



# A New Flame:

Experiences Starting an Open Source  
Operating System

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# What is an illumos?

- An Open Source operating system
- Based on Solaris (POSIX/UNIX)
- By the community
- For the community
- Core of several commercial projects





# Roots

- BSD begat SunOS
- SunOS & SVR4 begat Solaris
- Solaris begat OpenSolaris
- OpenSolaris begat illumos (Aug 3, 2010)







Why illumos?





Why illumos?





Why illumos?



# Why illumos?

- FOSS Continuity for OpenSolaris
- Ability to fork(2)
- Home for Collaboration



# Attitude Counts

- Tap turns off
  - bad? no!
  - freedom to innovate!
- Optimism and energy critical
- Demonstrate pace
- Avoid the FUD





# Code First!

Make sure you  
have  
something to  
show when you  
announce!



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# Events

- Community events drive momentum
- User group meetings
- SCALE 9X, SCALE 10X!
- Open Storage Summit
- Hackathons
- FOSDEM, etc.





# Think Global!



- Not just MPK17
- Not just SFBAY
- Euro. Russia. India.
- Local user groups
- Local events
- Localized software and documentation
- Next: Mars?



# GSoC



- Students are the future
- Great way to appeal outside your core community
- Identification of good projects key
- Good mentors are critical



# Governance

- Less is more
- Separate admin & tech
- Ends to a mean





# Press Relations

- Press releases = buzz
- Early “announce”
- Trade press
- Slashdot





# Commercialization

- Critical to success
- Don't yield control
- OS development
- Marketing





# Partnerships



- ISV relationships = commercial sponsors
- IHV relationships = broad H/W support
- FOSS relationships = community collaboration



# Hardware Partners

- IHV adoption critical
- Biggest? intel!  
others too!
- How to get them involved?
- Through vendors!
- Show me the \$\$





# Hardware Partners





# OS Vendors/Derivatives

- Diversity drives strength
- Commercial distros make for great contributors
- Free alternatives for wide adoption
- Some abortive or problematic efforts



# OS Vendors/Derivatives

openindiana

**RELIANT**  
SECURITY

 **nexenta**



 Joyent®

 StormOS



DE  PHIX®

**napp-it**



# FOSS Interactions

- Code sharing
- Cross fertilization
- Lots of good ideas
- FreeBSD/NetBSD





# ZFS Working Group

- Challenge: cabal
- Challenge: privacy
- Challenge: S:N ratio
- Result: awesome innovations
- Result: awesome collaboration





# Cool Innovations

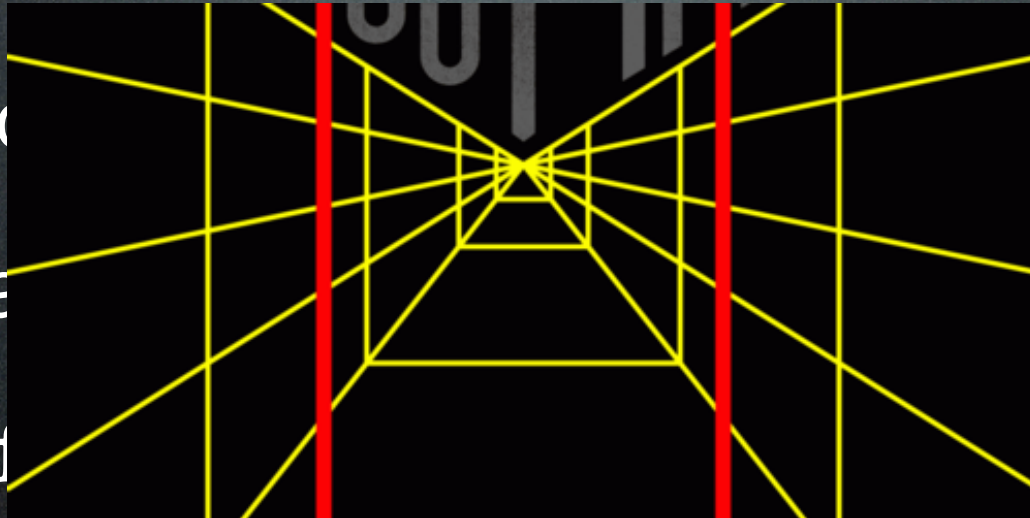
- KVM on illumos
- ZFS enhancements
- DTrace enhancements
- Protocol enhancements





# Stay on Target!

- Know
- Question
- Diff
- It's okay to disagree





Licensing : Religion

Distributed ownership

GPL = anathema to  
commercialization

Copyright assignment  
problematic





# Meritocracy

- 10% do 90%
- Identify the 10%
- Grow the 10%
- Not just code
- But sometimes just the code





# Toxic People

- Slime exists, accept it
- Don't feed the troll
- Delegate enforcement
- Sometimes best to just ignore





# Lawyers

- SFLC
- What's up with NetApp?
- Like any tool, can be useful
- But can also hurt you if misused





# Foundation





# Delegation

- Make yourself redundant
- BDFL should be “symbolic”
- Good devs usually rotten admins
- And vice versa
- Extends to other areas





# Futures



- More innovations
- Replace remaining closed bits
- Compiler liberation!
- Foundation
- World domination!