**Cobbler + PXE Server (dhcp + tftp)**



**Http:**

http://172.16.9.10/cobbler\_web

**Localrepo:**

[http://172.16.9.10/ubuntu](http://172.16.9.10/ubuntu/pool/)

**Switch port 26-30**

**Set proxy**

export http\_proxy=http://128.2.101.107:3128/

export https\_proxy=http://128.2.101.107:3128/

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**Set sudoers:**

echo "pxeserver ALL = (root) NOPASSWD:ALL" | sudo tee /etc/sudoers.d/pxeserver

chmod 0440 /etc/sudoers.d/pxeserver

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**Define static IP:**

vi **/**etc**/**network**/**interfaces

*# The loopback network interface*  
auto lo  
iface lo inet loopback  
*# The primary network interface*  
auto eth0  
iface eth0 inet static  
address 172.16.9.10  
netmask 255.255.255.0  
gateway 172.16.9.1  
dns-nameservers 8.8.8.8

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**/**etc**/**init.d**/**networking restart

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**Install Cobbler:**

apt-get install cobbler cobbler-web

cobbler check

cobbler sync

htdigest /etc/cobbler/users.digest "Cobbler" cobbler

cobbler sync

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**Install Images:**

mkdir -p /ubuntu-srv

mkdir -p /centos-srv

mount -o loop ubuntu-14.04.4-server-i386.iso /ubuntu-srv

mount -o loop CentOS-6.7-x86\_64-minimal.iso /centos-srv

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**Deployment PXE.(Install DHCP, TFTP)**

apt-get install isc-dhcp-Server inetutils-inetd tftpd-hpa syslinux

cat /etc/dhcp/dhcpd.conf

# This declaration allows BOOTP clients to get dynamic addresses,

# which we don't really recommend.

ddns-update-style none;

# option definitions common to all supported networks...

#option domain-name "example.org";

#option domain-name-servers ns1.example.org, ns2.example.org;

option domain-name "redcoto.com.ar";

option domain-name-servers 128.2.254.183, 172.16.3.52;

default-lease-time 600;

max-lease-time 7200;

subnet 172.16.9.0 netmask 255.255.255.0 {

range dynamic-bootp 172.16.9.100 172.16.9.254;

option broadcast-address 172.16.9.255;

option routers 172.16.9.1;

allow booting;

allow bootp;

filename "pxelinux.0";

next-Server 172.16.9.10;

}

not authoritative;

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vi /etc/default/isc-dhcp-server

INTERFACES="eth0"

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rm -f /var/lib/dhcp/dhcpd.leases

touch /var/lib/dhcp/dhcpd.leases

chmod 0777 /var/lib/dhcp

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/etc/init.d/isc-dhcp-server start

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vi **/**etc**/**inetd.conf

tftp dgram udp **wait** root **/**usr**/**sbin**/**in.tftpd **/**usr**/**sbin**/**in.tftpd -s **/**var**/**lib**/**tftpboot

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vi **/**etc**/**default**/**tftpd-hpa

TFTP\_USERNAME="tftp"  
TFTP\_DIRECTORY="/var/lib/tftpboot"  
TFTP\_ADDRESS="0.0.0.0:69"  
TFTP\_OPTIONS="--secure"  
RUN\_DAEMON="yes"  
OPTIONS="-l -s /var/lib/tftpboot"

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update-inetd --enable BOOT

service tftpd-hpa start

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/etc/xinetd.d/tftp

service tftp

{

protocol = udp

port = 69

socket\_type = dgram

wait = yes

user = nobody

server = /usr/sbin/in.tftpd

server\_args = /var/lib/tftpboot

disable = no

}

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**Check:**

ss -anup | grep :69

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**Cobbler add new distro:**

Import DVD → Name + arch + breed + path (mounted iso path /ubunut-srv)

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**Cobbler Settings:**

vi /etc/cobbler/settings

next\_server: 172.16.9.10

server: 172.16.9.10

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**KickStart File: sample\_end.ks**

**PATH: /var/lib/cobbler/kickstarts**

# kickstart template for Fedora 8 and later.

# (includes %end blocks)

# do not use with earlier distros

#platform=x86, AMD64, or Intel EM64T

# System authorization information

auth --useshadow --enablemd5

# System bootloader configuration

bootloader --location=mbr

# Partition clearing information

clearpart --all --initlabel

# Use text mode install

text

# Firewall configuration

firewall --enabled

# Run the Setup Agent on first boot

firstboot --disable

# System keyboard

keyboard us

# System language

lang en\_US

# Use network installation

url --url=$tree

# If any cobbler repo definitions were referenced in the kickstart profile, include them here.

$yum\_repo\_stanza

# Network information

$SNIPPET('network\_config')

# Reboot after installation

reboot

#Root password

rootpw --iscrypted $1$5Doi7hEX$NVcOFoGgVKypb6jAMFhz.

# SELinux configuration

selinux --disabled

# Do not configure the X Window System

skipx

# System timezone

timezone America/New\_York

# Install OS instead of upgrade

install

# Clear the Master Boot Record

zerombr

# Allow anaconda to partition the system as needed

autopart

%pre

$SNIPPET('log\_ks\_pre')

$SNIPPET('kickstart\_start')

$SNIPPET('pre\_install\_network\_config')

# Enable installation monitoring

$SNIPPET('pre\_anamon')

%end

%packages

$SNIPPET('func\_install\_if\_enabled')

# $SNIPPET('pre\_anamon')

@ BASE

@CORE

%end

%post

$SNIPPET('log\_ks\_post')

# Start yum configuration

$yum\_config\_stanza

# End yum configuration

$SNIPPET('post\_install\_kernel\_options')

$SNIPPET('post\_install\_network\_config')

$SNIPPET('func\_register\_if\_enabled')

$SNIPPET('download\_config\_files')

$SNIPPET('koan\_environment')

$SNIPPET('redhat\_register')

$SNIPPET('cobbler\_register')

# Enable post-install boot notification

$SNIPPET('post\_anamon')

# Start final steps

$SNIPPET('kickstart\_done')

# End final steps

%end

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**Preseed File: sample.seed**

**Path: /var/lib/cobbler/kickstarts**

# Mostly based on the Ubuntu installation guide

# https://help.ubuntu.com/12.04/installation-guide/

# Preseeding only locale sets language, country and locale.

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

# Keyboard selection.

# Disable automatic (interactive) keymap detection.

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

d-i keyboard-configuration/layoutcode string es

d-i keyboard-configuration/variantcode string

# netcfg will choose an interface that has link if possible. This makes it

# skip displaying a list if there is more than one interface.

#set $myhostname = $getVar('hostname',$getVar('name','cobbler')).replace("\_","-")

d-i netcfg/choose\_interface select auto

d-i netcfg/get\_hostname string $myhostname

# If non-free firmware is needed for the network or other hardware, you can

# configure the installer to always try to load it, without prompting. Or

# change to false to disable asking.

# d-i hw-detect/load\_firmware boolean true

# NTP/Time Setup

d-i time/zone string America/Argentina/Buenos\_Aire

d-i clock-setup/utc boolean true

d-i clock-setup/ntp boolean true

d-i clock-setup/ntp-server string **172.16.3.52**

# Setup the installation source

d-i mirror/country string manual

d-i mirror/http/hostname string $http\_server

d-i mirror/http/directory string $install\_source\_directory

d-i mirror/http/proxy string

#set $os\_v = $getVar('os\_version','')

#if $os\_v and $os\_v.lower()[0] > 'p'

# Required at least for 12.10+

d-i live-installer/net-image string http://$http\_server/cobbler/links/$distro\_name/install/filesystem.squashfs

#end if

# Suite to install.

# d-i mirror/suite string precise

# d-i mirror/udeb/suite string precise

# Components to use for loading installer components (optional).

#d-i mirror/udeb/components multiselect main, restricted

# Disk Partitioning

# Use LVM, and wipe out anything that already exists

d-i partman/choose\_partition select finish

d-i partman/confirm boolean true

d-i partman/confirm\_nooverwrite boolean true

d-i partman-auto/method string lvm

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

d-i partman-lvm/confirm boolean true

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

d-i partman-md/device\_remove\_md boolean true

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

# You can choose one of the three predefined partitioning recipes:

# - atomic: all files in one partition

# - home: separate /home partition

# - multi: separate /home, /usr, /var, and /tmp partitions

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

# If you just want to change the default filesystem from ext3 to something

# else, you can do that without providing a full recipe.

# d-i partman/default\_filesystem string ext4

# root account and password

d-i passwd/root-login boolean true

# o-i passwd/root-password-crypted password $1$5Doi7hEX$NVcOFoGgVKypb6jAMFhz.

d-i passwd/root-password password 12345678

d-i passwd/root-password-again password 12345678

# Creation of a normal user account.

d-i passwd/make-user boolean true

d-i passwd/user-fullname string Lcd user

d-i passwd/username string lcd

d-i passwd/user-password password 12345678

d-i passwd/user-password-again password 12345678

# You can choose to install restricted and universe software, or to install

# software from the backports repository.

# d-i apt-setup/restricted boolean true

# d-i apt-setup/universe boolean true

# d-i apt-setup/backports boolean true

# Uncomment this if you don't want to use a network mirror.

# d-i apt-setup/use\_mirror boolean false

# Select which update services to use; define the mirrors to be used.

# Values shown below are the normal defaults.

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

# d-i apt-setup/security\_host string security.ubuntu.com

# d-i apt-setup/security\_path string /ubuntu

$SNIPPET('preseed\_apt\_repo\_config')

# Enable deb-src lines

# d-i apt-setup/local0/source boolean true

# URL to the public key of the local repository; you must provide a key or

# apt will complain about the unauthenticated repository and so the

# sources.list line will be left commented out

# d-i apt-setup/local0/key string http://local.server/key

# By default the installer requires that repositories be authenticated

# using a known gpg key. This setting can be used to disable that

# authentication. Warning: Insecure, not recommended.

# d-i debian-installer/allow\_unauthenticated boolean true

# Individual additional packages to install

# wget is REQUIRED otherwise quite a few things won't work

# later in the build (like late-command scripts)

#tasksel tasksel/first multiselect xubuntu-desktop

tasksel tasksel/first multiselect standard

d-i pkgsel/include string ntp ssh wget samba smbclient vim telnet rsync

# Use the following option to add additional boot parameters for the

# installed system (if supported by the bootloader installer).

# Note: options passed to the installer will be added automatically.

d-i debian-installer/add-kernel-opts string $kernel\_options\_post

# Avoid that last message about the install being complete.

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

## Figure out if we're kickstarting a system or a profile

#if $getVar('system\_name','') != ''

#set $what = "system"

#else

#set $what = "profile"

#end if

# This first command is run as early as possible, just after preseeding is read.

# d-i preseed/early\_command string [command]

d-i preseed/early\_command string wget -O- \

http://$http\_server/cblr/svc/op/script/$what/$name/?script=preseed\_early\_default | \

/bin/sh -s

# This command is run immediately before the partitioner starts. It may be

# useful to apply dynamic partitioner preseeding that depends on the state

# of the disks (which may not be visible when preseed/early\_command runs).

# d-i partman/early\_command \

# string debconf-set partman-auto/disk "\$(list-devices disk | head -n1)"

# This command is run just before the install finishes, but when there is

# still a usable /target directory. You can chroot to /target and use it

# directly, or use the apt-install and in-target commands to easily install

# packages and run commands in the target system.

# d-i preseed/late\_command string [command]

d-i preseed/late\_command string wget -O- \

http://$http\_server/cblr/svc/op/script/$what/$name/?script=preseed\_late\_default | \

chroot /target /bin/sh -s

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**Cobbler commands:**

**Reposync:**

**Add proxy :**

vi /etc/wgetrc

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cat ~/.profile

# ~/.profile: executed by Bourne-compatible login shells.

if [ "$BASH" ]; then

if [ -f ~/.bashrc ]; then

. ~/.bashrc

fi

fi

export http\_proxy=http://128.2.101.107:3128/

export https\_proxy=http://128.2.101.107:3128/

mesg n

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apt-get install debmirror

/usr/bin/debmirror --nocleanup --verbose --proxy=http://128.2.101.107:3128 --ignore-release-gpg --method=http --host=us.archive.ubuntu.com --root=/ubuntu/ --dist=trusty,trusty-updates,trusty-security --section=main,universe /var/www/cobbler/repo\_mirror/Ubuntu-Srv-i386 --nosource -a i386

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**Script Post-install:**

export http\_proxy=http://128.2.101.107:3128/

export https\_proxy=http://128.2.101.107:3128/

echo "lcd ALL = (root) NOPASSWD:ALL" | sudo tee /etc/sudoers.d/lcd

chmod 0440 /etc/sudoers.d/lcd

mv /etc/apt/sources.list /etc/apt/sources.list.ori && vi /etc/apt/sources.list

apt-get update && apt-get dist-upgrade -y

apt-get install software-properties-common -y

apt-get install ubuntu-desktop -y

apt-get install kubuntu-desktop -y

apt-get install flashplugin-installer tightvncserver -y

apt-get install --install-recommends linux-generic-lts-quantal xserver-xorg-lts-quantal libgl1-mesa-glx-lts-quantal -y

apt-get install gnome-panel gnome-settings-daemon metacity nautilus gnome-terminal -y

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mv /etc/timezone /etc/timezone.ori && echo "America/Argentina/Buenos\_Aires" >> /etc/timezone

mv /etc/ntp.conf /etc/ntp.conf.ori

echo "server 172.16.3.52

server 128.2.254.183

restrict default kod nomodify notrap nopeer noquery

restrict -6 default kod nomodify notrap nopeer noquery

restrict 127.0.0.1

restrict -6 ::1" >> /etc/ntp.conf

service ntp stop && ntpdate -s 172.16.3.52 && service ntp start

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vncserver

vncserver -kill :1

vncpasswd -f <<<"$full\_password"$'\n'"$view\_password" >"$HOME/.vnc/passwd"

mv ~/.vnc/xstartup ~/.vnc/xstartup.bak && vi ~/.vnc/xstartup

#!/bin/sh

export XKL\_XMODMAP\_DISABLE=1

unset SESSION\_MANAGER

unset DBUS\_SESSION\_BUS\_ADDRESS

[ -x /etc/vnc/xstartup ] && exec /etc/vnc/xstartup

[ -r $HOME/.Xresources ] && xrdb $HOME/.Xresources

xsetroot -solid grey

vncconfig -iconic &

gnome-panel &

gnome-settings-daemon &

metacity &

nautilus &

gnome-terminal &

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chmod +x ~/.vnc/xstartup && vncserver

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mkdir -p /multimediasucursales

chown lcd.lcd /multimediasucursales

vi /etc/rsyncd.conf

log file = /var/log/rsync.log

timeout = 300

[multimediasucursales]

comment = rsync para archivos de publicidad para los LCD.

path = /multimediasucursales

read only = no

write only = yes

use chroot = yes

list = no

uid = lcd

gid = lcd

transfer logging = yes

hosts allow = 172.16.8.16

post-xfer exec = chown -R lcd.lcd /multimediasucursales/\*

/etc/init.d/rsync restart

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128.2.1.42 / LdaP//2013

apt-get install libpam-ldap nscd

dpkg-reconfigure ldap-auth-config

vi /etc/nsswitch.conf

passwd: ldap compat

group: ldap compat

shadow: ldap compat

vi /etc/pam.d/common-session

session required pam\_mkhomedir.so skel=/etc/skel umask=0022

/etc/init.d/nscd restart

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mkdir -p ~/.config/autostart && vi ~/.config/autostart/firefox.desktop

[Desktop Entry]

Type=Application

Exec=/usr/bin/firefox

Hidden=false

NoDisplay=false

X-GNOME-Autostart-enabled=true

Name[en\_US]=Firefox

Name=Firefox

Comment[en\_US]=

Comment=

vi /etc/lightdm/lightdm.conf

[SeatDefaults]

greeter-session=unity-greeter

user-session=ubuntu

autologin-user=lcd

/usr/lib/lightdm/lightdm-set-defaults --autologin lcd

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vi /etc/samba/smb.conf

[Media$]

path = /home/contingencia/Media

writeable = yes

browseable = yes

valid users = contingencia

useradd -m -d /home/contingencia contingencia

passwd contingencia

mkdir -p /home/contingencia/Media

chown contingencia:contingencia /home/contingencia/Media

echo "contingencia ALL = (root) NOPASSWD:ALL" | sudo tee /etc/sudoers.d/contingencia

chmod 0440 /etc/sudoers.d/contingencia

/etc/init.d/smbd restart

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**Crear Snippet (personal script)**

Desde la web:

Menu → Snippet → Crear New Snippet → Save

Consola:

vi /var/lib/cobbler/scripts/preseed\_late\_default

Agregamos una nueva linea:

$SNIPPET('new\_script')

Estas dos siempre van al final:

$SNIPPET('kickstart\_done')

# End preseed\_late\_default

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**Distro\_signatures.json**

/var/lib/cobbler/

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