

# OpenAFS Status Report

Michael Meffie, OpenAFS Release Team

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# Objectives

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- Updates on work done for the OpenAFS stable release branches
- Report on work merged to the main development branch
- Status of planned future work

# OpenAFS Release Team Meetings

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- Stephan Wiesand, OpenAFS Release Manager
- Ben Kaduk, OpenAFS Guardian
- Every Thursday at 12:00 noon Eastern via Jabber
- Agenda:
  - Changes for OpenAFS Stable
  - Changes for OpenAFS 1.9.x/master

- Logs:

<https://conference.openafs.org/release-team@conference.openafs.org/>

# Gerrit

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- All code changes are reviewed on <https://gerrit.openafs.org>
- For information on how to submit code changes, see:  
<https://wiki.openafs.org/devel/GitDevelopers/>
- Changes for master should be based on the current master branch
- Changes for stable must be submitted as stacks based on 1.8.x
  - changes must already exist on the master branch
  - limited refactoring patches may be accepted to allow for cleaner backports
  - please coordinate with the Release Team before submitting to stable branch on gerrit

# Buildbot

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- Performs test builds of each gerrit submission
  - buildbot.openafs.org is hosted by MIT
  - Community provided builders for various platforms
- Upgraded to Buildbot 3.5.0 in 2022
  - Configuration is Ansible managed now
  - New builder names to distinguish gerrit triggered from nightlies
  - <https://github.com/openafs-contrib/afsbtcfg>
- New contributed builders in 2022
  - openSUSE 15
  - FreeBSD 12
  - Debian 11
  - Fedora 35

# OpenAFS Releases

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## Recent OpenAFS Releases

- 1.8.8 July, 2021
- 1.8.8.1 December, 2021
- 1.8.8.2/1.8.9 In progress
- Next Stable Series (perhaps 1.10)

# OpenAFS 1.8.8

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## Highlights

- Avoid Rx calls getting stuck on the incoming call queue
- Avoid a possible salvageserver deadlock
- Avoid client connections hanging forever when the server is restarted
- Improved documentation, diagnostics and error messages
- Fixes for recent c compilers
- Avoid potential salvager crashes
- Avoid erratic vlserver behaviour due to overflowing the maximum VLDB size of 2 GB
- Fixed a slow kernel memory leak triggered by retrieving tokens

(continued)

# OpenAFS 1.8.8 (continued)

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- Fix 'pts mem -expandgroups' failure when supergroups are enabled
- Take read-only volumes offline during read-only to read-write conversion
- Avoid inconsistent volume states due to interrupted rename operations
- Support deleting non-DES keys with asetkey
- Improved ubik performance and robustness
- Avoid flooding servers with NAT pings
- Avoid panics during client startup or shutdown
- Avoid buffer overflows by one character in the "bos" client program

(continued)

# OpenAFS 1.8.8 (continued)

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- Linux
  - Support Linux kernel 5.13
  - Fix crash when running on CrowdStrike Falcon
  - Fix crash when reading from `/proc/fs/openafs/CellServDB` before `afsd` has started
  - Fix more `getcwd()` failures
- macOS
  - Support macOS 11.0 “Big Sur”
- FreeBSD
  - Support releases 11.2, 12.1, 12.2

(and more, see NEWS)

# 1.8.8.1

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- Support Linux kernels 5.14, 5.15 and 5.16
- Support building on FreeBSD 12
- Support building on Solaris with Solaris Studio 12.6

# Changes for 1.8.8.2/1.8.9

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- Support Linux version 5.17
- Avoid unnecessary cell DNS lookups
- Cleanup and refactoring changes for clean backports
- Changes for FreeBSD 12.3 support
- Changes for improved C compiler support (gcc 11, clang 13)
- Update c-tap-harness (unit tests) to support verbose output

# OpenAFS master branch

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## Platforms

- Linux 5.18 support
- MacOS 12.0 “Monterey” support
- FBSD 12 support
- Build support for AIX 7.2

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## Fixes/Changes

- Compare RX\_ACK\_TYPE\_ACK as a bit-field
- New RXAFS\_StoreACL (CVE-2018-7168)
- Improve performance with large number of PAGs
- Fix FID output format in cmdebug

# OpenAFS master branch

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## Features

- Log a warning if the bosserver is not started in restricted mode
- Support `fs -literal` option (non-Windows)
- Support unified error number lookup in `translate_et` (non-Windows)
- Trim trailing path slashes in `fs lsmount` and `fs flushmount`
- Convert from unsafe to safe string functions
  - kernel module
  - bos client
- Compiler support

# OpenAFS master branch

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## Clean up

- Remove afsinstall (obsolete install scripts)
- Remove kdump (obsolete kernel module debugging)
- Remove obsolete autoconf macros (build system)
- Remove IRIX pre-65 code
- Set oldest supported Linux kernel version to 2.6.18
- Fix issues detected by clang static analyzer

# Changes in Review

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- RxGK security class
  - Add client/server support
- Linux 5.18 support
  - replace readpages with readahead
- Pthreaded Bosserver
- Pthreaded fs command
- Bosserver large string support
- Compiler support (gcc 12)
- and many more. . .

# Questions?

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Thank you.