

## Video 4.4

# Converging a Chef Node Using a Chef Workstation

In this Video, we are going to take a look at...

- Setting up runtime environment in node using Chef workstation
- Creating a virtual machine using VMware Workstation or VirtualBox

user@localhost:~

File Edit View Search Terminal Help

```
[user@localhost ~]$ ifconfig
enp2s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
    inet 192.168.6.246  netmask 255.255.252.0  broadcast 192.168.7.255
    inet6 fe80::21f:d0ff:fee6:6d98  prefixlen 64  scopeid 0x20<link>
    ether 00:1f:d0:e6:6d:98  txqueuelen 1000  (Ethernet)
    RX packets 99306  bytes 37827962 (36.0 MiB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 18914  bytes 1971693 (1.8 MiB)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
    inet 127.0.0.1  netmask 255.0.0.0
    inet6 ::1  prefixlen 128  scopeid 0x10<host>
    loop txqueuelen 0  (Local Loopback)
    RX packets 116  bytes 7032 (6.8 KiB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 116  bytes 7032 (6.8 KiB)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

virbr0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
    inet 192.168.122.1  netmask 255.255.255.0  broadcast 192.168.122.255
    ether 52:54:00:7d:6d:83  txqueuelen 0  (Ethernet)
    RX packets 0  bytes 0 (0.0 B)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 0  bytes 0 (0.0 B)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

[user@localhost ~]$
```



user@localhost:~

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```

```
[user@localhost ~]$ knife --version
```

```
Chef: 12.16.42
```

```
[user@localhost ~]$
```

user@localhost:~

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```
inet 192.168.6.246 netmask 255.255.252.0 broadcast 192.168.7.255
inet6 fe80::21f:d0ff:fee6:6d98 prefixlen 64 scopeid 0x20<link>
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TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
[user@localhost ~]$ knife --version
```

```
Chef: 12.16.42
```

```
[user@localhost ~]$ knife node list
```

```
[user@localhost ~]$ █
```



root@localhost:~

File Edit View Search Terminal Help

```
TX packets 18914  bytes 1971693 (1.8 MiB)
TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
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lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
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    inet6 ::1  prefixlen 128  scopeid 0x10<host>
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RX packets 116  bytes 7032 (6.8 KiB)
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TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

```
[user@localhost ~]$ knife --version
```

```
Chef: 12.16.42
```

```
[user@localhost ~]$ knife node list
```

```
[user@localhost ~]$ su
```

```
\Password:
```

```
[root@localhost user]# ssh root@192.168.122.1
```

```
root@192.168.122.1's password:
```

```
Last login: Mon Dec 5 13:17:12 2016
```

```
[root@localhost ~]#
```

root@localhost:~

Chef Manage - Mozilla Firefox

root@localhost:~

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root@192.168.122.1's password:

Last login: Mon Dec 5 13:17:12 2016

[root@localhost ~]# ifconfig

```
enp2s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.6.246 netmask 255.255.252.0 broadcast 192.168.7.255
    inet6 fe80::21f:d0ff:fee6:6d98 prefixlen 64 scopeid 0x20<link>
    ether 00:1f:d0:e6:6d:98 txqueuelen 1000 (Ethernet)
    RX packets 106147 bytes 38369129 (36.5 MiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 19280 bytes 2013374 (1.9 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 0 (Local Loopback)
    RX packets 194 bytes 18562 (18.1 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 194 bytes 18562 (18.1 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
virbr0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    inet 192.168.122.1 netmask 255.255.255.0 broadcast 192.168.122.255
    ether 52:54:00:7d:6d:83 txqueuelen 0 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

[root@localhost ~]#

# Chef Client

```
# rpm -qa *chef*
```



## Remove Chef Client

```
# yum remove chef-12.3.0-1.el6.x86_64
```

## Verification of Remove Chef Client

```
# chef-client -version
```

# Remove Tomcat Installation

```
# yum remove tomcat6
```



# JDK Command

```
# java -version
```

root@localhost:/home/user/Desktop/chef/chef-repo

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```
[root@localhost ~]# knife bootstrap 192.168.122.1 -x root -P pass123 -N tomcatserver
WARNING: No knife configuration file found
WARN: Failed to read the private key /etc/chef/client.pem: #<Errno::ENOENT: No such file or directory @ rb_sysopen - /etc/chef/client.pem>
ERROR: Your private key could not be loaded from /etc/chef/client.pem
Check your configuration file and ensure that your private key is readable
[root@localhost ~]# cd '/home/user/Desktop/chef/chef-repo'
[root@localhost chef-repo]# knife bootstrap 192.168.122.1 -x root -P pass123 -N tomcatserver
Creating new client for tomcatserver
Creating new node for tomcatserver
Connecting to 192.168.122.1
192.168.122.1 -----> Existing Chef installation detected
192.168.122.1 Starting the first Chef Client run...
```



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```
[root@localhost ~]# knife bootstrap 192.168.122.1 -x root -P pass123 -N tomcatserver
```

```
WARNING: No knife configuration file found
```

```
WARN: Failed to read the private key /etc/chef/client.pem: #<Errno::ENOENT: No such file or directory @ rb_sysopen - /etc/chef/client.pem>
```

```
ERROR: Your private key could not be loaded from /etc/chef/client.pem
```

```
Check your configuration file and ensure that your private key is readable
```

```
[root@localhost ~]# cd '/home/user/Desktop/chef/chef-repo'
```

```
[root@localhost chef-repo]# knife bootstrap 192.168.122.1 -x root -P pass123 -N tomcatserver
```

```
Creating new client for tomcatserver
```

```
Creating new node for tomcatserver
```

```
Connecting to 192.168.122.1
```

```
192.168.122.1 -----> Existing Chef installation detected
```

```
192.168.122.1 Starting the first Chef Client run...
```

```
192.168.122.1 Starting Chef Client, version 12.16.42
```

```
192.168.122.1 resolving cookbooks for run list: []
```

```
192.168.122.1 Synchronizing Cookbooks:
```

```
192.168.122.1 Installing Cookbook Gems:
```

```
192.168.122.1 Compiling Cookbooks...
```

```
192.168.122.1 [2016-12-05T13:30:14+05:30] WARN: Node tomcatserver has an empty run list.
```

```
192.168.122.1 Converging 0 resources
```

```
192.168.122.1
```

```
192.168.122.1 Running handlers:
```

```
192.168.122.1 Running handlers complete
```

```
192.168.122.1 Chef Client finished, 0/0 resources updated in 35 seconds
```

```
[root@localhost chef-repo]#
```





Nodes

Reports

Policy

Administration

Feedback

Organization packt ▾

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0 0

> Nodes

Showing All Nodes

Search Nodes...



Node Name	Platform	FQDN	IP Address	Uptime	Last Check-In	Environment	Actions
tomcatserver	centos	localhost	192.168.6.246	38 minutes	a minute ago	_default	

Delete

Manage Tags

Reset Key

Edit Run List

Edit Attributes

Please select a node



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0 0

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0 0

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Node Name	Platform	FQDN	IP Address	Uptime	Last Check-In	Environment	Actions
tomcatserver	centos	localhost	192.168.6.246	38 minutes	a minute ago	_default	

Node: tomcatserver

Details

Attributes

Permissions

Last Check In: **2 Minutes Ago**  
2016-12-05 07:59:54 UTC

Uptime: **38 Minutes**  
Since 2016-12-05 07:23:43 UTC

Environment:

\_default

Platforms:

centos

FQDN:

localhost

IP Address:

192.168.6.246



> Nodes Showing All Nodes Search Nodes... 🔍

Node Name	Platform	FQDN	IP Address	Uptime	Last Check-In	Environment	Actions
tomcatserver	centos	localhost	192.168.6.246	38 minutes	a minute ago	_default	⚙️

- Delete
- Manage Tags
- Reset Key
- Edit Run List
- Edit Attributes

Details Attributes Permissions

Last Check In: **2 Minutes Ago**  
2016-12-05 07:59:54 UTC

Uptime: **38 Minutes**  
Since 2016-12-05 07:23:43 UTC

Environment: \_default  
Platforms: centos  
FQDN: localhost  
IP Address: 192.168.6.246

> Nodes Showing All Nodes Search Nodes... 🔍

Node Name	Platform	FQDN	IP Address	Uptime	Last Check-In	Environment	Actions
tomcatserver	centos	localhost	192.168.6.246	38 minutes	a minute ago	_default	⚙️

- Delete
- Manage Tags
- Reset Key
- Edit Run List
- Edit Attributes

Details Attributes Permissions

Attributes

Expand All Collapse All Edit

tags:

- + cpu
- + filesystem
- + kernel

Node Name	Platform	FQDN	IP Address	Uptime	Last Check-In	Environment	Actions
tomcatserver	centos	localhost	192.168.6.246	38 minutes	a minute ago	_default	⚙️

Delete  
Manage Tags  
Reset Key  
Edit Run List  
Edit Attributes

Node: tomcatserver

Details Attributes Permissions

Filter... + Add

Name	Read	Update	Delete	Grant
admins	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
clients	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
users	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>





Nodes

Showing All Nodes

Search Nodes...

Node Name	Platform	FQDN	IP Address	Uptime	Last Check-In	Environment	Actions
tomcatserver	centos	localhost	192.168.6.246	38 minutes	a minute ago	_default	

+ virtualization

+ languages

+ chef\_packages

+ dmi

+ etc

current\_user: root

cloud\_v2:

+ command

+ filesystem2

hostname: localhost

machinename: localhost.localdomain

fqdn: localhost

> Nodes Showing All Nodes Search Nodes... 🔍

Node Name	Platform	FQDN	IP Address	Uptime	Last Check-In	Environment	Actions
tomcatserver	centos	localhost	192.168.6.246	38 minutes	a minute ago	_default	⚙️

+ hostnamectl  
  machine\_id: eb695f24c3a14c859025a37a604e8913

+ sessions  
  ohai\_time: 1480924794.567778

+ packages  
  root\_group: root

+ shells

+ time  
  recipes:  
  expanded\_run\_list:  
  roles:

Dashboard

Run History

Showing chef-client runs for 12/04/2016 - 12/05/2016 🔄

Runs Summary

No Data Available.

Run Durations

success failure aborted

Run Counts

success failure aborted

No Data Available.

Next Video

Installing Software Packages Using Cookbooks



Next Video

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