



IBM Linux Technology Center

# Improving Automated Testing of Samba

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## Current Tools

- **Samba 4 smbtorure**
- **Linux CIFS filesystem**
- **'net' command**
- **smb...**

## Current Samba 4 smbtorure

- **The developers' test tool**
- **Key in samba build farm**
  - 'make test'
- **Add tests as you add function or fix bugs**
- **Easily scripted**

## 'net' command

- **Test many administrator operations**
- **Easily scripted**
- **Test multiple methods of administration (ADS, RPC, RAP)**

# Linux CIFS Client

- **Exercises Unix extensions**
- **Use standard filesystem test tools**
  - LTP
  - Connectathon
- **Easily script operations**

## What Is Missing?

- **Other clients (including....!)**
- **Multiple clients**
- **Application-generated operations**
- **External backends**
- **Distro packages**

# What can we do?

# Goals

- **Increase overall amount of automated testing**
- **Broad functional testing**
- **Fairly simple setup**
- **Real-world problem scenarios**
- **Easily-repeatable testcases**
- **More testers!**



## Reestablish build farm testing

- **Make Samba 4 smbtoriture more Samba 3 friendly**
  - Categorize tests with respect to Samba 3
    - Should pass
    - Can't pass
    - Parts should pass
      - Split these tests further
- **Remaining process group or other issues ?**

## Other smbtoriture Improvements

- **Add Unix extensions**
- **Bugs that are hard to reproduce**
- **<add your favorite test here>**

# Potential 'make test' Improvements

- **Simulate multiple systems – can we do this with socket-wrapper?**
- **Include LDAP passdb backend – use Idapi-only**

# Ease Configuration

- **Script configuration with small, manageable number of parameters**
- **Base on running platform**
  - Run the shipped package
  - Configure external tools (LDAP, scripts)
- **Requires multiple setup scripts, but IT TESTS WHAT MANY OF OUR USERS RUN**
- **Decide on what should be configurable, and users/developers of each platform should script and share**

# Application-Generated Operations

- **Make 'net' and 'smbtorture' generate the same operations as apps**
  - Windows sometimes changes what it does on the wire
- **Write Win32 applications to simulate**
  - Requires reproducing the actions and sniffing the wire
- **Run real applications**
  - AutoITscript [www.autoitscript.com](http://www.autoitscript.com)
    - Use the GUIs as a user
    - When a user reports a bug, script the action

# Dedicated Test Farms

- **Distros**
- **Support Vendors**
  - IBM
- **VMWare API (Perl or new C) to manage windows sessions**
  - Can manage power/suspend/resume/snapshots
  - How do we autostart tests?

## More Testers

- **Ease of configuration**
- **Give them gold stars**
- **Persistence**

## Other Ideas?

- **Tell me now**
- **Tell me later**
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