Chef Configuration On AWS EC2 Linux Instances

Chef-Server

Step1: Before installing chef server update your instance

# sudo yum update -y

Step2: By default, iptables rules are operational in RHEL instances. We need to make sure that they are stopped always.

**# service iptables stop**

**# service ip6tables stop**

**# chkconfig iptables off**

**# chkconfig ip6tables off**

Step3: Download the rpm package for chef server from the chef download page: <https://downloads.chef.io/>

**# wget** <https://packages.chef.io/files/stable/chef-server/12.12.0/el/7/chef-server-core-12.12.0-1.el7.x86_64.rpm>

Step4: Install the chef server rpm package

**# rpm -ivh chef-server-core-12.12.0-1.el7.x86\_64.rpm**

Step5: Execute chef-server-ctl command to configure chef-server.

**# chef-server-ctl reconfigure**

Step6: To have a look at chef processes, check process list using command “ps -ef”

**# ps-ef**

Step7: Now we need to install a Chef-Manage add on for the server. Go to chef download page as mentioned in step 3 and download the chef manager rpm package.

**# wget** <https://packages.chef.io/files/stable/chef-manage/2.4.4/el/7/chef-manage-2.4.4-1.el7.x86_64.rpm>

Step8: Install the chef manager package

# rpm -ivh [chef-manage-2.4.4-1.el7.x86\_64.rpm](https://packages.chef.io/files/stable/chef-manage/2.4.4/el/7/chef-manage-2.4.4-1.el7.x86_64.rpm)

Step9: Configure the chef manage (for reporting you can install chef-reporting rpm – steps skipped)

#chef-manage-ctl reconfigure (to go to end use shift+g and to access use Q)

#type “yes”

Step11: Create a user with the below command

**# sudo chef-server-ctl user-create “userid” “first name” “lastname” “**[email@id.com](mailto:email@id.com)**” “password” --filename somename.pem**

Step11: Installation will be completed. Go to the <AWS Public IPAddress>

Step12: Once you are in the welcome page of Chef Server. Create the organisation as required.

**Chef-WorkStation**

Step1: Before installing update your instance

# sudo yum update -y

Step2: By default, iptables rules are operational in RHEL instances. We need to make sure that they are stopped always.

**# service iptables stop**

**# service ip6tables stop**

**# chkconfig iptables off**

**# chkconfig ip6tables off**

Step3: Download the rpm package for chef workstation (chef Development Kit) from the chef download page: <https://downloads.chef.io/>

**# wget** <https://packages.chef.io/files/stable/chefdk/1.2.20/el/7/chefdk-1.2.20-1.el7.x86_64.rpm>

Step4: Chef Generate

**# chef generate repo ~/chef-repo**

Step5: Extract the starter kit downloaded from the chef server in ~ folder

Step6: Update the chef server url in knife.rb file

**# cd ~/chef-repo/.chef**

**# Add "chef\_server\_url "**<https://chefserver/organizations/atgen>**""**

Step7: Run the below commands

**# knife ssl fetch (This is for Downloading the SSL Certificate)**

**# knife ssl check**

**# knife client list** ( Will show you the “companynamecreated\_validator”)

Step8: Generate a cookbook that you would upload to chef server and execute in chef-node

**# chef generate cookbook cookbooks/hello\_chef\_server**

Step9: Cookbook hello\_chef\_server will be created. Navigate to the receipe folder within this cookbook.

**# nano default.rb**

**# update the below code** ( this will create a text file in chef-node under the /home/ec2-user directory)

file '/home/ec2-user/hello.txt' do

content 'Hello Chef, This is the first chef cookbook'

end

Step10: Upload this cookbook to the chef-server

**# knife cookbook upload hello\_chef\_server**

Step11: To check if the cookbook was uploaded

**# Knife cookbook list**

Step12: Since this will be the first time connecting to the chef-node, we will need to bootstrap the chef node.

# knife bootstrap (AWS Public IP of Node ex 54.169.235.152) --ssh-user ec2-user --sudo --identity-file /home/ec2-user/(aws-chef-node).pem –node-name “name of the chefnode” --run-list 'recipe[hello\_chef\_server]'

Step13: If you make changes to the cookbook and want to re-run after uploading it to the chef-server, use the below command

# knife ssh (AWS Public IP of Node ex 54.169.235.152) 'sudo chef-client' --manual-list --ssh-user ec2-user --identity-file /home/ec2-user/(aws-chef-node).pem

**Chef-Node**

Step1: Before installing update your instance

# sudo yum update -y

Step2: By default, iptables rules are operational in RHEL instances. We need to make sure that they are stopped always.

**# service iptables stop**

**# service ip6tables stop**

**# chkconfig iptables off**

**# chkconfig ip6tables off**

Step3: Download the rpm package for chef agent (Chef Client) from the chef download page: <https://downloads.chef.io/>

**# wget** <https://packages.chef.io/files/stable/chef/12.18.31/el/7/chef-12.18.31-1.el7.x86_64.rpm>

Step4: Your Chef-Node is ready for Config Management.

Note: To Upload the pem file and starter kit to the aws instance, use the below command.

scp -i “somename.pem” “/../../Downloads/chef-starter.zip (path of starter kit)” [ec2-user@54.254.211.6](mailto:ec2-user@54.254.211.6):/home/ec2-user

**Other Chef Commands:**

1. To add a cookbook to Run List

**# knife node run\_list add “nodename” “cookbook\_name”**

2. To bookstrap a windows server machine

Before Bootstraping install the chef agent on the windows server and service-manager as per the below commands.

# chef-service-manager -a install

# chef-service-manager -a start ( For starting the service manager)

# knife bootstrap windows winrm <public ip> --winrm-user Administrator --winrm-password 'PASSWORD' --node-name node1-windows --run-list 'recipe[hello\_chef\_server]'