**SAMBA**



Windows side port number is 445

Smb : server message block

rpm –ivh keyutils

Note: If you want to access or mount windows file system in linux machine , then mandatory to install above package “keyutils”.

The smbd daemon provides the file and print services to SMB clients, such as Windows 95/98, Windows NT, Windows for Workgroups or

LanManager. The configuration file for this daemon is described in smb.conf

nmbd

The nmbd daemon provides NetBIOS nameservice and browsing support. The configuration file for this daemon is described in smb.conf

smbclient

The smbclient program implements a simple ftp-like client. This is useful for accessing SMB shares on other compatible servers (such as

Windows NT), and can also be used to allow a UNIX box to print to a printer attached to any SMB server (such as a PC running Windows NT).

testparm

The testparm utility is a simple syntax checker for Samba smb.conf configuration file.

testprns

The testprns utility supports testing printer names defined in your printcap file used by Samba.

smbstatus

The smbstatus tool provides access to information about the current connections to smbd.

nmblookup

The nmblookup tools allows NetBIOS name queries to be made from a UNIX host.

smbpasswd

The smbpasswd command is a tool for changing LanMan and Windows NT password hashes on Samba and Windows NT servers.

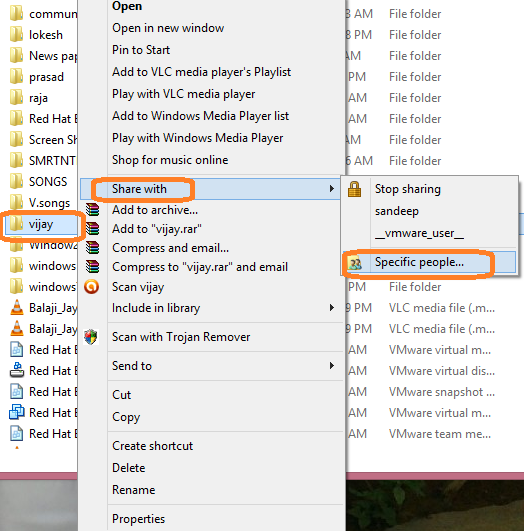
How to Mount smbfs (SAMBA file system) permanently in Linux. In this post I am going to give some examples how to do SMB (Server Message Block) mounts..

**Temporary mount: windows to linux (meant mount windows shared files in linux machine)**

**How to share directory in windows:**

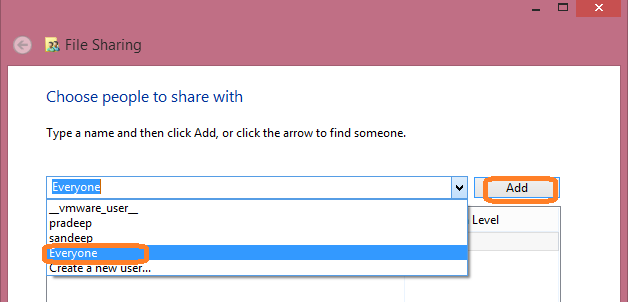
**Step 1:** Login to windows machine and go to D:/ or other Drivers other than C:/

Right click on folder which is you want to share.

****

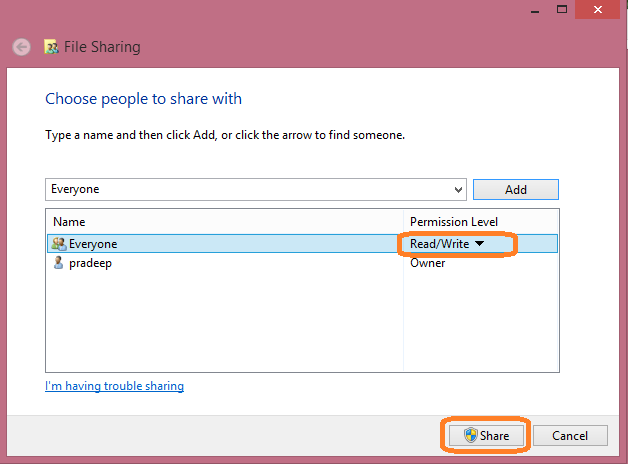
**Step 2:**

Once you click on specific people button, you will get another screen like below. Here click on add and add the respective people or everyone.

****

**Step 3:**

And also specify the permission for that users and click on share button.

****

**How to clear recent login credentials in windows machine**

Run 🡪 cmd 🡪 net use \* /DELETE

 IMP : smbmount has been deprecated in favor of mount.cifs. I want to say "since at least 2008" but I can't find a reference.

**Temporary mount windows file system in Linux:**

Smbfs is replace with cifs [common internet file system]

mount -t cifs -o username=prasadbs,password=Snandu@123 //192.168.3.8/Infra /smbdir

or

Add credentials into c.txt file and mount file system based on file credentials

Username=prasadbs

Password=Snandu@123

-bash-3.2# mount -t cifs -o credentials=/c.txt //192.168.3.8/Infra /smbdir

**Permanent Mount:**

Mounting permanently by editing /etc/fstab file, below is the fstab file entry example

#vi /etc/fstab

//192.168.3infra /smbdir cifs rw,username=prasadbs,password=Snandu@123 0 0

Or

//192.168.3infra /smbdir cifs rw,credentials=/c.txt 0 0

Save and exit the file and conform that you edited fstab file properly. By below commands

#mount –a

This command should not throw any error,

#df –h

[Linuxnix-free-e-book](https://feedburner.google.com/fb/a/mailverify?uri=TheLinuxJuggernaut)Create hidden file for save or keep login credentials:

#echo username=prasadbs > .smbfile

#echo password=Snandu@123 >> .smbfile

#chmod 600 .smbfile

**Linux to windows files sharing in Linux:**

Yum install samba\*

Mkdir /smbdir

vi /etc/samba/smb.conf

Add below lines

[Altifin-SMBDIR]

comment = Samba ACCESS only to altifin users

path = /smbdir

public = yes

writable = yes

printable = no

write list = +staff or user1 user2 …….

save and come out

Below command for add user into samba.

# smbpasswd -a prasadbs

New SMB password:

Retype new SMB password:

Added user prasadbs.

Or

samba-tool user add USERNAME-HERE

Below command for disable samba users from samba shares.

# smbpasswd –d prasadbs

Smbpasswd –e prasadbs

Enable

Below command for delete user from samba shares.

# smbpasswd –x prasadbs

These password details will save in /etc/samba/

pdbedit -L

Service smb restart

# testparm

read only = Yes

**write list** option. For example allow rocky and tony to write to the share called sales:

write list = rocky tony

hosts allow = ip1 ip2

**Client side:**

Run //samba server ip

Enter the smb password user and password

valid users = dave

invalid users = root bin daemon adm sync shutdown \

halt mail news uucp operator

**How to access temporarily linux share directory in windows:**

[\\ipaddress](file:///\\ipaddress)

**How to mount permanently linux share directory in windows:**

Run = net use delete

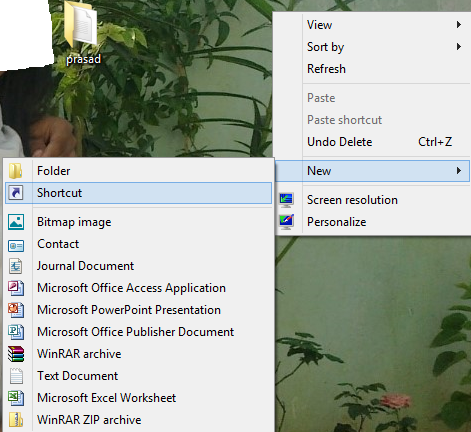
net use \\server\share /delete

then type in:

klist purge

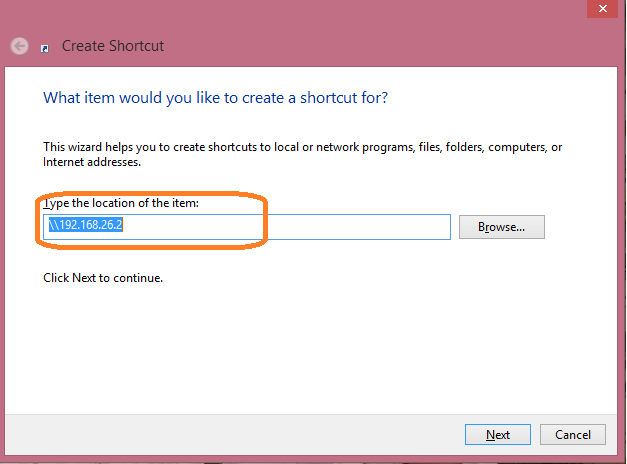
To delete recent samba passwords from windows machine

Step 1: Login to windows machine and right click on your desk top and then go to new 🡪 and press on shortcut



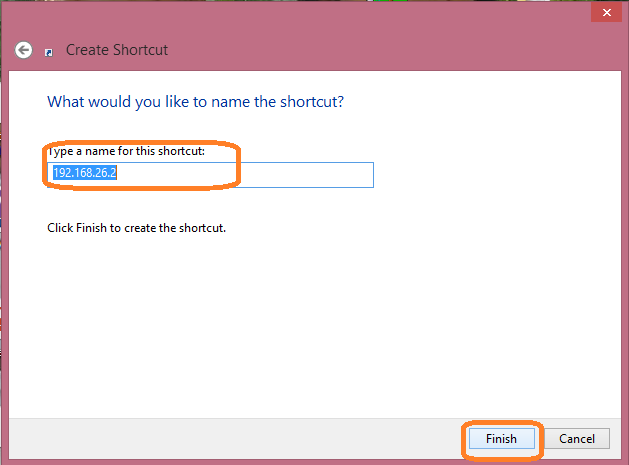
Step 2:

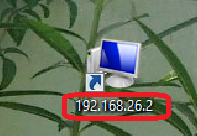
Please enter linux machine or server IP and press next.



Step 3:

Enter finish





Whenever you want to access the linux directory just click on above shortcut.

Browseable = yes or no

Using above option , if you want to show shared directory for all users then here you can say browseable=yes , if you don’t want to show default this folder then you can say browseable = no

write list = +staff

Using above option, allowing all system user to access shared file system with their credentials.

Printer configuration in Linux :

Port number = 631

Package = cups

Service = cups

Linux uses the **Common UNIX Printing System, also known as CUPS.** CUPS uses the **Internet Printing Protocol (IPP)** to allow local printing and print sharing. The /etc/cups/ directory stores all the configuration files for printing. However, these files can be easily managed with the Printer Configuration Tool in Linux.

Exam question Raw (Model) printer named printer1 is installed and shared on 192.168.0.254. You should install the shared printer on your PC to connect shared printer using IPP Protocols.

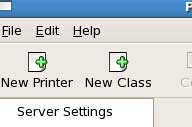
Exam question Raw printer named printerx where x is your station number is installed and shared on server1.example.com. Install the shared printer on your PC to connect shared printer using IPP Protocols. Your server is 192.168.0.254.

Before you can use any printer, you first have to install it on a Linux system on your network. To start the Printer Configuration Tool, go to the System menu on the top panel and select Administration, Printing or execute the command system-config-printer.



If no printers are available for the system, only the Server Settings view is available for selection. If local printers are configured, a Local Printers menu will available.

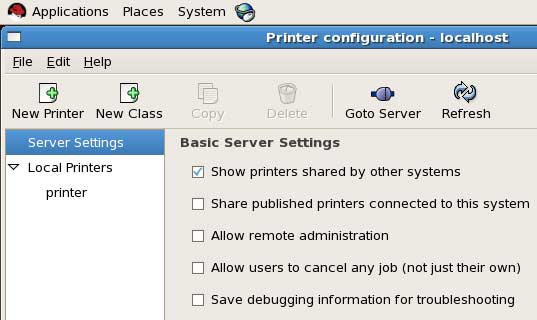
Install new printer

click New Printer on the toolbar.  
  
In the dialog window that appears, accept the **default queue name** or change it to a short, descriptive name that begins with a letter and does not contain spaces. Then select **printer** from list and click on **forward** and click on **finsh**.

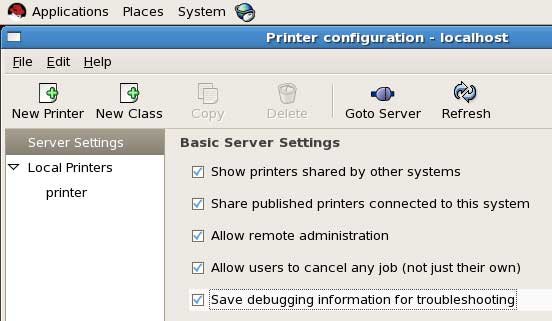
**spool directories**  
When your system prints a file, it makes use of special directories called **spool directories.** The location of the spool directory is obtained from the printer's entry in its configuration file. On Linux, the spool directory is located at **/var/spool/cups** under a directory with the name of the printer.

**print job**  
A print job is a file to be printed. When you send a file to a printer, a copy of it is made and placed in a spool directory set up for that printer.

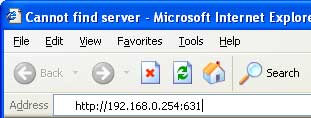
**classes**  
CUPS features a way to let you select a group of printers to print a job instead of selecting just one. That way, if one printer is busy or down, another printer can be automatically selected to perform the job. Such groupings of printers are called **classes**. Once you have installed your printers, you can group them into different classes.

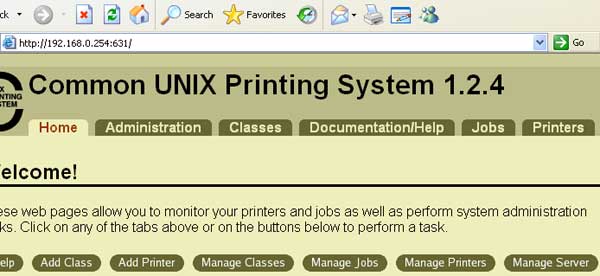
Once you have successfully installed local printer it will show in right pane. and in left pane you can see all **administrative options.**  


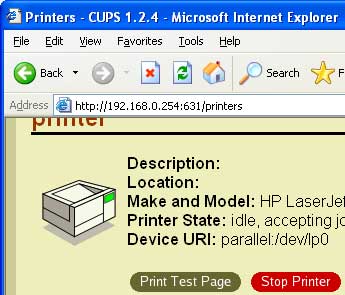
* To **view shared printer** on other system Tick mark on first option
* To **share** locally attached printer tick mark on second option
* To **allow remote administration** of this printer check mark on third option

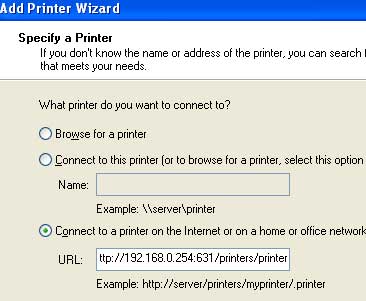
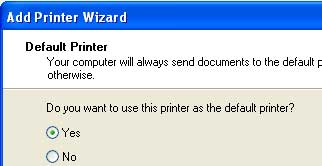
Tick mark on appropriate option and click on **apply**  


**configure window clients**

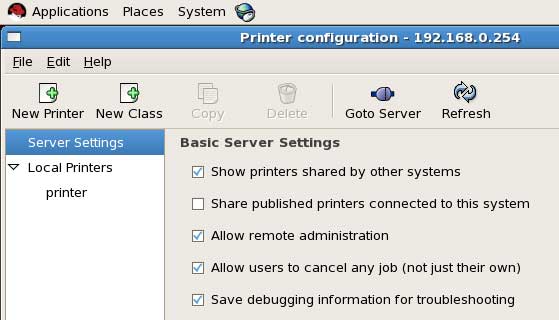
Go on window system and **ping** from printer server and open **internet explorer** and give the **ip address** of server with printer port **631**   


This will launch **CUPS web application** click on **manage printer**   


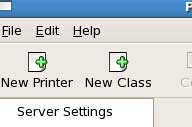
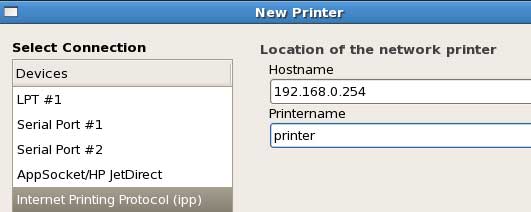
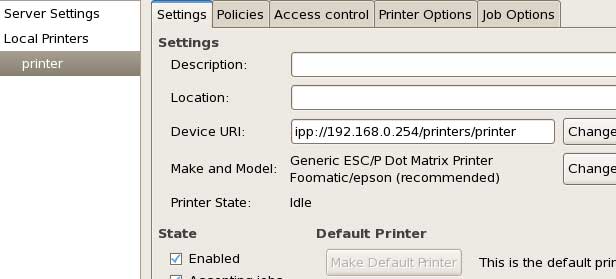
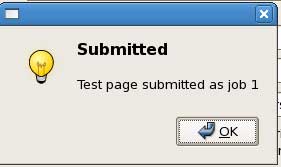
now you will see the **shared printer** on server click on print **test page**   
  
A test page will be send on printer server copy this **url of printer**   


click on **start** button select **printer and fax** and click on **add new printer**. this will launch add new printer wizard click **next** on welcome screen and select **network printer**  
  
On this screen select **internet printer** and **paste the url** which you copied from **internet explorer**   
  
Install appropriate driver from list or use have disk option you have drive cd and click next. On next screen set this printer **defaults** and click on next and **finish**.   


**Remote administration of print server**

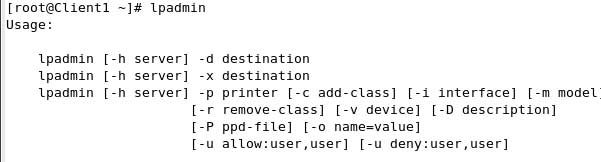
Go on linux system and **ping** from server and click on **printing** from **administration menu**  
  
Now click on **go to server**   
  
Now give print server **ip address**   
  
It will take few minute to connect from server depending on network speed  
  
Now give **root password** to connect printer server   
  
you can see all **print administrative Manu** in right pane Once you have connected with sever   


**configure Linux clients**

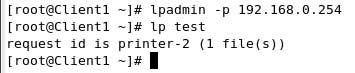
Go on linux system and **ping** from server and click on printing from **administration menu**  
  
Now click on **new printer**   
  
Click on forward In the next New Printer screen, select the type of connection to **internet printing protocols** and in hostname give **server ip** and printer name in **printername**   
  
select the appropriate model. If multiple drivers are available, select the one most appropriate for your configuration. If you do not want to choose the **default** and click forward and finish. The main Printer Configuration window should now include the name of your printer.  
  
To print test page click on **print test page** and a test page will send to print server   


**Managing Printers from the Command-Line**

The **lpadmin** command enables you to perform most printer administration tasks from the command-line.



*lpc* To view all known queues  
 *lpr* To send print requests to any local print queue   
 *lpq* To see the print queue  *lprm* To delete the jobs of your choice use it with the job number  *lp* To print any file.



Issue while mounting windows file system in linux

Error: Permission denied

//hk96fs30/ahd\_fkvw /home/fkvw cifs \_netdev,rw,user=fkvw,uid=fkvw,gid=users,credentials=/etc/fkvw\_credentials 0 0

//hk96fs30/AHD\_FOPR /usr/local/share/groups/store\_atosapp02/fopr cifs \_netdev,user=fopr,gid=store\_atosapp02,file\_mod

e=0770,dir\_mode=0770,credentials=/etc/fopr\_credentials 0 0

[root@ahlp1507 pnlst379]# mount -a

mount error(13): Permission denied

Refer to the mount.cifs(8) manual page (e.g. man mount.cifs)

mount error(13): Permission denied

Solution:

echo 0x81 > /proc/fs/cifs/SecurityFlags

[root@ahlp1507 ~]# cat /proc/fs/cifs/SecurityFlags

0x7

|  |  |
| --- | --- |
| vote[favorite](https://askubuntu.com/questions/683632/how-to-permanently-set-proc-fs-cifs-securityflags) | I have edited /proc/fs/cifs/SecurityFlags to allow my cifs mounts to mount correctly. (I had to use value 0x81).  To edit SecurityFlags I type 'modprobe cifs' which then lets me see the /proc/fs/cifs directory (I cant see it before I type this command).  After I reboot, the value in SecurityFlags has reset back to default, which is 0x7.  How can set this permanently so it will hold the 0x81 value after reboot? |

Smbclient commands

smbclient //localhost/testshare srajamma

Try "help" to get a list of possible commands.

smb: \> pwd

Current directory is \\localhost\testshare\

smb: \> !pwd

/home/Prasad

smb: \> ls

[Prasad@Linux test]$ **smbclient //localhost/testshare srajamma**

Try "help" to get a list of possible commands.

smb: \> ls

. D 0 Tue Aug 21 06:53:17 2018

.. DR 0 Tue Aug 21 06:10:45 2018

a N 0 Tue Aug 21 06:53:17 2018

b N 0 Tue Aug 21 06:53:17 2018

c N 0 Tue Aug 21 06:53:17 2018

33025276 blocks of size 1024. 30841904 blocks available

smb: \> lcd /tmp

smb: \> !pwd

/tmp

smb: \> get a

getting file \a of size 0 as a (0.0 KiloBytes/sec) (average 0.0 KiloBytes/sec)

smb: \> !ls

a afile

smb: \> put afile

putting file afile as \afile (17.6 kb/s) (average 17.6 kb/s)

smb: \> ls

. D 0 Tue Aug 21 06:53:55 2018

.. DR 0 Tue Aug 21 06:10:45 2018

a N 0 Tue Aug 21 06:53:17 2018

b N 0 Tue Aug 21 06:53:17 2018

c N 0 Tue Aug 21 06:53:17 2018

afile A 36 Tue Aug 21 06:53:55 2018

33025276 blocks of size 1024. 30841920 blocks available

smb: \>

How to grant permissions to particular user on windows share?

sudo mount -t cifs //ssasapnfssbx01.file.core.windows.net/nfs-backup /testprasaddir -o vers=3.0,credentials=/etc/smbcredentials/ssasapnfssbx01.cred,dir\_mode=0700,file\_mode=0700,uid=1000,serverino