**Mount and unmount CIFS and NFS network file systems.**

**NFS network file system**

To mount and unmount **NFS** network file systems, you need to [set up a NFS server](https://www.certdepot.net/rhel7-provide-nfs-network-shares-specific-clients/).

Install the **NFS** client package:

# **yum install -y nfs-utils**

Let’s assume that the **/home/tools** directory is exported by the **nfsserver** server.  
If no working **DNS**, add an entry in the **/etc/hosts** file with the **nfsserver** name and its IP address.

Activate at boot and start the **nfs-idmap** service (**RHEL 7.0** only):

# **systemctl enable nfs-idmap && systemctl start nfs-idmap**

Note: The **nfs-idmap** service is only required by **NFSv4** when setting **ACL** by names or to display user/group names. It doesn’t allow you any **UID/GID mismatches** between clients and server.  
All permission checks are still done with the **UID/GID** used by the **server**.

Activate at boot and start the **nfs-client** target (**RHEL 7.1** and after):

# **systemctl enable nfs-client.target && systemctl start nfs-client.target**

Edit the **/etc/fstab** file and add the following line:

**nfsserver:/home/tools /mnt nfs4 defaults 0 0**

Execute the **/etc/fstab** file configuration:

# **mount -a**

To check the current configuration, type:

# **mount | grep nfsserver**

nfsserver:/home/tools on /mnt type nfs4 (rw,relatime,vers=4.0,rsize=131072,wsize=131072,namlen=255,hard,proto=tcp,port=0,timeo=600,retrans=2,sec=sys,clientaddr=192.168.1.42,local\_lock=none,addr=192.168.1.49)

To unmount the **NFS** mounted directory, remove the previous line from the **/etc/fstab** file and type:

# **umount /mnt**

Note: if you get a message like **“/mnt: device is busy”**, to check that you are not in the mounted directory and no process is using it, type:

# **fuser /mnt**

**CIFS network file system**

To mount and unmount **CIFS** network file systems, you need [to set up a CIFS file server](https://www.certdepot.net/rhel7-provide-smb-network-shares/).

Install the **Samba** client packages:

# **yum install -y cifs-utils**

# **yum install -y samba-client**

Let’s assume that the **/shared** directory is exported by the **smbserver** server.  
If no working **DNS**, add an entry in the **/etc/hosts** file with the **smbserver** name and its IP address.

Edit the **/etc/fstab** file and add the following line:

**//smbserver/shared /mnt cifs rw,username=user01,password=pass 0 0**

Execute the **/etc/fstab** file configuration:

# **mount -a**

To check the current configuration, type:

# **mount | grep smbserver**

//smbserver/shared on /mnt type cifs (rw,relatime,vers=1.0,cache=strict,username=user01,domain=MYSERVER,uid=0,noforceuid,gid=0,noforcegid,addr=192.168.1.48,unix,posixpaths,serverino,acl,rsize=1048576,wsize=65536,actimeo=1)

To unmount the **CIFS** mounted directory, remove the previous line from the **/etc/fstab** file and type:

# **umount /mnt**

To learn more about the **Automounter**, go to the [LDAP client configuration tutorial](https://www.certdepot.net/rhel7-configure-system-use-existing-ldap-directory-service-user-group-information/).