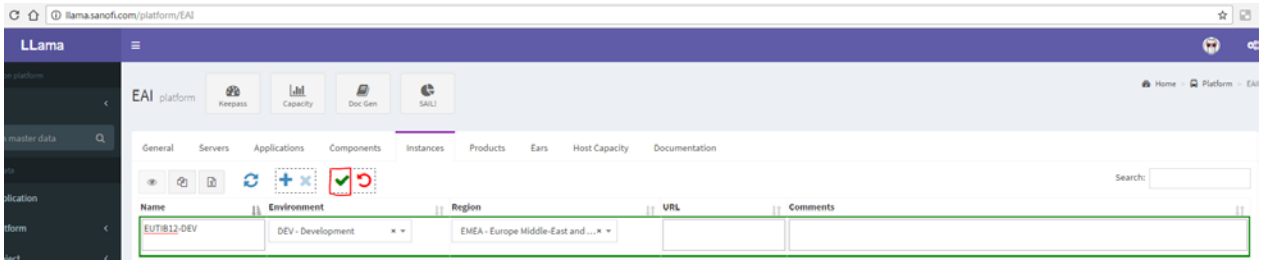
The creation of a new instance is required (when that one does not exist) in order to link components (see next section) to it. **You cannot create components if the instance where there are supposed to be does not exist.**

To do so, perform the following actions:

1. Go to the following URL: http://llama.sanofi.com/platform/EAI

2. Click on the "Instances" tab and click on the "+" button.
   Enter a new row with the following information (see screenshot below):
   - Name → It is a logical value of the Tibco instance name plus its environment (for example: EUTIB11-DEV, EUTIB11-INT, etc.)

- Environment → Select the environment related to your instance
- Region → Select the region where your instance is hosted



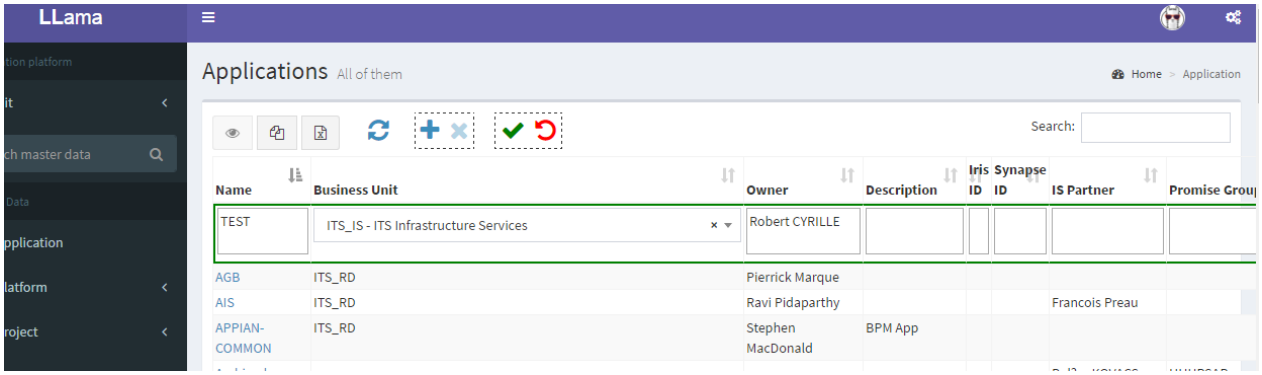
3. Click on the commit button.

Your instance is now registered and your Tibco EAI components can be registered.

5.1.5.3. Create a new (LLAMA) application and add its required components

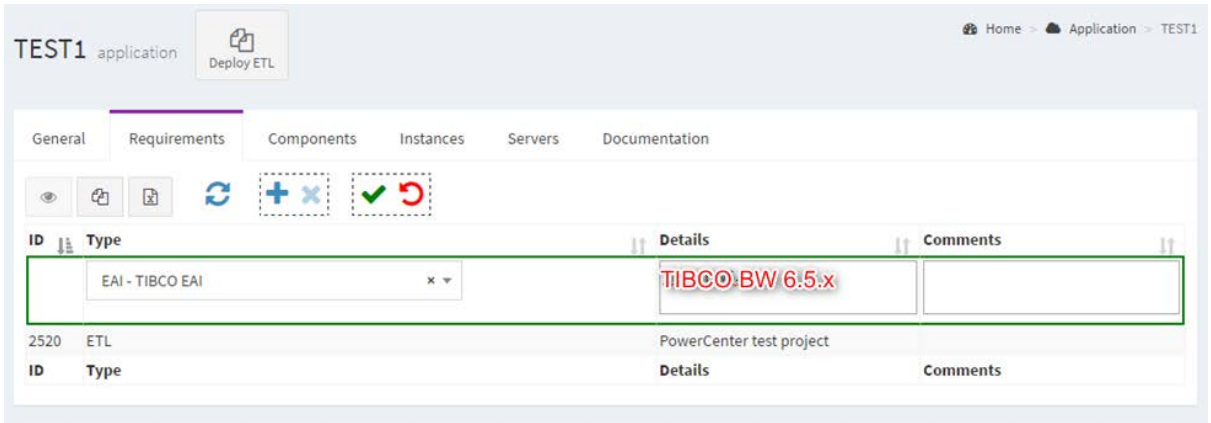
If your new application that will perform TIBCO BW 6.5 development activities does not exist into LLAMA, please create it before creating package(s)…

1. To create a new application, go to the following URL: http://llama.sanofi.com/application and click on the "+" button. Fulfill all the fields displayed. Click on the "Commit" button once OK:



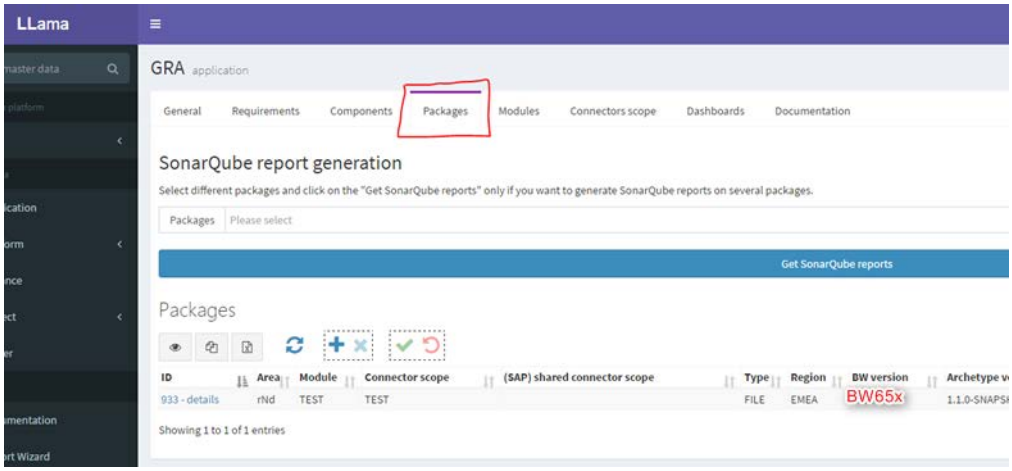
DO NOT PUT BLANK SPACE NOR SPECIAL CHARACTERS INTO APPLICATION NAME. IT WILL OCCUR ERRORS IF YOU DO SO.

2. Once the application created, open it and click on the "Requirements" tab. Add an EAI – TIBCO EAI requirement in order to add Components required for the Tibco automation activities (cf. screenshot below):



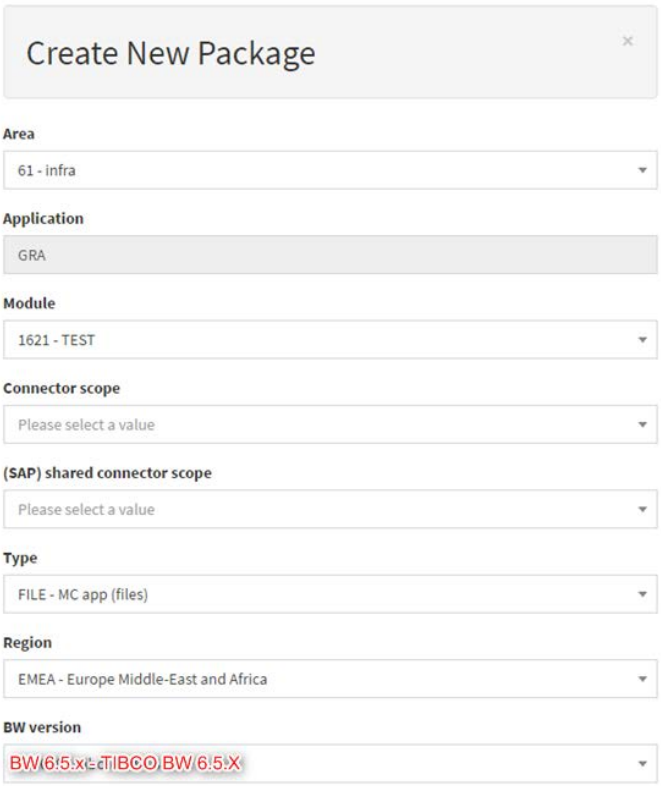
5.1.5.4. Create Tibco BW6.5.x package

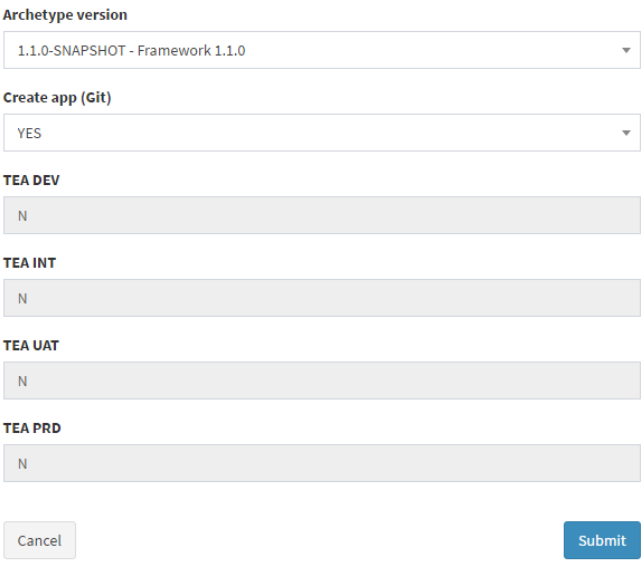
Once all prerequisites are OK (section 2 to 4 included), you can start the creation of new Tibco BW6.5.x project. To do so, look for your application and open it. Click on the “Packages” tab (see screenshot below):



Before creating a new package, make sure the module + connector scope you will develop exist. If they do not exist, please create them by clicking on the right tab (Modules and/or Connector scope) and clicking on the “+” button. **DO NOT PUT BLANK SPACE NOR SPECIAL CHARACTERS INTO MODULE/CONNECTOR SCOPE LABEL. IT WILL OCCUR ERRORS IF YOU DO SO.**

Once modules and/or connectors scope created, click on the “+” button into the “Packages” tab and fulfill the different fields according to your application (cf. screenshot below for reference):

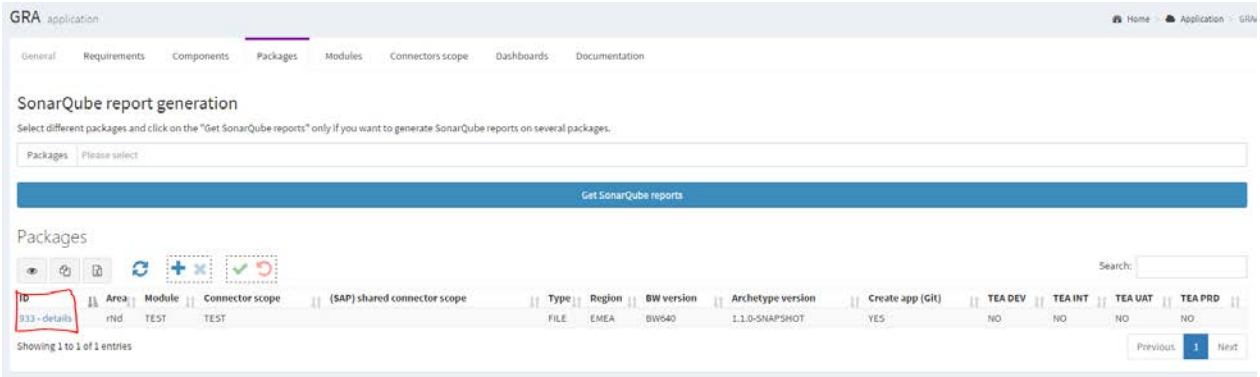




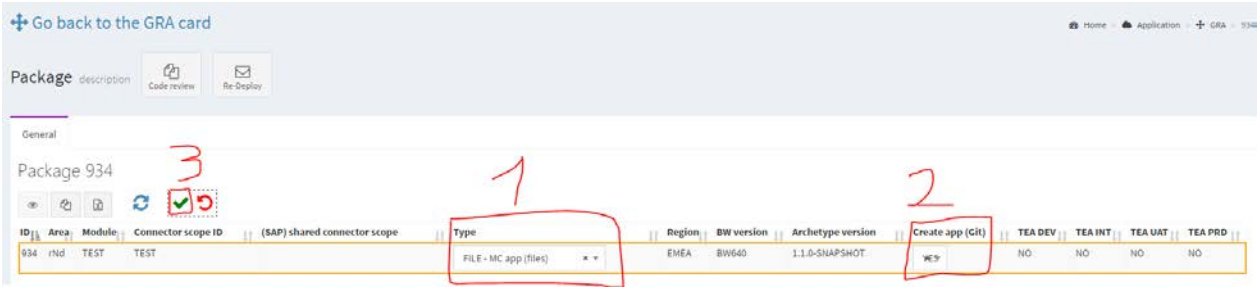
Click on the “Submit” button. A prompt asking to wait will be displayed until the action is performed.
DO NOT LEAVE THE WEB PAGE UNTIL THE PROMPT DISAPPEARS.

5.1.5.4.1. Set the type of your Tibco BW6.5.x package (optional)

If you created a package with “BLANKPROJECT” value in the Type column (in order to register IDs for example), you can modify it in order to “Type” your Tibco BW6.4 application (ex: FILE, SAP, MC or TA).
To do so, click on the link available in the “ID” column related to your package (cf. screenshot below):



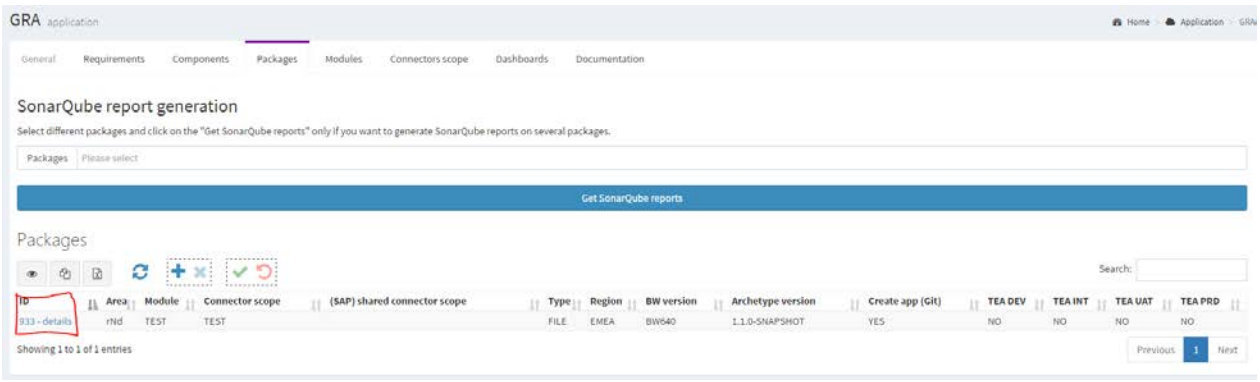
And double-click on the “Type” column. Select the correct Type value you want to apply to your application.
Double-click also on the “Create app (Git)” column and set the value as YES. Once set, click on the “Commit” button (cf. screenshot below):



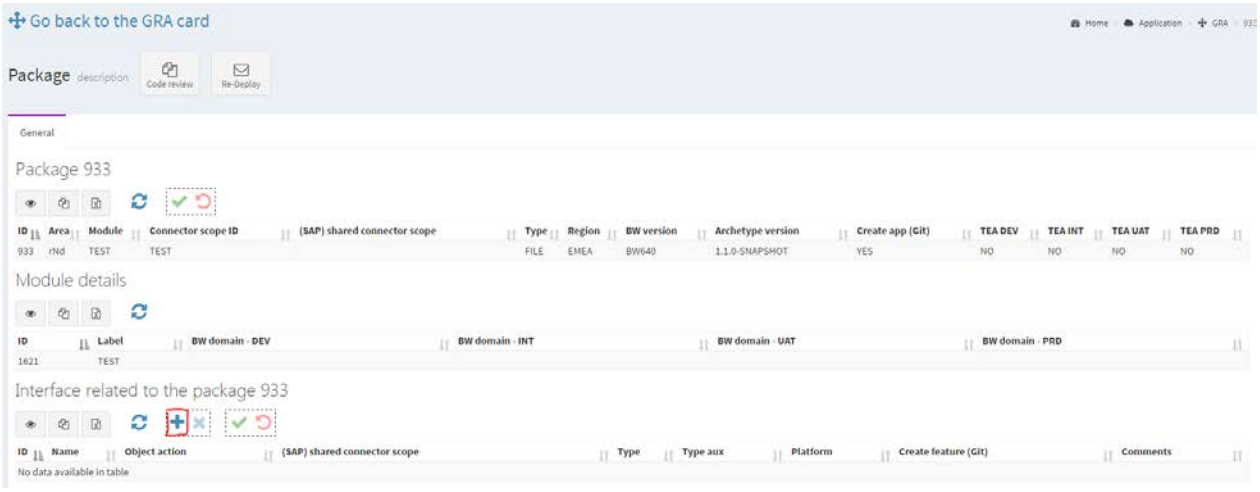
DO NOT LEAVE THE WEB PAGE UNTIL THE CURSOR STOPPED LOOPING.

Add Tibco BW6.5.x feature(s)

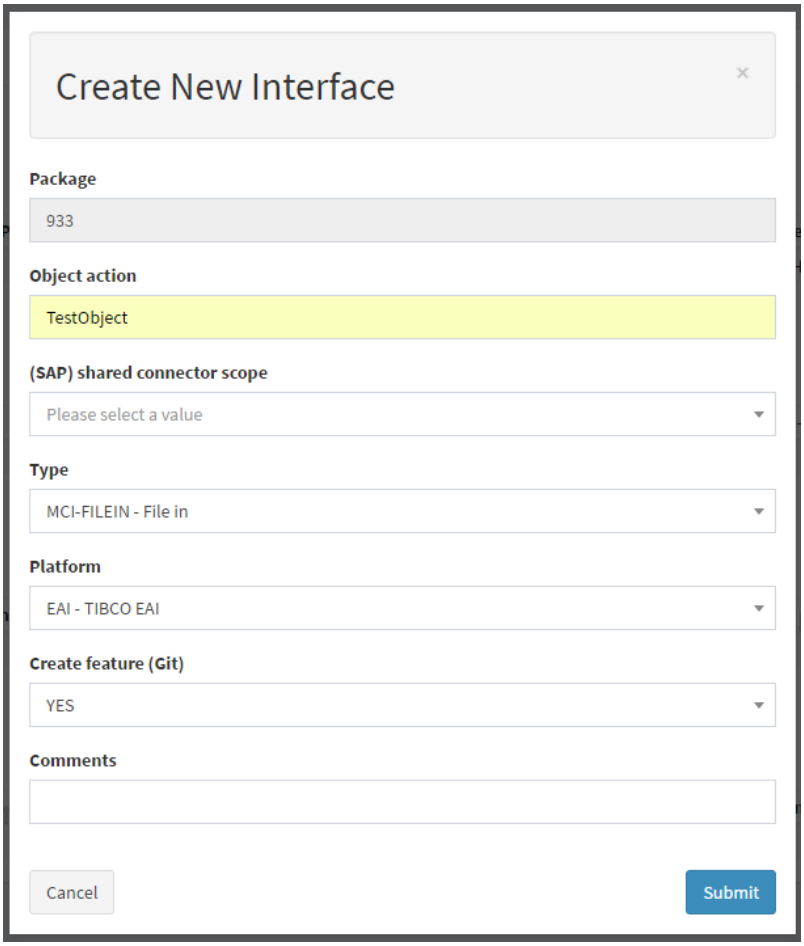
To add feature(s) to your Tibco BW6.5 package, click on the link available in the “ID” column related to your package (cf. screenshot below):



And click on the “+” button related to the Interface of your package:



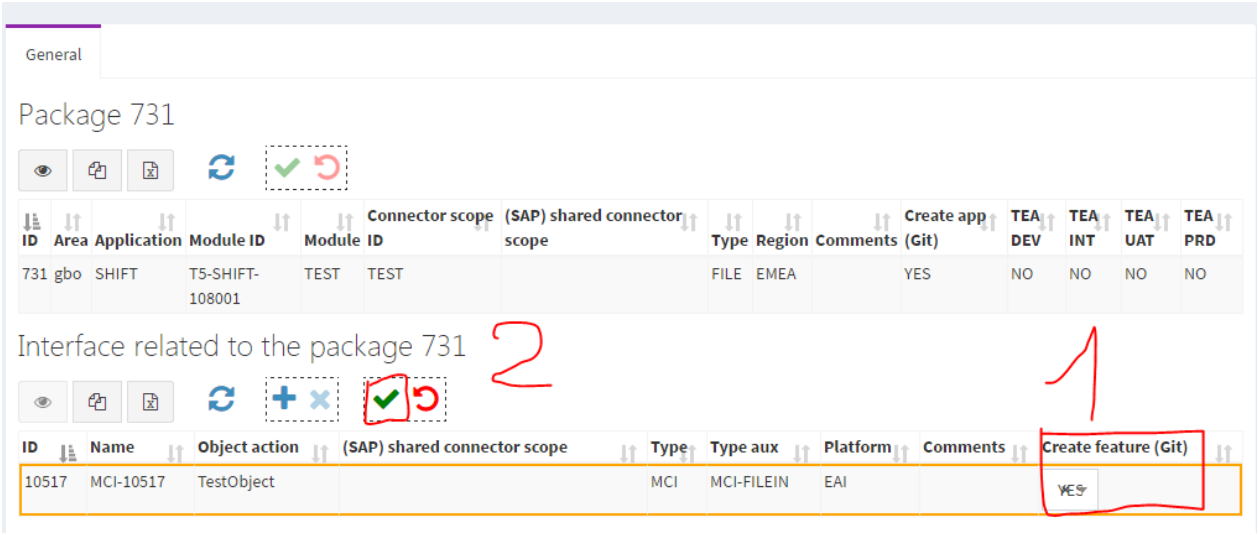
A prompt will be displayed. Fulfill the different fields with the value you want to use into your Tibco (Git) application:



Leave the “Create feature (Git)” field as YES if you want to add your feature into your Tibco (Git) application.

FOR YOUR INFORMATION

Please note that if the field “Create app (Git)” of your package is set to NO, you won’t be able to select YES into the “Create feature (Git)”.
To do so, “Type” your application by following the instructions listed in the previous section (b). Once OK, double-click on the “Create feature (Git)” field and set it to YES and click on the “Commit” button (cf. screenshot below):



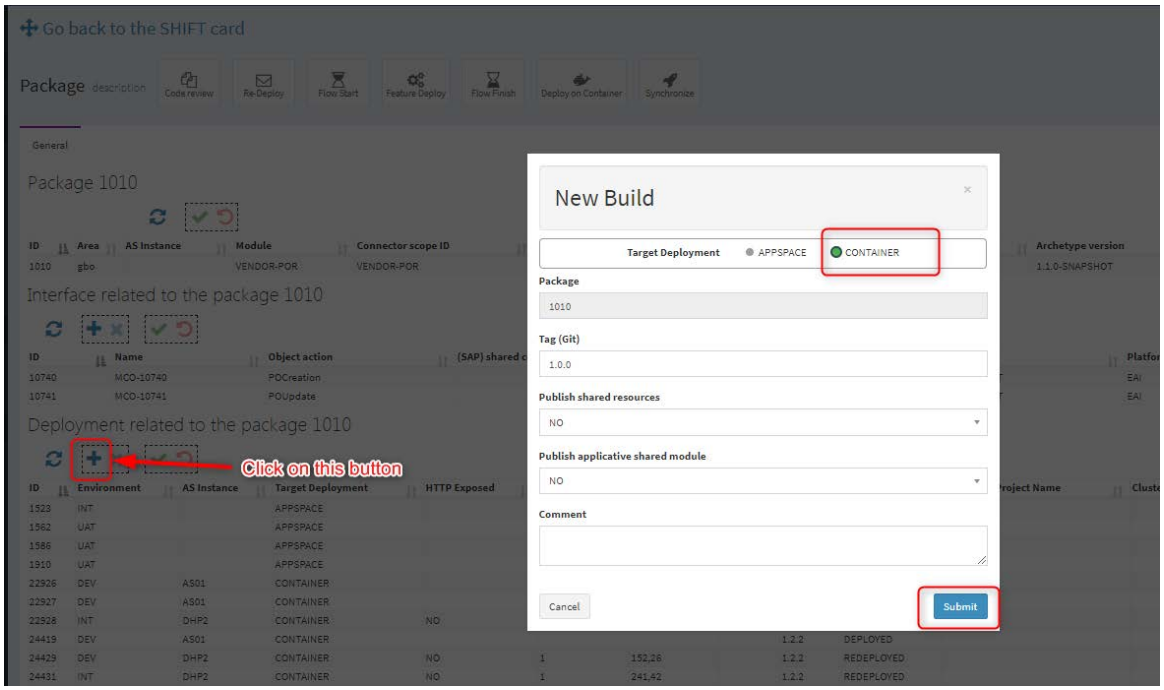
DO NOT LEAVE THE WEB PAGE UNTIL THE CURSOR STOPPED LOOPING.

END FOR YOUR INFORMATION

Click on the “Submit” button. A prompt asking to wait will be displayed until the action is performed.
DO NOT LEAVE THE WEB PAGE UNTIL THE PROMPT DISAPPEARS.

5.1.5.4.2. Deploy Tibco BW6.5 package

To deploy your Tibco BW6.5 application from one environment to the other (for example: DEV to INT), click on the “+” button under the Deployment section (cf. screenshot below):

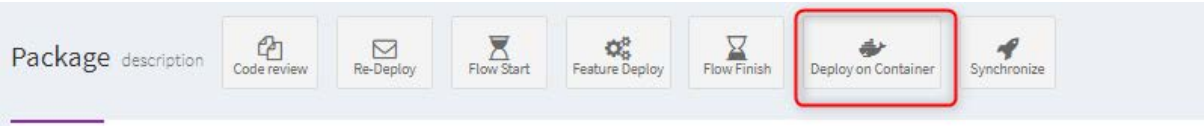


A prompt will be displayed. Fulfill the different fields with the value you want to use for your deployment:

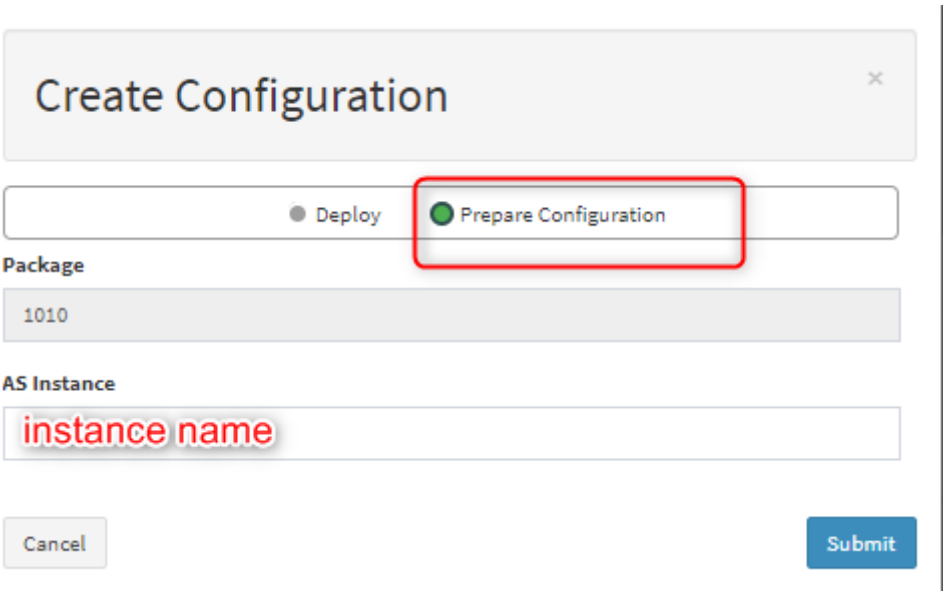
If it is your 1st build, do not modify the value of the different fields. If you have to publish shared resources, set the value to YES.
If you have to publish applicative shared module, set the value to YES.

Click on the “Submit” button. A prompt asking to wait will be displayed until the action is performed.
DO NOT LEAVE THE WEB PAGE UNTIL THE PROMPT DISAPPEARS.

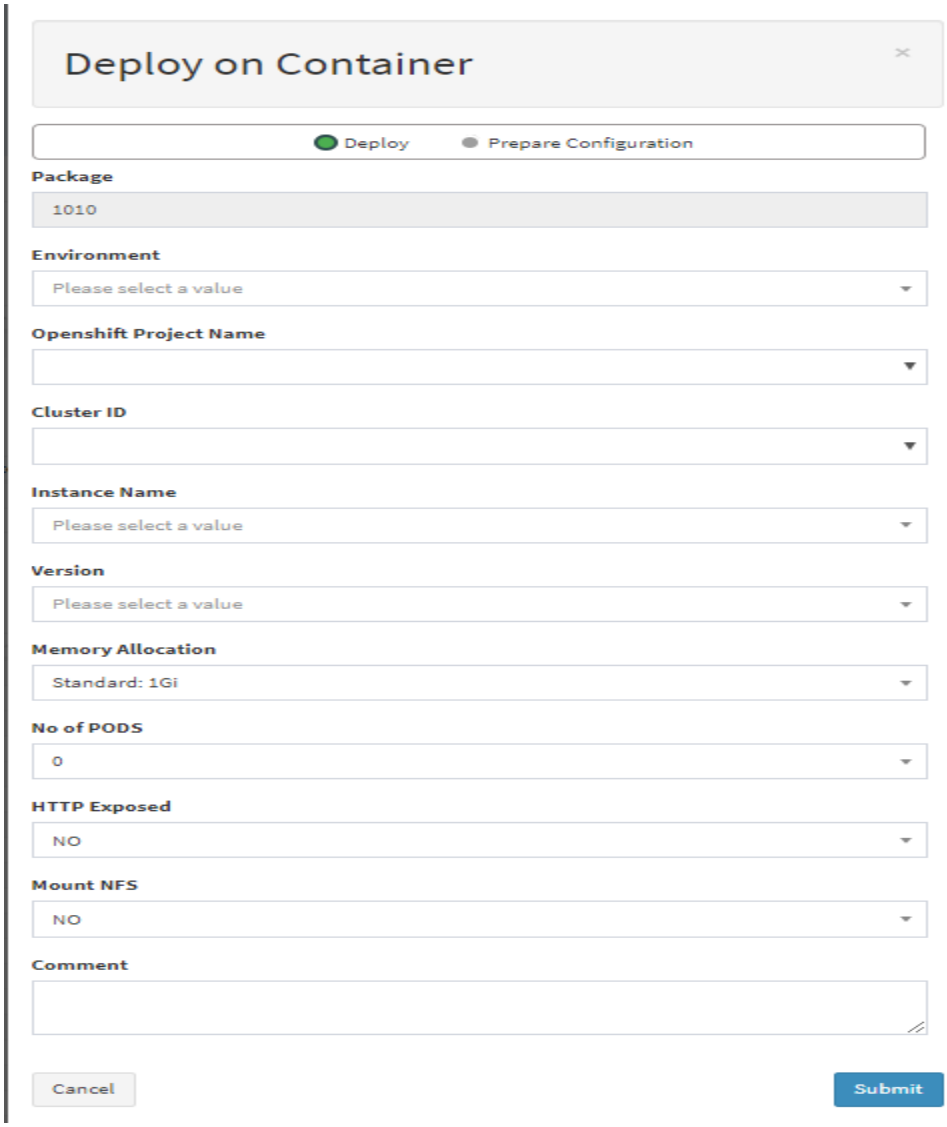
Click on deploy on container



Before deploying, you have to create a configuration file on git in order to change the properties for a each environment.

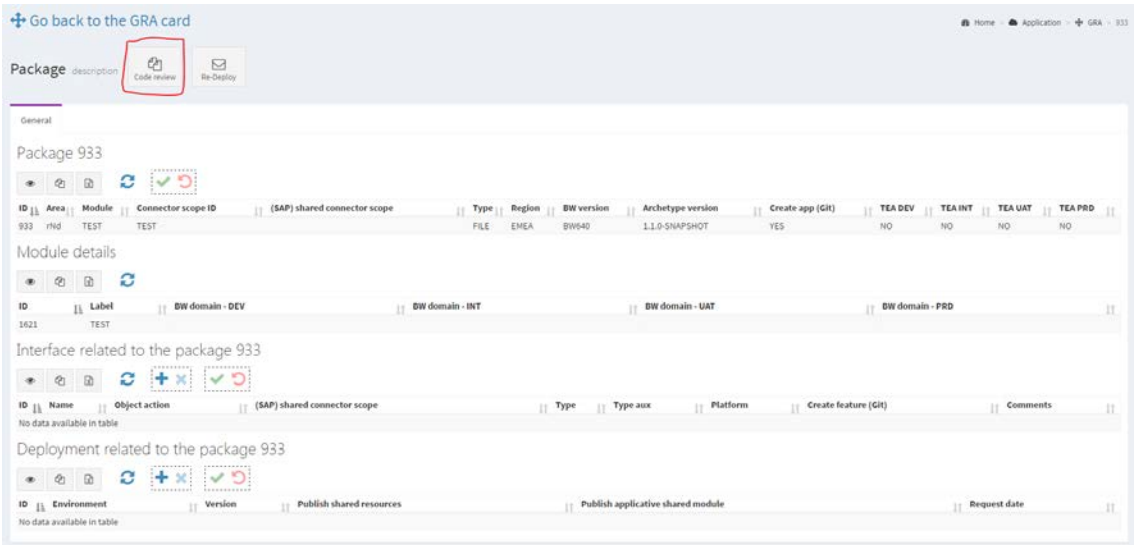


Select deploy checkbox for deployment, fill all data as shown below :



5.1.5.4.3. Perform a code review of your Tibco BW6.5.x package

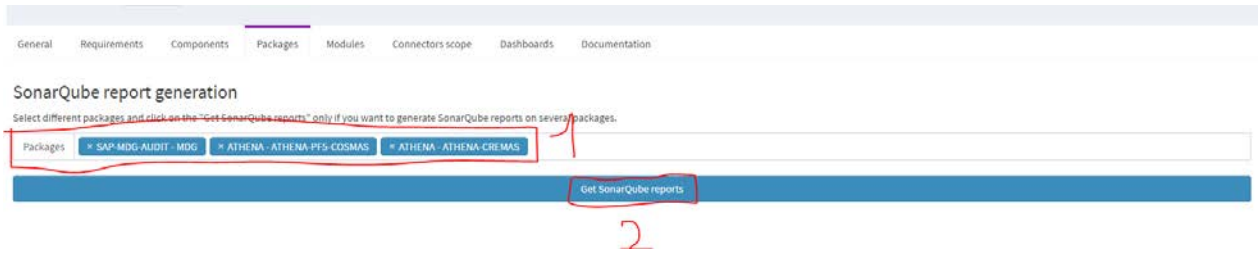
To perform a code review of your Tibco BW6.5.x package, click on the “Code Review” button located at the top of your package web page (cf. screenshot below):



A prompt asking to wait will be displayed until the action is performed. **DO NOT LEAVE THE WEB PAGE UNTIL THE PROMPT DISAPPEARS.**

Once finished, a new tab into your web browser will open and redirect you to the SonarQube server. You will be able to take a look (audit) at the new SonarQube report generated regarding your Tibco BW6.4 package.

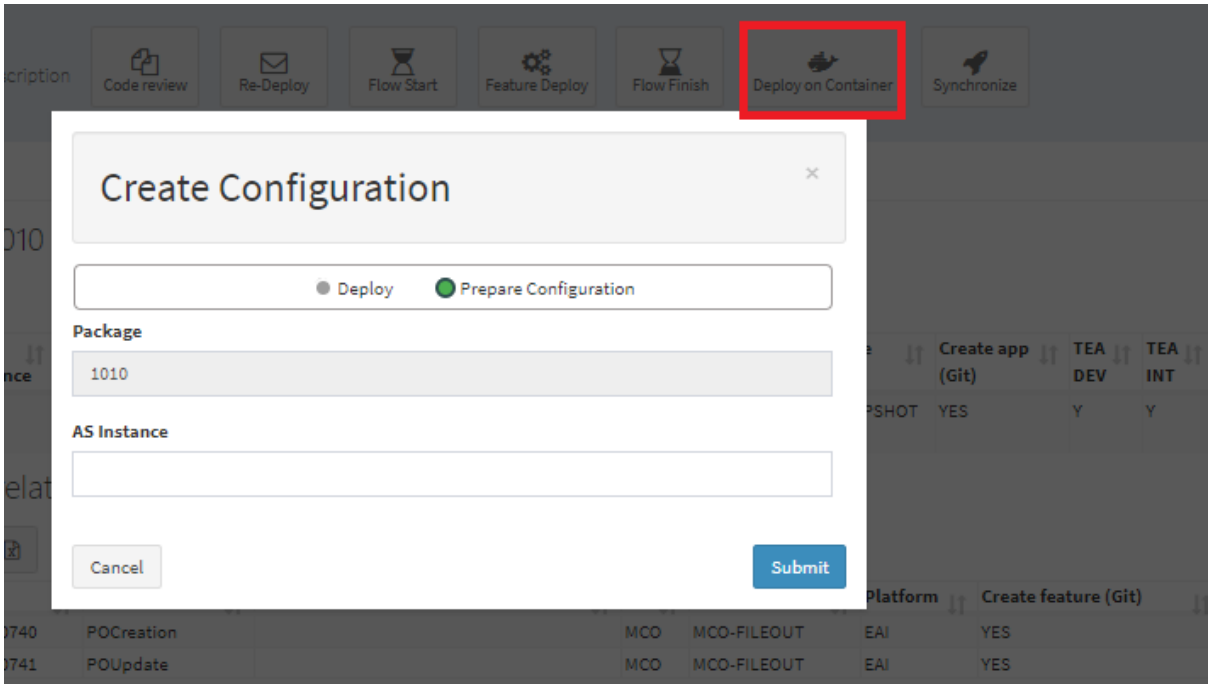
If you want, <u>you can also</u>, by clicking on the "Packages" tab of your application, <u>generate SonarQube reports for several packages</u> by using the "SonarQube report generation" functionality (see screenshot below):



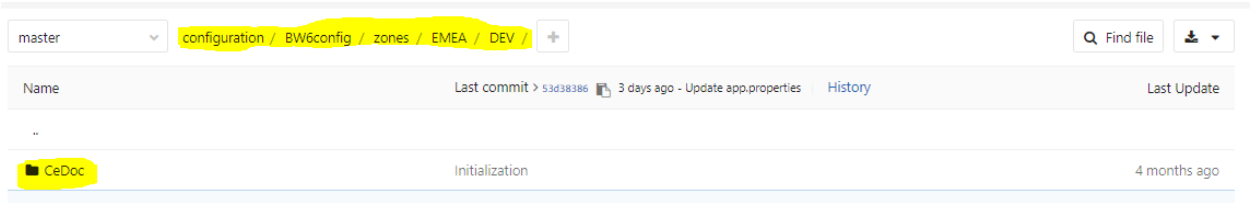
5.1.5.4.4. Framework import

1) Create a new configuration instance

To create a new configuration instance of your package, click on the "Deploy ON Container ->Prepare Configuration " button located at the top of your package web page (cf. screenshot below):

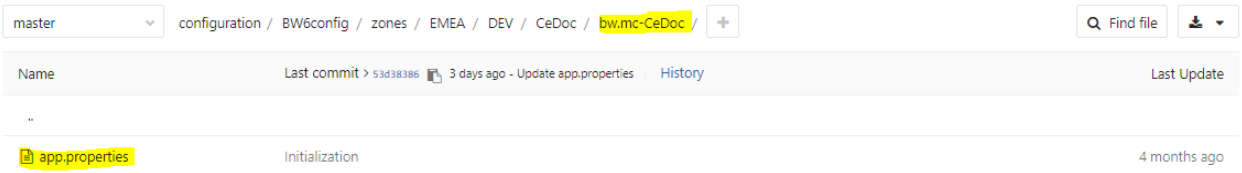


1) After creating the instance, a folder will be generated in Gitlab with application name inside the zones folder under configuration folder

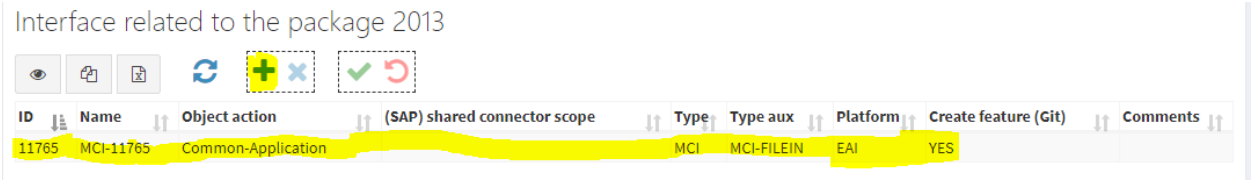


Gitlab url→ https://gitlab-its.sanofi.com/

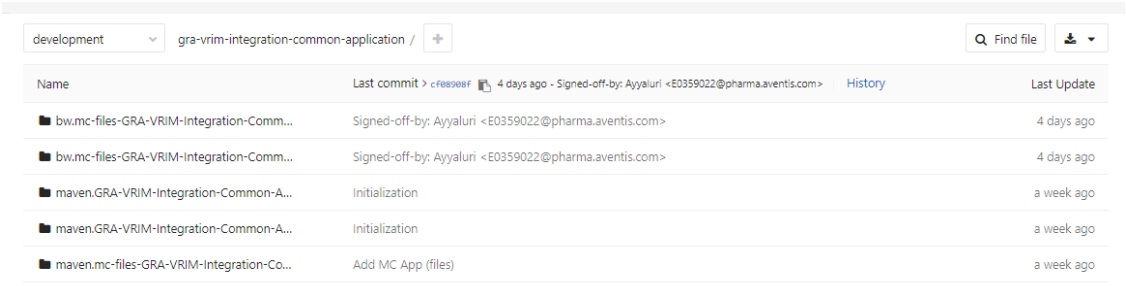
2) Inside application folder app.properties file will be created



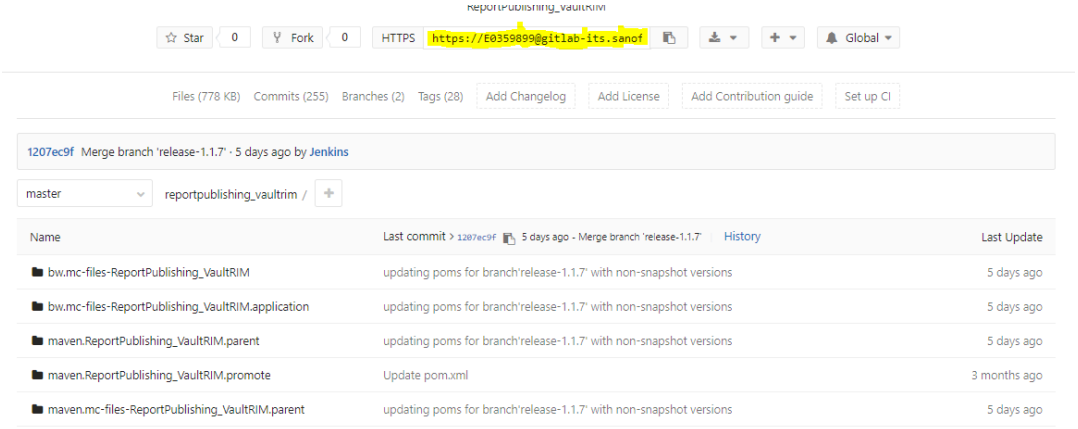
3) Need to generate new application from Llama by using interface function based on requirement



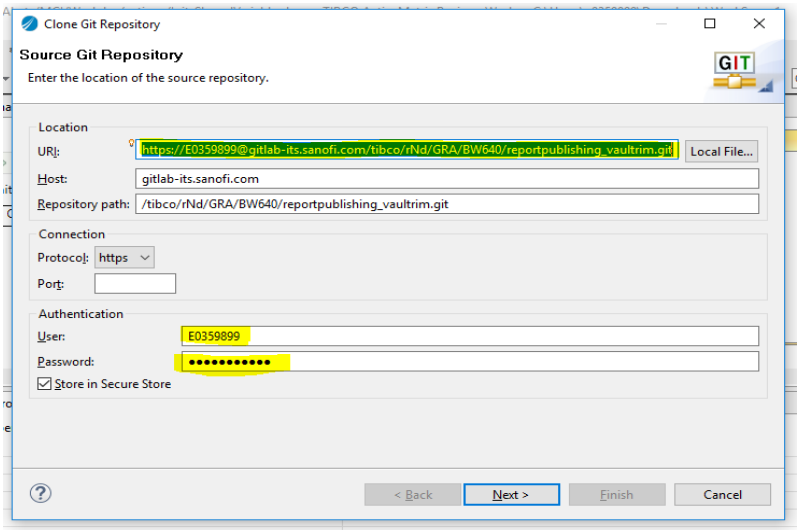
4) Once the application is generated then five folders(Application, Module application,3 maven folders) will create in Gitlab with the application name



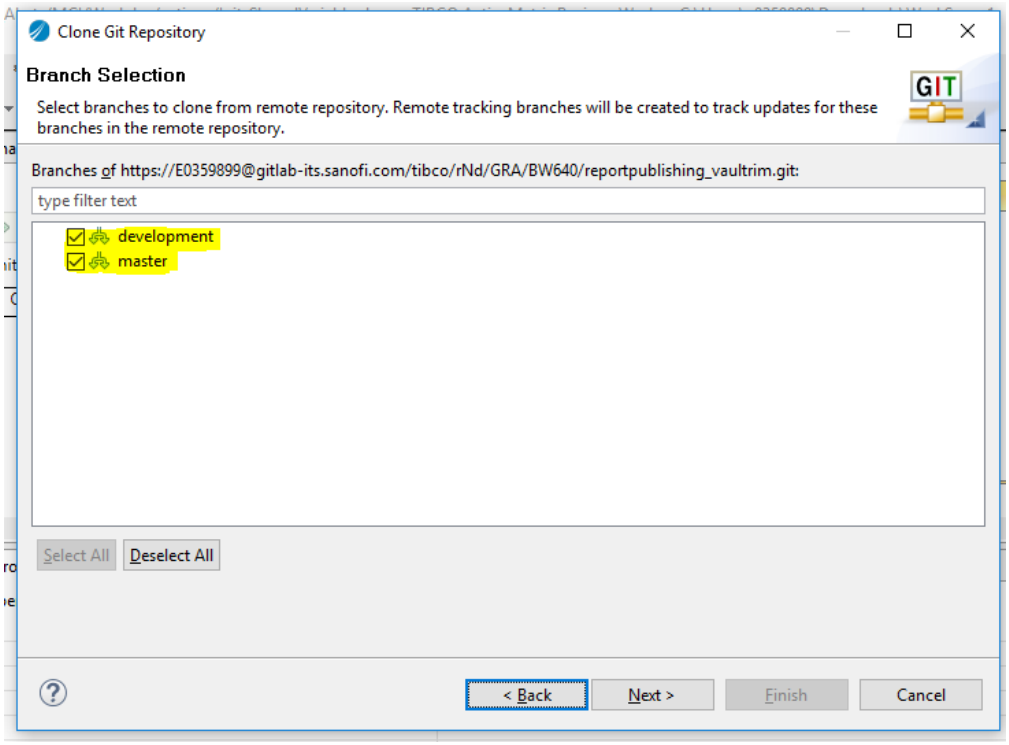
5) Open business studio and need to create work space first and then clone the source code from a Gitlab repo with the source code path url



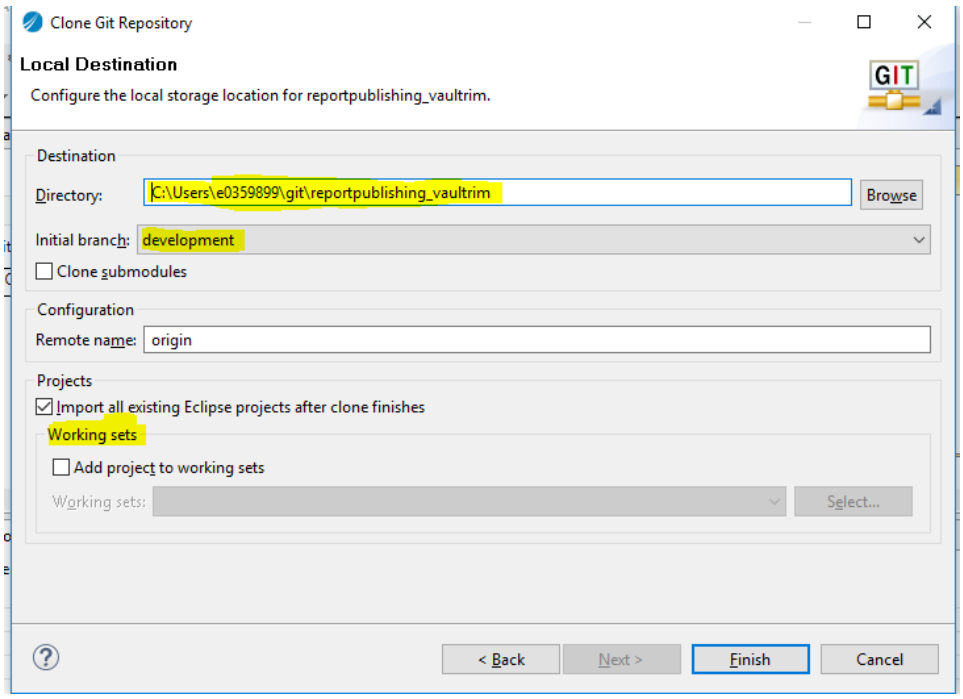
6) Paste Gitlab source code url in studio for clone and same window need to provide user credentials



7) Click next will get development and master branches based on requirement need to choose branch

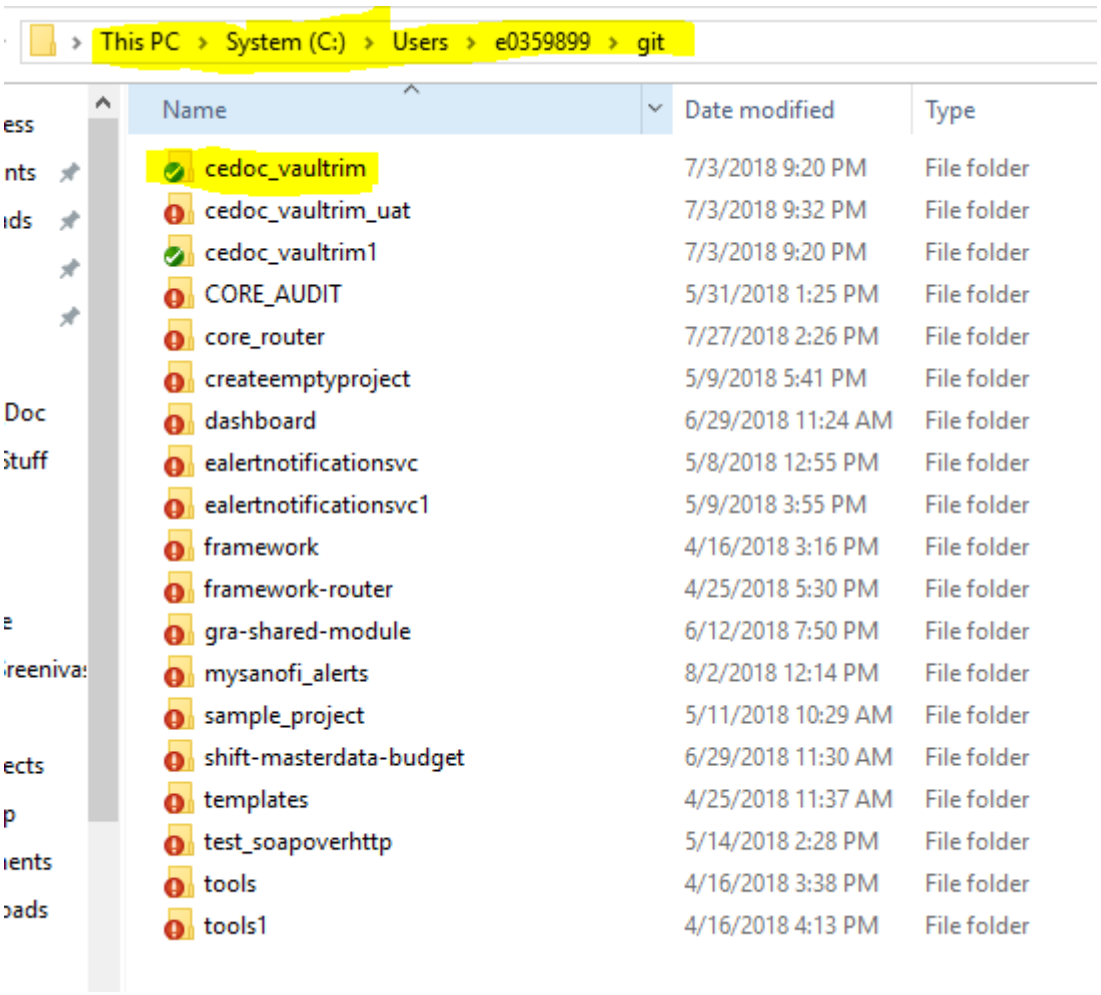


8) Click next here will present configured git local repo path and branch details project work set function

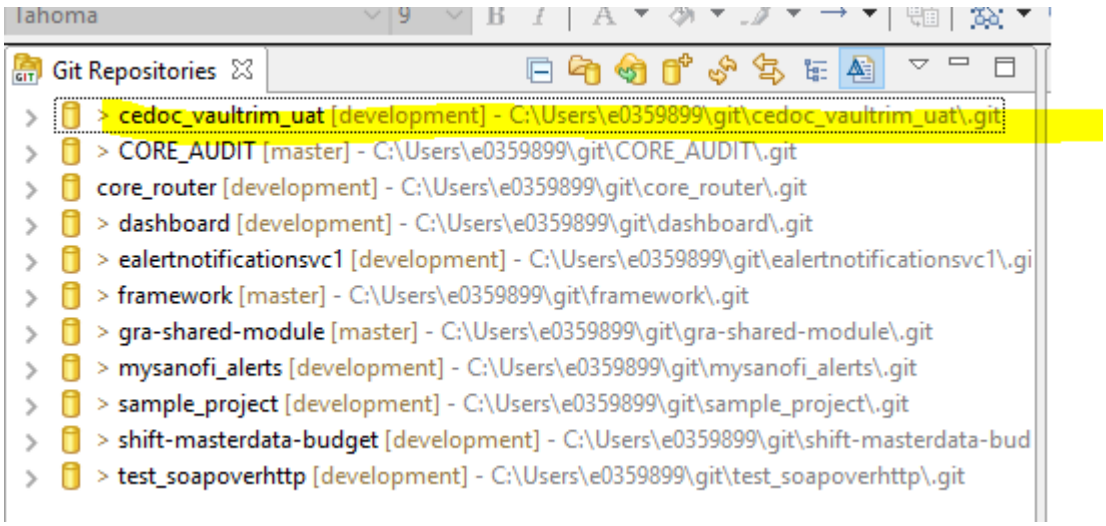


9) Click finish button after a few seconds later code will appear git local repo same will be able to see studio also

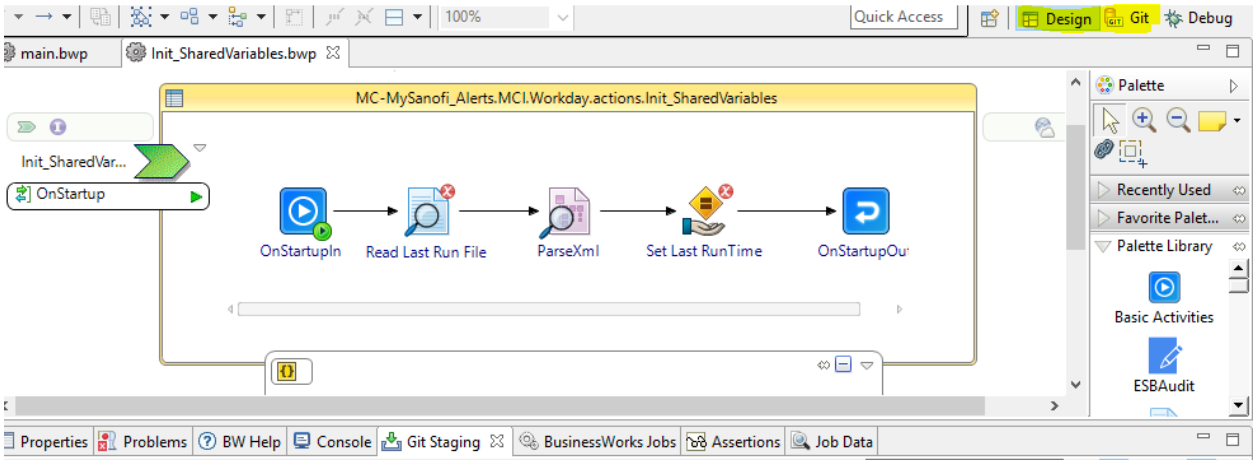
Local git repo snapshot



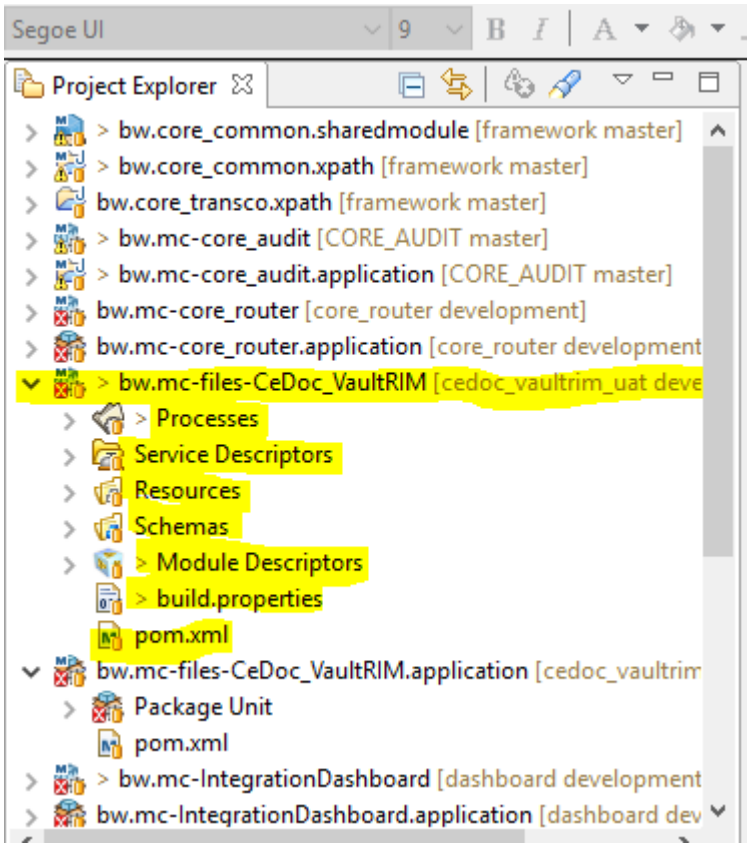
Local Git repo Studio snapshot



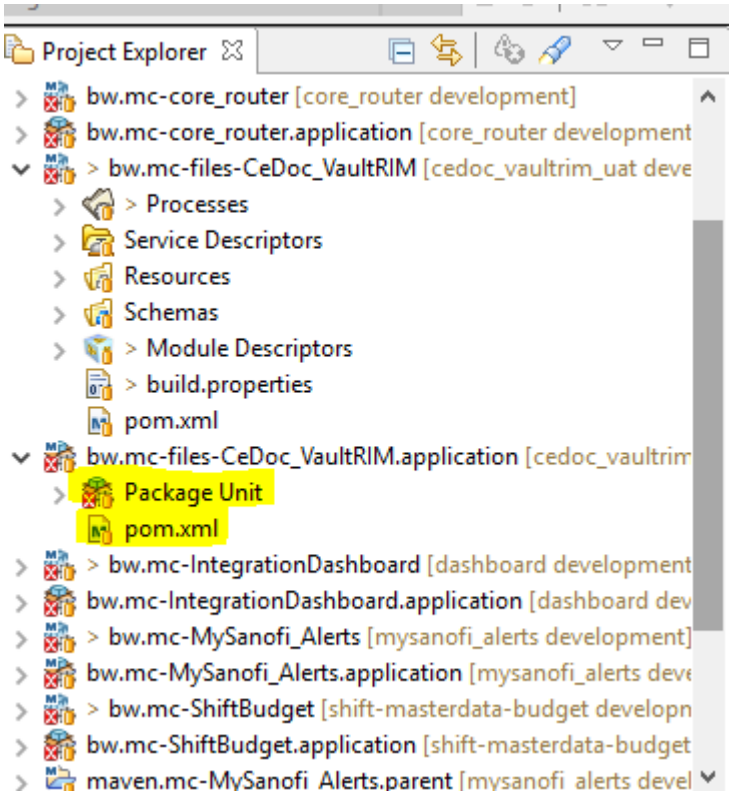
10) Once cloning is done need to switch Git clone function to design in business studio



11) Extract application module inside this all folders are available for development like process, Service descriptors, Resource, Schema, Module descriptors etc..



12) In application package package unit and pom.xml file available

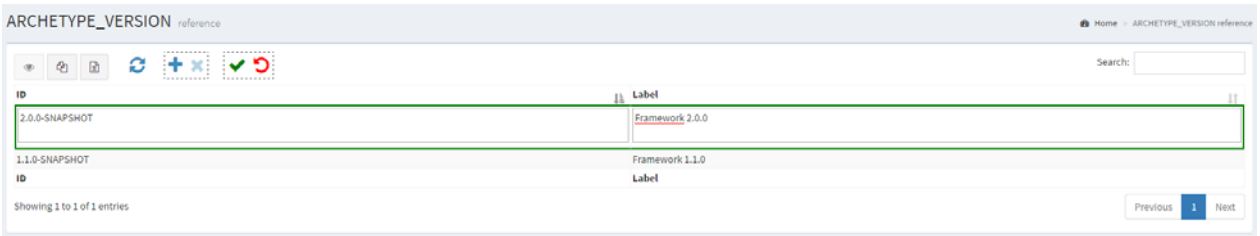


5.1.5.5. Create a new Framework archetype version

To add a new Framework archetype version, go to the following URL:
http://llama.sanofi.com/reference/archetype_version

And click on the "+" button. In the "ID" column, enter the new Framework archetype version value (for example: 1.0.0-SNAPSHOT, 1.1.0-SNAPSHOT, etc.) plus a label (for example "Framework 1.0.0", "Framework 1.1.0") for your new Framework archetype version and click on the "Commit button".
Please note that the addition of a new Framework archetype version will download and use the archetype owning that version on the Nexus server when packages will be created with that Framework archetype version value!

For example:



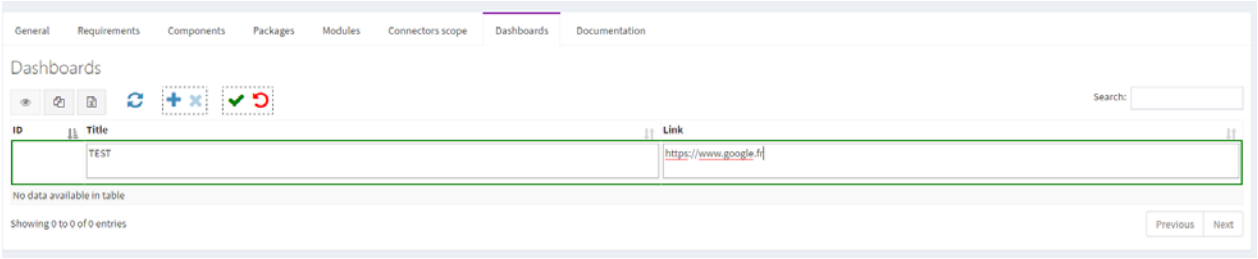
5.1.5.6. Add a new Dashboard link

Please make sure to be an administrator on LLAMA if you want to add a new Dashboard link. If that is not the case, please contact ITS-IS-COE-DEVOPS (ITS-IS-COE-DEVOPS@emailph4.aventis.com) distribution list in order to request to a LLAMA administrator the addition of a new Dashboard link.

To do so, go to the “Dashboards” tab into your application web page.

And click on the “+” button. In the “Title” column, enter the new name of your Dashboard (plus its environment if you want) and add the associated link into the “Link” column. Click on the “Commit button”.
Please make sure your link is starting with the “http…” string in order to display it as an anchor and let users being able to click on it. By clicking on the dashboard link, it will open a new tab into the user web browser.

For example:



5.1.5.7. Core Router

ESB message ROUTING allows connectors and orchestration services to send JMS messages to configurable destination either by using rules or not. If one or many targets are found, the router sends a one way async JMS

Message for each matched target.

The router performs a lookup on the database to fetch the matching rules and determine the list of named targets, the process performs the following steps:

(1) Reads all matching rules from the rule database. The SQL query is executed to read all candidate rules matching the conditions.

(2) After having identified the rule candidates, the process established an

“Unfiltered Rule Result” containing all the structured rules before evaluating the optional custom routing properties and message content xPath filtering.

(3) The process then evaluates the optional custom routing properties and message content xPath filtering if such conditions exist in some of the candidate rules. This may lead to the exclusion of some or the entire rule candidate set.

(4) Finally, rules sharing destination are merged (duplicates are removed).

In such case, ONLY the first matching rules properties are kept. The duplicated destination rules are entirely discarded.

The rule lookup's final result process is an exhaustive routing configuration: set of all the matched rules, their properties and the target definition for every referenced target. SPEC-CR-04 the rules are initially maintained

The rules are initially maintained in a central persistent routing database

(ORACLE). The CORE_ROUTER project incorporates:

5.1.5.8. Log Management

ESB service Audit: common process audit policies:

1) Traces for main steps (start, end, error, and warning).
2) Customized steps (information, debug, warnings).
3) Provision of technical and business key properties for the technical correlation traces with functional properties (application context).
4) End to end flow traces correlation.
5) Collection of services and flows statuses sends AUDIT events to Elastic Search storage
6) The logs can view in Kibana GUI.

Kibana URL: https://eu-kibana-nod01-prd.pharma.aventis.com:5601

5.1.6. Access Management

5.1.6.1. Access to NAS file share

UserID used for access to specific NAS share through adequate AD groups per environment:

- DEV & INT : PHARMA\TIBCO_SHIFT_NAS_DEVINT → RW access
- UAT : PHARMA\TIBCO_SHIFT_NAS_UAT → RO access
- Prod: PHARMA\TIBCO_SHIFT_NAS_PRD → RO access

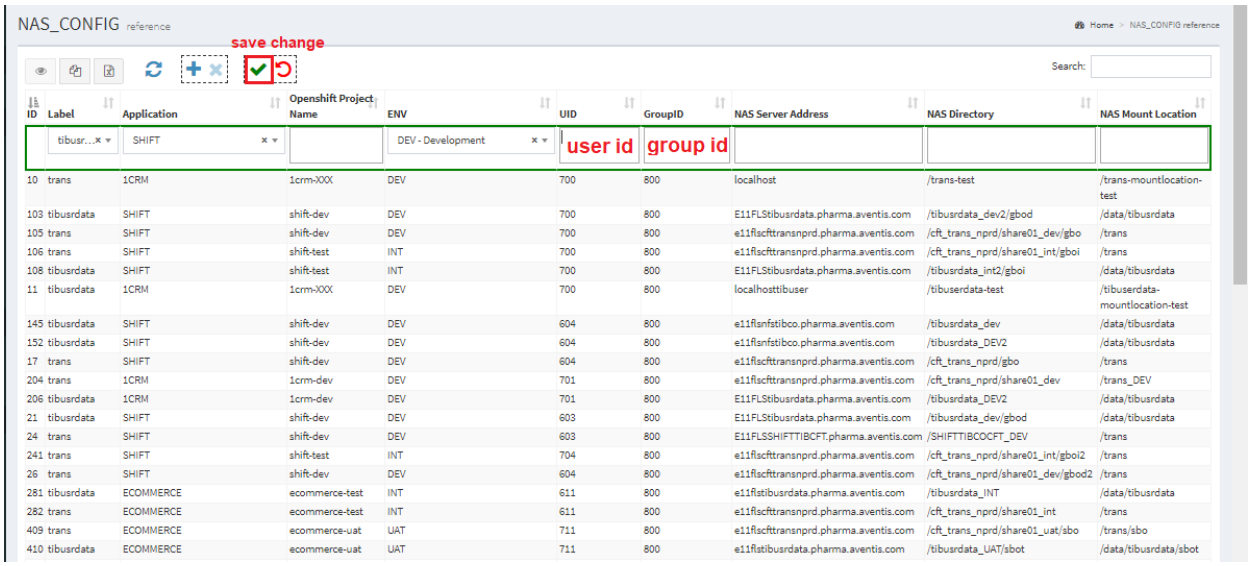
Example of the process for obtaining the **RO access** to the Production Shared NAS:

- Raise a S-NOW Request ACTIVE DIRECTORY - Add or remove an item specifying the AD group PHARMA\TIBCO_SHIFT_NAS_PRD specifying the **Windows Id account** of the user(s) (you can specify several users separated by a comma sign (e.g. E0276433 ; E0276434 ; E0276918)

5.1.6.2. Mount NAS share from container

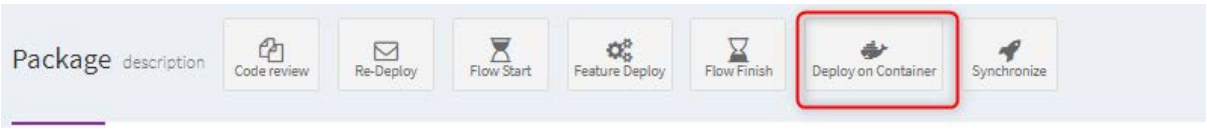
If your new NAS configuration information does not exist in LLAMA, please add it before deploying one or more packages…

1. To add a new NAS configuration, go to the following URL: http://llama.sanofi.com/reference/nas_config and click on the "+" button. Fulfill all the fields displayed. Click on the "save change" button once OK:



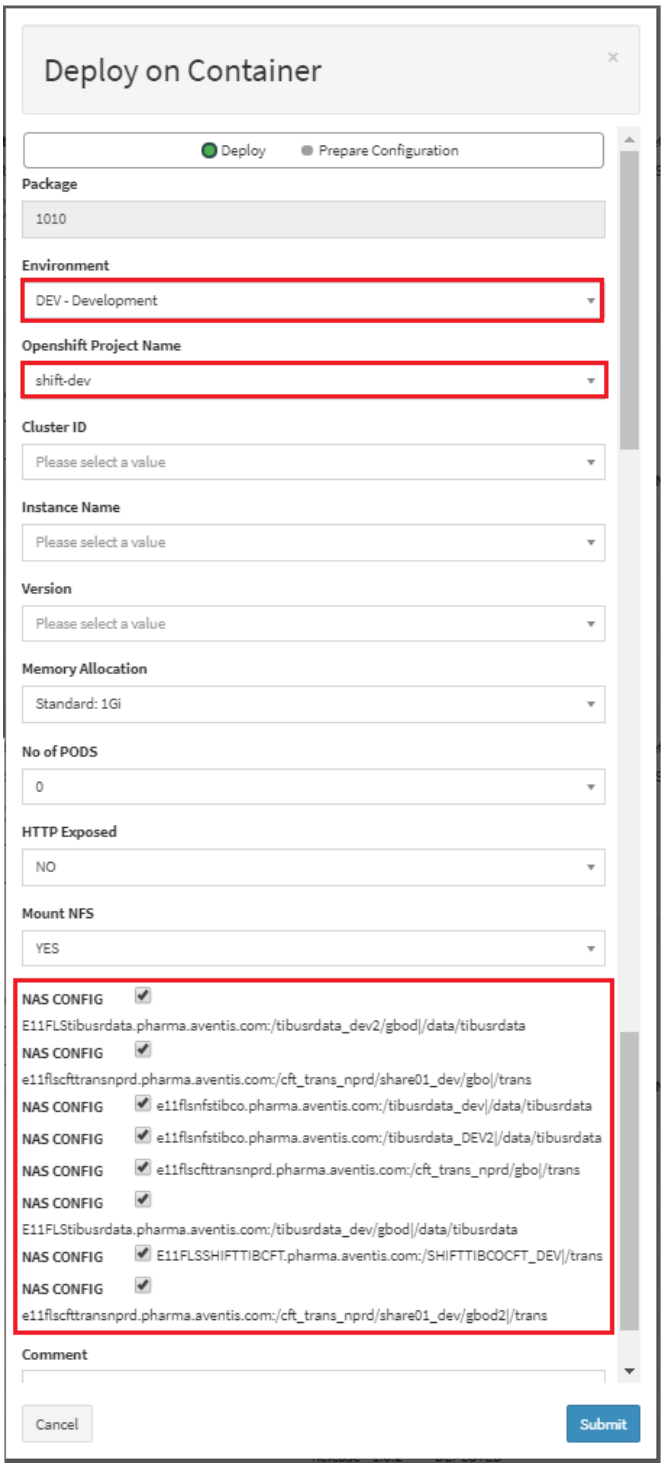
ID	Label	Application	Openshift Project Name	ENV	UID	GroupID	NAS Server Address	NAS Directory	NAS Mount Location
	tibusr...	SHIFT		DEV - Development					
10	trans	1CRM	1crm-XXX	DEV	700	800	localhost	/trans-test	/trans-mountlocation-test
103	tibusrdata	SHIFT	shift-dev	DEV	700	800	E11FLStibusrdata.pharma.aventis.com	/tibusrdata_dev2/gbod	/data/tibusrdata
105	trans	SHIFT	shift-dev	DEV	700	800	e11flscfttransnprd.pharma.aventis.com	/cft_trans_nprd/share01_dev/gbo	/trans
106	trans	SHIFT	shift-test	INT	700	800	e11flscfttransnprd.pharma.aventis.com	/cft_trans_nprd/share01_int/gboi	/trans
108	tibusrdata	SHIFT	shift-test	INT	700	800	E11FLStibusrdata.pharma.aventis.com	/tibusrdata_int2/gboi	/data/tibusrdata
11	tibusrdata	1CRM	1crm-XXX	DEV	700	800	localhosttibuser	/tibuserdata-test	/tibuserdata-mountlocation-test
145	tibusrdata	SHIFT	shift-dev	DEV	604	800	e11flsnfstibco.pharma.aventis.com	/tibusrdata_dev	/data/tibusrdata
152	tibusrdata	SHIFT	shift-dev	DEV	604	800	e11flsnfstibco.pharma.aventis.com	/tibusrdata_DEV2	/data/tibusrdata
17	trans	SHIFT	shift-dev	DEV	604	800	e11flscfttransnprd.pharma.aventis.com	/cft_trans_nprd/gbo	/trans
204	trans	1CRM	1crm-dev	DEV	701	800	e11flscfttransnprd.pharma.aventis.com	/cft_trans_nprd/share01_dev	/trans_DEV
206	tibusrdata	1CRM	1crm-dev	DEV	701	800	E11FLStibusrdata.pharma.aventis.com	/tibusrdata_DEV2	/data/tibusrdata
21	tibusrdata	SHIFT	shift-dev	DEV	603	800	E11FLStibusrdata.pharma.aventis.com	/tibusrdata_dev/gbod	/data/tibusrdata
24	trans	SHIFT	shift-dev	DEV	603	800	E11FLSSHIFTTIBCFT.pharma.aventis.com	/SHIFTTIBCOCFT_DEV	/trans
241	trans	SHIFT	shift-test	INT	704	800	e11flscfttransnprd.pharma.aventis.com	/cft_trans_nprd/share01_int/gboi2	/trans
26	trans	SHIFT	shift-dev	DEV	604	800	e11flscfttransnprd.pharma.aventis.com	/cft_trans_nprd/share01_dev/gbod2	/trans
281	tibusrdata	ECOMMERCE	ecommerce-test	INT	611	800	e11flstibusrdata.pharma.aventis.com	/tibusrdata_INT	/data/tibusrdata
282	trans	ECOMMERCE	ecommerce-test	INT	611	800	e11flscfttransnprd.pharma.aventis.com	/cft_trans_nprd/share01_int	/trans
409	trans	ECOMMERCE	ecommerce-uat	UAT	711	800	e11flscfttransnprd.pharma.aventis.com	/cft_trans_nprd/share01_uat/sbo	/trans/sbo
410	tibusrdata	ECOMMERCE	ecommerce-uat	UAT	711	800	e11flstibusrdata.pharma.aventis.com	/tibusrdata_UAT/sbot	/data/tibusrdata/sbot

2. After adding the nas Configuration, Click on deploy on container



Select deploy checkbox for deployment, fill all data.

3. To mount one or more NAS, you must select MOUNT NFS on YES, but before selecting the MOUNT NFS, it is mandatory to select the environment and the name of the OpenShift project.



Select one or more NAS Configuration. Click on the “submit” button once OK.

This click will generate a request to OpenShift Jenkins, which will handle the NAS mounting during the deployment.
You can find the script, which is mounting the NAS filesystems in “generic-ngdc” Jenkins folder under the name “configure_and_deploy”. Information about the NAS storages is passed in “NasStorageInfo” parameter and handled in “Manage deployment configuration object” stage.
We’re using OpenShift templates to create all the required objects, including NAS mounting points. During the deployment, Jenkins job is downloading our template from Git and updates it with previously passed parameters. After that, script is pasing this template to OpenShift, which is handling

the changes.

5.1.7. Elasticsearch / Kibana / Grafana / Logstash

The Log Storage Server platform is deployed on top of the Sanofi GIS standards available in the NGDCs. All standard processes are applicable.

For more information about infrastructure details, please refert to geodIS document IS_1498236 (AS - Architecture Specifications - Integration Log Analytics)

5.1.7.1. Monitoring

The normal monitoring mechanism is used. We have defined service listed bellow in monitoring process.

5.1.7.2. Backup

The normal backup mechanism is used. The standard backup policies are applicable for the servers, shared folder and the database. That means a daily full backup of each server (VM), kept for 56 days.

5.1.7.3. Anti-virus

The normal anti-virus mechanism is used.

5.2. Change EMS configuration

Steps	Comment
Launch on start menu : TIBCO/TIBCO Runtime Agent xxx/Domain Utility	
Click “Next”	
Server Settings / Change Transport Configuration	
Select the domain on the combox	
Enter admin credentials	
Enter EMS URL + User + Password	
Click Test Connection	Should be OK
Click “Next”	Resume of the new configuration
Click “Next”	

5.3. Access management

Acces of Tibco Cloud are mainly using AD group or local account directly attached on the service.

Service	Acces Type	Support Group (Admin role)	Support Group (Edit role)	Support Group (Read only role)
Openshift	LDAP	PRIMS SCALe suport Group - TS-GLOB-L2-SCALE OPS	PRIMS EAI support group: and project's specific AMS Support group) – See Ref Openshift Project below	ITS_ICOE_SCALE_USERS
LLAMA	LDAP (related to Gitlab)	pharma.aventis.com/FR Croix De Berny/Users/Groups/gitlab	pharma.aventis.com/FR Croix De Berny/Users/Groups/gitlab	pharma.aventis.com/FR Croix De Berny/Users/Groups/gitlab
GIT	LDAP	pharma.aventis.com/FR Croix De Berny/Users/Groups/gitlab	pharma.aventis.com/FR Croix De Berny/Users/Groups/gitlab	pharma.aventis.com/FR Croix De Berny/Users/Groups/gitlab
BWD	LOCAL (LDAP In FUTURE)	ICOE_GUACAMOLE_ADMINS	ICOE_GUACAMOLE_USERS	N/A
Elastic Search / Kibana	LDAP/LOCAL	cn=its-is-coe-devops,ou=distribution lists,ou=fr croix de berny industrial,DC=pharma,DC=aventis,DC=com	Ref in Figure 3 (specific to project)	Ref in Figure 3 (specific to project)
Cerebro	LDAP	memberOf=CN=ITS-IS-COE-DEVOPS,OU=Distribution Lists,OU=FR Croix De Berny Industrial,DC=pharma,DC=aventis,DC=com	N/A	N/A
Grafana	LOCAL (LDAP In FUTURE)	PHARMA\ITS_GRAFANA_ADMIN	PHARMA\ITS_GRAFANA_USERS	PHARMA\ITS_GRAFANA_USERS
Nexus	LDAP(Manage on the Apps)	Nx-admin	N/A	N/A
Portainer	LDAP	memberOf=CN=ITS-IS-COE-DEVOPS,OU=Distribution Lists,OU=FR Croix De Berny Industrial,DC=pharma,DC=aventis,DC=com	N/A	N/A

Openshift Project	User Group (Edit)
SHIFT	TS-GLOB-L2-SHIFT AMS TRIAGE
1CRM	(TBD)
ICOE	ITS_ICOE_SCALE_USERS
WeBB	AMS TIBCOWEB
Promomats	(TBD)
E-commerce	TS-GLOB-L2-HYBRIS ECOMMERCE

ElasticSearch Kibana Project	USER	LDAP Groups
ELK local Super User :	e0308814	
ELK local Super User :	E0308814	
ELK local Super User :	E0389683	
ELK local Super User :	P000090A	
ELK local Super User :	p000090a	
ELK local Super User :	e0387797	
CLICS_USERS	Locally Managed	
EAI_EBUY_KIBANA_PRD_ADM_LOCAL	Locally Managed	
EAI_SCCORE_KIBANA_PRD_ADM_LOCAL	Locally Managed	
EAI_SCCORE_KIBANA_PRD_USR_LOCAL	Locally Managed	
EAI_SHIFT_KIBANA_PRD_ADM_LOCAL	Locally Managed	
EBUY_TEST_USER	Locally Managed	
ELABELING_GRAFANA	Locally Managed	
GMI_USERS	Locally Managed	
GRA_USERS	Locally Managed	
ITS-IS-COE-DEVOPS	Locally Managed	
LOGAPP_USERS	Locally Managed	
MFT_USERS	Locally Managed	CN=EAI_SHIFT_KIBANA_PRD_ADM_LOCAL,OU=Groups,OU=Users,OU=IN Bombay,DC=pharma,DC=aventis,DC=com
SBO_USERS	Locally Managed	
SCCORE_OPS	Locally Managed	
SCCORE_USERS	Locally Managed	
SHIFT_USERS	Locally Managed	CN=EAI_SHIFT_KIBANA_PRD_ADM_LOCAL,OU=Groups,OU=Users,OU=IN Bombay,DC=pharma,DC=aventis,DC=com
SIMPLIFY_USERS	Locally Managed	
transport_client	Locally Managed	
VEEVA_USERS	Locally Managed	
watcher_admin	Locally Managed	
watcher_user	Locally Managed	
WEBB_USERS	Locally Managed	
WECOMM_USERS	Locally Managed	

5.4. Support activities scope

Technology/Product Name	Support Level Requirement from PRIMS EAI		Other Support Teams Involved	
	(L1/L2/L3)	Operations in Support Scope	Team Name and DL/SNOW group	Operations in Support Scope
TIBCO BW CE	L2	Log analysis of application logs to detect issues like: - Connectivity problems (e.g. SAP, DBs, EMS, NAS etc) - Expired certificate - Problem starting of component or frequently restarting components - Quota related issues (based on Openshift events available in Openshift console and Bison)	AMS and DevOps CE	AMS: -Configuration Modification - Application dlifecycle managmenet (e.g. deployments, scaling up or down) - Application incidents resolution DevOps CE: - Performance Tuning
RedHat OpenShift	L1	None	PRIMS SCALE TS-GLOB-L2-SCALE OPS ITS-INFRA-CaaS-SCALe-Ops@accenture.com	Scale Service configuration and Management.
Llama	L1	None	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Configurations Modification and Performance Tuning.
Docker	L1	None	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Configurations Modification and Performance Tuning.
Portainer	L1	None	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Configurations Modification and Performance Tuning.
Apache Guacomole	L1	None	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Configurations Modification and Performance Tuning.
Kafka	L2	Certificates Renewal.	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Configurations Modification and Performance Tuning.
Cerebro	L2	Certificates Renewal.	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Configurations Modification and Performance Tuning.
Filebeat	L1	None	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Configurations Modification and Performance Tuning.
Grafana	L2	Certificates Renewal.	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Configurations Modification and Performance Tuning.
ElasticSearch	L2	Process Stop, Start, Restart. Server Disk Cleanup Operation. Server CPU and Memory Management Operation. Certificates Renewal.	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Performance Tuning. Configurations Modification. Nodes Addition, Deletion, Modification. Indices and Documents Creation, Deletion, Modification. Xpack Monitoring Implementation and Management. All Integrations with Other Components in Ecosystem.
Logstash	L2	Process Stop, Start, Restart. Server Disk Cleanup Operation. Server CPU and Memory Management Operation. Certificates Renewal.	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Performance Tuning. Configurations Modification. Nodes Addition, Deletion, Modification. Pipelines Addition, Deletion, and Modification. All Integrations with Other Components in Ecosystem.
Kibana	L2	Process Stop, Start, Restart. Server Disk Cleanup Operation. Server CPU and Memory Management Operation. Certificates Renewal.	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Performance Tuning. Configurations Modification. Nodes Addition, Deletion, Modification. Users Management and Access Provision. All integrations with other components in ecosystem.
Git/GitLab	L2	Process Stop, Start, Restart. Server Disk Cleanup Operation. Server CPU and Memory Management Operation. Certificates Renewal.	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Performance Tuning. Configurations Modification. Groups, Sub-Groups, and Projects Creation, Deletion, Modification, and Management. Users Management and Access Provision. All integrations with other components in ecosystem.
Nexus	L2	Process Stop, Start, Restart. Server Disk Cleanup Operation. Server CPU and Memory Management Operation. Certificates Renewal.	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Performance Tuning. Configurations Modification. Repositories, and Projects Creation, Deletion, Modification. All Integrations with Other Components in Ecosystem.
Maven	L2	Server Disk Cleanup Operation. Server CPU and Memory Management Operation.	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Performance Tuning. Configurations Modification. All Integrations with Other Components in Ecosystem.
Jenkins	L2	Process Stop, Start, Restart. Server Disk Cleanup Operation. Server CPU and Memory Management Operation. Certificates Renewal.	DevOps CoE ITS-IS-COE-DEVOPS@emailph4.aventis.com SH-WW-INX-EAI	Performance Tuning. Configurations Modification. Projects, and Jobs Addition, Deletion, Modification. Software, and Plugins Installation, Uninstallation, Upgrade All Integrations with Other Components in Ecosystem.

6. SPECIFIC OPERATING INSTRUCTIONS

6.1. Scheduling management

Renew Certificates during KT

6.2. Work instruction on incidents

Instruction in Elasticsearch doc : IS_1637682:

Main activity is :

Check :

- Cluster Free Space
- Pipeline Activity
- Logstash Logs

Unlock indices

6.3. Initialization

Request Acces on administrative group to allow monitor the full service.

End of the document.