

I was setting up Origin on CloudStack with CentOS 6.3. Below are the steps I followed.  
 I will formalize and update [http://openshift.github.io/origin/file.install\\_origin\\_using\\_puppet.html](http://openshift.github.io/origin/file.install_origin_using_puppet.html) to reflect this setup procedure.  
 This same procedure should work on RHEL systems as well.

1) Start a new machine with a new network

2) Obtain an external IP for the machine and enable ssh access

\*\*\* Rest of the steps assume you are logged into the system as root \*\*\*

3) Install puppet labs repo (make sure to exclude m-collective)

```
[root@ec0bf643-c778-44d4-87c2-33e720affaa5 ~]# cat /etc/yum.repos.d/Puppetlabs.repo
```

```
[puppetdeps]
name=puppetdeps
baseurl=http://yum.puppetlabs.com/el/6/dependencies/x86_64/
#baseurl=http://mirror.centos.org/centos/$releasever/os/$basearch/
gpgcheck=0
```

```
#released updates
[puppet]
name=puppet
baseurl=http://yum.puppetlabs.com/el/6/products/x86_64/
gpgcheck=0
exclude=mcollective*
```

4) Install epel repo

```
yum install -y --nogpgcheck http://mirrors.servercentral.net/fedora/epel/6/i386/epel-release-6-8.noarch.rpm
```

5) Install puppet

```
yum install -y puppet facter tar
puppet module install openshift/openshift_origin
```

6) Generate BIND auth key for DNS

```
yum install -y bind
#Using example.com as the cloud domain
/usr/sbin/dnssec-keygen -a HMAC-MD5 -b 512 -n USER -r /dev/urandom -K /var/named example.com
cat /var/named/Kexample.com.*.key | awk '{print $8}'
```

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This will print the BIND dns key which will be used later:

```
[root@ec0bf643-c778-44d4-87c2-33e720affaa5 ~]# cat /var/named/Kexample.com.*.key | awk '{print $8}'
b+yqy3xAxfNF5qyEbWfAIJew8N8qw==
```

7) Set up hostname

```
[root@ec0bf643-c778-44d4-87c2-33e720affaa5 ~]# cat /etc/hosts
127.0.0.1    localhost localhost.localdomain localhost4 localhost4.localdomain4
::1         localhost localhost.localdomain localhost6 localhost6.localdomain6
72.52.126.70 puppet
72.52.67.133 broker.example.com
```

```
[root@ec0bf643-c778-44d4-87c2-33e720affaa5 ~]# cat /etc/hostname
broker.example.com
```

8) Create puppet install script.

- Make sure node\_fqdn is correct and matches hostname
- Make sure dns\_servers are correct otherwise upstream DNS lookups will be broken
- Set named\_tsig\_priv\_key to be the BIND dns key generated above

---

```
[root@ec0bf643-c778-44d4-87c2-33e720affaa5 ~]# cat configure_origin.pp
class { 'openshift_origin' :
  #The DNS resolvable hostname of this host
  node_fqdn                => "broker.example.com",

  #The domain under which application should be created. Eg: <app>-<namespace>.example.com
  cloud_domain              => 'example.com',

  #Upstream DNS server.
  dns_servers               => ['10.1.1.1','8.8.8.8'],

  enable_network_services   => true,
  configure_firewall        => true,
  configure_ntp              => false,

  #Configure the required services
  configure_activemq        => true,
  configure_mongodb         => true,
  configure_named            => true,
  configure_avahi            => false,
  configure_broker          => true,
  configure_node             => true,

  #Enable development mode for more verbose logs
  development_mode          => true,

  #Update the nameserver on this host to point at Bind server
  update_network_dns_servers => true,

  #Use the nsupdate broker plugin to register application
  broker_dns_plugin         => 'nsupdate',

  #If installing from a local build, specify the path for Origin RPMs
  #install_repo              => 'file:///root/origin-rpms',

  #If using BIND, let the broker know what TSIG key to use
  named_tsig_priv_key        => 'b+yqy3xAxfNF5qyEbwWfAIJew8N8qw=='
}
```

## 9) Apply puppet

```
puppet apply --verbose configure_openshift.pp
```

Note: This step takes a while

## 10) Fixup sshd config (optional)

By default OpenShift puppet will configure sshd to block root logins with password. You may need to modify the ssh config to make it work for your installation

## 11) Reboot the machine to start all services in order

## 12) Install gems required for rhc client tools

```
yum install -y ruby193-rubygem-archive-tar-minitar ruby193-rubygem-net-ssh
gem install httpclient
```

## 13) Run client tools

```
rhc setup --server=localhost
```