

AFSmin

Sine Nomine Associates

March 28, 2014



Scout

```
File Edit View Search Terminal Help
Scout
Conn  Fetch  Store  Ws  Disk attn: > 95*
-----
  1      205      2    1  www.meffie.*  a:12750252
 32    34795    55475  2  afs04.sinen* a:64292156
 54    126117     185  4  afs05.sinen* a:440178188
                                     b:303234880
 81    299014     586  6  afs06.sinen* a:239517248
                                     b:443374600

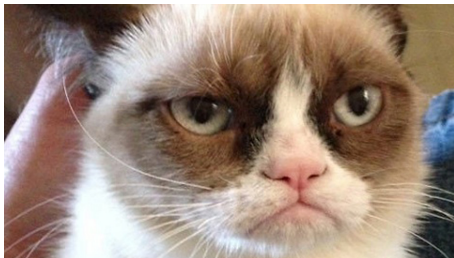
Probe 1 results
```

(1987 called. They want their program back.)



SINE NOMINE
ASSOCIATES

Mike is Grumpy





AFSmin

The screenshot shows the AFSmin web interface. At the top, there is a navigation menu with 'File', 'Edit', 'View', 'History', 'Bookmarks', 'Tools', and 'Help'. Below this is a browser address bar showing 'localhost:7123/fs/uuid/0085df36-f439-1332-b9-e4-8f3210acaa77'. A dark status bar indicates 'Logged in as demo', '3 new messages', and a 'Log out' button. The main content area has tabs for 'Dashboard', 'Servers', and 'Volumes'. The 'Servers' tab is active, displaying a 'FILESERVER' section with the following information:

- Version : OpenAFS 1.6.6-25-ga7d86 built: 2014-03-12
- UUID : 0085df36-f439-1332-b9-e4-8f3210acaa77
- Address : 172.16.50.143

Below this is a table with columns 'NAME', 'TOTAL', and 'AVAILABLE':

NAME	TOTAL	AVAILABLE
/vicepa	4511 MB	1401 MB
/vicepb	4511 MB	1401 MB

The 'Alerts' section on the left shows 'Help', 'Status', and 'Alerts' with expandable arrows. The 'GRAPHS' section at the bottom features a line graph for 'rx.calls_waiting' over time, showing several peaks between Thursday 12:00 and Friday 00:00.

AFSmin goals

- A better scout/afsmoitor for OpenAFS
- To be distributed as an OpenAFS contrib project
 - foster the OpenAFS contrib ecosystem
 - open source license (2 clause BSD)
 - <https://github.com/openafs-contrib>
- Batteries included, no assembly required
 - Easy to deploy and start using
 - Zero config
- Useful
 - Modern UI
 - REST API for scripting and integration

How are things going?

What are the sort of things that would be useful to know.

- Load and performance
 - How are the servers doing?
 - What are my busiest servers?
 - What are my busiest volumes?
 - What are the most active clients?
 - Is the load balanced?
- Space and Quotas
 - By server, partition, volume, user?
 - Is the space balanced?



Looking for trouble

- Server troubles
- Volume troubles
 - volumes offline
 - stray locks
 - stray volumes
- Release troubles
 - are there failed releases
 - what are the releases in progress; ETA?

afsmin-server

In Progress: afsmin-server

- Single, multi-threaded, server process
- Can be run out of the bossserver
- Runs as a non-root user
- Embedded http/https server for UI
- REST api with JSON for scripting and integration
- No "screen scraping" of OpenAFS commands; call RPCs directly
- Future: lau scripting for plugins

afsmin-server components

- civetweb (formerly mongoose) - embedded http support
- Clear Silver - html templating
- libopenssl - https
- librrd - round robin db and graphs
- libsqlite - embedded db
- libkrb5 - kerberos libs
- jansson - JSON
- OpenAFS libs

afsmin-agent

Future: afsmin-agent

- Per fs/db daemon process
- Watch the OpenAFS fs audit logs
- Collect, aggregate data for afsmin-server



Summary

- AFSmin is a work-in-progress OpenAFS contrib project for site administrators
- Sorry no timelines; but testing at one largish OpenAFS site to begin soon



SINE NOMINE
ASSOCIATES

Thanks

