Integrating MS Windows Networks using Samba on Linux

John H Terpstra, Linux Evangelist
TurboLinux, Inc.

jht@samba.org

Comdex 2000,
Las Vegas,
Monday, November 13, 2000
Example Situations

The site has MS Windows Networking and wants to create a seamlessly integrated network while deploying Linux SERVERS.

There is a desire to replace MS Windows NT Server or MS Windows NT BackOffice with Linux SERVERS.

The site wants to have more than a single vendor solution so Linux is a choice.
Task Objectives

To ensure that users are unaware of network changes
To improve the performance of all network services
To reduce costs while supporting all legacy systems
To leverage IT existing infrastructure
Some Facts

Samba is VERY important

More than Samba is needed to match MS Windows NT BackOffice

A complete solution requires:

- EQUIVALENT Services using Open Source Software
- Better DIAGNOSTIC tools
- SECURITY and MANAGEMENT tools
A Typical Network

- Internet
- Firewall
- External Servers for: Mail, Web, DNS, FTP
- Firewall
- Internal Network Clients
- Internal Servers: File & Print SQL, Intranet
MS Windows NT BackOffice compared with a Linux Server

✔ MS NT BackOffice:
File & Print - SMB, NCP, Atalk, LPR Printing
IIS Web
IIS FTP
MS SQL
DNS, DHCP
SMS Server
Exchange Server
SNA Server
MS Proxy

✔ Linux Server:
File & Print - Samba, Mars, NetAtalk, LPRng
Apache with Modules
ProFTPd
PostgreSQL, MySQL
Bind, ISC DHCP
EnlightenDSM
SMTP (sendmail), IMAP/POP
Linux- SNA (coming)
Squid
Network Diagnostic Tools

MS Windows NT BackOffice:
  SMS - NetMon
  ping, tracert, nslookup, Perfmon, System Monitor

Linux:
  ping, traceroute, nslookup, dig, ethtool, nmap, nessus, etc.
Directory Services

MS Windows 2000 provides Active Directory Service

Strategic Importance to Microsoft

Provides:

- Authentication
- Authorization
- Service Access Control
  - Resource Access Control
  - User Controls

Has proprietary extensions to LDAP and Kerberos protocols
Linux Directory Services

OpenLDAP

Light weight Directory Access Protocol
  ● Open Standards compliant

Samba

Can authenticate off MS Windows NT Servers
Can replace MS Windows NT Servers

NIS/NIS+

Network Information Service
The BIG Question

Can you afford to lock up all your data behind proprietary closed systems technology?
What are the long term costs of closed systems?

How important are:
  Scalability?
  Stability?
  Standards compliance?
About the Live Demonstration

Samba for MS Windows File and Print Services
Mars- NWE for legacy NetWare support
NetAtalk for Apple MacIntosh support
PostgreSQL for MS Access data storage
Sendmail for SMTP mail
IMAP / POP for MS Outlook client support
Apache + Modules for eWeb support
Squid for Web/FTP proxy serving
ProFTP for FTP Serving, etc, etc, etc.