



# 南昌大学实验报告

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实验类型：☒ 验证 ☐ 综合 ☐ 设计 ☐ 创新 实验日期：2021.12.8 实验成绩：\_\_\_\_\_

## 一、 实验项目名称

Linux 系统的网络服务

## 二、 实验目的

1. 了解 Samba 和 FTP 服务的基本概念。
2. 掌握 Samba 服务器的配置与使用。
3. 掌握 FTP 服务器的配置与使用。

## 三、 实验要求

要求使用 Xshell 进行登录，具体操作如下：

### 1、安装并启动 SMB 服务。

```
1192.168.2.136:22
在左侧的箭头按钮。
[root@localhost ~]# clear
[root@localhost ~]# rpm -qa | grep samba
samba-common-4.10.4-10.el7.noarch
samba-client-libs-4.10.4-10.el7.x86_64
samba-libs-4.10.4-10.el7.x86_64
samba-4.10.4-10.el7.x86_64
samba-common-libs-4.10.4-10.el7.x86_64
samba-common-tools-4.10.4-10.el7.x86_64
[root@localhost ~]# systemctl status samba
Unit samba.service could not be found.
[root@localhost ~]# systemctl status smb
• smb.service - Samba SMB Daemon
  Loaded: loaded (/usr/lib/systemd/system/smb.service; disabled; vendor preset: disabled)
  Active: inactive (dead)
  Docs: man:smbd(8)
        man:samba(7)
        man:smb.conf(5)
[root@localhost ~]# systemctl restart smb
[root@localhost ~]# systemctl restart smb
[root@localhost ~]# systemctl status smb
• smb.service - Samba SMB Daemon
  Loaded: loaded (/usr/lib/systemd/system/smb.service; disabled; vendor preset: disabled)
  Active: active (running) since 2021-12-08 19:20:55 CST; 2s ago
  Docs: man:smbd(8)
        man:samba(7)
```

## 2、允许指定 IP 地址并指定用户的主机访问共享目录，需要验证。

```

[... some lines were clipped, use -l to show in full ...]
[root@localhost ~]# cd /etc/samba
[root@localhost samba]# ls
lmhosts  smb.conf  smb.conf.example
[root@localhost samba]# cp smb.conf smb.conf.bak
[root@localhost samba]# ls
lmhosts  smb.conf  smb.conf.bak  smb.conf.example
[root@localhost samba]#
```

Windows 主机的 Vmnet8 的地址为 192.168.2.111，设置 “host allow” 即可。

```

        browseable = No

[print$]
        comment = Printer Drivers
        path = /var/lib/samba/drivers
        write list = @printadmin root
        force group = @printadmin
        create mask = 0664
        directory mask = 0775

[SambaShare]
        comment = share directory
        path = /sharedata
        browseable = Yes
        read only = No
        hosts allow = 192.168.2.111 127.0.0.1
        valid users = dingjun3,root
        create mask = 0666
        directory mask = 0775

-- INSERT --
```

进行验证 samba 配置文件

```

[root@localhost samba]# testparm
Load smb config files from /etc/samba/smb.conf
Loaded services file OK.
Server role: ROLE_STANDALONE

Press enter to see a dump of your service definitions
```

添加 Samba 访问的账户

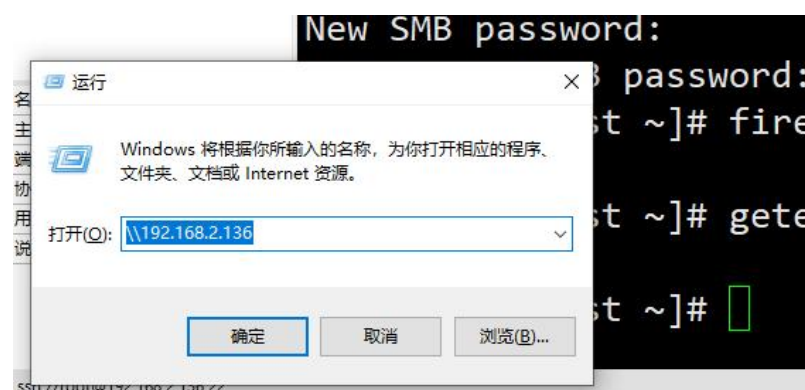
```
-bash: /root: 是一个目录
[root@localhost ~]# cd ~
[root@localhost ~]# mkdir /sharedata
[root@localhost ~]# chmod 757 /sharedata
[root@localhost ~]# useradd dingjun3
[root@localhost ~]# passwd dingjun3
更改用户 dingjun3 的密码。
新的 密码:
重新输入新的 密码:
passwd: 所有的身份验证令牌已经成功更新。
[root@localhost ~]# smbpasswd -a dingjun3
New SMB password:
Retype new SMB password:
Added user dingjun3.
[root@localhost ~]#
```

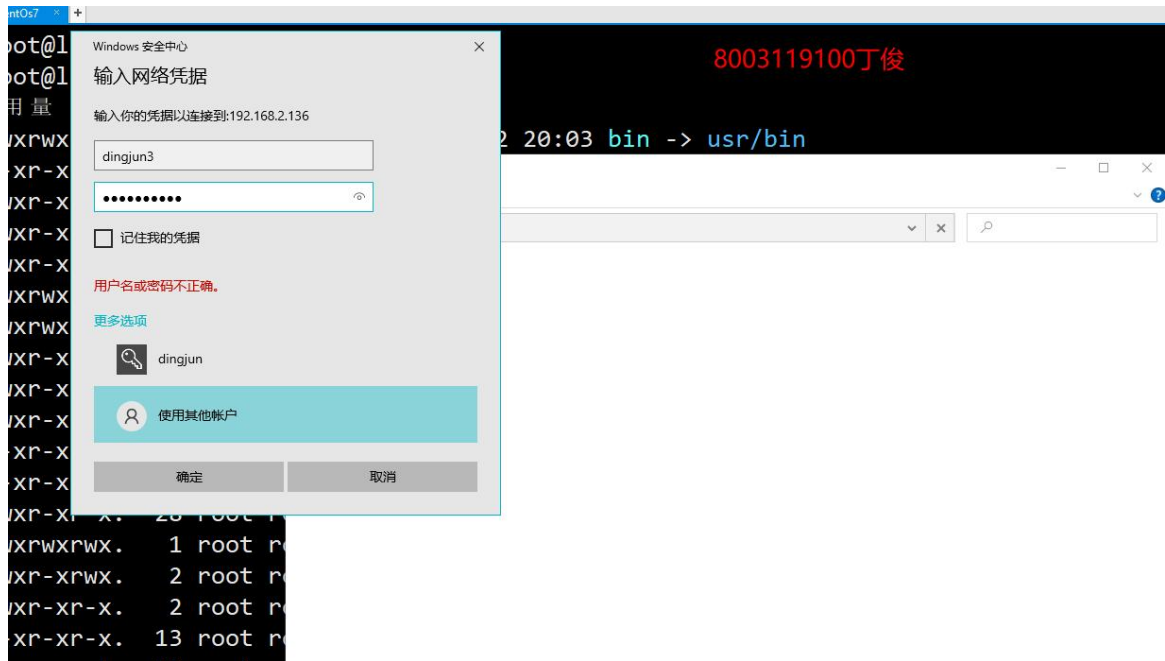
### 3、通过 Windows 系统访问 Linux 系统的共享目录共享，需要验证。

对 Linux 系统主机防火墙进行设置，进行 Smb 服务，如下，把 SELinux 的访问控制临时关闭。

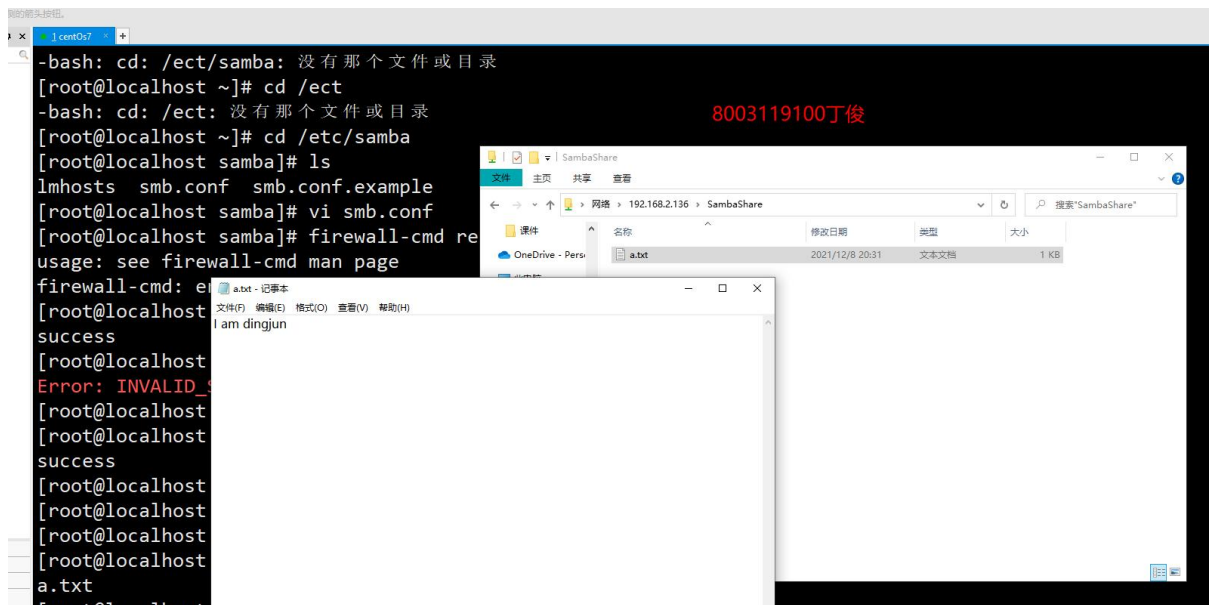
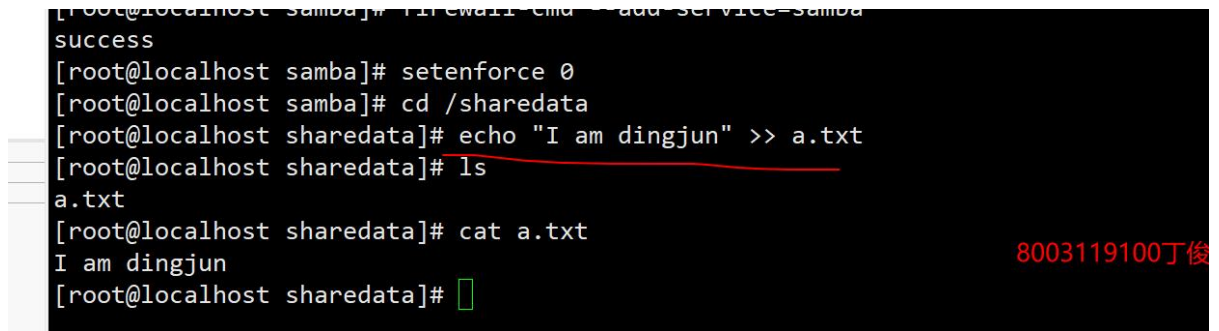
```
Added user dingjun3.
[root@localhost ~]# firewall-cmd --add-service=smb
Error: INVALID_SERVICE: smb
[root@localhost ~]# firewall-cmd --add-service=samba
success
[root@localhost ~]# getenforce
Enforcing
[root@localhost ~]# setenforce
usage: setenforce [ Enforcing | Permissive | 1 | 0 ]
[root@localhost ~]# setenforce 0
[root@localhost ~]# getenforce
Permissive
[root@localhost ~]#
```

注意这里要先启动 smb 服务后再在 firewall-cmd 中添加 service=samba。





在 Linux 系统共享文件夹“/sharedata”中新建一个文件，然后在 windows 系统中查看。





#### 4、通过 Linux 系统访问 Linux 系统的共享目录共享，需要验证。

Samba 服务端的 ip 地址：192.168.2.136

```
[root@localhost sharedata]# ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.2.136 netmask 255.255.255.0 broadcast 192.168.2.255
    inet6 fe80::f838:139a:e98a:3fc prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:15:08:3f txqueuelen 1000 (Ethernet)
    RX packets 1192 bytes 136996 (133.7 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 878 bytes 123988 (121.0 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

Samba 客户端的 ip 地址：192.168.2.141

```
[root@localhost ~]# ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.2.141 netmask 255.255.255.0 broadcast 192.168.2.255
    inet6 fe80::536d:81ec:5083:c4de prefixlen 64 scopeid 0x20<link>
    inet6 fe80::f838:139a:e98a:3fc prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:fa:0b:74 txqueuelen 1000 (Ethernet)
    RX packets 119 bytes 12728 (12.4 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 142 bytes 15903 (15.5 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

在客户端安装 samba-client 客户端组件

```
libtalloc.x86_64 0:2.1.16-1.el7
libtevent.x86_64 0:0.9.39-1.el7
nettle.x86_64 0:2.7.1-8.el7
pytalloc.x86_64 0:2.1.16-1.el7
samba-client-libs.x86_64 0:4.10.4-10.el7
samba-common-libs.x86_64 0:4.10.4-10.el7
samba-libs.x86_64 0:4.10.4-10.el7
libtdb.x86_64 0:1.3.18-1.el7
libwbclient.x86_64 0:4.10.4-10.el7
pyldb.x86_64 0:1.5.4-1.el7
python-tdb.x86_64 0:1.3.18-1.el7
samba-common.noarch 0:4.10.4-10.el7
samba-common-tools.x86_64 0:4.10.4-10.el7
trousers.x86_64 0:0.3.14-2.el7

完毕！
[root@localhost ~]# yum install -y samba-client
已加载插件：fastestmirror
Loading mirror speeds from cached hostfile
正在解决依赖关系
--> 正在检查事务
---> 软件包 samba-client.x86_64.0.4.10.4-10.el7 将被安装
--> 正在处理依赖关系 libsmbclient = 4.10.4-10.el7，它被软件包 samba-client-4.10.4-10.el7 提供
--> 正在处理依赖关系 libsmbclient.so.0(SMBCLIENT_0.1.0)(64bit)，它被软件包 samba-client-4.10.4-10.el7 提供
```

```
[SambaShare]
    comment = share directory
    path = /sharedata
    browseable = Yes
    read only = No
    hosts allow = 192.168.2.111 192.168.2.141
    Valid users = dingjun3,root
    create mask = 0666
    directory mask = 0775
-- INSERT --
```

在服务机上允许客户机ip访问

查看共享资源目录

```
[root@localhost ~]# cd /
[root@localhost /]# ls
bin  dev  home  lib64  mnt  proc  run  share  sys  usr
boot  etc  lib  media  opt  root  sbin  srv  tmp  var
[root@localhost /]# mount /dev/cdrom /mnt/cdrom
mount: /dev/sr0 写保护，将以只读方式挂载
mount: /dev/sr0 已经挂载或 /mnt/cdrom 忙
/dev/sr0 已经挂载到 /mnt/cdrom 上
[root@localhost /]# smbclient -L 192.168.2.136 -U dingjun3
Enter SAMBA\dingjun3's password:

      Sharename      Type      Comment
      -----      -
      print$         Disk      Printer Drivers
      SambaShare      Disk      share directory
      IPC$           IPC       IPC Service (Samba 4.10.4)
      dingjun3       Disk      Home Directories
Reconnecting with SMB1 for workgroup listing.

      Server          Comment
```

访问共享信息

注意这里是配置文件中的 SambaShare

```
[root@localhost /]# smbclient //192.168.2.136/SambaShare -U dingjun3
Enter SAMBA\dingjun3's password:
Try "help" to get a list of possible commands.
smb: \> ls
.                D            0   Wed Dec  8 20:31:17 2021
..               D            0   Wed Dec  8 20:03:58 2021
a.txt            N           13   Wed Dec  8 20:31:17 2021

      20128768 blocks of size 1024. 18501216 blocks available
smb: \>
```

```

[root@localhost /]# smbclient //192.168.2.136/SambaShare -U dingjun3
Enter SAMBA\dingjun3's password:
Try "help" to get a list of possible commands.
smb: \> ls
.                D            0   Wed Dec  8 20:31:17 2021
..               D            0   Wed Dec  8 20:03:58 2021
a.txt            N           13   Wed Dec  8 20:31:17 2021
20128768 blocks of size 1024. 18501216 blocks available
smb: \> get a.txt newa.txt
getting file \a.txt of size 13 as newa.txt (4.2 KiloBytes/sec) (average 4.2 KiloBytes/sec)
smb: \> q
[root@localhost /]# ls
bin  dev  home  lib64  mnt      opt  root  sbin  srv  tmp  var
boot etc  lib   media  newa.txt proc  run   share sys  usr
[root@localhost /]# cat newa.txt
I am dingjun
[root@localhost /]#

```

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从服务器获取文件

## 5、安装并启动 vsftpd 服务。

```

[root@localhost sharedata]# yum -y install vsftpd
已加载插件：fastestmirror
Loading mirror speeds from cached hostfile
正在解决依赖关系
--> 正在检查事务
---> 软件包 vsftpd.x86_64.0.3.0.2-27.el7 将被 安装
--> 解决依赖关系完成

```

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```

[root@localhost sharedata]# systemctl start vsftpd
[root@localhost sharedata]# systemctl status vsftpd
● vsftpd.service - Vsftpd ftp daemon
   Loaded: loaded (/usr/lib/systemd/system/vsftpd.service; disabled; vendor preset: disabled)
   Active: active (running) since 三 2021-12-08 21:15:26 CST; 5s ago
     Process: 1837 ExecStart=/usr/sbin/vsftpd /etc/vsftpd/vsftpd.conf (code=exited, status=0/SUCCESS)
    Main PID: 1838 (vsftpd)
      CGroup: /system.slice/vsftpd.service
              └─1838 /usr/sbin/vsftpd /etc/vsftpd/vsftpd.conf

```

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vsftpd服务启动成功

```

12月 08 21:15:26 localhost systemd[1]: Starting Vsftpd ftp daemon...
12月 08 21:15:26 localhost systemd[1]: Started Vsftpd ftp daemon.
[root@localhost sharedata]#

```

## 6、实现匿名用户访问 FTP 服务器，需要验证。

修改以下几项：允许匿名用户访问、匿名用户允许写文件、允许上传等。

```
pam_service_name=vsftpd
userlist_enable=YES
tcp_wrappers=YES

anonymous_enable=YES
anon_mkdir_write_enable=YES
anon_upload_enable=YES
anon_world_readable_only=No
write_enable=YES
```

在 linux 共享目录创建 a.txt

```
[root@localhost ftp]# mkdir pub
mkdir: 无法创建目录 "pub": 文件已存在
[root@localhost ftp]# cd pub
[root@localhost pub]# echo "I am dingjun fdegasg" >> a.txt
[root@localhost pub]# ls
a.txt
[root@localhost pub]#
```

Windows 终端匿名登录 ftp 服务器

```
permanent --add-port=21/tcp

reload

.conf

egassg"

C:\WINDOWS\system32\cmd.exe - ftp 192.168.2.136
Microsoft Windows [版本 10.0.19042.1348]
(c) Microsoft Corporation. 保留所有权利。

C:\Users\jun Ding>ftp 192.168.2.136
连接到 192.168.2.136。
220 (vsFTPd 3.0.2)
200 Always in UTF8 mode.
用户(192.168.2.136:(none)): ftp
331 Please specify the password.
密码:
230 Login successful.
ftp> pwd
257 "/"
ftp>
```



## 从 ftp 服务器上获取文件

```
C:\WINDOWS\system32\cmd.exe - ftp 192.168.2.136
Microsoft Windows [版本 10.0.19042.1348]
(c) Microsoft Corporation. 保留所有权利。

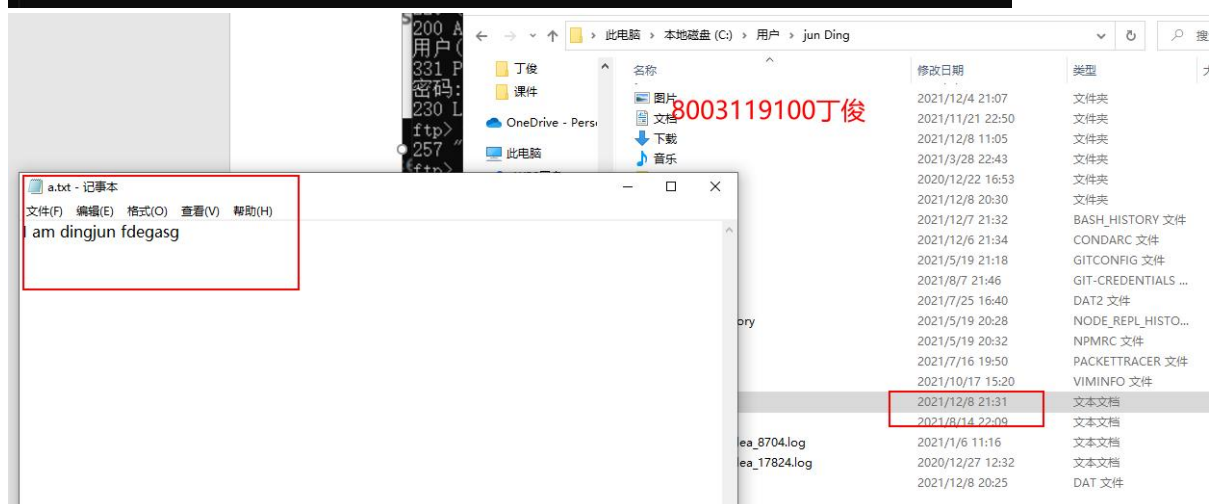
C:\Users\jun Ding>ftp 192.168.2.136
连接到 192.168.2.136。
220 (vsFTPd 3.0.2)
200 Always in UTF8 mode.
用户(192.168.2.136:(none)): ftp
331 Please specify the password.
密码:
230 Login successful.

ftp> pwd
257 "/"

ftp> get a.txt
200 PORT command successful. Consider using PASV.
550 Failed to open file.

ftp> cd pub
250 Directory successfully changed.

ftp> get a.txt
200 PORT command successful. Consider using PASV.
150 Opening BINARY mode data connection for a.txt (21 bytes).
226 Transfer complete.
ftp: 收到 21 字节, 用时 0.00秒 21.00千字节/秒。
ftp>
```



## 7、实现本地用户访问 FTP 服务器，需要验证。

```
[root@localhost vsftpd]# vi /etc/vsftpd/vsftpd.conf
```

## 取消 chroot list 注释使之生效

```
# chroot()
chroot_local_user=YES
chroot_list_enable=YES
# (default follows)
chroot_list_file=/etc/vsftpd/chroot_list
```

在 chroot\_list 中添加用户。

```
[root@localhost ~]# vi /etc/vsftpd/chroot_list
[root@localhost ~]#
```

```
[root@localhost pub]# vi /etc/vsftpd/vsftpd.conf
[root@localhost pub]# ls /home
abc.txt dingjun3 lamp lamp1 share
```

```
lamp1
lamp
~
```

把用户lamp、lamp1加入到chroot\_list

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```
C:\WINDOWS\system32\cmd.exe - ftp 192.168.2.136
Microsoft Windows [版本 10.0.19042.1348]
(c) Microsoft Corporation. 保留所有权利。

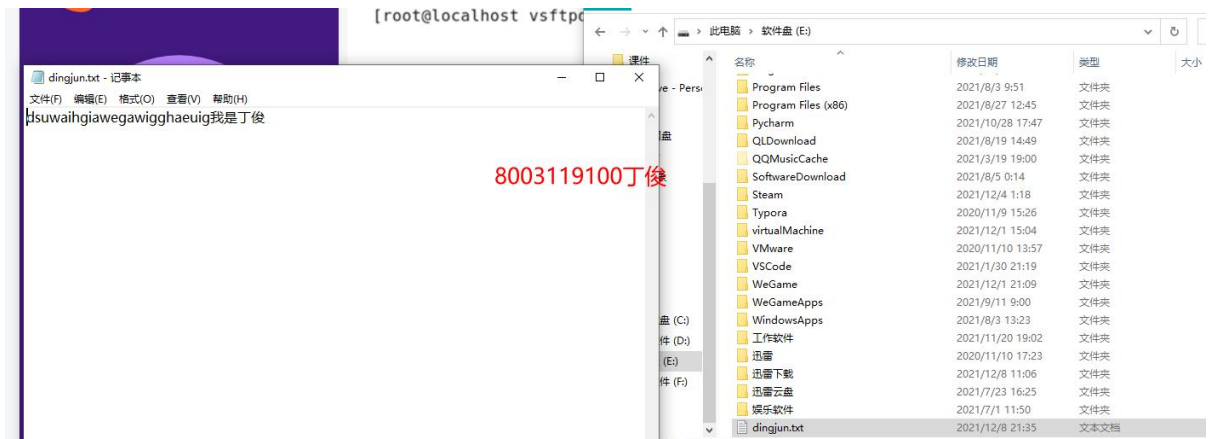
C:\Users\jun Ding> ftp 192.168.2.136
连接到 192.168.2.136。
220 (vsFTPd 3.0.2)
200 Always in UTF8 mode.
用户(192.168.2.136:(none)): lamp1
331 Please specify the password.
密码:
230 Login successful.
ftp> pwd
257 "/home/lamp1"
ftp> cd /
250 Directory successfully changed.
ftp> dir
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
drwxrwxrwx  1 0      0          7 Nov 02 12:03 bin -> usr/bin
dr-xr-xr-x  5 0      0         4096 Dec 01 06:14 boot
drwxr-xr-x 19 0      0        3160 Dec 08 12:26 dev
drwxr-xr-x 80 0      0        8192 Dec 08 13:15 etc
drwxr-xr-x  6 0      0         75 Dec 08 12:02 home
lrwxrwxrwx  1 0      0          7 Nov 02 12:03 lib -> usr/lib
lrwxrwxrwx  1 0      0          9 Nov 02 12:03 lib64 -> usr/lib64
drwxr-xr-x  2 0      0          6 Apr 11 2018 media
drwxr-xr-x  3 0      0         19 Nov 02 12:11 mnt
drwxr-xr-x  2 0      0          6 Apr 11 2018 opt
dr-xr-xr-x 147 0     0          0 Dec 08 12:26 proc
dr-xr-x---  5 0      0         197 Nov 17 06:33 root
```

使用本地用户登录ftp服务器

## 8、实现匿名用户传文件到 FTP 服务器，需要验证。

```
[root@localhost pub]# systemctl restart vsftpd
[root@localhost pub]# chmod 777 /var/ftp/pub
```

在 windows 客户机上创建文件 “E:\dingjun.txt”。



使用 “put E:\dingjun.txt” 将文件上传到 linux 的 ftp 服务器上。



在 linux 系统中目录 cd /var/ftp/pub 中查看文件

```
[root@localhost pub]# ls
a.txt  dingjun.txt
[root@localhost pub]# cat dingjun.txt
dsuwaihgiawegawigghaeuig我是丁俊 [root@localhost pub]#
```

## 9、限制指定本地用户访问 FTP 服务器，需要验证。

```
pam_service_name=vsftpd
userlist_enable=YES
userlist_deny=YES
userlist_file=/etc/vsftpd/user_list
```

指定用户清单拒绝访问

重启服务

```
[root@localhost ~]# systemctl restart vsftpd
```

修改 user\_list 文件添加拒绝访问的用户

```
[root@localhost vsftpd]# useradd dingjun4
[root@localhost vsftpd]# passwd dingjun4
```

```
# do not even prompt for a password.
# Note that the default vsftpd pam config also checks /etc/vsftpd/ftpusers
# for users that are denied.
root
bin
daemon
adm
lp
sync
shutdown
halt
mail
news
uucp
operator
games
nobody
dingjun4
```

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添加dingjun4用户拒绝访问ftp服务

验证登录是否成功：失败。

```
C:\WINDOWS\system32\cmd.exe - ftp 192.168.2.136
Microsoft Windows [版本 10.0.19042.1348]
(c) Microsoft Corporation。保留所有权利。

C:\Users\jun Ding>ftp 192.168.2.136
连接到 192.168.2.136。
220 (vsFTPd 3.0.2)
200 Always in UTF8 mode.
用户(192.168.2.136:(none)): dingjun4
530 Permission denied.
登录失败。
ftp>
```

登陆失败

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## 10、设置用户连接 FTP 服务器后的欢迎语，需要验证。

修改配置文件/etc/vsftpd/vsftpd.conf, 把 ftpd\_banner 前注释取消

**/etc/vsftpd\_banner\_file 在这个文件里面**

```
# Make sure, that one of the listen options is commented
listen_ipv6=YES
banner_file = /etc/vsftpd/banner_file
pam_service_name=vsftpd
```

**设置欢迎语文件位置**

```
*****
                                     8003119100丁俊
Welcome to my website "dingjun3"---
*****
~
~                                     vi /etc/vsftpd_banner_file
~
~
```

重启 vsftp 服务器

```
[root@localhost vsftpd]# systemctl restart vsftpd
```

验证设置的欢迎信息

```
C:\WINDOWS\system32\cmd.exe - ftp 192.168.2.136
Microsoft Windows [版本 10.0.19042.1348]
(c) Microsoft Corporation。保留所有权利。
C:\Users\jun Ding>ftp 192.168.2.136
连接到 192.168.2.136。
220-*****
220-
220-Welcome to my website "dingjun3"---
220-*****
220-
200 Always in UTF8 mode.
用户(192.168.2.136:(none)):
```

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11、通过 Linux 系统客户端命令访问 FTP 服务器，需要验证。

```
[root@localhost ~]# echo "fwagwag" >> dingjun.txt
[root@localhost ~]#
```

ftp服务器创建文件

在 linux 系统客户端中使用 lamp1 用户登录 ftp 服务器。

```
[root@localhost ~]# firewall-cmd --add-service=ftp
success
[root@localhost ~]# ftp 192.168.2.136
Connected to 192.168.2.136 (192.168.2.136).
220-*****
220-
220-Welcome to my website "dingjun3"---
220-8003119100丁俊
220-*****
220
Name (192.168.2.136:root): lamp1
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> cd /
250 Directory successfully changed.
ftp> ls
```

在客户端查看目录

```
ftp> ls
227 Entering Passive Mode (192,168,2,136,21,149).
ftp: connect: 没有到主机的路由
ftp> passive
Passive mode off.
ftp> ls 查看目录
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
lrwxrwxrwx   1 0      0              7 Nov 02 12:03 bin -> usr/bin
dr-xr-xr-x   5 0      0          4096 Dec 01 06:14 boot
drwxr-xr-x  19 0      0          3160 Dec 08 15:32 dev
-rw-r--r--   1 0      0              8 Dec 08 16:07 dingjun.txt
drwxr-xr-x  80 0      0          8192 Dec 08 15:57 etc
drwxr-xr-x   7 0      0           91 Dec 08 15:36 home
lrwxrwxrwx   1 0      0              7 Nov 02 12:03 lib -> usr/lib
lrwxrwxrwx   1 0      0              9 Nov 02 12:03 lib64 -> usr/lib64
```

```
[root@localhost /]# cd ~
[root@localhost ~]# ls
anaconda-ks.cfg  a.txt  b  dingjun  dingjun.txt  lja.txt  yu
[root@localhost ~]# cat dingjun.txt
fwagwag
[root@localhost ~]#
```

在客户端新建文件 a.txt

```
[root@localhost ~]# ls
anaconda-ks.cfg  a.txt  b  dingjun  dingjun.txt  lja.txt  yu
[root@localhost ~]# cat a.txt
ssfaw
```

从客户端上传文件 a.txt 到 ftp 服务器

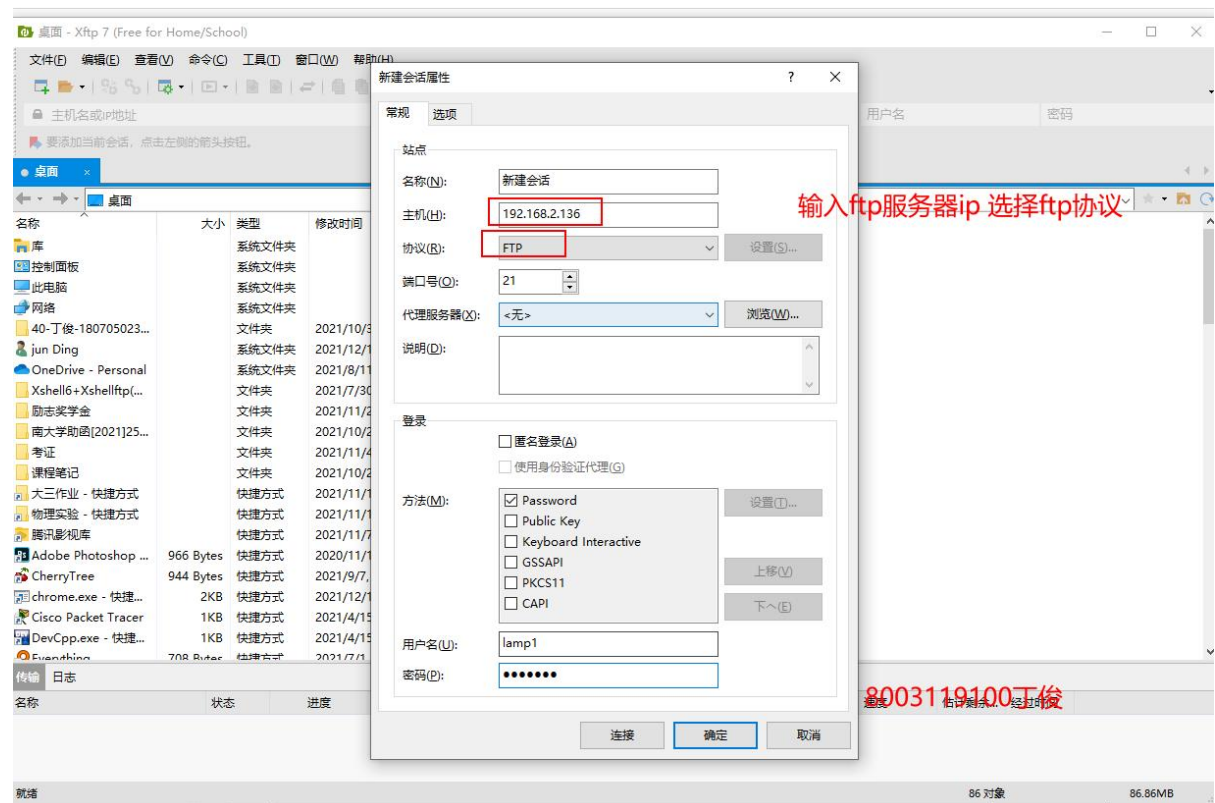
```
ftp> put a.txt
local: a.txt remote: a.txt
200 PORT command successful. Consider using PASV.
150 Ok to send data.
226 Transfer complete.
6 bytes sent in 7.2e-05 secs (83.33 Kbytes/sec)
```

在用户目录下查看从客户端传来的文件 a.txt

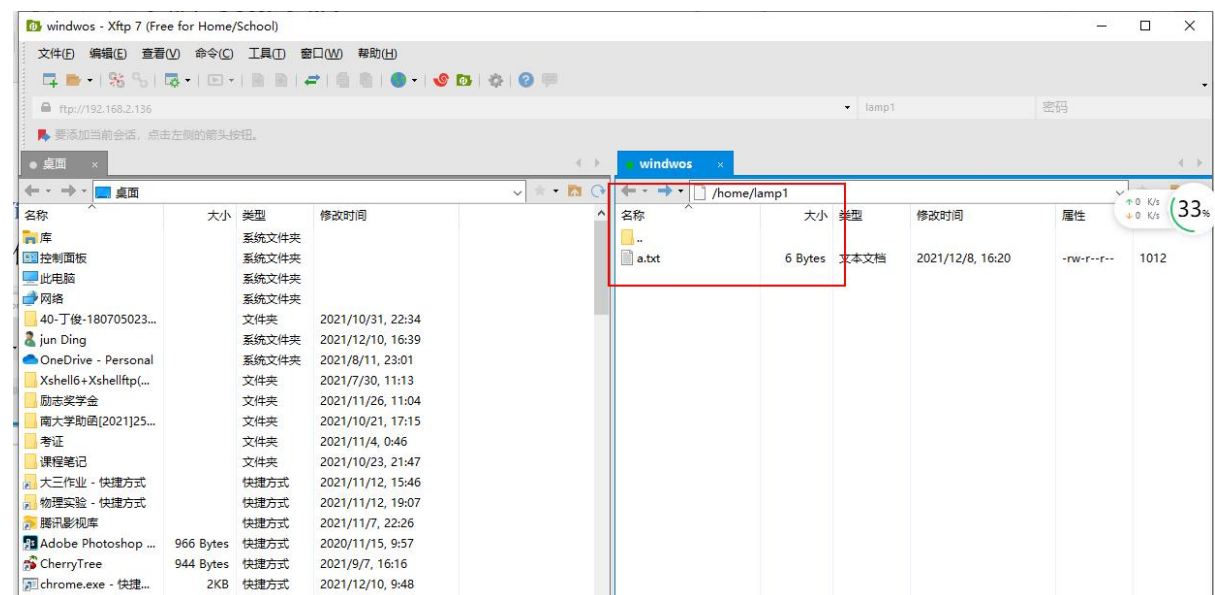
```
[root@localhost lamp1]# ls
a.txt
[root@localhost lamp1]# cat a.txt
ssfaw
[root@localhost lamp1]#
```

## 12、通过 Windows 客户端专用软件访问 FTP 服务器，需要验证。

使用 xftp 软件，让 lamp1 用户登录 ftp 服务器，如图。

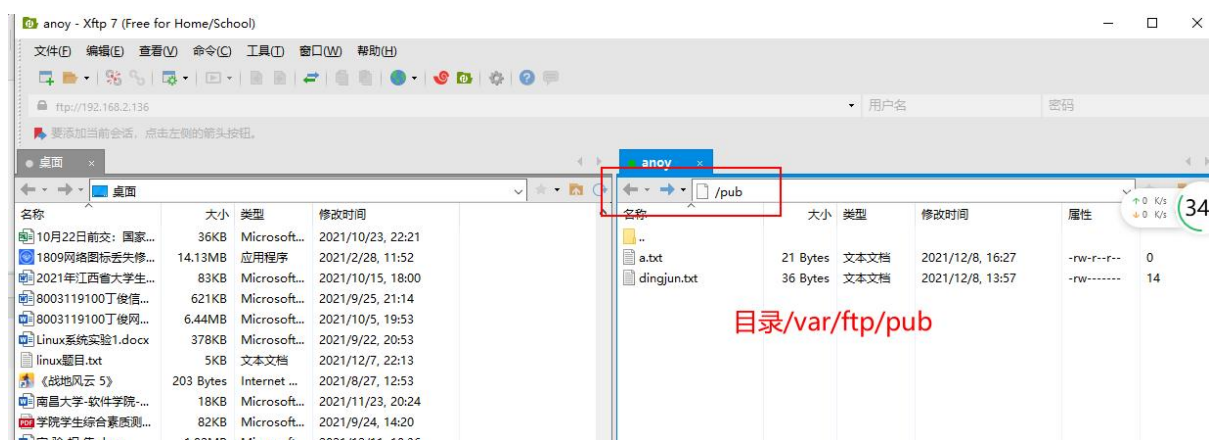
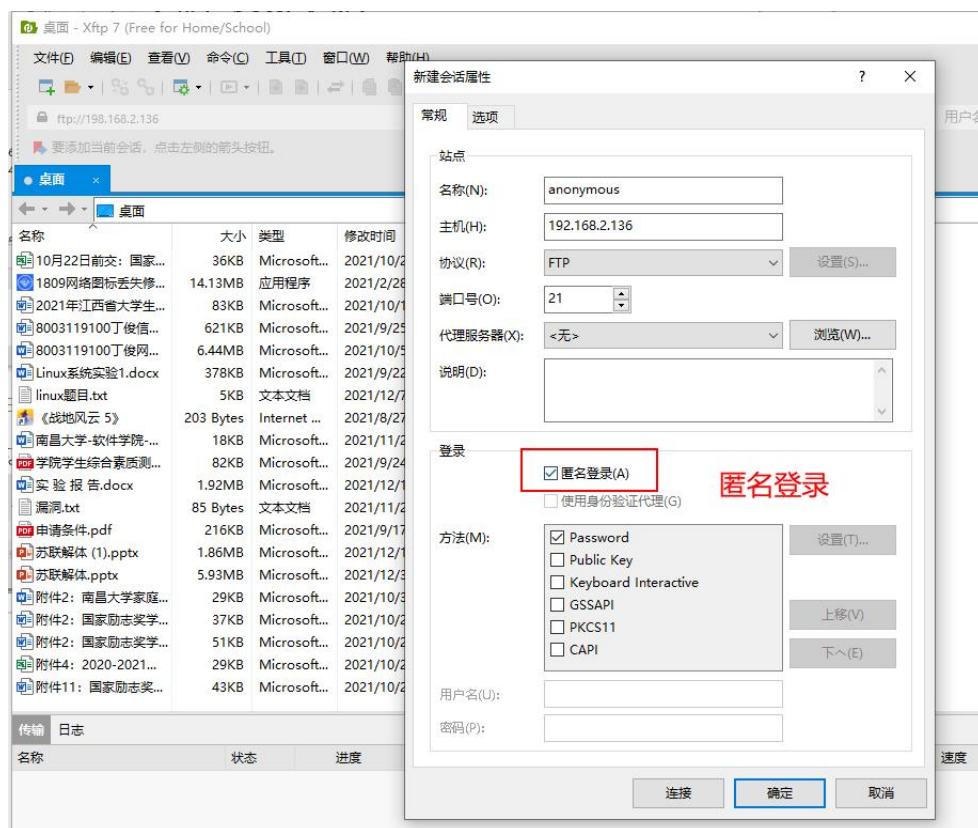


显示 lamp1 用户文件夹





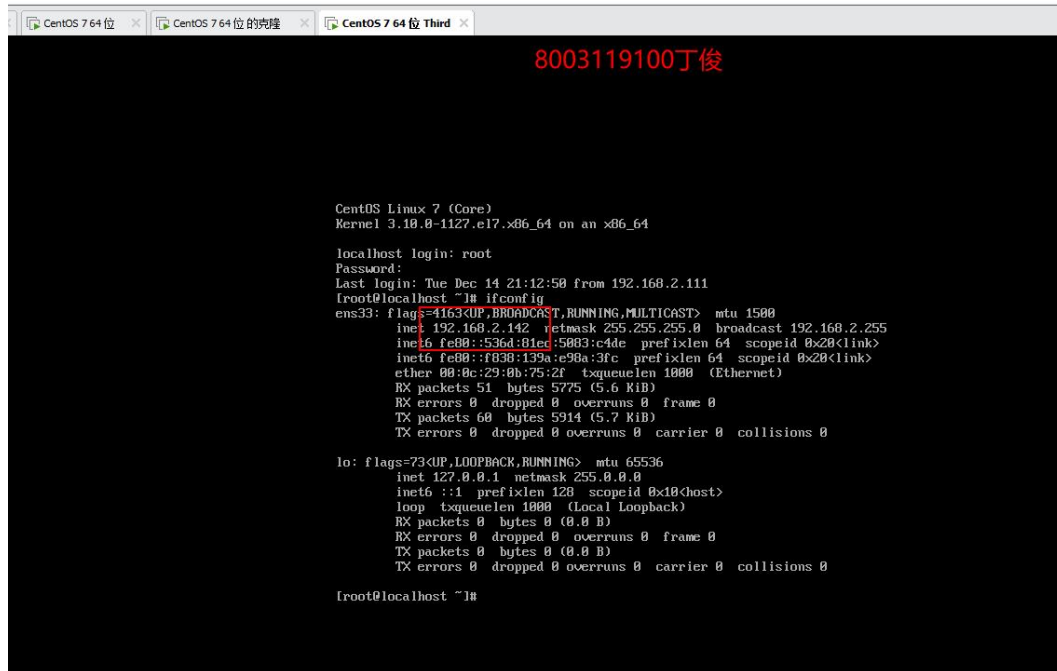
## 使用匿名登录 ftp 服务器



13、按照给定参考资料对 Samba 及 FTP 服务器进行个性化定制服务。（选做）

只允许一台客户机访问 samba 服务器

再克隆一个虚拟机



A terminal window titled 'CentOS 7 64 位 Third' showing the output of the 'ifconfig' command. The output displays details for the 'ens33' interface, including its IP address (192.168.2.142), netmask (255.255.255.0), and broadcast address (192.168.2.255). The terminal also shows the system's login prompt and the user 'root' logging in. The IP address 192.168.2.142 is highlighted with a red box.

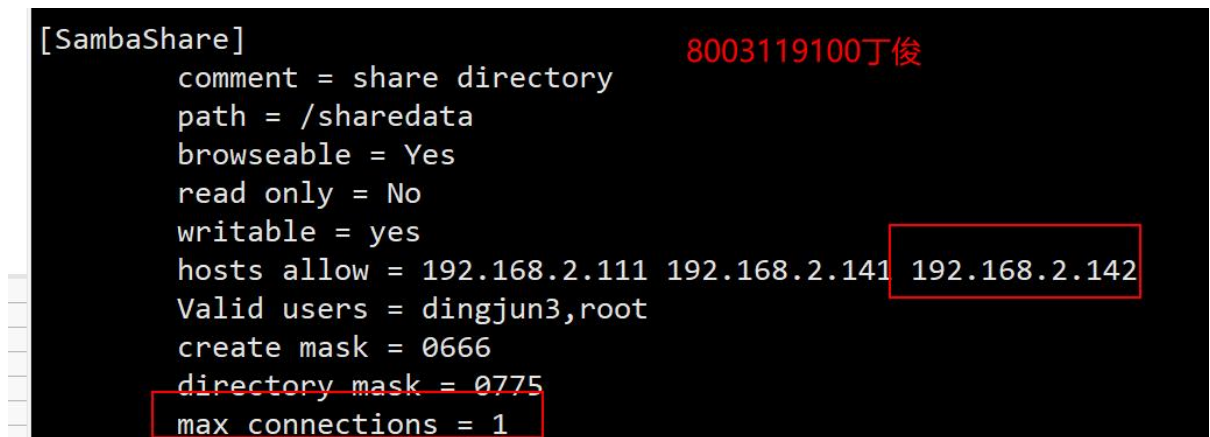
```
CentOS Linux 7 (Core)
Kernel 3.10.0-1127.el7.x86_64 on an x86_64

localhost login: root
Password:
Last login: Tue Dec 14 21:12:50 from 192.168.2.111
[root@localhost ~]# ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.2.142 netmask 255.255.255.0 broadcast 192.168.2.255
    inet6 fe80::536d:81ed:5083:c4de prefixlen 64 scopeid 0x20<link>
    inet6 fe80::f83b:139a:e90a:3fc prefixlen 64 scopeid 0x20<link>
    ether 08:0c:29:0b:75:2f txqueuelen 1000 (Ethernet)
    RX packets 51 bytes 5775 (5.6 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 60 bytes 5914 (5.7 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@localhost ~]#
```

在 samba 服务器配置文件允许访问中添加新的虚拟机的 ip 地址,添加“max connections = 1”选项。



A terminal window titled '[SambaShare]' showing the configuration for a Samba share. The configuration includes settings for the share name, path, browseability, read-only status, writable status, hosts allowed, valid users, create mask, directory mask, and max connections. The IP address 192.168.2.142 is highlighted with a red box, and the 'max connections = 1' line is also highlighted with a red box.

```
[SambaShare]
comment = share directory
path = /sharedata
browseable = Yes
read only = No
writable = yes
hosts allow = 192.168.2.111 192.168.2.141 192.168.2.142
Valid users = dingjun3,root
create mask = 0666
directory mask = 0775
max connections = 1
```

使用新虚拟机访问 samba 服务器:

CentOS 7 64 位 Third

8003119100丁俊

```
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@localhost ~]# yum -y install samba-client
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
Package samba-client-4.10.4-10.el7.x86_64 already installed and latest version
Nothing to do
[root@localhost ~]# mount /dev/cdrom /mnt/cdrom
mount: /dev/sr0 is write-protected, mounting read-only
mount: /dev/sr0 is already mounted or /mnt/cdrom busy
/dev/sr0 is already mounted on /mnt/cdrom
[root@localhost ~]# smbclient -L 192.168.2.136 -U dingjun3
Enter SAMBA\dingjun3's password:

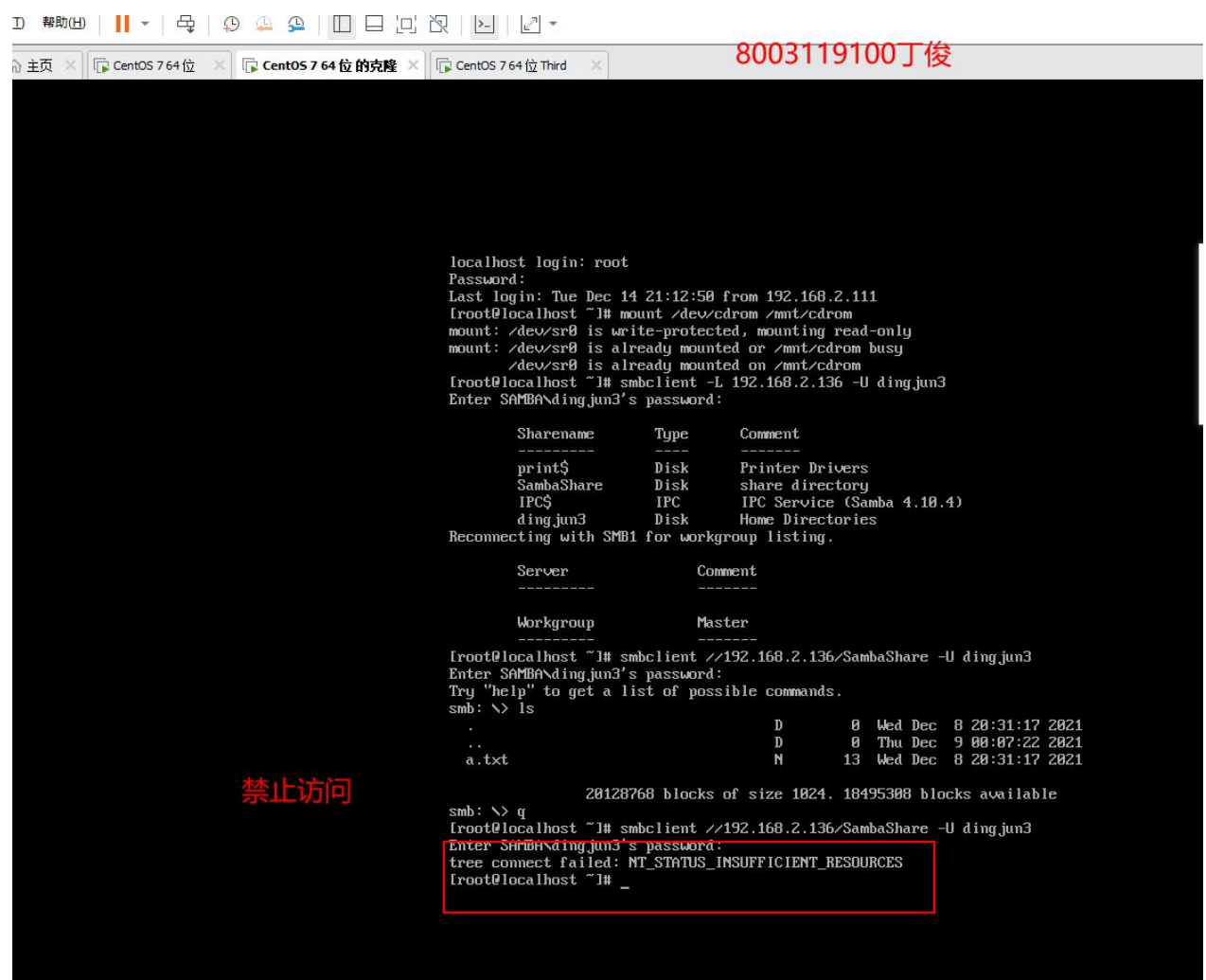
      Sharename      Type      Comment
      -----
      print$         Disk      Printer Drivers
      SambaShare      Disk      share directory
      IPC$            IPC       IPC Service (Samba 4.10.4)
      dingjun3        Disk      Home Directories
Reconnecting with SMB1 for workgroup listing.

      Server          Comment
      -----
      Workgroup        Master

[root@localhost ~]# smbclient //192.168.2.136/SambaShare -U dingjun3
Enter SAMBA\dingjun3's password:
Try "help" to get a list of possible commands.
smb: \> ls
.                D            0   Wed Dec  8 20:31:17 2021
..               D            0   Thu Dec  9 00:07:22 2021
a.txt            N            13  Wed Dec  8 20:31:17 2021

                                20128768 blocks of size 1024. 18495312 blocks available
smb: \> _
```

用另外一台 linux 客户机访问服务器，访问被禁止。



```
localhost login: root
Password:
Last login: Tue Dec 14 21:12:50 from 192.168.2.111
[root@localhost ~]# mount /dev/cdrom /mnt/cdrom
mount: /dev/sr0 is write-protected, mounting read-only
mount: /dev/sr0 is already mounted or /mnt/cdrom busy
/dev/sr0 is already mounted on /mnt/cdrom
[root@localhost ~]# smbclient -L 192.168.2.136 -U dingjun3
Enter SAMBA\dingjun3's password:

Sharename      Type      Comment
-----
print$         Disk     Printer Drivers
SambaShare     Disk     share directory
IPC$           IPC      IPC Service (Samba 4.10.4)
dingjun3       Disk     Home Directories
Reconnecting with SMB1 for workgroup listing.

Server          Comment
-----
Workgroup       Master

[root@localhost ~]# smbclient //192.168.2.136/SambaShare -U dingjun3
Enter SAMBA\dingjun3's password:
Try "help" to get a list of possible commands.
smb: \> ls
.                D            0   Wed Dec  8 20:31:17 2021
..               D            0   Thu Dec  9 00:07:22 2021
a.txt            N            13   Wed Dec  8 20:31:17 2021

20128768 blocks of size 1024. 18495308 blocks available
smb: \> q
[root@localhost ~]# smbclient //192.168.2.136/SambaShare -U dingjun3
Enter SAMBA\dingjun3's password:
tree connect failed: NT_STATUS_INSUFFICIENT_RESOURCES
[root@localhost ~]#
```

#### 四、主要仪器设备及耗材

计算机、VMware、CentOS 7、word

#### 五、实验步骤

#### 六、实验数据及处理结果

#### 七、思考讨论题或体会或对改进实验的建议

#### 八、参考资料

[1] 文东戈,赵艳芹.Linux 操作系统实用教程（第 2 版）[M].北京：清华大学出版社.2019,9.