杭州电子科技大学

实 验 报 告

课程名称：Linux 网络环境

实验名称：samba 服务器配置

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完成日期	18-11-5
成　　绩	

一、实验目的

掌握安装并配置 samba 服务器的技能

二、实验原理

Samba是在Linux和UNIX系统上实现信息服务块（Server Messages Block，SMB）协议的一个免费软件，由服务器及客户端程序构成。

SMB是一种在局域网上共享文件和打印机的一种通信协议，它为局域网内的不同计算机之间提供文件及打印机等资源的共享服务。

SMB协议是客户机/服务器型协议，客户机通过该协议可以访问服务器上的共享文件系统、打印机及其他资源。通过设置"NetBIOS over TCP/IP"使得Samba不但能与局域网络主机分享资源，还能与全世界的电脑分享资源。Samba最大的功能是实现Linux与Windows系统之间直接的文件共享和打印共享。

三、实验环境

Centos7 64 位

四、主要操作步骤及实验结果记录

修改防火墙设置并安装 samba 服务器。

安装后启动并查看：


```
Installed:
  samba.x86_64 0:4.7.1-9.el7_5

Dependency Installed:
  pytalloc.x86_64 0:2.1.10-1.el7
  samba-common-tools.x86_64 0:4.7.1-9.el7_5
  samba-libs.x86_64 0:4.7.1-9.el7_5

Complete!
root@localhost ~# systemctl start smb nmb
root@localhost ~# systemctl status smb nmb
● smb.service - Samba SMB Daemon
   Loaded: loaded (/usr/lib/systemd/system/smb.service; disabled
; vendor preset: disabled)
   Active: active (running) since Mon 2018-11-05 18:13:57 CST; 2
3s ago
 Main PID: 11636 (smbd)
   Status: "smbd: ready to serve connections..."
    Tasks: 4
   CGroup: /system.slice/smb.service
           ├─11636 /usr/sbin/smbd --foreground --no-process-g...
           ├─11644 /usr/sbin/smbd --foreground --no-process-g...
           ├─11645 /usr/sbin/smbd --foreground --no-process-g...
           └─11648 /usr/sbin/smbd --foreground --no-process-g...

Nov 05 18:13:57 localhost.localdomain systemd[1]: Starting Sa...
Nov 05 18:13:57 localhost.localdomain smbd[11636]: [2018/11/0...
Nov 05 18:13:57 localhost.localdomain systemd[1]: Started Sam...
Nov 05 18:13:57 localhost.localdomain smbd[11636]:    STATUS=d...

● nmb.service - Samba NMB Daemon
   Loaded: loaded (/usr/lib/systemd/system/nmb.service; disabled
; vendor preset: disabled)
   Active: active (running) since Mon 2018-11-05 18:13:57 CST; 2
3s ago
 Main PID: 11638 (nmbd)
   Status: "nmbd: ready to serve connections..."
    Tasks: 1
   CGroup: /system.slice/nmb.service
           └─11638 /usr/sbin/nmbd --foreground --no-process-g...

Nov 05 18:14:20 localhost.localdomain nmbd[11638]:
Nov 05 18:14:20 localhost.localdomain nmbd[11638]:    Samba na...
Nov 05 18:14:20 localhost.localdomain nmbd[11638]:
Nov 05 18:14:20 localhost.localdomain nmbd[11638]:    *****
Nov 05 18:14:20 localhost.localdomain nmbd[11638]: [2018/11/0...
Nov 05 18:14:20 localhost.localdomain nmbd[11638]:    *****
Nov 05 18:14:20 localhost.localdomain nmbd[11638]:
Nov 05 18:14:20 localhost.localdomain nmbd[11638]:    Samba na...
Nov 05 18:14:20 localhost.localdomain nmbd[11638]:
Nov 05 18:14:20 localhost.localdomain nmbd[11638]:    *****
Hint: Some lines were ellipsized, use -l to show in full.
root@localhost ~# 
```

配置文件&测试语法：

```
root@localhost ~# vim /etc/samba/smb.conf
root@localhost ~# testparm
Load smb config files from /etc/samba/smb.conf
rlimit_max: increasing rlimit_max (1024) to minimum Windows limi
t (16384)
Processing section "[homes]"
Processing section "[printers]"
Processing section "[print$]"
Processing section "[common]"
Loaded services file OK.
Server role: ROLE_STANDALONE

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

建立共享目录

```
root@localhost ~# mkdir /home/samba
root@localhost ~# cdmod 777 /home/samba
fish: cdmod: command not found...
root@localhost ~# chmod 777 /home/samba
root@localhost ~# touch /home/samba/samba.txt
root@localhost ~# vim /home/samba/samba.txt
root@localhost ~# setsebool -P samba_export_all_ro=1 samba_expor
t_all_rw=1
root@localhost ~# getsebool -a | grep samba_export
samba_export_all_ro --> on
samba_export_all_rw --> on
root@localhost ~# semanage fcontext -at samba_share_t "/home/sam
ba(/.*)?"
root@localhost ~# restorecon /home/samba
root@localhost ~#
```

增加新用户：

```
root@localhost ~# useradd -s /sbin/nologin smbuser
root@localhost ~# smbpasswd -a smbuser
New SMB password:
Retype new SMB password:
Added user smbuser.
root@localhost ~# systemctl restart smb.service nmb.service
root@localhost ~# systemctl status smb.service nmb.service
● smb.service - Samba SMB Daemon
   Loaded: loaded (/usr/lib/systemd/system/smb.service; disabled
; vendor preset: disabled)
   Active: active (running) since Mon 2018-11-05 18:40:02 CST; 1
4s ago
 Main PID: 12849 (smbd)
   Status: "smbd: ready to serve connections..."
    Tasks: 4
   CGroup: /system.slice/smb.service
           ├─12849 /usr/sbin/smbd --foreground --no-process-g...
           ├─12856 /usr/sbin/smbd --foreground --no-process-g...
           ├─12857 /usr/sbin/smbd --foreground --no-process-g...
           └─12862 /usr/sbin/smbd --foreground --no-process-g...

Nov 05 18:40:02 localhost.localdomain systemd[1]: Starting Sa...
Nov 05 18:40:02 localhost.localdomain systemd[1]: Started Sam...
Nov 05 18:40:02 localhost.localdomain smbd[12849]: [2018/11/0...
Nov 05 18:40:02 localhost.localdomain smbd[12849]:    STATUS=d...

● nmb.service - Samba NMB Daemon
   Loaded: loaded (/usr/lib/systemd/system/nmb.service; disabled
; vendor preset: disabled)
   Active: active (running) since Mon 2018-11-05 18:40:02 CST; 1
4s ago
 Main PID: 12851 (nmbd)
   Status: "nmbd: ready to serve connections..."
    Tasks: 1
   CGroup: /system.slice/nmb.service
```

```
root@localhost ~# ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.62.132  netmask 255.255.255.0  broadcast 19
2.168.62.255
        inet6 fe80::b96e:146a:fd07:6cc8  prefixlen 64  scopeid 0
x20<link>
        ether 00:0c:29:3e:0f:78  txqueuelen 1000  (Ethernet)
        RX packets 11234  bytes 12196968 (11.6 MiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 5768  bytes 499782 (488.0 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 68  bytes 5916 (5.7 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 68  bytes 5916 (5.7 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions
 0

virbr0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
        inet 192.168.122.1  netmask 255.255.255.0  broadcast 192
.168.122.255
        ether 52:54:00:b1:41:48  txqueuelen 1000  (Ethernet)
        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 ~# smbclient -U smbuser //192.168.62.132/common
Enter SAMBA\smbuser's password:
Try "help" to get a list of possible commands.
smb: \> ^C
```

```
root@localhost ~# vim /etc/samba/smb.conf
root@localhost ~# smbclient -L 192.168.62.132 -U zhi
Enter SAMBA\zhi's password:
session setup failed: NT_STATUS_LOGON_FAILURE
```

```
root@localhost ~# smbpasswd -a -n zhi
Failed to add entry for user zhi.
root@localhost ~# useradd -s /sbin/nologin zhi
root@localhost ~# smbpasswd -a zhi
New SMB password:
Retype new SMB password:
Added user zhi.
root@localhost ~# smbclient -U smbuser //192.168.62.132/common
Enter SAMBA\smbuser's password:
Try "help" to get a list of possible commands.
smb: \> ^C
root@localhost ~# smbclient -L 192.168.62.132 -U zhi
Enter SAMBA\zhi's password:

        Sharename       Type        Comment
        ---------       ----        -------
        print$          Disk        Printer Drivers
        common          Disk        Common share
        IPC$            IPC         IPC Service (Samba 4.7.1)
        time            Disk        Ashes Of Time
        zhi             Disk        Home Directories
Reconnecting with SMB1 for workgroup listing.

        Server              Comment
        ---------           -------

        Workgroup           Master
        ---------           -------
        SAMBA               LOCALHOST
root@localhost ~#
```

测试成功～

五、实验分析总结及心得

在一次测试中，

```
root@localhost ~# vim /etc/samba/smb.conf
root@localhost ~# smbclient -L 192.168.62.132 -U zhi
Enter SAMBA\zhi's password:
session setup failed: NT_STATUS_LOGON_FAILURE
```

出现 zhi 用户登录失败，显示 login fail。

解决方法是：用 useradd -s /sbin/nologin zhi 先创建系统用户，再用 smbpasswd 为 zhi 添加密码。

```
root@localhost ~# smbpasswd -a -n zhi
Failed to add entry for user zhi.
root@localhost ~# useradd -s /sbin/nologin zhi
root@localhost ~# smbpasswd -a zhi
New SMB password:
Retype new SMB password:
Added user zhi.
root@localhost ~# smbclient -U smbuser //192.168.62.132/common
Enter SAMBA\smbuser's password:
Try "help" to get a list of possible commands.
smb: \> ^C
root@localhost ~# smbclient -L 192.168.62.132 -U zhi
Enter SAMBA\zhi's password:

        Sharename       Type        Comment
        ---------       ----        -------
        print$          Disk        Printer Drivers
        common          Disk        Common share
        IPC$            IPC         IPC Service (Samba 4.7.1)
        time            Disk        Ashes Of Time
        zhi             Disk        Home Directories
Reconnecting with SMB1 for workgroup listing.

        Server              Comment
        ---------           -------

        Workgroup           Master
        ---------           -------
        SAMBA               LOCALHOST
root@localhost ~#
```