Linux Academy

Hands-on 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 Hands-on Lab page. Switch to *root* using `su`. 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
```

If you receive an `NT_STATUS_LOGON_FAILURE` here, `exit` the session, then switch to *root* again, ensuring you are using `su` and not `su -`.

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.