

B3Africa Webinar 4

The BIBBOX

April 27th, 1:00 PM - 2:30 PM CEST



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Topic 1: BIBBOX Installation

Installation types

Proxy Mapping

Environment

Requirements

Setup

Installation

Access



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Installation types

There are two different types of BIBBOX installation.

Detailed documentation: <http://bit.ly/2pkkGqL>

Importing a virtual machine image

- Simpler integration in existing VM management
- Makes sense when there is limited access
- Images can be downloaded from <http://downloads.bibbox.org>

Building BIBBOX with Vagrant and Puppet

- Simpler virtual machine configuration
- Easier for updating the system
- More control over the configuration



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Proxy Mapping

Apps are accessible by subdomains

- e.g. “os.bibbox.local” for Open Specimen with ID “os”
- Each app has an unique ID

Subdomains do not work with IP:Port addresses!

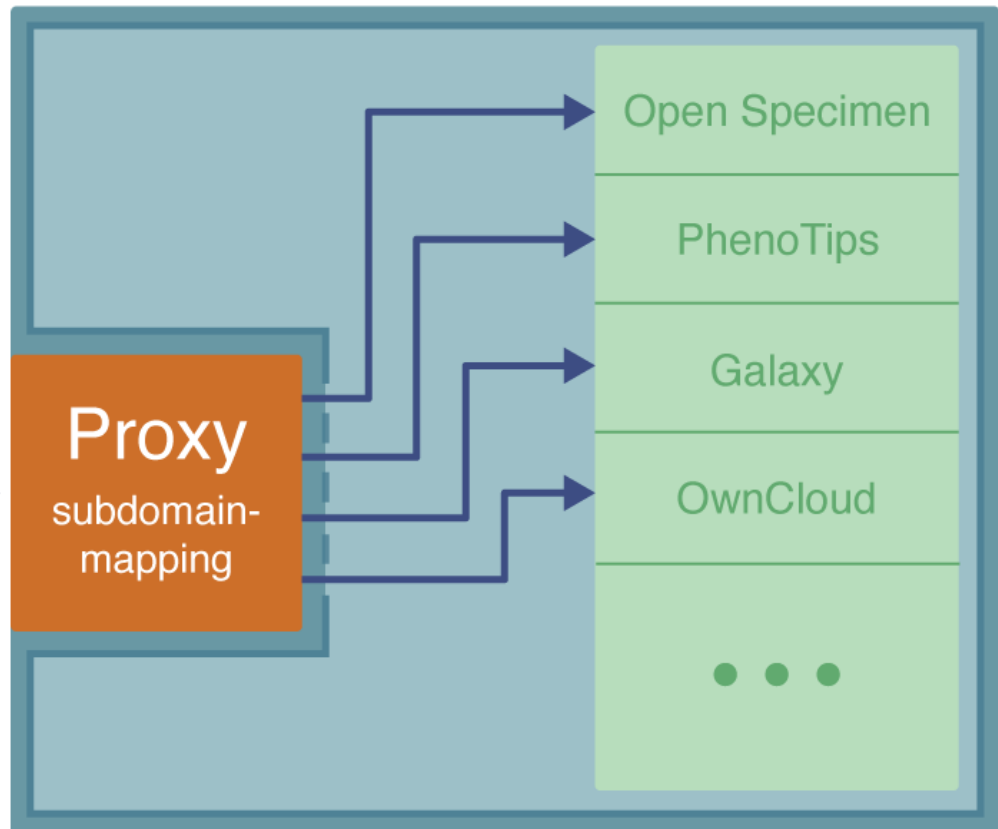
- This does not work: “os.127.0.0.1:80”
- You need a domain or “Fake DNS”



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BIBBOX VM

HTTP Request
app-id.domain
os.bibbox.local

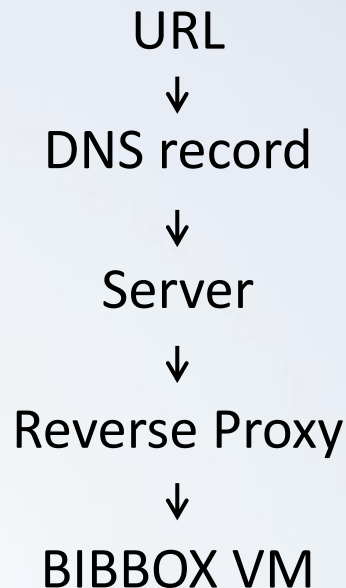


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Environment

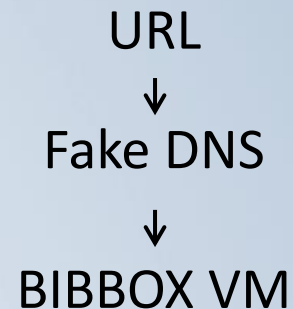
Production

- e.g. “demo.bibbox.org”
- Requires a domain
- Publicly accessible



Local Test

- e.g. “bibbox.localhost”
- Requires “Fake DNS”
- Locally accessible



Requirements

Git - <https://git-scm.com/>

- Version control system
- Used for accessing the BIBBOX source files from GitHub

Vagrant - <https://www.vagrantup.com/downloads.html>

- Virtual machine building software
- Used for the creation and basic configuration of the VM

VirtualBox - <https://www.virtualbox.org/wiki/Downloads>

- Virtual machine player and management tool
- Used for running and configuring the virtual machine

DNSChef (optional) - <http://thesprawl.org/projects/>

- DNS proxy (aka. “Fake DNS”)
- Useful tool for local testing without a domain



Setup

1. Clone installer repository

“git clone <https://github.com/bibbox/kit-eb3kit.git> your-bibbox-name”

2. Virtual machine configuration

- Edit “[Vagrantfile](#)”
- Required
 - bibboxbaseurl: The URL you will access the BIBBOX from
 - ip: The static IP of your BIBBOX within your network
 - http_port: The port your BIBBOX should be accessible at
 - ssh_vagrant_port: SSH port internally used by Vagrant
 - ssh_port: SSH port you want to access the BIBBOX at



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Setup

3. BIBBOX configuration

- Edit “[environments/production/manifests/config.pp](#)”
- Required:
 - bibboxbaseurl: Same URL as in “Vagrantfile”
 - serveradmin: E-Mail address of your server admin

4. Start installation

- Run “[vagrant up](#)”
- Do something else during setup ;)



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Installation

Vagrant

1. Ubuntu 14.04-64 download
2. Network configuration
3. CPU, RAM, Storage configuration
4. Shell Provisioning
 1. Enable Bash
 2. Mount disk
 3. Configure log rotation
 4. Copy Puppet manifests
 5. Download Liferay
 6. Install Puppet modules
 7. Install Python and inotify-tools
5. Set Puppet environment and path
6. Configure caching



Installation

Puppet



1. Rewrite hosts file
2. Set up groups and users
3. Install and configure Apache
4. Install Oracle Java
5. Install PostgreSQL and setup database
6. Set up Liferay
7. Deploy theme and portlets
8. Clone system repositories
9. Set up GUI and micro services (id-mapping, activities)
10. Write BIBBOX configuration files
11. Boot up Liferay and Apache
12. Run Docker services
13. Configure vHosts and URL mapping



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Access

By domain

- Create a reverse proxy configuration for Apache
 - Typically at /etc/apache2/sites-enabled
- Reload Apache
- Enter bibboxbaseurl in Browser

Locally

- Install and configure DNSChef
 - See instructions: <http://bit.ly/2pooQOv>
- Enter bibboxbaseurl in Browser

By SSH

- Run “vagrant ssh” from install directory
- Access by “ssh vmadmin@host_ip -p ssh_port”



Thank you

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