Lab 4 - The DC/OS CLI

In this lab we will expose you to the command line interface that can be used to interact with the various APIs running in a DC/OS cluster. The CLI utility can be installed on any system you intend to use to administer the cluster, provided the system has a path across the network to your master node(s). For simplicity, we will use our bootstrap node to serve this purpose.

Lab Completion Time: 25 - 35 minutes.

Install the CLI on the Bootstrap Node¶

Step 1

SSH in to your bootstrap node with the **centos**/**me$o$ph3r3_** credentials:

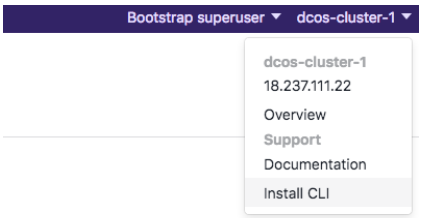
```
$ ssh centos@<bootstrap_node_public_IP>
```

Step 2

Open your web browser and navigate to the public IP of your master node. If asked to log in, use the username **bootstrapuser** with a password of **deleteme**.

Step 3

In the top right hand corner you should see the name of the cluster you logged in to. Click on the cluster name to expose a dropdown menu and then select the menu option labeled Install CLI.



(_images/install-cli.png)

Step 4

This will bring up the CLI installation screen with information on how to install the CLI on your local operating system. Since we will be installing the CLI on our bootstrap node, choose the tab for Linux to get the correct instructions.

(_images/linux-instructions.png)
Copy the instructions to your clipboard.

Step 5

Back in your SSH session, paste in the instructions from the previous step and press `<Enter>` on your keyboard. In a few seconds you will be prompted to log in to the cluster. Use the username of **bootstrapuser** and a password of **deleteme**. Upon logging in, you should see the output below:

```
Usage:
  dcos [command]

  Commands:
     auth
         Authenticate to DC/OS cluster
     cluster
         Manage your DC/OS clusters
     config
         Manage the DC/OS configuration file
     help
         Help about any command
     job
         Deploy and manage jobs in DC/OS
     marathon
         Deploy and manage applications to DC/OS
     node
         View DC/OS node information
     package
         Install and manage DC/OS software packages
     plugin
         Manage CLI plugins
     service
         Manage DC/OS services
     task
         Manage DC/OS tasks

  Options:
     --version
         Print version information
     -v, -vv
         Output verbosity (verbose or very verbose)
     -h, --help
         Show usage help

Use "dcos [command] --help" for more information about a command.
```

Step 6

Test your connection by running the following command:

```
$ dcos package list
There are currently no installed packages. Please use `dcos package install` to install
```

Note

If you see packages for MySQL or Wordpress listed go back and do steps 17-18 from Lab 3 (catalog-gui.html).

Install MySQL and Wordpress with the DC/OS CLI

Step 1

Next up we will install MySQL from the command line. Open up the `config.json` file you downloaded for MySQL in Lab 3 (catalog-gui.html) and copy the contents to your clipboard.

Step 2

On your bootstrap node, make a directory named `apps` in the **centos** user's home directory:

```
$ mkdir ~/apps
```

Step 3

Create a file named `mysql.json` in the `apps` directory, and paste in the contents from your MySQL `config.json` you downloaded in Lab 3 (catalog-gui.html):

```
$ vim ~/apps/mysql.json
# PASTE IN YOUR MYSQL config.json FILE
```

Step 4

Install **mysql** from the Catalog, using our custom options file:

```
$ dcos package install --yes --option=~/apps/mysql.json mysql
```

Step 5

Use the DC/OS CLI to list out installed packages:

```
$ dcos package list
NAME   VERSION     APP     COMMAND  DESCRIPTION
mysql  5.7.12-0.3  /mysql  ---      MySQL is the world's most popular open source databa
```

List out currently active Marathon services:

```
$ dcos marathon app list
ID      MEM   CPUS  TASKS  HEALTH  DEPLOYMENT  WAITING  CONTAINER  CMD
/mysql  1024  0.5    1/1    1/1       ---      False      DOCKER   N/A
```

Step 6

Now we will install the Wordpress service using the same steps. Find the `config.json` file you saved for Wordpress and copy the contents to your clipboard.

Step 7

Create a file named `wordpress.json` in the `apps` directory, and paste in the contents from your Wordpress `config.json` you downloaded in Lab 3 (catalog-gui.html):

```
$ vim ~/apps/wordpress.json
# PASTE IN YOUR WORDPRESS config.json FILE
```

Step 8

Install **wordpress** from the Catalog:

```
$ dcos package install --yes --option=~/apps/wordpress.json wordpress
```

Step 9

Use the DC/OS CLI to list out installed packages, you should now see both **mysql** and **wordpress** in the output:

```
$ dcos package list
NAME       VERSION             APP         COMMAND  DESCRIPTION
mysql      5.7.12-0.3          /mysql      ---      MySQL is the world's most popular op
wordpress  1.0.0-4.5.3-apache  /wordpress  ---      WordPress is a free and open source
```

List out currently active Marathon services:

```
$ dcos marathon app list
ID          MEM   CPUS  TASKS  HEALTH  DEPLOYMENT  WAITING  CONTAINER  CMD
/mysql      1024  0.5    1/1    1/1       ---      False      DOCKER   N/A
/wordpress  512    1     1/1    1/1       ---      False      DOCKER   N/A
```

Step 10

Go ahead and destroy the **wordpress** service with the following command:

```
$ dcos package uninstall --yes wordpress --app-id=/wordpress
```

Step 11

Do the same for the **mysql** service:

```
$ dcos package uninstall --yes mysql --app-id=/mysql
```

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