Hands-off installation of Ubuntu

BV

[2015-03-28 Sat 18:19]

1 Overview of installation

1. Capture MAC address of computer
2. Enter it into system
3. Turn computer on, booting with netboot
4. Computer loads pxelinux bootloader over the network
5. PXELinux boots Ubuntu netboot with preseed file
6. Enter BIOS to turn off netboot
7. After installation, use ansible/puppet to polish off

2 Capture MAC addresses

Boot to BIOS or run `tcpdump -qtel broadcast and port bootpc` while target machine boots.

3 Configure installation server

3.1 PXE/DHCP/TFTP

Local network has untouchable DHCP server, use dnsmasq to provide proxyDHCP and TFTP.

```
$ sudo apt-get install dnsmasq
```

Add to `/etc/dnsmasq.conf`

```
# Ubuntu sets up to use self for resolving and resolv.conf lists
# localhost so avoid self reference
no-resolv

# Router is real DNS server
server=192.168.1.1

# limit what interface to listen on
interface=eth0
# probably partly redudant
listen-address=127.0.0.1,192.168.1.123

# load aux config chunks
conf-dir=/etc/dnsmasq.d
```

/etc/dnsmasq.d/proxydhcp.conf

```
# log traffic info
log-dhcp
# Turn on the included TFTP server
enable-tftp
# Root directory for TFTP files
tftp-root=/var/lib/tftpboot
# PXE boot loader
dhcp-boot=pxelinux.0
# Act as proxyDHCP on given network
dhcp-range=192.168.1.0,proxy
# Ignore anybody we don't know
dhcp-ignore=tag:!known
# last arg is pxe file bootloader sans ".0"
pxe-service=x86PC, "Boot PXELinux", pxelinux
```

/etc/dnsmasq.d/known-hosts.conf

```
dhcp-host=00:22:19:dc:2e:bb
```

Put all known hosts in this file. Any not listed will simply be ignored by `dnsmasq`. Any changes to the config files requires a restart

```
# service dnsmasq restart
```

Monitor dnsmasq with

```
# tail -f /var/log/syslog
```

3.2 Prepare TFTP file area

Download netboot image:

```
# cd /var/lib/tftpboot
# for n in trusty utopic vivid
> do
>   mkdir $n
>   wget -O- http://archive.ubuntu.com/ubuntu/dists/$n/main/installer-amd64/current/im
> done
# rm -rf pxelib
# mkdir pxelib
# cd pxelib
# ln -s ../$n/ubuntu-installer/amd64/boot-screens/*.c32 .
# cd ..
# ln -sf $n/ldlinux.c32 .
# ln -sf $n/pxelinux.0 .
```

Configure.

3.3 Preseeding

This takes crafting.