



# Eye On OSGi

James Governor RedMonk @monkchips

# Themes

- How did we get here
- Java: Fear of Forking
- OSGi Trends, Directions and Opportunities

# How Did We Get Here?

- Object Orientation
- Component-based development
- Smalltalk, of course
- The eternal question of reuse – what's the ideal granularity for a bundle/service/component?
- Java – fear of forking



# Java: Fear of The Fork

- Massively successful
- One Big Hairball, or three?



- Yet modularity was an afterthought

# Java Centres Of Gravity

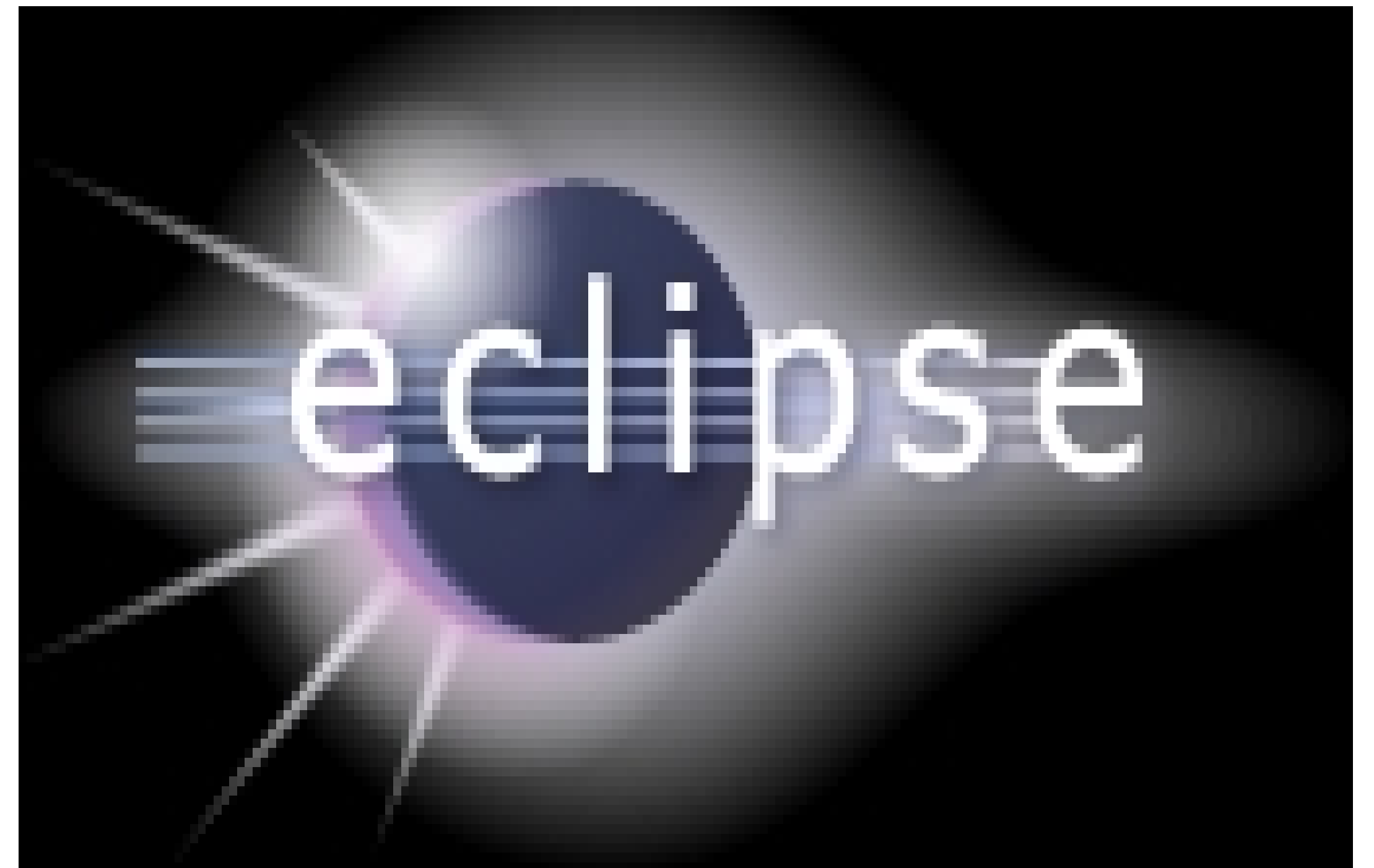
- the ASF
- the Eclipse Foundation
- Google
- IBM
- Oracle
- OSGi
- VMware Springsource

# Unforkable Software?

- Oracle – OSGi in WebLogic, Glassfish
- Java Community Process?
- LibreOffice, ForgeRock, Illumos

# Eclipse

- Governance ++
- Shared implementations
- Shared specifications
- Licensing matters
- Consumability
- Extensibility



# Google <3 Java?

- Android
  - Fragmentation – or diverse ecology?
  - Java on linux for mobile, promise realised
  - Real innovation
  - Cluttered API?
  - Dalvik and the case against
- GWT
- Instantiations – Google as an IDE provider

# IBM: A Disturbance In The Force

- WebSphere refocusing on technology, developers, leading the OSGI charge
- See Expeditor

# SpringSource

“For the first time in 10 years, I have no desire to go to JavaOne, or whatever's left of it.”

Rod Johnson, CEO SpringSource

- Spring made JEE less painful
- SpringDM for OSGi, dm Server

• Growth

# OSGi in middleware

- Apache Aries, Sling
- Day Software
- Eclipse BIRT
- Progress Software/ServiceMix
- Oracle Glassfish
- WS02 Carbon

# Who are you calling a Lightweight?

- WebSphere, Jboss, Glassfish, Tomcat... Jetty
- Lightweight architectures offer raw performance

# Rise of the (Virtual) Machines

- language diversity
- Performance – VM performance improvements

# The Rise and Rise of Social Coding

- Agile
- People write code, machines run code
- Github
  - Linus does it again. Open Source is Social Networking.
- Celebrate the fork, but ensure resolution
- Developers get the gist
- Reuse doesn't always mean a singleton

# Ubuntu as Master Packager

- Investing in User Experience
- Easy as apt-get
- Making choices for the user



# What About The REST of OSGi?

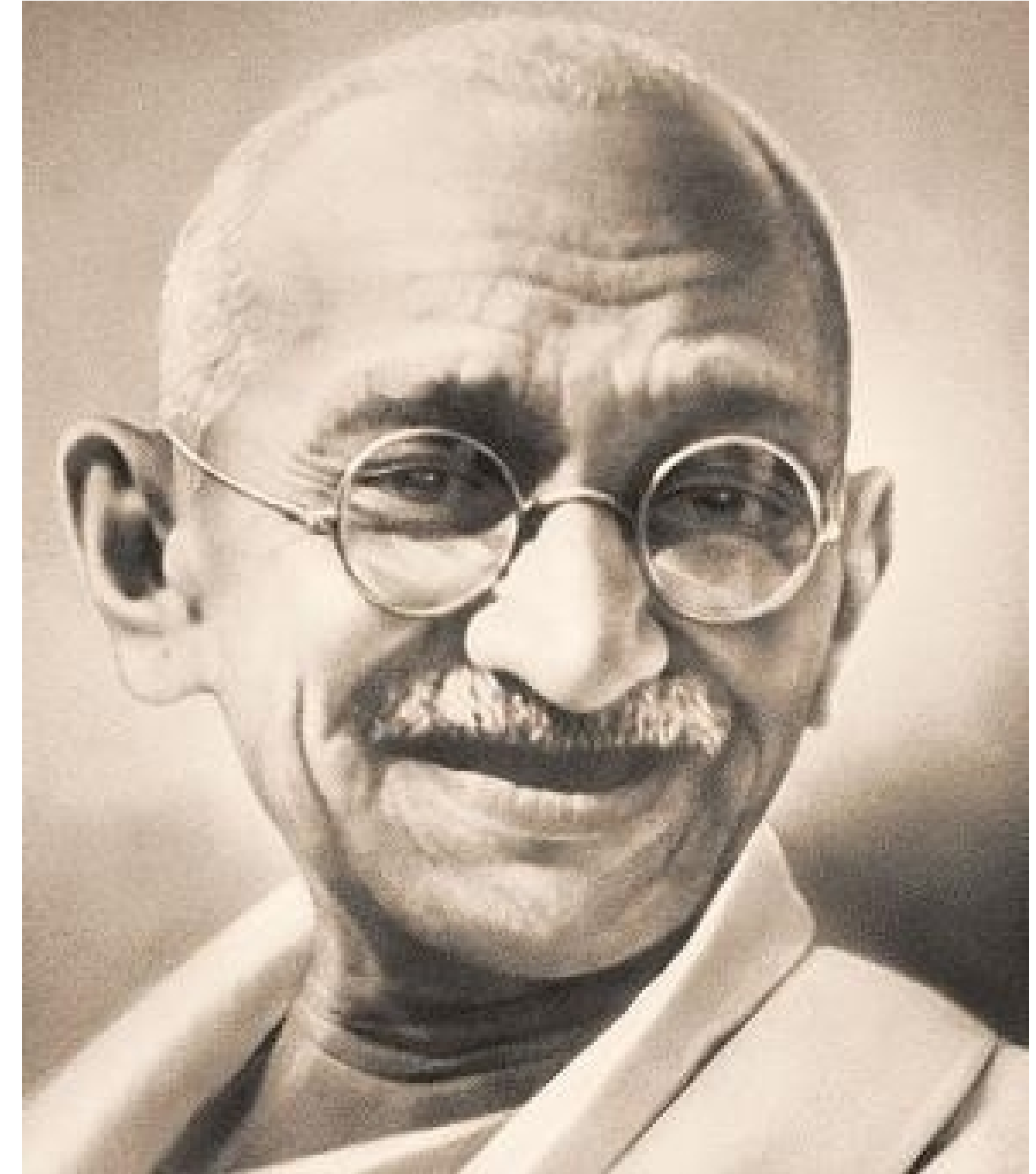
- SOA became restful
- Web refactoring
- What would OSGi with a web refactoring look like?
- Or – how can OSGi appeal to web-savvy developers?
- Or – OSGi for humans

# The Stackless Stack

- Nothing is defined until it is
- Check out the Paremus Nimble shell/framework
  - [video demo here.](#)

# The Gandhi Model Of Tech Adoption

“First they ignore you, then they ridicule you, then they fight you, then you win”



# DOA

“OSGi is a great spec for vendors, but a terrible spec for developers. It inflicts a lot of pain.”

Ross Mason, CTO MuleSoft

# Brains



# Kick Like A Mule

“We’re modelling hot deployment on OSGi principles. If someone comes up with a way to make OSGi consumable by the masses we'll jump right on it.”

Ross Mason, CTO MuleSoft

# Atlassian – another master packager

- Atlassian plugin model - OSGi without the OSGi
- “OSGi has let us write big features in a portable, modular way across products, and has dramatically sped up the development process via its hot deployment capability. Along the way, we've had some issues, particularly with libraries that don't play well in modular environment, but they certainly haven't outweighed the benefit IMO. OSGi certainly

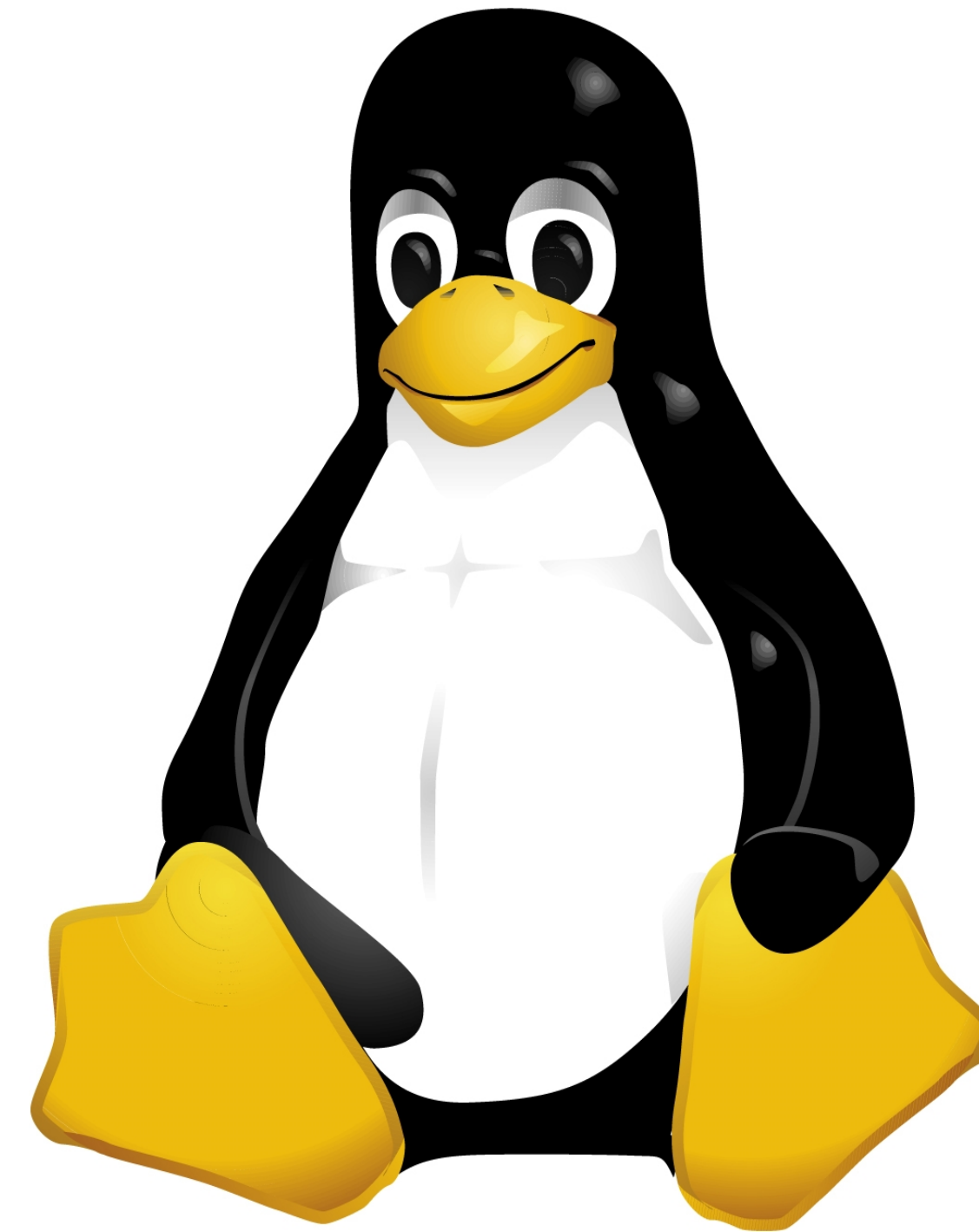
# Why Should Developers Care

- Choose your own container
- Find Code To Start Your Projects
- Constraints can make life easier - Flow
- Dependencies - OK When You Know What They Are
- Runtimes Aren't Locked into Frameworks

# Why Should Managers Care

- Running full stacks for all app dev is expensive
- Fit for purpose runtimes
- Define policies, drive adherence through tools
- Performance
- A standard to rely on
- For embedded- minimum runtime to declare victory
- OSGi as a forcing factor to encourage modularity.

# Duke and Tux



# Futures

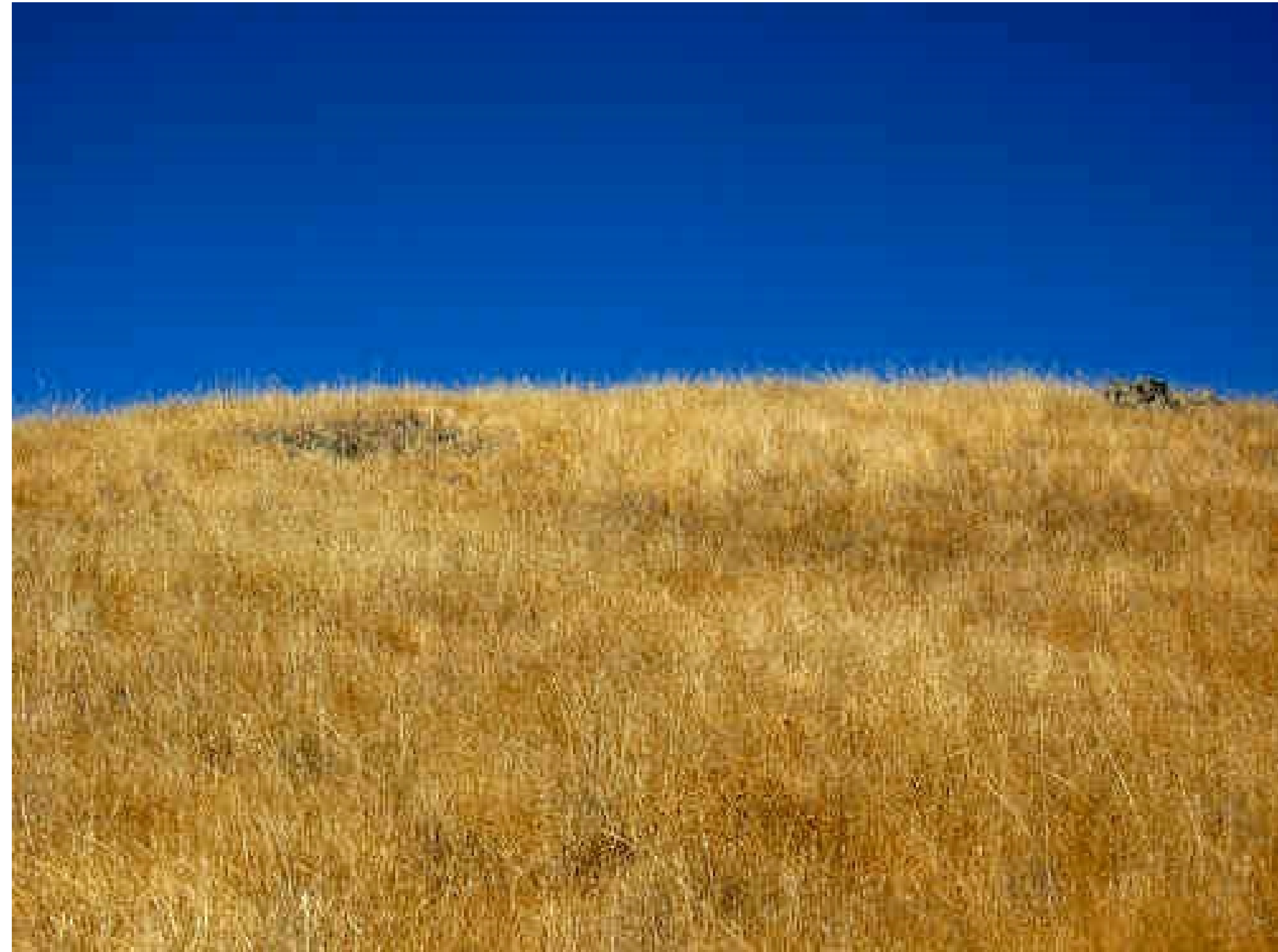
- OSGi pervasive
  - Automotive
  - Smart grids and home gateways
  - Phones
  - Automation (sensors and actuators)
- OSGi for desktop integration – Lotus + Cisco
  - Come on IBM, where's the Expeditor developer play?

# OSGi and the Cloud

- Private clouds will be all about OSGi
- Platform as a Service – who will deliver?

# NoSQL

- Apache SOLR
- Cassandra
- Hadoop
- Riak
- Tokyo Cabinet



# The Really Big Challenge

- Retooling Java legacy – a toolchain for modularity
- There is no silverbullet
- Migration services and “retrofitting”

# Its all about the earbuds

- The best packager wins
- Users like constraints
- Developers like constraints
- Applications like constraints
- Design matters



# Thanks!



- Podium: <http://www.flickr.com/photos/spine/2408993662/>
- Standing Over The Clouds <http://www.flickr.com/photos/donabelandewen/470780785/>
- 1, 2, 3 Jump!: <http://www.flickr.com/photos/cristeenq/>
- Netbook: <http://www.flickr.com/photos/ndevil/3349323242/>
- Giant hand: <http://www.flickr.com/photos/76074333@N00/147857534/>
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