



## Lab: Bootstrap a Load Balancer

- ☐ Bootstrap a new node
- ☐ Update the run list of the new node to include the wrapper proxy server cookbook
- ☐ SSH to that system and run chef-client
- ☐ Verify that traffic to the load balancer is relayed to the web server.

# Lab: Bootstrap a New Node



```
$ knife bootstrap FQDN -x USER -P PWD --sudo -N NODE_NAME
```

```
Creating new client for node2
Creating new node for node2
Connecting to ec2-54-210-192-12.compute-1.amazonaws.com
ec2-54-210-192-12.compute-1.amazonaws.com Starting first Chef Client run...
ec2-54-210-192-12.compute-1.amazonaws.com Starting Chef Client, version
12.3.0
ec2-54-210-192-12.compute-1.amazonaws.com resolving cookbooks for run list:
[]
ec2-54-210-192-12.compute-1.amazonaws.com Synchronizing Cookbooks:
ec2-54-210-192-12.compute-1.amazonaws.com Compiling Cookbooks...
ec2-54-210-192-12.compute-1.amazonaws.com [2016-09-16T17:13:10+00:00] WARN:
Node node2 has an empty run list.
ec2-54-210-192-12.compute-1.amazonaws.com Converging 0 resources
```

# Verify the port and identity file for web1



```
$ vagrant ssh-config load-balancer
```

```
Host load-balancer
```

```
  HostName 127.0.0.1
```

```
  User vagrant
```

```
  Port 2202
```

```
  UserKnownHostsFile /dev/null
```

```
  StrictHostKeyChecking no
```

```
  PasswordAuthentication no
```

```
  IdentityFile /Users/USER/chef-repo/.vagrant/machines/load-balancer/virtualbox/private_key
```

```
  IdentitiesOnly yes
```

```
  LogLevel FATAL
```

# Bootstrap Your Node



```
$ knife bootstrap localhost --ssh-port LOAD_BAL_PORT --ssh-user vagrant  
--sudo --identity-file PATH_TO_KEY -N load-balancer -r "recipe[myhaproxy]"
```

```
Creating new client for load-balancer  
Creating new node for load-balancer  
Connecting to localhost  
localhost -----> Installing Chef Omnibus (-v 12)  
localhost downloading https://omnitruck-direct.chef.io/chef/install.sh  
localhost to file /tmp/install.sh.12058/install.sh  
localhost trying wget...  
localhost el 7 x86_64  
localhost Getting information for chef stable 12 for el...  
localhost downloading  
https://omnitruck-direct.chef.io/stable/chef/metadata?v=12&p=el&pv=7&m=x86_64  
localhost to file /tmp/install.sh.12063/metadata.txt  
localhost trying wget...
```

# Run 'knife node list' Again



```
$ knife node list
```

```
web1  
load-balancer
```

# View More Information About Your Node



```
$ knife node show load-balancer
```

```
Node Name:    load-balancer
Environment:  _default
FQDN:         load-balancer
IP:           10.0.2.16
Run List:     recipe[myhaproxy]
Roles:
Recipes:      myhaproxy, myhaproxy::default, haproxy::manual,
haproxy::install_package
Platform:     centos 7.2.1511
Tags:
```

# Login to Load Balancer



```
$ vagrant ssh load-balancer
```

```
Last login: Sat Dec 31 02:59:27 2016 from 10.0.2.2
```

```
[vagrant@load-balancer ~]$
```

# Verify the Load Balancer



```
[vagrant@load-balancer ~]$ curl localhost
```

```
<html>
  <body>
    <h1>Hello, world!</h1>
    <h2>ipaddress: 192.168.10.43</h2>
    <h2>hostname: web1</h2>
  </body>
</html>
```



# Return to your Workstation



```
[vagrant@load-balancer ~]$ exit
```

```
logout
```

```
Connection to 127.0.0.1 closed.
```

# Verify the Load Balancer

