GETTING STARTED

WITH

SAMBA AS A SERVER

➢ SAMBA SERVICES:

- As a Linux administrator, when you think windows, you should also think about SAMBA.
- SAMBA is a great technology that you can run on Linux allowing you to communicate and interact with windows servers and clients.
- SAMBA is a free software re-implementation of **SMB/CIFS** networking protocol, originally developed by Australian **Andrew Tridgell.**
- The SMB protocol is used to access resources on a server, such as file shares and shared printers. Additionally, Samba implements the Distributed Computing Environment Remote Procedure Call (DCE RPC) protocol used by Microsoft Windows.
- You can run Samba as:
  - An Active Directory (AD) or NT4 domain member
  - A standalone server
  - An NT4 Primary Domain Controller (PDC) or Backup Domain Controller (BDC)

FEATURES OF SAMBA:

- File and print shares
- Browsing
- Resource sharing
- User authentication & authorization

SAMBA AS A SERVER:

- You can set up Samba as a server that is not a member of a domain. In this installation mode, Samba authenticates users to a local database instead of to a central DC.
- Additionally, you can enable guest access to allow users to connect to one or multiple services without authentication.
- Set up the server configuration for a Samba standalone server.

PRE-REQUISITES:

Package names : samba, samba-client

The main configuration file : /etc/samba/smb.conf

Maps samba and RedHat users : /etc/samba/smbusers

Samba user's password : /etc/samba/smbpasswd

Log file location : /var/log/samba

Log.smbd

Log.nmbd

Daemons & Services:

smbd : Provides file sharing and printing services.

nmbd : Provides hostname and IP resolution.

winbind : Provides an interface for the Name Service Switch (NSS) to use AD or NT4 domain users and groups on the local system.

Ports

137 : NETBIOS name service

138 : NETBIOS datagram service

139 : NETBIOS session service

445 : For Active Directory (AD)

→ **Install the samba package:**

#dnf install samba -y

→ **Start and Enable samba service:**

#systemctl start nmb ; systemctl enable nmb

#systemcctl start smb ; systemctl enable smb

#systemctl status nmb ; systemctl status smb

→ **To verify the port numbers:**

#netstat -pantl

NOTE: Samba services automatically reload their configuration every 3 minutes.

→ **Create a samba share directory:**

#mkdir /cloud-data

#touch /cloud-data/aws azure gcp

#ls /cloud-data

→ **edit the /etc/samba/smb.conf file:**
#vim /etc/samba/smb.conf

```
[global]
workgroup = INDIA
netbios name = server
log file = /var/log/samba/%m.log

####### Sharing Cloud Data directory #########
[sharename]
comment = "My Local cloud data share"
path    = /cloud-data
printable = no
browseable = yes
writable = no
valid users = raju ram
hosts allow = 192.168.10.     # example.com
```

######### Sharing RHEL9 iso data ###############

[iso-data]

comment = "RHEL9 DVD iso-data Share"

path = /rhel9-data

printable = no

browseable = yes

writable = no

valid users = raju ram

hosts allow = 192.168.10.

Creating and enabling local user accounts:

- To enable users to authenticate when they connect to a share, you must create the accounts on the Samba host both in the operating system and in the Samba database.

  If you use the **passdb backend = tdbsam** default setting, Samba stores user accounts in the **/var/lib/samba/private/passdb.tdb** database.

#useradd -M -s /sbin/nologin raju

#useradd -M -s /sbin/nologin ram

SYNTAX: #smbpasswd [options] user

-a : add user

-d : disable user

-e : enable user

-x : deletes a user

#smbpasswd -a raju

#smbpasswd -a ram

To enable all members of the Domain Users group:

valid users = +DOMAIN\"Domain Users"

invalid users = DOMAIN\user

Configuring host-based share access:

hosts allow = 127.0.0.1 192.0.2.0/24 client1.example.com

hosts deny = client2.example.com

→ **Reload the configuration of samba server:**

#smbcontrol all reload-config

→ **Run the testparm utility:**

#testparm

❖ SAMBA CLIENT:

→ **Install samba-client package:**

#dnf install samba-client -y

→ **Verify the samba shared resources:**

#smbclient -L //192.168.10.254 -N

→ **Create a directory for mounting:**

#mkdir /samba-share

→ **Make it entries in /etc/fstab for mounting:**

//192.168.10.254/sharename /samba-share cifs defaults,username =raju, password=xxx 0 0

#systemctl daemon-reload

#mount /samba-share ; ls /samba-share

WINDOWS CLIENT: Go to RUN prompt→ Type SAMBA Server-IP

\\192.168.10.254 **[**Give SAMBA Server credentials]