**Cobbler Note**

2015.4.8

## Machine

**Original server**

***Username/password for original server:***

User: cloud

Password: 0tct00ls

***Original Server List***

**cloud-node7:**

10.238.153.136 on eth0

192.168.0.253 on eth1:

**New Server**

***Username/Password for New Server:***

User: cloud

Passwd:cloud123

***New Server List***

**cloud-gate:** (broken)

10.238.153.125 on eth1

192.168.0.252 on eth0:

**otcloud-gate:**

192.168.0.252 on eth0

10.238.153.116 on eth1:

**otcloud-compute1:**

em3:192.168.0.79

em4:10.238.153.140

**otcloud-compute2:**

em3:192.168.0.80

**otcloud-compute3:**

em1:192.168.0.81

**otcloud-controller:**

em1:192.168.0.100

## Offical Doc:

Qickstart:

<http://www.cobblerd.org/manuals/quickstart/>

## Add Proxy

To edit /etc/sudoers to set nosudo for cloud user:

# add the following line:

cloud ALL = (ALL) NOPASSWD: ALL

To edit /etc/environment to add proxy:

PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games"

http\_proxy="http://proxy-prc.intel.com:911/"

https\_proxy="https://proxy-prc.intel.com:911/"

ftp\_proxy="ftp://proxy-prc.intel.com:911/"

socks\_proxy="socks://proxy-prc.intel.com:1080/"

no\_proxy=".intel.com,10.238.153.125,10.238.153.136,192.168.0.0/24"

To edit /etc/apt/apt.conf to add more proxy for apt:

Acquire::http::proxy "http://proxy-prc.intel.com:911/";

Acquire::https::proxy "https://proxy-prc.intel.com:911/";

Acquire::ftp::proxy "ftp://proxy-prc.intel.com:911/";

Acquire::socks::proxy "socks://proxy-prc.intel.com:1080/";

## Install Cobbler

To install cobbler:

$ sudo apt install cobbler

**Issue 1:**

apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1.1.

Solution:

To edit /etc/apache2/apache2.conf:

# add the following line

ServerName localhost

**Issue 2:**

/var/lib/dpkg/info/cobbler.postinst: 24: /var/lib/dpkg/info/cobbler.postinst: htpasswd: not found

Solution:

To instal apache2-utils:

$ sudo apt-get install apache2-utils

## Configure Cobbler

To edit /etc/cobbler/settings:

# add default password

# run `openssl passwd -l`, enter `cloud123`, copy the output

# paste to the following line and the default password is `cloud123`

default\_password\_crypted: "$1$/HhYfgTb$LxryspFWO7XIW3UIDtsyy."

# set internal IP to the following lines

server: 192.168.0.252

next\_server: 192.168.0.252

# set to 1 to enable Cobbler's DNS management features.

manage\_dns: 1

# set to 1 to enable Cobbler's DHCP management features.

manage\_dhcp: 1

To edit /etc/cobbler/modules.conf to set dns/dhcp modules:

# set dns/dhcp module to manage\_dnsmasq

[dns]

module = manage\_dnsmasq

[dhcp]

module = manage\_dnsmasq

To restart service cobbler to enable the configuration:

$ sudo service cobbler restart

## Get-loader for Cobbler

To install content for net boot loaders.

$ sudo cobbler get-loaders

**Issue:**

task started: 2015-04-13\_143653\_get\_loaders

task started (id=Download Bootloader Content, time=Mon Apr 13 14:36:53 2015)

downloading http://www.cobblerd.org/loaders/README to /var/lib/cobbler/loaders/README

Exception occured: <class 'urlgrabber.grabber.URLGrabError'>

Exception value: [Errno 14] PYCURL ERROR 7 - "Failed to connect to www.cobblerd.org port 80: Connection timed out"

Solution:

$ cd /var/lib/cobbler/loaders

$ wget <http://www.cobblerd.org/loaders/README>

$ wget <http://www.cobblerd.org/loaders/COPYING.elilo>

$ wget <http://www.cobblerd.org/loaders/COPYING.yaboot>

$ wget <http://www.cobblerd.org/loaders/COPYING.syslinux>

$ wget <http://www.cobblerd.org/loaders/elilo-3.8-ia64.efi>

$ mv elilo-3.8-ia64.efi elilo-ia64.efi

$ wget <http://www.cobblerd.org/loaders/yaboot-1.3.14-12>

$ mv yaboot-1.3.14-12 yaboot

$ wget <http://www.cobblerd.org/loaders/pxelinux.0-3.86>

$ mv pxelinux.0-3.86 pxelinux.0

$ wget <http://www.cobblerd.org/loaders/menu.c32-3.86>

$ mv menu.c32-3.86 menu.c32

$ wget <http://www.cobblerd.org/loaders/grub-0.97-x86.efi>

$ mv grub-0.97-x86.efi grub-x86.efi

$ wget <http://www.cobblerd.org/loaders/grub-0.97-x86_64.efi>

$ mv grub-0.97-x86\_64.efi grub-x86\_64.efi

## Install Debmirror and Dnsmasq

To install debmirror:

$ sudo apt-get install debmirror

To install dnsmasq:

$ sudo apt install dnsmasq

## Check Cobbler

To check cobbler configuration:

$ sudo cobbler check

No configuration problems found. All systems go.

To check the cobbler:

$ sudo cobbler sync

## Install Cobbler-web

To install cobbler-web:

$ sudo apt install cobbler-web

To check:

$ curl -I 10.238.153.125/cobbler/

HTTP/1.1 200 OK

Date: Thu, 09 Apr 2015 01:46:54 GMT

Server: Apache/2.4.7 (Ubuntu)

Content-Type: text/html;charset=UTF-8

To configure user and passaord:

$ sudo htdigest -c /etc/cobbler/users.digest "Cobbler" cobbler

Password: cobbler

To login from a browse:

http://10.238.153.125/cobbler\_web

## Import Dirtros

To download a DVD ISO not a Live CD ISO for your distribution:

$ wget http://releases.ubuntu.com/14.04/ ubuntu-14.04.2-server-amd64.iso

To mount it:

$ mount -t iso9660 -o loop,ro ubuntu-14.04.2-server-amd64.iso /mnt/

To import it:

$ cobbler import --name= ubuntu-14.04.2 --arch=x86\_64 --path=/mnt

To check:

$ sudo cobbler distro list

$ sudo cobbler profile list

$ sudo cobbler distro report --name= ubuntu-14.04.2

## Set Static IP

To find the mac address(HWaddr) in your client machine:

$ ifconfig

eth0 Link encap:Ethernet HWaddr 18:03:73:2e:36:d9

To set static IP in /etc/dnsmasq.conf for each client:

$ sudo vi /etc/dnsmasq.conf

# Add static ips for client machines

# node4 eth1

dhcp-host=60:eb:69:6f:26:b5,192.168.0.4

## Reposync

Edit the repo to sync mirror to local machine:

# following is the detail information for repo

$ cobbler repo report

Name : ubuntu-server

Apt Components (apt only) : ['main', 'universe']

Apt Dist Names (apt only) : ['trusty', 'trusty-updates', 'trusty-security']

Arch : x86\_64

Breed : apt

Comment :

Createrepo Flags : <<inherit>>

Environment Variables : {}

Keep Updated : True

Mirror : http://linux-ftp.bj.intel.com/pub/mirrors/ubuntu/

Mirror locally : True

Owners : ['admin']

Priority : 99

RPM List : []

Yum Options : {'--verbose': '~', '--ignore-release-gpg': '~'}

Name : cloud-archive

Apt Components (apt only) : ['main']

Apt Dist Names (apt only) : ['trusty-updates/juno']

Arch : x86\_64

Breed : apt

Comment :

Createrepo Flags : <<inherit>>

Environment Variables : {'http\_proxy': 'http://proxy-prc.intel.com:911', 'rsync\_proxy': 'http://proxy-prc.intel.com:911'}

Keep Updated : True

Mirror : http://ubuntu-cloud.archive.canonical.com/ubuntu/

Mirror locally : True

Owners : ['admin']

Priority : 99

RPM List : []

Yum Options : {'--verbose': '~', '--ignore-release-gpg': '~'}

Run reposync to download mirror:

$ cobbler reposync

Add the repo to your profile:

# following is the detail information for profile

$ cobbler profile report

Name : ubuntu-server

TFTP Boot Files : {}

Comment :

DHCP Tag : default

Distribution : ubuntu-14.04.2-x86\_64

Enable gPXE? : 0

Enable PXE Menu? : 1

Fetchable Files : {}

Kernel Options : {}

Kernel Options (Post Install) : {}

Kickstart : /var/lib/cobbler/kickstarts/ubuntu-server.seed

Kickstart Metadata : {}

Management Classes : []

Management Parameters : <<inherit>>

Name Servers : []

Name Servers Search Path : []

Owners : ['admin']

Parent Profile :

Proxy :

Red Hat Management Key : <<inherit>>

Red Hat Management Server : <<inherit>>

Repos : ['cloud-archive', 'ubuntu-server']

Server Override : 192.168.0.252

Template Files : {}

Virt Auto Boot : 1

Virt Bridge : virbr0

Virt CPUs : 1

Virt Disk Driver Type : raw

Virt File Size(GB) : 5

Virt Path :

Virt RAM (MB) : 512

Virt Type : kvm

## Edit Proceed File

Edit proceed file for your profile:

# Following is the proceed file for ubuntu-server profile

# /var/lib/cobbler/kickstarts/ubuntu-server.seed

### Localization.

d-i auto-install/enable boolean true

d-i debian-installer/locale string en\_US

d-i localechooser/translation/warn-light boolean true

d-i localechooser/translation/warn-severe boolean true

d-i console-setup/ask\_detect boolean false

d-i keyboard-configuration/layoutcode string us

### Net interface setting.

d-i netcfg/choose\_interface select em1

d-i netcfg/dhcp\_timeout string 60

d-i netcfg/get\_hostname string otcloud-controller

d-i netcfg/get\_domain string private

### Mirror setting. use the local proxy.

d-i mirror/country string manual

d-i mirror/protocol string http

d-i mirror/http/hostname string 192.168.0.252

d-i mirror/http/directory string /cobbler/ks\_mirror/ubuntu-server

d-i mirror/http/proxy string

### Clock and timezone setting. use local ntp.

d-i clock-setup/utc boolean true

d-i time/zone string Asia/Shanghai

d-i clock-setup/ntp boolean true

d-i clock-setup/ntp-server 192.168.0.252

### Partioning setting.

d-i partman-auto/disk string /dev/sda

d-i partman-auto-lvm/guided\_size string max

d-i partman-auto/choose\_recipe select atomic

d-i partman-auto/method string lvm

d-i partman-lvm/confirm boolean true

d-i partman-lvm/confirm\_nooverwrite boolean true

d-i partman-lvm/device\_remove\_lvm boolean true

d-i partman-lvm/confirm boolean true

d-i partman/choose\_partition select finish

d-i partman/confirm boolean true

d-i partman/confirm\_nooverwrite boolean true

d-i partman/confirm\_write\_new\_label boolean true

d-i partman/default\_filesystem string ext4

d-i base-installer/kernel/image string linux-server

### Account setting.

d-i passwd/root-login boolean false

d-i passwd/user-fullname string cloud

d-i passwd/username string cloud

d-i passwd/user-password password cloud123

d-i passwd/user-password-again password cloud123

d-i user-setup/allow-password-weak boolean true

d-i user-setup/encrypt-home boolean false

### Apt setup

d-i apt-setup/services-select multiselect security

d-i apt-setup/security\_host string 192.168.0.252

d-i apt-setup/security\_path string /cobbler/repo\_mirror/ubuntu-server

###After the Ubuntu12.10, preseedfile need live-installer.

d-i live-installer/net-image string http://192.168.0.252/cobbler/ks\_mirror/ubuntu-server/install/filesystem.squashfs

### Package selection.

d-i pkgsel/include string openssh-server

d-i pkgsel/upgrade select none

d-i pkgsel/update-policy select none

tasksel tasksel/first multiselect standard, ubuntu-server

### Boot loader installation.

d-i grub-installer/only\_debian boolean true

d-i grub-installer/with\_other\_os boolean true

### finishing up the installation.

d-i finish-install/reboot\_in\_progress note

## Install Squid

To install:

$ sudo apt-get install squid

Edit /etc/ squid3/squid.conf to configure:

# Following is the conf

$ egrep -v '^#|^$' /etc/squid3/squid.conf

acl localnet src 192.168.0.0/16 # RFC1918 possible internal network

acl SSL\_ports port 443

acl Safe\_ports port 80 # http

acl Safe\_ports port 21 # ftp

acl Safe\_ports port 443 # https

acl Safe\_ports port 70 # gopher

acl Safe\_ports port 210 # wais

acl Safe\_ports port 1025-65535 # unregistered ports

acl Safe\_ports port 280 # http-mgmt

acl Safe\_ports port 488 # gss-http

acl Safe\_ports port 591 # filemaker

acl Safe\_ports port 777 # multiling http

acl CONNECT method CONNECT

http\_access deny !Safe\_ports

http\_access deny CONNECT !SSL\_ports

http\_access allow localhost manager

http\_access deny manager

http\_access allow all

http\_port 3128

cache\_peer proxy-prc.intel.com parent 911 0 no-query no-digest

cache\_dir ufs /var/spool/squid3 100 16 256

coredump\_dir /var/spool/squid3

refresh\_pattern ^ftp: 1440 20% 10080

refresh\_pattern ^gopher: 1440 0% 1440

refresh\_pattern -i (/cgi-bin/|\?) 0 0% 0

refresh\_pattern (Release|Packages(.gz)\*)$ 0 20% 2880

refresh\_pattern . 0 20% 4320

cache\_mgr cloud@localhost

never\_direct allow all

## Check Network Port

To check the port:

$ netstat -tunlp

# port 80: Aapche服务

# port 53: dnsmasqt程序的dns服务

# port 67: dnsmasq程序的DHCP服务

# port 69:  tftp-hpa程序的tftp服务

# port 25151: Apache2 的cobbler-web站点支持

## Install NTP

To install ntp:

$ sudo apt-get install ntp

To configure:

$ egrep -v '^#|^$' /etc/ntp.conf

driftfile /var/lib/ntp/ntp.drift

statistics loopstats peerstats clockstats

filegen loopstats file loopstats type day enable

filegen peerstats file peerstats type day enable

filegen clockstats file clockstats type day enable

server ntp.bj.intel.com

restrict 192.168.0.0 mask 255.255.255.0 nomodify notrap

restrict 127.0.0.1

restrict ::1

Set ntp in kickstart file:

### Clock and timezone setting. use local ntp.

d-i clock-setup/utc boolean true

d-i time/zone string Asia/Chongqing

d-i clock-setup/ntp boolean true

d-i clock-setup/ntp-server 192.168.0.252

Doc:

http://www.thegeekstuff.com/2014/06/linux-ntp-server-client/

## Issues for Boot

**Issue 1: Network cannot be configured automatically.**

Solution:

Add net configuration to kernal option for special profile:

netcfg/choose\_interface=em1

**Issue 2: It spends more than 30 minutes to wait for update and security.**

Solution:

Add update service to ks file:

### Apt setup

d-i apt-setup/services-select multiselect security

d-i apt-setup/security\_host string 192.168.0.252

d-i apt-setup/security\_path string /cobbler/repo\_mirror/ubuntu-server