Dynamic Languages with GlassFish v3

Vivek Pandey
GlassFish developer
GlassFish-Scripting project lead
vivek.pandey@sun.com
http://www.java.net/blogs/vivekp/
http://twitter.com/vivekpandey

Agenda

- Introduction
- Status Update
- Demo

Why Dynamic Languages?

- Faster development time/less overhead
- Shorter code iteration
- Cleaner syntax
  - Braces, blocks, Semicolons, “fluff”

Lets look at sample code...

Java

```java
public class Fib {
 public static void main (String[] args) {
  System.out.println(fib(10));
 }
 private static int fib(int n) {
  if (n == 0) {
   return 0;
  } else if (n == 1) {
   return 1;
  } else {
   return fib(n-1)+fib(n-2);
  }
 }
}
```

Ruby

```ruby
def fib ( number )
  if (0..1).include? number
    number
  else
    fib(number - 1) + fib(number - 2)
  end
end
puts fib(10)
```

Dynamic Languages on JVM

- JVM is
  - mature
  - runs fast
  - real threads
  - ubiquitous
- Several implementations
  - JRuby, Jython, Groovy, Clojure, Scala, PHP...

Why not run these on GlassFish v3?

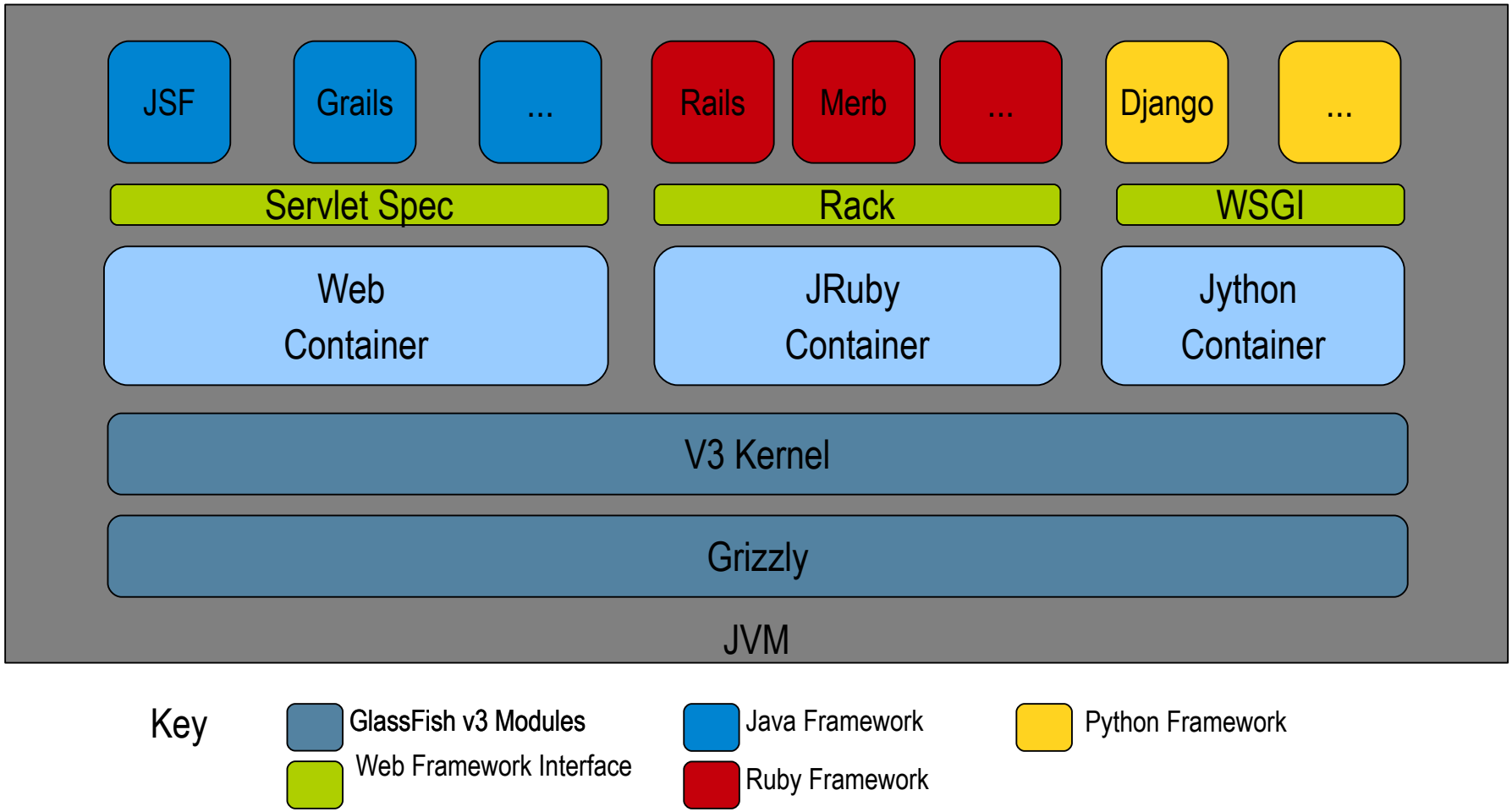
- GlassFish v3: extensible, modular, pluggable
- Harness JVM benefits
- Build on robust JavaEE technologies
- Re-use investment in Java

Sinatra

merb

rack

Pluggable Web Frameworks



What you can do with GlassFish v3?

- You can run
  - Any Rack compliant Ruby framework
    - Rails, Merb, Sinatra or your own framework (Rackup script)
  - Python/Django applications
  - Groovy/Grails applications
  - Scala/Lift, PHP(Quercus/Java-PHP bridge)
- ...and also
  - Monitoring and administration of Ruby on Rails or any other Rack applications
  - Netbeans develop, deploy and debug Ruby on Rails on GlassFish v3

Status Update - Ruby

- GlassFish v3 ships with JRuby container
- You need to install JRuby and required gems
  - Get it using updatetool or get directly from jruby.org
- Tested to work with
  - JRuby >= 1.3.0, Rails >= 1.2.6
- Deploy

```
$ asadmin deploy --property jruby.home=/tools/jruby
                 ~/myRailsApp
```

Status Update - Ruby

- Administration
  - Admin Console is Ruby aware
  - **configure-jruby-container** asadmin CLI command
    - Set various JRuby container specific properties: JRuby home, JRuby runtime pool, enable/disable monitoring
  - Lots of deploy time properties
- Monitoring
  - Stats
    - JRuby container
    - HTTP
    - JRuby runtime pool
  - Admin console or Jconsole, dTrace or your custom script

Status Update - Ruby

- GlassFish gem
  - > Built on top of GlassFish v3 kernel
    - Uses GlassFish embedded API
  - > Replacement for Mongrel and other Ruby web servers
  - > Ruby friendly

```
GlassFish::Server.start(:port => 3000) do
  Proc.new {|env| [200, {"Content-Type" => "text/html"},
                          "Hello"]}
end
```

- Visit: http://glassfishgem.rubyforge.org/

Status Update - Python

- Jython container available from GlassFish UpdateCenter
  - $ glassfishv3/bin/updatetool
- You need Jython installation
  - Get it from GlassFish UpdateCenter or from jython.org
- ...and Django as well
- Tested to work with Jython >= 2.5.0, Django 1.1.1
- Deploy the same way

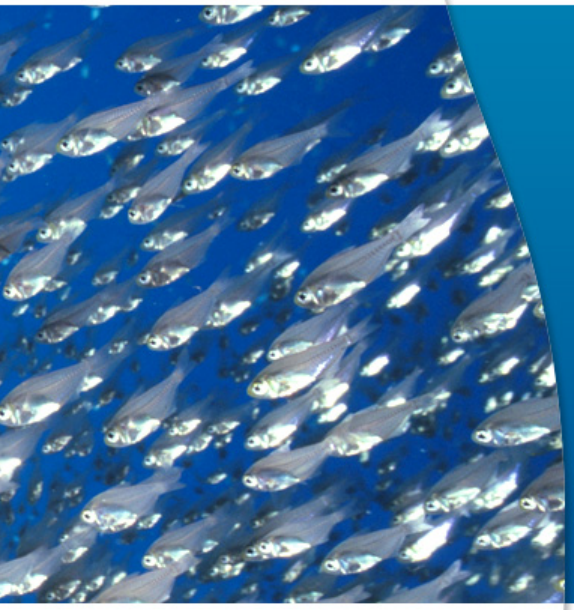
```
$ asadmin deploy --property
        jython.home=/tools/jython ~/myDjangoApp
```

Status Update - Grails

- Grails production mode fully supported
- No GlassFish for run-app
- shared-war not supported (grails >= 1.0)

Status Update - Others

- Scala/Lift works just fine
- and so does PHP using Quercus or Java-PHP bridge



Demo
Rails

Summary

GlassFish v3 home to Dynamic Languages

- Easy deployment, monitoring and administration of Ruby on Rails or any other Rack framework
- Easy deployment of Python/Django, Grails, Lift, PHP

Resources

- GlassFish Scripting

  http://glassfish-scripting.dev.java.net
- GlassFish

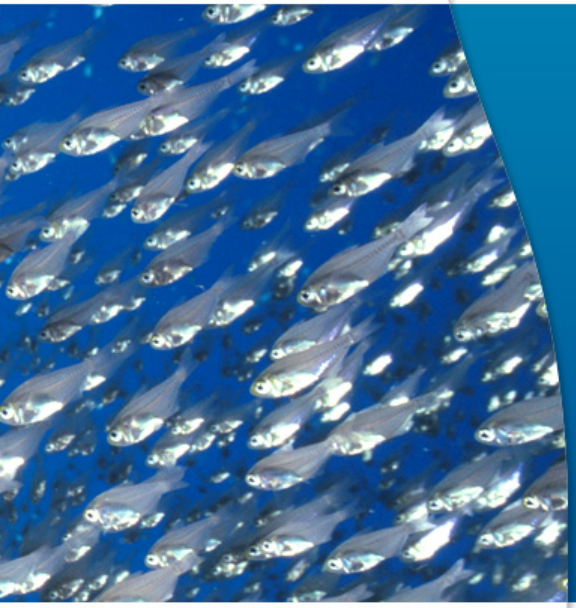
  http://glassf sh.dev.java.net
- Mailing List

  users@glassf sh.dev.java.net

- GlassFish gem

  http://glassfishgem.rubyforge.org/
- Netbeans

  http://netbeans.org
-



Q&A