info@boxupp.com

Boxupp's User Manual

An Interface Simplifying Creation Of Virtual Machines and Linux Containers Using Powerful Tools viz. Vagrant, Puppet and Docker.

Prepared By: Team Boxupp

info@boxupp.com

Disclaimer

This document is solely authored by *Team Boxupp / Paxcel Labs.* Any unauthorized access viz.copying content, or usage for a purpose other than for which it is intended for, is prohibited.

All trademarks that appear in the document have been used for identification purposes only and belong to the respective companies.

info@boxupp.com

Table of Contents

Prepared By: Team Boxupp

info@boxupp.com

Getting Started

1.1 Pre- requisites to Install Boxupp

1. Oracle Virtualbox - a powerful x86 and AMD64/Intel64 virtualization product which is freely available as Open Source Software under the terms of the GNU General Public License (GPL) version 2.0 . Learn More

1. Vagrant - a free and open-source software for creating and configuring virtual and repeatable development environments. Learn More

2. Java Development Kit (JDK)- a development environment for writing Java applications. Learn More

Note: On execution of Boxupp's installation file all the above pre -requisites will be automatically installed on your machine as part of the installation process. Moreover if you have any or all of the above already installed on your machine the installation intelligent robot will detect them and jump to the next thing to be installed.

info@boxupp.com

Downloading and Configuring Boxupp

2.1 Process of Downloading and Installing Boxupp

1. Download Boxupp by logging onto: http://www.boxupp.com/ and clicking on download button. It will ask you to submit your email address.
2. Go to your default download folder and extract the content of downloaded .zip in any directory
3. Windows user have to run ***.bat*** file and MacOsx and Linux users have to run the ***.sh*** file to install boxupp.

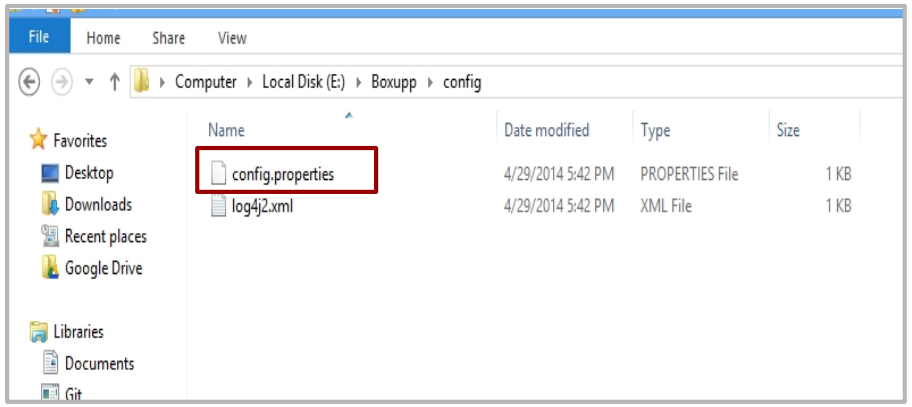
Configuring Boxupp

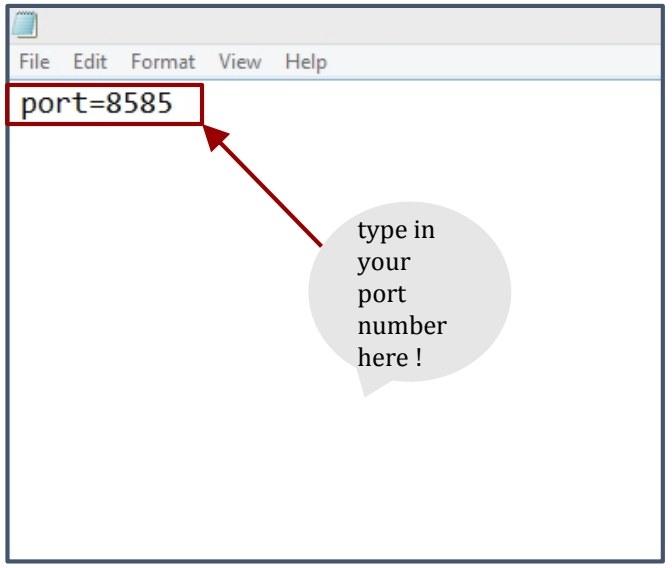
By default Boxupp runs on port number: *8585* but we can customize it to run on any of the available ports just browse to the directory location where you have extracted Boxupp.

Move into the **config folder** and look for the file ***config.properties*** open the file with any of the available text editors and define your port number in front of port parameter as shown in the screenshot shown in the next slide. Restart the BoxUpp server if already running for the changes to take effect.

info@boxupp.com

Locate config.properties and open it in a text editor





Change the port number in the text editor and click save for the settings to take effect.

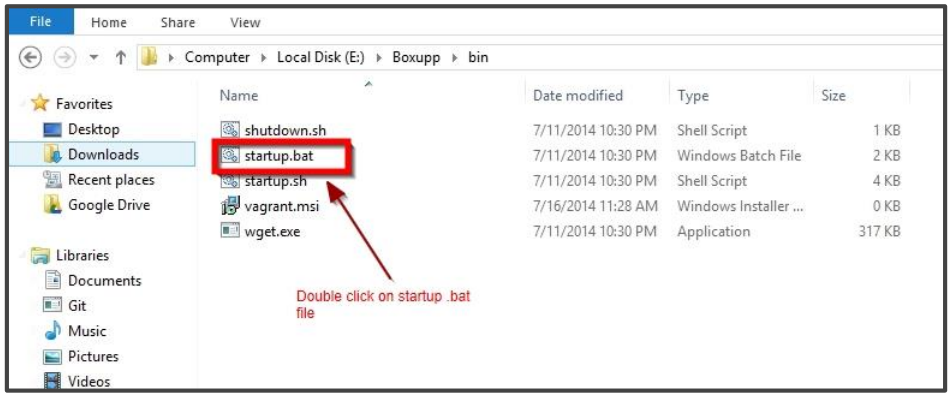
info@boxupp.com

Up and Running With Boxupp – Windows, Linux and Mac OSX

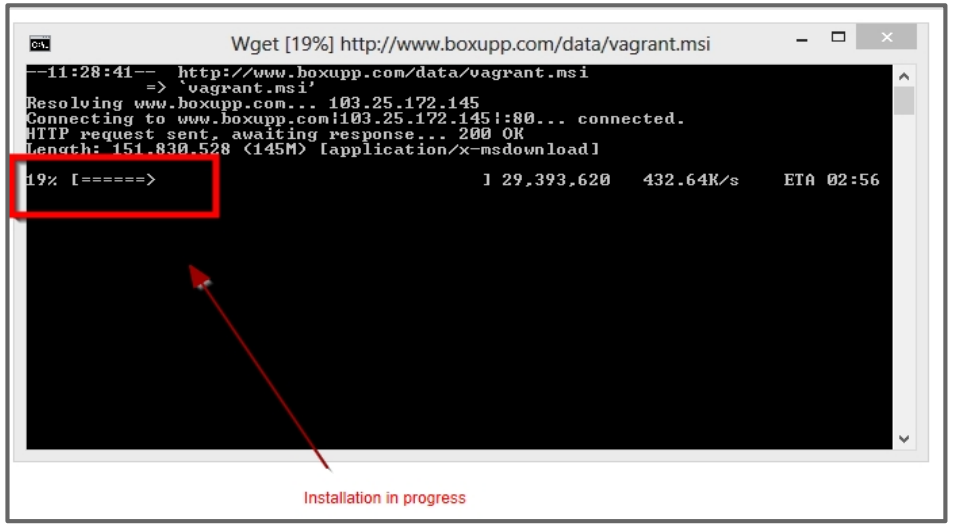
2.2 Up and Running With Boxupp

To run Boxupp on windows environment browse to the folder where you have extracted Boxupp and then move to the bin folder and run startup.bat file. It will commence with the installation. Pictorial view depicted below:

Go to bin folder double click on startup.bat (Windows)

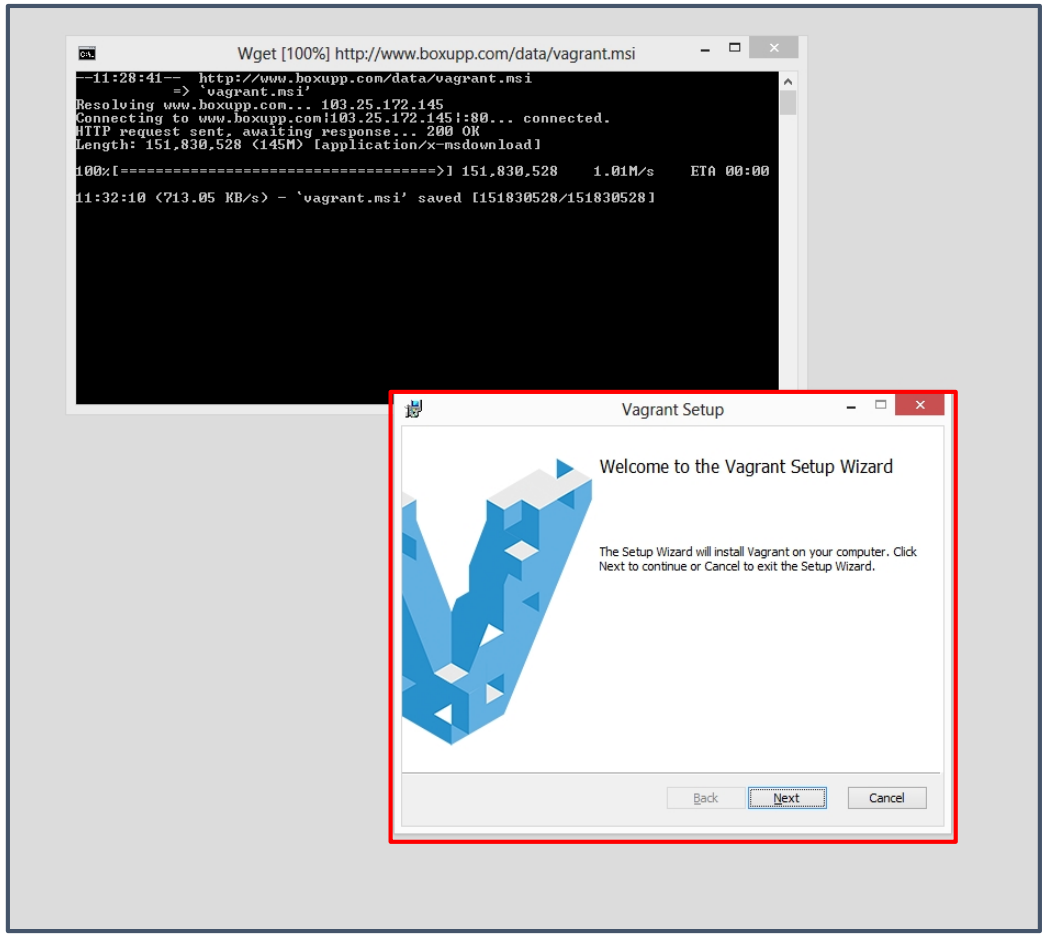


Installation will be shown in a command prompt window



Checkout some more screenshots on the next pages.

info@boxupp.com



Vagrant installation wizard will appear as a part of the boxupp's installation process. The installation intelligence will check whether vagrant is already installed on your machine, if it is then it will skip it.

Checkout some more screenshots on the next pages.

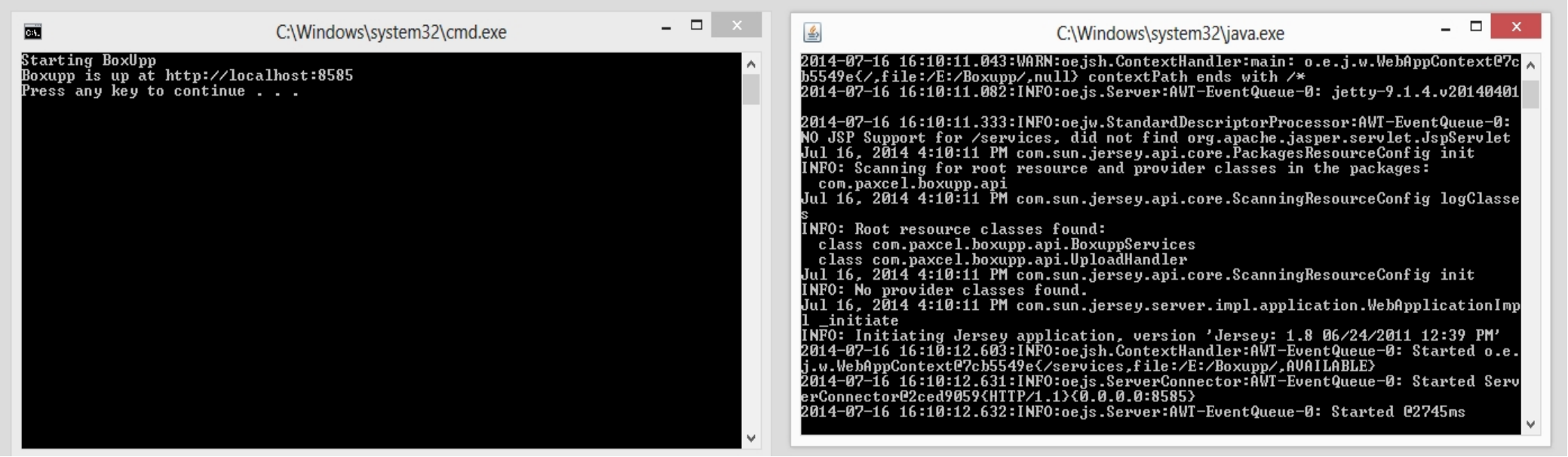
After the installation of Vagrant another software package which will be installed is
Oracle VM Virtualbox. The pictorial view of the same is shown on this slide .

Similar to the vagrant installation, the installation robots will check whether Oracle VM Virtual Box is already installed on your machine, if it is then it will skip it.

Checkout some more screenshots on the next pages.

After the installation of **Vagrant** and **Oracle VM Virtualbox** there will be a prompt to restart your machine.Restart it and then go to bin folder and run ***startup.bat.***

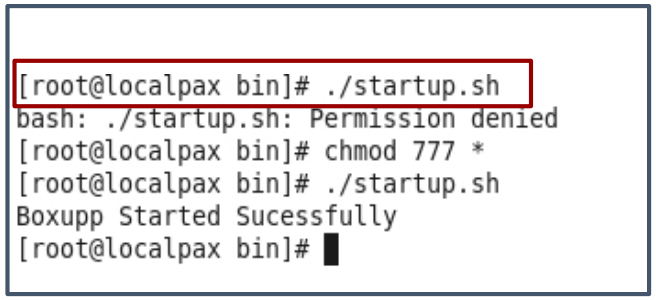
It will show you the following 2 screen and **Boxupp** is all set to run on your local host at : http://localhost:8585/ . Port number may vary if you have changed it



Up and Running With Boxupp – Windows, Linux and Mac OSX

(Mac- OS X)

After you have unzipped the package please execute the file "*startup.sh*" You might get a permission denied error, to resolve this error execute a command "*chmod 777 **"* and then again run *"startup.sh"* . This time Boxupp will be successfully installed on your linux or mac machine and you will be able to run that in the browser at : http://localhost:8585/



Now since we have successfully installed the Boxupp environment on all the platforms viz. Windows, Linux, Mac OS X. In our next sections we will take a plunge into the interactive and intuitive UI offered by the same.

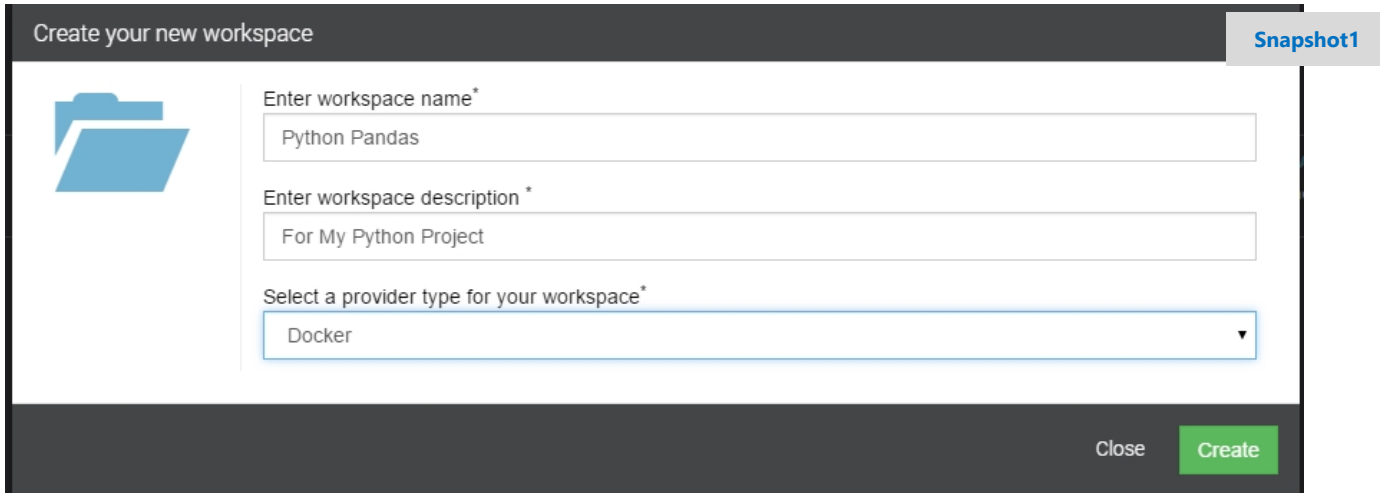
We will also create virtualized development environment without writing a single line of code. *So Lets Get Started>*

info@boxupp.com

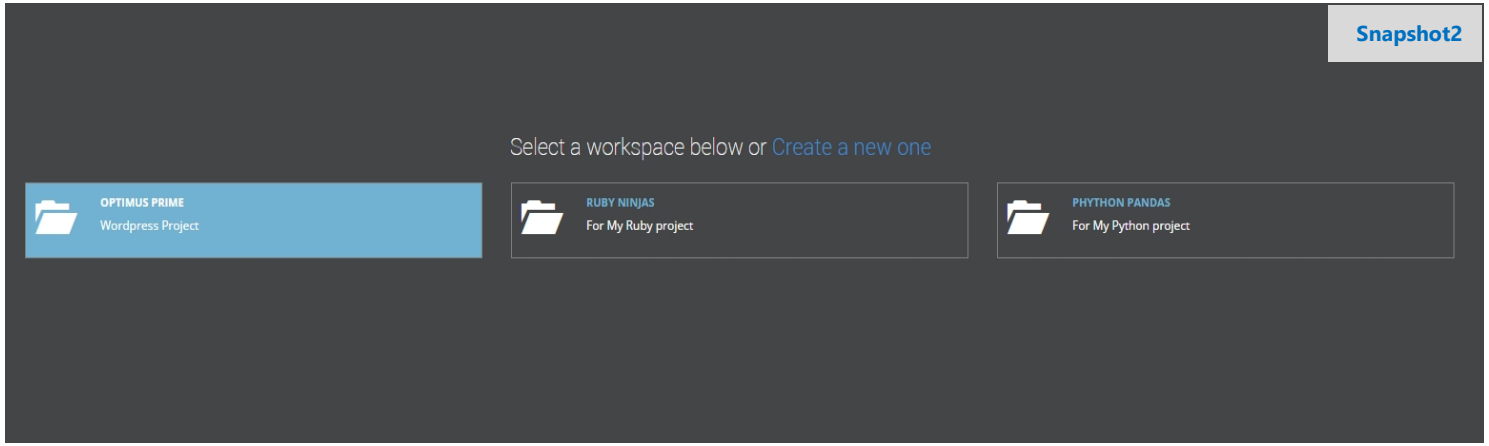
3.1 Workspaces – First Step of The Boxupp Journey

Users will be able to create multiple workspaces according to their requirements using prominent prviders viz-

1. **Docker**
2. **Virtual Box**



All the workspaces created will be listed as shown in **Snapshot2.**
Clicking on any of the workspaces will redirect you to the dashboard for that workspace.



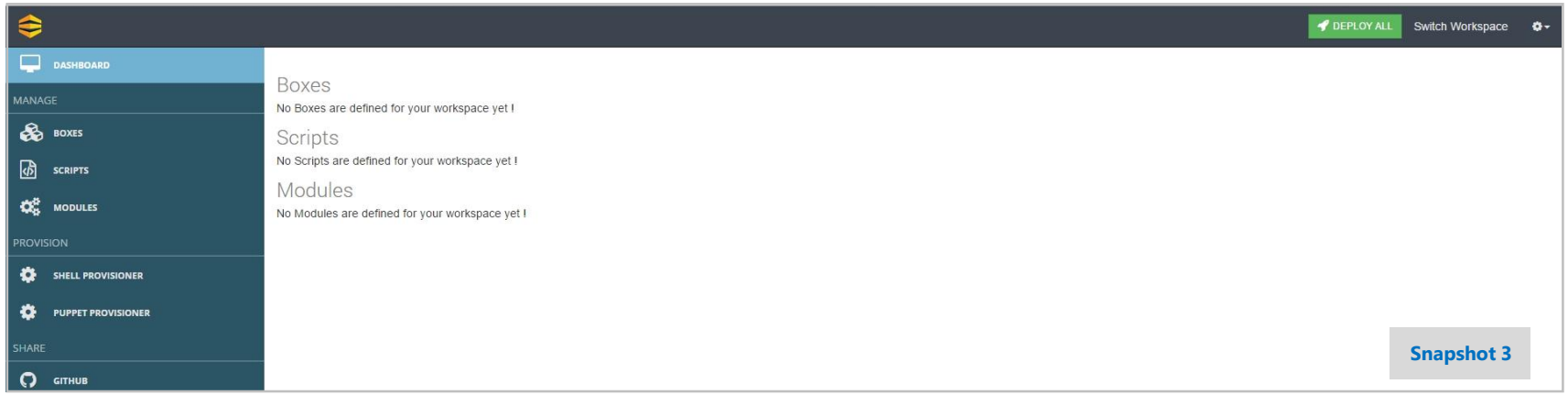
info@boxupp.com

4.1 Lets Walkthrough Dashboard

As the users will be landing onto the dashboards of specific workspaces they will see a screen something similar to shown in **(Snapshot 3)**

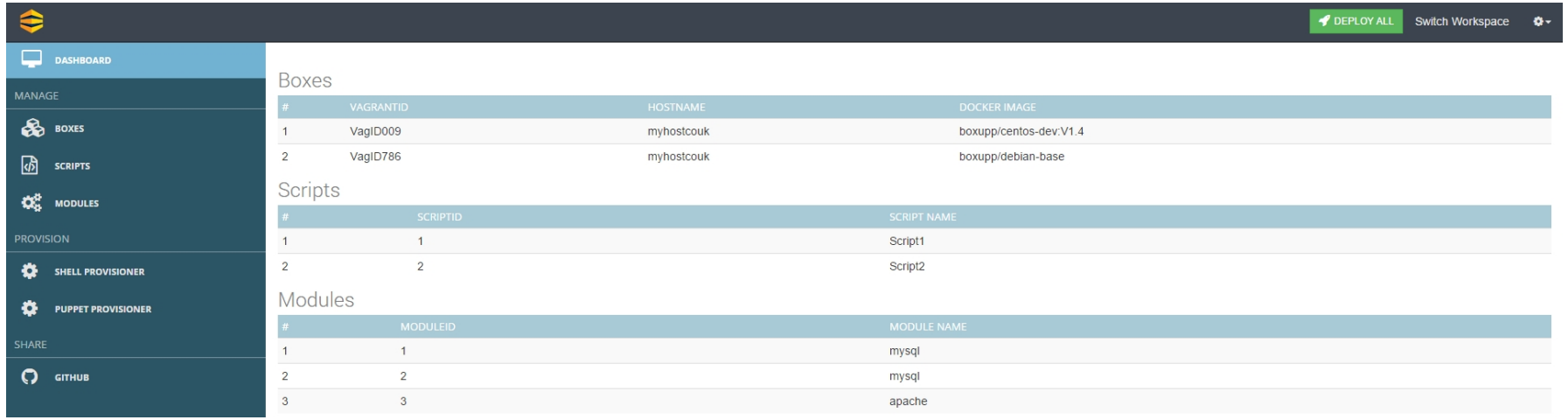
Left Panel Comprises of Various Main Navigation Elements Viz –

- **Boxes**
- **Scripts**
- **Modules**
- **Shell Provisioner**
- **Puppet Provisioner**
- **Github**



The top Right corner shows call to actions such as **Deploy All, Switch Workspace and Sign out .** We will discuss about all these sections individually an in detail in the upcoming screens of this presentation . Hence the dashbaord will primarily provide you with a hawk eye of various activities perfomed by the user within a workspace.

This is how the dashboard will look like once you have created some boxes, modules and scripts....



5.1 Creation of Boxes/ Provider Chosen-Docker

Scenario 1– You chose **Docker** as the provider while creation of workspaces.

The tool provides users with 3 super easy methods to **Create Boxes.**

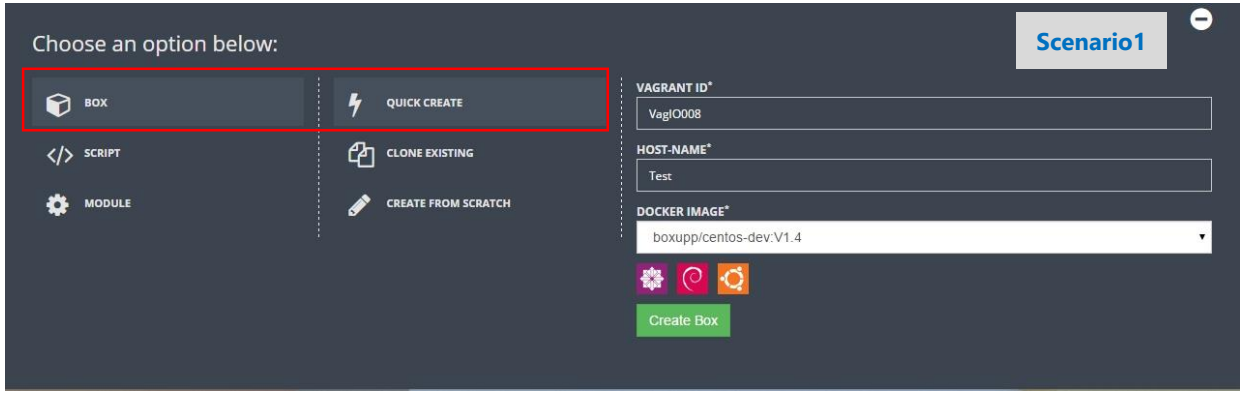
Lets go through each one of those. The first one on the list is

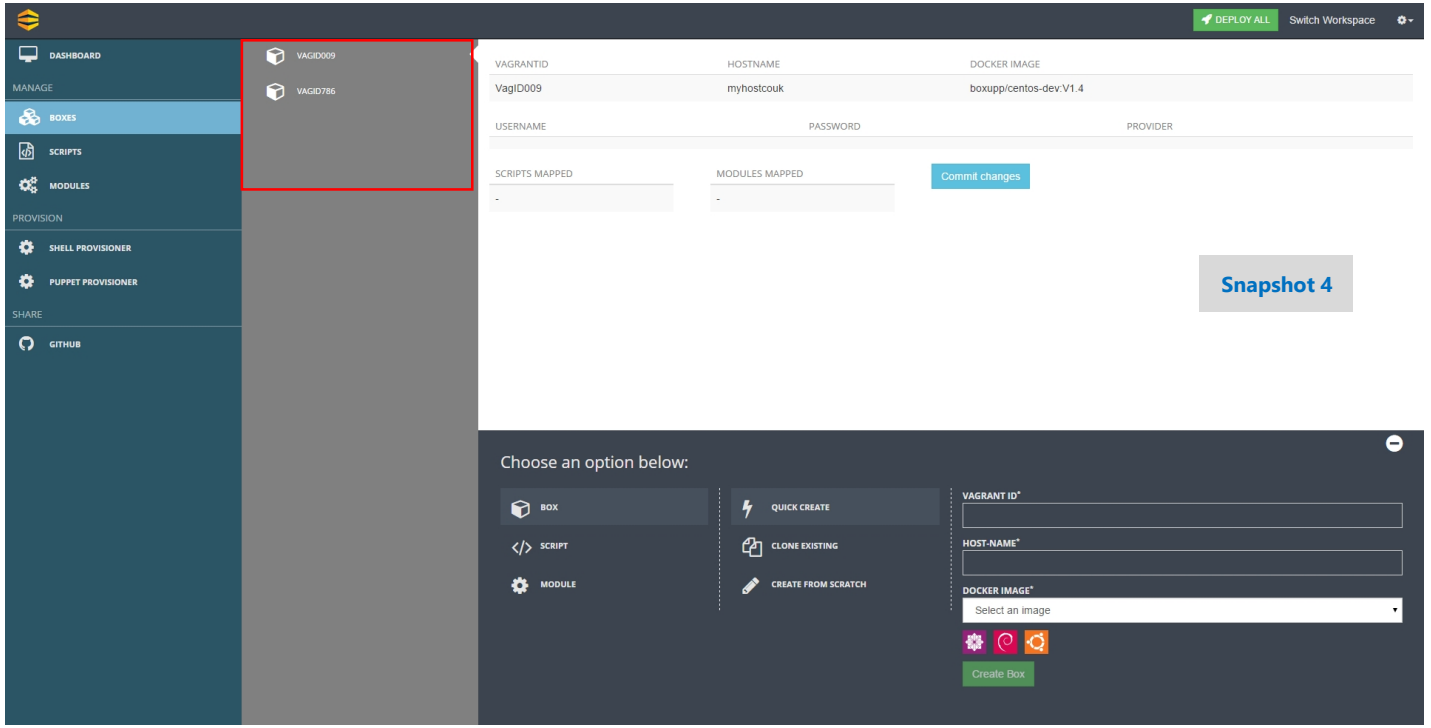
- **QUICK CREATE –**

In this method you just need to specify the following attributes –

a. Vagrant ID
b. Hostname
c. Choose from one of the Docker Images provided in the drop down menu, the selection could also be made by clicking on the thumbnail logos as well.
d. Hit Create

The boxes created will be visible as shown in **(Snapshot 4)**





Scenario 1– *Continued….*

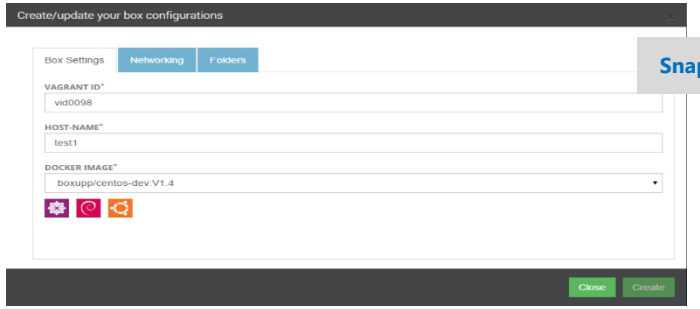
Next method on the list is- **Create from Scratch**

- **Create From Scratch-**

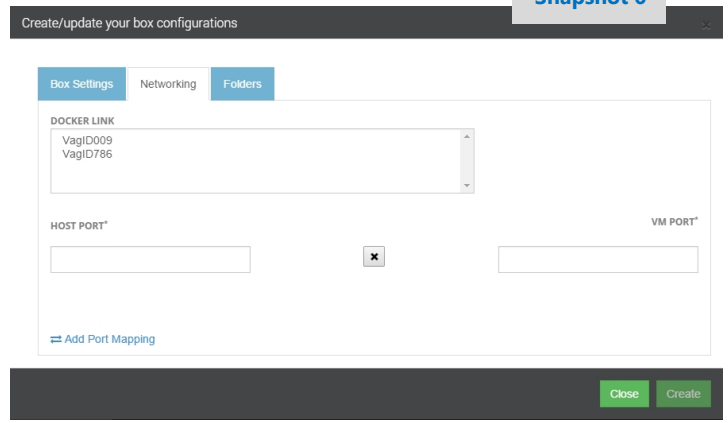
As you click on Create from Scratch a pop box will appear with 3 tabs –

a. Box Settings
b. Networking
c. Folders

We will explore more on each of these tabs one at a time:



Snapshot 5

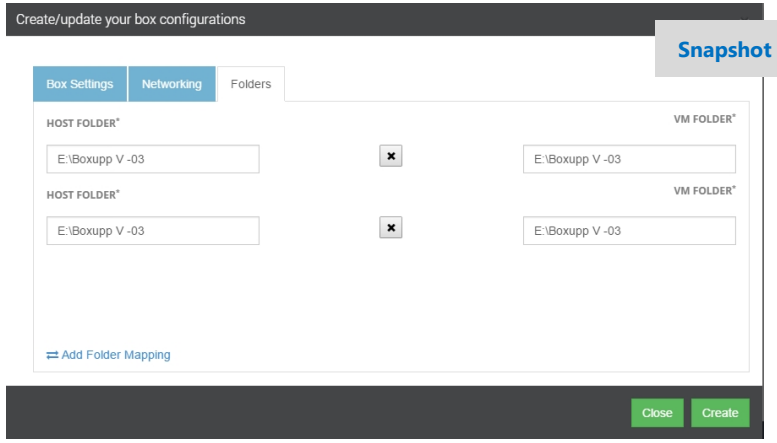


Snapshot 6

- **Box Settings –** This screen is very similar to the one we have already stumbled across during the discussion of **Quick Create** method So if you need a quick revision on what to do on this screen just jump back to the previous slide. (**Ref- Snapshot 5)**

- **Networking –** On this tab you can select from the existent machines with which you want to setup a network and also map the **Host** and the **VM** ports (**Ref- Snapshot 6)**

- **Folders-** On this tab you can specify the paths of the folders which you need to bring in sync for Host and VM machines. (**Ref- Snapshot 7)**



Snapshot 7

After specifying all the mandatory details hit **Create** and the box will be created and ready to be used.

5.2 Creation of Boxes/ Provider Chosen- Virtual Box

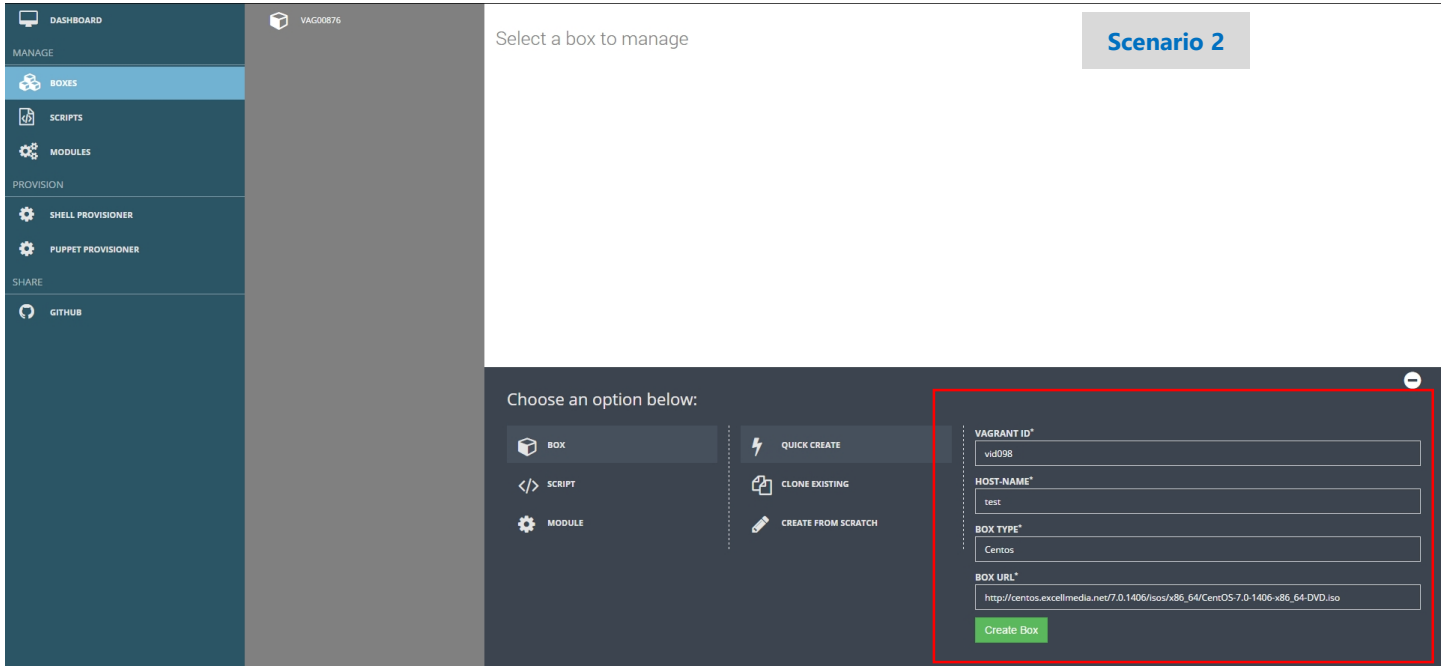
Scenario 2– You chose **Virtual Box** as the provider while creation of workspaces.

When virtual box is chosen aa the provider the screen for the **Quick Create** section looks slightly different

In this method you just need to specify the following attributes –

a. Vagrant ID
b. Hostname
c. Box Type
d. Box URL

and then click **Create**



Scenario 2– *Continued….*

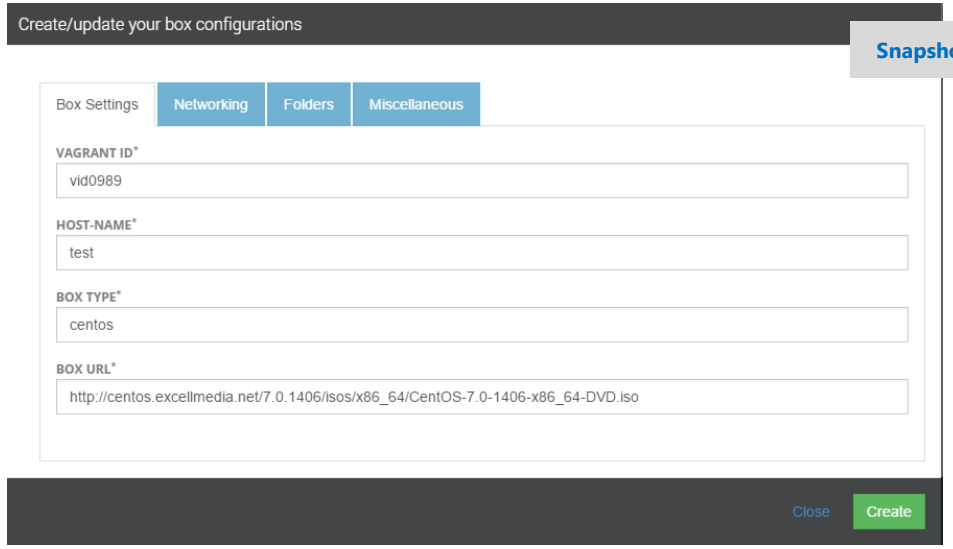
Next method on the list is- **Create from Scratch**

- **Create From Scratch-**

As you click on Create from Scratch a pop box will appear with 4 tabs –

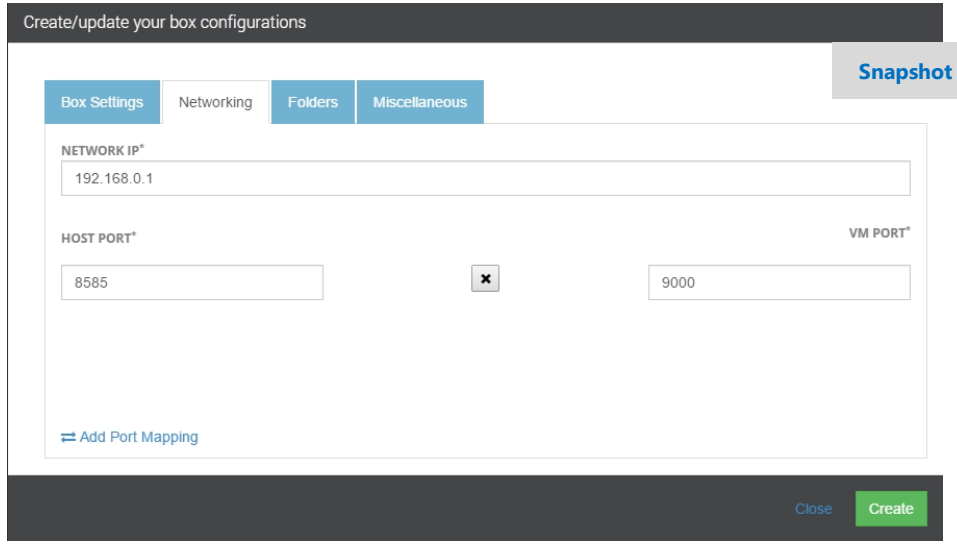
a. Box Settings
b. Networking
c. Folders
d. Miscellanous

We will explore more on each of these tabs one at a time:



Snapshot 5(a)

- **Box Settings –** This screen is very similar to the one we have already stumbled across during the discussion of **Quick Create** method So if you need a quick revision on what to do on this screen just jump back to the previous slide. (**Ref- Snapshot 5 (a))**

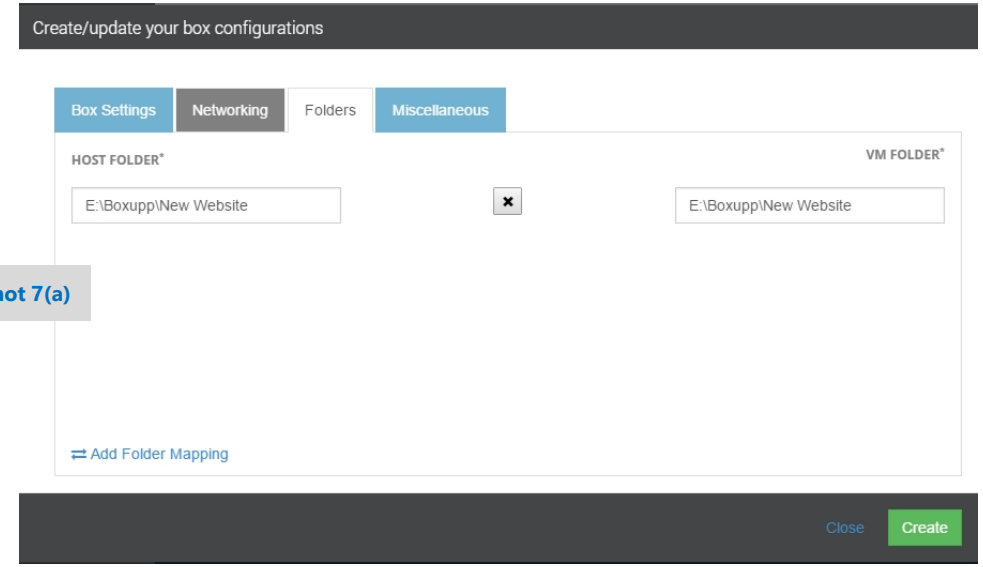


Snapshot 6(a)

- **Networking –** On this tab you can select from the existent machines with which you want to setup a network and also map the **Host** and the **VM** ports (**Ref- Snapshot 6(a))**

Scenario 2– *Continued….*

- **Folders-** On this tab you can specify the paths of the folders which you need to bring in sync for Host and VM machines. (**Ref- Snapshot 7(a)**)

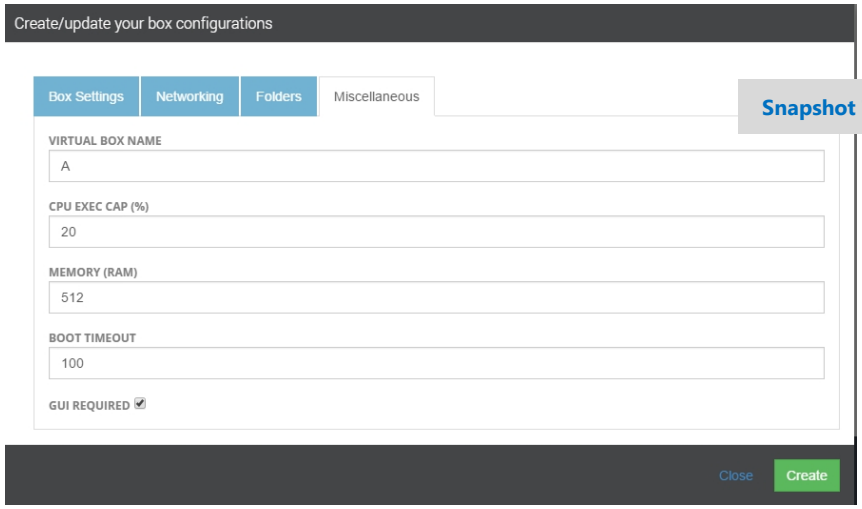


Snapshot 7(a)

- **Miscellaneous-** On this tab you can input the following values-

a. Virtual Box Name
b. CPU Exec Cap
c. Memory (RAM)
d. Boot Timeout
e. GUI Required

(**Ref- Snapshot 7(b)**)



Snapshot 7(b)

info@boxupp.com

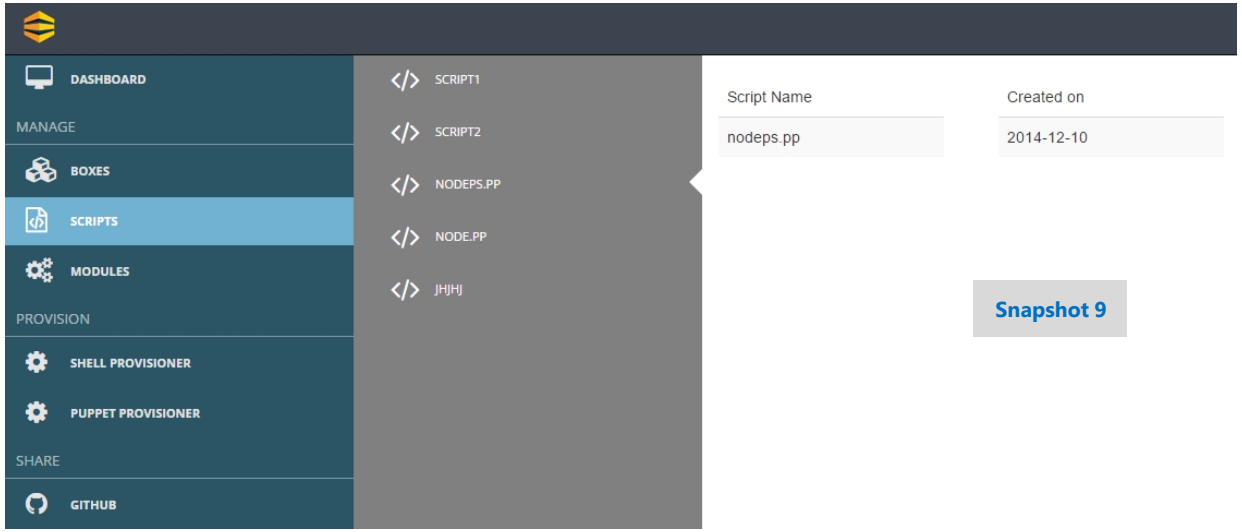
6.1 Introduction to Script Creation

After creation of boxes its time to write some Scripts

As the user chooses the **Script** tab and clicks on **Create From Scratch** a pop up menu as shown in **(Snapshot 8)** will appear.

Here you need to specify the **Script Name** and the **Code Snippet** for your script.

Once you have defined your script click **Create**. The scripts will be listed as shown in the **(Snapshot 9)**



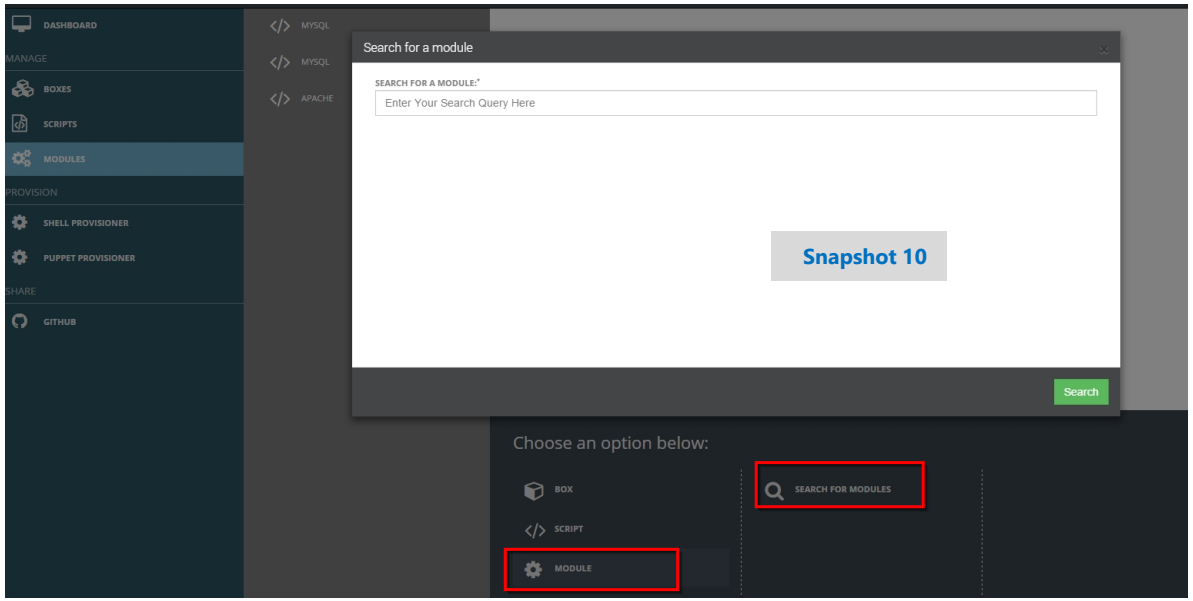
7.1 Introduction to Modules

After we are done creating boxes, writing scripts its time to search for some **Modules,** download them and deploy them on various **VMS or Containers** as per our requirements.

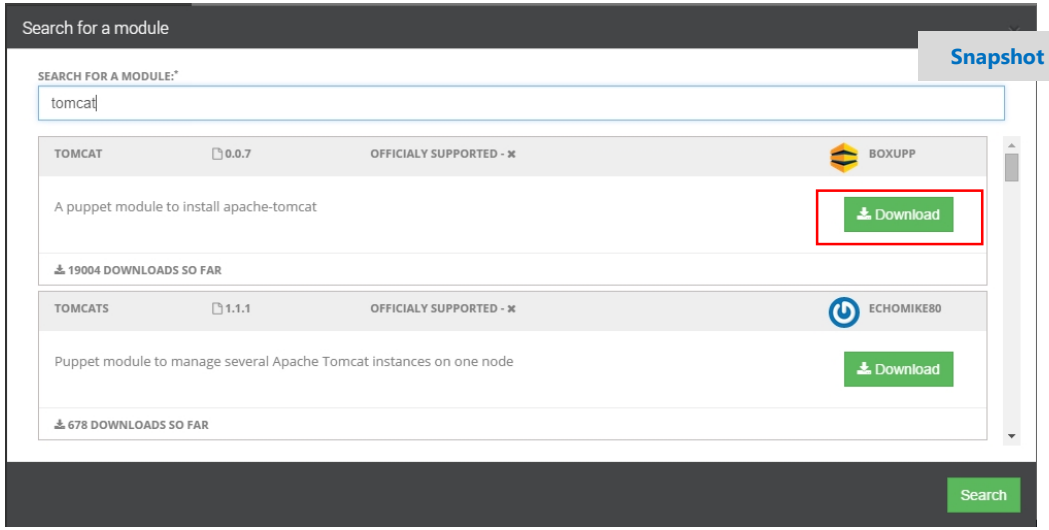
As you will click on the **Boxes** tab and then click on **Search for Modules** a pop box as shown in **(Snapshot 10)** will appear

Users will be able to search for modules they are looking for viz. tomcat , mysql etc. As the user enters their search query and hit Search our intelligent robots will plunge into the puppet forge database and retrieve back results which will be stacked in the order of maximum number of downloads **(Snapshot 11)**

A download button will appear for each of the listed results and clicking on download will download the module which can be deployed at any time.



Snapshot 10

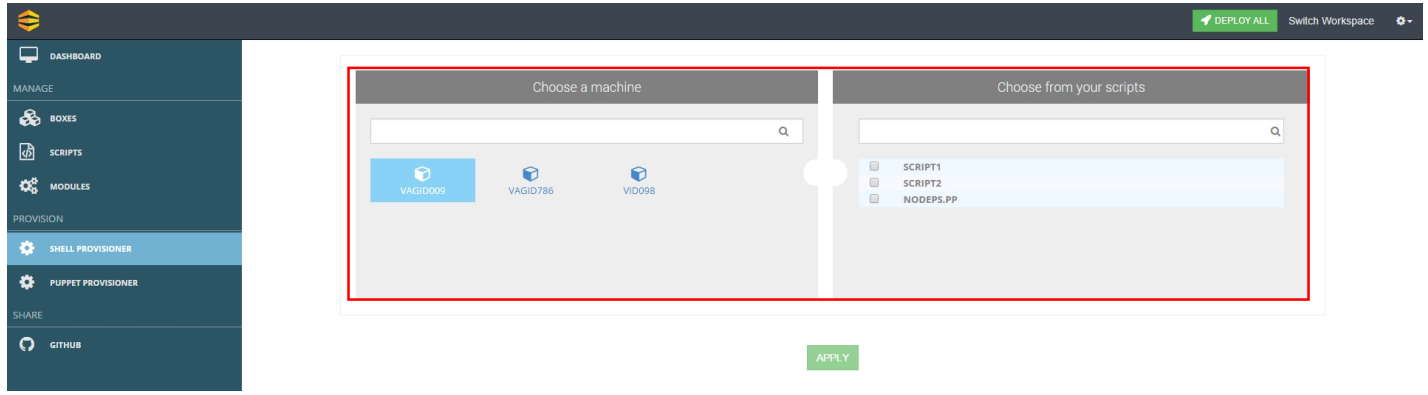


Snapshot 11

8.1 Lets Learn How to Provision and Deploy

Now we are all set to provision our first machines. Boxupp offers 2 provisioning processes -

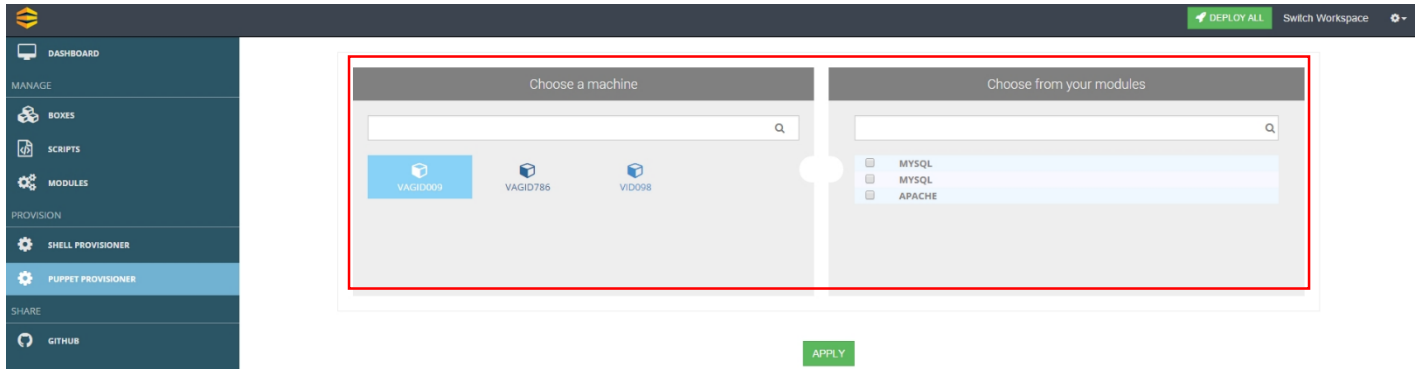
a. **Shell Provisioning –** This is primarily used to provision the scripts created by you . As you will land on to the **Shell Provisioner** tab you will see all your machines listed on the left column and all your scripts listed in the right column.



You will be able to select a machine from the left panel and one or multiple scripts from the right panel and then click on **Apply.** Clicking on apply will queue up the selected scripts and will be ready for deployment on the selected machine.

Both columns have the search attribute so that you can quickly jump onto the machine or script you are looking for.

b. **Puppet Provisioning –** This is primarily used to provision the modules downloaded by you. As you will land on to the **Puppet Provisioner** tab you will see all your machines listed on the left column and all your modules listed in the right column.



You will be able to select a machine from the left panel and one or multiple modules from the right panel and then click on **Apply.** Clicking on apply will queue up the selected modules and will be ready for deployment on the selected machine.

Clicking on **Deploy All** button located on the top right corner will start the deployment process for all the machines. In case you need to commit changes to a specific machines you need to navigate to that machine under Boxes.

9.1 Collaborate Using Github

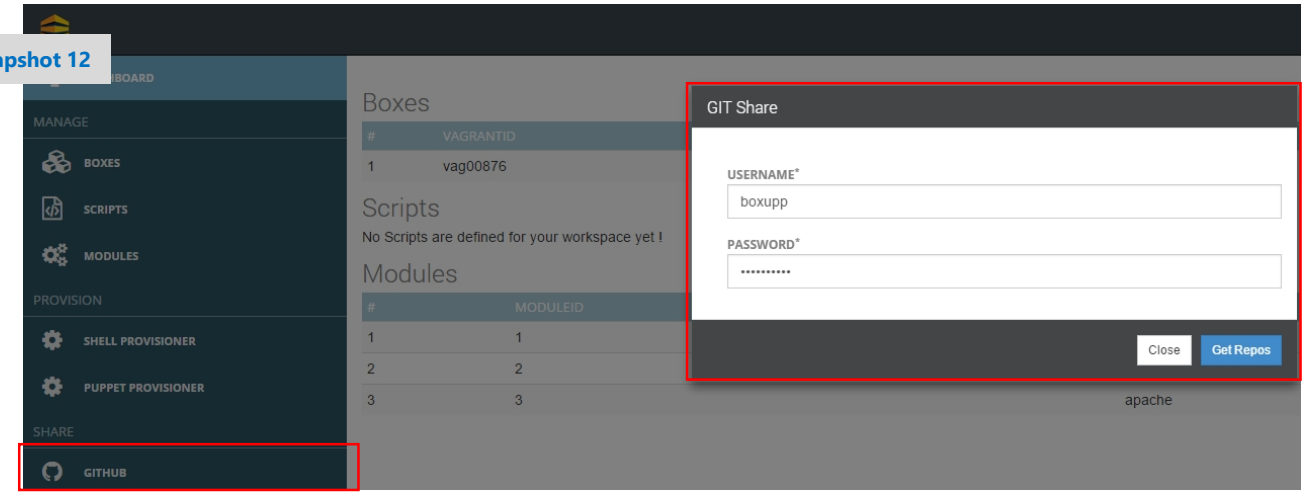
Once you are done with your deployments , you can share the infrastructure transformed into code among your team members as well peer group using the most widely used collaboration platform –**Github.**

As you will click on **Github** a pop up window as shown in **(Snapshot12)** will appear . You just need to input your **Git's Username and Password** and click **Get Repos** this will redirect you to a screen where all your repos and corresponding branches are listed in drop down menus.

Select the **Repo** as well as the **Branch** and click **Commit.** This will share all your deployments on the active workspace to the selected branch.

Behind the scenes it's the **Workspace Specific Vagrant File** which gets committed to the selected branch.

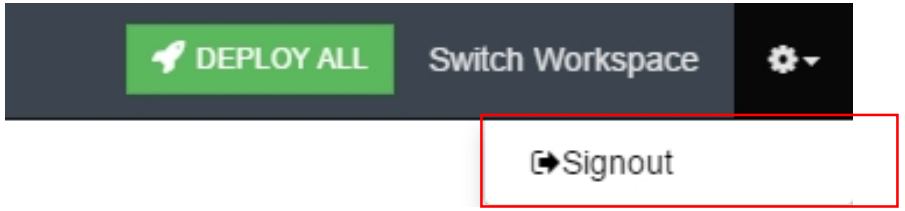
Snapshot 12



10.1 Switch Workspace and What's Nested Under the Gear Icon

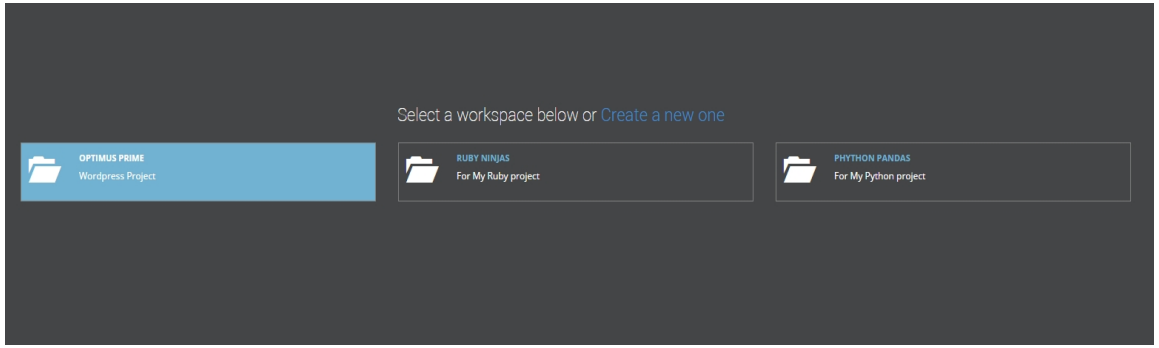
Switch Workspace-

Clicking on **Switch Workspace** call to action will redirect you to the **Workspace Listing** . Hence you can quickly jump from one workspace to another.



Gear Icon-

As you will click on the gear icon shown on the top right corner of your screen it will give you a link to **logout** from the Boxupp's portal.



Cheers !

Happy Browsing! On The Tool

We sincerely hope this user manual answers all your queries.

But In case your come across any issues or facing difficulties to understand the workflow .

Feel free to drop us an email at – support@boxupp.com

Our Client Services Team will revert back to you within 2 Business Days.

To stay informed about the latest updates/ new releases follow us on

https://www.facebook.com/Boxupp

https://www.linkedin.com/company/3768272

http://twitter.com/Boxupp