



Ning

Building a Web Platform: Java™ Technology at Ning

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TS-6039

Ning

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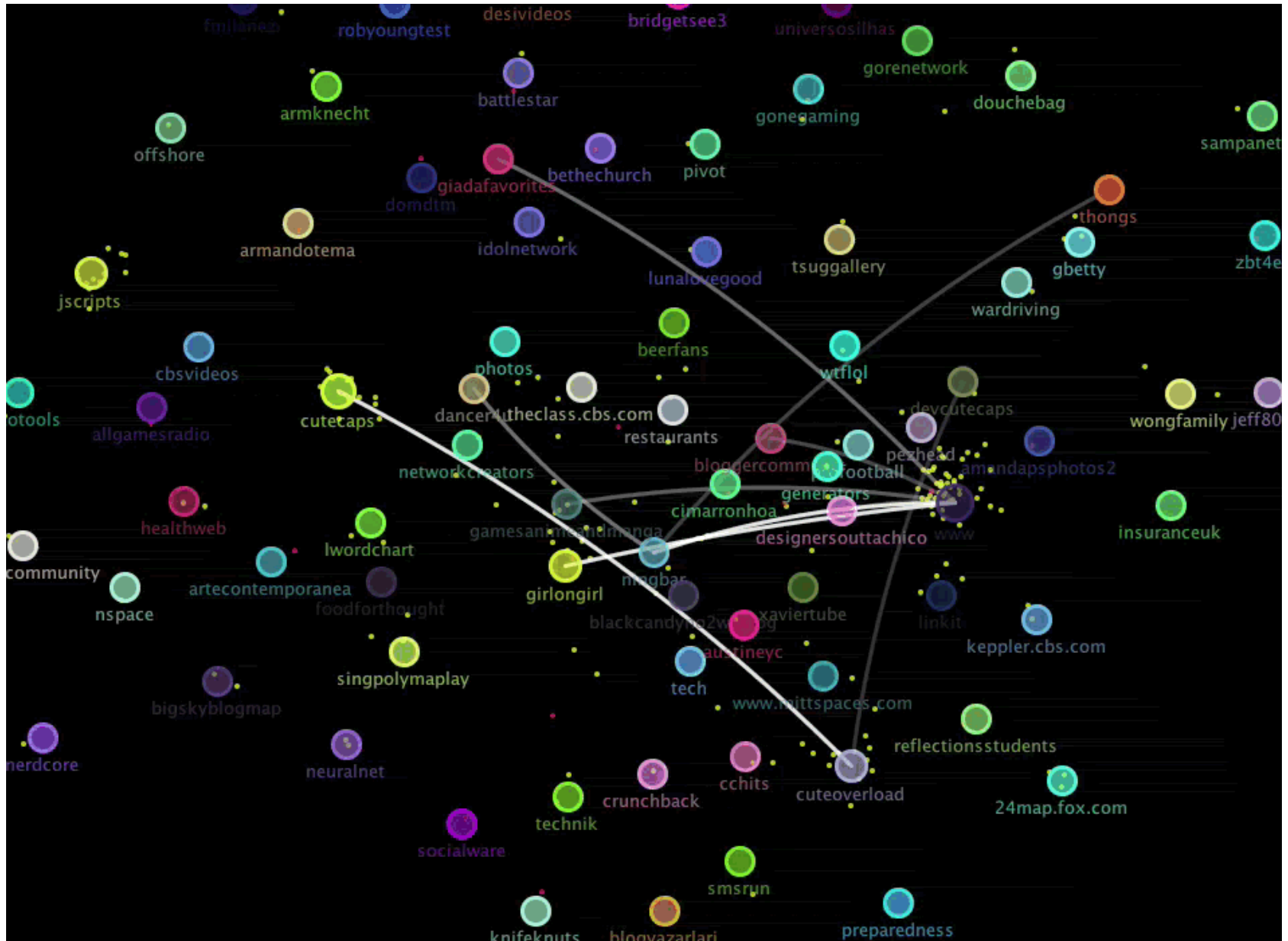
noun

**1. a web platform for creating
social networks**



Freedom

Creativity

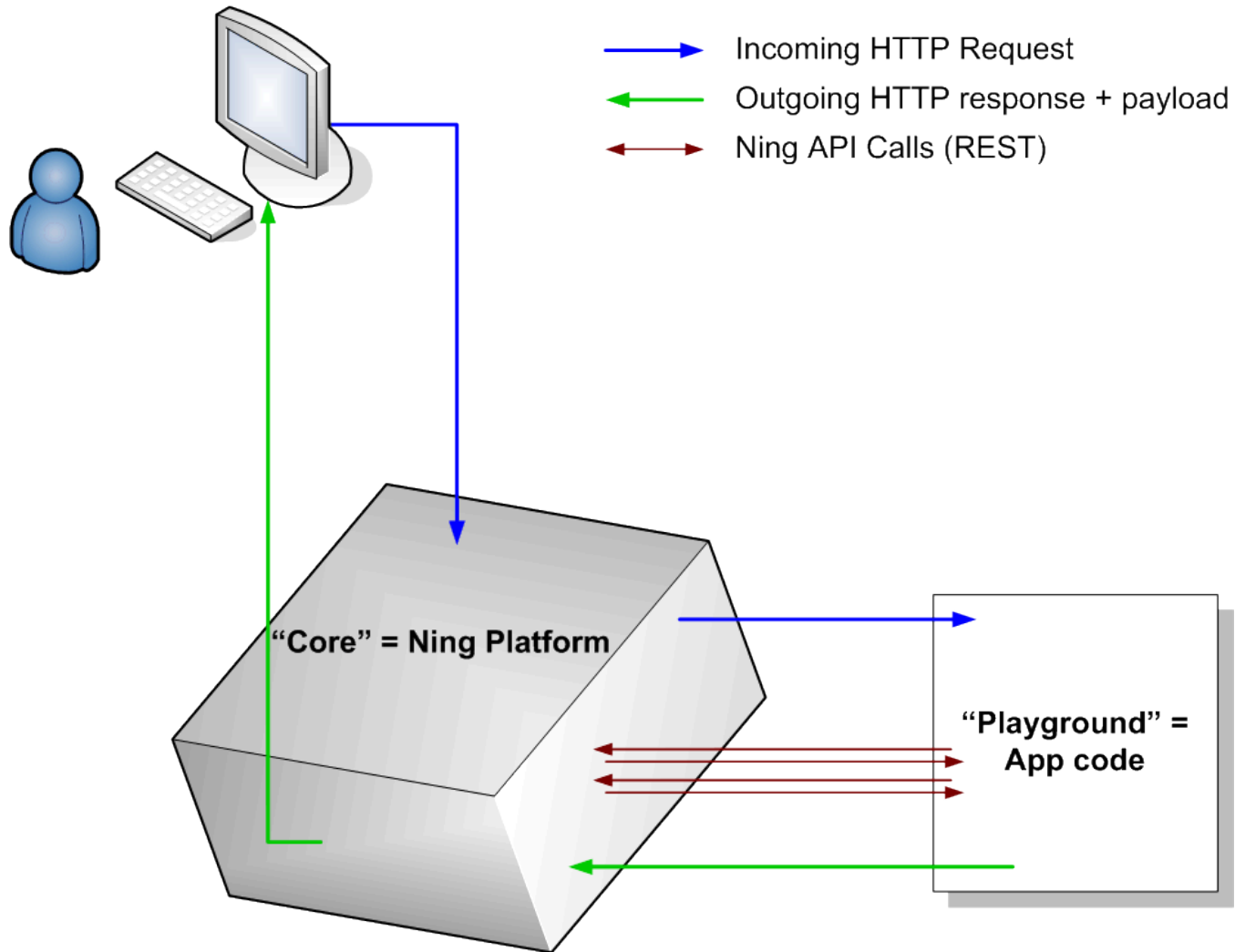


Our Platform Requirements

- Individual copies of applications
- Customization and control
 - All the way down to the source code
- Everything is an API
- Backwards compatibility
- Scale

- ... and do it on the cheap. We're a startup!

Conceptual Design





Just-In-Time Architecture

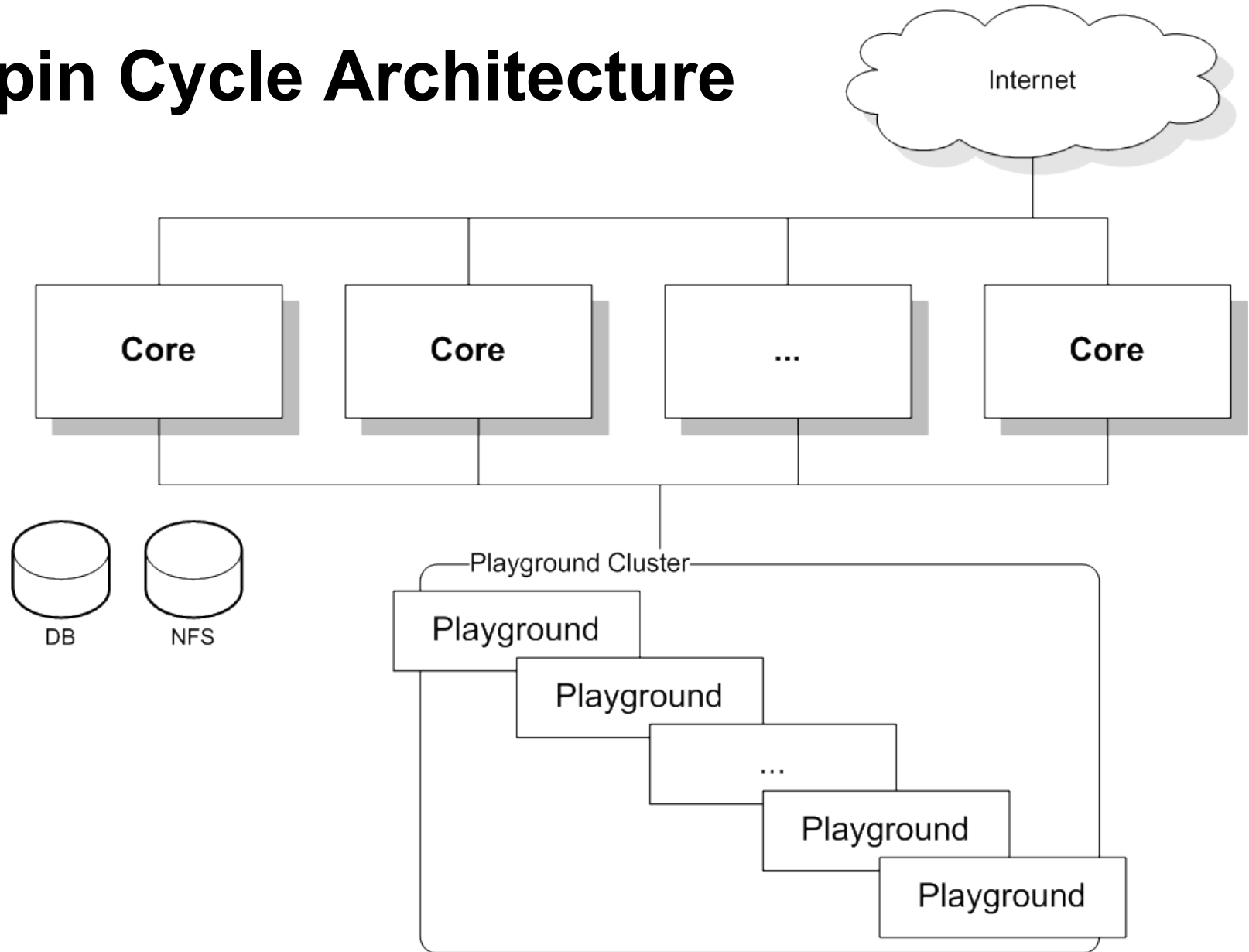
Codename: Spin Cycle

Goals

- Launch service
- Prove the concept
- Start evolving the architecture immediately



Spin Cycle Architecture





Spin Cycle Lessons

- One Tomcat can handle **a lot!**
- Monolithic architecture a good start
- Planned obsolescence works

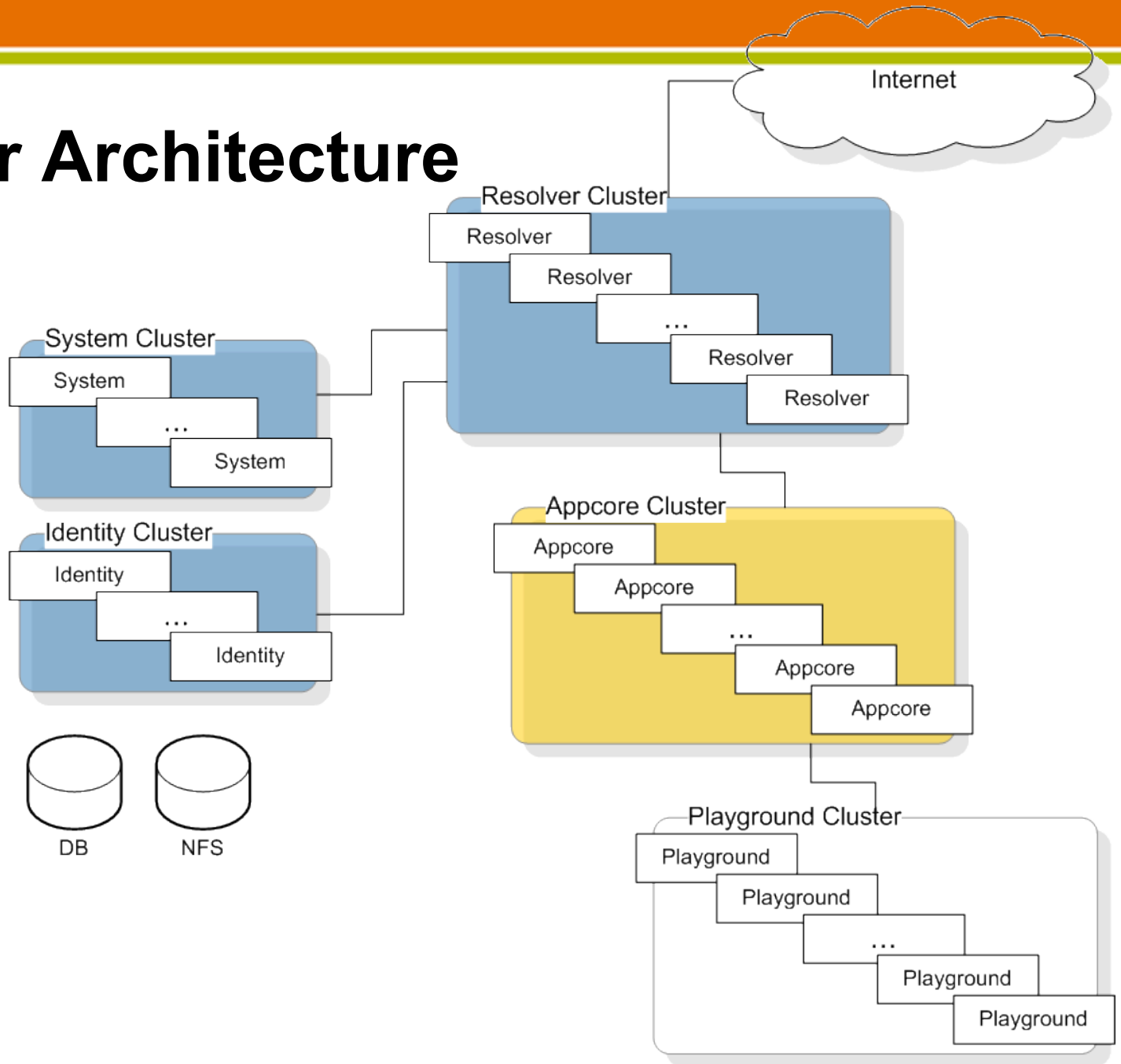
Codename: Rebar

Goals

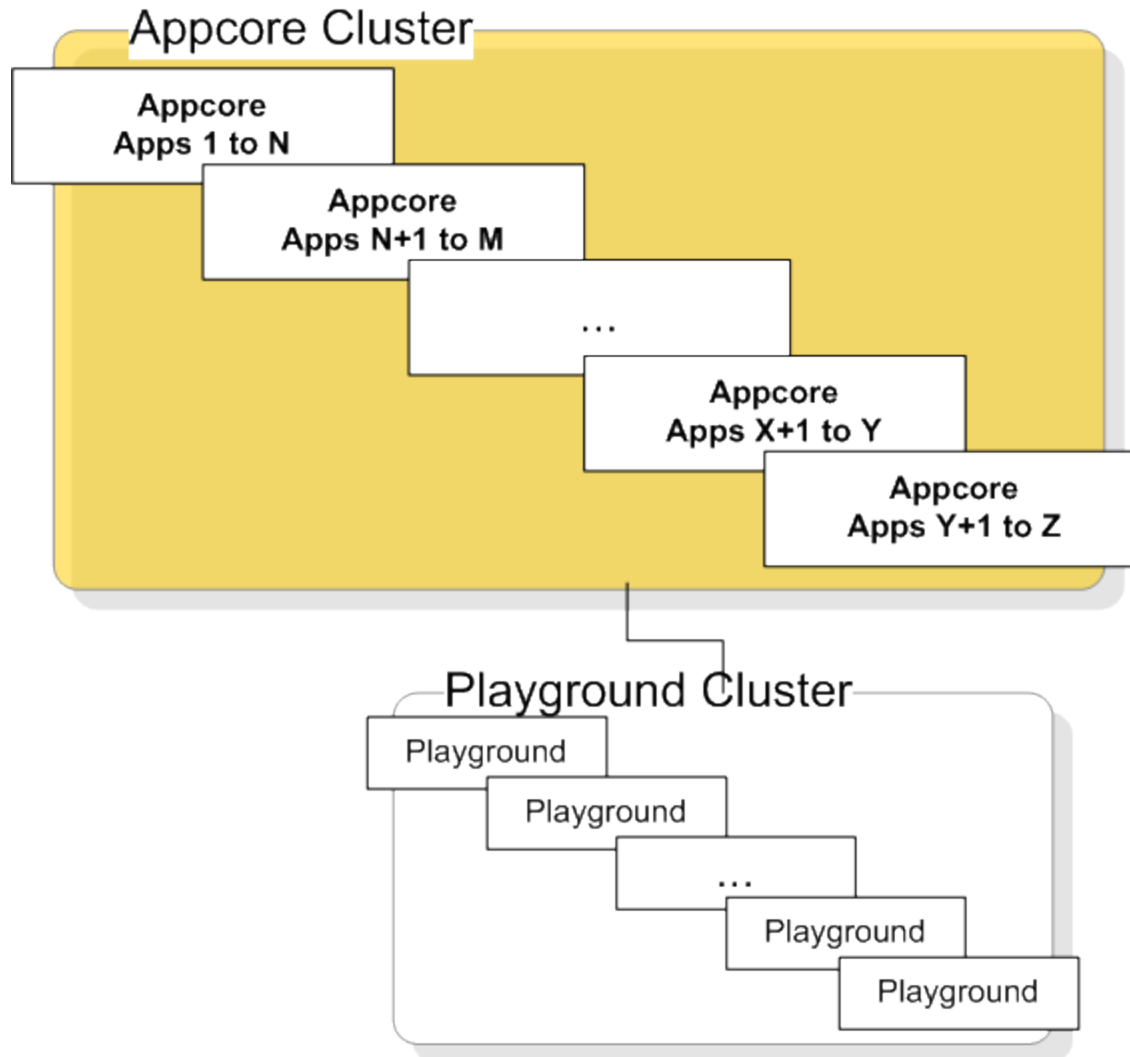
- Scale, scale, scale
- Lots of applications
- Granular scalability



Rebar Architecture



Rebar Architecture: A Close Up





Rebar Lessons

- Don't fear radical change
- Components can scale independently
- Operations factors into design
- Planned obsolescence works!

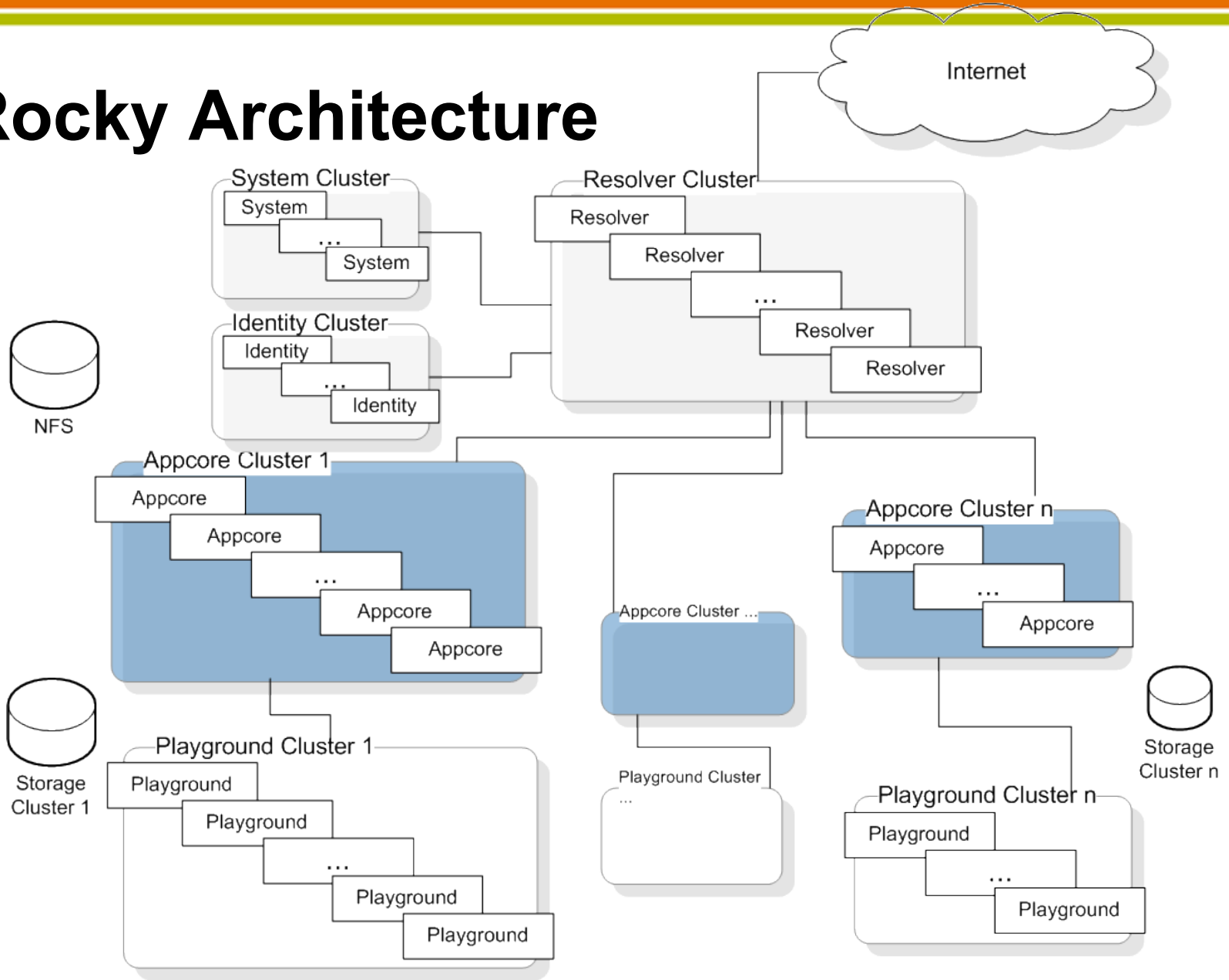
Codename: Rocky

Goals

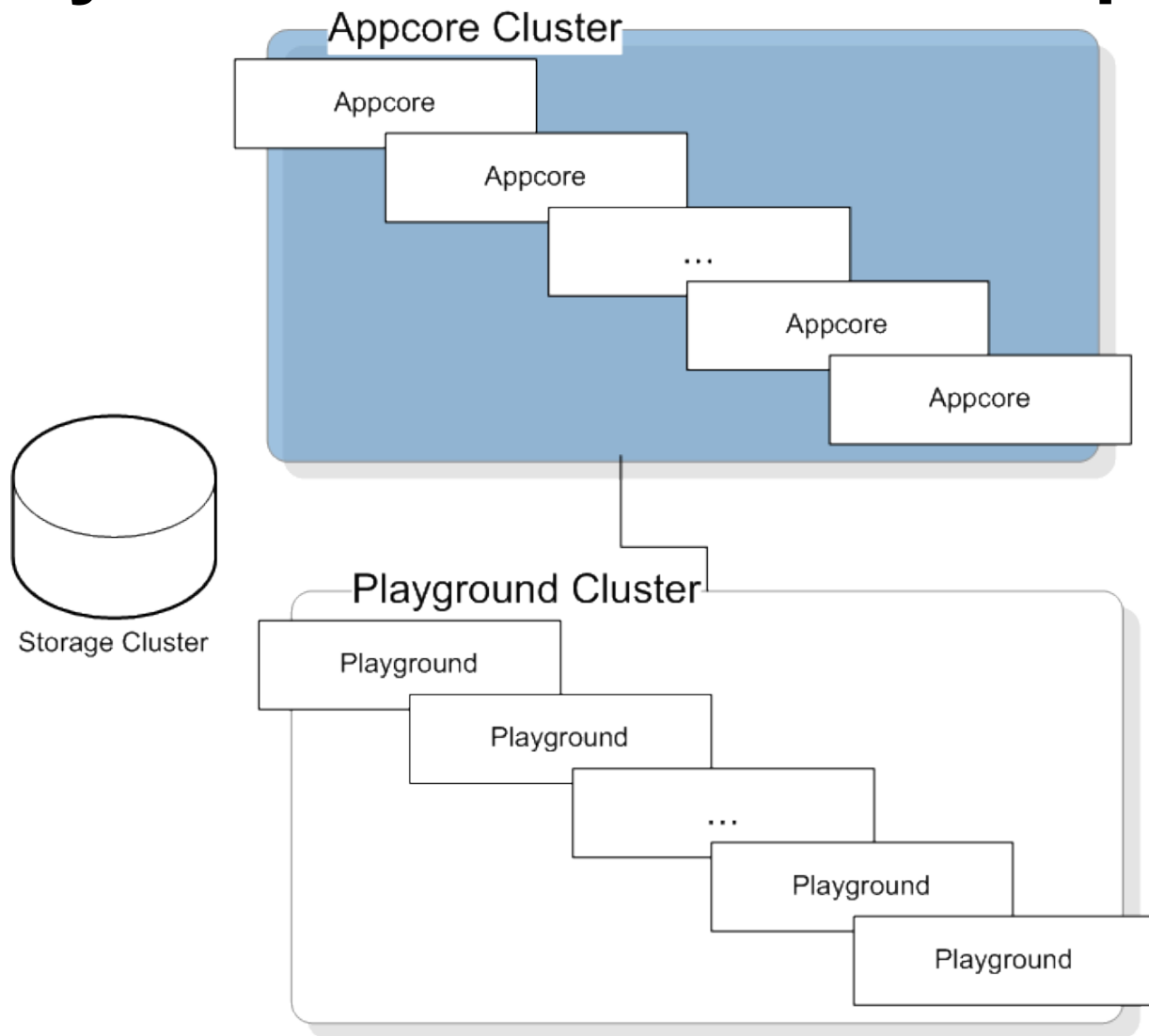
- Huge applications
- Solve large scale concurrent writes
- Maximize availability



Rocky Architecture



Rocky Architecture: A Close Up





Rocky Lessons

- HTTP-based APIs = Good
- Embrace the tools you use
- Planned obsolescence works!



Today

- Over a dozen Core types
- Multiple internal clusters
- Hundreds of servers and Solaris™ Zones



Java Technology Is Good

- Small Team / Huge System
- Performance
- Stability



```
GET / HTTP/1.1  
Host: javaone.ning.com  
Connection: close
```

The Atom API



```

- <feed>
  <title>Content feed for Ning Photos</title>
  - <id>
    http://photos.ning.com/xn/atom/1.0/content(type='Photo')
  </id>
  <updated>2007-04-13T02:09:55.454Z</updated>
  <xn:size>3229</xn:size>
  - <entry>
    <id>2076129</id>
    <xn:type>Photo</xn:type>
    <published>2006-10-02T12:30:20.750Z</published>
    <updated>2006-10-03T17:23:14.389Z</updated>
    - <author>
      <name>TEjavista</name>
    </author>
    <xn:private>>false</xn:private>
    <xn:application>Photos</xn:application>
  </entry>
</feed>

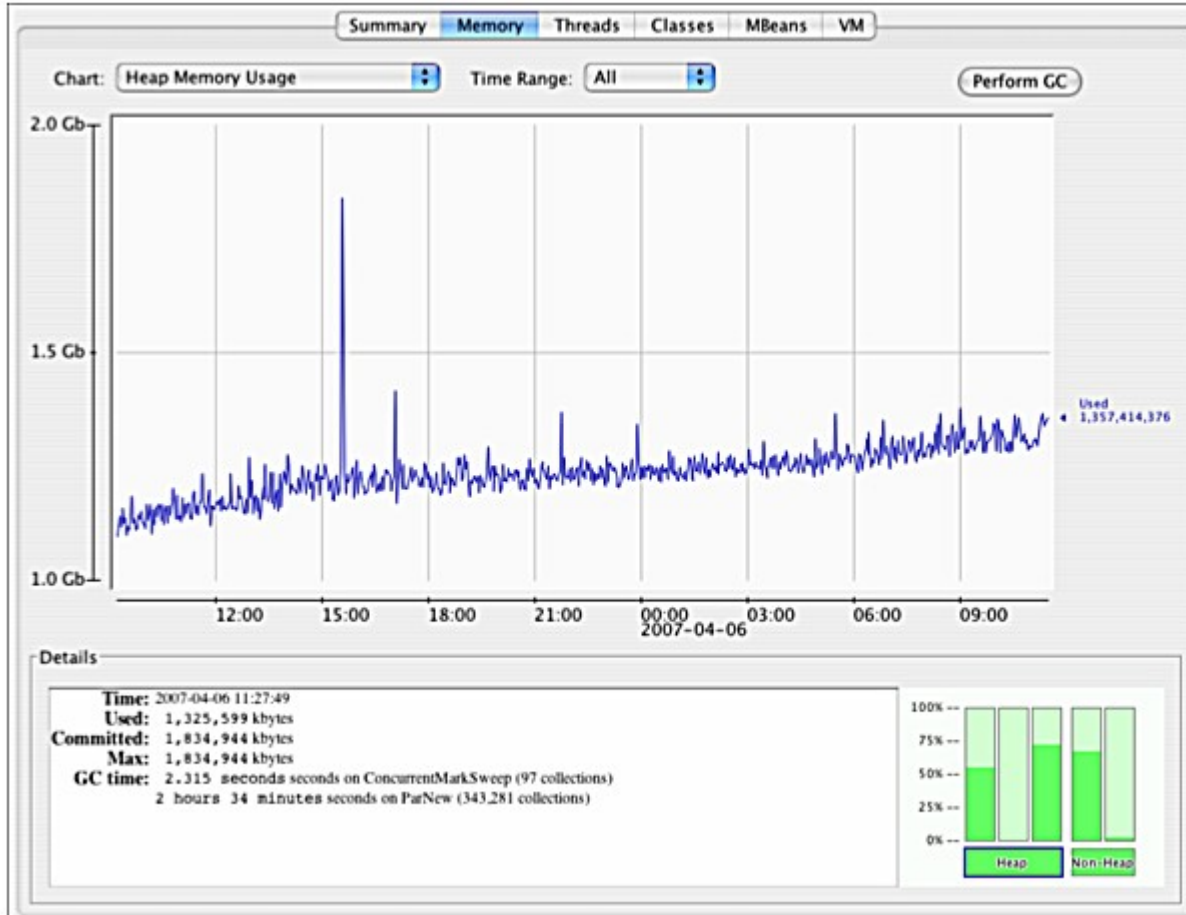
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Embrace Open Source

- It *is* Different
- Use the Source
 - Understand it
 - Find the bugs
 - Optimize It

Managing Geometric Growth



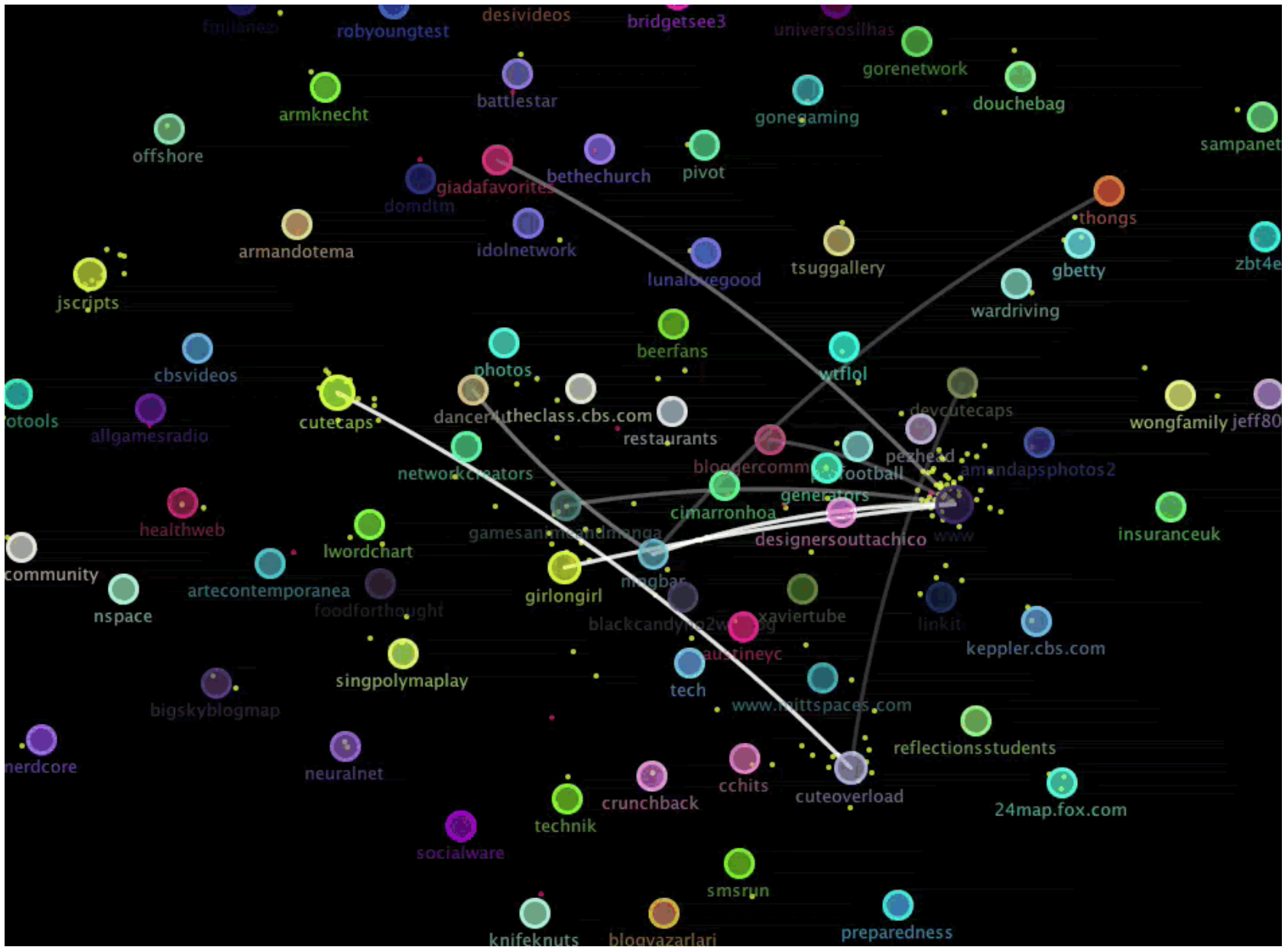


Just-In-Time Architecture

... + Java Technology

Freedom

Creativity





Q&A

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