

# JBoss Community

# MOBILE JSF

## With RichFaces

Brian Leathem

Senior Software Engineer, Red Hat

JavaOne 2012 - San Francisco

2012-09-01

# THE PLAN

Why the Mobile Web?  
Why JSF?  
Why RichFaces?



# WHO AM I?

Senior Software Engineer at Red Hat

RichFaces Project Lead

Represent Red Hat on the JSF 2.2 EG (JSR-344)





# WHY MOBILE?

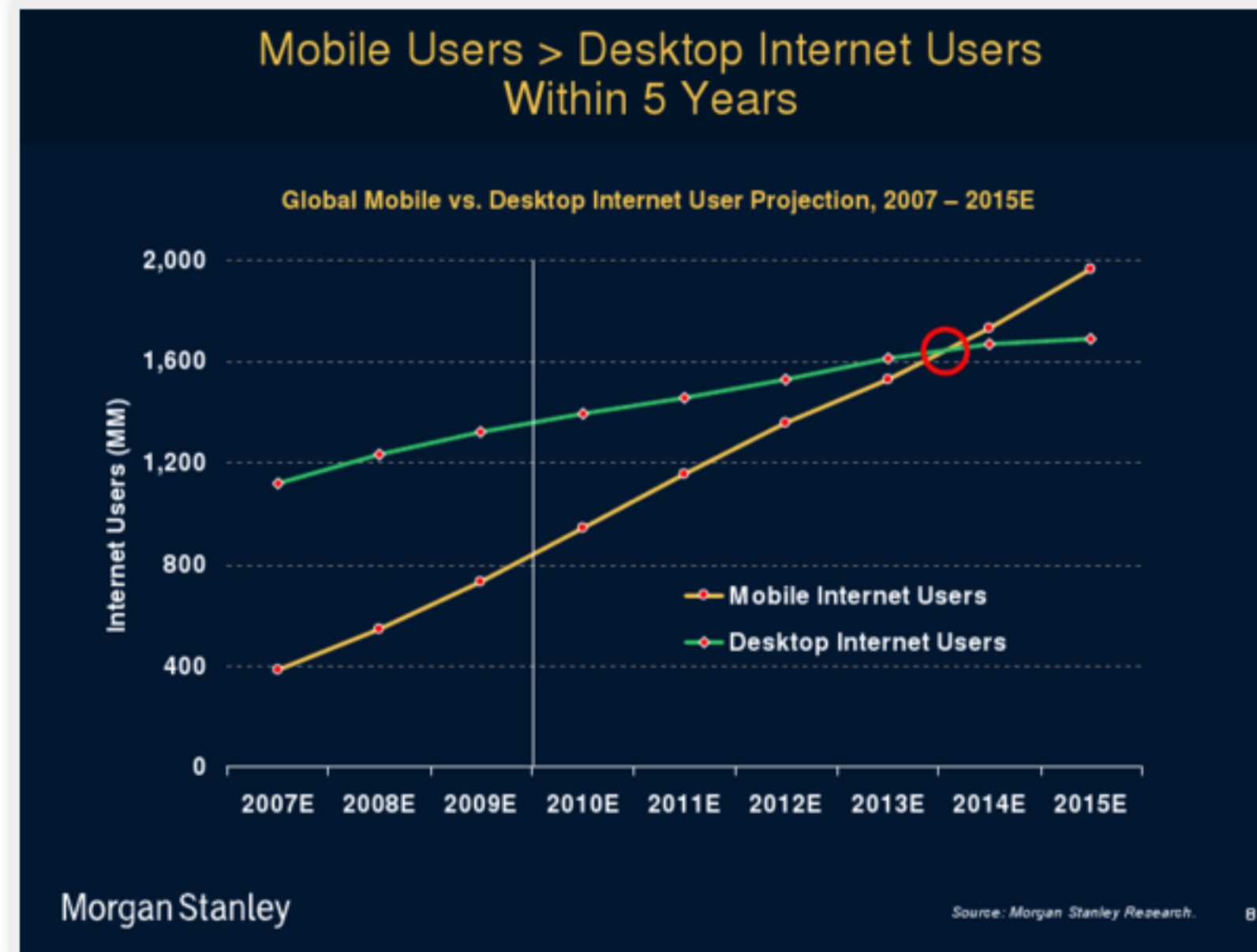
I write desktop apps!



# SMARTPHONES!



# MOBILE PHONES ARE EVERYWHERE!





# CHOOSE: NATIVE APP OR MOBILE

Native:

- Responsive
- Touch-specific controls
- Native L&F

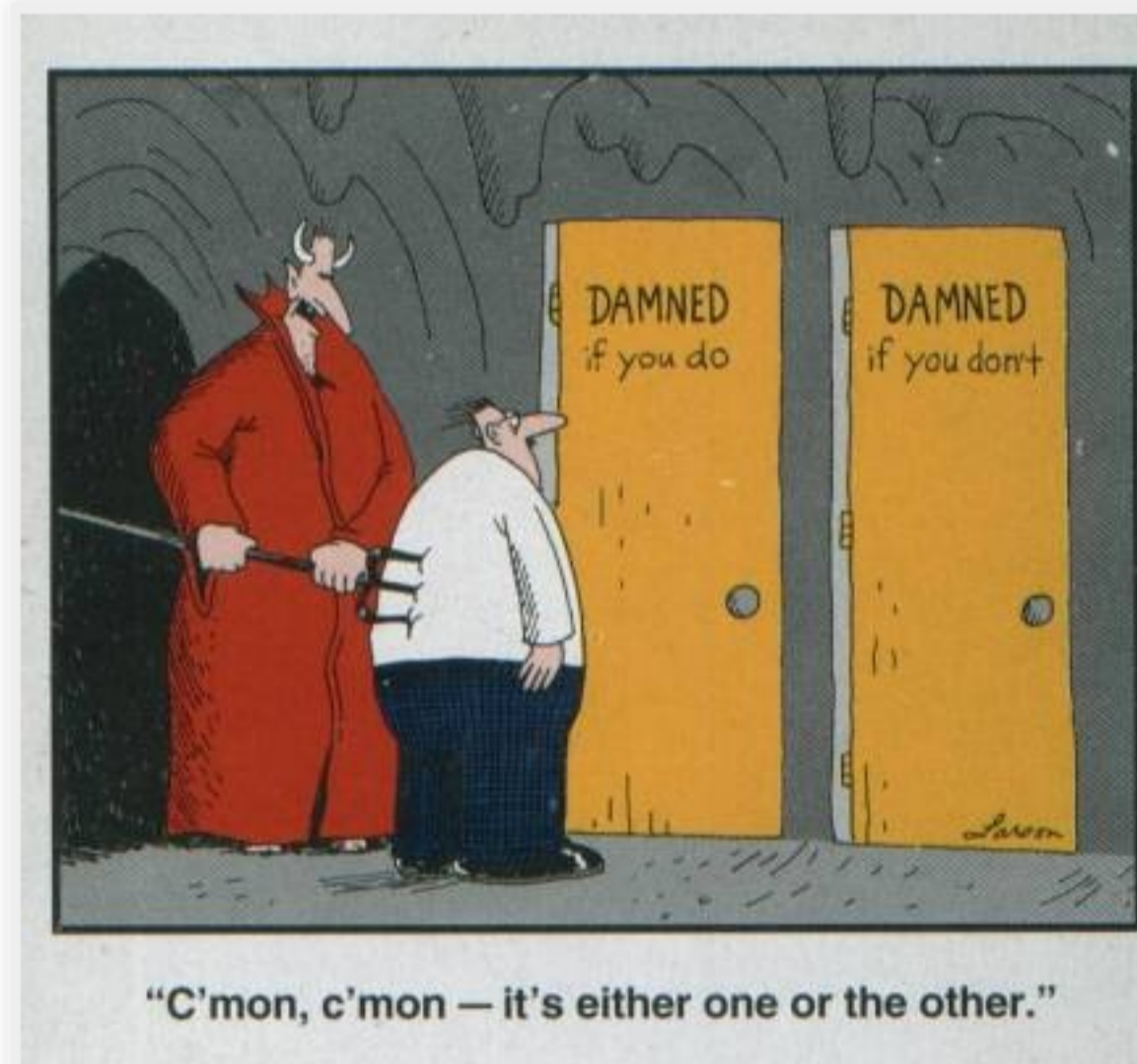
Web:

- Common across platforms
- HTML 5 / CSS 3 / javascript



# CHOOSE: NATIVE APP OR MOBILE

So how do I choose?



**YOU NEED A MOBILE WEB APP  
REGARDLESS!**

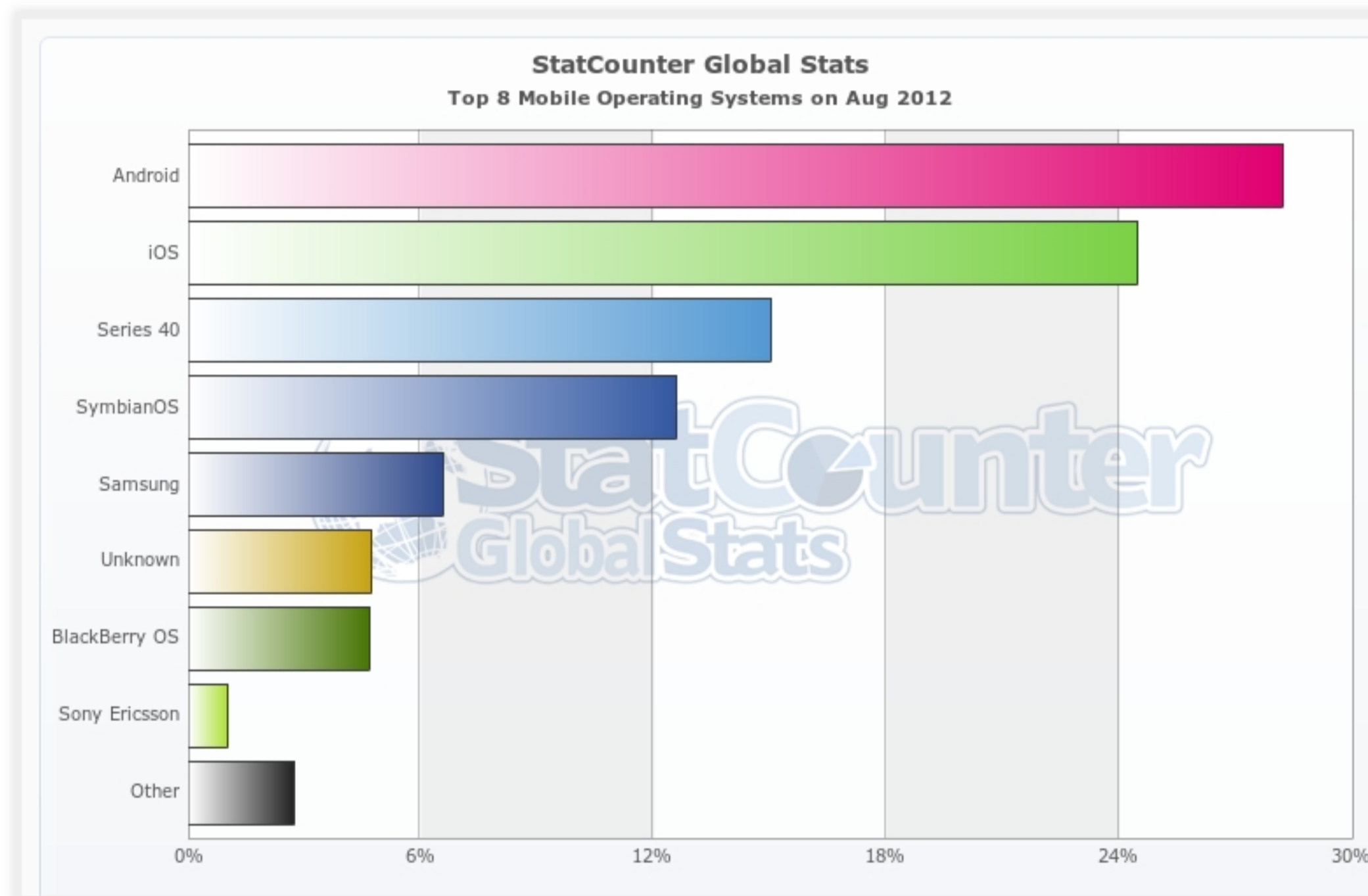
# MOBILE WEB IS READY

HTML 5  
CSS 3  
JavaScript



Html 5 Web App → Native App

# TARGET = WEBKIT





# JAVASCRIPT APIS

Geo-location

Local Storage

Web Sockets

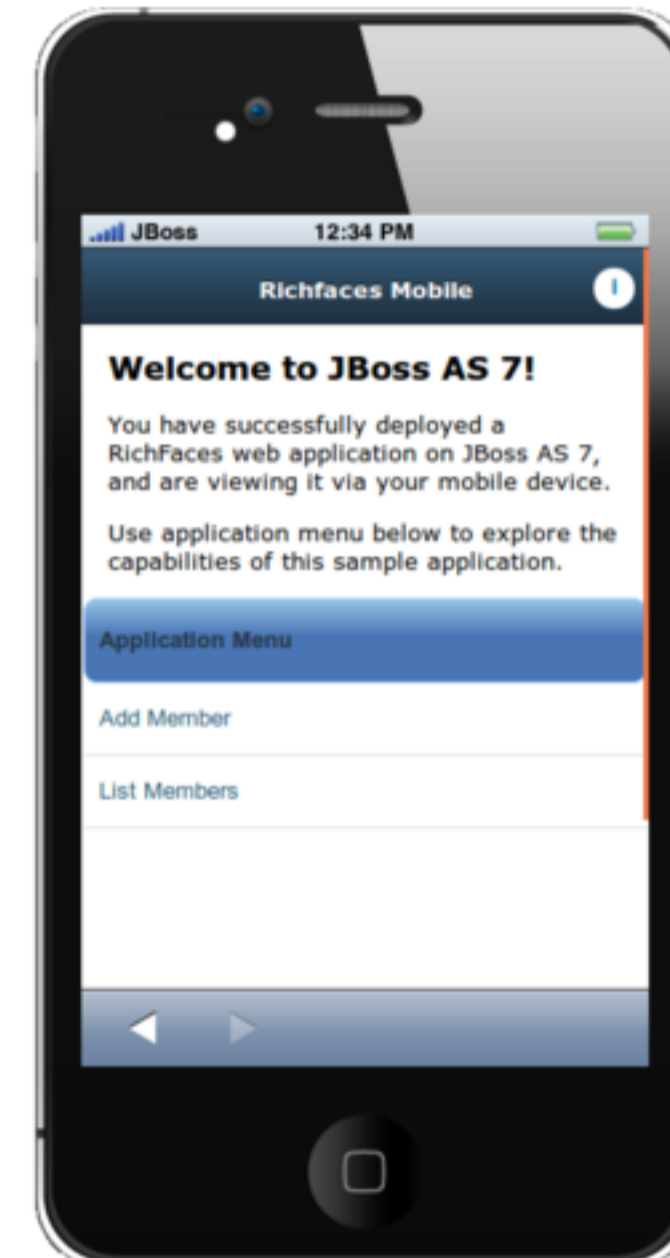
Canvas

Drag and Drop

[bit.ly/webkit-comparison](http://bit.ly/webkit-comparison)

# HIDE THE LOCATION BAR

```
hideURLBar: function() {  
    //hide the url bar on mobile devices  
    setTimeout(scrollTo, 100, 0, 1)  
}
```

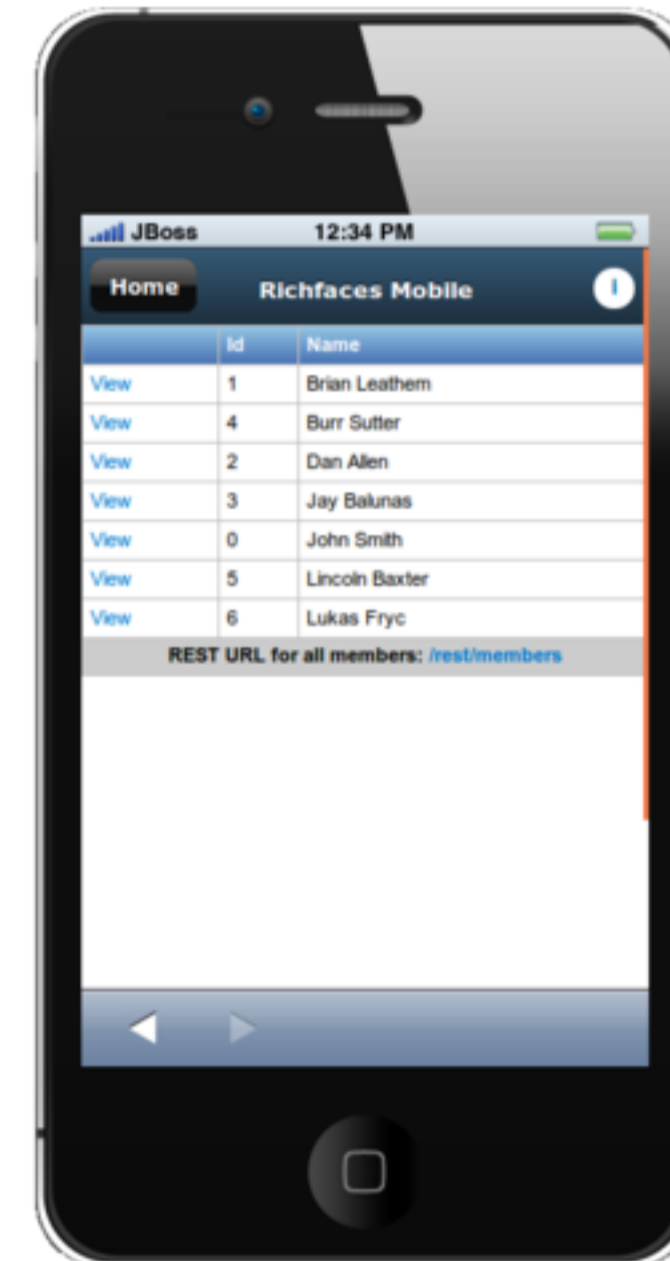


# ORIENTATION DETECTION



# ORIENTATION DETECTION

```
/* portrait screen width */  
@media screen and (max-width: 480px) {  
  .portrait {  
  }  
  .landscape {  
    display:none;  
  }  
}  
  
/* landscape/desktop device widths */  
@media screen and (min-width: 481px) {  
  .portrait {  
    display:none;  
  }  
  .landscape {  
  }  
}
```





# HARDWARE ACCELERATION

## Activate The GPU For Compositing Each Page

```
.page {  
  ...  
  -webkit-transform: translate3d(0, 0, 0);  
}
```

# HTML 5 PRESENTATION

```
<section>
  <h2>The plan</h2>
  <ul>
    <li>Why the Mobile Web?</li>
    <li>Why JSF?</li>
    <li>Why RichFaces?</li>
  </ul>
</section>
```

# PLETHORA OF FRAMEWORKS



# PLETHORA OF FRAMEWORKS



+ JSF !!



# WHY JSF?

What Do We Like About JSF?



# JSF BECAUSE...

Standardized as part of Java EE



# JSF BECAUSE...

Ajax is baked-in  
to the framework

**AJAX**

# JSF BECAUSE...

Component-oriented  
programming model





# JSF BECAUSE...

Facelets:  
A powerful templating mechanism



# JSF BECAUSE...

**Build on our investment in JSF/RichFaces technology!**



# ADAPTING JSF TO BE “MOBILE READY”

Responsive

Touch-specific controls

Mobile L&F

# ADAPTING JSF TO BE “MOBILE READY”

Responsive

- Single Page programming model (via JSF AJAX)

Touch-specific controls

Mobile L&F



# ADAPTING JSF TO BE “MOBILE READY”

## Responsive

- Single Page programming model (via JSF AJAX)

## Touch-specific controls

- CSS 3 styling

## Mobile L&F

# ADAPTING JSF TO BE “MOBILE READY”

## Responsive

- Single Page programming model (via JSF AJAX)

## Touch-specific controls

- CSS 3 styling

## Mobile L&F

- Component libraries

# DEVICE DETECTION





# DEVICE DETECTION

## User Agent String

```
Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/536.5  
(KHTML, like Gecko) Chrome/19.0.1084.56 Safari/536.5
```



# DEVICE DETECTION

## Server Side: UAgentInfo

```
public class UAgentInfo implements Serializable {  
    ...  
    public void initDeviceScan() {  
        this.isIphone = detectIphoneOrIpod();  
        this.isAndroidPhone = detectAndroidPhone();  
        this.isTierTablet = detectTierTablet();  
        this.isTierIphone = detectTierIphone();  
        this.isTierRichCss = detectTierRichCss();  
        this.isTierGenericMobile = detectTierOtherPhones();  
    }  
    ...  
}
```

# DEVICE DETECTION

## JSF Bean: UserAgent

```
@Model
public class UserAgent {

    private UAgentInfo uAgentInfo;

    @PostConstruct
    public void init() {
        FacesContext context = FacesContext.getCurrentInstance();
        HttpServletRequest request = (HttpServletRequest)
            context.getExternalContext().getRequest();
        String userAgentStr = request.getHeader("user-agent");
        String httpAccept = request.getHeader("Accept");
        uAgentInfo = new UAgentInfo(userAgentStr, httpAccept);
    }
}
```

# DEVICE DETECTION

## URL Rewriting: ReWrite

```
public Configuration getConfiguration(final ServletContext context) {  
    return ConfigurationBuilder.begin()  
        .defineRule()  
            .when(Direction.isInbound()  
                .and(Path.matches("/").or(Path.matches("/index.jsf")))  
                .and(UserAgent.isMobile()))  
            .perform(Forward.to("/mobile/"));  
}
```

# THE RICHFACES VALUE ADD

For mobile JSF apps





# THE RICHFACES SHOWCASE

Mobile compatible components  
<http://showcase.richfaces.org>



# A4J:PUSH

## Facelet Source

```
<a4j:push address="pushCdi"
  ondataavailable="jQuery('<li/>').text(event.rf.data)
  .prependTo('#messages')" />
<ul id="messages" />
```

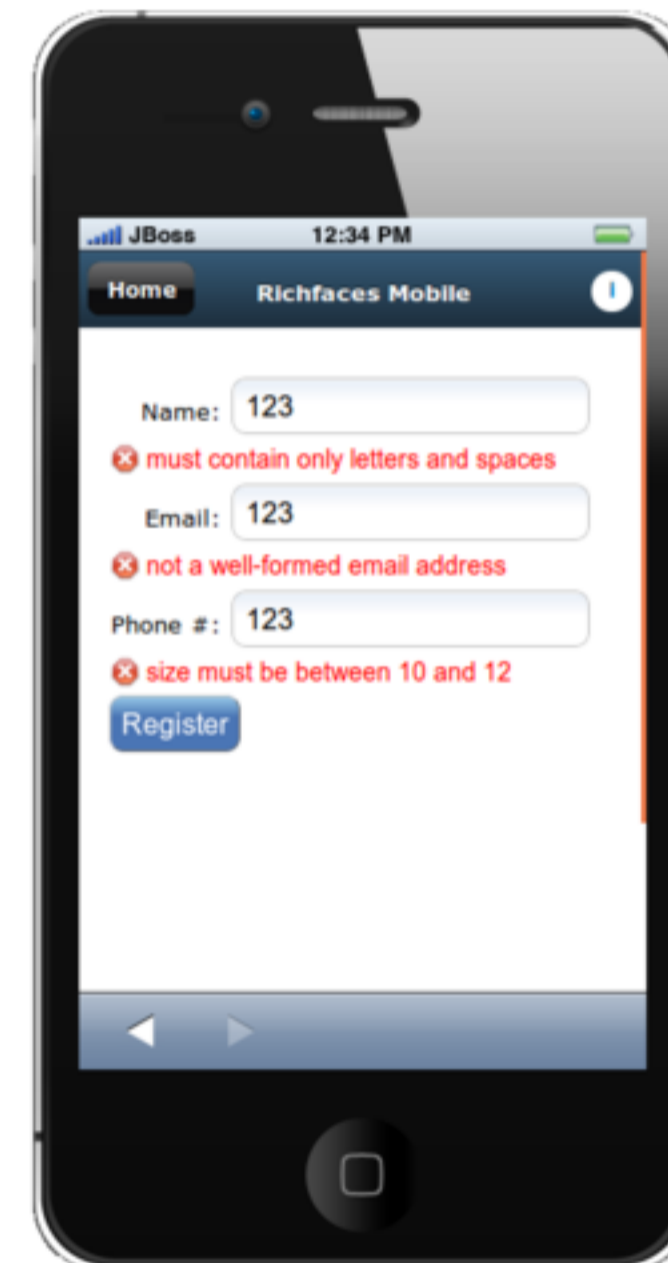
## Java Source

```
@Inject
@Push(topic = "pushCdi")
Event<String> pushEvent;

public void sendMessage() {
    pushEvent.fire("My Message");
}
```

# CLIENT-SIDE VALIDATION

Perform validation locally



# A4J:JSFUNCTION

A facelet component interface to the JSF AJAX API

```
<a4j:jsFunction name="updateName" render="showname">  
  <a4j:param name="name" assignTo="#{functionBean.text}" />  
</a4j:jsFunction>
```



# CASE STUDY: "KITCHENSINK" QUICKSTART

localhost:8080/jboss-as-kitchensink/index.jsf

**Welcome to JBoss!**

You have successfully deployed a Java EE 6 web application.

Your application can run on:

**JBoss Enterprise Application Platform** (Supported) & **JBoss Application Server 7** (Community)

**Member Registration**  
Enforces annotation-based constraints defined on the model class.

Name:

Email:

Phone #:

**Members**

Id	Name	Email	Phone #	REST URL
0	John Smith	john.smith@mailinator.com	2125551212	/rest/members/0

REST URL for all members: /rest/members

This project was generated from a Maven archetype from JBoss.

JBoss Community

- Learn more about JBoss Enterprise Application Platform 6.
  - Documentation
  - Product Information
- Learn more about JBoss AS 7.
  - Getting Started Developing Applications Guide
  - Community Project Information

# CASE STUDY: "KITCHENSINK" QUICKSTART

localhost:8080/jboss-as-kitchensink/index.jsf

**Welcome to JBoss!**

You have successfully deployed a Java EE 6 web application.

Your application can run on

**JBoss Enterprise Application Platform 6** (Supported) & **JBoss Application Server 7** (Community)

**Member Registration**  
Enforces annotation-based constraints defined on the model class.

Name:

Email:

Phone #:

**Members**

Id	Name	Email	Phone #	REST URL
0	John Smith	john.smith@mailinator.com	2125551212	/rest/members/0

REST URL for all members: /rest/members

This project was generated from a Maven archetype from JBoss.

# CASE STUDY: "KITCHENSINK" QUICKSTART

The screenshot shows a web browser window with the address bar displaying `localhost:8080/jboss-as-kitchensink/index.jsf`. The page content includes:

- Welcome to JBoss!** (highlighted with a red box and a large blue '1')  
You have successfully deployed a Java EE 6 web application.  
Your application can run on **JBoss Enterprise Application Platform 6** (Supported) & **JBoss Application Server 7** (Community).
- Member Registration** (highlighted with a red box and a large blue '2')  
Enforces annotation-based constraints defined on the model class.  
Form fields: Name, Email, Phone #, and a Register button.
- Members** table:

Id	Name	Email	Phone #	REST URL
0	John Smith	john.smith@mailinator.com	2125551212	/rest/members/0

REST URL for all members: /rest/members
- Footer: This project was generated from a Maven archetype from JBoss.

# CASE STUDY: "KITCHENSINK" QUICKSTART

localhost:8080/jboss-as-kitchensink/index.jsf

**Welcome to JBoss!**  
You have successfully deployed a Java EE 6 web application.  
Your application can run on **JBoss Enterprise Application Platform 6** (Supported) & **JBoss Application Server 7** (Community)

**Member Registration**  
Enforces annotation-based constraints defined on the model class.

Name:   
Email:   
Phone #:

**Members**

Id	Name	Email	Phone #	REST URL
0	John Smith	john.smith@mailinator.com	2125551212	/rest/members/0

REST URL for all members: /rest/members

This project was generated from a Maven archetype from JBoss.



# CASE STUDY: "KITCHENSINK" QUICKSTART

localhost:8080/jboss-as-kitchensink/index.jsf

**Welcome to JBoss!**  
You have successfully deployed a Java EE 6 web application.  
Your application can run on **JBoss Enterprise Application Platform 6** (Supported) & **JBoss Application Server 7** (Community)

**Member Registration**  
Enforces annotation-based constraints defined on the model class.

Name:   
Email:   
Phone #:

**Members**

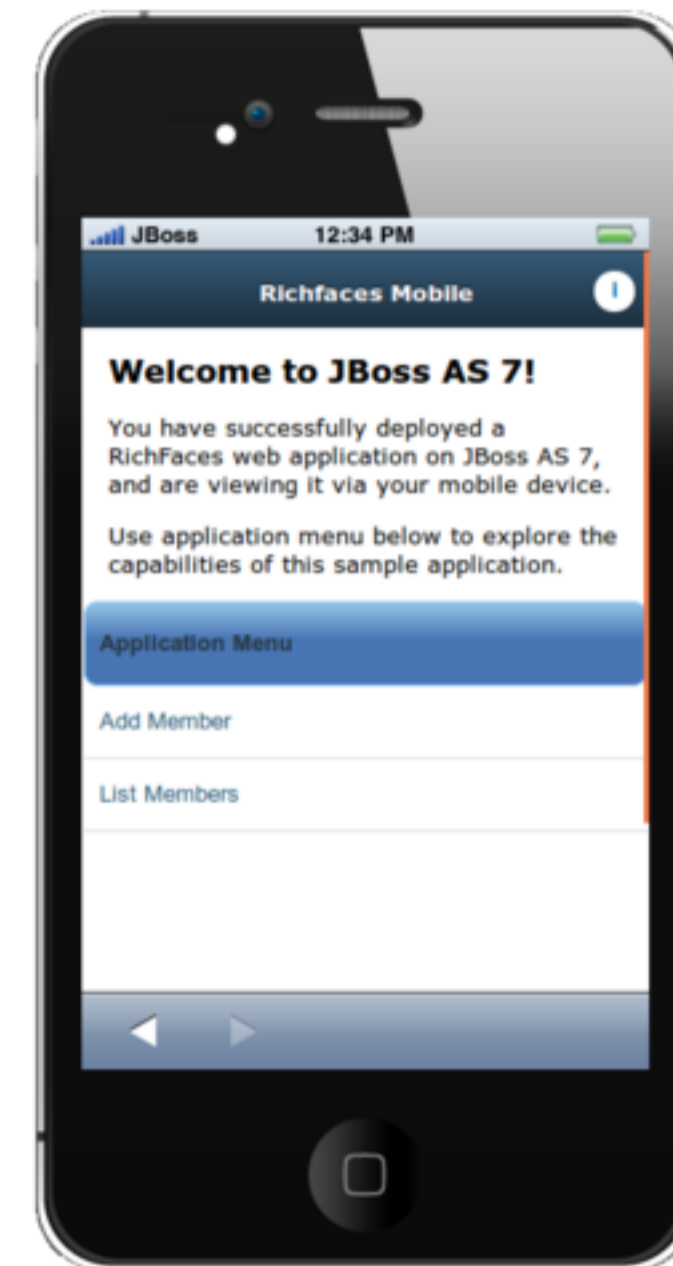
Id	Name	Email	Phone #	REST URL
0	John Smith	john.smith@mail.com	2125551212	/rest/members/0

REST URL for all members: /rest/members

This project was generated from a Maven archetype from JBoss.

# KITCHENSINK: “MOBILIZED”

Demo time!



# MANIPULATE THE LOCATION HASH

Directly, using html links

```
<a href="#about">i</a>
```

Using javascript

```
<rich:panelMenuItem label="Add Member"  
  onclick="location.hash='new' "  
  mode="client" />
```

# MOBILE COMPATIBLE WITH SLIDFAST

*A collection of lightweight CSS and Javascript assets*



# “VANILLA” JSF MOBILE FACELET

```
<?xml version="1.0" encoding="UTF-8"?>
<ui:composition template="/WEB-INF/templates/mobile.xhtml"
  xmlns:ui="http://java.sun.com/jsf/facelets"
  xmlns:f="http://java.sun.com/jsf/core"
  xmlns:h="http://java.sun.com/jsf/html">
  <ui:define name="content">
    <h:outputStylesheet name="mobile.css" library="css" />
    <h:outputScript>
      //initialize mobile RichFaces with slidfast
      slidfast({
        defaultPageID: 'home-page',
        callback: 'handle@lashChange',
        backButtonID: 'back-button'
      });
    </h:outputScript>
    <div id="browser">
      <header>
        <div>
          <div id="back-button" class="hide-button">Home</div>
          <div id="info-button" class="right-header-button info-link">
            <a href="#about">I</a>
          </div>
        </div>
        <p>Mobile JSF</p>
      </div>
    </header>
    <h:form id="mobileForm">
      <div id="page-container">
        <div id="home-page" class="page stage-left">
          <ui:include src="/mobile/home.xhtml"/>
        </div>
        <div id="new" class="page stage-right">
          <ui:include src="/mobile/new.xhtml"/>
        </div>
        <div id="list" class="page stage-right">
          <ui:include src="/mobile/list.xhtml"/>
        </div>
        <div id="about" class="page stage-right">
          <ui:include src="/mobile/about.xhtml"/>
        </div>
      </div>
    </h:form>
  </div>
</ui:define>
</ui:composition>
```

# “VANILLA” JSF MOBILE FACELET

```
<?xml version="1.0" encoding="UTF-8"?>
<ui:composition template="/WEB-INF/templates/mobile.xhtml"
    xmlns:ui="http://java.sun.com/jsf/facelets"
    xmlns:f="http://java.sun.com/jsf/core"
    xmlns:h="http://java.sun.com/jsf/html">
    <ui:define name="content">
        <h:outputStylesheet name="mobile.css" library="css"/>
        <h:outputScript>
            //initialize mobile RichFaces with slidfast
            slidfast{
                defaultPageID: 'home-page',
                callback: 'handleFlashChange',
                backButtonID: 'back-button'
            };
        </h:outputScript>
        <div id="browser">
            <header>
                <div>
                    <div id="back-button" class="hide-button">Home</div>
                    <div id="info-button" class="right-header-button info-link">
                        <a href="#about">i</a>
                    </div>
                </div>
                <p>Mobile JSF</p>
            </div>
            <h:form id="mobileForm">
                <div id="page-container">
                    <div id="home-page" class="page stage-left">
                        <ui:include src="/mobile/home.xhtml"/>
                    </div>
                    <div id="new" class="page stage-right">
                        <ui:include src="/mobile/new.xhtml"/>
                    </div>
                    <div id="list" class="page stage-right">
                        <ui:include src="/mobile/list.xhtml"/>
                    </div>
                    <div id="about" class="page stage-right">
                        <ui:include src="/mobile/about.xhtml"/>
                    </div>
                </div>
            </h:form>
        </div>
    </ui:define>
</ui:composition>
```

# “VANILLA” JSF MOBILE FACELET

```
<?xml version="1.0" encoding="UTF-8"?>
<ui:composition template="/WEB-INF/templates/mobile.xhtml"
  xmlns:ui="http://java.sun.com/jsf/facelets"
  xmlns:f="http://java.sun.com/jsf/core"
  xmlns:h="http://java.sun.com/jsf/html">
  <ui:define name="content">
    <h:outputStylesheet name="mobile.css" library="css" />
    <h:outputScript>
```

```
      //initialize mobile RichFaces with slidfast
      slidfast({
        defaultPageID: 'home-page',
        callback: 'handleHashChange',
        backButtonID: 'back-button'
      });
```

```
</h:outputScript>
<div id="browser">
  <header>
    <div>
      <div id="back-button" class="hide-button">Home</div>
      <div id="info-button" class="right-header-button info-link">
        <a href="#about">i</a>
      </div>
    </div>
    <p>Mobile JSF</p>
  </div>
</header>
<h:form id="mobileForm">
  <div id="page-container">
    <div id="home-page" class="page stage-left">
      <ui:include src="/mobile/home.xhtml" />
    </div>
    <div id="new" class="page stage-right">
      <ui:include src="/mobile/new.xhtml" />
    </div>
    <div id="list" class="page stage-right">
      <ui:include src="/mobile/list.xhtml" />
    </div>
    <div id="about" class="page stage-right">
      <ui:include src="/mobile/about.xhtml" />
    </div>
  </div>
</h:form>
</div>
</ui:define>
</ui:composition>
```

# “VANILLA” JSF MOBILE FACELET

```
<?xml version="1.0" encoding="UTF-8"?>
<ui:composition template="/WEB-INF/templates/mobile.xhtml"
  xmlns:ui="http://java.sun.com/jsf/facelets"
  xmlns:f="http://java.sun.com/jsf/core"
  xmlns:h="http://java.sun.com/jsf/html">
  <ui:define name="content">
    <h:outputStylesheet name="mobile.css" library="css" />
    <h:outputScript>
      //initialize mobile RichFaces with slidfast
      slidfast{
        defaultPageID: 'home-page',
        callback: 'handleHashChange',
        backButtonID: 'back-button'
      };
    </h:outputScript>
    <div id="browser">
```

```
  <header>
    <div>
      <div id="back-button" class="hide-button">Home</div>
      <div id="info-button" class="right-header-button info-link">
        <a href="#about">i</a>
      </div>
      <p>Mobile JSF</p>
    </div>
  </header>
```

```
  <h:form id="mobileForm">
    <div id="page-container">
      <div id="home-page" class="page stage-left">
        <ui:include src="/mobile/home.xhtml" />
      </div>
      <div id="new" class="page stage-right">
        <ui:include src="/mobile/new.xhtml" />
      </div>
      <div id="list" class="page stage-right">
        <ui:include src="/mobile/list.xhtml" />
      </div>
      <div id="about" class="page stage-right">
        <ui:include src="/mobile/about.xhtml" />
      </div>
    </div>
  </h:form>
</div>
</ui:define>
</ui:composition>
```



# “VANILLA” JSF MOBILE FACELET

```
<?xml version="1.0" encoding="UTF-8"?>
<ui:composition template="/WEB-INF/templates/mobile.xhtml"
  xmlns:ui="http://java.sun.com/jsf/facelets"
  xmlns:f="http://java.sun.com/jsf/core"
  xmlns:h="http://java.sun.com/jsf/html">
  <ui:define name="content">
    <h:outputStylesheet name="mobile.css" library="css" />
    <h:outputScript>
      //initialize mobile RichFaces with slidfast
      slidfast{
        defaultPageID: 'home-page',
        callback: 'handleHashChange',
        backButtonID: 'back-button'
      };
    </h:outputScript>
    <div id="browser">
      <header>
        <div>
          <div id="back-button" class="hide-button">Home</div>
          <div id="info-button" class="right-header-button info-link">
            <a href="#about">i</a>
          </div>
        </div>
        <p>Mobile JSF</p>
      </div>
    </header>
    <h:form id="mobileForm">
      <div id="page-container">
        <div id="home-page" class="page stage-left">
          <ui:include src="/mobile/home.xhtml"/>
        </div>
        <div id="new" class="page stage-right">
          <ui:include src="/mobile/new.xhtml"/>
        </div>
        <div id="list" class="page stage-right">
          <ui:include src="/mobile/list.xhtml"/>
        </div>
        <div id="about" class="page stage-right">
          <ui:include src="/mobile/about.xhtml"/>
        </div>
      </div>
    </h:form>
  </div>
</ui:define>
</ui:composition>
```

`<a href="#about">i</a>`

# “VANILLA” JSF MOBILE FACELET

```
<?xml version="1.0" encoding="UTF-8"?>
<ui:composition template="/WEB-INF/templates/mobile.xhtml"
  xmlns:ui="http://java.sun.com/jsf/facelets"
  xmlns:f="http://java.sun.com/jsf/core"
  xmlns:h="http://java.sun.com/jsf/html">
  <ui:define name="content">
    <h:outputStylesheet name="mobile.css" library="css" />
    <h:outputScript>
      //initialize mobile RichFaces with slidfast
      slidfast({
        defaultPageID: 'home-page',
        callback: 'handleHashChange',
        backButtonID: 'back-button'
      });
    </h:outputScript>
    <div id="browser">
      <header>
        <div>
          <div id="back-button" class="hide-button">Home</div>
          <div id="info-button" class="right-header-button info-link">
            <a href="#about">I</a>
          </div>
        </div>
        <p>Mobile JSF</p>
      </div>
    </header>
```

```
    <h:form id="mobileForm">
      <div id="page-container">
        <div id="home-page" class="page stage-left">
          <ui:include src="/mobile/home.xhtml"/>
        </div>
        <div id="new" class="page stage-right">
          <ui:include src="/mobile/new.xhtml"/>
        </div>
        <div id="list" class="page stage-right">
          <ui:include src="/mobile/list.xhtml"/>
        </div>
        <div id="about" class="page stage-right">
          <ui:include src="/mobile/about.xhtml"/>
        </div>
      </div>
    </h:form>
```

```
  </div>
</ui:define>
</ui:composition>
```

# SINGLE-PAGE PROGRAMMING MODEL

```
<h:form id="mobileForm">
  <div id="page-container">
    <div id="home-page" class="page stage-left">
      <ui:include src="/mobile/home.xhtml"/>
    </div>
    <div id="new" class="page stage-right">
      <ui:include src="/mobile/new.xhtml"/>
    </div>
    <div id="list" class="page stage-right">
      <ui:include src="/mobile/list.xhtml"/>
    </div>
    <div id="about" class="page stage-right">
      <ui:include src="/mobile/about.xhtml"/>
    </div>
  </div>
</h:form>
```

# SINGLE-PAGE PROGRAMMING MODEL

```
<h:form id="mobileForm">
  <div id="page-container">
    <div id="home-page" class="page stage-left">
      <ui:include src="/mobile/home.xhtml"/>
    </div>
    <div id="new" class="page stage-right">
      <ui:include src="/mobile/new.xhtml"/>
    </div>
    <div id="list" class="page stage-right">
      <ui:include src="/mobile/list.xhtml"/>
    </div>
    <div id="about" class="page stage-right">
      <ui:include src="/mobile/about.xhtml"/>
    </div>
  </div>
</h:form>
```



# SCALE W/ DYNAMIC UI:INCLUDE

```
<div id="page-container">  
  <div id="home-page" class="page stage-left">  
    <ui:include src="/mobile/home.xhtml"/>  
  </div>  
  <div id="app-page" class="page stage-right">  
    <ui:include src="#{pageBean.page}"/>  
  </div>  
</div>
```

# SCALE W/ DYNAMIC UI:INCLUDE

```
<div id="page-container">  
  <div id="home-page" class="page stage-left">  
    <ui:include src="/mobile/home.xhtml"/>  
  </div>  
  <div id="app-page" class="page stage-right">  
    <ui:include src="#{pageBean.page}"/>  
  </div>  
</div>
```

# UPDATE THE PAGEBEAN - JSF

```
<h:inputHidden id="page" value="#{pageBean.location}" />
<h:outputScript >
  var handleHashChange = function (page) {
    var hiddenInput = 'mobileForm:page';
    $(document.getElementById(hiddenInput)).val(page);

    var options = {
      execute: hiddenInput,
      render : '@form',
      onevent : function(event) {
        if(event.status == 'success') {
          slidfast.core.slideTo('app-page');
        }
      }
    }
    jsf.ajax.request(hiddenInput, null, options);
  }
</h:outputScript>
```

# UPDATE THE PAGEBEAN - JSF

```
<h:inputHidden id="page" value="#{pageBean.location}" />
<h:outputScript >
  var handleHashChange = function (page) {
    var hiddenInput = 'mobileForm:page';
    $(document.getElementById(hiddenInput)).val(page);

    var options = {
      execute: hiddenInput,
      render : '@form',
      onevent : function(event) {
        if(event.status == 'success') {
          slidfast.core.slideTo('app-page');
        }
      }
    }
    jsf.ajax.request(hiddenInput, null, options);
  }
</h:outputScript>
```



# UPDATE THE PAGEBEAN - JSF

```
<h:inputHidden id="page" value="#{pageBean.location}" />
<h:outputScript >
    var handleHashChange = function (page) {
        var hiddenInput = 'mobileForm:page';
        $(document.getElementById(hiddenInput)).val(page);

        var options = {
            execute: hiddenInput,
            render : '@form',
            onevent : function(event) {
                if(event.status == 'success') {
                    slidfast.core.slideTo('app-page');
                }
            }
        }
        jsf.ajax.request(hiddenInput, null, options);
    }
</h:outputScript>
```

# UPDATE THE PAGEBEAN - JSF

```
<h:inputHidden id="page" value="#{pageBean.location}" />
<h:outputScript >
  var handleHashChange = function (page) {
    var hiddenInput = 'mobileForm:page';
    $(document.getElementById(hiddenInput)).val(page);

    var options = {
      execute: hiddenInput,
      render : '@form',
      onevent : function(event) {
        if(event.status == 'success') {
          slidfast.core.slideTo('app-page');
        }
      }
    }
    jsf.ajax.request(hiddenInput, null, options);
  }
</h:outputScript>
```

# UPDATE THE PAGEBEAN - JSF

```
<h:inputHidden id="page" value="#{pageBean.location}" />
<h:outputScript >
  var handleHashChange = function (page) {
    var hiddenInput = 'mobileForm:page';
    $(document.getElementById(hiddenInput)).val(page);

    var options = {
      execute: hiddenInput,
      render : '@form',
      onevent : function(event) {
        if(event.status == 'success') {
          slidfast.core.slideTo('app-page');
        }
      }
    }
    jsf.ajax.request(hiddenInput, null, options);
  }
</h:outputScript>
```

# UPDATE THE PAGEBEAN - JSF

```
<h:inputHidden id="page" value="#{pageBean.location}" />
<h:outputScript >
  var handleHashChange = function (page) {
    var hiddenInput = 'mobileForm:page';
    $(document.getElementById(hiddenInput)).val(page);

    var options = {
      execute: hiddenInput,
      render : '@form',
      onevent : function(event) {
        if(event.status == 'success') {
          slidfast.core.slideTo('app-page');
        }
      }
    }
    jsf.ajax.request(hiddenInput, null, options);
  }
</h:outputScript>
```



# UPDATE THE PAGEBEAN - RICHFACES 4.2

```
<h:outputScript target="head">
<a4j:jsFunction name="handleHashChange"
               render="@form"
               oncomplete="slidfast.core.slideTo('app-page')">
  <a4j:param name="page" assignTo="#{pageBean.location}"/>
</a4j:jsFunction>
```

# UPDATE THE PAGEBEAN - RICHFACES SANDBOX

```
<slidfast:pageChanger activePage="#{pageBean.location}" render="app-page" />
```

# UPDATE THE PAGEBEAN - RICHFACES SANDBOX

```
<slidfast:pageChanger activePage="#{pageBean.location}" render="app-page" />
```

```
<slidfast:page id="app-page" stage="right">  
  <ui:include src="#{pageBean.page}" />  
</slidfast:page>
```

# “SLIDFAST” JSF MOBILE FACELET

```
<?xml version="1.0" encoding="UTF-8"?>
<ui:composition template="/WEB-INF/templates/mobile.xhtml"
    xmlns:ui="http://java.sun.com/jsf/facelets"
    xmlns:h="http://java.sun.com/jsf/html"
    xmlns:slidfast="http://richfaces.org/slidfast">
  <ui:define name="content">
    <h:outputStylesheet name="app.css" library="css"/>
    <h:outputStylesheet name="mobile.css" library="css"/>
    <div id="browser">
      <header>
        <div>
          <div id="back-button" class="hide-button">Home</div>
          <div id="info-button" class="right-header-button info-link">
            <a href="#about">i</a>
          </div>
        </div>
        <p>Richfaces Mobile</p>
      </div>
    </header>
    <h:form id="mobileForm">
      <slidfast:pageChanger id="pageChanger" activePage="#{pageBean.location}" render="app-page" />
      <slidfast:pageContainer id="pageContainer">
        <slidfast:page id="home-page" stage="left">
          <ui:include src="/mobile/home.xhtml"/>
        </slidfast:page>
        <slidfast:page id="app-page" stage="right">
          <ui:include src="#{pageBean.page}"/>
        </slidfast:page>
      </slidfast:pageContainer>
    </h:form>
  </div>
  <h:outputStylesheet library="org.richfaces" name="rf-mobile-skin.css" />
</ui:define>
</ui:composition>
```



# “SLIDFAST” JSF MOBILE FACELET

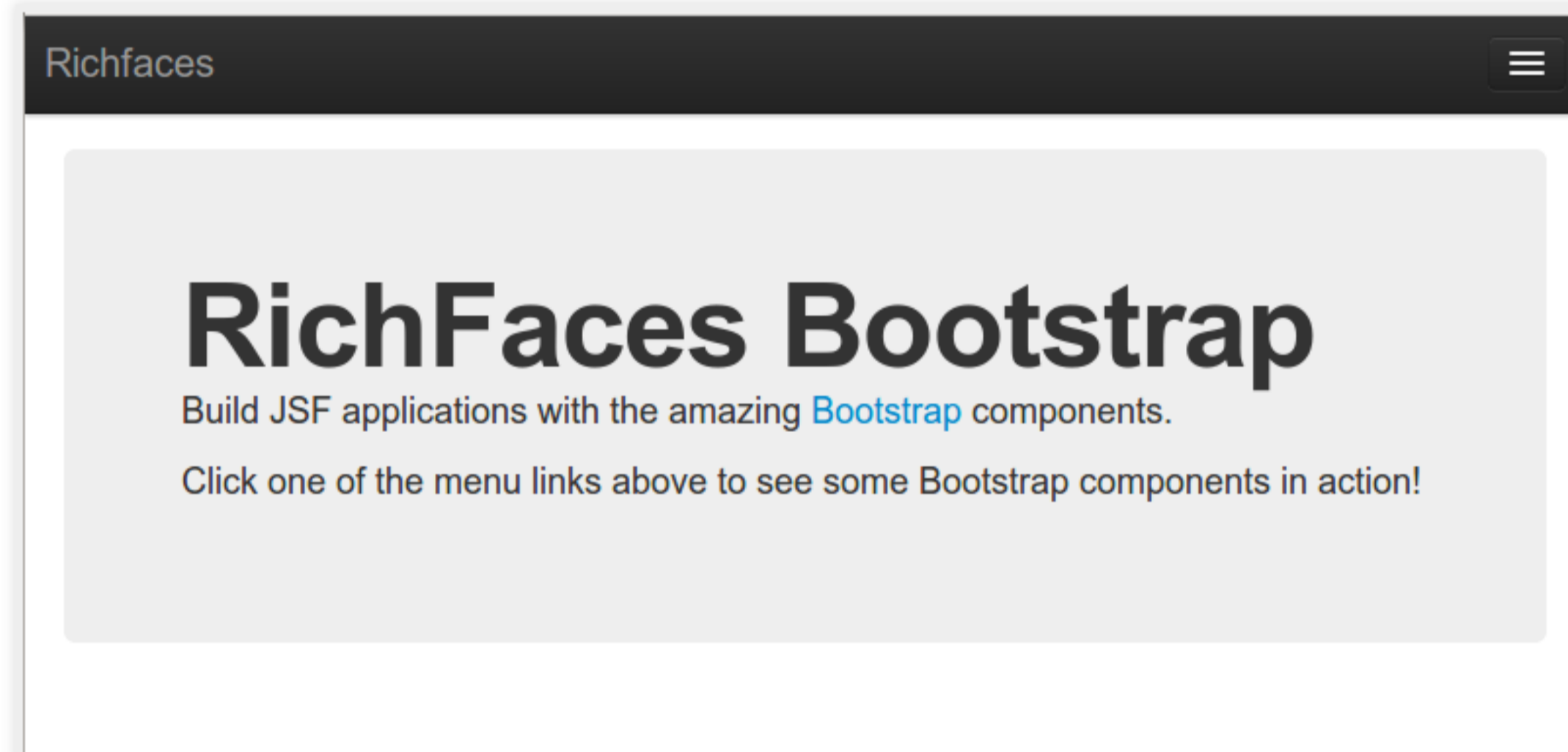
```
<?xml version="1.0" encoding="UTF-8"?>
<ui:composition template="/WEB-INF/templates/mobile.xhtml"
  xmlns:ui="http://java.sun.com/jsf/facelets"
  xmlns:h="http://java.sun.com/jsf/html"
  xmlns:slidfast="http://richfaces.org/slidfast">
  <ui:define name="content">
    <h:outputStylesheet name="app.css" library="css"/>
    <h:outputStylesheet name="mobile.css" library="css"/>
    <div id="browser">
      <header>
        <div>
          <div id="back-button" class="hide-button">Home</div>
          <div id="info-button" class="right-header-button info-link">
            <a href="#about">i</a>
          </div>
        </div>
        <p>Richfaces Mobile</p>
      </div>
    </header>
    <h:form id="mobileForm">
      <slidfast:pageChanger id="pageChanger" activePage="#{pageBean.location}" render="app-page" />
      <slidfast:pageContainer id="pageContainer">
        <slidfast:page id="home-page" stage="left">
          <ui:include src="/mobile/home.xhtml"/>
        </slidfast:page>
        <slidfast:page id="app-page" stage="right">
          <ui:include src="#{pageBean.page}"/>
        </slidfast:page>
      </slidfast:pageContainer>
    </h:form>
  </div>
  <h:outputStylesheet library="org.richfaces" name="rf-mobile-skin.css" />
</ui:define>
</ui:composition>
```

```
<slidfast:pageChanger id="pageChanger" activePage="#{pageBean.location}" render="app-page" />
```

# “SLIDFAST” JSF MOBILE FACELET

```
<?xml version="1.0" encoding="UTF-8"?>
<ui:composition template="/WEB-INF/templates/mobile.xhtml"
  xmlns:ui="http://java.sun.com/jsf/facelets"
  xmlns:h="http://java.sun.com/jsf/html"
  xmlns:slidfast="http://richfaces.org/slidfast">
  <ui:define name="content">
    <h:outputStylesheet name="app.css" library="css"/>
    <h:outputStylesheet name="mobile.css" library="css"/>
    <div id="browser">
      <header>
        <div>
          <div id="back-button" class="hide-button">Home</div>
          <div id="info-button" class="right-header-button info-link">
            <a href="#about">i</a>
          </div>
        </div>
        <p>Richfaces Mobile</p>
      </div>
    </header>
    <h:form id="mobileForm">
      <slidfast:pageChanger id="pageChanger" activePage="#{pageBean.location}" render="app-page" />
      <slidfast:pageContainer id="pageContainer">
        <slidfast:page id="home-page" stage="left">
          <ui:include src="/mobile/home.xhtml"/>
        </slidfast:page>
        <slidfast:page id="app-page" stage="right">
          <ui:include src="#{pageBean.page}"/>
        </slidfast:page>
      </slidfast:pageContainer>
    </h:form>
  </div>
  <h:outputStylesheet library="org.richfaces" name="rf-mobile-skin.css" />
</ui:define>
</ui:composition>
```

# RESPONSIVE LAYOUT



**THE END?**



**THE END?**

**THE BEGINNING - OF YOUR MOBILE ADVENTURE WITH  
RICHFACES!**

# CREDITS

<http://www.flickr.com/photos/jdhancock/5845280258/>

<http://leslycorazon.wikispaces.com/file/detail/head-silhouette-with-question-mark.png/319199232>

<http://www.linuk.web.id/2010/09/biografi-singkat-linus-torvalds.html>

[http://en.wikipedia.org/wiki/File:2007Computex\\_e21Forum-MartinCooper.jpg](http://en.wikipedia.org/wiki/File:2007Computex_e21Forum-MartinCooper.jpg)

<http://gigaom.com/2010/04/12/mary-meeker-mobile-internet-will-soon-overtake-fixed-internet/>

<https://devcentral.f5.com/weblogs/macvittie/archive/2008/09/10/3604.aspx>

<http://openclipart.org/detail/17302/groupe-by-czara1>

<http://openclipart.org/detail/36571/tango-network-workgroup-by-warszawianka>

<http://openclipart.org/detail/22860/money-bag-icon-by-chovynz>

<http://openclipart.org/detail/48427/clock-by-palomaironique>

<http://www.flickr.com/photos/ivyfield/4486938457/>



GOING MOBILE With Your RichFaces Applications by Brian Leathem is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.

Based on a work at [github.com](https://github.com).

Permissions beyond the scope of this license may be available at <https://github.com/bleathem/talks/tree/master/2012-JBW>.

# ADDITIONAL RESOURCES

## Source code:

[JBoss-as Kitchensink quickstart](#)

[JBoss-as Kitchensink quickstart | mobile w/ Vanilla JSF](#)

[JBoss-as Kitchensink quickstart | mobile w/ RichFaces](#)

## Articles:

[HTML 5 Rocks article - introduces and motivates the slidfast approach](#)

[RichFaces Mobile wiki page - all things RichFaces + mobile](#)

[Getting Started With Mobile RichFaces](#)

# STAY IN THE LOOP

Project website: <http://richfaces.org>

Twitter: <https://twitter.com/#!/richfaces>

Google+: <http://richfaces.org>

RichFaces Forums: <https://community.jboss.org/en/richfaces?view=discussions>

Blog feed: <http://planet.jboss.org/feed/richfacesall>

IRC: #richfaces