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- That's what I want to know too! :-)
- An early Samba Team member
 - Maintain documentation
 - Do a lot of QA testing
- CTO - PrimaStasys Inc.
 - Business Process Consulting
- Ex. VP Technology - Caldera International
- Ex. VP Development - Turbolinux
- Founded and ran Aquasoft Pty Ltd (Australia) for 11 years

- Description of each site migrated
 - What were the challenges?
 - How were they overcome?
 - Current status
- Lessons Learned
 - Commonly encountered mistakes
 - The future of Samba documentation
- Conclusions and Recommendations

- The company:
 - Office locations: 1100+
 - Windows users: 20,000+ Windows 2000 Pro
 - Infrastructure: Microsoft Active Directory
 - Solution desired: Complete migration to FLOSS
- Findings:
 - Recently installed VoIP product requires ADS
 - CRM/ERP system requires ADS
- The Challenge: **Find a middle ground solution**

- Candidates for migration:
 - Web servers - some migration possible
 - File and Print - can migrate to Samba-3
 - Web-proxy server - obvious choice for migration
 - DNS/DHCP servers - possible migration

- Not Capable of Migration:
 - Active Directory Servers (ADS)
 - Applications that depend on ADS
 - Desktops are locked into Windows 2000 Pro
 - Upgrade to Linux will be considered in 2006

- Project manager set requirements:
 - Easy to install and configure
 - Produce standard operating guide for all operations
 - Solution must be capable of being centrally managed
 - Use of MMC based tools preferred
 - Command-line tools not an option
 - Requires unified UIDs and GIDs
 - Minimum retraining requirement
 - Can not afford to have IT staff off job
 - Cost reduction must be significant

- Samba-3 must integrate seamlessly into ADS
 - Winbind alone is no possible - non-uniform Ids
 - IDMAP in LDAP evaluated
 - Samba-3 can write only to a master LDAP server
 - Not compatible with fail-over, also not with redirection
 - Leads to break-down in IDMAP handling
 - Use of SUS 3.5 & nss_ldap
 - Locks site into ADS - not acceptable solution
 - Too complex to manage
 - Use of idmap_rid
 - The chosen solution
 - Yet to be load-tested

- Forward plans
 - Laboratory network to prove integrity of idmap_rid
 - Pilot project for a 300 user office
 - Global roll-out
- Contract for final phase signed but stalled when the project manager left
 - May reactivate in June

- The company:
 - A complex of 3 hospitals
 - Windows Users: 4,200 user accounts, 1,800 PCs
 - Desktop Clients: Windows NT4, 2000 Pro and XP Pro
 - Infrastructure: Windows NT4 - single domain
 - Already had several successful Samba-3 DMS (domain member servers) - Samba-3 holds data files
 - Solution desired: Elimination of NT4

- Non-disruptive migration
 - No loss of services
 - No down-time
 - Workstations can not be re-joined to the domain
- 8 IT staff to be trained during migration
 - Staff have over 10 years service managing only MS Windows and have no UNIX/Linux experience
 - Operations Manager is only Linux capable person

- Samba-3 with LDAP back-end selected
 - Test **migration** of existing domain was completely successful
 - PCs remained domain members
 - But two key software applications are being upgraded
 - The vendor of the clinical laboratory software management package asked for delay of move away from NT4 because they “know that the new version of software works with NT4” - would not upgrade software if “Samba is the DC method”
 - The X-Ray software is being upgraded (after 5 years) and requires ADS. The vendor will upgrade the NT4 domain to ADS at their expense - will become an 'island domain'
 - Four key network support staff objected to the move of NT4 DCs to Samba because they want more training time

- A new Samba-3 domain was created
 - Use Inter-domain Trusts to join the old domain and the new domain
 - Found bugs in use of NT4 Domain User Manager to manage trusts
 - Users are being migrated to the new domain (nearly complete) without problems
 - Found problems with latest smbldap-tools - solved
 - Users remaining in old NT4 domain will be migrated to ADS
 - Will use Inter-domain Trust for interoperability

- The company:
 - 3,500 trucks
 - 5 branch offices - 3 offices on wide area network
 - 480 PCs, mix of Win9x, NT4, 2000 Pro, XP Pro
 - Mixed ADS (2 Offices), NT4 domains + 1 Samba-3 server
 - Solution desired:
 - Merge all domains into one - eliminate NT4 and ADS
 - Reduce costs by 80%
- Findings:
 - Microsoft Software Assurance pre-paid for 3 years

- Clearly an 80% saving can not be achieved when SAP has been pre-paid!
- Met with management:
 - Asked them to consider running the business with 3500 trucks that can operate only using a special fuel that is sold only in Atlanta, Georgia.
 - Management said that is not possible!
 - When advised that is what they are doing the board ordered it changed at any cost! They said: “Get rid of ADS and eliminate the dependence on Microsoft”

- Samba-3 PDC and 3 BDCs installed
 - LDAP backend
 - PDC has master LDAP server, BDCs have slave LDAP server
 - Very happy with performance
 - Two branch offices have reported to board members that the network performs “better than ever”
 - Obstacles
 - Problems with smbldap-tools
 - Domain group GID/RID over-lap with UID/RID due to a glitch
 - User name == group name does not work!
 - NT4 Domain User Manger
 - Turned out to be a problem with new smbldap-tools
 - GQ crashing on SLES9 is a problem

- All three customers expressed need to feel comfortable with the migration
 - All want to 'play with Samba' until comfort achieved
 - All made major mistakes while learning to implement Samba
 - BUT all received documented procedures
 - That also went into Samba-3 by Example (Samba-Guide)
 - This demonstrated that procedural guidance in documentation must more strongly anticipate common errors, typos, assumptions, etc.
 - Increased focus on validation and diagnostics
- Good quality documentation must meet ISO9000 standards of auditability to be recognized by major corporations!

- Samba-3 by Example (Samba-Guide)
 - Update is almost complete (to 3.0.15)
 - Second edition will be in print by August
 - Page count up from 367 to 474 pages (and growing)
- The Official Samba-3 HOWTO & Reference Guide
 - Update due for completion by May 15 (to 3.0.15)
 - Second edition will be in print by August
 - Page count up from 469 to 590 pages (and growing)

- Good documentation is a community effort
 - No single person has the expertise to write it all
 - Contributed feedback works well
 - But we need more of it!
- Samba-4 documentation project must start now!
 - Call for a team effort to define documentation needs
 - Call for a workshop session here at SambaXP!

End - Thank You!