

YUM SERVER CONFIGURATION GUIDE

Randy Larson

RATIONALE

During your lab practice at home you will want to configure a YUM client so you can connect to a YUM Server to download, satisfy dependencies, and install additional RPM packages. You may wish to consider a YUM Server on your network. Your Yum Server can also be a client as well, besides serving other Virtual RHEL 5.4 servers. Additionally, this would allow you to also perform NFS or FTP installs from another potential RHEL 5.4 server.

I am currently logged into my RHEL 5.4 server as the user root. I have already installed the vsftpd server RPM at installation time. Additionally I installed the createrepo RPM at install time. If you failed to do this at install time, you can mount the RHEL 5.4 installation DVD and install these two packages before proceeding. Those two packages are:

- createrepo-0.4.11-3.el5.noarch.rpm
- vsftpd-2.0.5-16.el5.i386.rpm

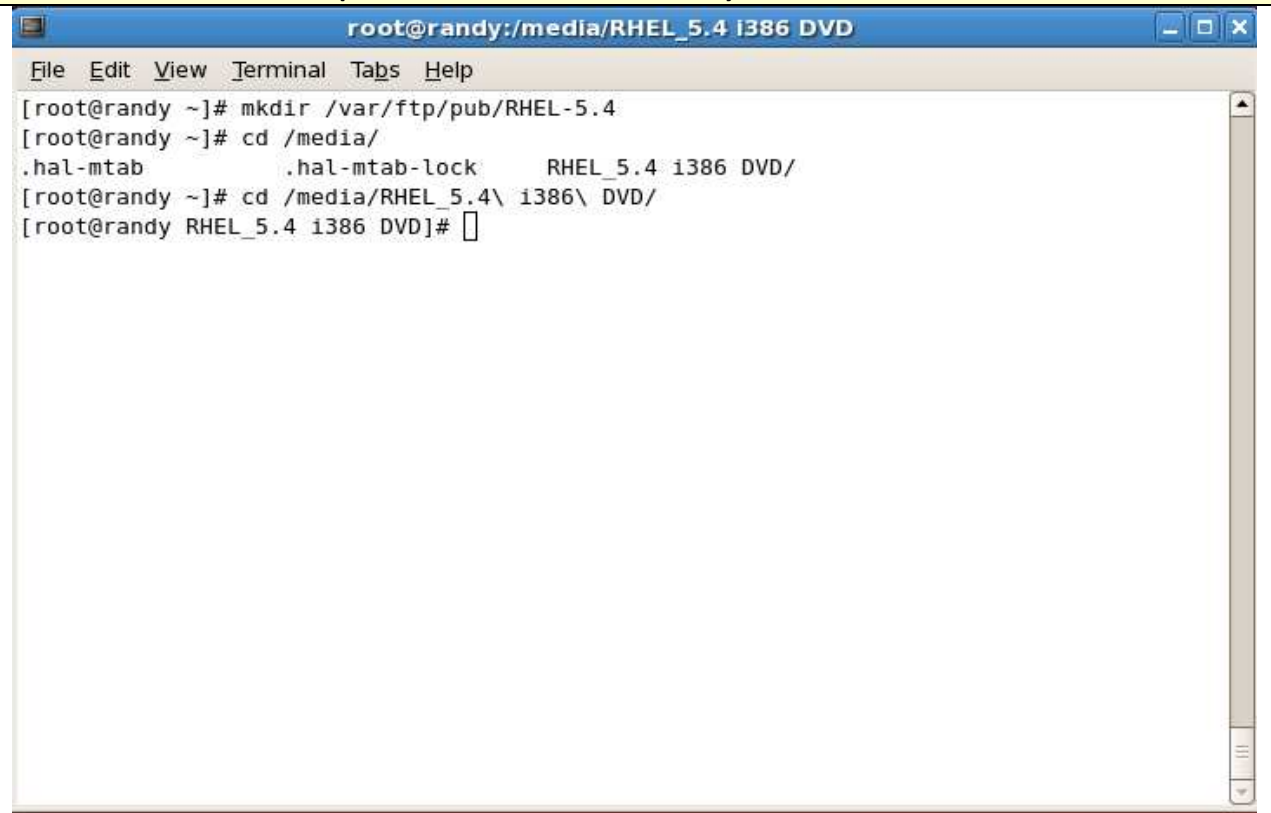
In this first step I have created the child directory RHEL-5.4 under /var/ftp/pub. If /var/ftp/pub doesn't exist, then vsftpd is not installed!

A terminal window titled 'root@randy:~' with a menu bar (File, Edit, View, Terminal, Tabs, Help). The terminal shows the command '[root@randy ~]# mkdir /var/ftp/pub/RHEL-5.4' and the prompt '[root@randy ~]# ' with a cursor.

```
root@randy:~  
File Edit View Terminal Tabs Help  
[root@randy ~]# mkdir /var/ftp/pub/RHEL-5.4  
[root@randy ~]#
```

Figure One

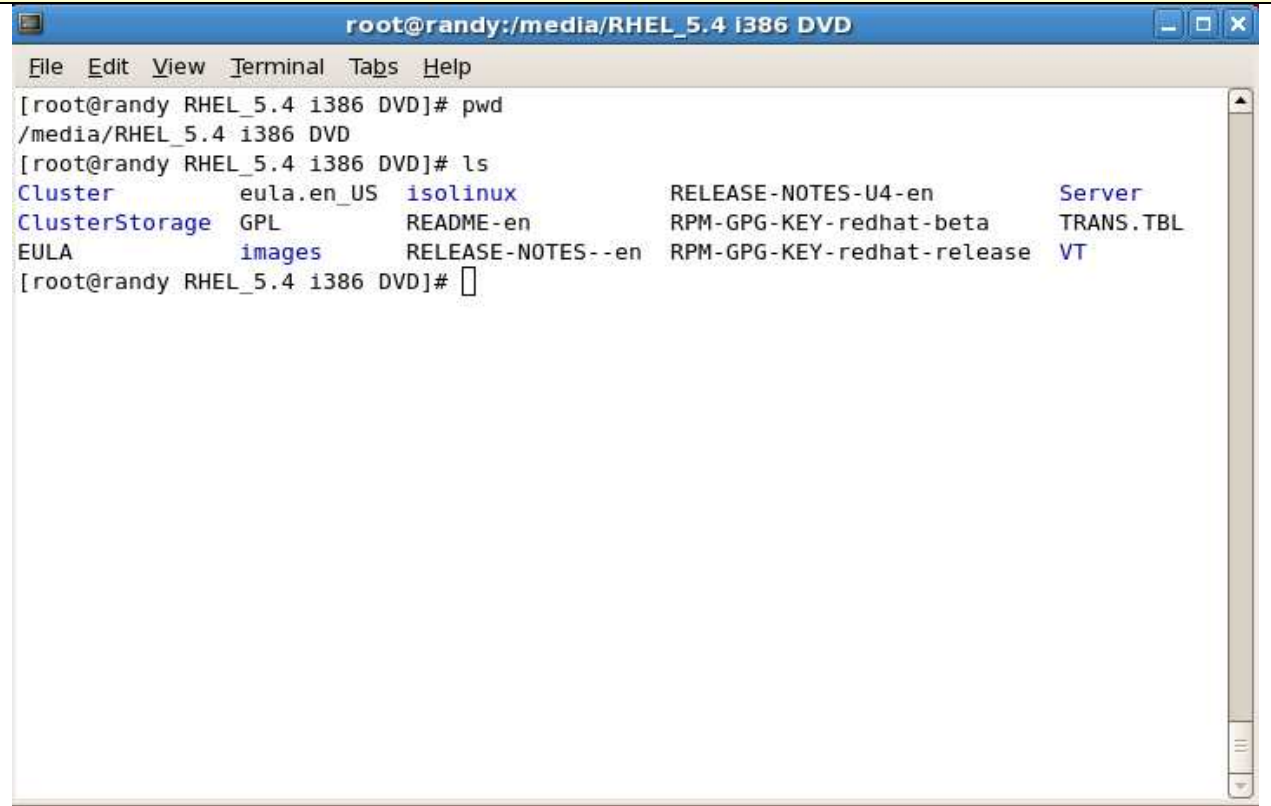
Your DVD Disk is mounted to /media and there are spaces in the disk title so you will need to type R and then tab the auto-complete. So cd to the root directory of the DVD disk.

A terminal window titled 'root@randy:/media/RHEL_5.4 i386 DVD' with a menu bar (File, Edit, View, Terminal, Tabs, Help). The terminal shows the following commands and output:

```
[root@randy ~]# mkdir /var/ftp/pub/RHEL-5.4
[root@randy ~]# cd /media/
.hal-mtab      .hal-mtab-lock  RHEL_5.4 i386 DVD/
[root@randy ~]# cd /media/RHEL_5.4\ i386\ DVD/
[root@randy RHEL_5.4 i386 DVD]#
```

Figure Two

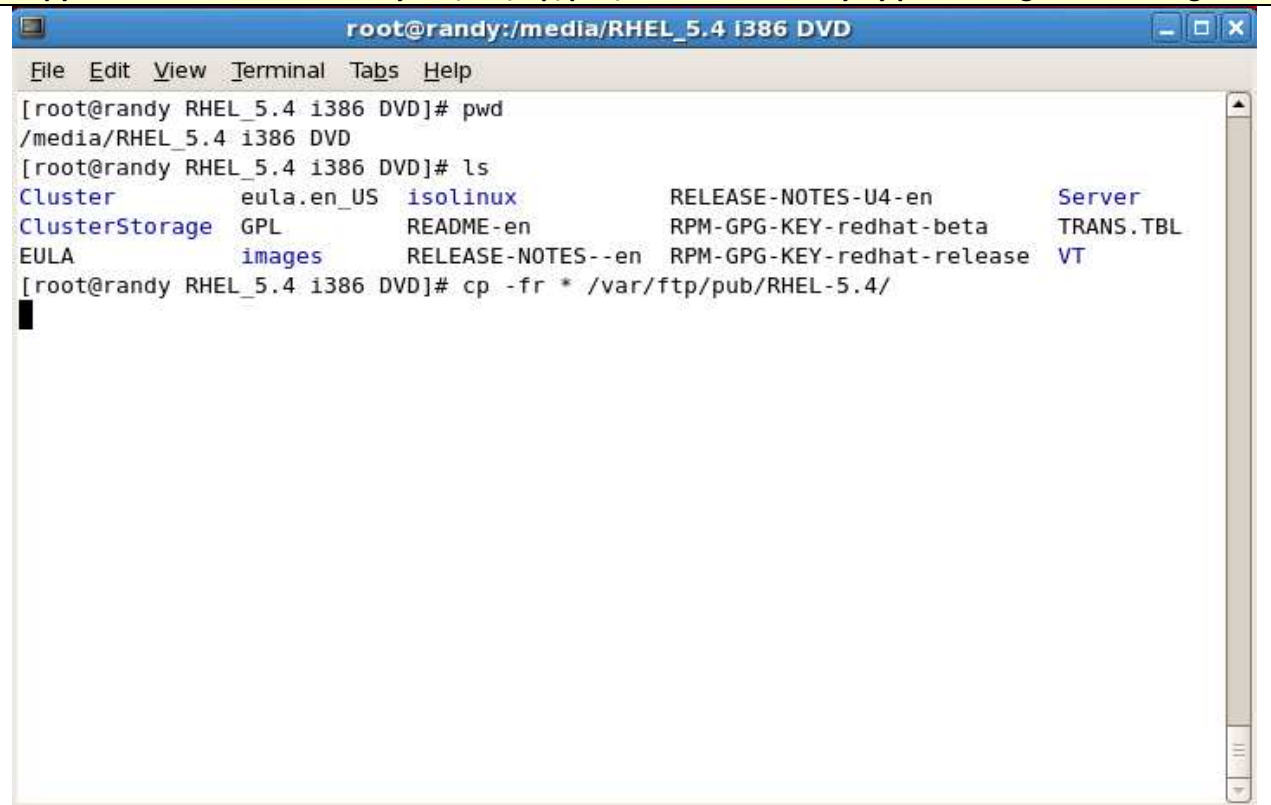
In this step I did a listing just to show that you will be coping all files and directories from this disk in the next step.

A terminal window titled 'root@randy:/media/RHEL_5.4 i386 DVD' with a menu bar (File, Edit, View, Terminal, Tabs, Help). The terminal shows the following commands and output:

```
[root@randy RHEL_5.4 i386 DVD]# pwd
/media/RHEL_5.4 i386 DVD
[root@randy RHEL_5.4 i386 DVD]# ls
Cluster          eula.en_US  isolinux      RELEASE-NOTES-U4-en  Server
ClusterStorage  GPL         README-en    RPM-GPG-KEY-redhat-beta  TRANS.TBL
EULA             images     RELEASE-NOTES--en  RPM-GPG-KEY-redhat-release  VT
```

Figure Three

Copy all files and directories to your /var/ftp/pub/RHEL-5.4 directory by performing the following.

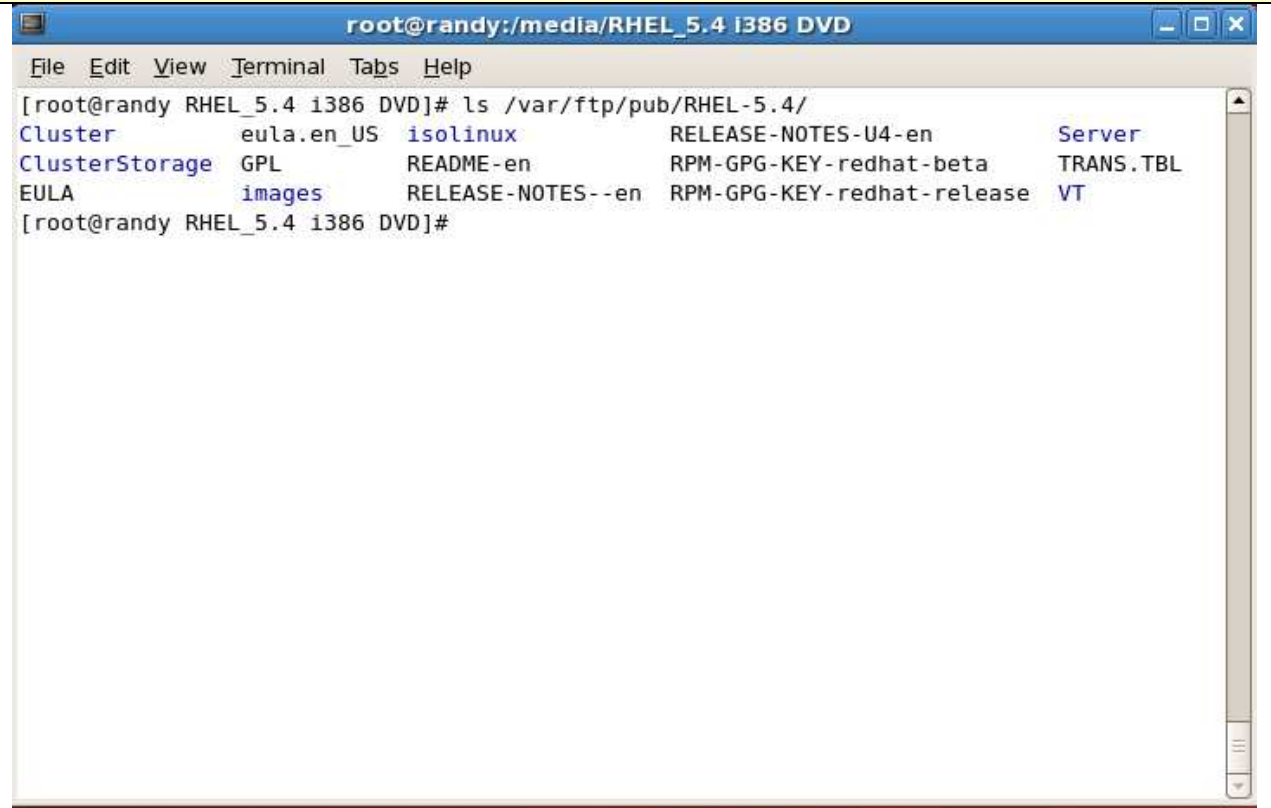


```

root@randy:/media/RHEL_5.4 i386 DVD
File Edit View Terminal Tabs Help
[root@randy RHEL_5.4 i386 DVD]# pwd
/media/RHEL_5.4 i386 DVD
[root@randy RHEL_5.4 i386 DVD]# ls
Cluster          eula.en_US  isolinux      RELEASE-NOTES-U4-en  Server
ClusterStorage  GPL         README-en    RPM-GPG-KEY-redhat-beta  TRANS.TBL
EULA             images      RELEASE-NOTES--en  RPM-GPG-KEY-redhat-release  VT
[root@randy RHEL_5.4 i386 DVD]# cp -fr * /var/ftp/pub/RHEL-5.4/
  
```

Figure Four

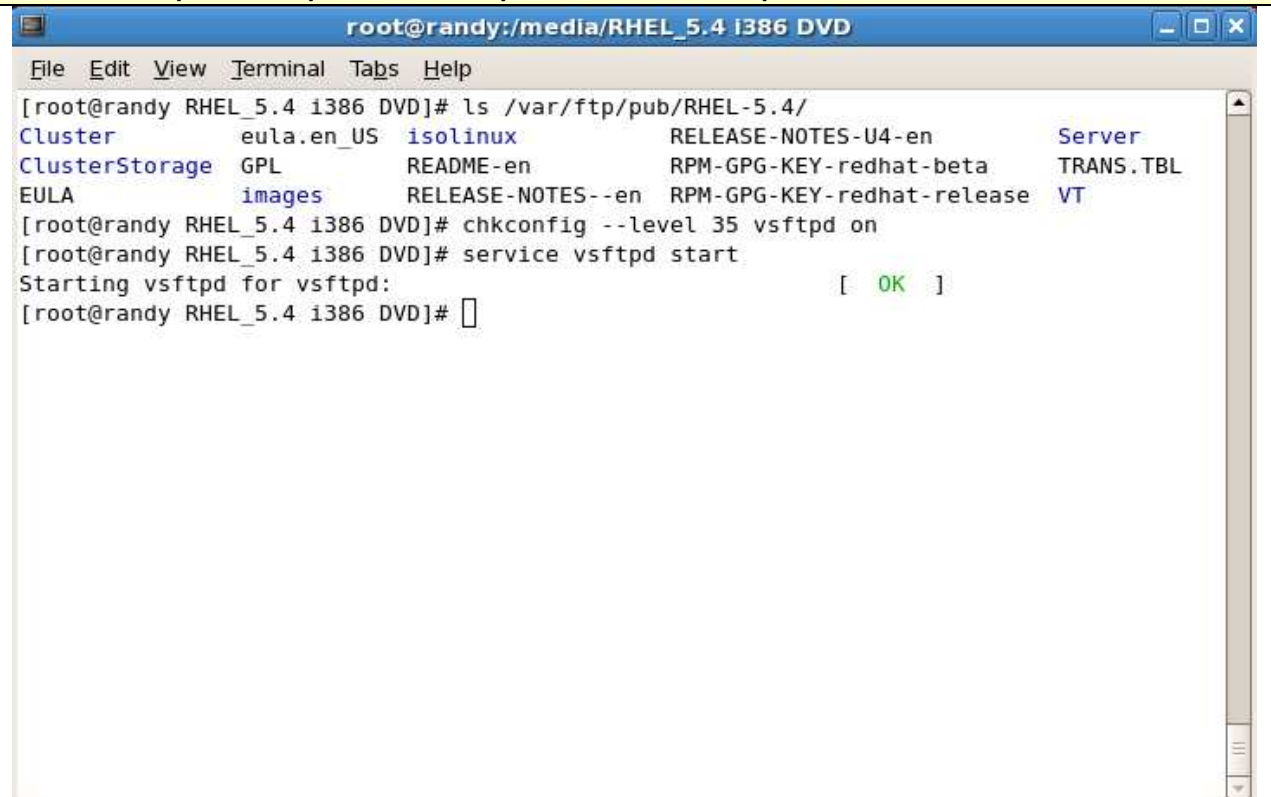
The files and directories will take several minutes to copy, and below I am listing the /var/ftp/pub/RHEL-5.4 directory and you can now see that the DVD disk contents is now copied over.

A terminal window titled 'root@randy:/media/RHEL_5.4 i386 DVD' with a menu bar (File, Edit, View, Terminal, Tabs, Help). The terminal shows the command 'ls /var/ftp/pub/RHEL-5.4/' and its output, which lists various RHEL 5.4 components in a multi-column format. The prompt is '[root@randy RHEL_5.4 i386 DVD]#'.

```
root@randy:/media/RHEL_5.4 i386 DVD
File Edit View Terminal Tabs Help
[root@randy RHEL_5.4 i386 DVD]# ls /var/ftp/pub/RHEL-5.4/
Cluster          eula.en_US  isolinux      RELEASE-NOTES-U4-en  Server
ClusterStorage  GPL         README-en     RPM-GPG-KEY-redhat-beta  TRANS.TBL
EULA            images      RELEASE-NOTES--en  RPM-GPG-KEY-redhat-release  VT
[root@randy RHEL_5.4 i386 DVD]#
```

Figure Five

Note below I placed vsftpd is the start-up and started the vsftpd server service.



A terminal window titled "root@randy:/media/RHEL_5.4 i386 DVD" with a menu bar (File, Edit, View, Terminal, Tabs, Help). The terminal shows the following commands and output:

```
[root@randy RHEL_5.4 i386 DVD]# ls /var/ftp/pub/RHEL-5.4/
Cluster          eula.en_US  isolinux      RELEASE-NOTES-U4-en      Server
ClusterStorage  GPL         README-en    RPM-GPG-KEY-redhat-beta  TRANS.TBL
EULA             images      RELEASE-NOTES--en  RPM-GPG-KEY-redhat-release  VT
[root@randy RHEL_5.4 i386 DVD]# chkconfig --level 35 vsftpd on
[root@randy RHEL_5.4 i386 DVD]# service vsftpd start
Starting vsftpd for vsftpd:                [ OK ]
[root@randy RHEL_5.4 i386 DVD]#
```

Figure Six

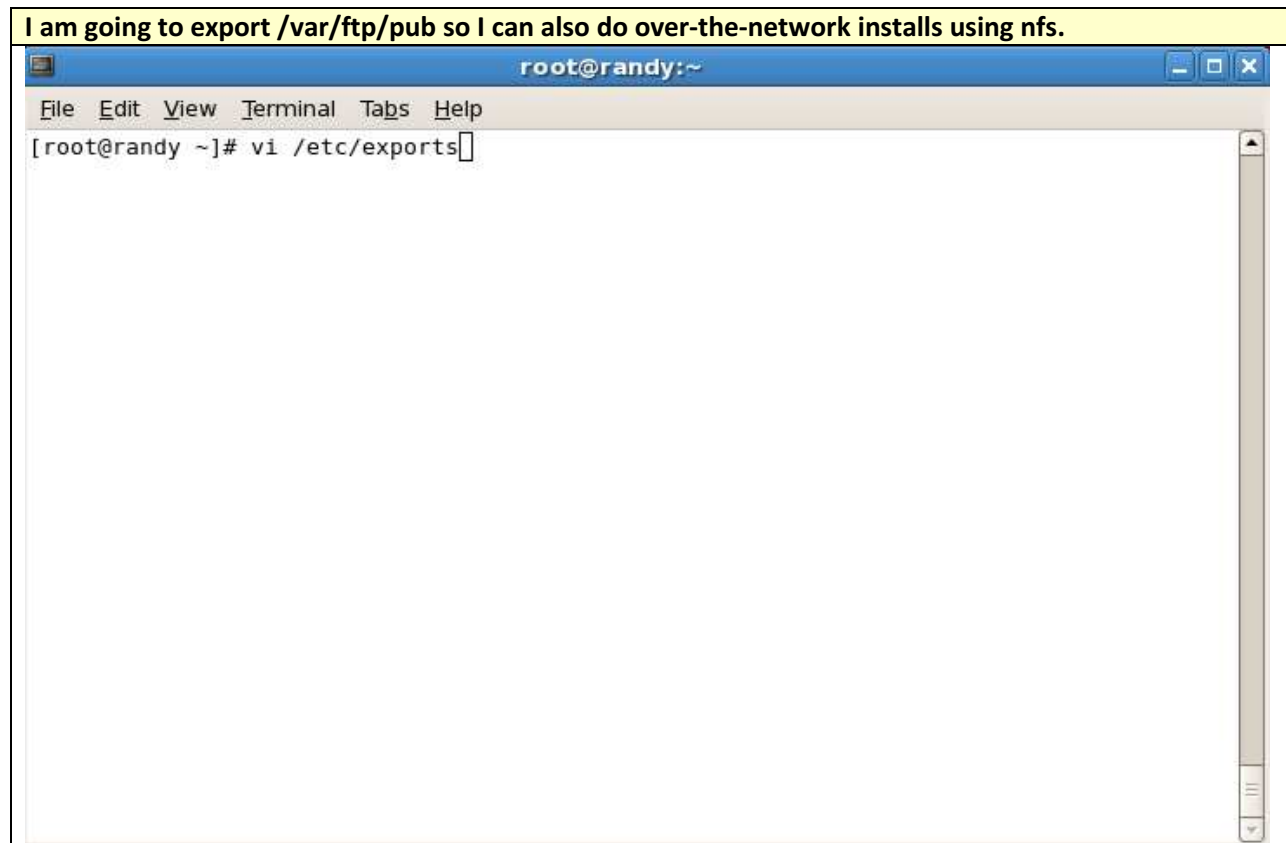


Figure Seven

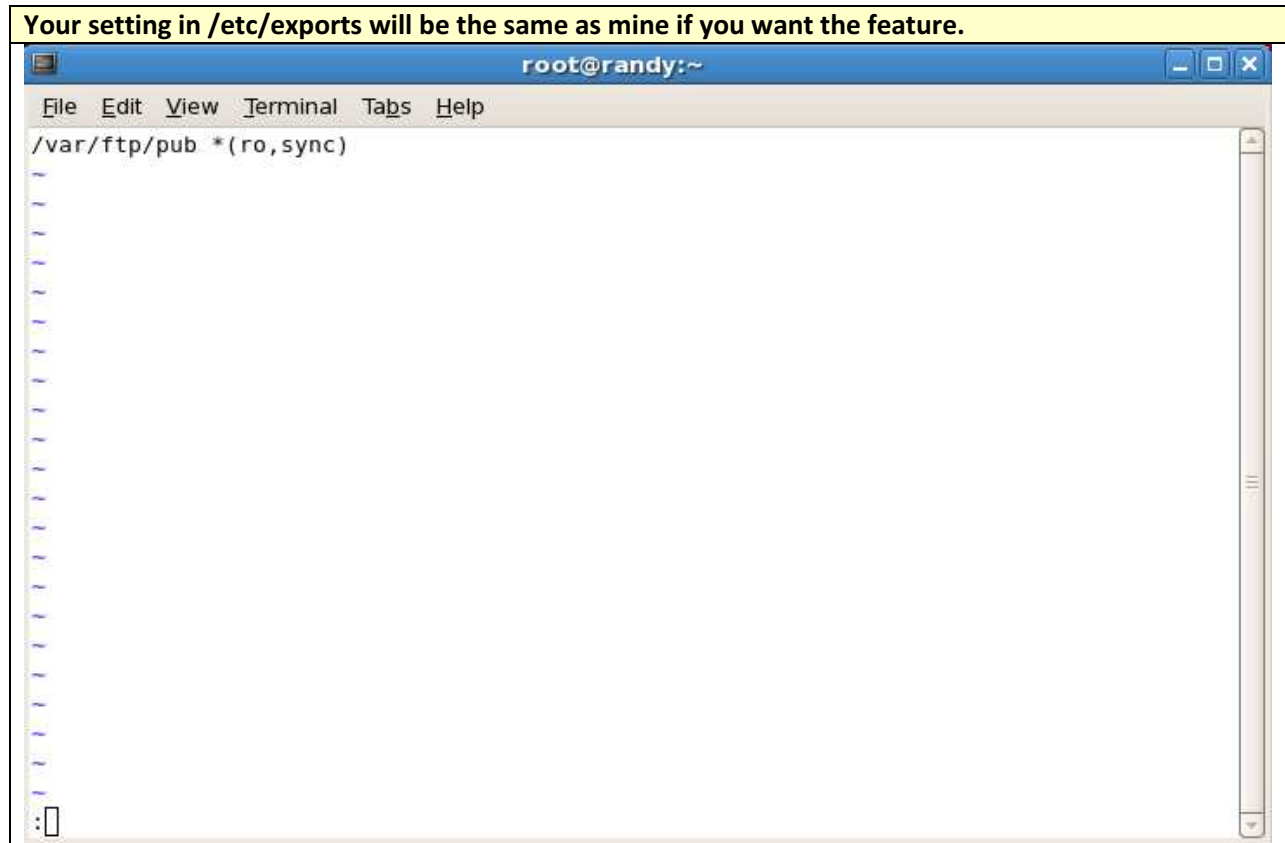
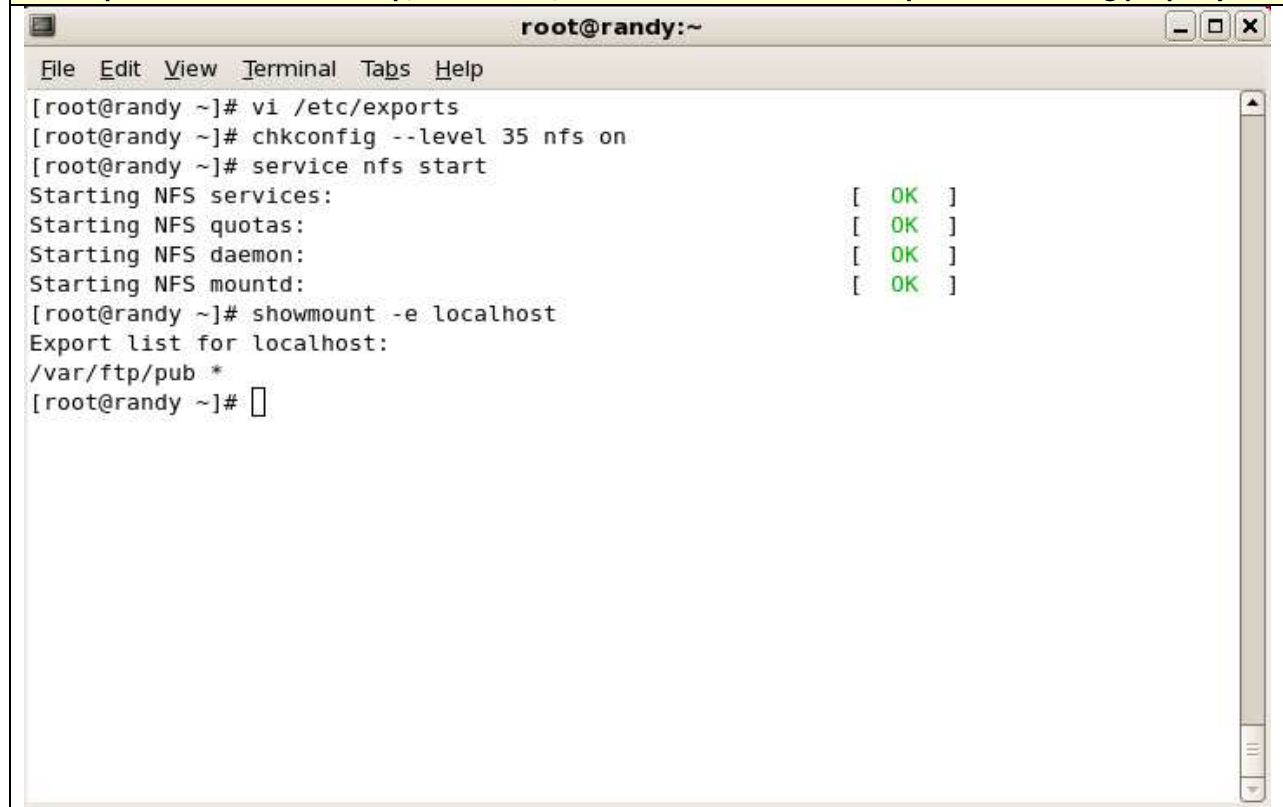


Figure Eight

Here I placed nsf in the start-up, started nfs, and checked to see if the export was working properly.

A terminal window titled 'root@randy:~' with a menu bar (File, Edit, View, Terminal, Tabs, Help). The terminal shows the following commands and output:

```
[root@randy ~]# vi /etc/exports
[root@randy ~]# chkconfig --level 35 nfs on
[root@randy ~]# service nfs start
Starting NFS services:           [ OK ]
Starting NFS quotas:           [ OK ]
Starting NFS daemon:           [ OK ]
Starting NFS mountd:           [ OK ]
[root@randy ~]# showmount -e localhost
Export list for localhost:
/var/ftp/pub *
```

Figure Nine

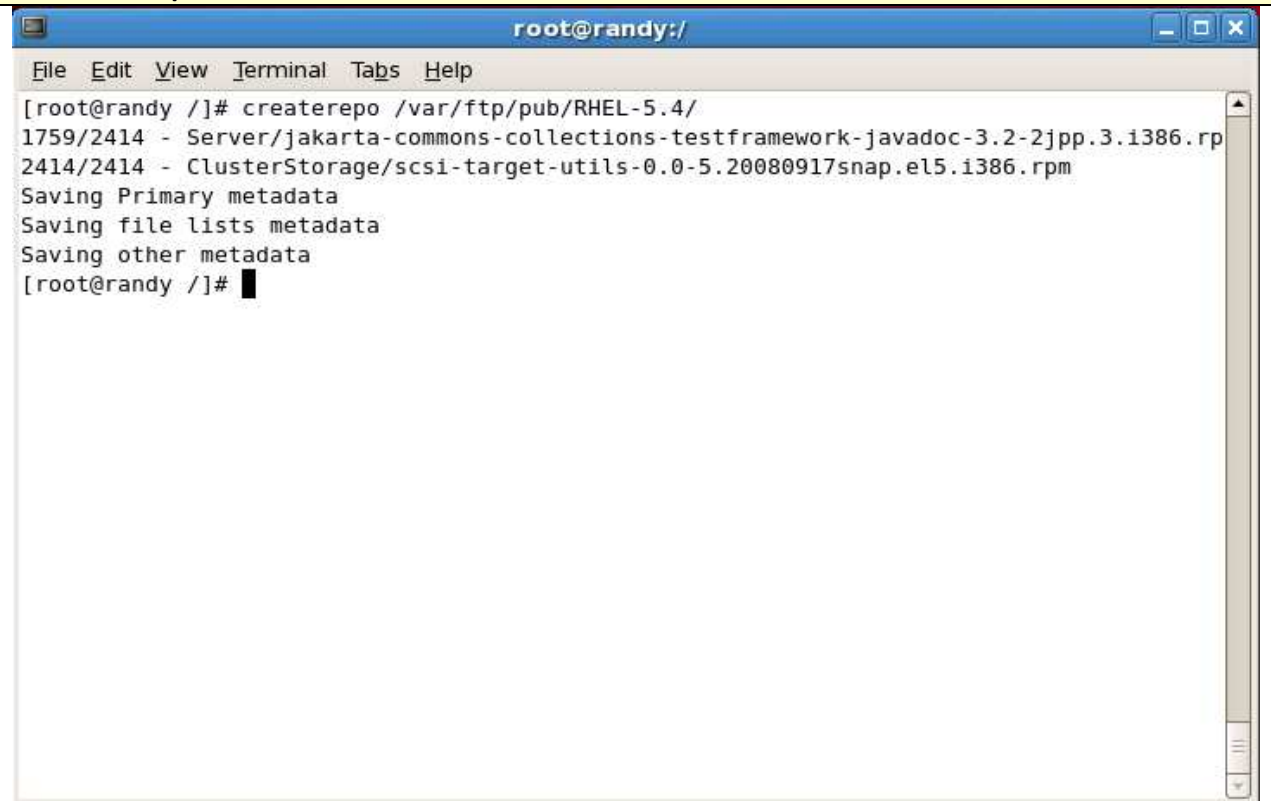
Now execute the createrepo command by performing the following and the absolute path.



A terminal window titled "root@randy:/" with a menu bar containing "File", "Edit", "View", "Terminal", "Tabs", and "Help". The terminal shows the command `[root@randy /]# createrepo /var/ftp/pub/RHEL-5.4/` being entered at the prompt. The window has a blue title bar, a light gray menu bar, and a white terminal area with a vertical scrollbar on the right.

Figure Ten

Notice the repo has been created.

A terminal window titled 'root@randy:/' with a menu bar (File, Edit, View, Terminal, Tabs, Help). The terminal shows the execution of the 'createrepo' command on a directory containing two RPM packages. The output lists the packages and their sizes, followed by messages indicating that the primary metadata, file lists metadata, and other metadata are being saved. The prompt returns to the root user.

```
root@randy:/  
File Edit View Terminal Tabs Help  
[root@randy /]# createrepo /var/ftp/pub/RHEL-5.4/  
1759/2414 - Server/jakarta-commons-collections-testframework-javadoc-3.2-2jpp.3.i386.rpm  
2414/2414 - ClusterStorage/scsi-target-utils-0.0-5.20080917snap.el5.i386.rpm  
Saving Primary metadata  
Saving file lists metadata  
Saving other metadata  
[root@randy /]#
```

Figure Eleven

Now you will need to utilize your YUM server as a YUM client on the same computer.



Figure Twelve

Your YUM client configuration should look like the one below.

A screenshot of a terminal window titled "root@randy:/". The window has a menu bar with "File", "Edit", "View", "Terminal", "Tabs", and "Help". The terminal output shows the following configuration:

```
[VIRTUAL]
name = Virtual repo
baseurl = ftp://localhost/pub/RHEL-5.4/
enabled = 1
gpgcheck = 0
```

The prompt character "~" appears multiple times below the configuration. At the bottom left, there is a status indicator "-- INSERT --". A vertical scrollbar is visible on the right side of the terminal area.

Figure Thirteen

Verify it works by just typing the command below, it will then build the meta-data list as seen in the next screen.

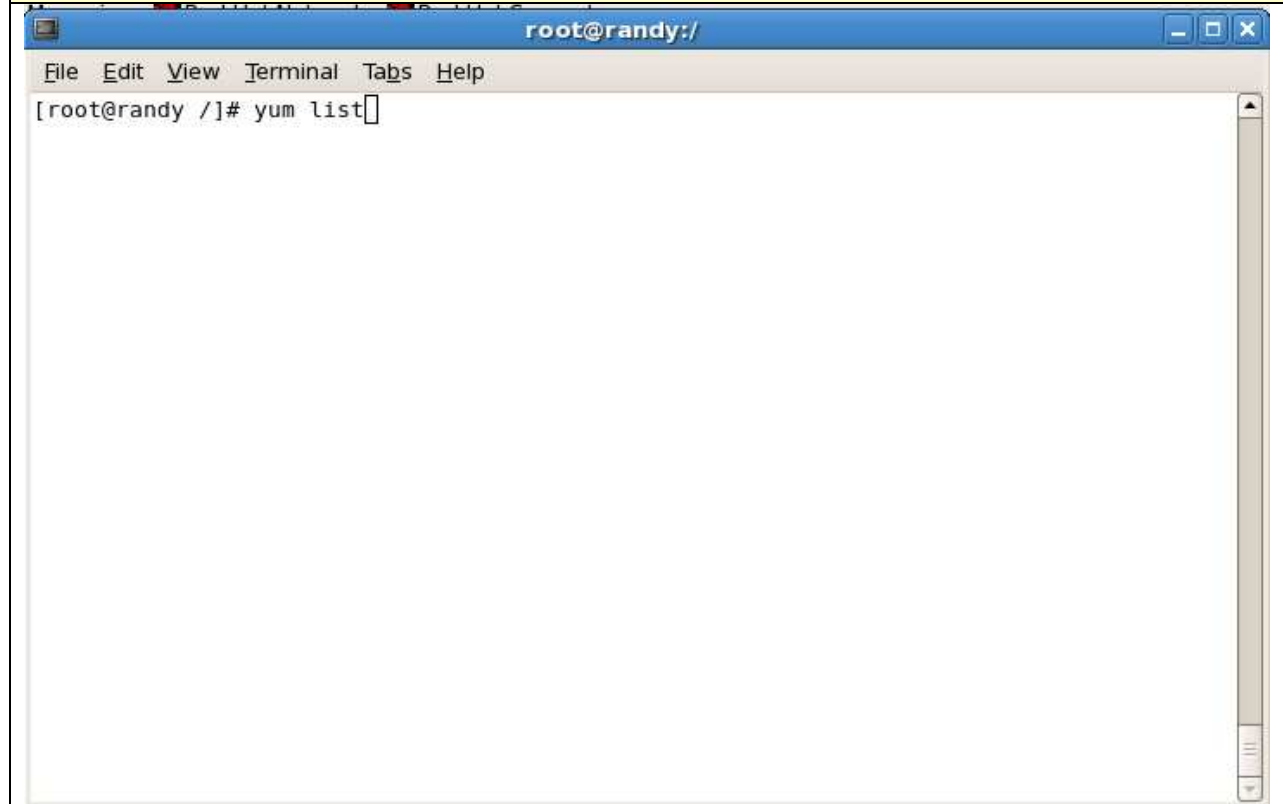


Figure Fourteen

As you can see below, I have successfully connected to my YUM Server!

```

root@randy:/
File Edit View Terminal Tabs Help
xulrunner-devel.i386                1.9.0.11-3.el5_3      VIRTUAL
xulrunner-devel-unstable.i386        1.9.0.11-3.el5_3      VIRTUAL
ypserv.i386                          2.19-5.el5            VIRTUAL
yum-NetworkManager-dispatcher.noarch 1.1.16-13.el5         VIRTUAL
yum-aliases.noarch                  1.1.16-13.el5         VIRTUAL
yum-changelog.noarch                1.1.16-13.el5         VIRTUAL
yum-downloadonly.noarch             1.1.16-13.el5         VIRTUAL
yum-fastestmirror.noarch            1.1.16-13.el5         VIRTUAL
yum-filter-data.noarch              1.1.16-13.el5         VIRTUAL
yum-keys.noarch                     1.1.16-13.el5         VIRTUAL
yum-kmod.noarch                     1.1.16-13.el5         VIRTUAL
yum-list-data.noarch                1.1.16-13.el5         VIRTUAL
yum-protect-packages.noarch         1.1.16-13.el5         VIRTUAL
yum-protectbase.noarch              1.1.16-13.el5         VIRTUAL
yum-tmprepo.noarch                  1.1.16-13.el5         VIRTUAL
yum-updateonboot.noarch             1.1.16-13.el5         VIRTUAL
yum-utils.noarch                    1.1.16-13.el5         VIRTUAL
yum-verify.noarch                   1.1.16-13.el5         VIRTUAL
yum-versionlock.noarch              1.1.16-13.el5         VIRTUAL
zisoofs-tools.i386                  1.0.6-3.2.2           VIRTUAL
zlib-devel.i386                     1.2.3-3               VIRTUAL
zsh.i386                            4.2.6-3.el5           VIRTUAL
zsh-html.i386                       4.2.6-3.el5           VIRTUAL
[root@randy /]#

```

Figure Fifteen

PROJECT FINISHED