

Samba

just a quick look

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Thank you, Oscar Schultz!

Outline

What is SAMBA?

What's required for SAMBA?

Installation

Defining shares

Common Problems

references and examples

Q&A throughout

What is SAMBA

"Samba is way cool" -- Oscar Schultz
a suite of tools for sharing resources
such as printers and files across a network
released under the GNU/GPL

What does Samba Do?

Samba uses the Server Message Block (SMB) protocol (endorsed jointly by Microsoft and IBM) to pass low-level data between Windows clients and Unix servers.

SMB is native to Windows, unlike NFS

What does Samba Do?

Samba can divorce the user (and management) from where the data is stored while retaining the MS environment most users/managers expect.

Interoperability is more important than compatibility. (Rick)
and SAMBA does that!

Samba provided services

Serve Unix files to Windows and similar clients.

Allow Unix clients to access PC files.

Serve network printers to Windows clients.

Provide names services (broadcast and WINS).

Allow browsing of network resources from windows clients.

Create windows workgroups or domains.

Enforce username and password authentication.

File Sharing

UNIX files on Windows

Windows files on UNIX

'mount' Windows shares to Linux

Printer Sharing

UNIX printers on Windows
Windows printers on UNIX

The Samba Suite

NMBD
SMBD
SWAT
clients
VFS driver

Samba Install

Standard ./configure, make, make install.
Download from www.samba.org.

Enable SWAT:

```
/etc/services
```

```
swat      901/tcp
```

```
/etc/inetd
```

```
swat  stream  tcp  nowait.400  root  
      /usr/local/samba/bin/swat  swat
```

Packaged Installation

`/etc/smb.conf`

`/etc/rc.config`

init scripts

`/etc/rc.d/init.d/smb [start | stop]`

smb.conf

[globals]

default parameters for all sections

[homes]

usually the user's home dir **/home/%u**

[printers]

shared printers or **/etc/printtab**

[...more...]

other directories to be shared

Starting Samba

Two components -

smbd - file and print sharing

nmbd - services broadcasting

Manual method

```
/usr/local/samba/bin/smbd -D
```

```
/usr/local/samba/bin/nmbd -D
```

-Or-

```
/etc/rc.d/init.d/smb [ start | stop ]
```

Windows Client Configuration

Match Windows and Linux userids.

TCPIP protocol support required.

"MS Client for File and Printer sharing"

Windows files marked as shareable
if a Samba *client* will access them.

Netbios and Netbeui are not required.

Windows 95/98 Setup

Install TCP/IP

Install MS client for file and print sharing.

Enable user names

hint - keep the user name on the 95/98/NT machines the same as on the Samba server.

Windows NT 4.0 Configuration

Assign the machine a name.

Install the Workstation service.

Install the TCP/IP protocol

Set the machine's name and IP address.

Configure the DNS and WINS, if needed.

Bind the protocol and service together.

Test it

Network neighborhood
Search for the Domain name
or workgroup of your Samba service.

Also check SAMBA client side:

```
smbclient -L ntserver
```

```
smbclient //ntserver/ntshare
```

Common Problems

Windows id != Linux/Samba id.

Smbpasswd not run

Browseable = no

Encrypted passwords

Windows 3.1 & Windows 95 – no encryption.

Windows 98 & Windows NT – required.

Common Problems

```
"EnablePlainTextPassword"=dword:00000001
```

```
HKEY_LOCAL_MACHINE\  
SYSTEM\  
CurrentControlSet\  
Services\  
LanmanWorkstation\  
Parameters
```

Common Problems

`"EnablePlainTextPassword"=dword:00000001`

`HKEY_LOCAL_MACHINE\
SYSTEM\
CurrentControlSet\
Services\
Rdr\
Parameters`

Common Problems

Case sensitive.

“Guest ok = yes” – permits world access

“writeable = yes” – permits write access

DNS -vs- **/etc/hosts**

Look at the logs

Suggestions

Use `hosts.allow` and `hosts.deny` parameters in `smb.conf` to limit access.

Use `interfaces =` to limit the interfaces Samba will respond to.

Look at the logs!

Buy the "Using Samba" book!

Have fun.

Cool stuff

Virtual servers

Recover unused workstation disk space.

Printer servers w/ autoload device drivers.

Central Backup - Amanda + Samba + cron

Samba can provide Wins services.

Loadrunner (and winrunner)

from Mercury Interactive

<http://www-svca.mercuryinteractive.com/>

Browsers

Samba can serve as a:
Local master browser.
Preferred master browser.
Domain master browser.
Primary domain controller.

Domain master browser and primary domain controller should be the same machine.

If joining an existing domain do not setup samba as a master browser, samba will win the election every time.

Share Names

No blanks

No slashes

Generally avoid punctuation

Interfaces

```
Interfaces = <my-ip-address>/255.255.255.0
```

Domains

a member of the domain for
"security = domain"

Linux account not need login privs
but does need to exist

printer drivers

Auto-install print driver:
95 yes,
NT no

Examples

```
rtroth@trothnec Ready;  
ps -ugax | grep -i mb  
root      15343  0.0  0.2  2428   584 ?        S      Jul16   0:00  smbd  -D  
root      15354  0.0  0.3  1992   796 ?        S      Jul16   0:38  nmbd  -D  
root      22849  0.0  1.0  3960  2756 ?        S      Jul17   0:05  smbd  -D  
rtroth    26852  0.0  0.2  1248   516 pts/29   S      08:34   0:00  grep  -i  mb  
rtroth@trothnec Ready;
```

Example smb.conf

```
# Samba config file created using SWAT
# from guest3.casita.net (192.168.29.131)
# Date: 2001/07/21 14:10:29

# Global parameters
[global]
    workgroup = CASITA.NET
    netbios aliases = main
    server string = La Casita Samba Server
    map to guest = Bad User
    log file = /var/log/samba/%m.log
    keepalive = 30
```

Example smb.conf

```
logon script = %U.bat
logon drive = H:
domain logons = Yes
os level = 2
domain master = Yes
kernel oplocks = No
hosts allow = 192.168.29.0/255.255.255.0
```

```
[netlogon]
  path = /export/netlogon
```


Example `smb.conf`

```
[homes]
  comment = user home directories
  writeable = Yes
  create mask = 0750
  browseable = No
```

```
[cdrom]
  comment = CD-ROM
  path = /cdrom
  locking = No
```

Example smb.conf

```
[printers]
  comment = All Printers
  path = /tmp
  create mask = 0700
  printable = Yes
  browseable = No
```

```
[tmp]
  path = /tmp
  writeable = Yes
```

Example `smb.conf`

```
[web]
  comment = World Wide Web Files
  path = /var/web
  writeable = Yes
  guest ok = Yes
```

```
[home]
  comment = Home Directory
  path = /home/%u
  writeable = Yes
```

Command Prompt

```
D:\home\rtroth>net use  
New connections will be remembered.
```

```
Status Local Remote
```

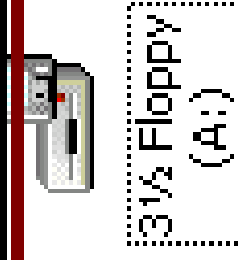
```
OK G: \\syslexia\l390team  
OK U: \\fs02-hou\rtroth$
```

```
The command completed successfully.
```

```
D:\home\rtroth>
```

Network

```
Microsoft Windows Network  
Microsoft Windows Network
```



3 1/2 Floppy
(A:)



hda1 (C:)



hda5 (D:)



l390team on
'syslexia' (G:)



rtroth\$ on
'fs02-hou' (U:)



Control Panel



rtroth

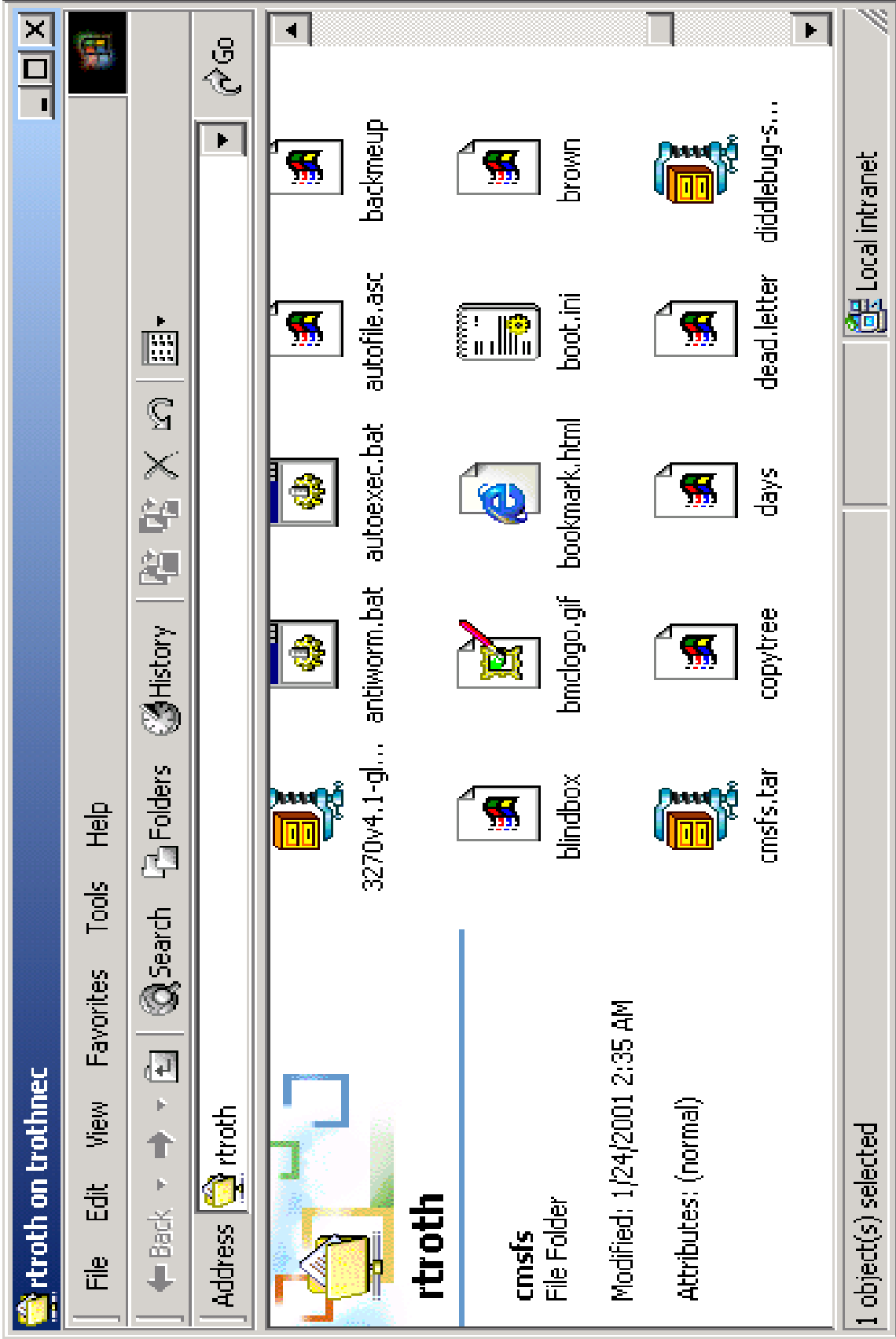
Select an item to view its description.

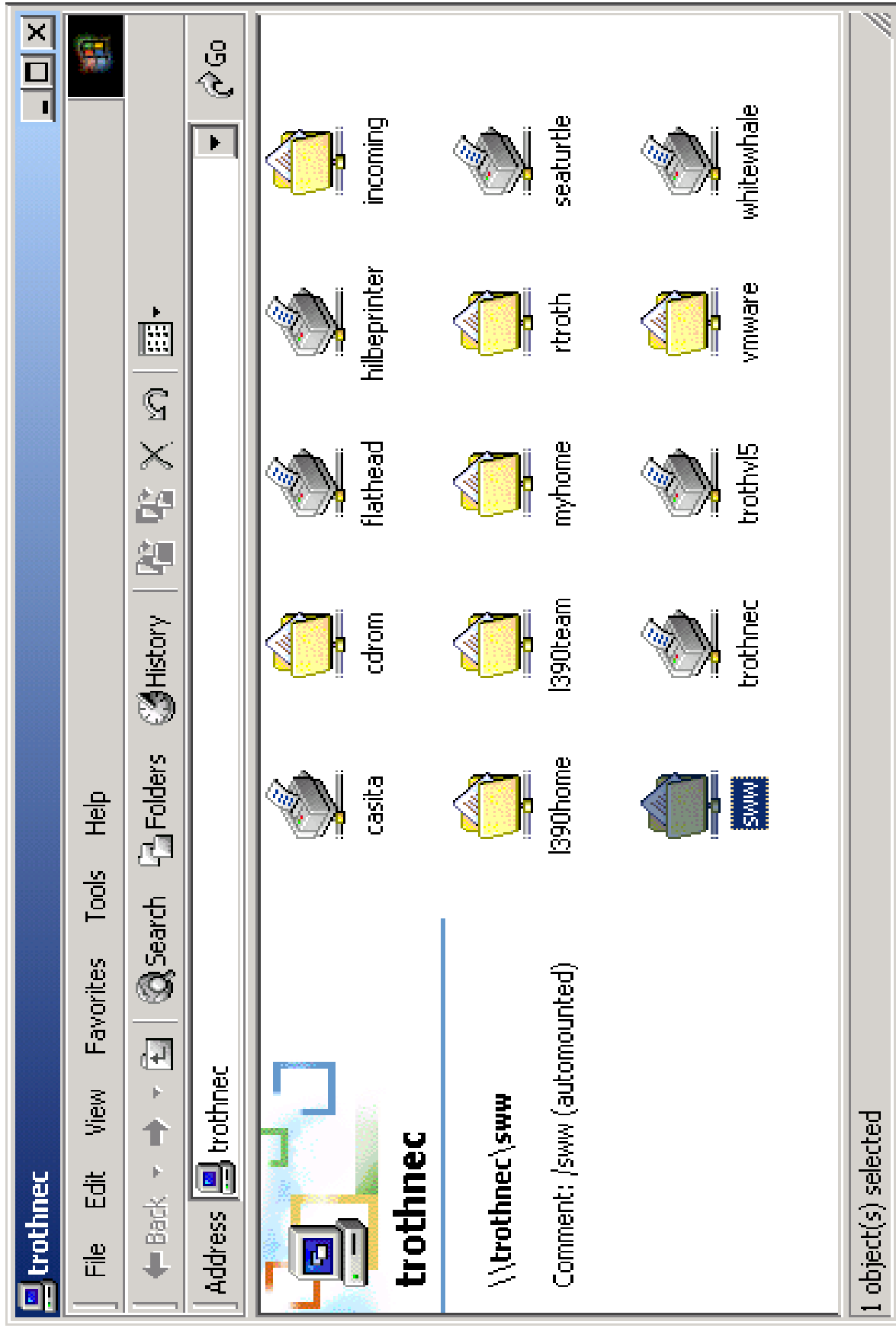
Home Directories

Capacity: 1.80 GB

Used: 1.63 GB

.vmesa	.vnc	.vmware	.vmesa	.wastebasket
.windows	.xauth	.workspace	.wine	aim
bin	cmsfs.d	cmsfs	boot	doc





trothnec

File Edit View Favorites Tools Help

Back Forward Stop Refresh Search Folders History

Address trothnec



trothnec

\\trothnec\swww

Comment: /swww (automounted)



casita



cdrom



flathead



hilbeprinter



incoming



l390home



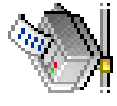
l390team



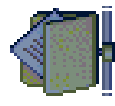
myhome



rtroth



seaturtle



swww



trothnec



trothw15



vmware



whitewhale

1 object(s) selected

Thank You!

`ftp://www.samba.org/`