Linux Academy

Live! Lab

Mounting CIFS and NFS

Contents

Lab Connection Information

- Labs may take up to five minutes to build
- The IP address of your server is located on the Live! Lab page
- Username: linuxacademy
- Password: 123456
- Root Password: 123456

Related Courses

Red Hat CSA 7

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Mount and Unmount CIFS and NFS Network File Systems

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Introduction

Both *CIFS* and *NFS* are ways to share files over networks. These file systems are often used when mounting additional storage space on servers.

Log in to your RHEL7 server using the credentials on the Live! Lab page. Switch to *root*. An additional RHEL7 server, using the private IP 10.0.0.100, is available as the file server, but we need not SSH into it; no password will be listed for this server.

CIFS

Install CIFS utilities and the Samba client:

```
[root@linuxacademy1 ~]# yum install cifs-utils samba-client
```

Ensure that you can access Samba by listing your available Samba services:

```
[root@linuxacademy1 ~]# smbclient -L 10.0.0.100
```

Mount the file system:

```
[root@linuxacademy1 ~]# mkdir /mnt/sambashare
[root@linuxacademy1 ~]# mount -t cifs -o username=linuxacademy //10.0.0.100/public /mnt/
sambashare
```

The file system is not persistently mounted, however. To do this, we need to add it to our `/etc/fstab` file. Open the file in your prefered text editor, and add:

```
//10.0.0.100/public /mnt/sambashare cifs username=linuxacademy,password=123456 0 0
```

Mount:

```
[root@linuxacademy1 ~]# mount -a
```

And verify that the system has mounted:

```
[root@linuxacademy1 ~]# df -h
Filesystem           Size  Used Avail Use% Mounted on
/dev/xvda2            10G  1.4G  8.6G  14% /
devtmpfs             477M     0  477M   0% /dev
tmpfs                496M     0  496M   0% /dev/shm
tmpfs                496M   13M  484M   3% /run
```

```
mpfs                496M     0  496M   0% /sys/fs/cgroup
tmpfs               100M     0  100M   0% /run/user/1001
//10.0.0.100/public  10G  1.5G  8.6G  15% /mnt/sambashare
```

NFS

Install NFS utilities:

```
[root@linuxacademy1 ~]# yum install nfs-utils
```

Mount the file system:

```
[root@linuxacademy1 ~]# mkdir /mnt/nfsshare
[root@linuxacademy1 ~]# mount -t nfs 10.0.0.100:/nfsshare /mnt/nfsshare/
```

As with the CIFS option above, the file system is not persistantly mounted until it is added to the `/etc/fstab` file. Open the file and add:

```
10.0.0.100:/nfsshare /mnt/nfsshare nfs defaults 0 0
```

Mount and then verify:

```
[root@linuxacademy1 ~]# mount -a
[root@linuxacademy1 ~]# df -h
Filesystem            Size  Used Avail Use% Mounted on
/dev/xvda2             10G  1.4G  8.6G  14% /
devtmpfs              477M     0  477M   0% /dev
tmpfs                 496M     0  496M   0% /dev/shm
tmpfs                 496M   13M  484M   3% /run
tmpfs                 496M     0  496M   0% /sys/fs/cgroup
tmpfs                 100M     0  100M   0% /run/user/1001
//10.0.0.100/public    10G  1.5G  8.6G  15% /mnt/sambashare
10.0.0.100:/nfsshare   10G  1.5G  8.6G  15% /mnt/nfsshare
```

Confirm Persistency

Reboot your server, and then run `df -h` to confirm both file systems are still mounted.