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Sample Configuration File

This appendix gives an example of a production *smb.conf* file and looks at how many of the options are used in practice. The following is a slightly disguised version of one we used at a corporation with five Linux servers, five Windows for Workgroups clients and three NT Workstation clients:

```
# smb.conf -- File Server System for: 1 Example.COM  BSC & Management Office
[globals]
     workgroup = 1EG_BSC
     interfaces = 10.10.1.14/24
```
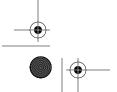
We provide this service on only one of the machine's interfaces. The `interfaces` option sets its address and netmask, where `/24` is the same as using the netmask 255.255.255.0:

```
     comment = Samba ver. %v
     preexec = csh -c `echo /usr/samba/bin/smbclient \
                    -M %m -I %I` &
```

We use the *preexec* command to log information about all connections by machine name (`%m`) and IP address (`%I`):

```
     # smbstatus will output various info on current status
     status = yes
     browseable = yes
     printing = bsd

     # the username that will be used for access to services
     # specified with 'guest = ok'
     guest account = samba
```

The default guest account was `nobody`, uid -1, which produced log messages on one of our machines saying "your server is being unfriendly," so we created a specific Samba guest account for browsing and printing:

```
# superuser account - admin privilages to shares, with no
# restrictions
# WARNING - use this with care: files can be modified,
# regardless of file permissions
admin users = root

# who is NOT allowed to connect to ANY service
invalid users = @wheel, mail, deamon, adt
```

Daemons can't use Samba, only people. The `invalid users` option closes a security hole; it prevents intruders from breaking in by pretending to be a daemon process.

```
# hosts that are ALLOWED or DENIED from connecting to ANY service
hosts allow = 10.10.1.
hosts deny = 10.10.1.6

# where the lock files will be located
lock directory = /var/lock/samba/locks

# debug log files
# %m = separate log for each NetBIOS name (each machine)
log file = /var/log/samba/log.%m

# We send priority 0, 1 and 2 messages to the system logs
syslog = 2

# If a WinPopup message is sent to the server,
# redirect it to a user via e-mail

message command = /bin/mail -s 'message from #% on %m' \
                        pkelly < %s; rm %s

# ---------------------------------------------------
# [globals] Performance Tuning
# ---------------------------------------------------

# caching algorithm to reduce time doing getwd() calls.
getwd cache = yes

socket options = TCP_NODELAY

# tell the server whether the client is present and
# responding in seconds
keep alive = 60

# num minutes of inactivity before a connection is
# considered dead
dead time = 30

read prediction = yes
share modes = yes
max xmit = 17384
read size = 512
```
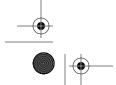
The `share modes`, `max`, `xinit`, and `read size` options are machine-specific (see Appendix B, *Samba Performance Tuning*):

```
# locking is done by the server
locking = yes

# control whether dos style attributes should be mapped
# to unix execute bits
map hidden = yes
map archive = yes
map system = yes
```

The three `map` options will work only on shares with a create mode that includes the execute bits (0111). Our `homes` and `printers` shares won't honor them, but the [`www`] share will:

```
# ---------------------------------------------------------
# [globals] Security and Domain Logon Services
# ---------------------------------------------------------
# connections are made with UID and GID, not as shares
    security = user

# boolean variable that controls whether passwords
# will be encrypted
    encrypt passwords = yes
    passwd chat = "*New password:*" %n\r "*New password (again):*" %n\r \
"*Password changed*"
    passwd program = /usr/bin/passwd %u

# Always become the local master browser
    domain master = yes
    preferred master = yes
    os level = 34

# For domain logons to work correctly. Samba acts as a
# primary domain controller.
    domain logons = yes

# Logon script to run for user off the server each time
# username (%U) logs in.  Set the time, connect to shares,
# virus checks, etc.
    logon script = scripts\%U.bat

[netlogon]
    comment = "Domain Logon Services"
    path = /u/netlogon
    writable = yes
    create mode = 444
    guest ok = no
    volume = "Network"
```

This share, discussed in Chapter 6, *Users, Security, and Domains*, is required for Samba to work smoothly in a Windows NT domain:

```
# -----------------------------------------------------------
# [homes] User Home Directories
# -----------------------------------------------------------
[homes]
     comment = "Home Directory for : %u "
     path = /u/users/%u
```

The password file of the Samba server specifies each person's home directory as */home/machine_name/person*, which NFS converts to point to the actual physicl location under */u/users.* The path option in the [homes] share tells Samba the actual (non-NFS) location:

```
     guest ok = no
     read only = no
     create mode = 644
     writable = yes
     browseable = no


# -----------------------------------------------------------
# [printers] System Printers
# -----------------------------------------------------------
[printers]
     comment = "Printers"
     path = /var/spool/lpd/samba
     printcap name = /etc/printcap
     printable = yes
     public = no
     writable = no

     lpq command = /usr/bin/lpq -P%p
     lprm command = /usr/bin/lprm -P%p %j
     lppause command = /usr/sbin/lpc stop %p
     lpresume command = /usr/sbin/lpc start %p

     create mode = 0700

     browseable = no
     load printers = yes


# -----------------------------------------------------------
# Specific Descriptions: [programs] [data] [retail]
# -----------------------------------------------------------
[programs]
     comment = "Shared Programs %T"
     volume = "programs"
```

Shared Programs shows up in the Network Neighborhood, and programs is the volume name you specify when an installation program wants to know the label of the CD-ROM from which it thinks it's loading:

```
     path = /u/programs
     public = yes
     writeable = yes
     printable = no
     create mode = 664
```

```
[cdrom]
    comment = "Unix CDROM"
    path = /u/cdrom
    public = no
    writeable = no
    printable = no
    volume = "cdrom"

[data]
    comment =  "Data Directories %T"
    path = /u/data
    public = no
    create mode = 770
    writeable = yes
    volume = "data"

[nt4]
    comment =  "NT4 Server"
    path = /u/systems/nt4
    public = yes
    create mode = 770
    writeable = yes
    volume = "nt4_server"

[www]
    comment =  "WWW System"
    path = /usr/www/http
    public = yes
    create mode = 775
    writeable = yes
    volume = "www_system"
```

The [www] share is the directory used on the Unix server to serve web pages.
Samba makes the directory available to local PC users so the art department can
update web pages.