How to Install Packages on RHEL 8 Locally Using DVD ISO

Often, when we want to have a local repository for our **RHEL 8** system to install packages without internet access for extra safety and using **RHEL 8** ISO is the easiest way to do that.

In this guide, we will be showing you how you can configure and use locally downloaded **RHEL 8 ISO** images as a repository for installing packages in **RHEL 8** Linux.

[You might also like: How to Create Local RHEL 9 Repository]

But before that, let's have a look at what are the advantages of using **RHEL 8** ISO as a local repository.

Benefits of Using RHEL 8 ISO as a Local Repository

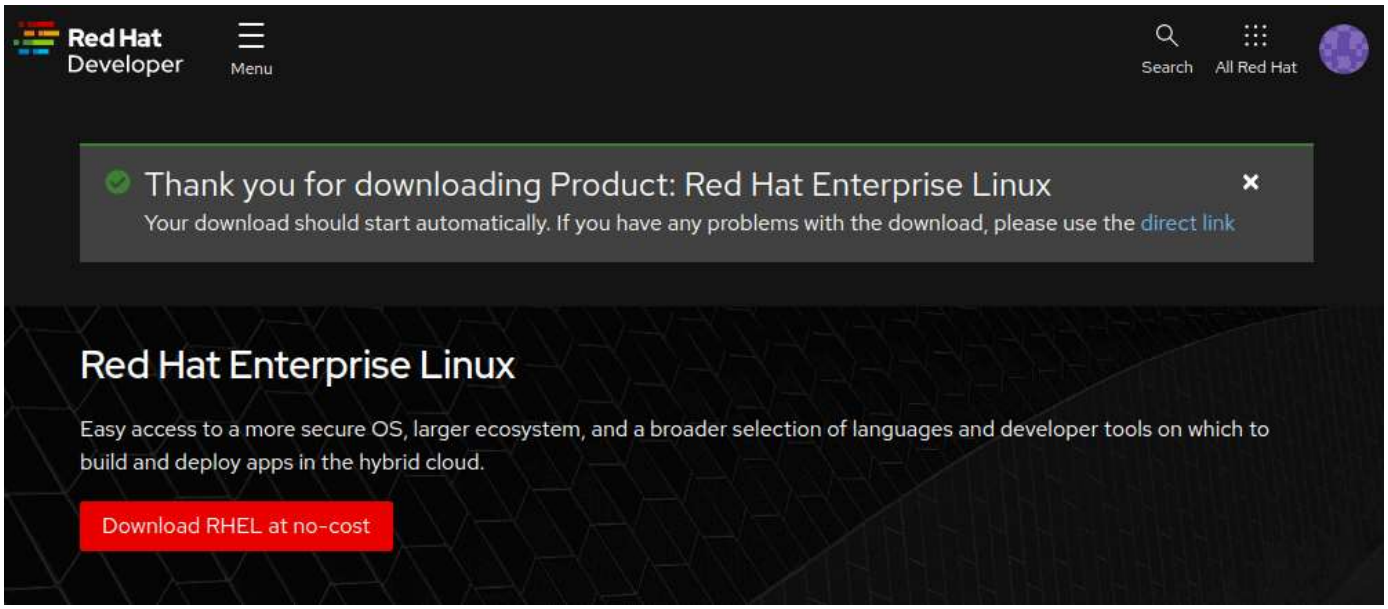
- Allows you to apply offline patches.
- You can update your server in critical cases where you don't have an internet connection.
- Using local repo, you can create an ultra-secure RHEL 8 environment that will never be connected to the internet and still be updated with the most frequent packages.
- You can also upgrade the server from RHEL 8.x to RHEL 8.y.

Installing Packages on RHEL 8 Locally Using ISO

While making this guide, we have made sure that it can be understood by everyone so even if you are new to Linux, just follow the demonstrated steps with care and you will have a local repo of **RHEL 8** in no time.

Step 1: Download RHEL 8 ISO Image

You can easily download RHEL 8 ISO file from Red Hat's official download page. While downloading ISO, make sure you avoid boot ISOs as they don't include packages that are less than 1GB in size.



Download RHEL 8 for Free

Step 2: Mount RHEL 8 DVD ISO

Once we are done downloading the ISO file, we have to create a mounting point for mounting the recently downloaded ISO file on our system. We will be creating a mounting point under the `/mnt` directory by using the given command:

```
$ sudo mkdir -p /mnt/disc
$ sudo mount -o loop rhel-8.6-x86_64-dvd.iso /mnt/disc
```

```
[sagar@tecmint Downloads]$ sudo mount -o loop rhel-8.6-x86_64-dvd.iso /mnt/disc
mount: /mnt/disc: WARNING: device write-protected, mounted read-only.
[sagar@tecmint Downloads]$
```

Mount RHEL 8 DVD

Make sure you change the name of the ISO file before mounting or it will bring an error! You might be wondering about the warning it gave us while we mounted our ISO but don't worry, we will change permissions in the latter part of this guide.

But if you are willing to use DVD media for the further process? You just have to create a mounting point and mount your media by given commands:

```
$ sudo mkdir -p /mnt/disc
$ sudo mount /dev/sr0 /mnt/disc
```

While mounting, make sure you change `sr0` with your drive name.

Step 3: Creating Local RHEL 8 Repository

After mounting **RHEL 8** ISO file at `/mnt`, we need to get a copy of the **media.repo** file and paste it to our system directory located at **/etc/yum.repos.d/** with the name of **rhel8.repo**.

```
$ sudo cp /mnt/disc/media.repo /etc/yum.repos.d/rhel8.repo
```

As we mentioned earlier, our drive is write-protected. But for our purpose, we have to change permissions of **rhel8.repo** file to **0644** which will allow us to read and make changes accordingly.

```
$ sudo chmod 644 /etc/yum.repos.d/rhel8.repo
```

Once we are done with changing permissions, we have to make some changes to make our local repository work. First, let's open **rhel8.repo** file by utilizing the given command:

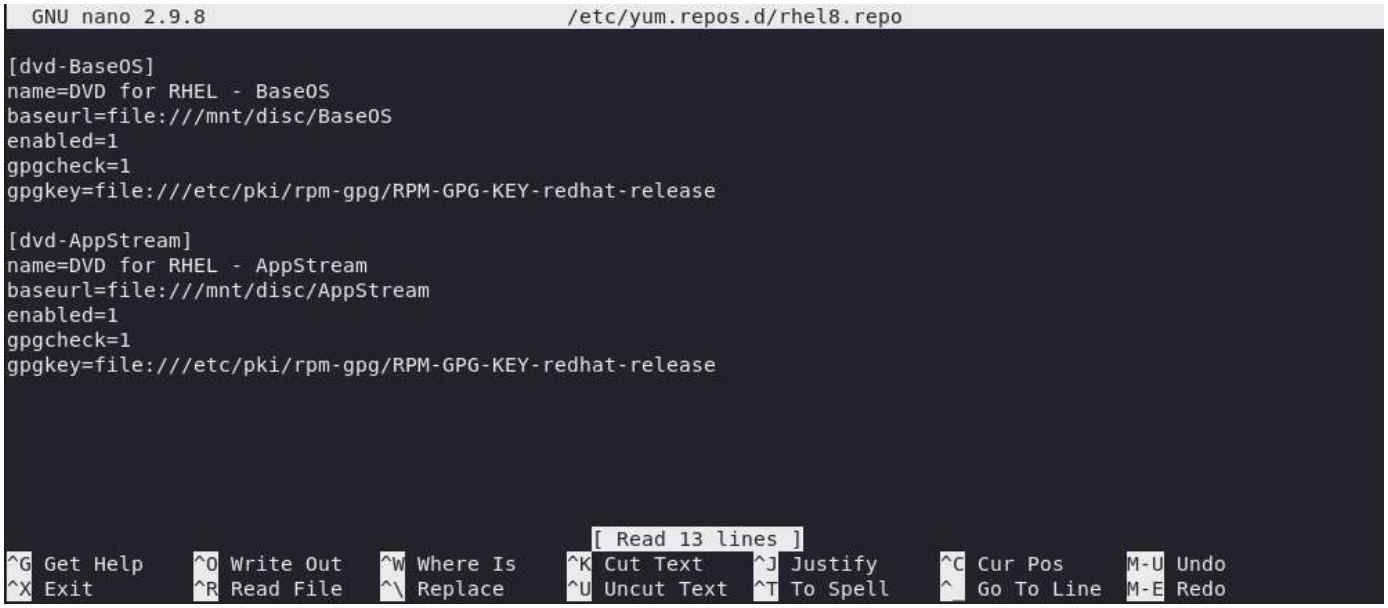
```
$ sudo nano /etc/yum.repos.d/rhel8.repo
Or
$ sudo vi /etc/yum.repos.d/rhel8.repo
```

Clear the default configuration and paste new instructions in the config file as given below:

```
[dvd-BaseOS]
name=DVD for RHEL - BaseOS
baseurl=file:///mnt/disc/BaseOS
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release

[dvd-AppStream]
name=DVD for RHEL - AppStream
baseurl=file:///mnt/disc/AppStream
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release
```

The final result config file will look like this:



Create RHEL 8 Local Repository

After configuring the file, we need to clear the **YUM** cache by using the given yum or dnf command:

```
$ sudo yum clean all
or
$ sudo dnf clean all
```

Now, let's list the enabled repositories on our system by the given command:

```
$ sudo yum repolist enabled
or
$ sudo dnf repolist enabled
```

```
[sagar@tecmint ~]$ sudo dnf repolist enabled
Updating Subscription Management repositories.
repo id                                 repo name
dvd-AppStream                           DVD for RHEL - AppStream
dvd-BaseOS                              DVD for RHEL - BaseOS
rhel-8-for-x86_64-appstream-rpms        Red Hat Enterprise Linux 8 for
rhel-8-for-x86_64-baseos-rpms           Red Hat Enterprise Linux 8 for
```

List RHEL 8 Local Repository

So if you went through the process as we mentioned, you will get the output listing two additional repositories named "**dvd-AppStream**" and "**dvd-BaseOS**" which means we have successfully converted our ISO into a local repository.

Now, let's update the repository index by using the given command:

```
$ sudo yum update
or
$ sudo dnf update
```

Step 4: Installing Packages from RHEL 8 ISO

Now, it's time for us to install packages using the local repository which we have just configured recently. Using the given command, we will be disabling other enabled repositories (will be only valid till the execution of the single command) and using the "**dvd-AppStream**" repository for installing the desired package.

```
$ sudo yum --disablerepo="*" --enablerepo="dvd-AppStream" install cheese
or
$ sudo dnf --disablerepo="*" --enablerepo="dvd-AppStream" install cheese
```

```
[sagar@tecmint ~]$ sudo dnf --disablerepo="*" --enablerepo="dvd
Updating Subscription Management repositories.
DVD for RHEL - AppStream
Last metadata expiration check: 0:00:01 ago on Mon 27 Jun 2022
Dependencies resolved.
================================================================
 Package                    Architecture    Version
================================================================
Installing:
 cheese                     x86_64          2:3.28.0-3.el8
Installing dependencies:
 frei0r-plugins             x86_64          1.6.1-7.el8
 gavl                       x86_64          1.4.0-12.el8
 gnome-video-effects        noarch          0.4.3-3.el8
 libgdither                 x86_64          0.6-17.el8

Transaction Summary
================================================================
Install  5 Packages

Total size: 3.5 M
Installed size: 10 M
Is this ok [Y/n]:
```

Install Packages on RHEL 8 Locally

As you can see, our local repository is working as we intended, and also installed **Cheese** using it.

Important: Local repository might not resolve dependencies so before using it, make sure you have an idea of what are the required dependencies.

Through this guide, we explained how you can use the local ISO of **RHEL 8** as a local repository in the easiest way possible. But if you have any queries, let us know in the comments.