



ICEfaces

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- ICEbrowser product originated in Bergen, Norway
- Changed hands a couple of times until it ended up in Calgary, Canada
- Currently three products:
 - ICEbrowser SDK
 - ICEpdf SDK
 - ICEfaces



ICEfaces

- Open source
 - strong and growing community at icefaces.org
- Standards based
 - extends JSF (not an implementation)
 - framework + Ajax bridge + components
- Server-centric
 - emphasize Java, minimize JavaScript
- Transparent
 - features available with minimum configuration and coding

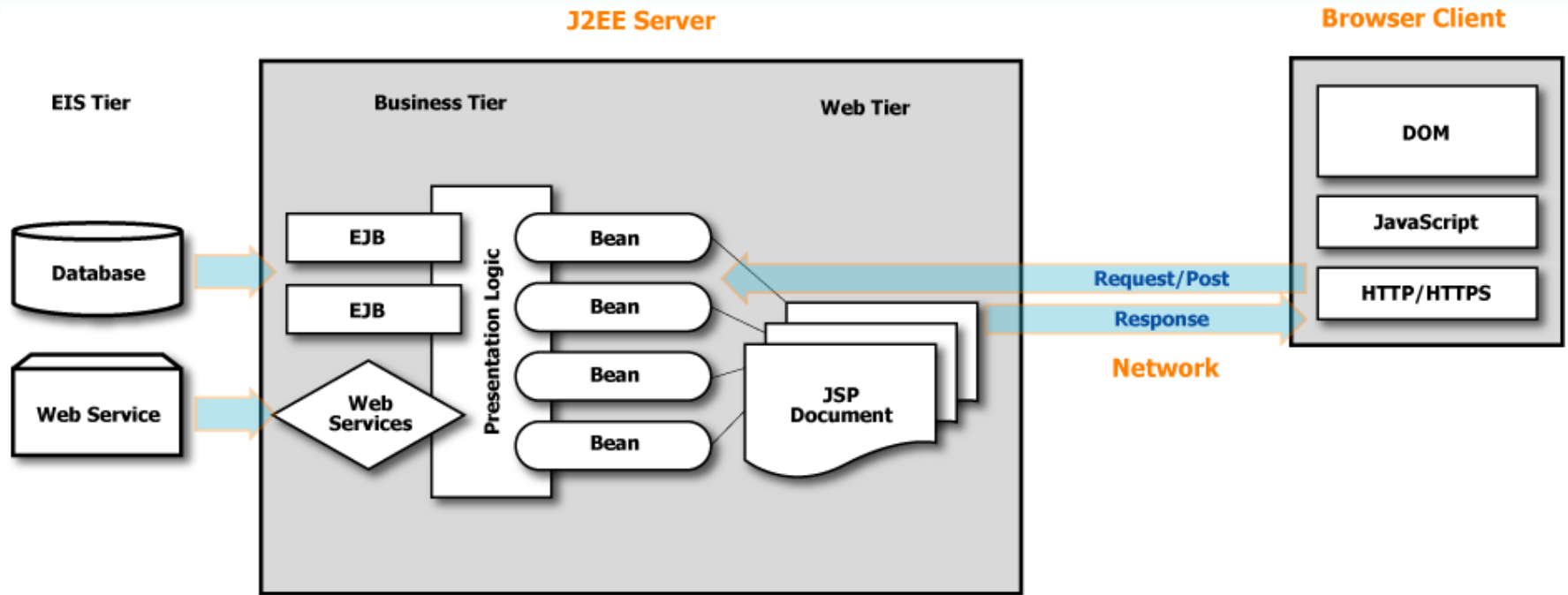


- Part of JEE 5
- Component-centric framework for building web applications
- MVC architecture
- Designed to be “tool-able”
- Designed to be extended

```
...  
<h:panelGroup>  
  <h:commandButton id="toggle" action="#{item.toggle}"/>  
  <h:outputText value="#{item.title}"/>  
</h:panelGroup>  
...
```



Ajax Transparency



A Standards-based Java EE/JSF Development Model



JSF with ICEfaces

- ICEfaces framework hooks into JSF through standard extension points (Factories, ViewHandler, RenderKit)
- ICEfaces framework loads standard JavaScript bridge for Ajax communication
- ICEfaces components use extended JSF framework and JavaScript bridge to enhance UI

```
...  
<h:panelGroup>  
  <h:commandButton id="toggle" action="#{item.toggle}"/>  
  <h:outputText value="#{item.title}"/>  
</h:panelGroup>  
...
```

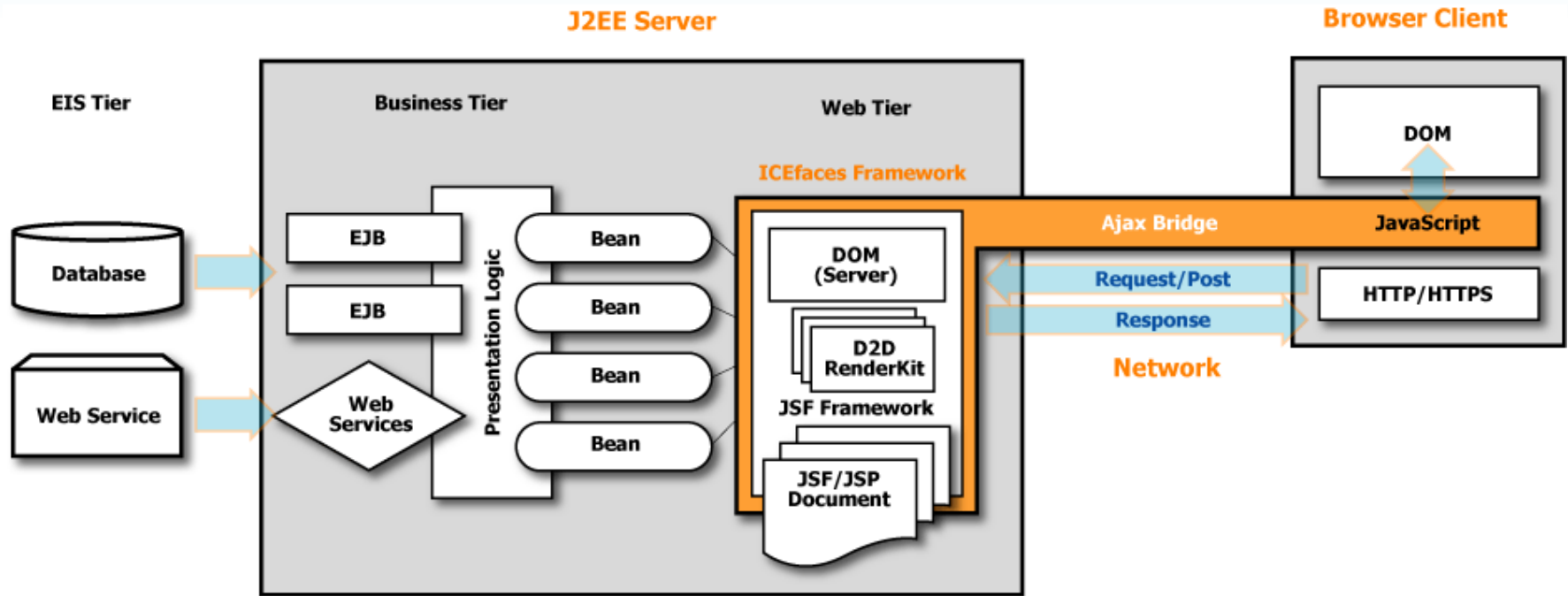


JSF with ICEfaces

```
...
<ice:panelCollapsible expanded="#{true}">
  <f:facet name="header">
    <ice:outputText value="#{info.header}"/>
  </f:facet>
  <ice:panelGrid columns="2">
    <ice:outputLink target="_blank"
                  value="http://icefaces.org/">
      <ice:outputText value="ICEfaces.org"/>
    </ice:outputLink>
    <ice:outputLink target="_blank"
                  value="http://www.icesoft.com/">
      <ice:outputText value="ICEsoft.com"/>
    </ice:outputLink>
  </ice:panelGrid>
</ice:panelCollapsible>
...
```



Ajax Transparency



A Standards-based Java EE/JSF Development Model

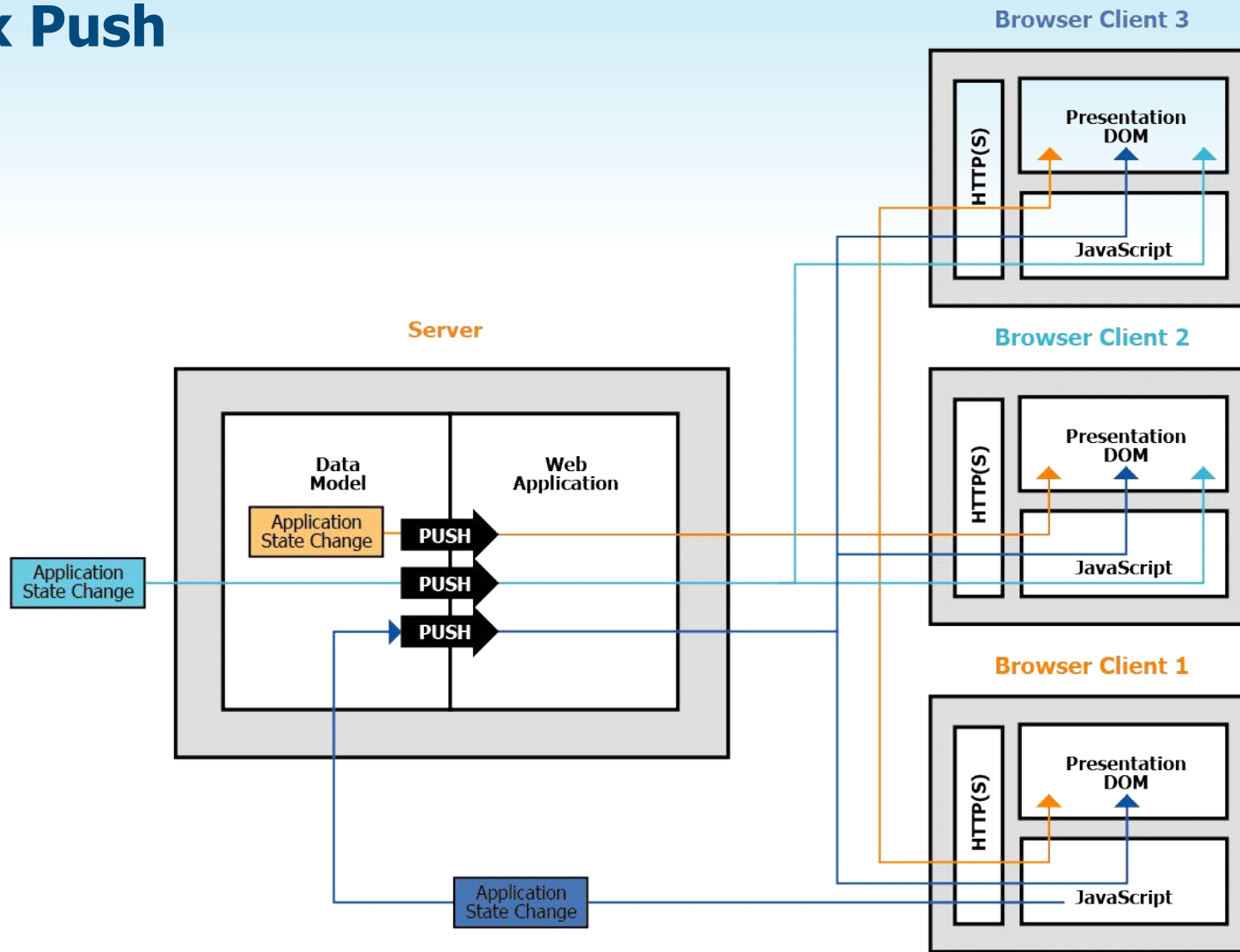


ICEfaces Features

- Direct-to-DOM (D2D) rendering
 - transparently updates and and all page changes
- Partial Submit
 - granular, automated form submission
- Ajax Push
 - server events can update the client
- Enterprise features
 - clustering, scalability, security
- IDE integration
 - multiple tools supported



Ajax Push

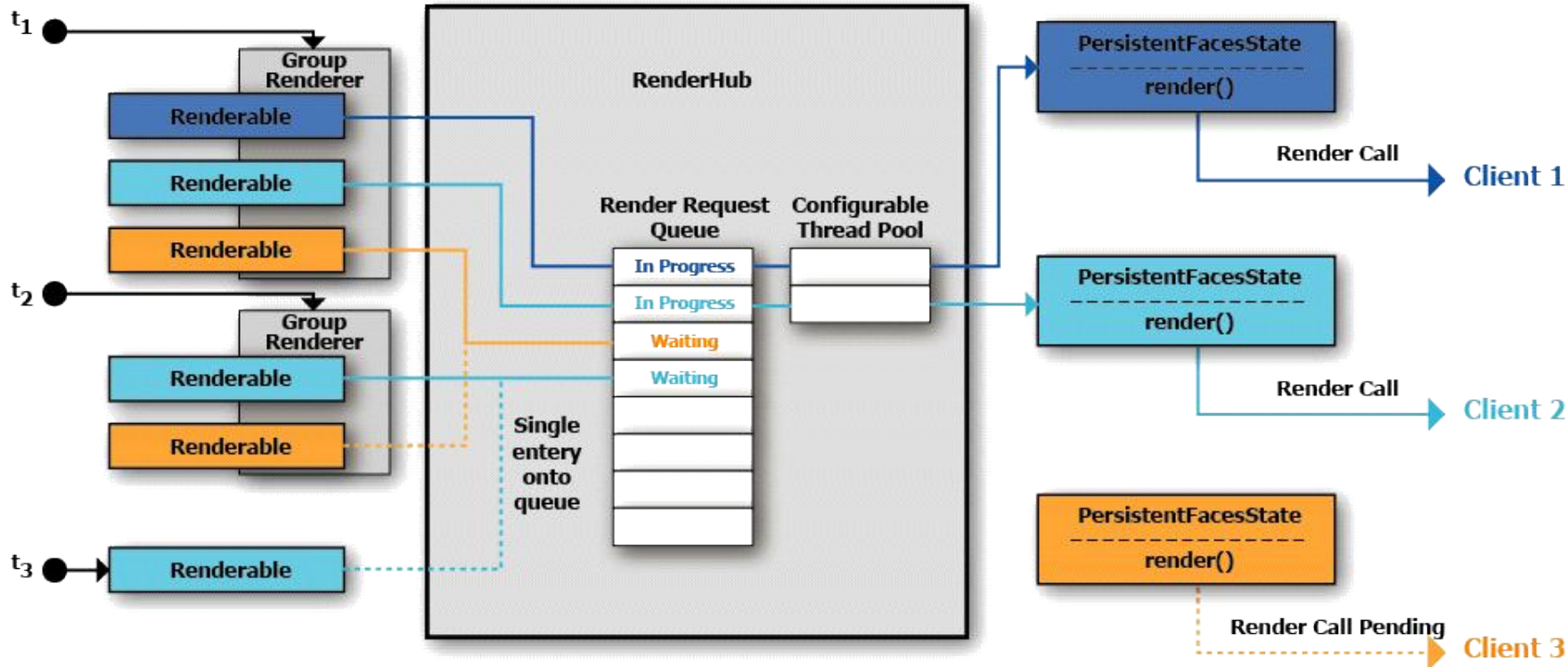


The Key to Web 2.0 Collaboration



Push Transparency

RenderManager



A Comprehensive Java API for Ajax Push



ICEfaces Demos



Portal Integration Challenge

- Portal Containers
 - as with app servers, the reality of portability does not always match expectations
 - chose Liferay first based on community feedback and corporate relationship
 - Liferay has been very enthusiastic and helpful
- Deployment
 - shared Ajax Push connections
 - ICEfaces sync vs async



Portal Integration Challenges

- JSF 1.x spec
 - exposing portlet APIs can be awkward with the current JSF 1.x spec
- JSF Portlet Bridge (JSR 301)
 - early draft review put out May, 2007
 - existing JSF bridge does not currently work with ICEfaces
 - ICEsoft is on the Expert Group



Portal Integration Challenges

- JavaScript
 - potential “demolition derby” of libraries
 - competing use of objects, functions, events
 - ICEfaces relies on `window.onload()`
 - JavaScript is page-oriented
- Mix and Match Technologies
 - rich and not-so-rich means lowest common denominator
 - additional opportunity for collisions
- Components
 - page-oriented behaviour (e.g. modal dialogs)



Portal Integration Challenges

- Finding resources
 - correct namespacing
 - take advantage of components (e.g. `<h:graphicImage/>`)
- Styling
 - adhere to JSR 168 spec where applicable
 - portlet friendly custom styles for complex components
- IPC
 - mentioned in JSR 168, details in JSR 286
 - not widely available
 - Ajax Push provides a different method for achieving the same thing



ICEfaces + Liferay Demonstration



ICEfaces 1.7 – The Portlet Release

- expose the JSR 168 portlet APIs properly
- support JSR 168 styling
- make custom styles more portlet friendly
- adjust component behaviour
- support more portal containers
- work to reduce potential JavaScript conflicts



ICEfaces and Liferay



Ajax for Java EE

Thank You

