

The role of Samba on the Linux desktop

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- most of you probably see some value in Samba as a client on the Linux desktop
- I'm going to talk to you about the importance of Samba as a *service* on the *desktop*

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 - Or when the Internet connection is many orders of magnitude slower than the local link
 - (Like at conferences)

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 - There are many other possible solutions for local filesharing: ftp, NFS, gnome-user-share (WebDav+avahi), ...

Why Samba?

- FTP
 - Pros: installed everywhere by default
 - Cons: not **secure** everywhere by default (requires extra software installed on clients if you don't want passwords sent in the clear, as well as an exotic server configuration); no good way to discover/browse the servers on the network

Why Samba?

- NFS
 - Pros: with GSSAPI (Kerberos), can provide good security out of the box
 - Cons: only Linux really works as a client out of the box, and has no good desktop client tools for managing connections (traditionally oriented to sharing with systems, not with users); not discoverable

Why Samba?

- WebDav+avahi (zeroconf)
 - Pros: discoverable, easy to set up, http supported everywhere
 - Cons: Linux zeroconf is compatible with OS X, but not with Windows, and older Windows doesn't support it out-of-the-box; and still means passwords in the clear by default!

Why Samba?

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 - Pros: discoverable (NetBIOS); cross-platform (Linux+OSX+Windows); avoids sending passwords in the clear even as a stand-alone server with no PKI; easy to manage from the desktop
 - Cons: ?

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 - Pros: discoverable (NetBIOS); cross-platform (Linux+OSX+Windows); avoids sending passwords in the clear even as a stand-alone server with no PKI; easy to manage from the desktop
 - Cons: Microsoft has been known to move the bar occasionally

Why Samba?

- Ok, so why Samba?
 - There are many other possible solutions for local filesharing: ftp, NFS, gnome-user-share (WebDav+avahi), ...
 - Samba beats all the others hands-down for cross-platform security and ease of use!

The design

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- No samba server installed by default
 - Pulled in automatically (package install over the network) when the user enables sharing
 - So no security concern by default from running a service, and no performance overhead from extra processes either

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- No samba server installed by default
 - Pulled in automatically (package install over the network) when the user enables sharing
 - No security concern, no performance overhead by default from running a service
- PAM password synchronization enabled automatically when the service is selected
 - Not installed by default because NTLM hashes are weaker than SHA512
 - Users created after work automatically, existing accounts have to re-login before they can be used

The design

- Easy GUI enablement of shares by admin users, using 'net usershare'
 - Can be delegated to additional users by adding them to the *sambashare* group

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- Challenges
 - Upstream desktop developers on Linux don't test SMB VFS support very extensively
 - Infrastructure wasn't there on Ubuntu for PAM automatic enablement – solved today
 - NTLM-only solution today – what about AD in a box?

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- Comments?
- Questions?
- The future?