Step-by-Step Guide: Setting up a Samba Client on RHEL 7.9

# 1. Install Required Packages

On RHEL 7.9, you need to install cifs-utils and samba-client to enable SMB/CIFS mounting.  
  
Run the following command:

sudo yum install -y cifs-utils samba-client

# 2. Test Connectivity with smbclient

List available shares on the server:

smbclient -L //server.example.com -U myuser

If the server requires a domain:

smbclient -L //server.example.com -U MYDOMAIN\\myuser

To connect directly to a share:

smbclient //server.example.com/share -U myuser

# 3. Create a Mount Point

Create a directory for the SMB share:

sudo mkdir -p /mnt/data

# 4. Create a Credentials File

For security, store SMB credentials in a file:

sudo mkdir -p /etc/smbcredentials  
sudo nano /etc/smbcredentials/myshare.cred

File contents:

username=myuser  
password=mypassword  
domain=MYDOMAIN

Secure the file:

sudo chmod 600 /etc/smbcredentials/myshare.cred

# 5. Test Mounting Manually

Run the following command:

sudo mount.cifs //server.example.com/share /mnt/data -o credentials=/etc/smbcredentials/myshare.cred,vers=3.0,sec=ntlmssp

# 6. Configure /etc/fstab

Edit /etc/fstab to make the mount persistent:

sudo nano /etc/fstab

Add the following line:

//server.example.com/share /mnt/data cifs credentials=/etc/smbcredentials/myshare.cred,vers=3.0,sec=ntlmssp,iocharset=utf8,file\_mode=0770,dir\_mode=0770 0 0

# 7. Test the fstab Entry

Run:

sudo mount -a

Verify with:

mount | grep cifs  
df -h /mnt/data

# 8. Troubleshooting

If the mount fails, check connectivity and logs:

nc -zv server.example.com 445  
dmesg | tail -n 20  
journalctl -xe | grep cifs

Adjust vers= parameter if needed:

vers=3.0 (modern servers)  
vers=2.0 or vers=2.1 (older servers)  
vers=1.0 (legacy, insecure)