

Install Puppet -Client-Server

1. Create 2 Centos 6 or Centos 7 EC2 instance – One for Puppet Master and one for Puppet Node.

Puppet Master:

2. Execute this:

```
iptables -F
```

3. Now we need to save these configurations.

Execute this:

```
service iptables save
```

To install Puppet -<https://yum.puppetlabs.com/>

Execute the below accordingly

CentOs6 -> rpm -ivh <http://yum.puppetlabs.com/puppetlabs-release-el-6.noarch.rpm>

CentOs7 -> rpm -ivh <http://yum.puppetlabs.com/puppetlabs-release-el-7.noarch.rpm>

Install Puppet Master

```
yum install puppet-server
```

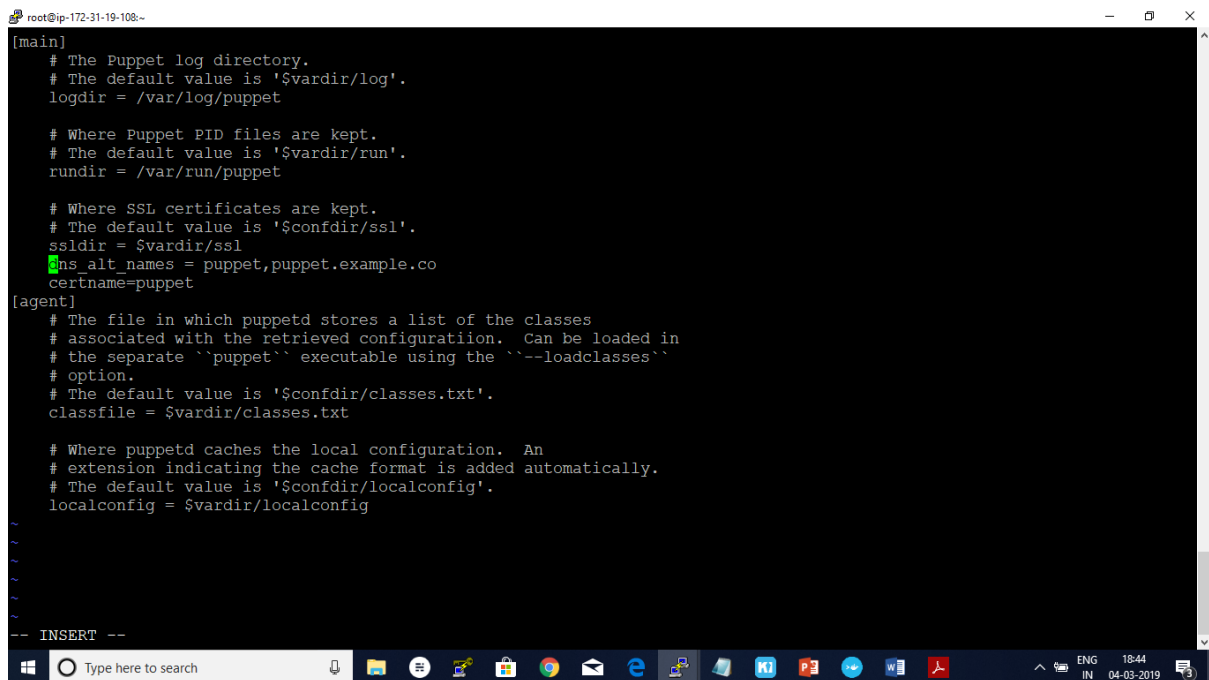
Find the ip address of Master by using ipconfig.

Under vi /etc/hosts add an entry on the last line

ipaddress puppet puppet.example.co

Execute the below step on Puppet Master:

vi /etc/puppet/puppet.conf



```
root@ip-172-31-19-108-  
[main]  
# The Puppet log directory.  
# The default value is '$vardir/log'.  
logdir = /var/log/puppet  
  
# Where Puppet PID files are kept.  
# The default value is '$vardir/run'.  
rundir = /var/run/puppet  
  
# Where SSL certificates are kept.  
# The default value is '$confdir/ssl'.  
ssl_dir = $vardir/ssl  
certname = puppet,puppet.example.co  
certname=puppet  
[agent]  
# The file in which puppetd stores a list of the classes  
# associated with the retrieved configuration. Can be loaded in  
# the separate 'puppet' executable using the '--loadclasses'  
# option.  
# The default value is '$confdir/classes.txt'.  
classfile = $vardir/classes.txt  
  
# Where puppetd caches the local configuration. An  
# extension indicating the cache format is added automatically.  
# The default value is '$confdir/localconfig'.  
localconfig = $vardir/localconfig  
~  
~  
~  
-- INSERT --
```

On the other Centos box for Puppet Agent execute the below commands

iptables -F

service iptables save

To install Puppet -<https://yum.puppetlabs.com/>

Execute the below accordingly

CentOs6 -> rpm -ivh <http://yum.puppetlabs.com/puppetlabs-release-el-6.noarch.rpm>

CentOs7 -> rpm -ivh <http://yum.puppetlabs.com/puppetlabs-release-el-7.noarch.rpm>

Install Puppet

```
yum install puppet
```

Modify the entry as shown below with the domain names

Ipaddressofagent puppetagent

```
lpadressofmaster puppet puppet.example.co
```

Later modify the entry vi /etc/puppet/puppet.conf

```
root@ip-172-31-28-238:~#
127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4
::1 localhost localhost.localdomain localhost6 localhost6.localdomain6
172.31.28.238 puppetagent
172.31.19.108 puppet puppet.example.co
-- INSERT --
```

```
root@ip-172-31-28-238:~  
[main]  
# The Puppet log directory.  
# The default value is '$vardir/log'.  
logdir = /var/log/puppet  
  
# Where Puppet PID files are kept.  
# The default value is '$vardir/run'.  
rundir = /var/run/puppet  
  
# Where SSL certificates are kept.  
# The default value is '$confdir/ssl'.  
ssldir = $vardir/ssl  
  
[agent]  
server = puppet.example.co  
# The file in which puppetd stores a list of the classes  
# associated with the retrieved configuration. Can be loaded in  
# the separate ``puppet`` executable using the ``--loadclasses``  
# option.  
# The default value is '$confdir/classes.txt'.  
classfile = $vardir/classes.txt  
  
# Where puppetd caches the local configuration. An  
# extension indicating the cache format is added automatically.  
# The default value is '$confdir/localconfig'.  
localconfig = $vardir/localconfig  
~  
~  
~  
~  
~  
-- INSERT --
```

Establish A Secure Connection Between Puppet Master and Puppet Agent

On the Master execute the below

```
sudo -u puppet puppet master --no-daemonize --verbose
```

```
root@ip-172-31-19-108:~  
collisions:0 txqueuelen:1000  
RX bytes:15525454 (14.8 MiB) TX bytes:559031 (545.9 KiB)  
Interrupt:160  
  
lo    Link encap:Local Loopback  
      inet addr:127.0.0.1 Mask:255.0.0.0  
      inet6 addr: ::1/128 Scope:Host  
      UP LOOPBACK RUNNING MTU:65536 Metric:1  
      RX packets:0 errors:0 dropped:0 overruns:0 frame:0  
      TX packets:0 errors:0 dropped:0 overruns:0 carrier:0  
      collisions:0 txqueuelen:0  
      RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)  
  
[root@ip-172-31-19-108 ~]# sudo -u puppet puppet master --no-daemonize --verbose  
Info: Creating a new SSL key for ca  
Info: Creating a new SSL certificate request for ca  
Info: Certificate Request fingerprint (SHA256): 0A:67:E4:5C:BB:D6:33:6B:7C:B7:66:67:FC:EF:7E:26:B2:A5:77:72:EC:C5:2F:43:53:49:EB:1F:F3:96:44:EE  
Notice: Signed certificate request for ca  
Info: Creating a new certificate revocation list  
Info: Creating a new SSL key for ip-172-31-19-108.us-east-2.compute.internal  
Info: csr attributes file loading from /var/lib/puppet/.puppet/csr_attributes.yaml  
Info: Creating a new SSL certificate request for ip-172-31-19-108.us-east-2.compute.internal  
Info: Certificate Request fingerprint (SHA256): 9B:A2:33:30:39:8B:0A:9F:9E:99:95:8F:8B:8E:B3:2C:6B:1F:75:E1:98:B3:97:2C:70:3C:92:69:67:DE:2F:4E  
Notice: ip-172-31-19-108.us-east-2.compute.internal has a waiting certificate request  
Notice: Signed certificate request for ip-172-31-19-108.us-east-2.compute.internal  
Notice: Removing file Puppet::SSL::CertificateRequest ip-172-31-19-108.us-east-2.compute.internal at '/var/lib/puppet/.puppet/ssl/ca/requests/ip-172-31-19-108.us-east-2.compute.internal.pem'  
Notice: Removing file Puppet::SSL::CertificateRequest ip-172-31-19-108.us-east-2.compute.internal at '/var/lib/puppet/.puppet/ssl/certificate_requests/ip-172-31-19-108.us-east-2.compute.internal.pem'  
Notice: Starting Puppet master version 3.8.7
```

Now I will start Puppet Master.

Execute this (on master):

```
puppet resource service puppetmaster ensure=running
```

Send Certificate signing request from Puppet Agent to Puppet Master

Here in Puppet Agent we need to send the certificate signing request to Puppet Master.

Execute this (on agent):

```
1 puppet agent -t
```

Sign Puppet Agent Certificate in Puppet Master

In Puppet Master virtual image, we need to sign the certificate requested by Puppet Agent. In order to get the list of certificates execute the below command:

Execute this (on master):

```
puppet cert list
```

Execute this (on master):

```
puppet cert sign puppetagent
```

Update Puppet Agent :

First, we need to start the Puppet Agent.

```
puppet resource service puppet ensure=running
```

Execute this (on agent):

```
1 puppet agent -t
```

Install Java and Tomcat Module

To install Java I need to install Java module, this module automatically installs Java JDK and simplifies the installation of Java using Puppet.

Execute this (on master):

```
puppet module install puppetlabs-java
```

Now, we will install the Tomcat module. It allows you to use Puppet to install Tomcat, manage its configuration files and deploy web apps to it.

To install latest compatible version of Tomcat Module:

Execute this (on master):

```
puppet module install puppetlabs-tomcat
```

Edit site.pp File in Puppet Manifests

Edit site.pp file in Puppet Manifests using your favourite editor and then update the agent using command puppet agent -t . Tomcat would have got installed. Browse localhost:8080 to check

Execute this (on master):

```
1 vi /etc/puppet/manifests/site.pp
```

Here include the following:

```
1
2 class { 'java' :
3     package => 'java-1.8.0-openjdk-devel';
4 }
5 tomcat::install { '/opt/tomcat':
6     source_url => 'http://redrockdigimark.com/apachemirror/tomcat/tc
7 }
8 tomcat::instance { 'default':
9     catalina_home => '/opt/tomcat',
10 }
```