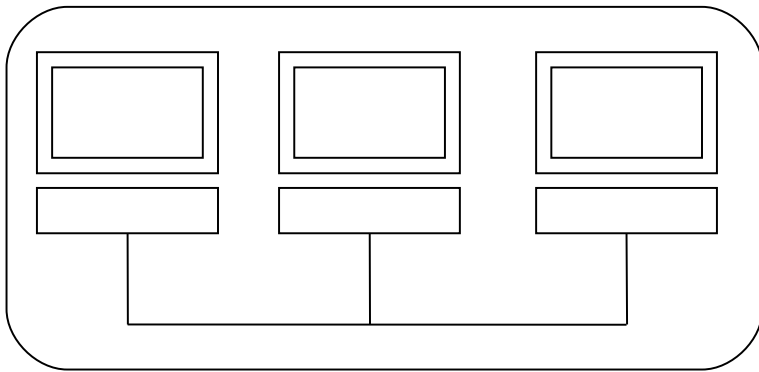


Samba dažādos scenārijos

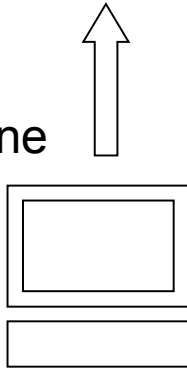
Pāvels Andrejevs DatZ040051
2006. gada novembris

Kas ir Samba

Windows network



Linux machine



- Windows datori tīklā sadarbojas SMB/CIFS protokolā, kas padara par iespējamām
 - File sharing
 - Printer sharing
 - Network browsing
 - User authentication and authorization

Testa konfigurācija



Ubuntu 5.04 “Hoary Hedgehog” ubuntu tty3

ubuntu login:

Samba

- Samba pastāv kopš 1992. gada
- Mājaslapa ir www.samba.org
- Pedējā versija ir 3.0.23, top versija 4
- Centrālās programmas ir `smbd` un `nmbd`
- Konfigurācijas fails ir `smb.conf`

```
pasha@ubuntu:~$ apt-get install samba
```

SMB

- Name resolution
 - (ubuntu → 192.168.0.10)
 - registration
- browsing
- SMB vēsturiski ir saistīts ar NetBIOS
 - NetBIOS ir vecs protokols
 - tagad NetBIOS notiek virs TCP/IP
 - pie Active Directory var mēģināt atslēgt

SMB name resolution

- NetBIOS
 - broadcast
 - WINS
 - Samba – serveris
 - Workgroups
- DNS
 - DDNS. Samba neprot.

[global]

netbios name = ubuntu

workgroup = SMALLBUSINESS

server string = ""

```
pasha@ubuntu:~$ nmblookup ubuntu
```

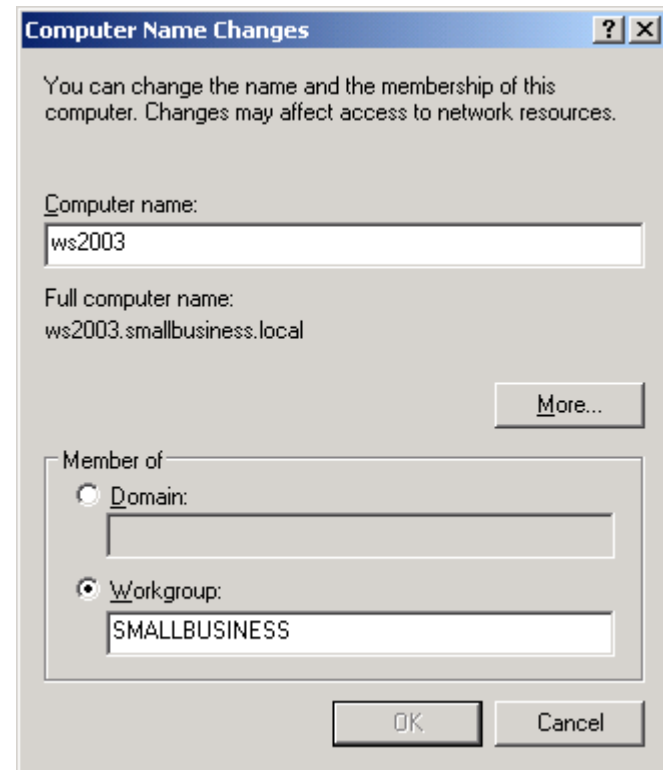
```
querying ubuntu on 192.168.0.255
```

```
192.168.0.10 ubuntu<00>
```

```
pasha@ubuntu:~$ nmblookup ws2003
```

```
querying ws2003 on 192.168.0.255
```

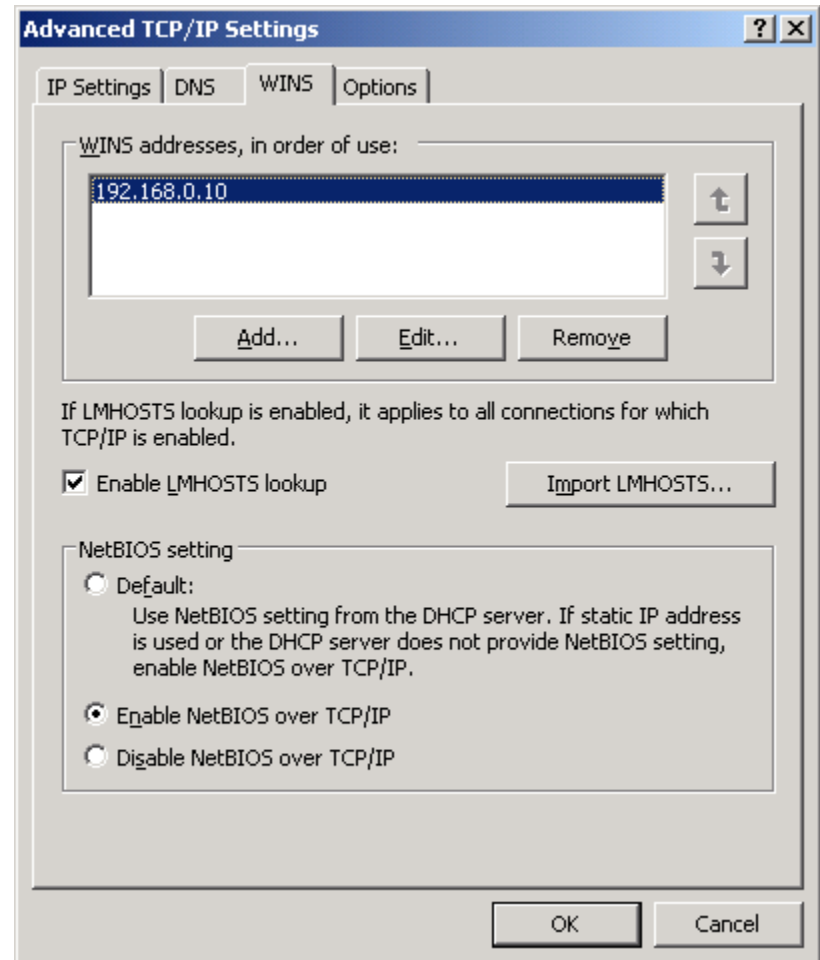
```
192.168.0.1 ws2003<00>
```



[global]

....

wins support = yes



```
pasha@ubuntu:~$ nmblookup -U ubuntu -R ubuntu  
querying ubuntu on 127.0.0.1  
192.168.0.10 ubuntu<00>
```

```
pasha@ubuntu:~$ nmblookup -U ubuntu -R ws2003  
querying ubuntu on 127.0.0.1  
192.168.0.1 ws2003<00>
```

SMB browsing

- Master browser
- Browser elections

```
[global]
```

```
.....
```

```
local master = yes
```

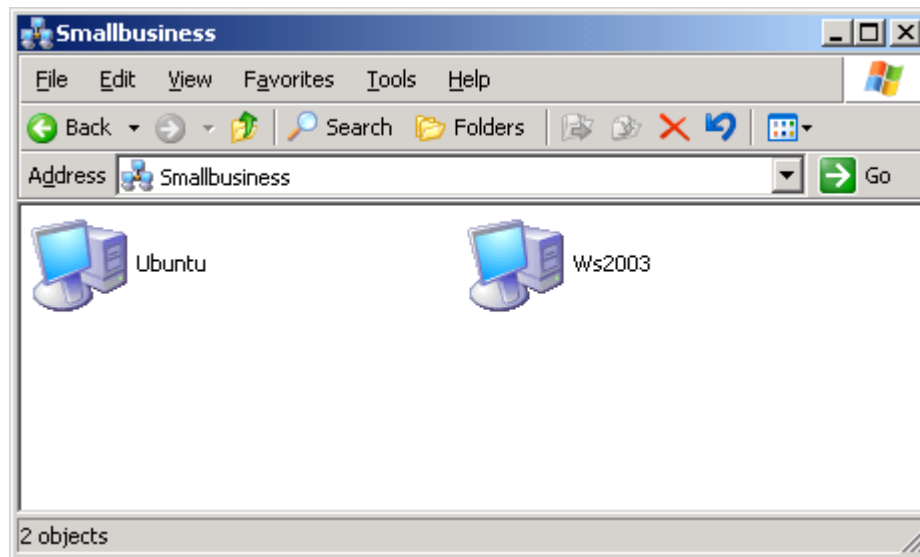
```
os level = 255
```

```
preferred master = yes
```

```
pasha@ubuntu:~$ nmblookup -U ubuntu -M smallbusiness
```

```
querying smallbusiness on 127.0.0.1
```

```
192.168.0.10 smallbusiness<1d>
```



Tīkla organizācija

- Authentication, permissions
- Workgroups
 - vienkāršas
 - slikti mērogojas
- Domains
 - NT
 - Active Directory

Workgroups

- Jābūt lietotāju (un grupu) kontiem
- Sambai ir sava atsevišķa parolu datubāze
 - smbpasswd
 - unix passwd sync = yes
 - winbind

```
[share]
```

```
path = /export/samba/share
```

```
writable = yes
```

```
browsable = yes
```

```
valid users = alice
```

```
pasha@ubuntu:~$ smbpasswd -a alice
```

New SMB password:

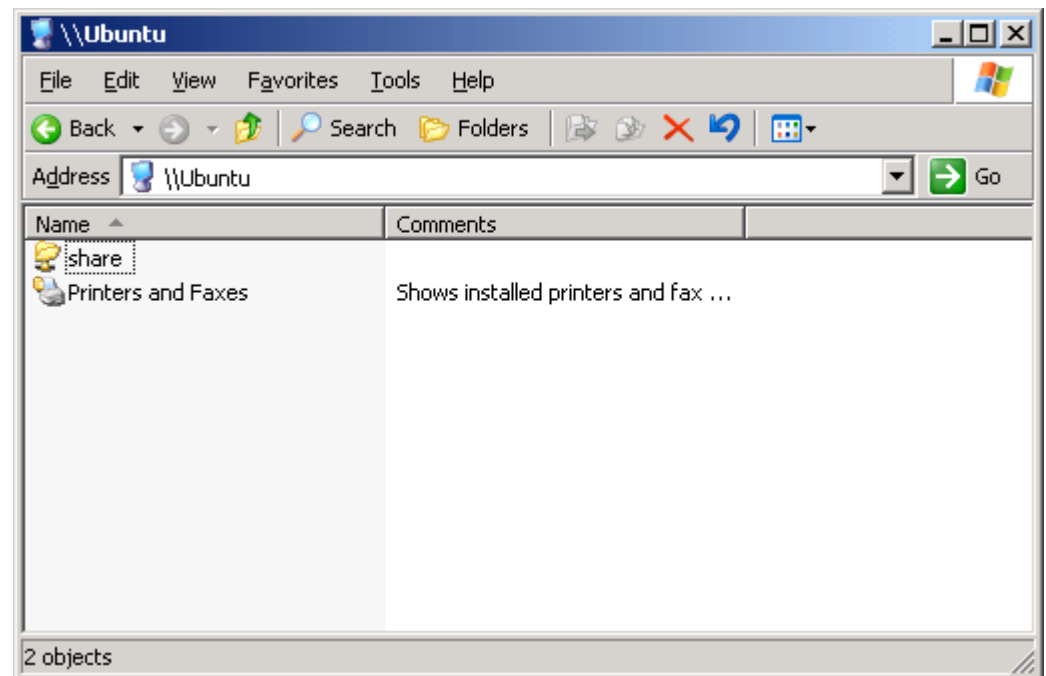
Retype new SMB password:

Added user alice.

```
pasha@ubuntu:~$ ls -l /export/samba
```

```
total 4
```

```
drwxr-xr-x 2 alice root 4096 2006-10-29 13:45 share
```



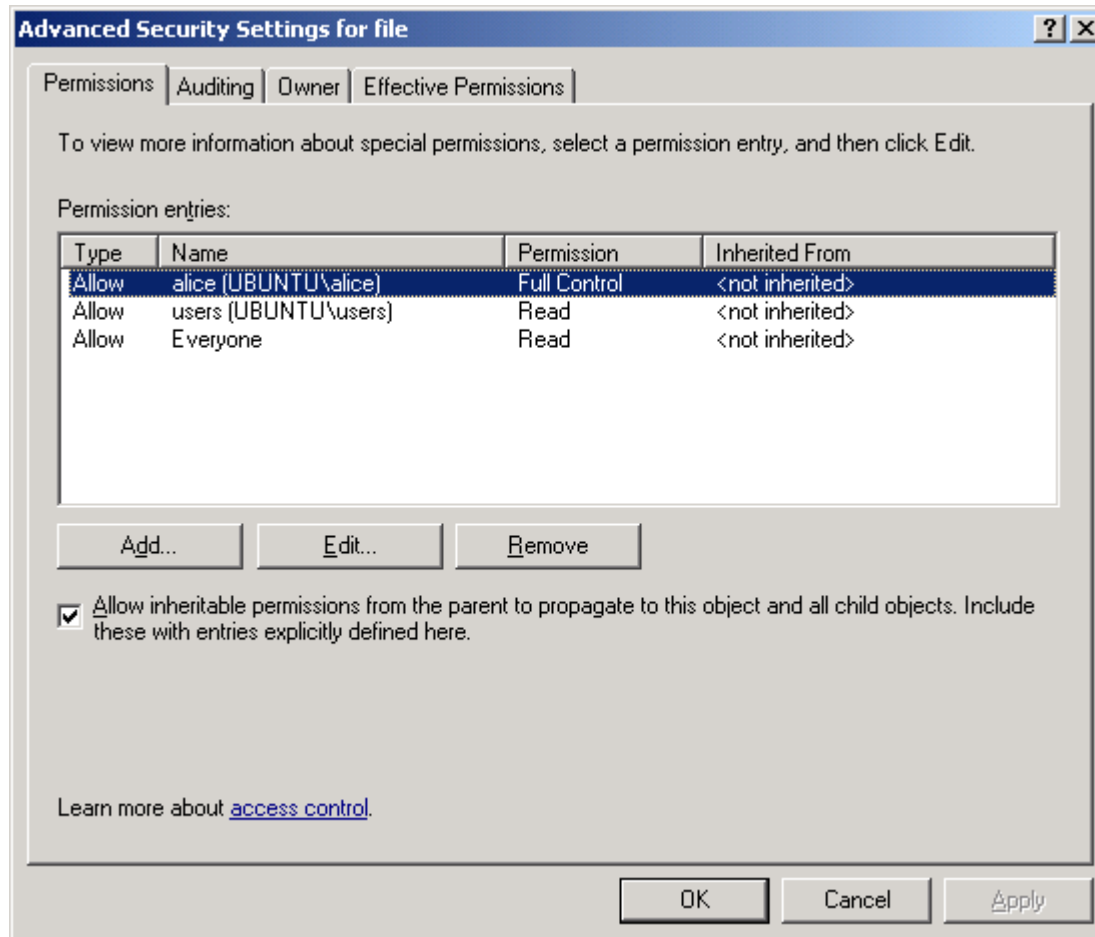
File permissions

- Linux atšķiras no Windows
- Windows atšķiras savā starpā
 - fat, ntfs
- Samba nodrošina translācijas mehānismu
- Linux: user, group, other
- Windows: ACL

```
pasha@ubuntu:~$ ls -l /export/samba/share
```

```
total 0
```

```
-rwxr--r-- 1 alice users 0 2006-10-29 14:20 file
```



Domains

- Centralizēta lietotāju datubāze
 - single sign-on, SSO
 - roaming profiles
 - logon scripts
 - policies
- Domain controllers and member servers
 - NT
 - Active Directory

Samba as member server

- Lietotāju autentifikāciju veic domain controller
 - smbpasswd nav vajadzīgs
 - windows lietotājiem ir SSO
- Linux ir atsevišķa lietotāju datubāze
 - winbind

```
[global]
```

```
netbios name = ubuntu
```

```
workgroup = SMALLBUSINESS
```

```
server string = ""
```

```
security = domain
```

```
password server = *
```

```
pasha@ubuntu:~$ net rpc join -UAdministrator
```

```
Password:
```

```
Joined domain SMALLBUSINESS
```

