ShoreView Administration Guide

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1. Purpose

This document outlines deployment details and administration functions specific to the JCU installation of Shoreview.

Throughout this document you will see reference to Benthobox. Benthobox is the underlying software for which the ShoreView site has been built on. Shoreview is the branding of the site for use by Mangrove Watch.

2. Installation

The installation process uses Fabric and Cuisine, it would be wise to understand how they operate before proceeding with an install.

"Fabric is a Python (2.5-2.7) library and command-line tool for streamlining the use of SSH for application deployment or systems administration tasks.
It provides a basic suite of operations for executing local or remote shell commands (normally or via sudo) and uploading/downloading files, as well as auxiliary functionality such as prompting the running user for input, or aborting execution." - http://www.fabfile.org/

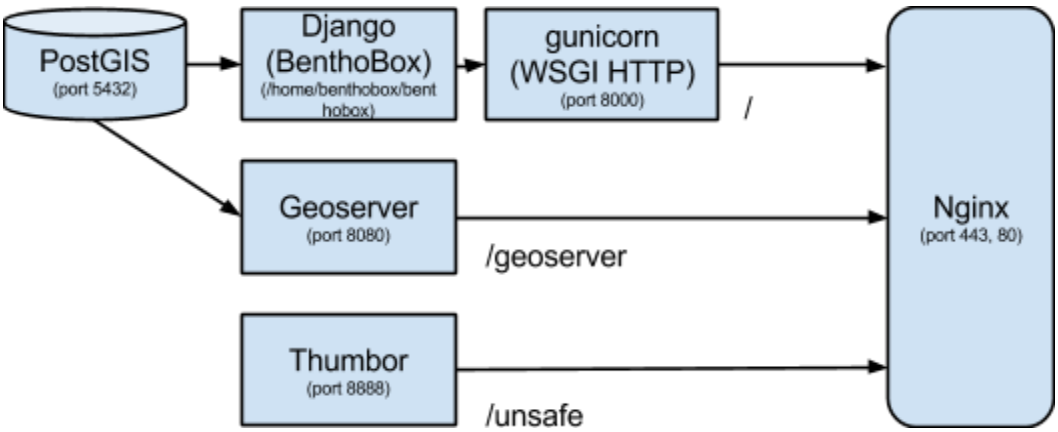
"Chef-like functionality for Fabric. Cuisine is a small set of functions that sit on top of Fabric, to abstract common administration operations such as file/dir operations, user/group creation, package install/upgrade, making it easier to write portable administration and deployment scripts." - https://github.com/sebastien/cuisine

2.1 Prerequisites

- Centos/REHEL 6.6
- CA Certificates on target host have been generated for SSL/HTTPS

2.2 What services will be installed

- The installation process will deploy the Benthobox application to /home/benthobox/benthobox.
- Nginx will be installed and configured with HTTPS, and reverse proxy to all services
- Thumbor will be installed for the thumbnailing service
- Gunicorn will be installed for serving the Benthobox application over WSGI
- Geoserver will be installed to handle web mapping services
- Postgres with PostGIS extensions will be installed as the database service



2.3 Log file locations

- Benthobox: /home/benthobox/log/benthobox.log
- Postgres: /var/lib/pgsql/9.3/data/pg_log/
- Nginx: /var/log/nginx/
- Geoserver: /home/benthobox/geoserver-2.7.0/logs/
- Thumbor: /home/benthobox/log/thumbor.log

2.4 Install how to

1) Get the code
2) Install pip requirements
3) Deploy app to target server

```
git clone {Benthobox Git Repo}
cd benthobox
pip install -r requirements.txt
cd install
fab -H {host}:{port} -u {username} -p {password}
deploy:{benthobox_username},{benthobox_password},{hostname},{git_re
po},{ca_cert_location_on_server},{ca_key_location_on_server}
```

Once the deployment process has completed you can start the services:

```
fab -H {host}:{port} -u {username} -p {password} start_gunicorn
fab -H {host}:{port} -u {username} -p {password} start_geoserver
fab -H {host}:{port} -u {username} -p {password} start_thumbor
fab -H {host}:{port} -u {username} -p {password} start_nginx
```

Once you have started all of the services, test the site by opening the target hostname in your browser.

2.5 Other Fabric Commands Available

```
# wipe installation from the server
clean

# see which services are running on the server
status

# stop gunicorn
stop_gunicorn

# stop geoserver
stop_geoserver

# stop thumbor
stop_thumbor

# stop nginx
stop_nginx

# checkout out latest source and reconfigure
```

```
configure_benthobox:{benthobox_username},{benthobox_password},{git_
repo}

# configure database and postgres installation
configure_postgres:{benthobox_username},{benthobox_password}

# download and link geoserver to backend database
configure_geoserver:{benthobox_username},{benthobox_password}

# configure nginx reverse proxy configuration
configure_nginx:{benthobox_username},{benthobox_password}

# set thumbor config
configure_thumbor
```

3. Envirocoms integration

3.1 Importing data from envirocoms

Importing data can be done by opening your browser and navigating to http://hostname/ecoms_sync/

NOTE: You must be logged in as the admin user to sync with envirocoms. The ecoms_sync function is not verbose on the client with logging information. If an error occurs during the sync process, see the logs.

When syncing has completed, navigate to http://hostname/data/campaigns/ to see the updated data.

3.2 Envirocoms seetings in ShoreView

Settings for the application can be found in /home/benthobox/benthobox/benthobox/settings.py

If you are not familiar with django settings files, refer to the django documentation https://docs.djangoproject.com/en/1.8/topics/settings/

When changing locations of backend services like envirocoms, details can be configured with the following settings fields:

```
ENVIRONCOMS_URL="http://{host}/ecoms/api/user_v1"
ENVIRONCOMS_IMAGE_DOWNLOAD_PREFIX='http://{host}/ecoms/api/user_v1/
data/download'
ENVIRONCOMS_UNAME='{uname}'
ENVIRONCOMS_PWD='{pwd}'
ENVIROCOMS_ORG_ID={id}
ENVIROCOMS_COLLECTION_ID={id}
```

4. User management

During the deploy (fabric task) process an **administrator** user will be created with the username and password provided. This is the super admin across all services installed, including the postgres database and geoserver. It is recommended these details remain with the system administrator, and not users of the system.

4.1 Creating users

It is recommended that users are **not** created via the django administration interface, and rather users self register to the system via https://rdsi-mangrove.hpc.jcu.edu.au/accounts/signup/. The reason for this is that profile information is created for the users during the registration process, that does not occur via the admin interface.

4.2 Assigning admin rights

Once users are registered in the system we can give them administration rights (*see 4.1 Creating users*). Administration rights will only be for the ShoreView (Benthobox) system, and will not propagate to other services like postgres and geoserver. Administration rights will allow these users to access the admin site, which will give them access to all data in the system and allow them to potentially delete important information. For this reason administrator privileges should only be assigned to responsible parties.

To assign admin rights:

1. Make sure the user has registered https://rdsi-mangrove.hpc.jcu.edu.au/accounts/signup/

2. As the admin super user, sign in to the admin site http://rdsi-mangrove.hpc.jcu.edu.au/admin/

3. Click on the ‘Users’ link, or go to https://rdsi-mangrove.hpc.jcu.edu.au/admin/auth/user/

4. Click on the ‘Username’ you wish to make an admin

5. Check the boxes ‘Staff status’ and ‘Superuser status’, and click the ‘Save’ button