

# Samba 4 — Where are we now?

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# Agenda

Recent releases

Changes in the last year

Testing and providing feedback

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# Samba 4 Alpha 3

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- ▶ Announced to no fanfare whatsoever
  - ▶ The announcement email keeps getting eaten. . .

# Samba 4 Alpha releases

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- ▶ 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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# 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

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# LDAP Backend Improvements

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- ▶ 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



- ▶ 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

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- ▶ 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

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- ▶ 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. . .

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# 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

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- ▶ 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

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## ▶ 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

# Feedback

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](mailto:samba-technical@samba.org).
- ▶ *SambaXP*: We'll be around until saturday