

# B3Africa Webinar 4

## The BIBBOX

April 27<sup>th</sup>, 1:00 PM - 2:30 PM CEST



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# Overview

## TOPIC 2:

### Apps in the BIBBOX

- Installation of Apps
- How is the structure in the BIBBOX
- What happens in the background



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# Installation of Apps


- BIBBOX App Store (eB3Kit)
  - App Groups
    - Biobank Applications
    - Bioinformatics Applications
    - Helper Applications
    - Admin Dashboard
  - Apps are tagged
  - Apps are versioned
  - Documentation on Read the Docs<sup>1)</sup>
- Live Demonstration





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<sup>1)</sup> <https://goo.gl/uBYQkm>

# Store

 **BIBBOX Demo**

WelcomeApplicationsStoreActivities

Search...

Tags

☐ Admin

☐ Administration

☐ Authentication

☐ Backup

☐ Bioinformatics

☐ Blog

☐ CMS

☐ Data Analysis

☐ Data Acquisition

☐ Data Collection

☐ Data Integration

☐ Data Management

☐ Data Warehouse

☐ Database

☐ Digital Pathology

☐ Document Management

☐ E-mail Server


☐ Epidemiological Studies


☐ Experiment Management System


☐ Files


☐ Framework


**Biobank Applications**


  
BIKA.biobank  
Biobank Information Management System (BIMS)


  
Open Specimen  
Sample Management


  
Molgenis  
EXCEL in the Web


  
Phenotips  
Phenotyp Editor for the HPO ontology


  
Jupyter Notebook  
Interactive data science and scientific computing


  
Open Data Kit (ODK)  
Mobile data collection solution

  
Onyx  
Interviews and Data Collection (OBiBa)


  
OPAL  
Data warehouse (OBiBa)


  
Mica  
Portal for epidemiological studies (OBiBa)


  
Agate  
Authentication server (OBiBa)

  
Omero  
Digital microscopy & pathology tool

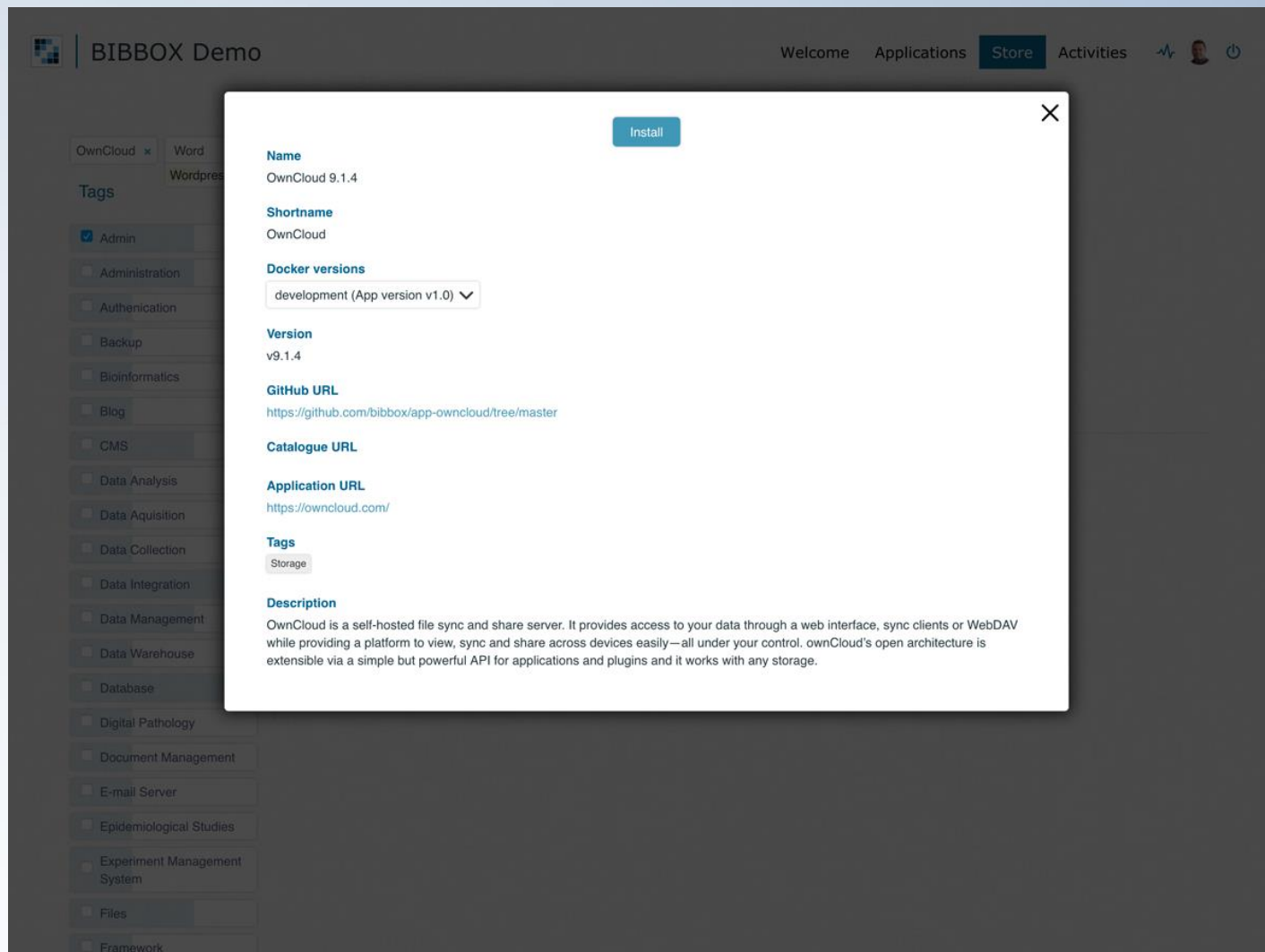
**Bioinformatics Applications**

  
Phenotips  
Genotyping Tool

  
STATegraEMS  
Experiment Management

  
RedCap  
Survey Management System

# App information and Version



The screenshot displays the BIBBOX Demo web interface. A modal window is open, showing details for the OwnCloud application. The modal includes a close button (X) in the top right corner and an 'Install' button in the top left corner. The information provided in the modal is as follows:


- Name:** OwnCloud 9.1.4
- Shortname:** OwnCloud
- Docker versions:** development (App version v1.0) (dropdown menu)
- Version:** v9.1.4
- GitHub URL:** <https://github.com/bibbox/app-owncloud/tree/master>
- Catalogue URL:**
- Application URL:** <https://owncloud.com/>
- Tags:** Storage
- Description:** OwnCloud is a self-hosted file sync and share server. It provides access to your data through a web interface, sync clients or WebDAV while providing a platform to view, sync and share across devices easily—all under your control. ownCloud's open architecture is extensible via a simple but powerful API for applications and plugins and it works with any storage.



The background interface shows a sidebar with various application categories like OwnCloud, Word, and Wordpress, and a main content area with a list of tags including Admin, Administration, Authentication, Backup, Bioinformatics, Blog, CMS, Data Analysis, Data Acquisition, Data Collection, Data Integration, Data Management, Data Warehouse, Database, Digital Pathology, Document Management, E-mail Server, Epidemiological Studies, Experiment Management System, Files, and Framework.



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# Installation Parameters

 BIBBOX Demo

WelcomeApplicationsStoreActivities

OwnCloud 9.1.4

Please fill out the form to install the application

Application ID

owncloud-storage

Subdomain of your application URL. **The application ID can not be changed after the installation.**


Application Name

OwnCloud Storage



Full name of your application, can be changed later on.

Cancel

Install

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Research Infrastructure

# Applications

The screenshot displays the BIBBOX Demo web interface. At the top left is the BIBBOX logo and the text "BIBBOX Demo". On the top right, there is a navigation bar with links: "Welcome", "Applications" (highlighted in blue), "Store", "Activities", a user profile icon, and a power icon. Below the navigation bar is a search bar labeled "Search...". The main content area features three application tiles. The first tile is for "LimeSurvey", showing a login form with fields for "User: admin" and "Password: admin". The second tile is for "OwnCloud", also showing a login form with "User: admin" and "Password: admin". The third tile is for "OwnCloud Storage", which is currently inactive. Each tile has a bottom bar with icons for settings, list view, help, and power. A "Logs" button is visible below the OwnCloud Storage tile. At the bottom of the interface, there is a footer with the copyright notice "© BIBBOX 2017", links for "Contact", "Partners", and "Imprint", and logos for B3 Africa and BBMRI-ERIC.

BIBBOX Demo

Welcome Applications Store Activities

Search...

**LimeSurvey**  
LimeSurvey

Login  
User: admin  
Password: admin

**OwnCloud**  
OwnCloud

Login  
User: admin  
Password: admin

**OwnCloud Storage**  
OwnCloud Storage

Logs

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# Activities and Log View




**BIBBOX Demo**



**OwnCloud Storage**  
OwnCloud Storage



Dashboard



**owncloud-storage-owncloud**  
\$ docker logs owncloud-storage-owncloud --tail 200  
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 172.18.0.7. Set the 'ServerName' directive globally to suppress this message  
[Thu Mar 16 14:07:15.523904 2017] [mpm\_prefork:notice] [pid 1] AH00163: Apache/2.4.10 (Debian) PHP/5.6.30 configured -- resuming normal operations  
[Thu Mar 16 14:07:15.524148 2017] [core:notice] [pid 1] AH00094: Command line: 'apache2 -D FOREGROUND'



**owncloud-storage-owncloud-db**  
\$ docker logs owncloud-storage-owncloud-db --tail 200  
2017-03-16T14:07:21.803971Z 0 [Note] InnoDB: Buffer pool(s) load completed at 170316 14:07:21  
2017-03-16T14:07:21.881435Z 1 [Note] Found data dictionary with version 1  
2017-03-16T14:07:21.887784Z 0 [Note] Found ca.pem, server-cert.pem and server-key.pem in data directory. Trying to enable SSL support using them.  
2017-03-16T14:07:21.888187Z 0 [Warning] CA certificate ca.pem is self signed.  
2017-03-16T14:07:21.892167Z 0 [Note] Server hostname (bind-address): '::'; port: 3306  
2017-03-16T14:07:21.892271Z 0 [Note] IPv6 is available.  
2017-03-16T14:07:21.892323Z 0 [Note] - '::' resolves to '::;  
2017-03-16T14:07:21.892434Z 0 [Note] Server socket created on IP: '::'.  
2017-03-16T14:07:21.927136Z 0 [Warning] 'user' entry 'mysql.sys@localhost' ignored in --skip-name-resolve mode.  
2017-03-16T14:07:21.929525Z 0 [Warning] 'user' entry 'root@localhost' ignored in --skip-name-resolve mode.  
2017-03-16T14:07:21.929787Z 0 [Warning] 'db' entry 'sys mysql.sys@localhost' ignored in --skip-name-resolve mode.  
2017-03-16T14:07:21.929874Z 0 [Warning] 'proxies\_priv' entry '@ root@localhost' ignored in --skip-name-resolve mode.  
2017-03-16T14:07:21.939756Z 0 [Warning] 'tables\_priv' entry 'sys\_config mysql.sys@localhost' ignored in --skip-name-resolve mode.  
2017-03-16T14:07:22.003067Z 0 [Note] mysqld: ready for connections.  
Version: '8.0.0-dmr' socket: '/var/run/mysqld/mysqld.sock' port: 3306 MySQL Community Server (GPL)  
Initializing database  
Database initialized  
Initializing certificates  
Certificates initialized  
MySQL init process in progress...  
  
MySQL init process done. Ready for start up.



Welcome Applications Store Activities   



  Installing app-owncloud as OwnCloud Stora  
started: 03.16.17 15:06:54 finished: 03.16.17 15:07:04



  Switch maintenance mode owncloud  
started: 03.16.17 12:12:21 finished: 03.16.17 12:12:21



  Switch maintenance mode owncloud  
started: 03.16.17 12:12:20 finished: 03.16.17 12:12:20



  Switch maintenance mode owncloud  
started: 03.16.17 12:12:19 finished: 03.16.17 12:12:19



  Switch maintenance mode owncloud  
started: 03.16.17 12:12:18 finished: 03.16.17 12:12:18

  Switch maintenance mode owncloud  
started: 03.16.17 12:12:17 finished: 03.16.17 12:12:17

  Switch maintenance mode owncloud  
started: 03.16.17 12:12:16 finished: 03.16.17 12:12:16

  Switch maintenance mode owncloud  
started: 03.16.17 12:12:14 finished: 03.16.17 12:12:15


  Switch maintenance mode owncloud  
started: 03.16.17 12:12:14 finished: 03.16.17 12:12:14



  Switch maintenance mode owncloud  
started: 03.16.17 12:12:12 finished: 03.16.17 12:12:13


Show history







# Dashboard

 BIBBOX Demo

Welcome Applications Store Activities  

 **OwnCloud Storage**  
Online Storage solution

Dashboard Logs

- [Install instructions](#)
- [Application Logs](#)

Short name







OwnCloud Storage

Long name

Online Storage solution

Maintenance description







File Edit Insert View Format Tools

  **B** *I*    

This application is currently under maintenance. Please check back later!

Short description

File Edit Insert View Format Tools

  **B** *I*    

**Login**  
User: admin  
Password: admin

Long description



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# Structure of the BIBBOX

## /etc/apache2

**sites-available** – available proxy files  
**sites-enabled** – enabled proxy files

## /opt/liferay

**portal-ext.properties** – config file  
**portal-setup-wizard.properties** – setup config  
**tomcat-8.0.32/logs/catalina.out** – liferay log file

## /var/www/bibbox-datastore

**bibbox** – In /opt/bibbox/application-store/  
**js** – the JavaScript frontend

## /etc/bibbox

**bibbox.cfg** – basic bibbox configs  
**conf.d** – additional config folder (applock.cfg)

## /opt/bibbox/

**application-store** – a copy of all git repositories for the kit and the applications with all versions  
**application-instance** – the folders for all installed applications  
**application-import-export** - folder structure for import and export  
**sys-activities** - base BIBBOX service  
**sys-idmapping** - base BIBBOX service  
**sys-bibbox-vmscripts** - all additional BIBBOX scripts



# What happens in the background

## App Structure on Github

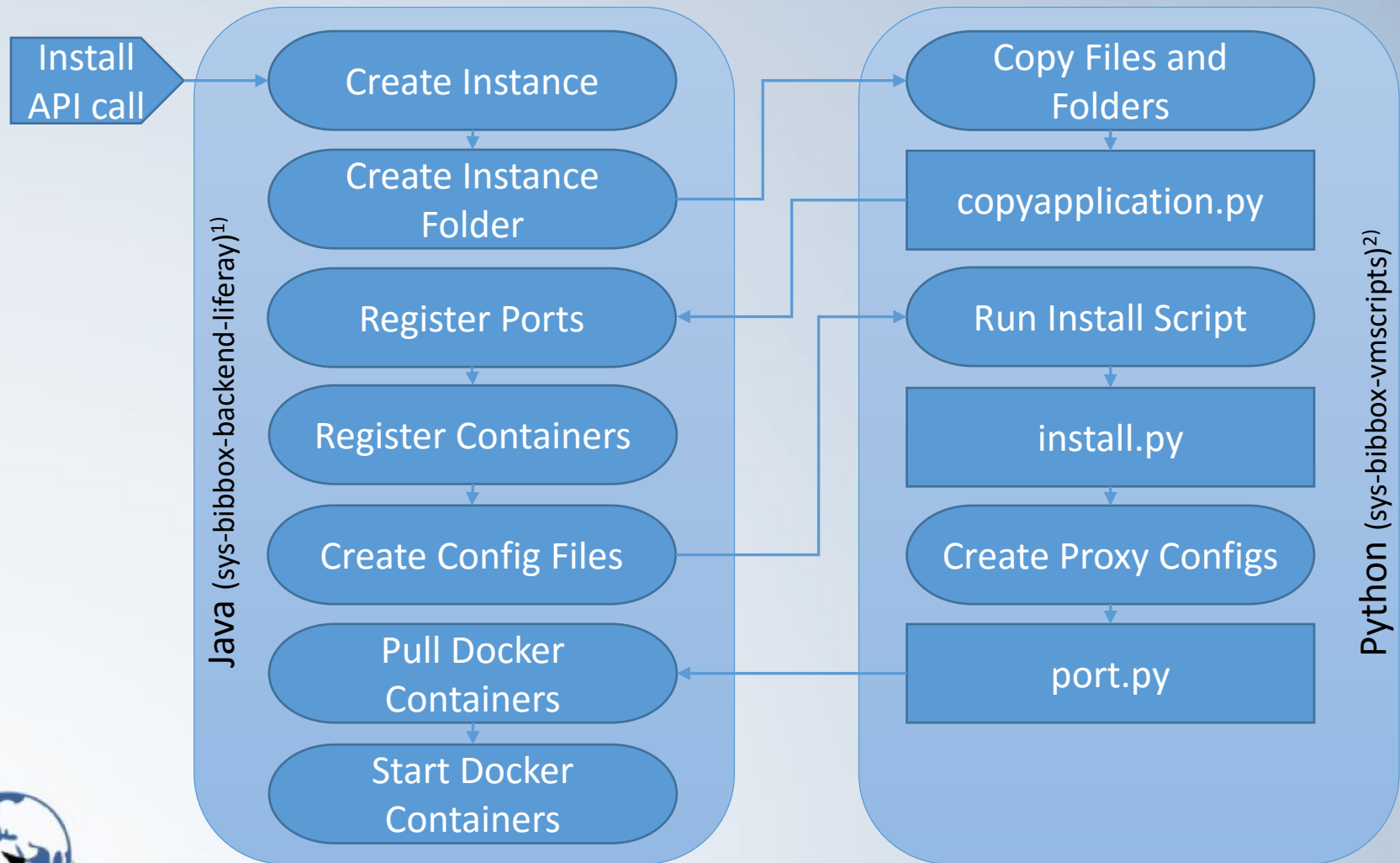
- application-store <sup>1)</sup>
  - **eB3Kit.json** – Creating the group structure, tags and available version for the kit
  - **applications.json** – Linking App names with github repositories
- app-phenotips <sup>2)</sup>
  - **appinfo.json** – Information about the app
  - **environment-parameters.json** – Parameters for the setup of the application
  - **config-parameters.json** - Parameters for setup of the app than can be changed during runtime (not used yet)
  - **file\_structure.json** – Config file to create the folder and file structure for installing the app
  - **portinfo.json** – Config file for creating the port mapping and proxy mapping for the app
  - **sys-info.json** – information file for docker-containers used by the app and what containers need to run



<sup>1)</sup> <https://goo.gl/tYT9dA>

<sup>2)</sup> <https://goo.gl/V1g9fd>

# Installation Process



# Folder structure store and instance

```
[reihsr@demo-new:/opt/bibbox/application-store/app-phenotips/blob/development$ ls]
addproxy.sh          id-mapping-info.json  install.sh
appinfo.json         images                logo.png
config-parameters.json  INSTALL-APP.md       logo.svg
cutandpaste.sh       install-screen-01.png portinfo.json
docker-compose-template.yml  install-screen-02.png  README.md
environment-parameters.json  install-screen-03.png  sys-info.json
file_structure.json    install-screen-04.png
icon.png              install-screen-final.jpg
```



Installation

```
[reihsr@demo-new:/opt/bibbox/application-instance/pt13rc1-app-phenotips$ ls]
appinfo.json          environment-parameters.json  portinfo.json
config-parameters.json  environment-parameters-settings.json  portmap.json
config-parameters-settings.json  file_structure.json         sys-info.json
docker-compose-template.yml  id-mapping-info.json       var
docker-compose.yml         phenotips
```



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# docker-compose.yml

```
[reihsr@demo-new:/opt/bibbox/application-store/app-phenotips/blob/developments$ docker ps | grep pt13rc1
42fc5289e551      bibbox/phenotips      "/opt/bibbox-scrip..."   5 weeks ago       Up 5 weeks         0.0.0.0:9053->8080/tcp      pt13rc1-phenotips
99d7d0abdeb9      4ca95ca6339c          "docker-entrypoint..."   5 weeks ago       Up 5 weeks         3306/tcp                    pt13rc1-phenotips-db
```

version: '2'

networks:

bibbox-default-network:  
external: true

services:

pt13rc1-phenotips:

image: bibbox/phenotips  
container\_name: pt13rc1-phenotips  
restart: unless-stopped  
networks:

- bibbox-default-network

links:

- pt13rc1-phenotips-db:phenotips-db

ports:

- "9053:8080"

depends\_on:

- pt13rc1-phenotips-db
- pt13rc1-phenotips-data

volumes\_from:

- pt13rc1-phenotips-data

pt13rc1-phenotips-db:

image: mysql:8

container\_name: pt13rc1-phenotips-db

restart: unless-stopped

networks:

- bibbox-default-network

user: root

environment:

- MYSQL\_ROOT\_PASSWORD=thispassword
- MYSQL\_DATABASE=phenotips
- MYSQL\_USER=phenotips
- MYSQL\_PASSWORD=phenotips4bibbox

volumes\_from:

- pt13rc1-phenotips-data

depends\_on:

- pt13rc1-phenotips-data

pt13rc1-phenotips-data:

image: busybox

container\_name: pt13rc1-phenotips-data

volumes:

- ./var/lib/mysql:/var/lib/mysql
- ./phenotips/extapi:/project/src



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