**New Chef cook-book creation and Jenkins job integration**

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Chef/Jenkins server : 192.168.4.22

Target server : 192.168.4.21

Jenkins URL : <http://192.168.4.22:8080/>

Git URL : <http://192.168.4.23/ec>

***Step-1***

Chef-solo and knife solo installation. which is already installed on server 192.168.4.22

***Step-2***

User creation on target server

target server 192.168.4.21

useradd lekhsmin

add lekshmin to the sudoers file like below format

#vi /etc/suoders

lekshmin ALL=(ALL) NOPASSWD: ALL

Now on chef/Jenkins server

su - jenkins

copy the id\_rsa.pub key to [lekshmin@192.168.4.21](mailto:lekshmin@192.168.4.21) (This ssh key doesn’t have a passphrase)

#ssh-copy-id lekshmin@192.168.4.21

so u should now ssh -l lekshmin@192.168.4.21 without a password or passphrase

If its ok then connectivity is OK.

***Step-3***

Repo creation on server

[root@Jen-Master ~]# mkdir KLN

[root@Jen-Master ~]# cd KLN

[root@Jen-Master KLN]# mkdir chef-kln

[root@Jen-Master chef-kln]# knife solo init .

""Check if “Creating kitchen...” “Creating knife.rb in kitchen...” “Creating cupboards...” are displayed.""

Creating kitchen...

Creating knife.rb in kitchen...

Creating cupboards...

[root@Jen-Master chef-kln]# ls

cookbooks data\_bags environments nodes roles site-cookbooks

[root@Jen-Master chef-kln]# cd site-cookbooks/

[root@Jen-Master site-cookbooks]# ls

[root@Jen-Master site-cookbooks]# cd ..

[root@Jen-Master chef-kln]#

***Step-4***

Now create a cookbook

knife cookbook create <cookbook name > -o site-cookbooks

knife cookbook create kln-test -o site-cookbooks

[root@Jen-Master chef-kln]# knife cookbook create kln-test -o site-cookbooks

\*\* Creating cookbook kln-test in /root/KLN/chef-kln/site-cookbooks

\*\* Creating README for cookbook: kln-test

\*\* Creating CHANGELOG for cookbook: kln-test

\*\* Creating metadata for cookbook: kln-test

[root@Jen-Master chef-kln]# ls

cookbooks data\_bags environments nodes roles site-cookbooks

[root@Jen-Master chef-kln]# cd site-cookbooks/

[root@Jen-Master site-cookbooks]# ls

kln-test

[root@Jen-Master site-cookbooks]# cd kln-test/

[root@Jen-Master kln-test]# ls

attributes CHANGELOG.md definitions files libraries metadata.rb providers README.md recipes resources templates

***Step -5***

compress the file and upload it to git

[root@Jen-Master KLN]# tar -zcvf kln.tar.gz chef-kln/

lekshm1K@INBLI120 MINGW64 ~/GIT$ scp -r root@192.168.4.22://root/KLN/kln.tar.gz .

Enter passphrase for key '/h/.ssh/id\_rsa':

kln.tar.gz

create a git repo in and upload the files there

lekshm1K@INBLI120 MINGW64 ~/GIT$ git clone git@192.168.4.23:ec/klnchef.git

Cloning into 'klnchef'...

warning: You appear to have cloned an empty repository.

Checking connectivity... done.

$cp chef-kln klnchef

$ cp applypatch/provisioning.sh klnchef/

lekshm1K@INBLI120 MINGW64 ~/GIT/klnchef/site-cookbooks (master)

$ cd kln-test/

lekshm1K@INBLI120 MINGW64 ~/GIT/klnchef/site-cookbooks/kln-test (master)

$ ls

attributes/ CHANGELOG.md definitions/ files/ libraries/ metadata.rb providers/ README.md recipes/ resources/ templates/

Check the kln-test cookbook files on default.rb

# $vim recipes/default.rb

# Cookbook Name:: kln-test

# Recipe:: default

# Copyright 2016, YOUR\_COMPANY\_NAME

# All rights reserved - Do Not Redistribute

#install plugin

package "p7zip" do

action :install

end

package "vsftpd" do

action :install

end

$ cp GIT/dashboardpatch/nodes/192.168.4.27.json GIT/klnchef/nodes/

$ mv GIT/klnchef/nodes/192.168.4.27.json GIT/klnchef/nodes/192.168.4.21.json

$ vim GIT/klnchef/nodes/192.168.4.21.json

{

"run\_list": [

"recipe[kln-test]"

]

}

**Step-5**

Edit provision.sh

lekshm1K@INBLI120 MINGW64 ~/GIT/klnchef (master)

$ cat provisioning.sh

#/bin/bash

repository=/var/lib/jenkins/workspace/klnchef

#nodes=("192.168.4.13" "192.168.4.12" )

nodes=("192.168.4.21")

user=lekshmin

cd ${repository}

for host in ${nodes[@]}; do

knife solo prepare ${user}@${host}

knife solo cook ${user}@${host}

done

***Step-6***

Jenkins new job

name of the job - klnchef

git repo map - http://git@192.168.4.23/ec/klnchef.git

Add built step - execute shell - bash provisioning.sh

save apply

Now run buildnow and check the output as below

Started by user Global Administrator for Jenkins

Building on master in workspace /var/lib/jenkins/workspace/klnchef

> git rev-parse --is-inside-work-tree # timeout=10

Fetching changes from the remote Git repository

> git config remote.origin.url http://git@192.168.4.23/ec/klnchef.git # timeout=10

Fetching upstream changes from http://git@192.168.4.23/ec/klnchef.git

> git --version # timeout=10

> git fetch --tags --progress http://git@192.168.4.23/ec/klnchef.git +refs/heads/\*:refs/remotes/origin/\*

> git rev-parse refs/remotes/origin/master^{commit} # timeout=10

> git rev-parse refs/remotes/origin/origin/master^{commit} # timeout=10

Checking out Revision 4b3a0fc7b996e58c477e511e1e6626351cdc0a47 (refs/remotes/origin/master)

> git config core.sparsecheckout # timeout=10

> git checkout -f 4b3a0fc7b996e58c477e511e1e6626351cdc0a47

> git rev-list 3b8039846e6540c2b6c546453d0f2b1275d96362 # timeout=10

[klnchef] $ /bin/sh -xe /tmp/hudson935930049217686167.sh

+ bash provisioning.sh

Running Chef on 192.168.4.21...

Checking Chef version...

Uploading the kitchen...

WARNING: Local cookbook\_path '/var/lib/jenkins/workspace/klnchef/cookbooks' does not exist

Generating solo config...

Running Chef...

Starting Chef Client, version 12.4.1[0m

Compiling Cookbooks...[0m

Converging 2 resources[0m

Recipe: kln-test::default[0m

\* apt\_package[p7zip] action install

[32m- install version 9.20.1~dfsg.1-4+deb7u1build0.14.04.1 of package p7zip[0m

[0m \* apt\_package[vsftpd] action install

[32m- install version 3.0.2-1ubuntu2.14.04.1 of package vsftpd[0m

[0m[0m

Running handlers:[0m

Running handlers complete

[0mChef Client finished, 2/2 resources updated in 16.591005712 seconds[0m

Finished: SUCCESS