

# Works in Progress

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Derrick Brashear  
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# two flavors of fileserver

- \* moving from inode to namei is annoying
- \* could be less annoying if you needed to only empty partitions and not the whole server
- \* performance in namei is good and getting better, no kernel magic needed
- \* so you probably do care

# multibackend fileserver

- \* inode, namei selectable per partition
- \* could be made pluggable
- \* potential additional backends
  - \* the obvious one is the “just serve it” backend

# hostafsd

- \* the “just serve it” fileserver
  - \* stolen from Jeff Hutzelman
  - \* reworked to better utilize AFS’ bundled libraries (like rxgen-generated stubs)
  - \* still potential issues when the filesystem you serve is being used locally under you

# hostafsd wishlist

- \* advertise via Bonjour (AFSDB is DNS... Bonjour is DNS... obvious fusion here)
- \* use OS filesystem activity notification to make callbacks sensible
- \* provide ability to do sensible user mapping (even better would be using a local KDC though without PKCROSS it's not as powerful as it could be)

# testing

- \* testing is good
- \* testing kernel modules is hard
- \* but only some features need to be tested in the kernel

# if not in the kernel, where?

- \* uafs
  - \* done for use in Apache module
  - \* provides its own cache, using the same code the kernel does
- \* uafs + afsd = "uafsd"

# uafsd

- \* takes the same arguments as afsd
  - \* and uses them when sensible
- \* provides a simple command line interface to interacting with AFS
- \* like afscp or arlacli/arlalad -t
- \* some operations will be able to be backgrounded so you can test threads



# but also kernels

- \* for things which can be virtualized, do so
- \* for things which can't, use real hardware with an automatic login mechanism
- \* driver routine makes each machine download, build and run AFS, then pull in, run, and push back results from tests
- \* if problems are found, tell IM/RT/email

# MacOS

- \* I have event handling code for power management, network events, sleep
- \* Ready to be hooked into afsd
- \* If only I remembered where I put it

# a couple dozen other things



- \* the bad thing about having development systems is most have several sandboxes with various in progress or testing work
- \* including things I forgot I wrote
- \* lots of neat things, coming soon



CASE IH

AXIAL-FLOW

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