Operating System Version Migration

Instructions and advice for migrating from RedHat Linux version 8.0 to Red-Hat Enterprise Linux Version 3 are given.

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Preparation

In the future, it should be possible to migrate from one version of Redhat Enterprise Linux (RHEL) to the next via an update process, in which most files in your system will remain intact. This is, unfortunately, not possible in the migration from Redhat Linux to RHEL. Your entire disk storage will be wiped clean. It is, therefore, crucial that you prepare carefully for the move.

Verify the Backup of your Home Directory

Each weekday night, your system should be copying your home directory to whitechuck. You should verify that this is working correctly. Here is one way to do that:

1. In a terminal window, go to the directory on whitechuck which contains your backup copies:

   ```
   ssh whitechuck
   cd backup
   ```

2. If you run **ls -l**, you should see a list of directory names, each starting with the date on which the backup was taken. Go **cd** to the most recent backup, and then take a directory listing:

   ```
   cd most-recent-backup
   ls -lR $USER > /tmp/backup_listing
   ```

3. Open a terminal window on your workstation, and make a similar directory listing there, retrieve the listing made on whitechuck, and use **diff** to compare the two:

   ```
   cd ..
   ls -lR $USER > /tmp/current_listing
   cd /tmp
   scp whitechuck:/tmp/backup_listing .
   diff current_listing backup_listing
   ```

4. If the backup is recent, the output from the **diff** command should be short. Check into any differences that come as a surprise. At the end of this process, you must be confident that your backup is good.

Make a Copy of `/etc`

Most of the configuration files on your workstation reside in the `/etc` directory. If certain functions no longer work after the migration, it will be useful to be able to consult previous versions of the configuration files. From a terminal window, here is a convenient way to make a copy:

```
su -
cd /
tar cvzf /tmp/etc.tgz etc
chown $USER /tmp/etc.tgz
exit
scp /tmp/etc.tgz whitechuck:
```

Upon completing the command sequence listed above, a new tar ball named `etc.tgz` should appear in your home directory on whitechuck.

Plan the Migration of Non-RPM Packages

The overwhelming majority of software packages on your workstation were installed by the Redhat Package Manager (RPM). When you install RHEL, later versions of these packages will be installed automatically. You may, however, have several packages that were not installed by RPM. These are most likely located in `/usr/local`, although they may be elsewhere. Only you know what these packages are.

There are two basic ways to handle the migration of your non-RPM packages:

1. Reinstall them from scratch.
2. Similar to the way that you placed a copy of `/etc` on whitechuck place a copy of the tar ball for each package somewhere safe, so that you can copy it back and expand it after the migration. Note, however, that this might not work, because the package might depend in some way on RedHat 8.0 that is not compatible with RHEL.

Just to be on the safe side, it might be best to make a copy of any non-RPM package that you are really depending on, even though your intention is to reinstall from scratch.

Print Out Key Network Configuration Files

The RHEL installation script will ask certain questions about your network configuration. It will be useful to have printout of key files to refer to. From a shell window:

```
pr /etc/resolv.conf | lpr
pr /etc/hosts | lpr
pr /etc/sysconfig/network | lpr
pr /etc/sysconfig/network-scripts/ifcfg-eth0 | lpr
```

Install RHEL from Cdrom

Create Extra Directory

The Software Team backup process places a copy of your entire home directory on whitechuck after each working day. Sometimes you need storage for files which do not require nightly backup. This is a convenient way to provide this storage in a way that is accessible with ordinary user permissions.

In a shell window:

```
su -
cd /opt
mkdir extra
chown $USER extra
exit
cd
ln -s /opt/extra extra
```

Install a Copy of Most Recent Backup

In order to simplify the task of restoring the functions that you enjoyed before the migration, you can copy the most recent backup from whitechuck to your workstation.

The following assumes that you have set up directory which is located outside of your home directory, but to which you have write privilege and to which there is a symbolic link called `extra` in your home directory. For details, see Create Extra Directory.

```
ssh whitechuck
cd backup
B=name of latest backup
tar cvzf /tmp/$B.tgz $B
exit
B=name of latest backup
cd ~/extra
scp whitechuck:$B.tgz .
tar xvzf $B.tgz
rm $B.tgz
cd
ln -s /opt/extra/$B oldhome
```