



Status Report

AFS & Kerberos Best Practices Workshop 2005

What a difference a year makes

- Its Faster
- Its Robust
- Its Manageable

- More than 90 changes since last workshop

User Experience Improvements

- Support for Windows XP SP2 and 2003 Server SP1.
 - SMB Authentication
 - Internet Connection Firewall
- Browsing of \\AFS service from Windows Explorer supported
- Support for pure Krb5 tokens including tickets issued by Active Directory
- aklog added to Windows distribution including automatic PTS registration
- afscreds cross-realm token acquisition

More User Experience Improvements

- Pattern matching works
- Case-sensitive lookups
- Persistent caching between session restarts
- Performance improvements
- UNC paths supported consistently in all tools
- AFS Explorer Shell extension improvements
- multi-processor and hyper-threaded system safe
- Freelance mode the default
 - read/write and read/only mountpoint entries supported
 - symlink entries supported

Integrated Login Improvements

- obtains tokens using Kerberos 5
- preserves Kerberos 5 tickets within the user session
- deletes tokens upon logoff unless roaming profiles in use
- domain specific logon behaviors
- "TheseCells" allow tokens for multiple cells to be obtained



Improvements for Administrators

- "AFS Admin Client" security group membership required to execute commands that change the behavior of AFS for the entire machine
- "AFS Server Manager" tool can be used without kserver and with krb5-based tokens
- No more configuration files; all configuration data stored in the registry
- Safe for use on Microsoft Windows Terminal Server and Citrix

More Improvements for Administrators

- "fs sysname" now supports an ordered list
- "fs crypt on" works without taking down file servers
- Support for multi-homed servers
- Max Cache size of 1.3GB supported (default 96MB)
- UUIDs are used to uniquely identify the client to the server
- Support for Multi-domain Windows Forests



Debugging Improvements

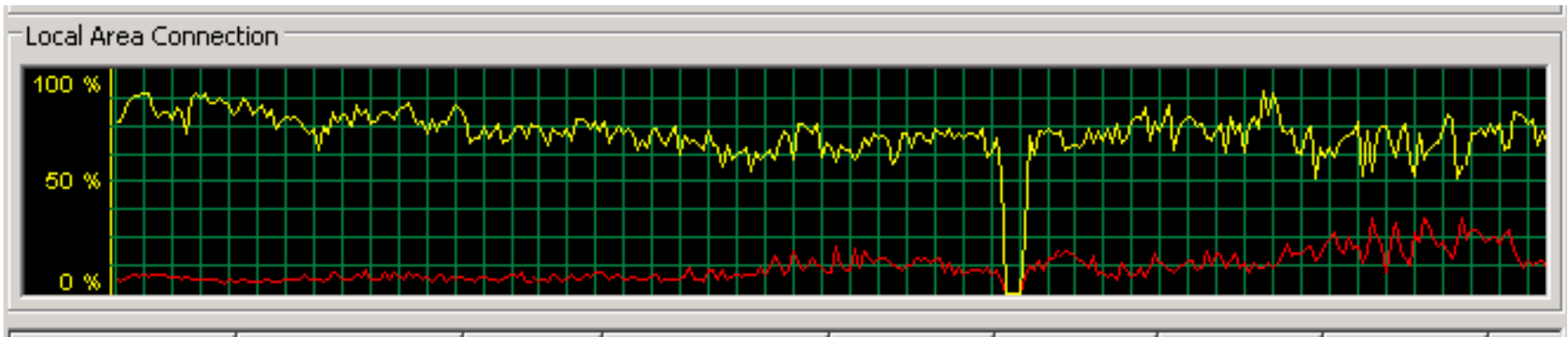
- cmddebug.exe and Cache Manager RPC interface added
- "fs minidump" generates dump files for debugging
- "fs memdump" and "fs trace -dump" improvements
- pioctl and integrated login debugging available via registry settings

Installation improvements

- validation of dependencies (aka RPC)
- version number validation (prevent exe and dll version mix)
- digital signatures on install packages avoid warning dialogs from Microsoft Windows
- debug symbols optionally installed
- loopback adapter automatically installed
- MSI-based installation option added
- CellServDB file moved to \Program Files\OpenAFS\Client directory

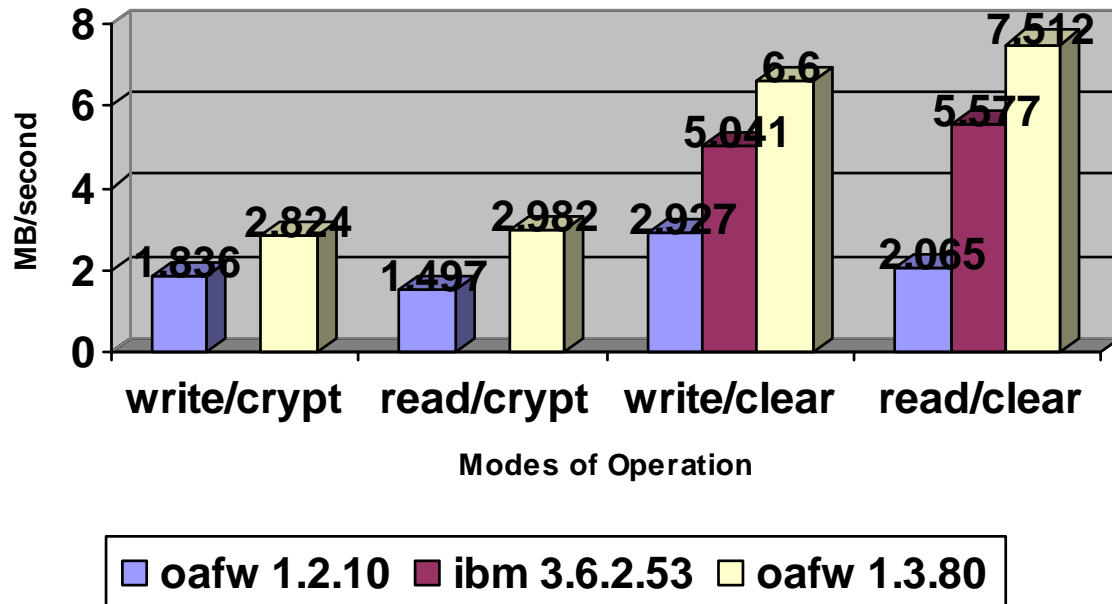
How Robust are we?

- David Tanner, MIT, will tell us on Thursday



How much faster are we?

Performance Comparison of AFS for Windows clients



Incompatible Changes

- Short Name Encodings
- Daylight Savings Time handling
- Use of Latin1 option results in existing 8-bit filenames becoming inaccessible
- Scripts that auto-deploy CellServDB or other config files need to be changed
- New default @sys name list
 - 32-bit x86: "x86_win32 i386_w2k i386_nt40"
 - 64-bit x86: "amd64_win64"
 - Itanium: "ia64_win64"

Windows Specific Known Issues

- No support for UNICODE characters - adverse affect on roaming profiles and redirected folders
- No integration with Microsoft Dfs
- No support for files greater than 2GB
- No support for byte-range locking
- No disconnected mode functionality
- No support for 64-bit Windows
- No support for DOS and Extended Attributes



Things to come (not for 1.4)

- Installable File System
 - Eric Williams, UMichigan (CITI)
- New Credential Manager
 - Khimaira
- 64-bit Windows support
- Removal of Submounts



Got Questions?

- OpenAFS for Windows Status Reports available at
 - <http://www.secure-endpoints.com/>
- Mailing List
 - openafs-win32-devel@openafs.org



Contact Information

Jeffrey Eric Altman

jaltman *at* secure-endpoints *dot* com