

Using Policy Groups to Reflect Environments

Separating your nodes with `policy_group`

Objectives

After completing this module, you should be able to

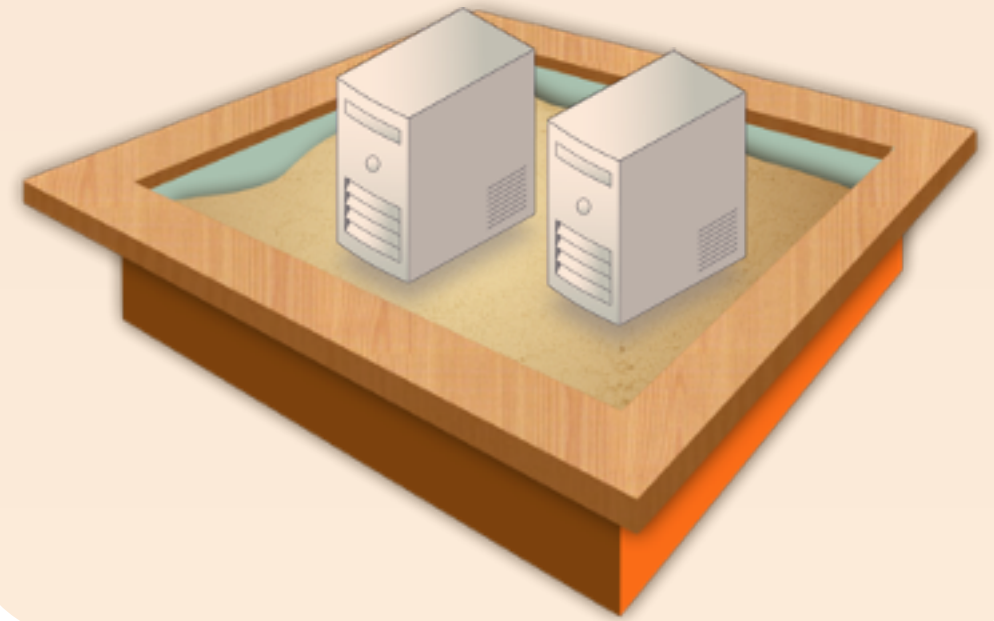
- Deploy a node to an environment via `policy_group`
- Update the load balancer's search query
- Test your load balancer to confirm that `policy_group` is separating your node from a group of nodes.

Keeping Your Infrastructure Current

Changing Needs
Changing Software
Growing Organization
Increased Website Popularity

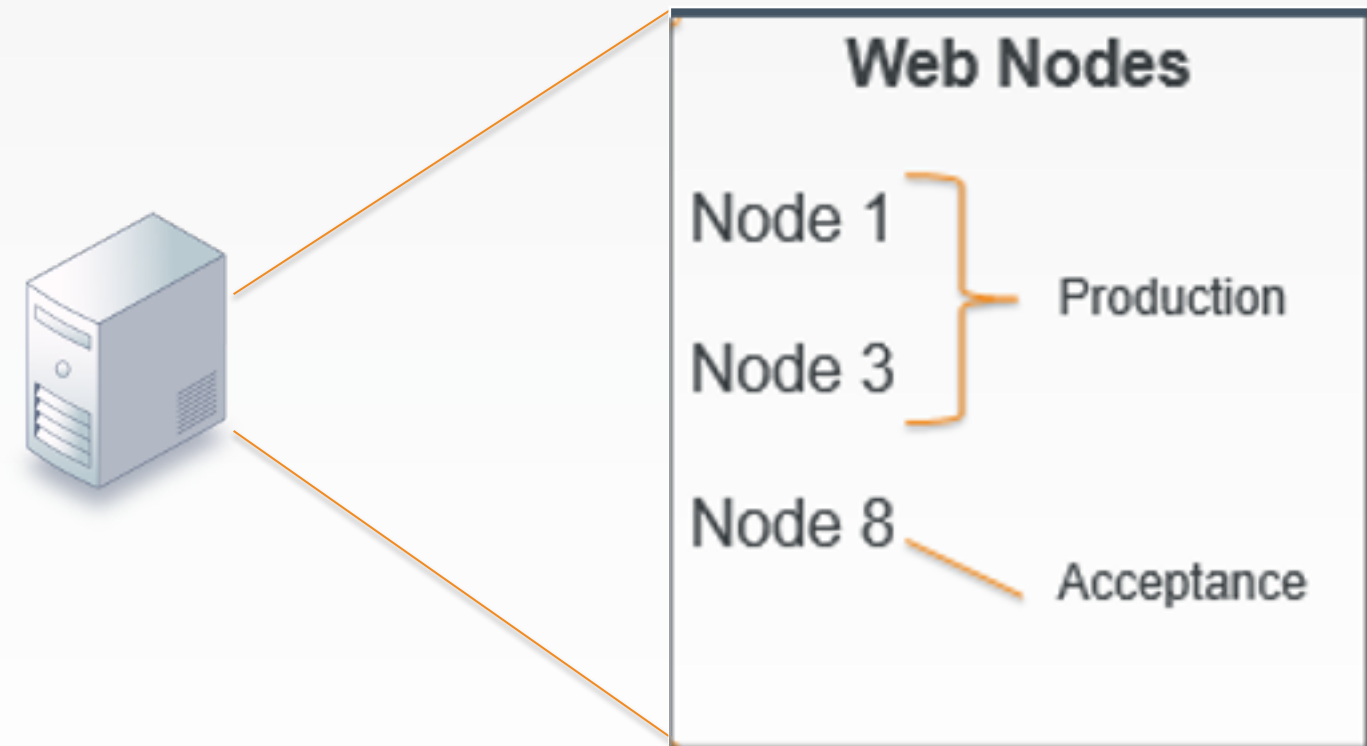
Production

Acceptance



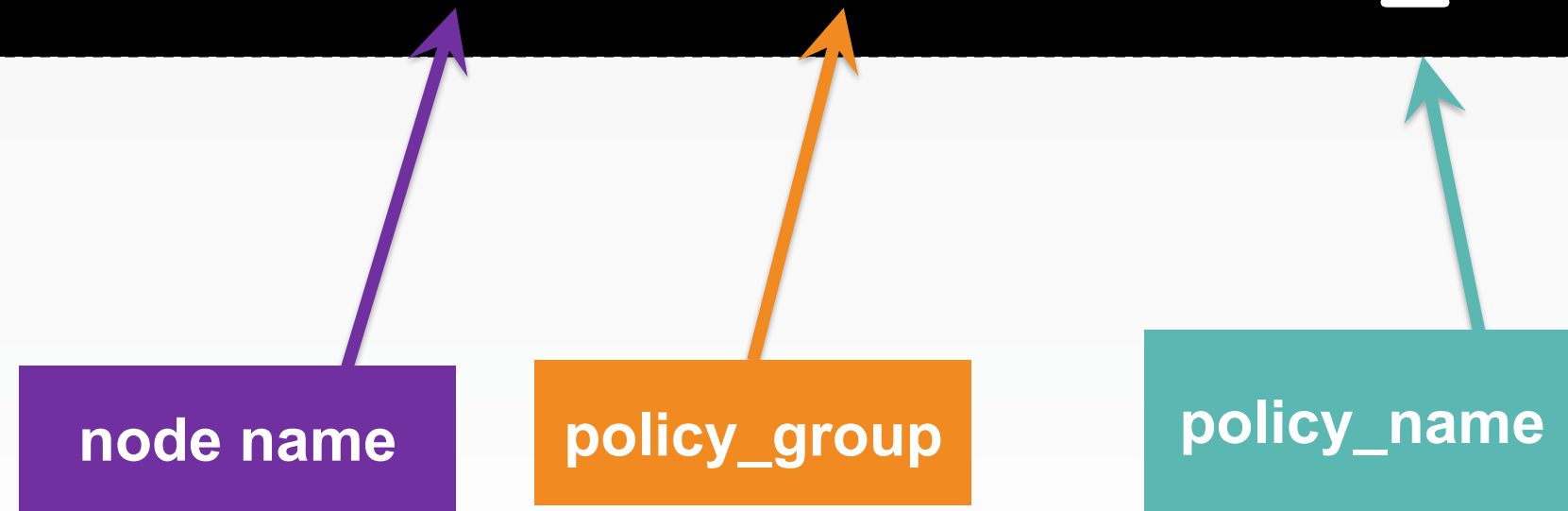
policy_group Environments

Environments can define different functions of nodes that live on the same system.



Assigning a Node to an Environment

```
knife node policy set node1 prod company_web
```



Assigning a node to an environment is as simple as specifying a `policy_group` in the `knife node policy set...` command.

In this example we assigned the **node1** node to the `prod` (production) environment. In this module, you will move your **node1** node to a new environment called **acceptance** and see the results.

EXERCISE



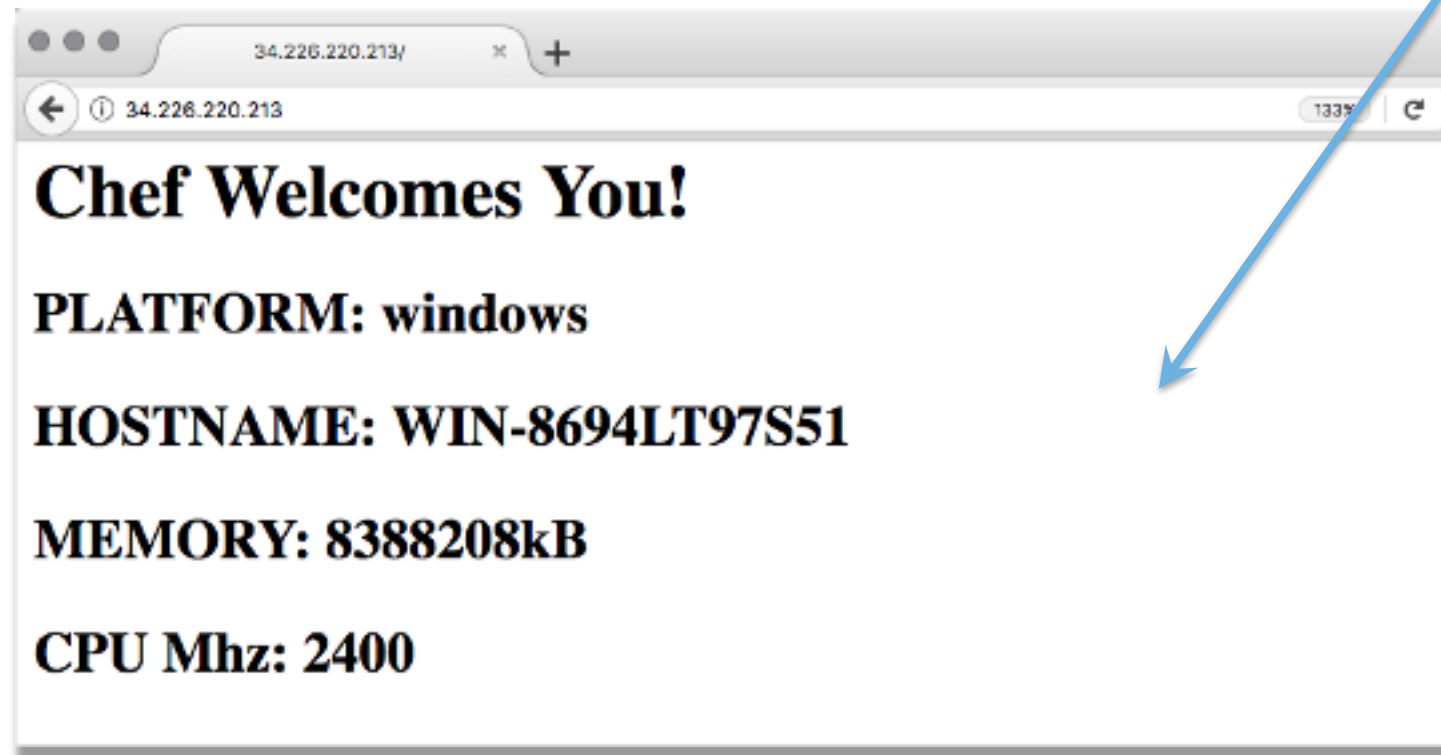
Group Lab: Using policy_group

Let's create an acceptance policy_group environment for our nodes

Objective:

- ☐ Test your current load balancer's behavior
- ☐ Assign the **node1** node to acceptance
- ☐ Update the load balancer's search criteria
- ☐ Converge the load balancer node
- ☐ Test your load balancer

GL: Test the Load Balancer



GL: Push the company_web.lock.json to a new acceptance Environment



```
~/chef-repo> chef push acceptance company_web.lock.json
```

```
Uploading policy company_web (36a13b7080) to policy group acceptance
```

```
Using      apache      0.1.0    (1388ab3a)
```

```
Using      chef-client  11.2.0   (0b49a3a8)
```

```
Using      company_web  0.1.0    (c1b26cb5)
```

```
Using      cron         6.2.1    (08676b5c)
```

```
Using      logrotate    2.2.0    (53e09234)
```

```
Using      mychef_client 0.1.0    (10d082a4)
```

```
Using      myiis        0.2.1    (cd0db3ed)
```

```
Using      myusers      0.2.0    (41edf2b2)
```

New
policy_group

GL: Show the Policies on Chef Infra Server



```
~/chef-repo> chef show-policy
```

```
company_web  
=====
```

```
* acceptance: 36a13b7080  
* prod:       36a13b7080
```

```
myhaproxy  
=====
```

```
* acceptance: *NOT APPLIED*  
* prod:       08c39ccc8f
```

```
myiis  
=====
```

```
* acceptance: *NOT APPLIED*  
* prod:       49eef2f1f1
```

Here we can see that the **company_web** policy has been uploaded to Chef Infra Server and is in the **acceptance** policy_group.

GL: Assign the node1 Node to acceptance



```
> knife node policy set node1 acceptance company_web
```

```
Successfully set the policy on node node1
```

node name

policy_group

policy_name

GL: View Information About Your Node



```
$ knife search node *:~ -a policy_name -a policy_group -a name
```

```
node1:  
  name:          node1  
  policy_group:  acceptance  
  policy_name:   company_web
```

```
node3:  
  name:          node3  
  policy_group:  prod  
  policy_name:   company_web
```

```
node2:  
  name:          node2  
  policy_group:  prod  
  policy_name:   haproxy
```

GL: Modify the Load Balancer's Existing Search Criteria



```
~/chef-repo/cookbooks/haproxy/recipes/default.rb
```

We have used:

```
allwebservers = search('node', 'policy_name:company_web AND  
policy_group:prod')
```

Now since node1 is acceptance, not prod.
haproxy, after convergence, will no longer route traffic to node1,
only to node2

GL: Show the Policies on Chef Infra Server



```
$ knife ssh "policy_name:haproxy" -x centos -i ~/aws.pem  
"sudo chef-client"
```

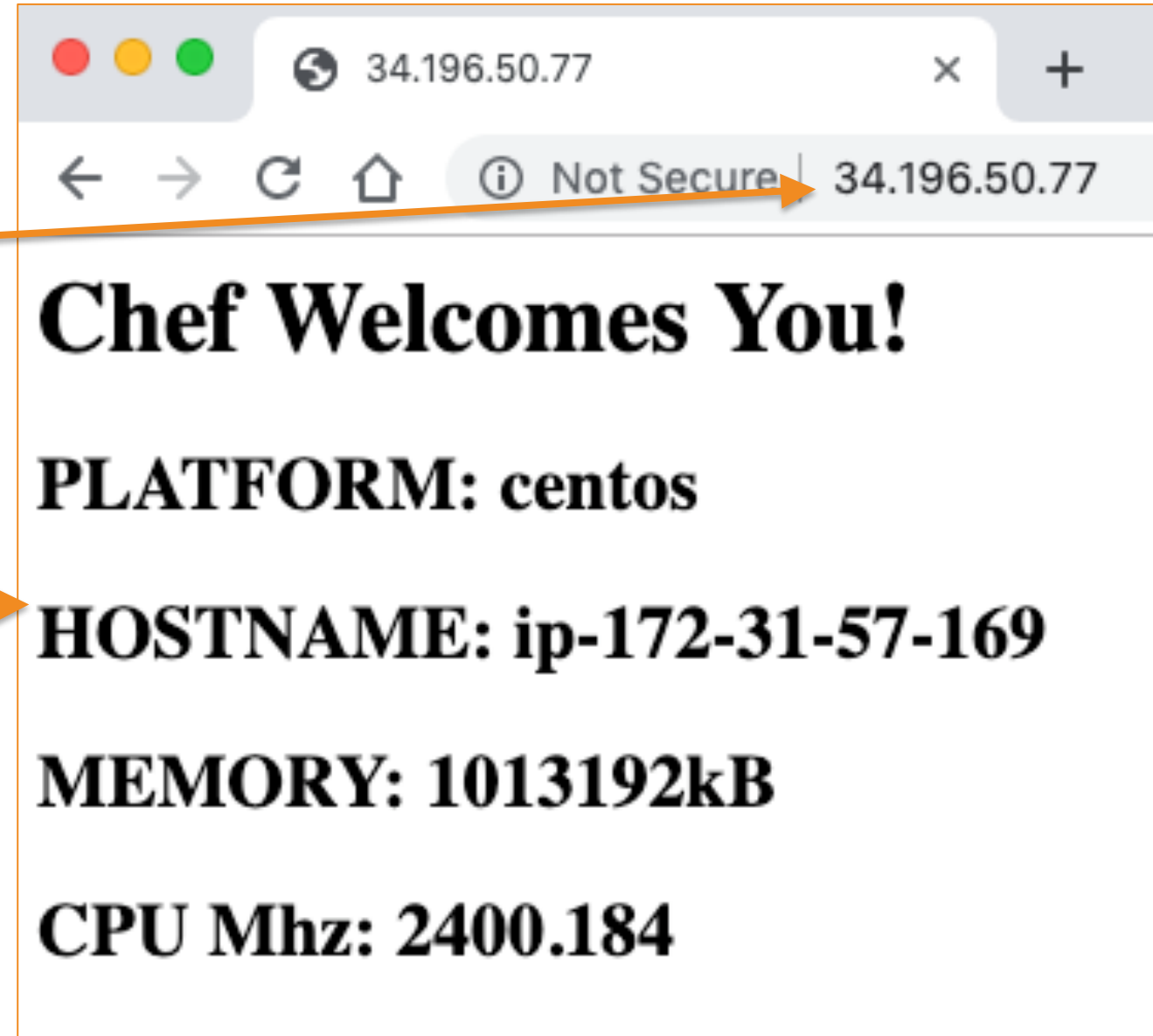
```
$ knife ssh "policy_name:haproxy" -x centos -i ~/aws.pem  
"cat /etc/haproxy/haproxy.cfg"
```

GL: Only the apache_web Node is Being Proxied



URL of load balancer.

Only route to node2



EXERCISE



Group Lab: Using policy_group

Let's create an acceptance environment for our nodes

Objective:

- ✓ Test your current load balancer's behavior
- ✓ Assign the **node1** node to acceptance
- ✓ Update the load balancer's search criteria
- ✓ Converge the load balancer node
- ✓ Test your load balancer

DISCUSSION



Review Questions

1. What is the benefit of constraining cookbooks to a particular environment?
2. What is the key item that defines an environment?
3. What does this bit of code in the load balancer do?

DISCUSSION



Q&A

What questions can we help you answer?



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