

Open ZFS Summit 2017

Porting with Open ZFS

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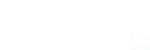
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Open ZFS on OS X

Developer speedrun



~~ Prerequisites ~~

- Xcode
- automake
- libtool
- gawk
- coreutils
- csrutil enable --without kext (or sign)

~~ Source code ~~

```
# git clone https://github.com/openzfs-onosx/spl.git
# git clone https://github.com/openzfs-onosx/zfs.git
```

```
# cd spl
# ./autogen.sh
# ./configure
# make
```

```
# cd ../zfs
# ./autogen.sh
# ./configure
# make
```

~~ Open ZFS On OS X ~~

- <https://openzfs-onosx.org/>
- <https://github.com/openzfs-onosx/>
- Version 1.6.1 (Stable)
- Apple Mac OS 10.8 – 10.12 (64bit)
- Upstream Open ZFS repo
- Missing some UI integration
- boot support(zvol boot vs dataset boot)

~~ Porting ~~

- struct **UIO** (uio_resid(), uio_setoffset(), uio_addiov(), ...)
- struct **vnode** (vnode_get(), vnode_isdir(), vnode_fsnode(), ...)
- struct **buf** (buf_alloc(), buf_setblkno(), buf_setdataptr(), ...)
- Names cached in **znode_t** (vfs_vget(); vnop_getattr(VA_NAME);)
- VFS no lock (delayed vnode attachment)

What about the Windows port??



~~ Open ZFS On Windows ~~

- <https://github.com/lundman/ZFSin.git>
- Version: ~alpha (proof-of-concept)
- Windows 10 (64bit)
- Free BSOD (test VM, test pools, test data!)
- Missing large bits (Too many to list...)
- Core ported (vdev layout, compression, checksums, encryption, dedup, ...)
- Needs resources (developers, knowledge, direction, money?)

~~ Greetings to ~~



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Open ZFS On OS X

Open ZFS On Windows

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