Beyond the Horizon

What's after Samba 3.0?
(Or is the earth really flat?)

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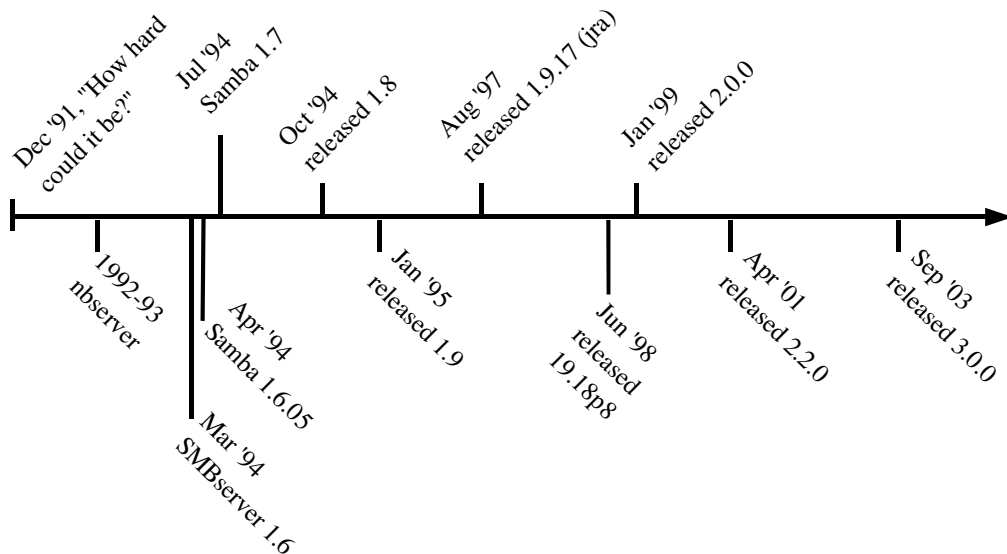SAMBA Team   jerry@samba.org

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Outline

http://samba.org/~jerry/slides/sambaxp04_roadmap.pdf

- History 101
- Samba Development Process
- Samba 3.0
- Samba 3.1/3.2 (a.k.a. 3.5)
- Samba 4.0

Diary of an OSS Release Manager

- One year as release manager == 1 year of a dog's life

- Herding cats is easy compared to this :-)

Samba Timeline

How far we've come

```
$ cd nbserver-1.5.14        $ cd samba-3.0.2rc1/source
$ wc -l *.[ch]              $ wc -l configure.in */*.[ch]
   895 client.c                4345 configure.in
    81 includes.h              4324 param/loadparm.c
    27 local.h              ...
   641 nameserv.c            373693 total
  2454 server.c
   299 smb.h
   244 sockspy.c
  1300 util.c
     1 version.h
  5942 total
```

Samba Family CVS Trees

CVS module on cvs.samba.org (historical)

samba

    HEAD $- -$ ➤ development tree for 3.1

        SAMBA_2_2 $- -$ ➤ development tree for 2.2.x

        SAMBA_2_2_RELEASE $- -$ ➤ snapshot of latest
                              2.2.x release

        SAMBA_3_0 $- -$ ➤ development tree for 3.0.x

        SAMBA_3_0_RELEASE $- -$ ➤ snapshot of latest
                              3.0.x release

samba4

    HEAD $- -$ ➤ development tree for 4.0

The Move to Subversion

- As of Apr 4 2004, Samba is maintained in a subversion repository (svn.samba.org)
  - ❏ SAMBA_3_0[_RELEASE]
  - ❏ SAMBA_4_0
  - ❏ trunk (the source tree previously known as HEAD)
- Information on subversion
  - ❏ http://subversion.tigris.org/
- Information on access to Samba branches using anonymous svn
  - ❏ http://samba.org/samba/subversion.html

Samba Development

- Samba Team
  - ❏ Membership == write access to the samba code repository
  - ❏ See http://www.samba.org/samba/team.html
  - ❏ Currently 8 - 10 active developers
- Most technical discussion takes place on
  - ❏ samba-technical@samba.org
  - ❏ #samba-technical on irc.freenode.net
  - ❏ individual/conference telephone calls
- Project Roadmap
  - ❏ http://www.samba.org/samba/devel/
  - ❏ No further development on the 2.2 code base

Development Challenges

- When should a local 'hack' become a supported feature?
    - ❏ hard to guess all the possible scenarios/platforms that Samba will face
    - ❏ non-unix accounts
    - ❏ winbind use default domain
- Backwards compatibility
    - ❏ our bane as well as Microsoft's
    - ❏ little used features frequently suffer from bit rot
- Testing environments
    - ❏ Complimentary VMware licenses from vmware.com

Samba 3.0 Major Server Features

- Use of Kerberos 5 and LDAP when joined to an Active Directory Domain
- UNICODE support
- Better MS-RPC printing support
- Support for migrating users and groups from a WinNT4 domain
- Support for WinNT4 trust relationships as a PDC
- Layered Virtual File System layer
- Flexible authentication and account storage options
- Improved Winbind
- Support for 32-bit NT Status return codes

Samba 3.0.x

- Plans are to release Samba 3.0.3 by the end of 04/2004.
  - ❑ Bugfixes
  - ❑ New Features
- New features added to the 3.0 source tree
  - ❑ Storing DOS attributes in Extended Attributes (EA)
  - ❑ EA support for OS/2 and Mac OS X
  - ❑ Password Lockout support on a Samba DC
  - ❑ Support for nested groups (Windows local groups)
- Samba 3.0.x where x > 3
  - ❑ More bug fixes, etc....

Samba 3.[125]

- Interim release between 3.0 and Samba 4.0
  - ❑ Possibly the first of several 3.x releases
  - ❑ Target release date -- end of 2004
  - ❑ 3.1.x will be alpha releases
    - ✔ Hopefully by the end of June
  - ❑ 3.2.0 -- beta, rc, final
- Features
  - ❑ Initially integrate low hanging fruit from Samba 4 tree
    - ✔ smb client library (smbclient, smbtorture, etc...)
    - ✔ ldb database
    - ✔ schannel implementation
    - ✔ rpc client library based on IDL

Samba 3.2 Features (cont)

- Possible / Probable Features
  - ❏ Full Windows NT ACL compatibility
  - ❏ Full SAM replication with Windows NT 4.0 BDCs
  - ❏ Support for NT privileges
  - ❏ libregistry API
  - ❏ More i18n work
  - ❏ Utilize LDAP Directories services for configuration
  - ❏ Merge of rpc server infrastructure from Samba 4 (?)
  - ❏ Redesign of user and group account management
  - ❏ Continued integration of features and patches from vendors and the community

Samba 4.0

- Refer to slides from Tridge (previous talk)

Active Directory DC?

- When will Samba be able to replace Active Directory?
  - ❏ Refer to talk by Jim McDonough
  - ❏ Cross project
    - ✔ Kerberos 5
    - ✔ LDAP
    - ✔ DDNS
    - ✔ CIFS
- Work has begun but has a long way to go
  - ❏ MS-CLDAP
  - ❏ New RPCs
  - ❏ .....

CIFS for UNIX

- IBM has funded development of the cifsvfs file system for the Linux 2.6 kernel
- Mac OS X has native smbfs support
- Possibility of real non-Microsoft CIFS clients
  - ❏ HP's unix extensions for CIFS
  - ❏ 'unix extensions' smb.conf
  - ❏ We now have both a strong, modern client and a strong server
  - ❏ CIFS between UNIX hosts as an alternative to NFSv4
- Longhorn ?
  - ❏ Microsoft wants to do away with CIFS

Other Team Activities

- CVS modules
  - ❏ lorikeet
    - ✔ repository for interoperability patches to other Open Source/Free Software projects
  - ❏ sangria
    - ✔ framework to manage Samba installations and configurations
- Possibilities to volunteer (ways to get a free t-shirt)
  - ❏ https://bugzilla.samba.org/
  - ❏ Coordination of testing for preview and RC snapshots
  - ❏ Package Maintainence
  - ❏ Build Farm (participant or maintainer)
  - ❏ The ability to "Innovate"

Conclusion

...Thanks :^)

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