Exercise – Install Puppet master and agent

Objective

In this exercise you will configure two servers. One as a Puppet master and the other as a Puppet agent.

Setup:

Create two new servers in aws. One will be your puppet master, the other your agent.

They should use the following setup:

- **Master**
  - Image: Ubuntu 16.04
  - Type: t2.large
  - Storage: 8 gig
  - Tag: Name = Puppet Master
  - Security group: Open all tcp ports (or open up: 8140, 3000, 22, 80, 443, 4433, 61613 , 5432 , 8081, 4435 individually)
- **Agent**
  - Image: Ubuntu 16.04
  - Type: t2.medium
  - Storage: 8 gig
  - Tag: Name = Puppet agent
  - Security group: Open up: 22, 80, 443 and 8140

Exercise:

1. Connect to your puppet master server using your key. The standard username is 'ubuntu' rather than ec2-user for ubuntu machines.
2. Switch to the root user

```
$ sudo bash
```

3. Now we need to update the hosts file with the name and your machine's current IP address. You can either look this up on the aws dashboard, or use the following command to retrieve it from the server metadata

```
$ echo $(curl http://169.254.169.254/latest/meta-data/public-ipv4) puppet >> /etc/hosts
```

4. Download the tar file with the puppet enterprise installer

```
$ curl -L -o file.tar.gz 'https://pm.puppet.com/cgi-bin/download.cgi?dist=ubuntu&rel=16.04&arch=amd64&ver=latest'
```

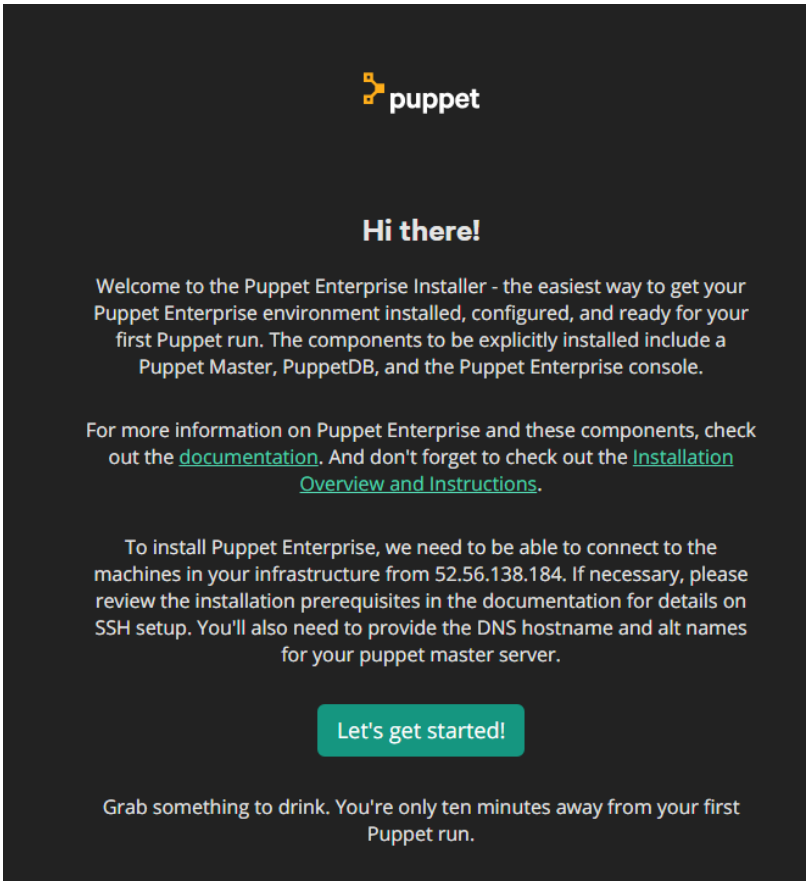
5. Un-tar your file

```
$ tar -xvf file.tar.gz
```

6. Finally, run your installer

```
$ sudo ./puppet-enterprise-*/puppet-enterprise-installer
```

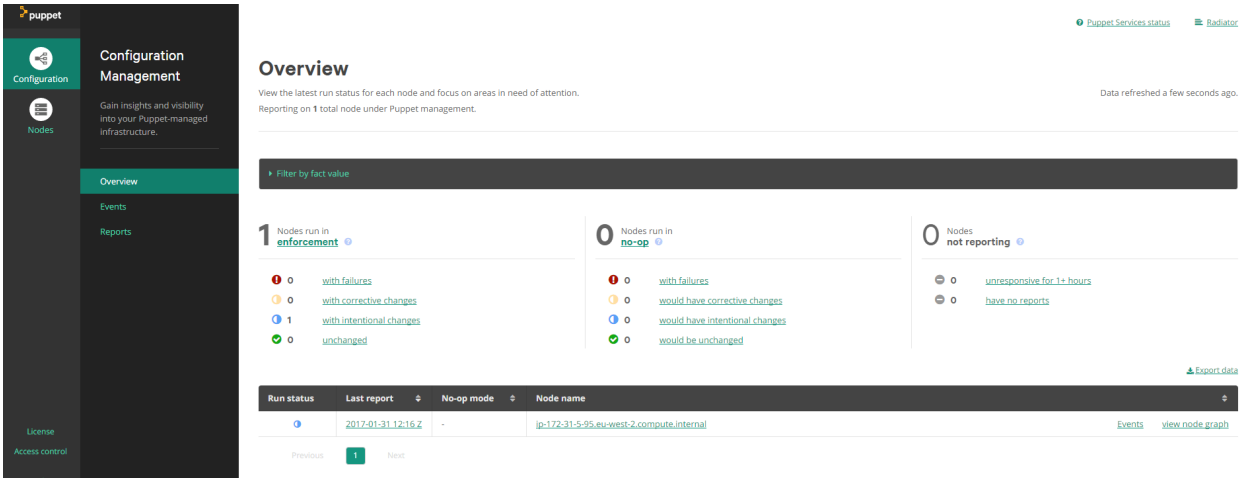
7. The installer will ask what type of installation you want. For graphical press enter (or type 1 and then enter)
8. Then we need to point a browser at your puppet machine to continue the setup. Go to ***https://[[your machine ip]]:3000*** to continue. (Note the ***s*** in the ***https://*** part of your URL!)



9. Click the button to get started
10. On the next screen add the following
    a. FQDN (fully qualified domain name) as your **puppet master's internal DNS**
    b. Alias: puppet
    c. Password: any password you like, as long as you remember it
11. Click **submit** to get to the next page, then **continue**
12. The check will throw up a couple of warnings; this is because we haven't used a machine quite big enough for production purposes with puppet. However, it will be fine for our exercises. Click "**Deploy now**".
13. Make a cup of tea. The install process will begin and this will take a while!

When the puppet master has finished installing

14. Open a browser and navigate to ***https://[publicIP]***. The username is ***admin*** and password is whatever you used during the installation.



Create your puppet agent

15. Connect to your puppet agent using SSH

16. Change to the root user again

```
$ sudo bash
```

17. Set the **hostname** to **webserver1.eu-west-1.compute.internal** and update the hostname and hosts file with this and your IP address

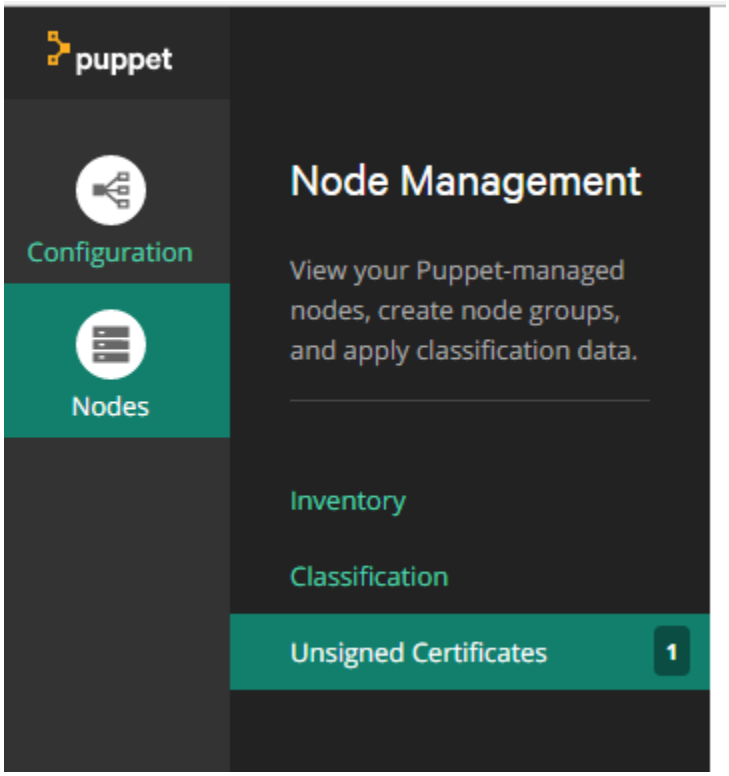
```
$ hostname webserver1

$ echo webserver1 > /etc/hostname

$ echo $(curl http://169.254.169.254/latest/meta-data/local-ipv4) webserver1 >> /etc/hosts
```

18. Download the puppet installer from the puppet master.

    Note: this link you can copy from puppet master "**Unsigned certs**" page.

```
$ curl -k https://puppet:8140/packages/current/install.bash | sudo bash
```

19. When this has finished go back to your puppet master and refresh the page. From the dashboard, click on nodes. Then Unsigned Certificates.



Accept the certificate.

20. The agent will check in every 30 minutes with the master. We can force this to occur by typing the following on the puppet agent

```
$ sudo puppet agent -t
```

21. When you go back to your puppet master's console then you will be able to see that the node has checked in

Run status	Last report	No-op mode	Node name		
	2017-01-31 12:22 Z	-	webserver1.eu-west-2.compute.internal	Events	view node graph
	2017-01-31 12:16 Z	-	ip-172-31-5-95.eu-west-2.compute.internal	Events	view node graph

If you have time:

- Setup a few more nodes and connect them to the master. If you use a different operating system then you can still connect the node to the master, but you will need to work out how to get the puppet install file

  hint: the master will let you know when you try and grab the installer from it!