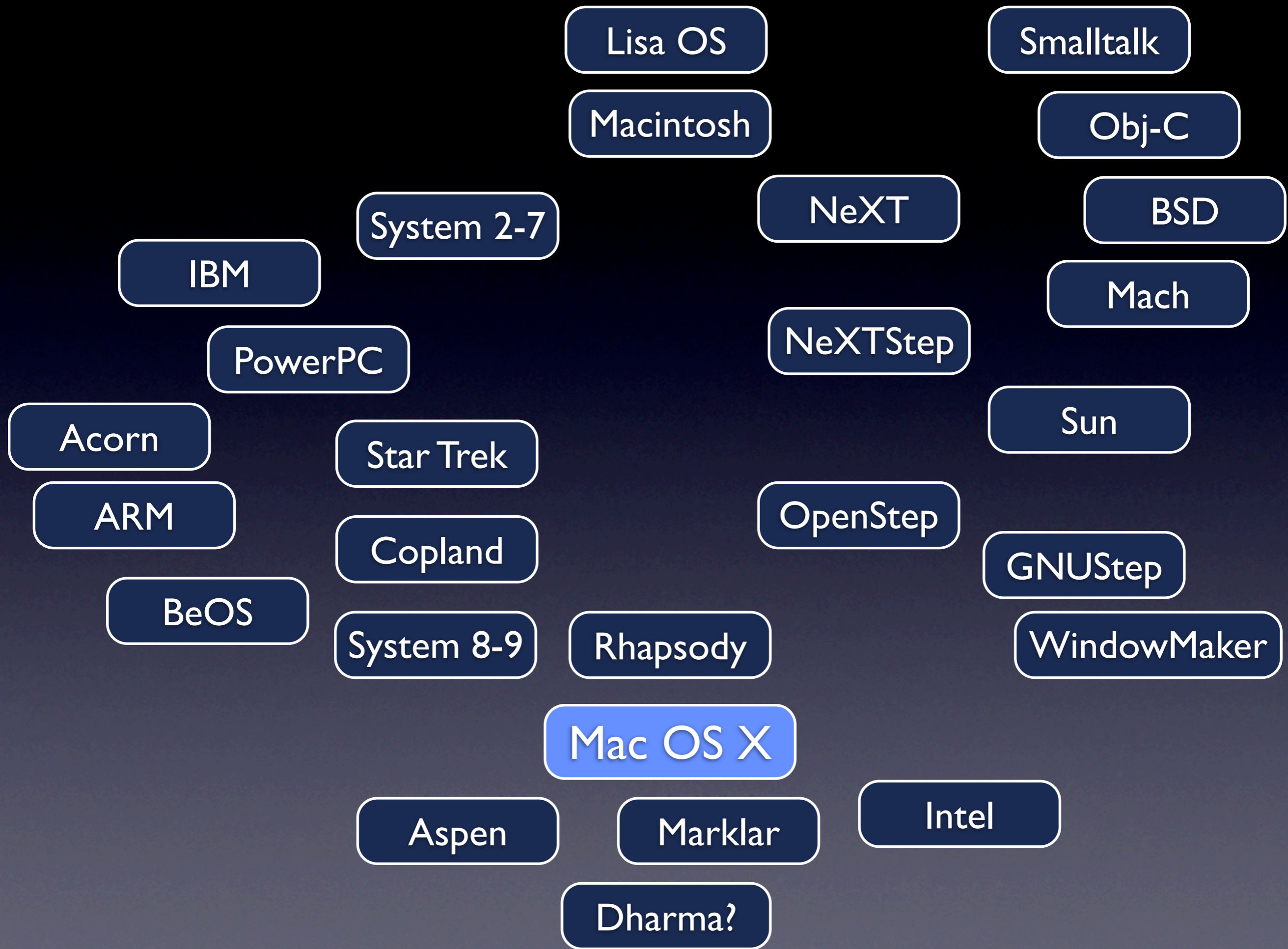


Inside the Mac OS X Kernel





libSystem

I/O Kit

BSD
single server

Mach

Hardware

Darwin

XNU



5 Great Features

1. Kernel Separation
2. I/O-Kit
3. Real-Time
4. Kernel Cache
5. Seatbelt

Compatibility

1994
68k → PowerPC

„nanokernel“
(world switcher), 68k
emulator, fat binaries

2000
OS 9 → OS X

Blue Box aka
„Classic.app“,
transitional API

2005
PowerPC → Intel

PowerPC emulator
„Rosetta“, universal
binaries

32 bit → 64 bit

kernel address space
stays 32 bit for driver
reuse

Discussion

- Is the XNU Frankenstein design the best or the worst of both worlds?
- What is the right approach to backwards compatibility?
- Apple bastardizes lots of Open Source work. Can they interact with upstream properly?