



J2EE Application Framework

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2004-04



JAF - Overview



Our Customers (eHR,
eLearning, Insurance,
xSP, etc)

Here we go!

J2EE Infrastructure
Vendors (Sun, BEA,
IBM, Oracle, etc)

Customer's Application

J2EE Application Framework

**Web Tier
(Servlet, JSPs)**

**Enterprise Tier
(EJBs, JMS, JDBC
Web Services)**

J2EE Container

What's JAF?



- Robust infrastructure for developing highly interactive J2EE applications
- RAD (Rapid Application Development) tool for J2EE web-application development
- Collection of experiments and experiences of Design Patterns
- Best practices of building mature, powerful, standards-based J2EE applications



Why JAF?



- Having previously developed Web-based applications without employing a standardized framework
- Investment had to develop its own application-neutral components
- Does not maximize components reuse
- New player is developing critical project
- Waste lots of time, money, people

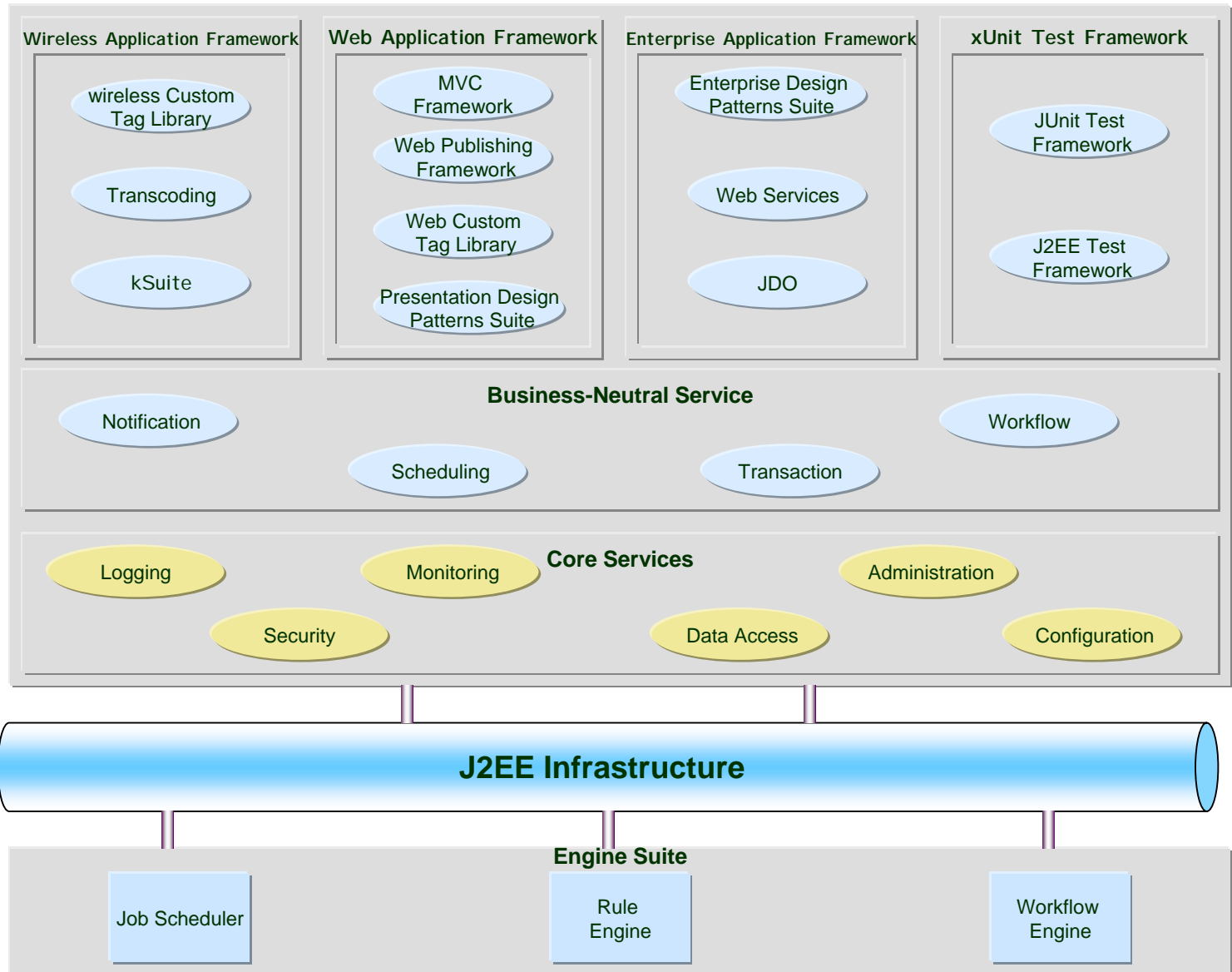


JAF Benefits



- Open Standards Based
- Sun's J2EE architecture based
- Component based software architecture
- Pattern oriented software architecture
- Shared Standards Based - builds on numerous other open source projects
- Easy to use
- Less code to type
- Faster rapid development for quicker delivery and Time to Market
- Reusable develop-level components
- Mass use by industry assures tried and true quality
- Portability from app server to app server; database to database; OS to OS
- Vendor Independent
- Reduced risk in project deployment
- In built MVC framework
- In built web publishing framework
- In built J2EE core design patterns
- In built workflow engine
- In built rule engine
- In built job scheduler engine
- Flexible security
- High scalability and extendibility

JAF - Architecture



JAF - Wireless Application Framework



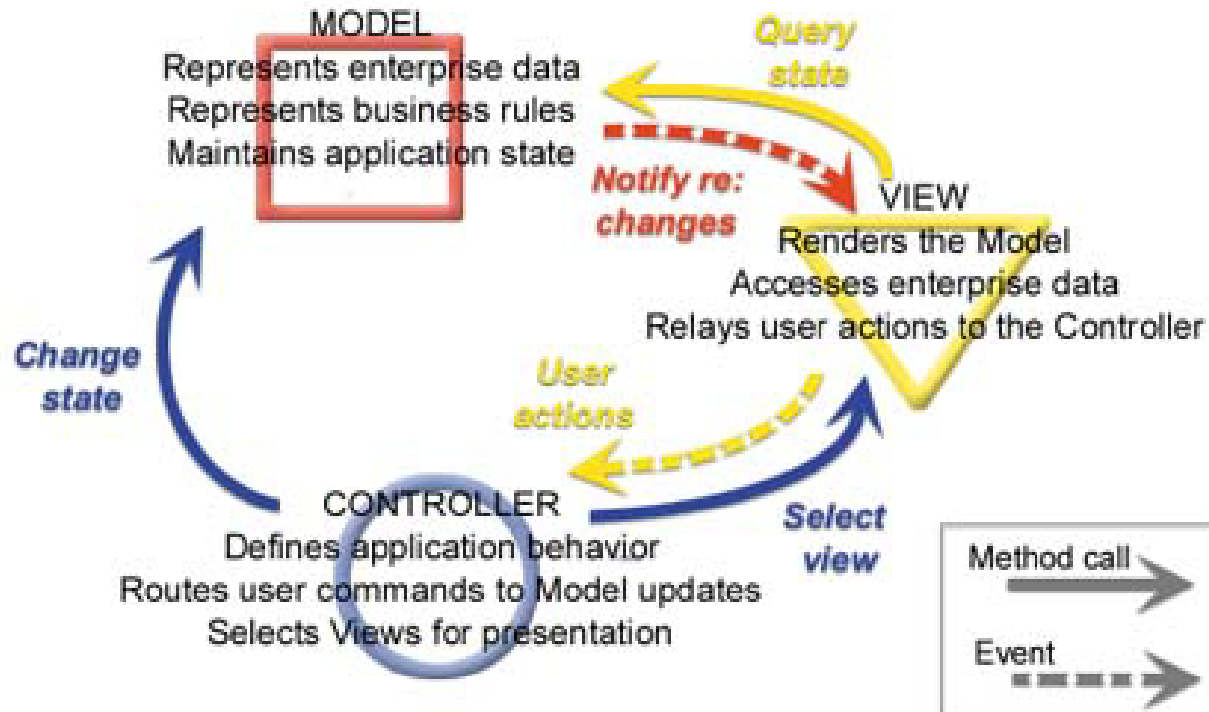
- Wireless Custom Tag library
 - Special tag library for mobile hand-set (Such as JavaServer Faces)
 - A set of APIs for: representing UI components and managing their state, handling events and input validation, defining page navigation, and supporting internationalization and accessibility.
 - A JavaServer Pages™ (JSP™) custom tag library for expressing a JavaServer Faces interface within a JSP page.
<http://java.sun.com/j2ee/javaxserverfaces/>. **JSR 127**
- Transcoding
xml < == > xHmtl, Html, WML, etc
- kSuite (www.enhydra.org)
 - kHTTP
 - kSOAP
 - kXML
 - kUDDI
 - kXMLRPC
 - kMessaging



JAF - Web Application Framework



- MVC Framework (Struts Integration)
 - A way to define the breaking up of application responsibilities among objects involved in displaying and maintaining application state.





- Web Publishing Framework (Cocoon Integration)
 - You can define XML documents and transformations to be applied on it, to eventually generate a presentation format of your choice (HTML, PDF, SVG, ...).
 - Flexible data exchange framework.
- Web Custom Tag Library
 - Generated JSP's make use of common Apache Tag Libraries and JSTL
- Presentation Design Patterns Suite
 - Front Controller Pattern
 - View Helper Pattern
 - Service To Worker Pattern
 - Composite View Pattern
 - Dispatch View Pattern
 - Intercepting Filter Pattern



JAF - Enterprise Application Framework



- Enterprise Design Pattern Suite
 - Business Tier Patterns
 - Business Delegate Pattern
 - Session Facade Pattern
 - Message Façade Pattern
 - Service Locator Pattern
 - Value Object Pattern
 - Integration Tier Patterns
 - Data Access Object pattern
 - Service Activator Pattern
- JDO
 - Standard for persistence in Java applications
 - Object/Relation bridge
 - Application programmers use JDO to directly store their Java domain model instances into the persistent store (database).
- Web Services
 - SOAP
 - UDDI
 - WSDL



JAF - xUnit Test Framework



- JUnit Test Framework
 - JUnit (www.junit.org)
- J2EE Unit Test Framework
 - Cactus Test Framework (www.apache.org)



JAF - Core Service



- Logging service
 - Log4j
 - JMS based logging
 - JDK1.4 logging
- Security Management
 - Role-based access control
 - Database driven security
 - LDAP driven security
- Data Access
 - LDAP
 - DB (Oracle, DB2, mySQL etc), ConnectionPool Manager
 - JMS





- Task Scheduler
 - Provide pre-define task service at run-time
- Configuration
 - Property file driven configuration (xml property file, etc)

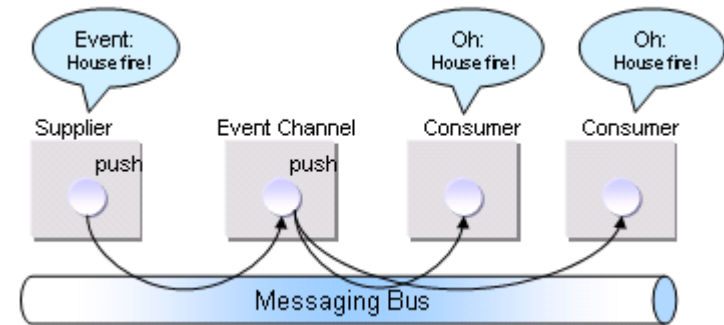


JAF - Core Service

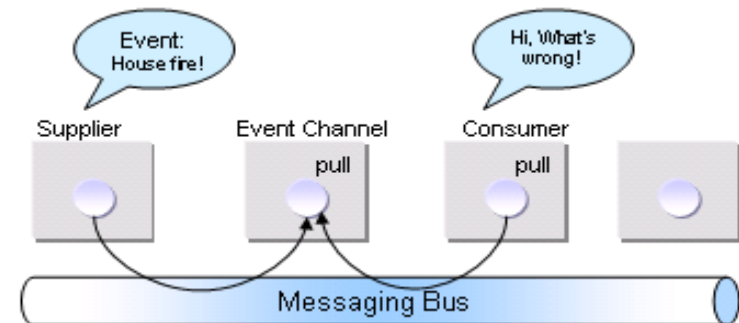


■ Event Service

○ Push event model



○ Pull event model





- Workflow Engine

- The automation of a business process, in whole or part, during which documents, information or tasks are passed from one participant to another for action, according to a set of procedural rules

- Rule Engine

- A rule engine may be viewed as a sophisticated if/then statement interpreter.

- Job Scheduler Engine

- Provides a separate process to schedule which jobs should be placed into execution



What are they doing?



Vendors	Product	Latest Version	Open Source
Sun Microsystems www.sun.com	SUN ONE Application Framework (J2EE Application Framework)	V2.0	N
RealMethods Inc. www.realmethods.com	RealMethods Framework (J2EE Application Framework)	V2.1.1	N
NextApp Inc www.nextapp.com	Echo (Web Application Framework)	V1.0	N
Qbizm Technologies, Inc www.qbizm.com	HyperQbs (Presentation Framework)	V2.0	N
Applied Knowledge www.aki.com	Kona (Java/J2EE/JSP Framework and Tag Library)	V1.0	N
Apache www.apache.org	Struts (MVC framework)	V1.1	Y
JCorporate www.jcorporate.com	Expresso (Struts-based Java Application Framework)	V5.0	Y
Open Symphony www.opensymphony.com	WebWork (Web Application Framework)	V1.3	Y
Salmon LLC www.salmonllc.com	SO FIA (Well known JADE) (Open Framework for Internet Applications)	V1.3	Y
Enhydra www.enhydra.org	Barracuda (Presentation MVC Framework)	V1.1.1	Y



结束



谢谢大家！

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