**Samba Server Configuration**

Samba is a free and open source protocol that allows files to be shared across windows and Linux systems in a simple and seamless manner. You can have a Samba server on a Linux server hosting various files and folders which can be accessed by windows clients.

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| Step 1) Install samba and necessary packages | To verify samba is installed  **#rpm -q samba**  samba-4.11.2-13.el8.x86\_64  To install samba and its dependencies  **#dnf install samba samba-common samba-client** |
| Step 2) Configuring Samba  Windows and Linux system need be in the same workgroup  View smb.conf.example for more configuration options. | 1. Backup the samba configuration file   **#cp /etc/samba/smb.conf /etc/samba/smb.conf.bak**   1. Create a shared folder and give the right permission and ownership   **$ sudo mkdir -p /srv/samba/shared**  **$ sudo chmod -R 0777 /srv/samba/shared**   1. Now modify samba configuration file.   **$ sudo vim /etc/samba/smb.conf**  Append the configuration bleow:  #=========Global Settings==================  [global]  workgroup = WORKGROUP # This is default workgroup for Windows machines  security = user # together with next line, enables Linux system users to log in to the Samba server.  passdb backend = tdbsam  printing = cups  printcap name = cups  load printers = yes  cups options = raw  netbios name = MYSAMBASERVER # used to specify a server name that is not tied to the hostname, this becomes the machines’s “Samba hostname”  interfaces = 10.0.2.0/24 127.0.0.0/8 #used to configure Samba to listen on multiple network interfaces.  hosts allow = 10.0.2. # the hosts allowed to connect.  #==============Share Definitions=============  [homes]  comment = Home Directories  valid users = %S, %D%w%S  browseable = Yes  read only = Yes  inherit acls = Yes  [public] #A public accessible directory that is writable.  comment = Public Stuff  path = /srv/samba/shared  public = yes  writable = Yes  browsable = yes  force user = nobody  [opt] #A public accessible directory that is read only.  comment = Public Stuff  path = /opt  public = yes  writable = no  browsable = yes  force user = nobody     1. Run **testparm** command to verify that the configuration file   $ testparm # Or use testparm /etc/samba/smb.conf |
| Step 3) Allow samba service on the firewall | $ sudo firewall-cmd --add-service=samba --zone=public --permanent  $ sudo firewall-cmd --reload |
| Step 4) Create a Samba user and assign a password use pdbedit.  Note: the user must be in /etc/passwd | #pdbedit -a root  #pdbedit -a peter  #pdbedit -L  #pdbedit -L -v |
| Step 5) Start and enable Samba services.  Samba is comprised of three daemons (smbd, nmbd, and winbindd).  **smbd**  The smbd server daemon provides file sharing and printing services to Windows clients. In addition, it is responsible for user authentication, resource locking, and data sharing through the SMB protocol. The default ports on which the server listens for SMB traffic are TCP ports 139 and 445.  The smbd daemon is controlled by the smb service.  **nmbd**  The nmbd server daemon understands and replies to NetBIOS name service requests such as those produced by SMB/CIFS in Windows-based systems. These systems include Windows 95/98/ME, Windows NT, Windows 2000, Windows XP, and LanManager clients. It also participates in the browsing protocols that make up the Windows Network Neighborhood view. The default port that the server listens to for NMB traffic is UDP port 137.  The nmbd daemon is controlled by the smb service.  **winbindd**  The winbind service resolves user and group information on a server running Windows NT 2000 or Windows Server 2003. | $ sudo systemctl start smb  $ sudo systemctl enable smb  To confirm if smb service is running :  $ sudo systemctl status smb |
| Step 6) Test Samba from Linux system | $ smbclient -L 10.0.2.1  $ smbclient -U peter //10.0.2.1/peter |
| Step 7) Accessing Samba share from windows machine | From your Windows PC, press Windows Key + R to launch the Run dialog and type  [\\IP-address-of-samba-server](file:///\\IP-address-of-samba-server)  Or open Windows File Explorer and in the address bar, type in \\10.0.2.1\peter |