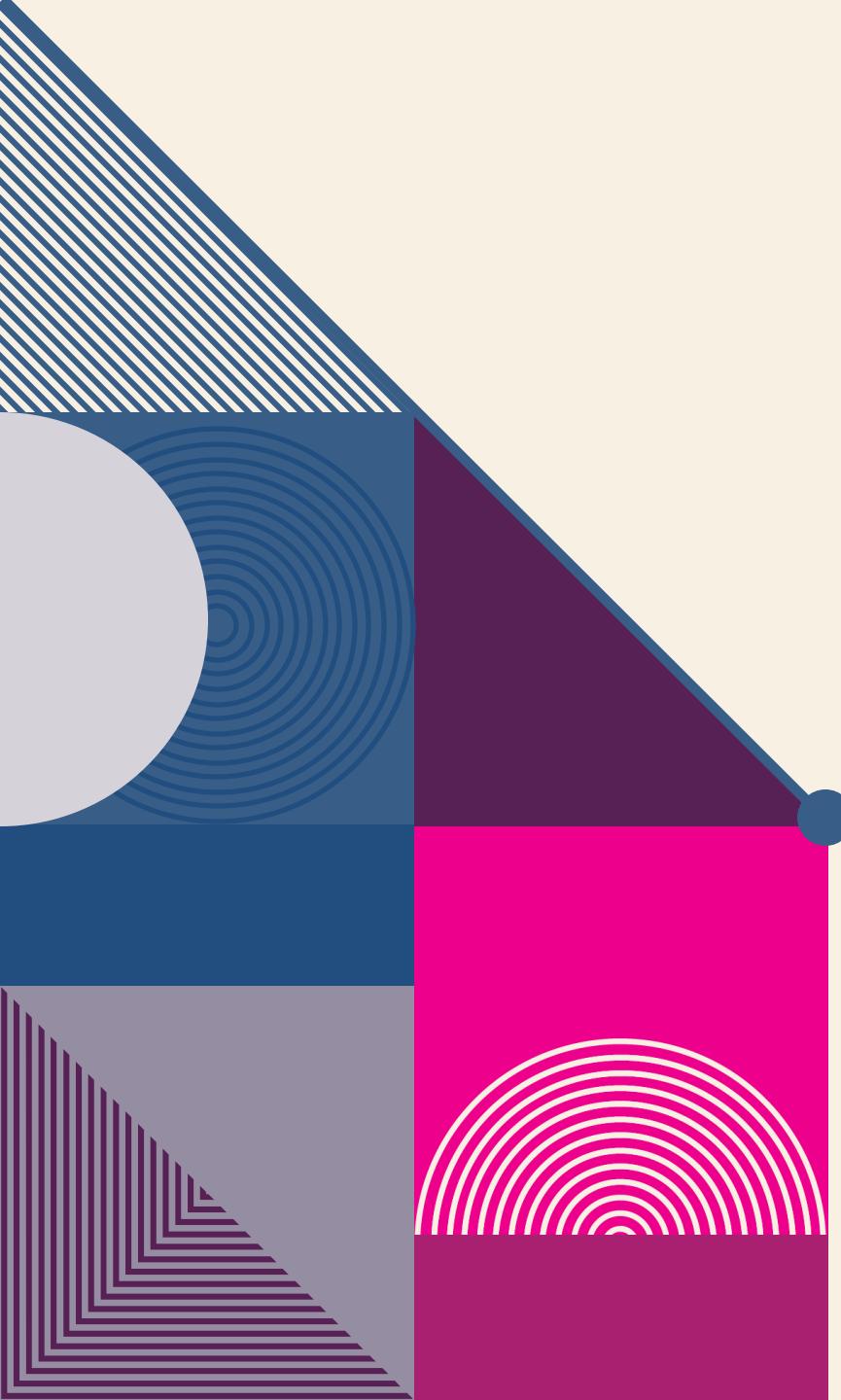# НАСТРОЙКА ФАЙЛОВЫХ СЛУЖБ SAMBA

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ЦЕЛЬ РАБОТЫ

Приобретение навыков настрой ки доступа групп пользователей к общим ресурсам по протоколу SMB

НАСТРОЙКА СЕРВЕРА SAMBA

```
[astakhovamd@localhost.astakhovamd.net common]$ sudo -i
[sudo] password for astakhovamd:
[root@localhost.astakhovamd.net ~]# ^C
[root@localhost.astakhovamd.net ~]# dnf -y install samba samba-client cifs-utils
Last metadata expiration check: 4:17:45 ago on Tue 02 Dec 2025 12:02:28 PM UTC.
Dependencies resolved.
===========================================================================================
 Package                    Architecture      Version           Repository        Size
===========================================================================================
Installing:
 cifs-utils                 x86_64            7.2-1.el9          baseos           113 k
 samba                      x86_64            4.22.4-6.el9       baseos           929 k
 samba-client               x86_64            4.22.4-6.el9       appstream        760 k
Installing dependencies:
 libnetapi                  x86_64            4.22.4-6.el9       baseos           142 k
 samba-common-tools         x86_64            4.22.4-6.el9       baseos           483 k
 samba-dcerpc               x86_64            4.22.4-6.el9       baseos           718 k
 samba-ldb-ldap-modules     x86_64            4.22.4-6.el9       baseos            34 k
 samba-libs                 x86_64            4.22.4-6.el9       baseos           123 k

Transaction Summary
===========================================================================================
Install  8 Packages

Total download size: 3.2 M
Installed size: 12 M
Downloading Packages:
                                       [               ===     ] --- B/s |   0 B     --:-- ETA
The downloaded packages were saved in cache until the next successful transaction.
You can remove cached packages by executing 'dnf clean packages'.
Error: Error downloading packages:
  Curl error (6): Couldn't resolve host name for https://mirrors.rockylinux.org/mirrorlist?arch=x86_64&re
po=BaseOS-9 [Could not resolve host: mirrors.rockylinux.org]
[root@localhost.astakhovamd.net ~]#
```

```
[root@localhost.astakhovamd.net ~]# groupadd -g 1010 sambagroup
```

```
[root@localhost.astakhovamd.net ~]# groupadd -g 1010 sambagroup
[root@localhost.astakhovamd.net ~]# sudo usermod -aG sambagroup astakhovamd
[root@localhost.astakhovamd.net ~]# mkdir-p /srv/sambashare
bash: mkdir-p: command not found...
[root@localhost.astakhovamd.net ~]# mkdir -p /srv/sambashare
[root@localhost.astakhovamd.net ~]#
```

```
[root@localhost.astakhovamd.net ~]# sudo usermod -aG sambagroup astakhovamd
[root@localhost.astakhovamd.net ~]# mkdir-p /srv/sambashare
bash: mkdir-p: command not found...
[root@localhost.astakhovamd.net ~]# mkdir -p /srv/sambashare
[root@localhost.astakhovamd.net ~]# sudo sed -i 's/^workgroup = .*/workgroup = ASTAKHOVAMD-NET/' /etc/sam
ba/smb.conf
[root@localhost.astakhovamd.net ~]# sudo tee -a /etc/samba/smb.conf << 'EOF'

[sambashare]
comment = My Samba Share
path = /srv/sambashare
write list = @sambagroup
EOF

[sambashare]
comment = My Samba Share
path = /srv/sambashare
write list = @sambagroup
[root@localhost.astakhovamd.net ~]# echo "=== ПРОВЕРКА КОНФИГУРАЦИИ SAMBA ==="
echo "1. Рабочая группа:"
grep "^workgroup" /etc/samba/smb.conf
echo ""
echo "2. Раздел sambashare:"
grep -A5 "\[sambashare\]" /etc/samba/smb.conf
=== ПРОВЕРКА КОНФИГУРАЦИИ SAMBA ===
1. Рабочая группа:

2. Раздел sambashare:
[sambashare]
comment = My Samba Share
path = /srv/sambashare
write list = @sambagroup
[root@localhost.astakhovamd.net ~]# sudo mkdir -p /srv/sambashare
sudo chown -R astakhovamd:sambagroup /srv/sambashare
sudo chmod 2770 /srv/sambashare
[root@localhost.astakhovamd.net ~]# ls -la /srv/sambashare/
total 0
drwxrws---. 2 astakhovamd sambagroup  6 Dec  2 16:22 .
drwxr-xr-x. 4 root        root       35 Dec  2 16:22 ..
[root@localhost.astakhovamd.net ~]# sudo smbpasswd -a astakhovamd
sudo: smbpasswd: command not found
[root@localhost.astakhovamd.net ~]#
```

НАСТРОЙКА СЕРВЕРА SAMBA

```
[root@localhost.astakhovamd.net ~]# testparm
bash: testparm: command not found...
Install package 'samba-common-tools' to provide command 'testparm'? [N/y] y

* Waiting in queue...
The following packages have to be installed:
 libnetapi-4.21.3-14.el9_6.x86_64        The NETAPI library
 samba-common-tools-4.21.3-14.el9_6.x86_64      Tools for Samba clients
 samba-ldb-ldap-modules-4.21.3-14.el9_6.x86_64  Samba ldap modules for ldb
 samba-libs-4.21.3-14.el9_6.x86_64        Samba libraries
The following packages have to be downgraded:
 libipa_hbac-2.9.6-4.el9_6.2.x86_64       FreeIPA HBAC Evaluator library
 libldb-4.21.3-14.el9_6.x86_64  A schema-less, ldap like, API and database
 libsmbclient-4.21.3-14.el9_6.x86_64       The SMB client library
 libsss_certmap-2.9.6-4.el9_6.2.x86_64  SSSD Certificate Mapping Library
 libsss_idmap-2.9.6-4.el9_6.2.x86_64     FreeIPA Idmap library
 libsss_nss_idmap-2.9.6-4.el9_6.2.x86_64        Library for SID and certificate based lookups
 libsss_sudo-2.9.6-4.el9_6.2.x86_64    A library to allow communication between SUDO and SSSD
 libwbclient-4.21.3-14.el9_6.x86_64      The winbind client library
 samba-client-libs-4.21.3-14.el9_6.x86_64        Samba client libraries
 samba-common-4.21.3-14.el9_6.noarch    Files used by both Samba servers and clients
 samba-common-libs-4.21.3-14.el9_6.x86_64        Libraries used by both Samba servers and clients
 sssd-2.9.6-4.el9_6.2.x86_64     System Security Services Daemon
 sssd-ad-2.9.6-4.el9_6.2.x86_64 The AD back end of the SSSD
 sssd-client-2.9.6-4.el9_6.2.x86_64      SSSD Client libraries for NSS and PAM
 sssd-common-2.9.6-4.el9_6.2.x86_64      Common files for the SSSD
 sssd-common-pac-2.9.6-4.el9_6.2.x86_64 Common files needed for supporting PAC processing
 sssd-ipa-2.9.6-4.el9_6.2.x86_64     The IPA back end of the SSSD
 sssd-kcm-2.9.6-4.el9_6.2.x86_64         An implementation of a Kerberos KCM server
 sssd-krb5-2.9.6-4.el9_6.2.x86_64        The Kerberos authentication back end for the SSSD
 sssd-krb5-common-2.9.6-4.el9_6.2.x86_64         SSSD helpers needed for Kerberos and GSSAPI authenticatio
n
 sssd-ldap-2.9.6-4.el9_6.2.x86_64        The LDAP back end of the SSSD
```

```
firewall-cmd--reload
bash: firewall-cmd--add-service=samba: command not found...
bash: firewall-cmd--add-service=samba--permanent: command not found...
bash: firewall-cmd--reload: command not found...
[astakhovamd@localhost.astakhovamd.net common]$  firewall-cmd --add-service=samba
success
[astakhovamd@localhost.astakhovamd.net common]$ firewall-cmd --add-service=samba--permanent
Error: INVALID_SERVICE: samba--permanent
[astakhovamd@localhost.astakhovamd.net common]$ firewall-cmd --add-service=samba --permanent
success
[astakhovamd@localhost.astakhovamd.net common]$ firewall-cmd --reload
success
[astakhovamd@localhost.astakhovamd.net common]$
```

```xml
<?xml version="1.0" encoding="utf-8"?>
<service>
  <short>Samba</short>
  <description>This option allows you to access and participate in Windows file and printer sharing netw
rks. You need the samba package installed for this option to be useful.</description>
  <include service="samba-client"/>
  <port protocol="tcp" port="139"/>
  <port protocol="tcp" port="445"/>
</service>
/usr/lib/firewalld/services/samba.xml (END)
```

НАСТРОЙКА СЕРВЕРА SAMBA

```
[astakhovamd@localhost.astakhovamd.net common]$ sudo chgrp sambagroup /srv/sambashare
[sudo] password for astakhovamd:
[astakhovamd@localhost.astakhovamd.net common]$ sudo chmod g=rwx /srv/sambashare
[astakhovamd@localhost.astakhovamd.net common]$ ls -la /srv/sambashare/
total 0
drwxrws---. 2 astakhovamd sambagroup  6 Dec  2 16:22 .
drwxr-xr-x. 4 root        root       35 Dec  2 16:22 ..
[astakhovamd@localhost.astakhovamd.net common]$ sudo chmod g+s /srv/sambashare
[astakhovamd@localhost.astakhovamd.net common]$ echo "=== ПРАВА ДОСТУПА К КАТАЛОГУ SAMBA ==="
echo "Каталог: /srv/sambashare"
echo ""
echo "Текущие права:"
ls -ld /srv/sambashare/
echo ""
echo "Расшифровка прав:"
stat /srv/sambashare | grep -E "Access:|Uid:|Gid:"
echo ""
echo "Проверка группы:"
getent group sambagroup
=== ПРАВА ДОСТУПА К КАТАЛОГУ SAMBA ===
Каталог: /srv/sambashare

Текущие права:
drwxrws---. 2 astakhovamd sambagroup 6 Dec  2 16:22 /srv/sambashare/

Расшифровка прав:
Access: (2770/drwxrws---)  Uid: ( 1001/astakhovamd)   Gid: ( 1010/sambagroup)
Access: 2025-12-02 16:34:08.251250279 +0000

Проверка группы:
sambagroup:x:1010:astakhovamd
[astakhovamd@localhost.astakhovamd.net common]$
```

```
[astakhovamd@localhost.astakhovamd.net srv]$ restorecon -vR /srv/sambashare
Relabeled /srv/sambashare from unconfined_u:object_r:var_t:s0 to unconfined_u:object_r:samba_share_t:s0
[astakhovamd@localhost.astakhovamd.net srv]$
```

```
[astakhovamd@localhost.astakhovamd.net srv]$ cd /srv
[astakhovamd@localhost.astakhovamd.net srv]$ ls -Z
        unconfined_u:object_r:nfs_t:s0 nfs  unconfined_u:object_r:samba_share_t:s0 sambashare
[astakhovamd@localhost.astakhovamd.net srv]$
```

```
[astakhovamd@localhost.astakhovamd.net common]$ cd /srv
[astakhovamd@localhost.astakhovamd.net srv]$ ls-Z
bash: ls-Z: command not found...
[astakhovamd@localhost.astakhovamd.net srv]$ ls -Z
unconfined_u:object_r:nfs_t:s0 nfs  unconfined_u:object_r:var_t:s0 sambashare
[astakhovamd@localhost.astakhovamd.net srv]$
```

```
[astakhovamd@localhost.astakhovamd.net srv]$ cd /srv
[astakhovamd@localhost.astakhovamd.net srv]$ ls -Z
        unconfined_u:object_r:nfs_t:s0 nfs  unconfined_u:object_r:samba_share_t:s0 sambashare
[astakhovamd@localhost.astakhovamd.net srv]$
```

```
[astakhovamd@localhost.astakhovamd.net srv]$ sudo semanage fcontext -a -t samba_share_t "/srv/sambashare(
/.*)?"
[astakhovamd@localhost.astakhovamd.net srv]$
```

```
[astakhovamd@localhost.astakhovamd.net srv]$ sudo semanage fcontext -a -t samba_share_t "/srv/sambashare(
/.*)?"
[astakhovamd@localhost.astakhovamd.net srv]$
```

НАСТРОЙКА СЕРВЕРА SAMBA

МОНТИРОВАНИЕ ФАЙЛОВОЙ СИСТЕМЫ SAMBA НА КЛИЕНТЕ


```
[astakhovamd@localhost.astakhovamd.net ~]$ sudo dnf -y install samba-client cifs
-utils
[sudo] password for astakhovamd:
Last metadata expiration check: 2:00:31 ago on Tue 02 Dec 2025 02:43:02 PM UTC.
Dependencies resolved.
============================================================================
 Package          Architecture  Version          Repository        Size
============================================================================
Installing:
 cifs-utils       x86_64        7.2-1.el9        baseos            113 k
 samba-client     x86_64        4.22.4-6.el9     appstream         760 k

Transaction Summary
============================================================================
Install  2 Packages

Total download size: 873 k
Installed size: 3.0 M
Downloading Packages:
(1/2): cifs-utils-7.2-1.el9.x86_64.rpm         161 kB/s | 113 kB    00:00
(2/2): samba-client-4.22.4-6.el9.x86_64.rpm    565 kB/s | 760 kB    00:01
----------------------------------------------------------------------------
Total                                          422 kB/s | 873 kB    00:02
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing        :                                                    1/1
  Installing       : samba-client-4.22.4-6.el9.x86_64                   1/2
  Running scriptlet: samba-client-4.22.4-6.el9.x86_64                   1/2
  Installing       : cifs-utils-7.2-1.el9.x86_64                        2/2
  Running scriptlet: cifs-utils-7.2-1.el9.x86_64                        2/2
  Verifying        : cifs-utils-7.2-1.el9.x86_64                        1/2
  Verifying        : samba-client-4.22.4-6.el9.x86_64                   2/2

Installed:
  cifs-utils-7.2-1.el9.x86_64          samba-client-4.22.4-6.el9.x86_64
```

```
astakhovamd@localhost:~ — less /usr/lib/firewalld/services/sam...

<?xml version="1.0" encoding="utf-8"?>
<service>
  <short>Samba Client</short>
  <description>This option allows you to access Windows file and printer sharing
networks. You need the samba-client package installed for this option to be usefu
l.</description>
  <include service="netbios-ns"/>
  <port protocol="udp" port="138"/>
</service>
~
~
```

```
astakhovamd@localhost:~

astakhovamd@localhost:~ — less /...        astakhovamd@localhost:~

[astakhovamd@localhost.astakhovamd.net ~]$ sudo firewall-cmd --add-service=samba-
client
sudo firewall-cmd --add-service=samba-client --permanent
sudo firewall-cmd --reload
[sudo] password for astakhovamd:
success
success
success
[astakhovamd@localhost.astakhovamd.net ~]$
```

МОНТИРОВАНИЕ ФАЙЛОВОЙ СИСТЕМЫ SAMBA НА КЛИЕНТЕ

```
[astakhovamd@localhost.astakhovamd.net ~]$ sudo groupadd -g 1010 sambagroup
[astakhovamd@localhost.astakhovamd.net ~]$ sudo usermod -aG sambagroup astakhovam
d
[astakhovamd@localhost.astakhovamd.net ~]$ █
```

```
[astakhovamd@localhost.astakhovamd.net ~]$ sudo sed -i 's/^workgroup = .*/workgro
up = ASTAKHOVAMD-NET/' /etc/samba/smb.conf
[astakhovamd@localhost.astakhovamd.net ~]$
```

```
[astakhovamd@localhost.astakhovamd.net ~]$ # Попробуйте с пользователем astakhova
md
smbclient -L //localhost -U astakhovamd
Password for [WORKGROUP\astakhovamd]:

        Sharename       Type        Comment
        ---------       ----        -------
        public          Disk
        IPC$            IPC         IPC Service (Samba 4.22.4)
SMB1 disabled -- no workgroup available
[astakhovamd@localhost.astakhovamd.net ~]$
```

```
SMB1 disabled -- no workgroup available
[astakhovamd@localhost.astakhovamd.net ~]$ mkdir /mnt/samba
mkdir: cannot create directory '/mnt/samba': Permission denied
[astakhovamd@localhost.astakhovamd.net ~]$ sudo -i
[root@localhost.astakhovamd.net ~]# mkdir /mnt/samba
[root@localhost.astakhovamd.net ~]# sudo mkdir -p /mnt/samba
sudo chown astakhovamd:astakhovamd /mnt/samba
[root@localhost.astakhovamd.net ~]# # Узнайте вашу основную группу
id astakhovamd

# Или создайте группу sambagroup если нужно
sudo groupadd sambagroup
sudo usermod -aG sambagroup astakhovamd
uid=1001(astakhovamd) gid=1001(astakhovamd) groups=1001(astakhovamd),10(wheel),12(mail),1010(sa
mbagroup)
groupadd: group 'sambagroup' already exists
[root@localhost.astakhovamd.net ~]# mount -o username=astakhovamd,user,rw,uid=astakhovamd,gid=s
ambagroup //localhost/public /mnt/samba
Password for astakhovamd@//localhost/public:
```

МОНТИРОВАНИЕ ФАЙЛОВОЙ СИСТЕМЫ SAMBA НА КЛИЕНТЕ


```
[root@localhost.astakhovamd.net ~]# # Переийдите в смонтированную папку
cd /mnt/samba

# Создайте файл
touch astakhovamd@client.txt

# Проверьте
ls -la astakhovamd@client.txt
-rw-r--r--. 1 root root 0 Dec  2 17:00 astakhovamd@client.txt
[root@localhost.astakhovamd.net samba]#
```

```
# Проверьте
ls -la astakhovamd@client.txt
-rw-r--r--. 1 root root 0 Dec  2 17:00 astakhovamd@client.txt
[root@localhost.astakhovamd.net samba]# umount /mnt/samba
umount: /mnt/samba: not mounted.
[root@localhost.astakhovamd.net samba]# # Создайте точку монтирования (если еще нет)
mkdir -p /mnt/samba

# Смонтируйте ресурс
mount -t cifs -o username=astakhovamd //localhost/public /mnt/samba
Password for astakhovamd@//localhost/public:
[root@localhost.astakhovamd.net samba]# # Перейдите в смонтированную папку
cd /mnt/samba

# Создайте файл
touch astakhovamd@client.txt

# Проверьте
ls -la astakhovamd@client.txt
-rwxr-xr-x. 1 root root 0 Dec  2 17:01 astakhovamd@client.txt
[root@localhost.astakhovamd.net samba]#
```

```
echo -e "\n4. Тестирование монтирования..."
sudo umount /mnt/samba 2>/dev/null
sudo mkdir -p /mnt/samba
fi  echo "3. Доступность сервера"sers"ovamd@client.txt)"
=== Настройка автоматического монтирования Samba ===

1. Создание файла учетных данных...
Введите Samba пароль для astakhovamd:
username=astakhovamd
password=12345
Файл создан:
-rw-------. 1 root root 36 Dec  2 18:06 /etc/samba/smbusers

2. Настройка группы...

3. Добавление в /etc/fstab...
//localhost/public /mnt/samba cifs user,rw,uid=astakhovamd,gid=sambagroup,credentials=/etc/samb
a/smbusers,_netdev 0 0
Добавлено в fstab:
UUID=c84cce45-9089-48d9-9617-2f1d1bd45fdd /                    xfs     defaults         0 0
/swapfile none swap defaults 0 0
//localhost/public /mnt/samba cifs user,rw,uid=astakhovamd,gid=sambagroup,credentials=/etc/samb
a/smbusers,_netdev 0 0

4. Тестирование монтирования...
✓ Успешно смонтировано!
//localhost/public on /mnt/samba type cifs (rw,relatime,vers=3.1.1,cache=strict,username=astakh
ovamd,uid=0,noforceuid,gid=0,noforcegid,addr=0000:0000:0000:0000:0000:0000:0000:0001,file_mode=
0755,dir_mode=0755,soft,nounix,serverino,mapposix,rsize=4194304,wsize=4194304,bsize=1048576,ech
o_interval=60,actimeo=1,closetimeo=1)

5. Тест записи...
✓ Файл создан успешно
Содержимое: Тест fstab
-rwxr-xr-x. 1 root root 15 Dec  2 18:06 astakhovamd@client.txt
[root@localhost.astakhovamd.net samba]#
```

ВНЕСЕНИЕ ИЗМЕНЕНИЙ В НАСТРОЙКИ ВНУТРЕННЕГО ОКРУЖЕНИЯ ВИРТУАЛЬНЫХ МАШИН

```bash
#!/bin/bash

LOGIN= astakhovamd
PASS=12345

echo "Provisioning script $0"
echo "Install needed packages"

dnf-y install samba samba-client cifs-utils
echo "Copy configuration files"

cp-R /vagrant/provision/server/smb/etc/* /etc
chown-R root:root /etc/samba/*

restorecon-vR /etc
echo "Configure firewall"

firewall-cmd--add-service samba--permanent
firewall-cmd--reload

echo "Users and groups"
groupadd-g 1010 sambagroup
usermod-aG sambagroup $LOGIN
echo-ne "$PASS\n$PASS\n" | smbpasswd-L-a-s $LOGIN
echo "Make share dir"
mkdir-p /srv/sambashare
chgrp sambagroup /srv/sambashare
chmod g=rwx /srv/sambashare
echo "Tuning SELinux"
semanage fcontext-a-t samba_share_t "/srv/sambashare(/.*)?"
setsebool samba_export_all_rw 1
setsebool samba_export_all_rw 1-P
restorecon-vR /srv/sambashare
echo "Start smb service"
systemctl enable smb
systemctl start smb
systemctl restart firewalld
```

```bash
#!/bin/bash

LOGIN= astakhovamd
echo "Provisioning script $0"

mkdir-p /mnt/samba

echo "Install needed packages"
dnf-y install samba-client cifs-utils
echo "Copy configuration files"

cp-R /vagrant/provision/client/smb/etc/* /etc
chown-R root:root /etc/samba/*
restorecon-vR /etc

echo "Configure firewall"
firewall-cmd--add-service samba-client--permanent
firewall-cmd--reload

echo "Users and groups"
groupadd-g 1010 sambagroup
usermod-aG sambagroup $LOGIN

echo "Mounting dirs"
mkdir-p /srv/sambashare

echo "//server/sambashare /mnt/samba cifs
user,rw,credentials=/etc/samba/smbusers,uid=user,

gid=sambagroup,_netdev 0 0" >> /etc/fstab
restorecon-vR /etc

umount /mnt/samba
mount /mnt/samba
```

```ruby
server.vm.provision "SMB server",
            type: "shell",
            preserve_order: true,
            path: "provision/server/smb.sh"

end
```

```ruby
client.vm.provision "SMB client",
        type: "shell",
        preserve_order: true,
        path: "provision/client/smb.sh"

    end
end
```

Спасибо за внимание!