Lab - Configuring Samba in Linux Using Webmin

Overview

In this lab, you will learn to configure Samba using the Webmin GUI Administrative Console. Samba is a suite of Unix applications that communicate using the Server Message Block (SMB) protocol. Microsoft Windows operating systems and the OS/2 operating system use SMB to perform client-server networking for file and printer sharing and associated operations. By supporting this protocol, Samba enables computers running Linux to communicating with the same networking protocol as Microsoft Windows and appearing as another Windows system on the network from the perspective of a Windows client.

Hardware Requirements

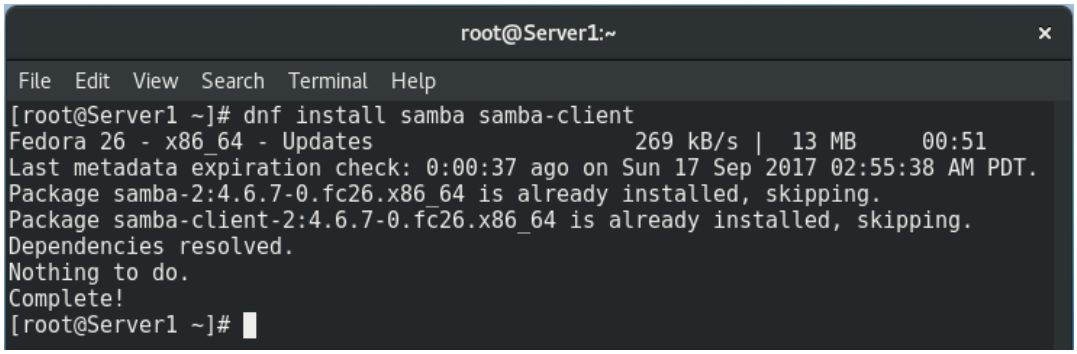
- One VM running Linux Fedora
- One VM running either a Windows or Linux client. (optional)

Begin the lab

- Logon to your Linux server as Root.
- Open a terminal window.

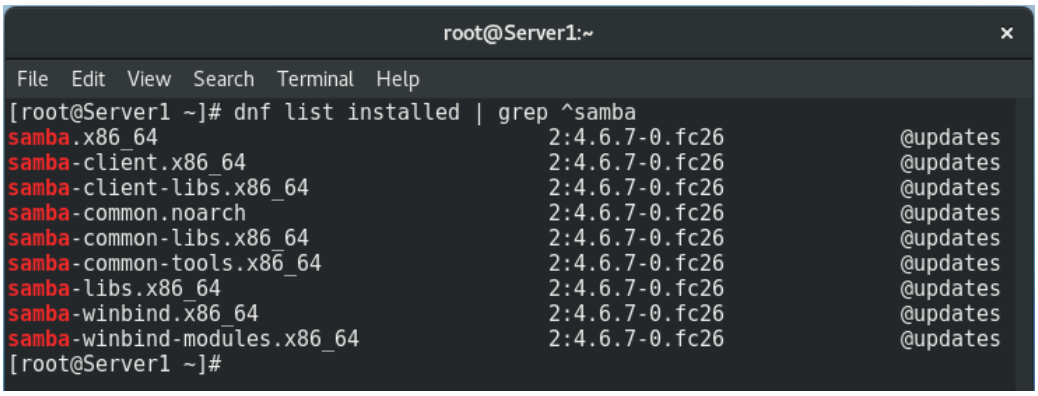
Type the following command to determine if samba is (if not, it will install)

```
dnf install samba samba-client
```



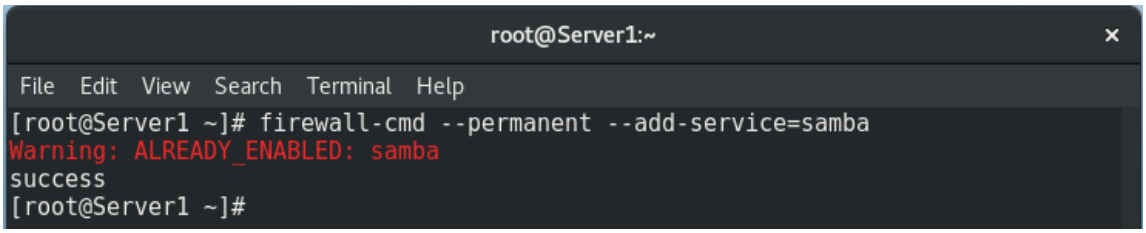
Type the following command to view packages installed with samba:

```
dnf list installed | grep ^samba
```



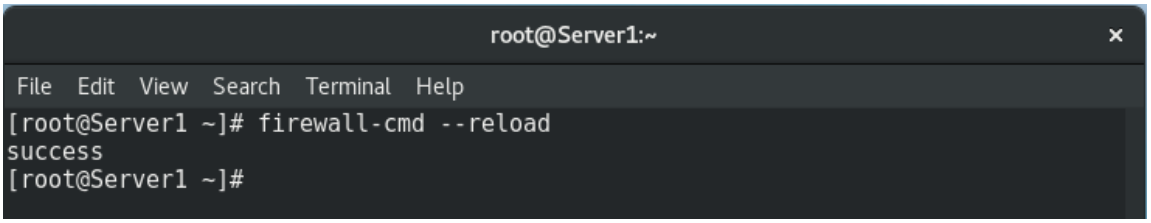
Check to see if Samba is permitted through the firewall.

```
firewall-cmd --permanent --add-service=samba
```



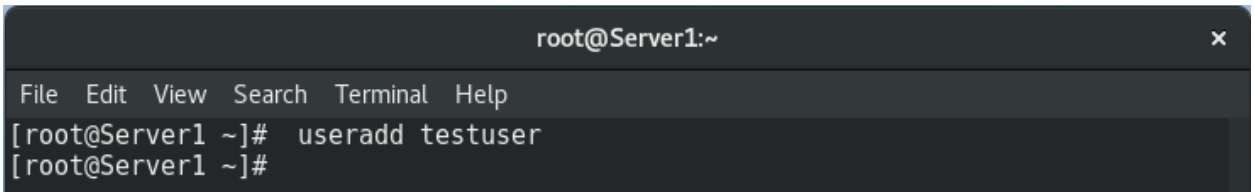
If access is not already present, you will need to reload the firewall:

```
firewall-cmd --reload
```




```
Create a testuser and password for a Samba user:

useradd testuser
```



Type the following to see if the new user is in the passwd file of the Linux OS:

```
cat /etc/passwd
```

```
gnome-initial-setup:x:984:981::/run/gnome-initial-setup/:/sbin/nologin
named:x:25:25:Named:/var/named:/sbin/nologin
dhcpd:x:177:177:DHCP server:/:/sbin/nologin
testuser:x:1001:1001::/home/testuser:/bin/bash
[root@Server1 ~]#
```

Create a samba user and its password by typing the following:
(the user acct must be in the passwd file before you can add him to Samba passwd file)

```
smbpasswd -a testuser
```

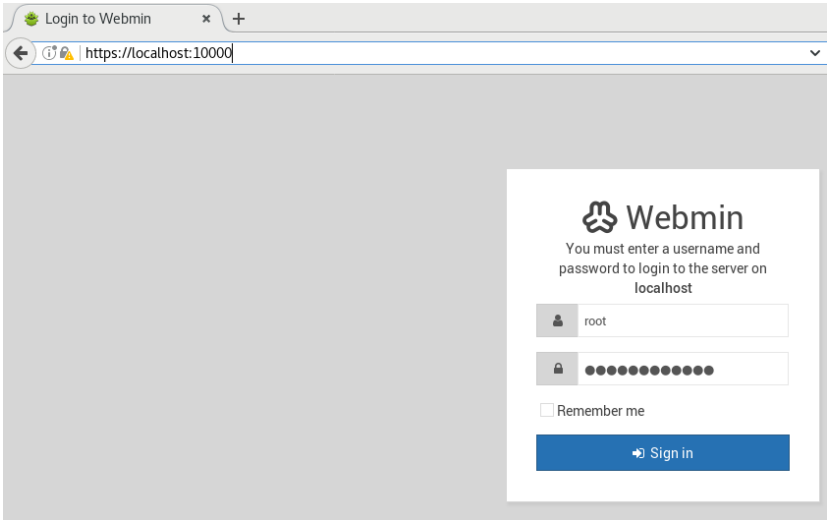
```
[root@Server1 ~]# smbpasswd  -a testuser
New SMB password:
Retype new SMB password:
Added user testuser.
[root@Server1 ~]#
```

Remember the user and password you just created!

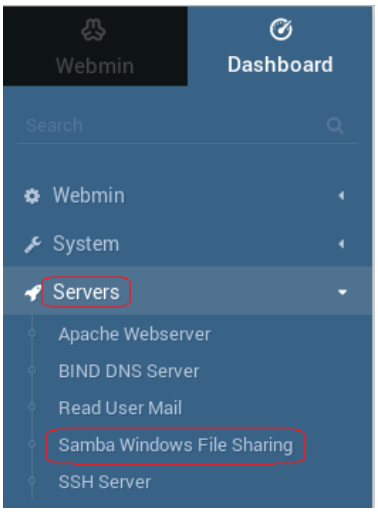
Open Firefox and access your Webmin page by typing

```
https://localhost:10000
```

Logon as root with your root password.

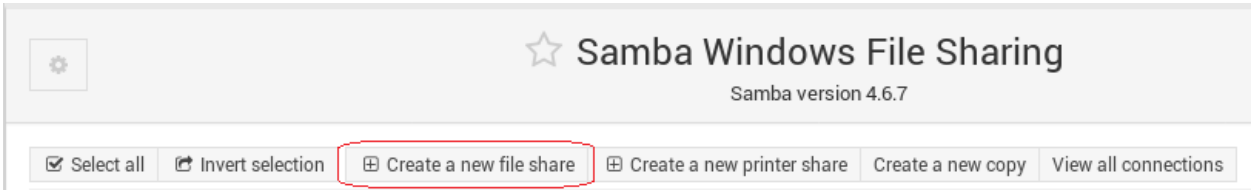


From the Dashboard menu on the left, scroll down until you get to Servers. Expand and scroll down the list of available servers until you get to Samba Windows File Sharing.

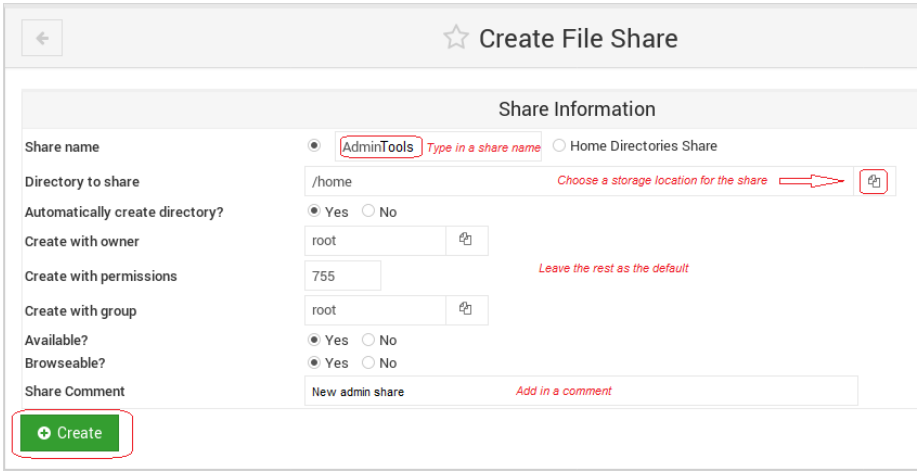


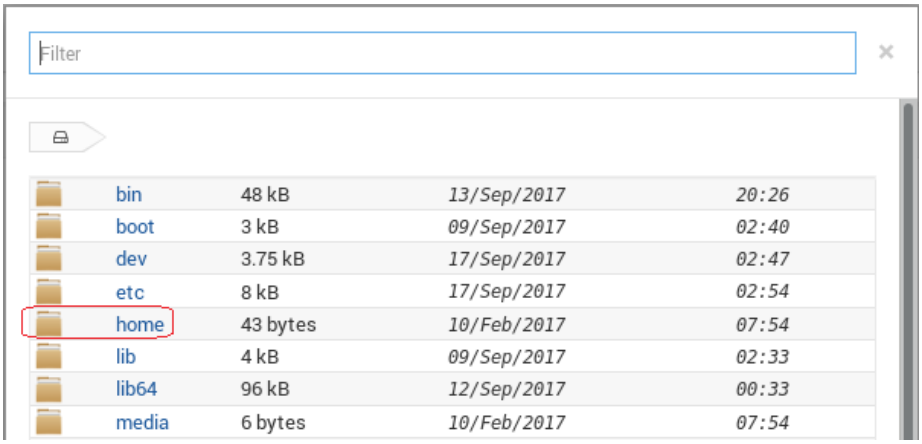
X2 click on the link for Samba Windows File Sharing, and it installs and opens.

Click on the + icon to create a new share.



1. Click on the Create a New File Share from the top section (see Figure 2).
2. In the new window, you will need to enter the following information:
   a. Share name: Give your share a name.
   b. Directory to share: Choose the directory you want to share.
      a. Comment: Add a comment if needed.
      b. Leave the rest as default (we will change some of this next).
      c. Click Create.



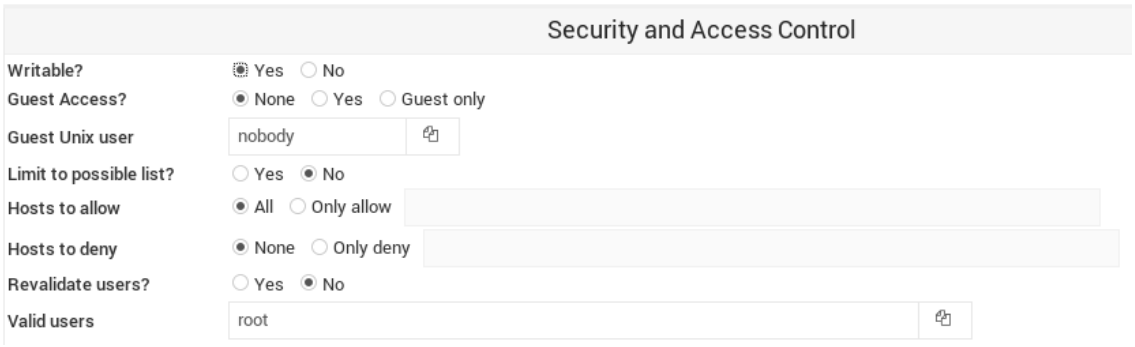


This brings you back at the Share listing. Click on your newly created share to access the advanced configurations. When your share opens, you will find, 'Other Share Options.'

- Security and Access control
- File Permissions
- File Naming
- Miscellaneous Options

Click on Security and Access control. In this window, do the following:

- Make sure the share is writable.
- If you want to allow, guest access make sure it is checked.
- If you want to change host access, do so in hosts to allow and hosts to deny.
- If you want to add valid users, enter the users in the Valid users listing.

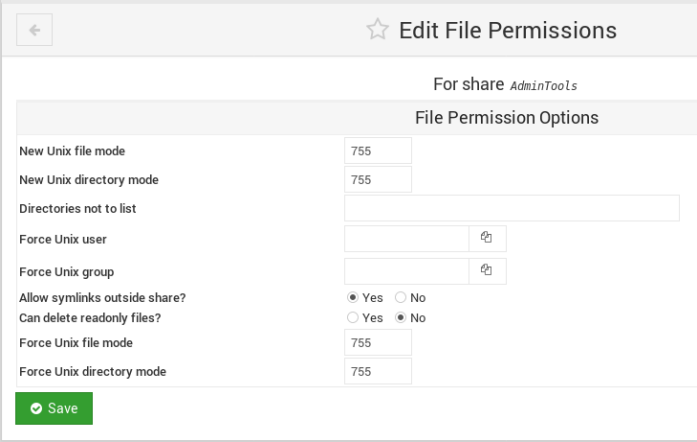


Once configured, click Save and return to your share setup page.

Click File Permissions is the next section. In this window, there are four options you need to check:

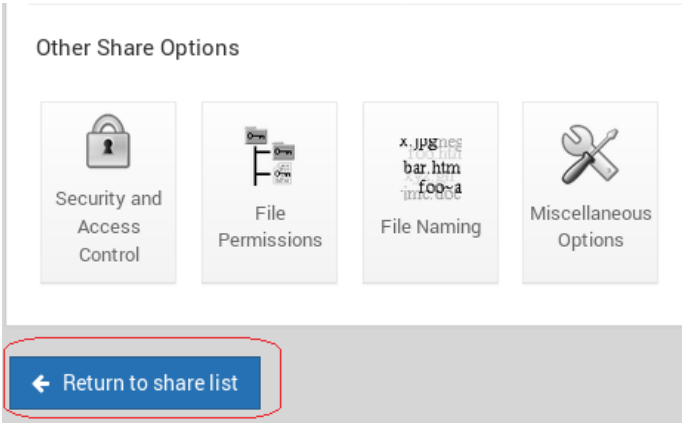
- New Unix File mode
- New Unix directory mode
- Force Unix file mode
- Force Unix directory mode

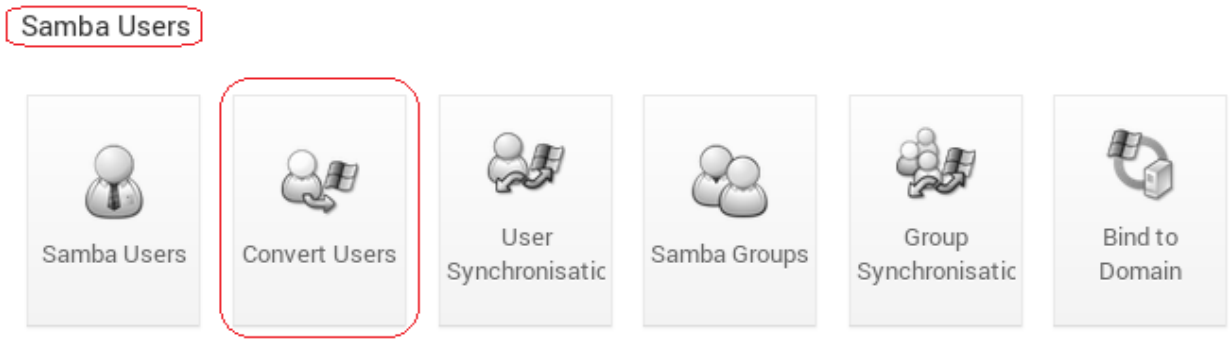
If you want your users to have both read and write access to the share, you need to set these to 755. Once you are done, click Save.



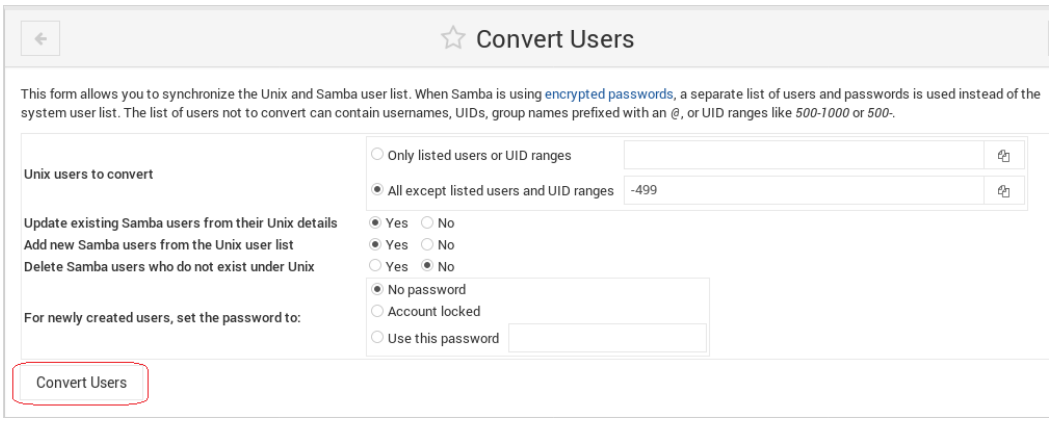
Once you have your Share complete, there is but one step left: add users to Samba.

Click 'Return to Share List 'just under the Other Share Option tiles. Scroll down and find the section for Samba Users.

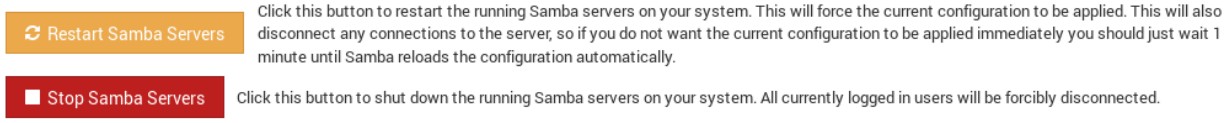




Click on the Convert Users link. On the next page, click the Convert Users button add all your existing users to the Samba system. This ensures all users will have to access your Samba shares.



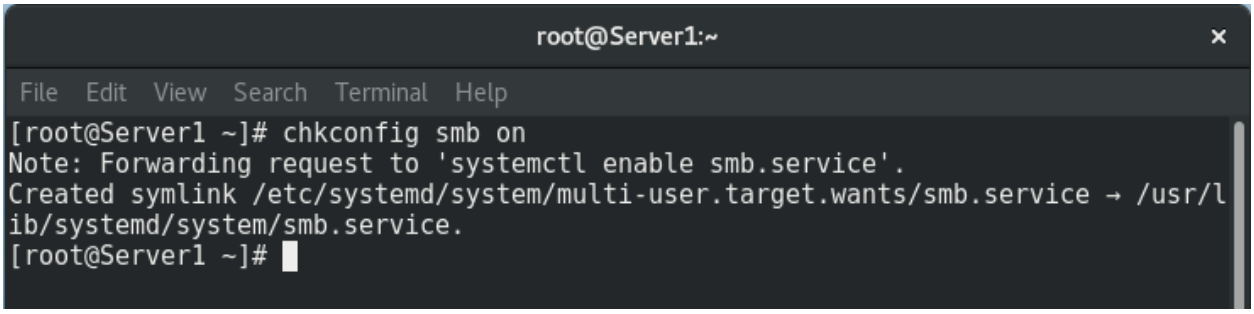
Return to the main screen, scroll to the bottom, and click the Restart Samba Server Button.



Configure Samba to start at boot

By default, each time you restart your Samba server, you will have to restart the Samba service. The more practical way to remedy this would be to have Samba start at boot. To enable Samba to start at boot, open a terminal and type in the following command:

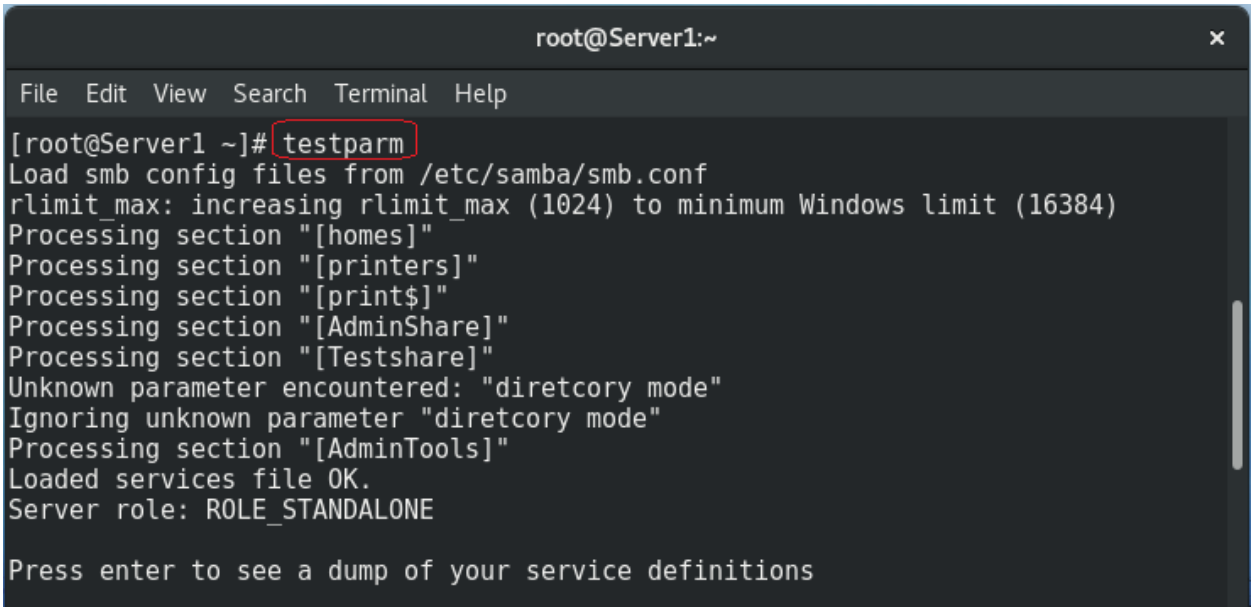
```
chkconfig smb on
```



Testing for syntax errors

The main file for Samba is the smb.conf file. If you have Samba issues, this is where you should start looking. Just as we can test for syntax errors for DHCP and other services, the same applies with Samba. To test for syntax errors within the smb.conf file, type the following at the terminal prompt:

```
testparm
```



Few things you should remember

1) If you add a new user to the system, don't forget to convert that user to a Samba user.

2) If you need to add a new user to share access, don't forget to do so through the Security and Access window of the share.

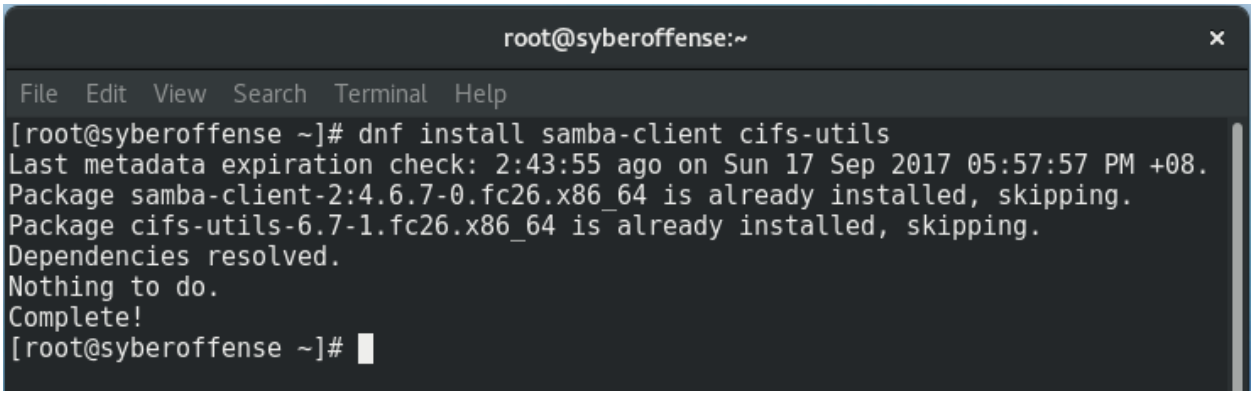
3) If you have Windows users that need to access shares, make sure they have an account on the Samba server that matches (both username and password) on the Windows machine. NOTE: This is only necessary when using SECURITY = USER

Testing your Samba Server

Login to your Linux client as root.

Open a terminal window and install the Samba client using the following command:

```
dnf install samba-client cifs-utils
```

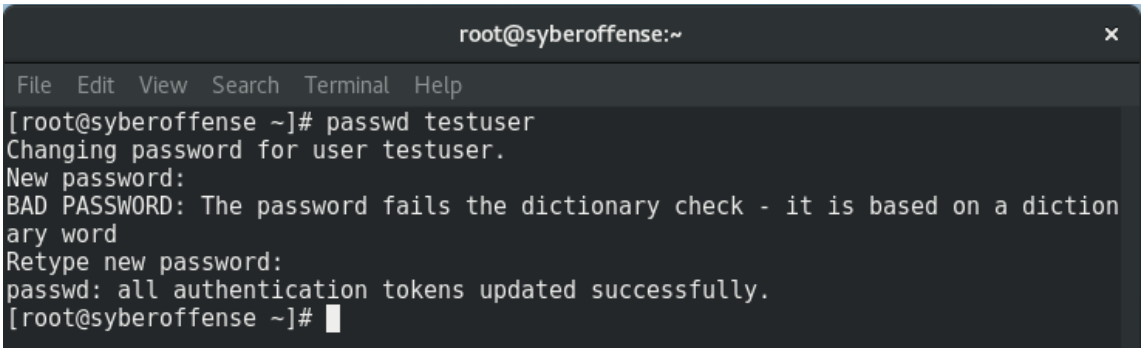


Create the same testuser account that was created on the server earlier by typing the following:

```
useradd  testuser
```

Use the same password you for the testuser you created earlier:

```
passwd testuser
```



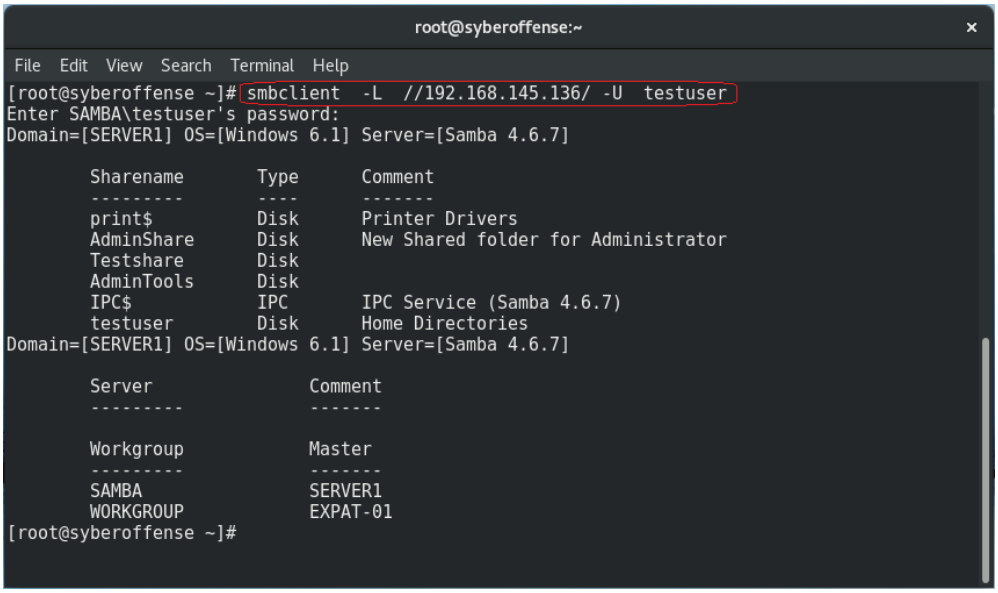
Type the following on the client to see a list of shares on the server:

```
smbclient -L  //192.168.145.136/admintools -U testuser
```

(where 192.168.145.136 is the IP address of the server and admintools is share name)

This is my IP address, not yours! Your's will differ! Go back to the Samba server and do an IFCONFIG from the terminal.

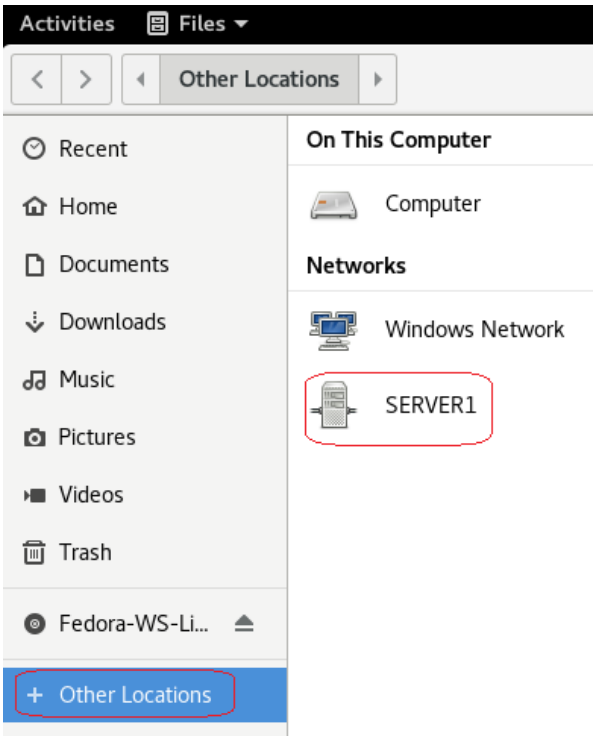
Success!



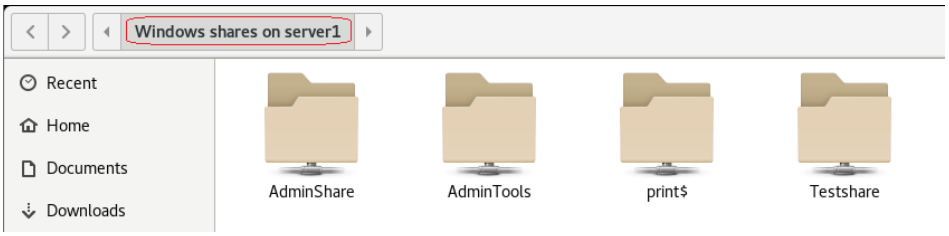
Close out the terminal.

From the desktop, click on Activities. From the quick launch bar, click on the files.

Click on Other Locations.

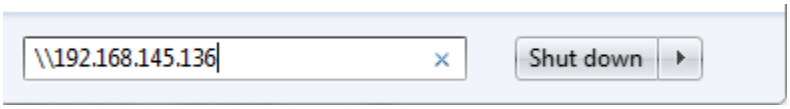


Click on your Samba server.



You can access the shares on a Samba server same as you do on a Windows network.

Again, for this to work, there must be a username using the same password that is present on the Samba server. From the search bar or the run line, type \\<IP address of Samba server>



You will be prompted for the username and password. To make the share show up as a mapped drive, find the Samba share you want, right click and select Map Network.

Summary

In this lab, you learned how to build a Samba server, create a share, add Samba users and access a Samba server form a client. Since Samba uses SMB, this is file service that works for both Linux and Windows clients.

End of the lab!