Samba 4 — Where are we now?

Andrew Bartlett
Jelmer Vernooij

Samba Team

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Agenda

Recent releases

Changes in the last year

Testing and providing feedback
Announced to no fanfare whatsoever
  The announcement email keeps getting eaten...
Samba 4 Alpha releases

- More than just a TP:
  - We are looking for (and getting) real feedback on things people want and need
    - Ordered list of things stopping administrators from deploying it.
  - Basic features are complete
  - Actually usable for some environments
  - More developers and testers
  - Starting to see input from developers outside the team
Better development resources

- Metze’s AD thesis now translated
- Move from EJS to Python
  - Should make contributions easier
- Simpler build system
  - Rely on GNU Make rather than more perl hacks
  - Less custom to ease contribution
- Microsoft Documentation now available under PFIF
- GIT
  - Has helped distributed development
  - Even if Andrew was a skeptic
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Recent releases
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Code Coverage

Last year:
41.5%
135817 lines covered
326916 lines total

This year:
39.6%
158559 lines covered
400287 lines total

- Coverage hampered by generating lots of SWIG wrappers
- While still keeping ejs wrappers
- Python coverage?
LDB Improvements

- Linked Attributes
- Subtree renames
- Ambiguous Name Resolution
- Group Policy
  - Sort of
- Schema Validation
  - In part
- Directory Integrity Enforcement
  - Ensure all entries must have a parent, etc
- Replication metadata
  - Now always calculated
LDAP Backend Improvements

- Autoconfiguration of backends
- OpenLDAP configuration generated to support:
  - Linked Attributes
  - Subtree renames
- Schema Validation
  - Primary benefit of LDAP backend so far is OpenLDAP doing full schema checks
Security

- Improvements:
  - Heimdal 1.1 imported
  - Kludge ACLs extended
  - Should cover all 'write' services for now

- Regressions:
  - SSL on Fedora 9 won’t work
  - GnuTLS regression, not yet chased down
SWAT remained unmaintained
The AJAX interface was removed
SWAT needs to be reworked in Python
  Pending this rework, it has been disabled
  Perhaps spin-off as drop-in plugin?
  Summer of Code student will work on it this summer
Build System

- Reworked (yet again)
  - Now relies on GNU Make
  - Emphasis is on generating as little as possible
  - Less custom scripts for generating Makefile
    - Hopefully easier to grasp and contribute to for outsiders
- Should make it easier to share code with Samba 3
Python

- Replaces EJS as internal scripting language
- Python is now a build-dependency
  - Easy to build from source, no dependencies
  - Ported to at least as much platforms as Samba
  - Available as standard package for most platforms
- The longer we would have waited, the more code we would have to port
Why Python?

▶ Comes with batteries included
  ▶ No need to reimplement utility functions and bindings for Samba
▶ Easy to create bindings
▶ Most existing libraries already have Python bindings
  ▶ GTK+, Qt, HTTP, .ini-parsers...
▶ Large existing developer base
  ▶ Potential contributors
▶ Better scripting language
  ▶ Nested functions
  ▶ Modularity
▶ More development tools available
  ▶ Debugger, profiler, code coverage analyser, ...
Group Policy and MMC

- Microsoft’s User and domain management tools work
- Group Policy
  - Active Directory clients honour (some) policies
  - That is, I can hide the recycle bin...
Alpha releases

- Samba4 alpha3 released late March
  - First release with new python provision
- Samba 4 alpha 4 planned for next week (?)
  - Not bloody likely…
Beta release

- Samba4 beta1 planned for the end of the year
- Features
  - AD DC, with inbound real-time replication
  - File Server
  - Domain Member server
- We need to extend this list with your ordered feedback
  - What would stop you deploying Samba4 in production
Feedback as a driving force

- User feedback over the past few months has driven Samba4 forward
- We are at the stage where we need to be told what does not work
  - And in particular, what would stop you using Samba4
Areas that need testing

- Interactions
  - With all windows versions
  - With Samba3
  - With Unix and MacOS clients
  - With 'integration' software such as Likewise and Centrify
  - Long installations
    - Only recently found password expiry bugs, for example
Please let us know when you hit bugs:

- **IRC**: Come talk to us in #samba-technical on irc.freenode.net.
- **Bugzilla**: Submit bugs at https://bugzilla.samba.org/.
- **Mailinglist**: Send email to samba-technical@samba.org.
- **SambaXP**: We’ll be around until saturday