

Oracle Mix A Case Study







Ola Bini
JRuby Core Developer
ThoughtWorks Studios

ola.bini@gmail.com http://olabini.com/blog





Ola Bini



Ola Bini

From Stockholm, Sweden



Ola Bini

From Stockholm, Sweden

Programming language nerd



Ola Bini

From Stockholm, Sweden

Programming language nerd

ThoughtWorks Studios



Ola Bini

From Stockholm, Sweden

Programming language nerd

ThoughtWorks Studios

JRuby Core Developer





Oracle Connect



Oracle Connect Ruby on Rails



Oracle Connect

Ruby on Rails

Oracle Mix



Oracle Connect

Ruby on Rails

Oracle Mix

JRuby on Rails



Oracle Connect

Ruby on Rails

Oracle Mix

JRuby on Rails

Social networking



Oracle Connect

Ruby on Rails

Oracle Mix

JRuby on Rails

Social networking

Launched for Oracle OpenWorld



Oracle Connect

Ruby on Rails

Oracle Mix

JRuby on Rails

Social networking

Launched for Oracle OpenWorld

Becoming more of a platform for Oracle





Dynamically, strongly typed, pure object oriented language



Dynamically, strongly typed, pure object oriented language Interpreted



Dynamically, strongly typed, pure object oriented language

Interpreted

Open Source



Dynamically, strongly typed, pure object oriented language

Interpreted

Open Source

Default implementation in C (called MRI)



Dynamically, strongly typed, pure object oriented language

Interpreted

Open Source

Default implementation in C (called MRI)

Current versions 1.8.7 and 1.9.0



Dynamically, strongly typed, pure object oriented language

Interpreted

Open Source

Default implementation in C (called MRI)

Current versions 1.8.7 and 1.9.0

Created in 1993



Dynamically, strongly typed, pure object oriented language

Interpreted

Open Source

Default implementation in C (called MRI)

Current versions 1.8.7 and 1.9.0

Created in 1993

The principle of least surprise





Pure OO



Pure OO

Blocks



Pure OO

Blocks

Modules as mixins



Pure OO

Blocks

Modules as mixins

Great libraries and frameworks



Pure OO

Blocks

Modules as mixins

Great libraries and frameworks

Pleasant language





Full stack MVC web dev framework



Full stack MVC web dev framework

Open Source (MIT)



Full stack MVC web dev framework

Open Source (MIT)

Many contributors



Full stack MVC web dev framework

Open Source (MIT)

Many contributors

Written in Ruby, utilizing it to max



Full stack MVC web dev framework

Open Source (MIT)

Many contributors

Written in Ruby, utilizing it to max

Single threaded, shared nothing



Full stack MVC web dev framework

Open Source (MIT)

Many contributors

Written in Ruby, utilizing it to max

Single threaded, shared nothing

Current version 2.1





Convention over configuration



Convention over configuration

Don't Repeat Yourself



Convention over configuration

Don't Repeat Yourself

Agile development





Greatly simplified web development



Greatly simplified web development

Lots of innovation in the community



Greatly simplified web development

Lots of innovation in the community

Small applications are trivial to create



Greatly simplified web development

Lots of innovation in the community

Small applications are trivial to create





Java implementation of the Ruby language



Java implementation of the Ruby language

Java 1.5+



Java implementation of the Ruby language

Java 1.5+

Open Source



Java implementation of the Ruby language

Java 1.5+

Open Source

"It's just Ruby"



Java implementation of the Ruby language

Java 1.5+

Open Source

"It's just Ruby"

Current release 1.1.4



Java implementation of the Ruby language

Java 1.5+

Open Source

"It's just Ruby"

Current release 1.1.4

Commercial backing



Java implementation of the Ruby language

Java 1.5+

Open Source

"It's just Ruby"

Current release 1.1.4

Commercial backing

Sun Microsystems



Java implementation of the Ruby language

Java 1.5+

Open Source

"It's just Ruby"

Current release 1.1.4

Commercial backing

Sun Microsystems

ThoughtWorks





Threading



Threading

Unicode



Threading

Unicode

Performance



Threading

Unicode

Performance

Memory



Threading

Unicode

Performance

Memory

C Extensions



Threading

Unicode

Performance

Memory

C Extensions

Libraries



Threading

Unicode

Performance

Memory

C Extensions

Libraries

Politics



Threading

Unicode

Performance

Memory

C Extensions

Libraries

Politics

Legacy systems





Deployment to Java app servers



Deployment to Java app servers

Java environments everywhere



Deployment to Java app servers

Java environments everywhere

Broader, scalable database support



Deployment to Java app servers

Java environments everywhere

Broader, scalable database support

Integration with Java libraries and legacy systems





Loads of internal systems



Loads of internal systems

Many employees (84 000)



Loads of internal systems

Many employees (84 000)

Information about people in many systems



Networking in Oracle

Loads of internal systems

Many employees (84 000)

Information about people in many systems

And there is no unified connection mechanism



Networking in Oracle

Loads of internal systems

Many employees (84 000)

Information about people in many systems

And there is no unified connection mechanism





Profiles



Profiles

Networks



Profiles

Networks

Ideas



Profiles

Networks

Ideas

Questions



Profiles

Networks

Ideas

Questions

Groups



Profiles

Networks

Ideas

Questions

Groups

Including blogging, private versions of the other things and chat



Profiles

Networks

Ideas

Questions

Groups

Including blogging, private versions of the other things and chat

Feeds



Profiles

Networks

Ideas

Questions

Groups

Including blogging, private versions of the other things and chat

Feeds

Product scoping



Profiles

Networks

Ideas

Questions

Groups

Including blogging, private versions of the other things and chat

Feeds

Product scoping

Direct messages



Profiles

Networks

Ideas

Questions

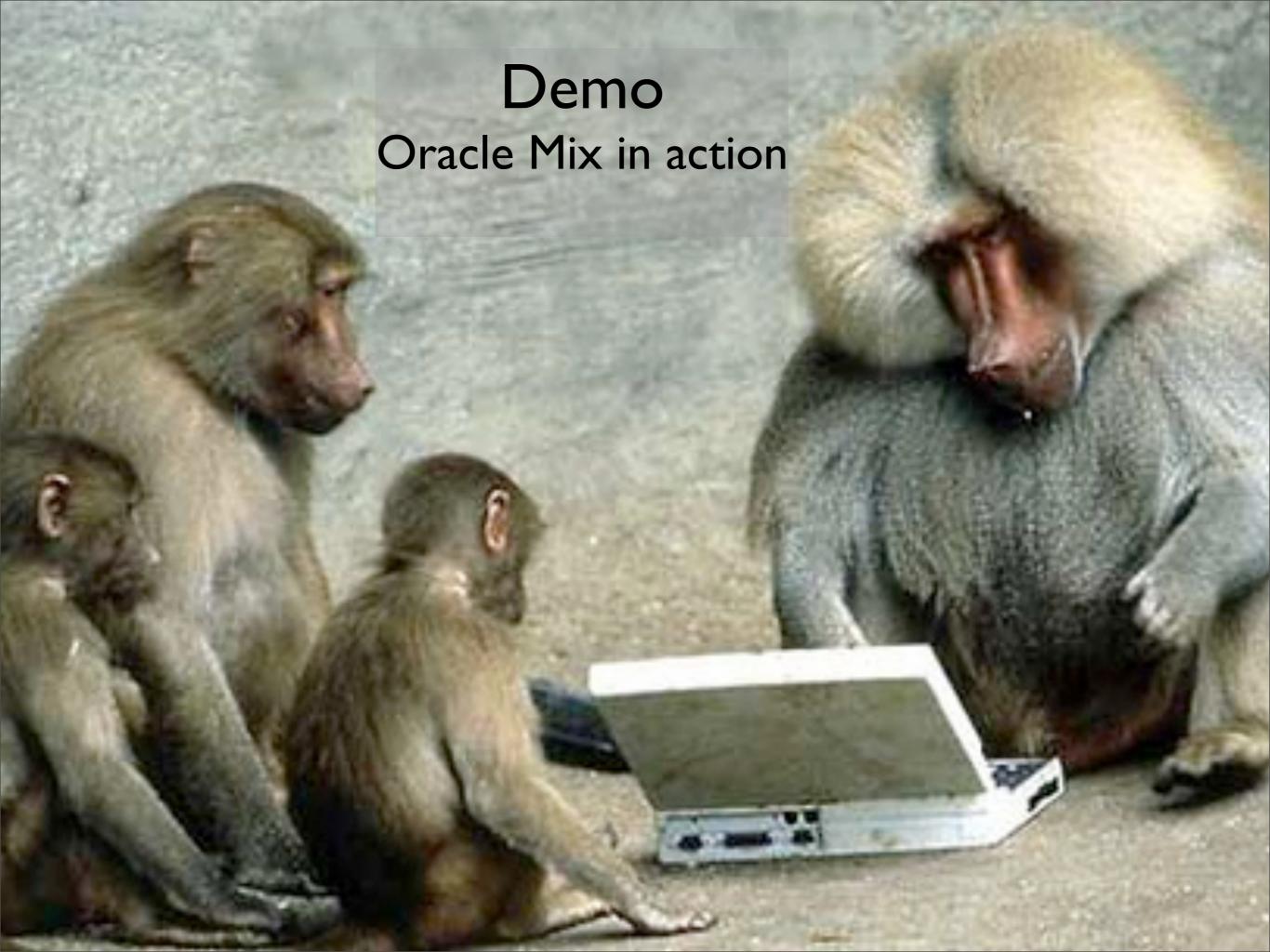
Groups

Including blogging, private versions of the other things and chat

Feeds

Product scoping

Direct messages







Summer 2007



Summer 2007

Internal Oracle app



Summer 2007

Internal Oracle app

Started as directory



Summer 2007

Internal Oracle app

Started as directory

Networking



Summer 2007

Internal Oracle app

Started as directory

Networking

Got 2000 users in 10hrs



Summer 2007

Internal Oracle app

Started as directory

Networking

Got 2000 users in 10hrs

10000 users in 3 days



Summer 2007

Internal Oracle app

Started as directory

Networking

Got 2000 users in 10hrs

10000 users in 3 days

Simple Ruby on Rails application



Summer 2007

Internal Oracle app

Started as directory

Networking

Got 2000 users in 10hrs

10000 users in 3 days

Simple Ruby on Rails application

Later added IdeaFactory



Summer 2007

Internal Oracle app

Started as directory

Networking

Got 2000 users in 10hrs

10000 users in 3 days

Simple Ruby on Rails application

Later added IdeaFactory

June 20, 2008, Connect V2 launched on the Mix platform





Launched 11 Nov, 2007



Launched II Nov, 2007

Built in 6 weeks



Launched II Nov, 2007

Built in 6 weeks

By Oracle and ThoughtWorks



Launched II Nov, 2007

Built in 6 weeks

By Oracle and ThoughtWorks

5 developers



Launched 11 Nov, 2007

Built in 6 weeks

By Oracle and ThoughtWorks

5 developers

At start, no real hardware available, etc



Launched 11 Nov, 2007

Built in 6 weeks

By Oracle and ThoughtWorks

5 developers

At start, no real hardware available, etc

Deployed on 4x2 cpu single core, 12 gb mem, small HD



Launched 11 Nov, 2007

Built in 6 weeks

By Oracle and ThoughtWorks

5 developers

At start, no real hardware available, etc

Deployed on 4x2 cpu single core, 12 gb mem, small HD

3 app servers, I db server, BigIP load balancer



Launched 11 Nov, 2007

Built in 6 weeks

By Oracle and ThoughtWorks

5 developers

At start, no real hardware available, etc

Deployed on 4x2 cpu single core, 12 gb mem, small HD

3 app servers, I db server, BigIP load balancer



Future plans



Future plans

Integration with OpenSocial



Future plans

Integration with OpenSocial

Possibility of using it as a platform, not only for Mix and Connect



Future plans

Integration with OpenSocial

Possibility of using it as a platform, not only for Mix and Connect

Clean up search



Future plans

Integration with OpenSocial

Possibility of using it as a platform, not only for Mix and Connect

Clean up search

Continual development of smaller features





JRuby on Rails (Rails 1.2, JRuby trunk, around 1.1RC1)



JRuby on Rails (Rails 1.2, JRuby trunk, around 1.1RC1)
Initially Rails 1.2, JRuby around 1.1RC1



JRuby on Rails (Rails 1.2, JRuby trunk, around 1.1RC1)

Initially Rails 1.2, JRuby around 1.1RC1

Now Rails 2.1, JRuby 1.1.3



```
JRuby on Rails (Rails 1.2, JRuby trunk, around 1.1RC1)
```

Initially Rails 1.2, JRuby around 1.1RC1

Now Rails 2.1, JRuby 1.1.3

Oracle Application Server (OC4J)



```
JRuby on Rails (Rails 1.2, JRuby trunk, around 1.1RC1)
```

Initially Rails 1.2, JRuby around 1.1RC1

Now Rails 2.1, JRuby 1.1.3

Oracle Application Server (OC4J)

Oracle RDBMS 10g



```
JRuby on Rails (Rails 1.2, JRuby trunk, around 1.1RC1)
```

Initially Rails 1.2, JRuby around 1.1RC1

Now Rails 2.1, JRuby 1.1.3

Oracle Application Server (OC4J)

Oracle RDBMS 10g

Oracle Internet Directory (LDAP)



```
JRuby on Rails (Rails 1.2, JRuby trunk, around 1.1RC1)
```

Initially Rails 1.2, JRuby around 1.1RC1

Now Rails 2.1, JRuby 1.1.3

Oracle Application Server (OC4J)

Oracle RDBMS 10g

Oracle Internet Directory (LDAP)

Oracle SSO



```
JRuby on Rails (Rails 1.2, JRuby trunk, around 1.1RC1)
```

Initially Rails 1.2, JRuby around 1.1RC1

Now Rails 2.1, JRuby 1.1.3

Oracle Application Server (OC4J)

Oracle RDBMS 10g

Oracle Internet Directory (LDAP)

Oracle SSO

Oracle HTTPD



```
JRuby on Rails (Rails 1.2, JRuby trunk, around 1.1RC1)
```

Initially Rails 1.2, JRuby around 1.1RC1

Now Rails 2.1, JRuby 1.1.3

Oracle Application Server (OC4J)

Oracle RDBMS 10g

Oracle Internet Directory (LDAP)

Oracle SSO

Oracle HTTPD

Oracle Linux

ThoughtWorks Benefits of technical platform

ThoughtWorks® Benefits of technical platform

Quick turnaround

Thought Works Benefits of technical platform

Quick turnaround

Agile development

Benefits of technical platform

Quick turnaround

Agile development

Start to finish took 6 weeks

ThoughtWorks®

Benefits of technical platform

Quick turnaround

Agile development

Start to finish took 6 weeks

Integration with technical stack very easy

Thought Works Benefits of technical platform

Quick turnaround

Agile development

Start to finish took 6 weeks

Integration with technical stack very easy

From Java side

ThoughtWorks®

Benefits of technical platform

Quick turnaround

Agile development

Start to finish took 6 weeks

Integration with technical stack very easy

From Java side

From Ruby side

ThoughtWorks®

Benefits of technical platform

Quick turnaround

Agile development

Start to finish took 6 weeks

Integration with technical stack very easy

From Java side

From Ruby side

Challenges of technical platform

Thought Works Challenges of technical platform

JRuby startup

Thought Works Challenges of technical platform

JRuby startup

MRI used for development

Challenges of technical platform

JRuby startup

MRI used for development

Lack of Oracle RDBMS on Mac

Challenges of technical platform

JRuby startup

MRI used for development

Lack of Oracle RDBMS on Mac

Used Parallels

Challenges of technical platform

JRuby startup

MRI used for development

Lack of Oracle RDBMS on Mac

Used Parallels

Oracle SSO support

Challenges of technical platform

JRuby startup

MRI used for development

Lack of Oracle RDBMS on Mac

Used Parallels

Oracle SSO support

Tweaked acts_as_authenticated to get it working

Challenges of technical platform

JRuby startup

MRI used for development

Lack of Oracle RDBMS on Mac

Used Parallels

Oracle SSO support

Tweaked acts_as_authenticated to get it working

Initially performance problems

ThoughtWorks Challenges of technical platform

JRuby startup

MRI used for development

Lack of Oracle RDBMS on Mac

Used Parallels

Oracle SSO support

Tweaked acts_as_authenticated to get it working

Initially performance problems

Found some bugs in JRuby, including memory leaks

ThoughtWorks Challenges of technical platform

JRuby startup

MRI used for development

Lack of Oracle RDBMS on Mac

Used Parallels

Oracle SSO support

Tweaked acts_as_authenticated to get it working

Initially performance problems

Found some bugs in JRuby, including memory leaks

Deviation in Servlet implementation





Initial: Code LOC: 2887, Test LOC: 3691



Initial: Code LOC: 2887, Test LOC: 3691

After 3 weeks



Initial: Code LOC: 2887, Test LOC: 3691

After 3 weeks

3000 registered people, 40% employees



Initial: Code LOC: 2887, Test LOC: 3691

After 3 weeks

3000 registered people, 40% employees

After 6 weeks



Initial: Code LOC: 2887, Test LOC: 3691

After 3 weeks

3000 registered people, 40% employees

After 6 weeks

4400 registered, over 150 ideas, 200 groups



Initial: Code LOC: 2887, Test LOC: 3691

After 3 weeks

3000 registered people, 40% employees

After 6 weeks

4400 registered, over 150 ideas, 200 groups

After 4 months (March 08)



Initial: Code LOC: 2887, Test LOC: 3691

After 3 weeks

3000 registered people, 40% employees

After 6 weeks

4400 registered, over 150 ideas, 200 groups

After 4 months (March 08)

7000 people, 35% employees, 286 groups, 600 ideas, 168 questions



```
Initial: Code LOC: 2887, Test LOC: 3691
```

After 3 weeks

3000 registered people, 40% employees

After 6 weeks

4400 registered, over 150 ideas, 200 groups

After 4 months (March 08)

7000 people, 35% employees, 286 groups, 600 ideas, 168 questions

After 7 months (June 08)



```
Initial: Code LOC: 2887, Test LOC: 3691
```

After 3 weeks

3000 registered people, 40% employees

After 6 weeks

4400 registered, over 150 ideas, 200 groups

After 4 months (March 08)

7000 people, 35% employees, 286 groups, 600 ideas, 168 questions

After 7 months (June 08)

17000 people, 5500 employees, 460 groups, 1081 ideas



```
Initial: Code LOC: 2887, Test LOC: 3691
```

After 3 weeks

3000 registered people, 40% employees

After 6 weeks

4400 registered, over 150 ideas, 200 groups

After 4 months (March 08)

7000 people, 35% employees, 286 groups, 600 ideas, 168 questions

After 7 months (June 08)

17000 people, 5500 employees, 460 groups, 1081 ideas

After 10 months (September 08):



```
Initial: Code LOC: 2887, Test LOC: 3691
```

After 3 weeks

3000 registered people, 40% employees

After 6 weeks

4400 registered, over 150 ideas, 200 groups

After 4 months (March 08)

7000 people, 35% employees, 286 groups, 600 ideas, 168 questions

After 7 months (June 08)

17000 people, 5500 employees, 460 groups, 1081 ideas

After 10 months (September 08):

31000 people, 10000 employees, about 600 groups



```
Initial: Code LOC: 2887, Test LOC: 3691
```

After 3 weeks

3000 registered people, 40% employees

After 6 weeks

4400 registered, over 150 ideas, 200 groups

After 4 months (March 08)

7000 people, 35% employees, 286 groups, 600 ideas, 168 questions

After 7 months (June 08)

17000 people, 5500 employees, 460 groups, 1081 ideas

After 10 months (September 08):

31000 people, 10000 employees, about 600 groups





API for social networking applications



API for social networking applications

Developed by Google and MySpace + others



API for social networking applications

Developed by Google and MySpace + others

Implementing the API's make it possible to integrate with other implementing sites



API for social networking applications

Developed by Google and MySpace + others

Implementing the API's make it possible to integrate with other implementing sites

Connect V2 add support for OpenSocial, and experimental applications have been added



API for social networking applications

Developed by Google and MySpace + others

Implementing the API's make it possible to integrate with other implementing sites

Connect V2 add support for OpenSocial, and experimental applications have been added

Mix will add public OpenSocial support at some point



API for social networking applications

Developed by Google and MySpace + others

Implementing the API's make it possible to integrate with other implementing sites

Connect V2 add support for OpenSocial, and experimental applications have been added

Mix will add public OpenSocial support at some point





Publicity event



Publicity event

Oracle.com replaced for limited time



Publicity event

Oracle.com replaced for limited time

Submit ideas and suggestions from front page



Publicity event

Oracle.com replaced for limited time

Submit ideas and suggestions from front page

Oracle executives part of it



Publicity event

Oracle.com replaced for limited time

Submit ideas and suggestions from front page

Oracle executives part of it

Responding quickly to ideas and feedback



Publicity event

Oracle.com replaced for limited time

Submit ideas and suggestions from front page

Oracle executives part of it

Responding quickly to ideas and feedback

