



Developing the First Generation of Serious Games on a Shoestring

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Lift Web Framework



- Who are we?
- *Buy A Feature Demo*
- Technology Walk Thru
- Delivering on a Shoestring
- Innovation Games
- Get Involved
- Questions



- David Pollak
 - Lift: Web Framework
 - Spreadsheets: invented Real Time, Collaborative
 - Security: CTO and VPE at web app security company
 - Java development since 1996
- Dan O’Leary
 - Initial background in expert systems and developer tools at EDS, Sun
 - Large scale enterprise incentive management at Callidus Software.
 - Joined Enthiosys in February 2008



- An Innovation Game® where customers/prospects collaborate with a vendor to prioritize a backlog
 - Vendor gets information about the features customers want first, and reasons for their preferences
 - Product manager "prices" a list of potential features. Customers are given "money" and asked to collaborate with group to decide which features will be "purchased."
 - The group has only enough money for a subset of features. They negotiate for the most important items, while explaining their decisions.

Buy A Feature - Demo



Buy a Feature - An Innovation Game - Mozilla Firefox

http://dev.buyafeature.com/game_view/run?skip_click=true&id=QW1WOREECF

STOP BUYING

	MONEY LEFT		Stock Ticker Stream \$20	Streaming Music \$30	Traffic Directions \$40	Fin Fri
fox frank (me)	\$45	\$5	\$20			\$20
ie7 Bill	\$45	\$45				
safari bob	\$45	\$25				\$20
Totals	\$135	\$75	PURCHASED \$20		PURCHASED \$40	
Remaining				\$30		

General Chat

Channel General Chat

System	Welcome
fox frank	Hello everyone!!!
ie7 Bill	Shall we start playing??
ie7 Bill	(Whispered to me) what is your favorite??
safari bob	(Whispered to me) what is up with that ie7 guy?

In this channel
fox frank (me)
ie7 Bill
safari bob

Not in this channel

Latest Bids

fox frank	\$20 on Stock Tick...
fox frank	\$20 on Traffic Di...
safari bob	\$20 on Traffic Di...

Chat
Whisper

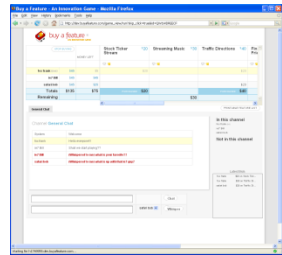
Waiting for h1748959.dev.buyafeature.com...



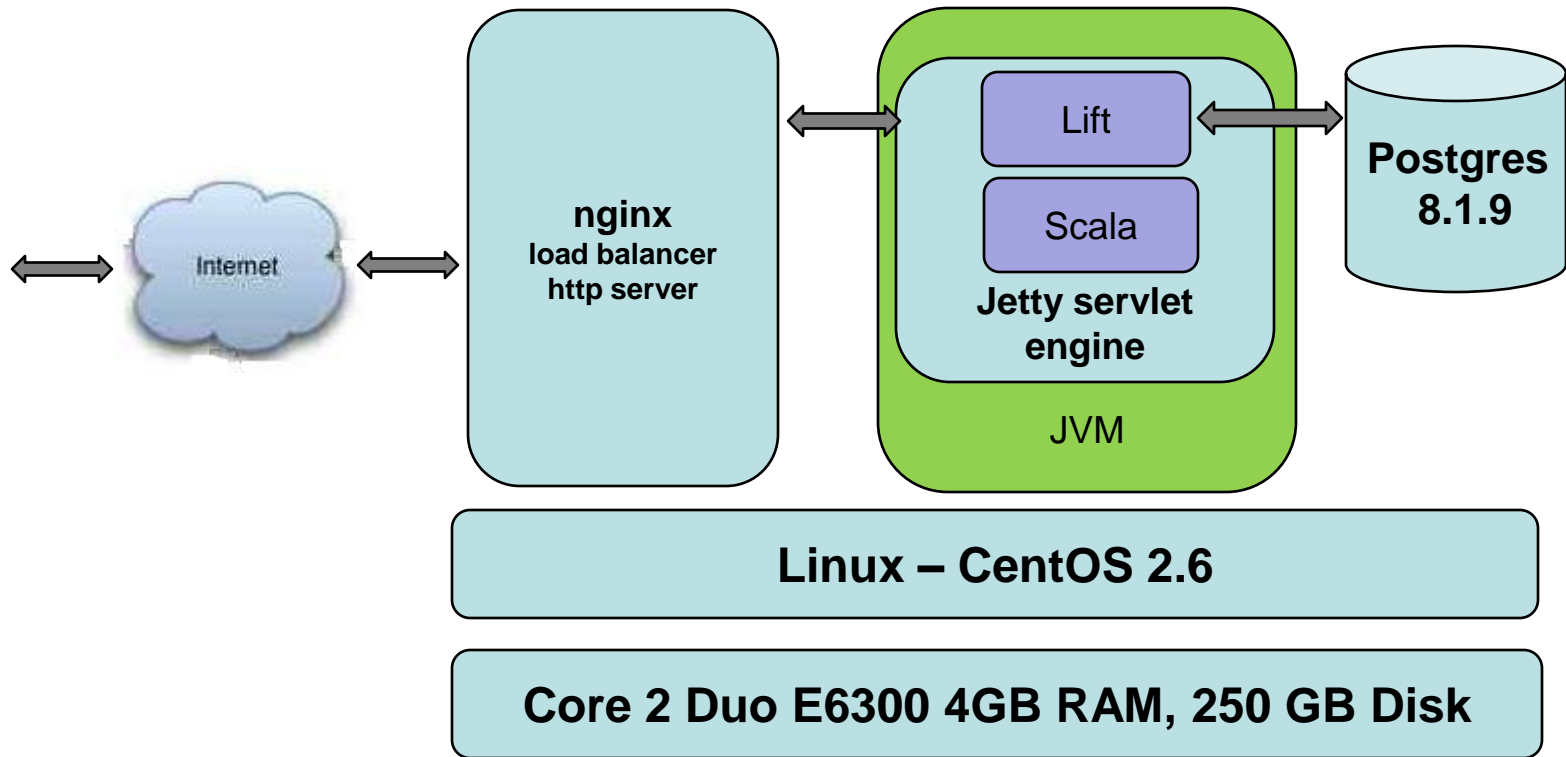
- 12 man-months of development
 - Server code
 - HTML design
 - Flash prototyping – support for future games
 - Integration with Jive Clearspace Collaboration Suite
 - Infrastructure
 - CI Server
 - Production Server
 - Deployment support
- 3 man-months of product management
 - Collaboration with customers - SAP, Intuit, Verisign
 - Leverage service engagements to improve offering
 - Key: transport magic of face-to-face games to Web



- Implementation
 - JVM
 - Scala
 - Lift
 - JavaScript/XML /SQL
- Deployment – buyafeature.com
 - Hudson CI Server
 - Nginx/Jetty
 - DB – JDBC compatible - Postgres/Derby/MySQL
- Integration
 - XML import, XML/Excel export format
 - Jive Clearspace Collaboration Suite – Game as document
 - REST APIs



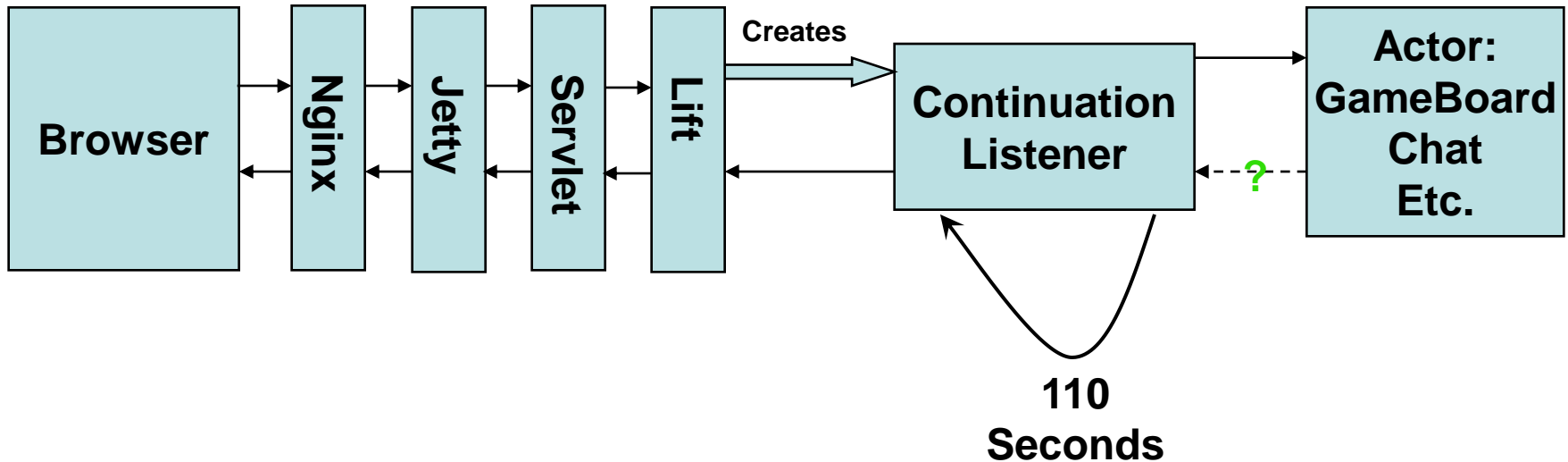
- IE 6, IE 7
- FF 2, FF 3
- Safari 3



Buy A Feature – App Flow Technical Perspective



Comet/Long Polling without consuming threads



Buy A Feature – App Flow Developer’s Perspective



```
<lift:comet type="Clock">
Current Time:
<clk:time>Missing Clock</clk:time>
</lift:comet>
```

```
class Clock extends CometActor {
def defaultPrefix = "clk"

def render = bind("time" -> timeNow.toString)
```



```
override def lowPriority = {
case Tick =>
reRender(false)
ActorPing.schedule(this, Tick, 10 seconds)}

case object Tick
ActorPing.schedule(this, Tick, 10 seconds)
}
```



- **Scala Language**
 - Functional OO hybrid that looks to the JVM like Java code
 - Concise, fast, powerful, type-safe... best of Ruby, Java, Haskell
 - 100% compatible with **all** Java libraries
 - Martin Odersky: wrote JavaC 1.1-1.4, designed Generics
 - Loved from Web 2.0 to SAP
- **Lift Web Framework**
 - Awesome Ajax and Comet support
 - More powerful and concise than Rails
 - Scalable and secure
 - In production from Web 2.0 to SAP
 - 650 strong user community and > 10 committers
 - Deploy to your J2EE infrastructure... it's a WAR file



```
scala> case class Pinger(name: String) extends Runnable {  
  | def run = while(true) {println(name); Thread.sleep(10000)}  
  | }  
defined class Pinger
```

```
scala> new Thread(Pinger("Hello")).start  
Hello  
Hello  
Hello  
...
```



- How does all this stuff make it easier/cheaper to deliver an app which can ride the Web 2.0 wave?
 - Scala/Lift developers are more **productive** – 4 to 1 ratio (java to scala)
 - **Interoperability** built within Scala/Lift – Java, XML, JavaScript, XHTML, SQL - no need to reinvent the wheel
 - Nginx/Jetty **performs** very well on low-end hardware
 - Concurrency support makes **scalability** easy to build into app from the beginning – no need to make functionality versus scalability tradeoff
 - Open source stack enables **lower cost**



- Proven techniques for *collaborating* with customers to create innovative products and services
- Drives innovation by understanding what customers really want

Improving Customer Relationships

Creating Product Roadmaps

Discovering new business opportunities

Strategic Planning

Improving sales and marketing effectiveness



Innovation Games can be used to accomplish many kinds of goals.



... then consider these games



To understand...

	Product Box	Buy a Feature	Me and My Shadow	Give Them A Hot Tub	Remember The Future	20/20 Vision	Speed Boat	Spider Web	Show And Tell	Start Your Day	The Apprentice	Prune The Product Tree
Customer Needs	■	■	■	■	■							
Requirements	■	■				■	■					
Product Usage								■	■	■	■	
Future Products		■			■	■						■



- Have a problem trying to nail down priorities? Go to <http://buyafeature.com>
- Want to learn about Innovation Games? Read “Innovation Games” by Luke Hohmann or go to <http://innovationgames.com>
- What are others saying about innovation games?
 - Leading answers blog - http://leadinganswers.typepad.com/leading_answers/2007/03/release_and_ite.html
 - JSF 2.0 Expert Group - http://weblogs.java.net/blog/edburns/archive/2007/05/jsf_20_eg_kick.html
- If this kind of technology excites you
 - Try out scala at <http://www.scala-lang.org/>
 - Check out the cool Lift examples at <http://demo.liftweb.net/lift/>
 - Join the lift community at <http://groups.google.com/group/liftweb?hl=en>
 - Attend the Lift workshop on 11/22 in Berkeley – <http://www.liftworkshop.com>
 - Send your resume to <http://enthiosys.com/contact-us>

