

RHEL | Mounting ISO and Setting as Local Repo

This document provides a guide on mounting the RHEL ISO and setting it up as a local repo. This will enable RedHat Linux to install and update RPM packages.

This guide may work on another type of Linux as it is based on editing the repo file and mounting ISO media.

Prerequisite

1. A Free RedHat Account
2. Official Redhat Linux ISO

No Redhat license is required.

Step 1: Identify the Red Hat OS version

Run the following:

```
cat /etc/os-release
```

Look for the line `VERSION="8.7 (Ootpa)"` in the output. This will show the version number.

```
[user@demo ~]$ cat /etc/os-release
NAME="Red Hat Enterprise Linux"
VERSION="8.7 (Ootpa)"
ID="rhel"
ID_LIKE="fedora"
VERSION_ID="8.7"
PLATFORM_ID="platform:el8"
PRETTY_NAME="Red Hat Enterprise Linux 8.7 (Ootpa)"
ANSI_COLOR="0;31"
CPE_NAME="cpe:/o:redhat:enterprise_linux:8::baseos"
HOME_URL="https://www.redhat.com/"
```

DOCUMENTATION_URL="https://access.redhat.com/documentation/red_hat_enterprise_linux/8/"

BUG_REPORT_URL="https://bugzilla.redhat.com/"

Step 2: Download the RHEL ISO of the correct version

If you do not have an account, you must register a free account before downloading. Download the RHEL ISO of your version from the [official RHEL download website](https://access.redhat.com/documentation/red_hat_enterprise_linux/8/).

Step 3: Mount the ISO from your Hypervisor

From your Hyper-V manager, add the ISO to the DVD drive device of the Virtual Machine.

Step 4: Identify the DVD Drive inside Red Hat Linux

Run the following to identify the correct device name of the DVD drive: `lsblk`

Look for the label `rom` in the `TYPE` column. For below example, it is `sr0`. This means that the DVD drive is located at `/dev/sr0`. **Take note of this device.**

```
[user@demo ~]$ lsblk
NAME                                MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sda                                8:0    0 100G  0 disk
├─sda1                             8:1    0   2G  0 part /boot
└─sda2                             8:2    0  97G  0 part
   ├─rhel-tmp                     253:0    0   5G  0 lvm  /tmp
   ├─rhel-var_log                 253:1    0  20G  0 lvm  /var/log
   ├─rhel-var                     253:2    0  10G  0 lvm  /var
   ├─rhel-swap                   253:3    0  12G  0 lvm  [SWAP]
   ├─rhel-home                   253:4    0  10G  0 lvm  /home
   ├─rhel-root                   253:5    0  30G  0 lvm  /
   ├─rhel-var_log_audit          253:6    0   5G  0 lvm  /var/log/audit
   └─rhel-var_tmp                253:7    0   5G  0 lvm  /var/tmp
```

```
sdb          8:16  0 300G 0 disk
└─sdb1      8:17  0 300G 0 part /data
sr0         11:0  1  6.6G 0 rom
```

Step 5: Create a mountpoint and mount the DVD Drive locally

For this guide, the mountpoint used will be in `/mnt/disc`.

Run the following command. `file /mnt/disc` to create a mount point if it does not exist yet.

Output will show `No such file or directory` if it does not exist.

```
[user@demo ~]$ file /mnt/disc
/mnt/disc: cannot open `/mnt/disc' (No such file or directory)
```

Create the mountpoint `/mnt/disc` directory with `sudo mkdir /mnt/disc`.

```
[user@demo ~]$ sudo mkdir /mnt/disc
[user@demo ~]$ file /mnt/disc
/mnt/disc: directory
```

Next, mount the DVD drive (`/dev/sr0`) to the mountpoint (`/mnt/disc`) with the command `mount -o loop RHEL7.9.iso /mnt/disc`.

```
[user@demo ~]$ sudo mount -o loop /dev/sr0 /mnt/disc
```

With the DVD drive mounted, you can now list the content inside the disc with `ls -al /mnt/disc`.

```
[user@demo ~]$ ls -al /mnt/disc
total 53
dr-xr-xr-x. 7 root root 2048 Apr  4 2019 .
drwxr-xr-x. 3 root root  18 May 12 14:51 ..
dr-xr-xr-x. 4 root root 2048 Apr  4 2019 AppStream
dr-xr-xr-x. 4 root root 2048 Apr  4 2019 BaseOS
-r--r--r--. 1 root root  60 Apr  4 2019 .discinfo
dr-xr-xr-x. 3 root root 2048 Apr  4 2019 EFI
-r--r--r--. 1 root root 8266 Mar  1 2019 EULA
-r--r--r--. 1 root root 1455 Apr  4 2019 extra_files.json
```

```
-r--r--r--. 1 root root 18092 Mar  1 2019 GPL
dr-xr-xr-x. 3 root root  2048 Apr  4 2019 images
dr-xr-xr-x. 2 root root  2048 Apr  4 2019 isolinux
-r--r--r--. 1 root root   103 Apr  4 2019 media.repo
-r--r--r--. 1 root root  1669 Mar  1 2019 RPM-GPG-KEY-redhat-beta
-r--r--r--. 1 root root  5134 Mar  1 2019 RPM-GPG-KEY-redhat-release
-r--r--r--. 1 root root  1796 Apr  4 2019 TRANS.TBL
-r--r--r--. 1 root root  1566 Apr  4 2019 .treeinfo
```

Step 6: Copying the media.repo file

Copy the media.repo file from the root of the mounted directory to /etc/yum.repos.d/ and set the permissions to 644.

```
[user@demo ~]$ sudo cp /mnt/disc/media.repo /etc/yum.repos.d/rhel8dvd.repo
[user@demo ~]$ sudo chmod 644 /etc/yum.repos.d/rhel8dvd.repo
```

Step 7: Editing the rhel8dvd.repo

Edit the new repo file:

```
[user@demo ~]$ sudo vi /etc/yum.repos.d/rhel8dvd.repo
```

Copy the following into the file:

```
[InstallMedia-BaseOS]
name=Red Hat Enterprise Linux DVD BaseOS
mediaid=None
metadata_expire=-1
gpgcheck=1
cost=500
enabled=1
baseurl=file:///mnt/disc/BaseOS
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release

[InstallMedia-AppStream]
name=Red Hat Enterprise Linux DVD AppStream
mediaid=None
metadata_expire=-1
```

```
gpgcheck=1
cost=500
enabled=1
baseurl=file:///mnt/disc/AppStream
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release
```

Disable any repo files that are not in use. Look for the line `enabled = 1` and make sure that all are set to `enabled = 0` in the other repo files.

```
[user@demo ~]$ cd /etc/yum.repos.d/
[user@demo yum.repos.d]$ sudo vi redhat.repo
```

Step 8: Clear the yum cache

Clear the cache and check whether you can get the packages list from the DVD repo

```
[user@demo ~]$ sudo yum clean all
[user@demo ~]$ sudo yum repolist enabled
Updating Subscription Management repositories.
repo id                      repo name
InstallMedia-BaseOS          Red Hat Enterprise Linux 8.7.0 BaseOS
InstallMedia-AppStream        Red Hat Enterprise Linux 8.7.0 AppStream
```

Now, you can install any package with `yum install <packagename>` or update installed packages with `yum update`.

Disabling the Local Repo and Unmounting the DVD

This step should be completed before unmounting the DVD. To disable the local repo, delete the local repo file.

```
[user@demo ~]$ sudo rm rhel8dvd.repo
```

Unmount the DVD Drive from the mountpoint

```
[user@demo ~]$ sudo umount /mnt/disc
```

Now, you can remove the ISO from the DVD drive from the hypervisor.

Links

- [Official RHEL Download Website](#)
- [Need to set up yum repository for locally-mounted DVD on Red Hat Enterprise Linux 7 - Red Hat Customer Portal](#)

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