**Title: Setting Up Hydroshare Server**

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**OS: Ubuntu 16.10**

**Setup:**

To get started on being able to ping two different virtual machines with VirtualBox then go ahead and download the latest version from this url: <https://www.virtualbox.org/wiki/Downloads> . Make sure that everything has been downloaded correctly. For this tutorial, I will be using a Windows host machine with enough resources for two virtual machines. The first machine will be named master1 and the second will be master2. Each will have 10 GB in storage and 2 GB in RAM. Do the following:

* Go to settings->General->Advanced
  + And change the Shared Clipboard to: Bidirectional
  + And change Drag’n’Drop to: Bidirectional
* Go to settings->System
  + Uncheck the floppy and move it down below hard disk.
* Go to settings->System->Processor
  + Make sure that the Enable PAE/NX is unchecked.
* Go to settings->Storage
  + Click the cd under Controller: IDE, and on the far right click the other cd and pick your virtual optical disk drive. This is where you can add your OS image.
* Go to settings->Network
  + Go to Adapter 2, click the checkbox next “Enable Network Adapter”.
  + Next switch the Attached to from Not Attached to Host-Only Adapter.
  + Next, change the Promiscuous Mode under the Advanced settings to Allow VMs.
  + Then click the “ok” button at the bottom.

**Part 1:**

* Type: sudo apt-get update
* Type: sudo apt-get install apt-transport-https ca-certificates curl software-properties-common
* Type: curl -fsSL <https://download.docker.com/linux/ubuntu/gpg> | sudo apt-key add -
* Type: sudo apt-key fingerprint 0EBFCD88
  + This should return a key fingerprint back that is similar.
* Type: sudo add-apt-repository “deb [arch=amd64] <https://download.docker.com/linux/ubuntu> $(lsb\_release -cs) stable”
* Type: sudo apt-get update
* Type: sudo apt-get install docker-ce
* Type: apt-cache madison docker-ce
  + Should return something.
* Type: sudo docker run hello-world
  + Should execute and print out hello world.
* Type: cd ~
* Will have to get the package of the hydroshare repository try:
  + Type: git clone <https://www.github.com/hydroshare/hydroshare.git>
  + If that doesn’t work you will have to find another way to get the files.

* Type: cd hydroshare
* Type: sudo ./hsctl rebuild - -db
* Type: sudo ./hsctl start

**Part 2:**

* In a web browser type: localhost:8000
* This should bring up a hydroshare website that you can login with.
  + Username: admin
  + Password: default
  + Once logged in you can publish resources and create applications to host on your server.

**Overview:**

* At this point you should be able to connect to the web based application that is HydroShare. The next part is to create a client and try connecting to your server remotely. You will have to publish resources in order to pull from your client to tell if you’re able to connect. Make sure that your resource is public and shareable.

**URLs:**

* <https://github.com/hydroshare/hydroshare>
* <https://github.com/hydroshare/hydroshare/wiki/getting_started>
* <https://docs.docker.com/compose/install/#prerequisites>
* <https://docs.docker.com/engine/installation/linux/docker-ce/ubuntu/#install-using-the-repository>