

Introduction

In some cases (such as no installed CD-ROM or no physical access to the servers) we need to install Fuel Master node somehow other way from CD or USB Flash drive. Starting from Fuel 4.0 it's possible to deploy Master node with PXE

The process of deployment of Fuel master node over network consists of booting linux kernel by DHCP and PXE. Then anaconda installer will download configuration file and all packages needed to complete the installation.

- PXE firmware of the network card makes DHCP query and gets IP address and boot image name.
- Firmware downloads boot image file using TFTP protocol and starts it.
- This bootloader downloads configuration file with kernel boot option, kernel and initramfs and starts the installer.
- Installer downloads kickstart configuration file by mounting contents of Fuel ISO file over NFS.
- Installer partitions hard drive, installs the system by downloading packages over NFS, copies all additional files, installs the bootloader and reboots into new system.

NFS share

You will need to setup NFS server on your install system. Edit the NFS exports file:

```
# vim /etc/exports
```

Add the following line:

```
/srv/tftp *(ro,async,no_subtree_check,no_root_squash,crossmnt)
```

And restart it:

```
# /etc/init.d/nfs-kernel-server restart
```

PXELINUX configuration

Now we need to write the pxelinux configuration file. It will be located here
`/var/lib/tftpboot/pxelinux.cfg/default`:

```
LABEL Fuel for OpenStack version 8.0 ISO
KERNEL /commons/openstack/fuel.openstack.v8.0/isolinux/vmlinuz
INITRD /commons/openstack/fuel.openstack.v8.0/isolinux/initrd.img
```

```
APPEND biosdevname=0
ks=nfs:10.12.112.6:/srv/tftp/commons/openstack/fuel.openstack.v8.0/ks.cfg
repo=nfs:10.12.112.6:/srv/tftp/commons/openstack/fuel.openstack.v8.0 ip=dhcp
```

Now we need to unpack the Fuel ISO file we have downloaded:

```
mkdir -p /var/lib/tftpboot/commons/openstack/fuel.openstack.v8.0 /mnt/fueliso
mount -o loop /path/to/your/fuel.iso /mnt/fueliso
rsync -a /mnt/fueliso/ /var/lib/tftpboot/commons/openstack/fuel.openstack.v8.0
umount /mnt/fueliso && rmdir /mnt/fueliso
```

So that's it! We can boot over the network from this PXE server.

Resources

http://docs.openstack.org/developer/fuel-docs/devdocs/develop/pxe_deployment.html

From: <https://redtic.uclv.cu/dokuwiki/> - **ICT Network Project**

Permanent link: https://redtic.uclv.cu/dokuwiki/unattended_installations:installing_from_pxe_mirantis_fuel_for_openstack

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