Install Linux via ftp or nfs server step by step guide example and implementation

During the first phase of RHCE exam you are asked to install Linux via nfs or ftp or apache server. you will be provided a Linux boot disk and IP address and necessary directory name for installation. You need not to prepare server side on exam but here in this article we will configure both server and client side . In this practical we will show you How to prepare nfs or ftp server for network installation and further we will installation linux via nfs as well as ftp server. We will take apache server in our next article.

RHCE Exam Questions

Install the Redhat Linux RHEL 5 through NFS. Where your Server is server.example.com having IP 192.168.0.254 and shared /var/ftp/pub. The size of the partitions are listed below:

/ - 1048 /home - 1028 /boot - 512 /var - 1028 /usr - 2048 swap 2X256 (RAM SIZE)

There is a NFS server 192.168.0.254 and all required packages are dumped in /var/ftp/pub of that server and the /var/ftp/pub directory is shared. Install the Redhat Enterprise Linux 5 .

There is a FTP server 192.168.0.254 and all required packages are dumped in /var/ftp/pub of that server and anonymous login is enabled. Install the Redhat Enterprise Linux 5.

prepare Linux server for network installation

For this practical we need two systems one linux server and one client system. These pre quests should be completed on Linux server.

- Dump of RHEL disk must be taken on **/var/ftp/pub.**

```
[root@Server ~]# mount /dev/dvdwriter /mnt
mount: block device /dev/dvdwriter is write-protected, mounting read-only
[root@Server ~]# cd /mnt
[root@Server mnt]# cp -rf * /var/ftp/pub/
[root@Server mnt]# _
```

- Linux server should be configured with hostname **Server.example.com** and IP address **192.168.0.254**

```
[root@Server ~]# hostname
Server.example.com
[root@Server ~]# ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 00:0C:29:11:AD:E1
          inet addr:192.168.0.254  Bcast:192.168.0.255
          inet6 addr: fe80::20c:29ff:fe11:ade1/64 Scope
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Met
          RX packets:339 errors:0 dropped:0 overruns:0
          TX packets:426 errors:0 dropped:0 overruns:0
          collisions:0 txqueuelen:1000
          RX bytes:42690 (41.6 KiB)  TX bytes:56375 (55
          Interrupt:67 Base address:0x2000

[root@Server ~]# service dhcpd status
dhcpd (pid 2805) is running...
[root@Server ~]# _
```

- **DHCP, FTP, NFS** server should be configured and **dhcpd, nfs, vftpd** services must be running. If you feel difficulties in configuration of **dhcp, ftp and nfs** server then check our articles

Once you have completed these pre quests remaining configuration is very easy. Follow this guide.

Prepare FTP server for network installation

By default pub directory is shared with anonymous user account login enable in ftp server. So you need no additional configuration just create dump and restart the services.

create dump of RHEL disk to **/var/ftp/pub** and restart **vsftpd** service

```
[root@Server ~]# service vsftpd restart
Shutting down vsftpd:                                      [  OK  ]
Starting vsftpd for vsftpd:                                [  OK  ]
[root@Server ~]# service vsftpd status
vsftpd (pid 7570) is running...
[root@Server ~]# _
```

Prepare NFS server for network installation

As dump is already taken on /var/ftp/pub so sharing of **/var/ftp/pub** directory will do the task.

open **/etc/exportfs** with vi editor

```
[root@Server ~]# vi /etc/exports _
```

Share **/var/ftp/pub** for our network

```
/var/ftp/pub            192.168.0.0/24(rw,sync)
```

Now restart **nfs** service

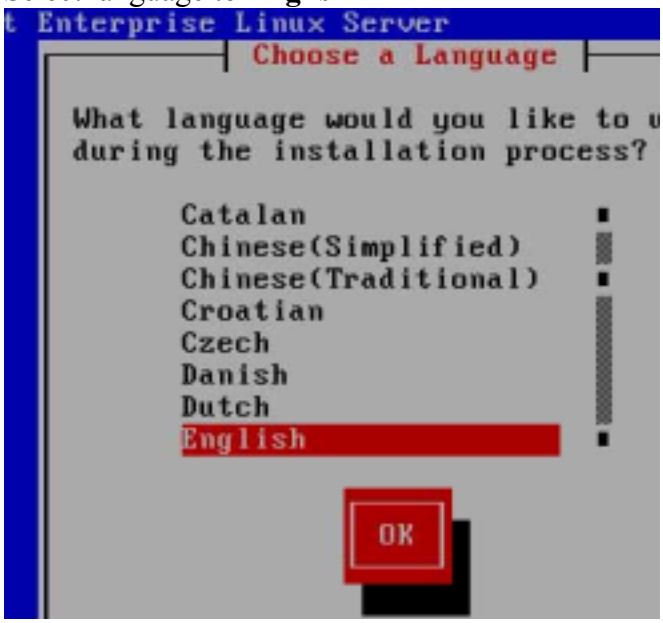
```
[root@Server ~]# service nfs restart
Shutting down NFS mountd:                                  [  OK  ]
Shutting down NFS daemon: nfsd: last server has exited
nfsd: unexporting all filesystems
                                                           [  OK  ]
Shutting down NFS quotas:                                  [  OK  ]
Shutting down NFS services:                                [  OK  ]
Starting NFS services:                                     [  OK  ]
Starting NFS quotas:                                       [  OK  ]
Starting NFS daemon: NFSD: Using /var/lib/nfs/v4recovery as the NFSv4
very directory
NFSD: starting 90-second grace period
                                                           [  OK  ]
Starting NFS mountd:                                       [  OK  ]
[root@Server ~]# chkconfig nfs on
[root@Server ~]# _
```

We have prepared both FTP and NFS server for network installation.

Configure Client for network installation via ftp server

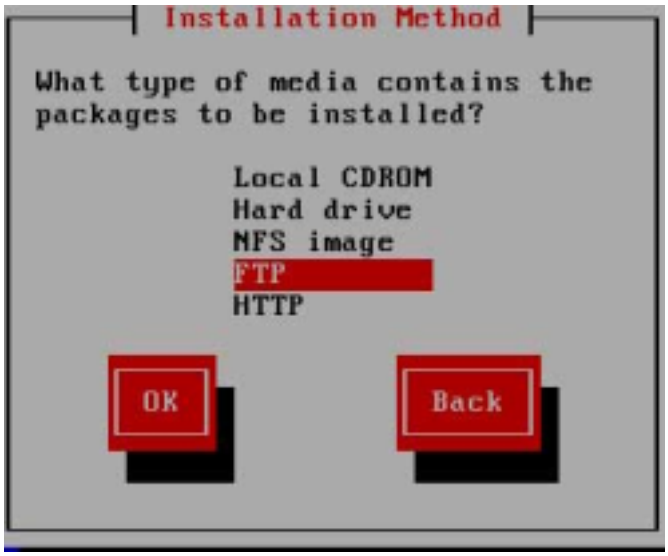
Boot system with Linux boot CD, [disk will be provided by examiner] Give **linux askmethod** command on boot prompt

Select language to **English**



Select Keyboard layout to **US**

Select install method **ftp** to install via ftp server

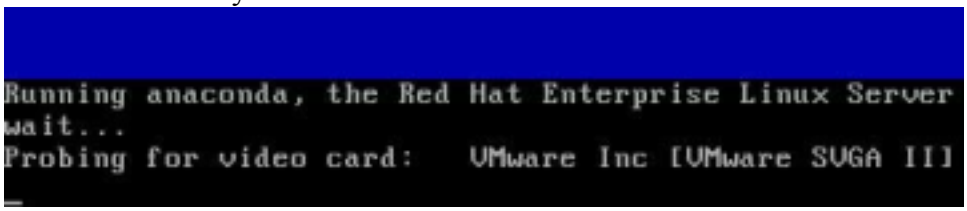


At this point you can remove Linux boot disk form CDROM as we installing linux from ftp server.

Select **Enable IPv4 supports** and select dynamic ip configuration [we have configured **dhcp server** on linux server so ip will be automatically retrieve]

Give to ip address of **FTP server** in ftp site name and **pub** in directory name

After few second you will retrieve **anaconda linux boot loader** form server



Now you can install linux as you have installed it from local CD ROM . All remaining steps are same.

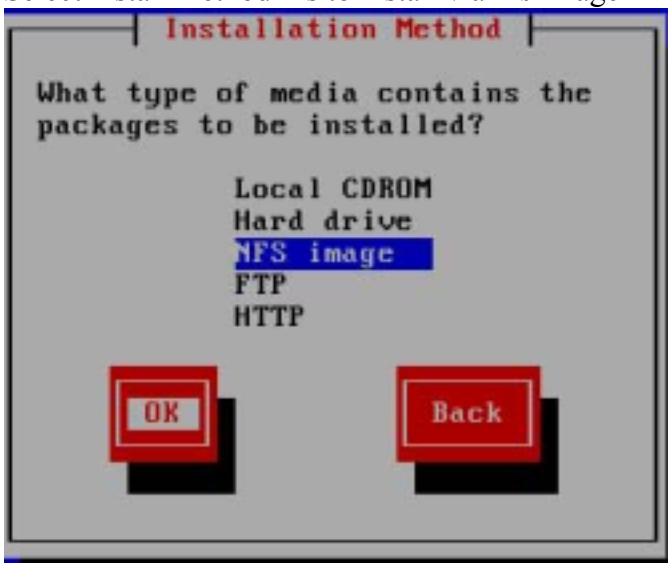
Configure Client for network installation via nfs server

Boot system with Linux boot CD, [disk will be provided by examiner] Give **linux askmethod** command on boot prompt

Select language to **English**

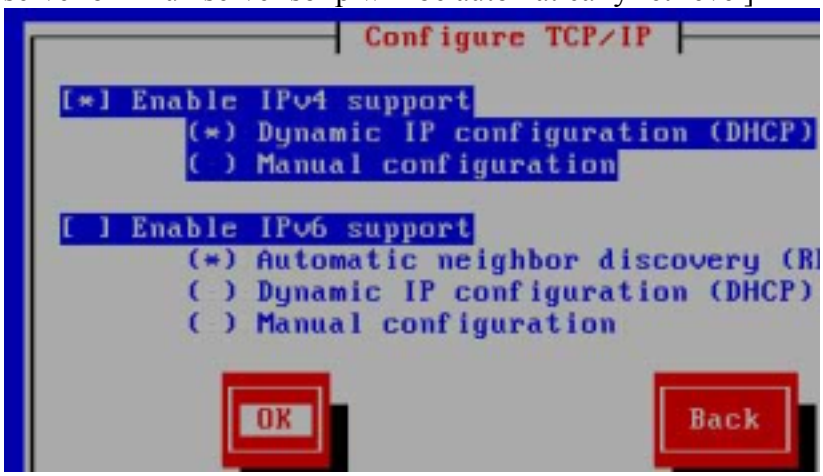
Select Keyboard layout to **US**

Select install method nfs to install via **nfs** image

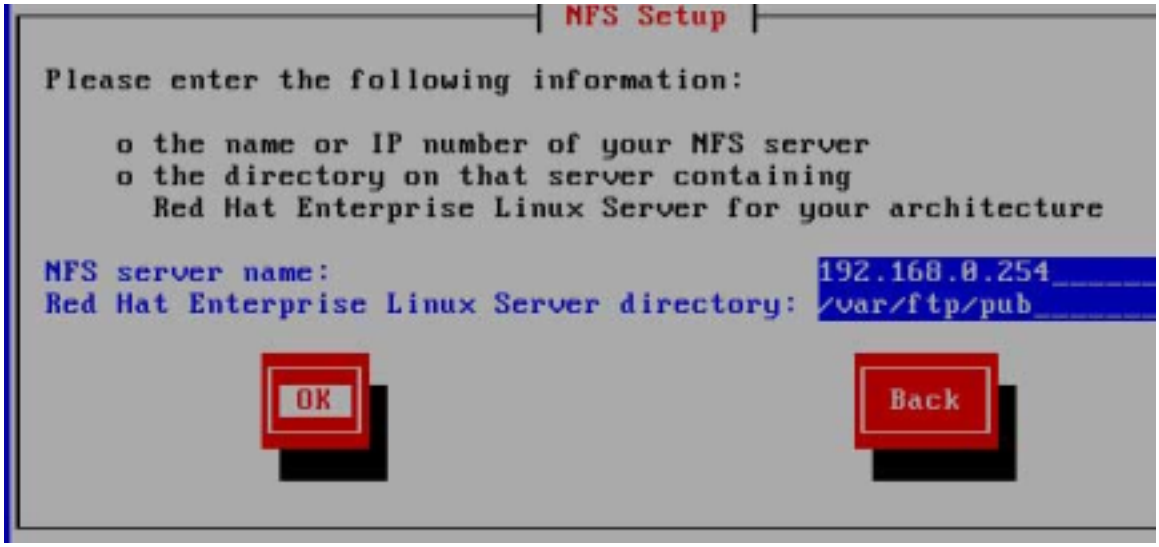


At this point you can remove Linux boot disk form CDROM as we installing linux from nfs server.

Select **Enable IPv4 supports** and select dynamic ip configuration [we have configured dhcp server on linux server so ip will be automatically retrieve]



Give to ip address of **nfs server** in nfs server name and **/var/ftp/pub** in directory path



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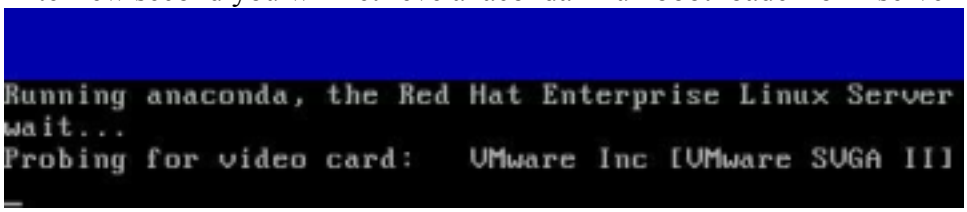

Now you can install linux as you have installed it from local CD ROM . All remaining steps are same.

Two time saving technique

During RHCE exam most concern thing is time. So we suggest to create the partition According to the Question because Size and what-what partition should you create at installation time is specified in your question. Do not create any extra partition to save time because any additional partition will take time in formatting.

Due to the time limit, you should care about the installation packages. At Exam time these packages are enough.

- X-Window System
- GNOME Desktop
- (these two packages are generally not required)
- Administration Tools.
- System Tools
- Windows File Server
- FTP Servers
- Mail Servers
- Web Servers
- Network Servers

- Editors
- Text Based Internet
- Server Configuration Tools
- Base
- Printing Supports

When installation will complete, your system will reboot. Jump for another Question.