

# Enterprise Application Development and GlassFish - A Case Study

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# Agenda

- Introduction
- ECM Application – What is it?
- Application Concept Details
- Application Server Choice
- GlassFish and ECM Application
- Future Directions
- Summary

# Introduction

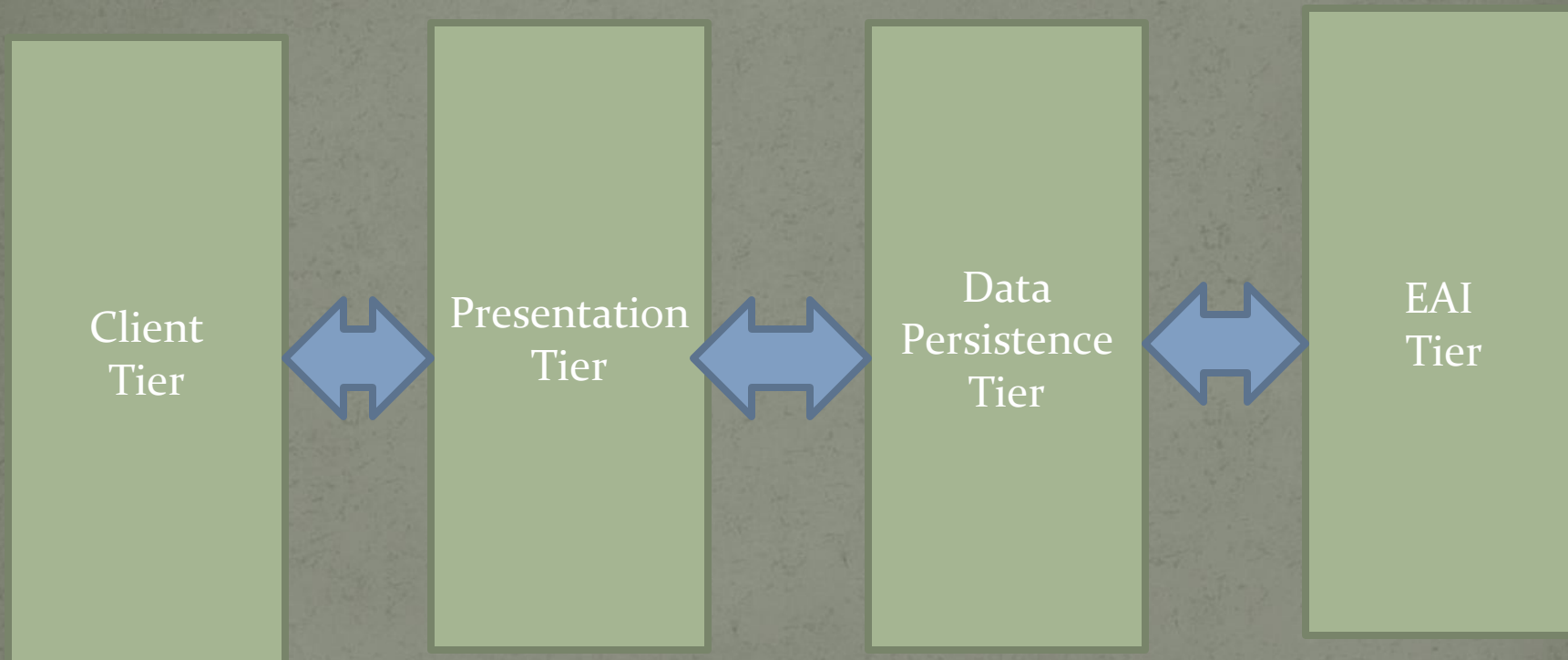
- Myself
- GTO
- Java CoE
- Collaboration with Sun Microsystems
- Activities
- ECM Application History
- ECM Application & GlassFish



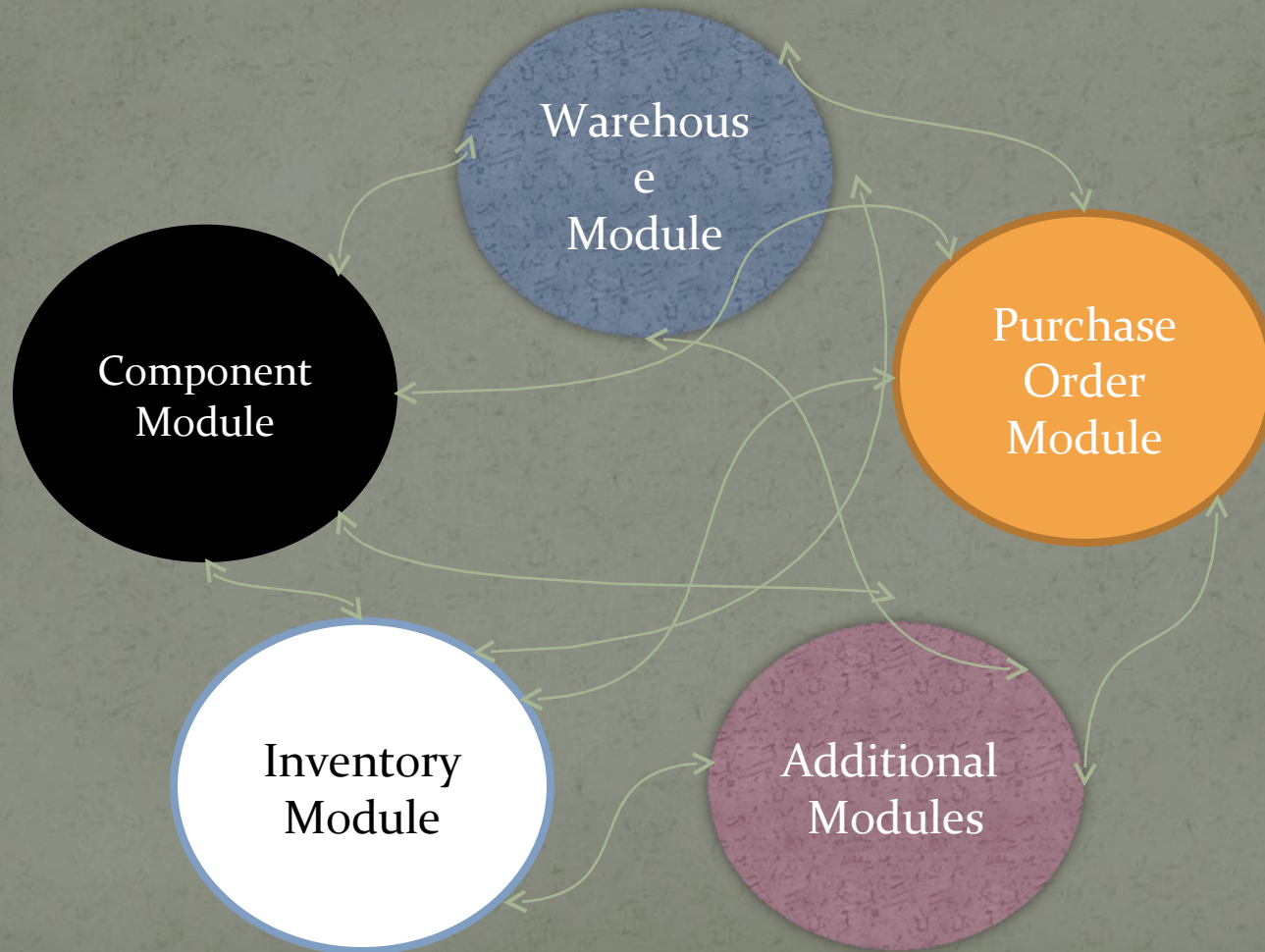
# ECM Application – What is it?

- A nice prototype that attempts to implement End-to-End Java Enterprise Edition Application
- Began as EAM Application prototype in 2006
- A collaborative effort with Sun Microsystems, USA
- Prototype served a variety of goals
  - Java EE Application
  - Training tool
  - Workshop Aid
  - Research Report, White Paper etc.

# Architectural View of ECM



# Application Concepts





# ECM Technology Areas

1/2

- HTML / XHTML
- Web Components
  - JSP
  - Servlet
  - Filters
- Biz Components
  - JavaBeans
  - POJOs
  - EJBs
  - Utils

# ECM Tech Areas

2/2

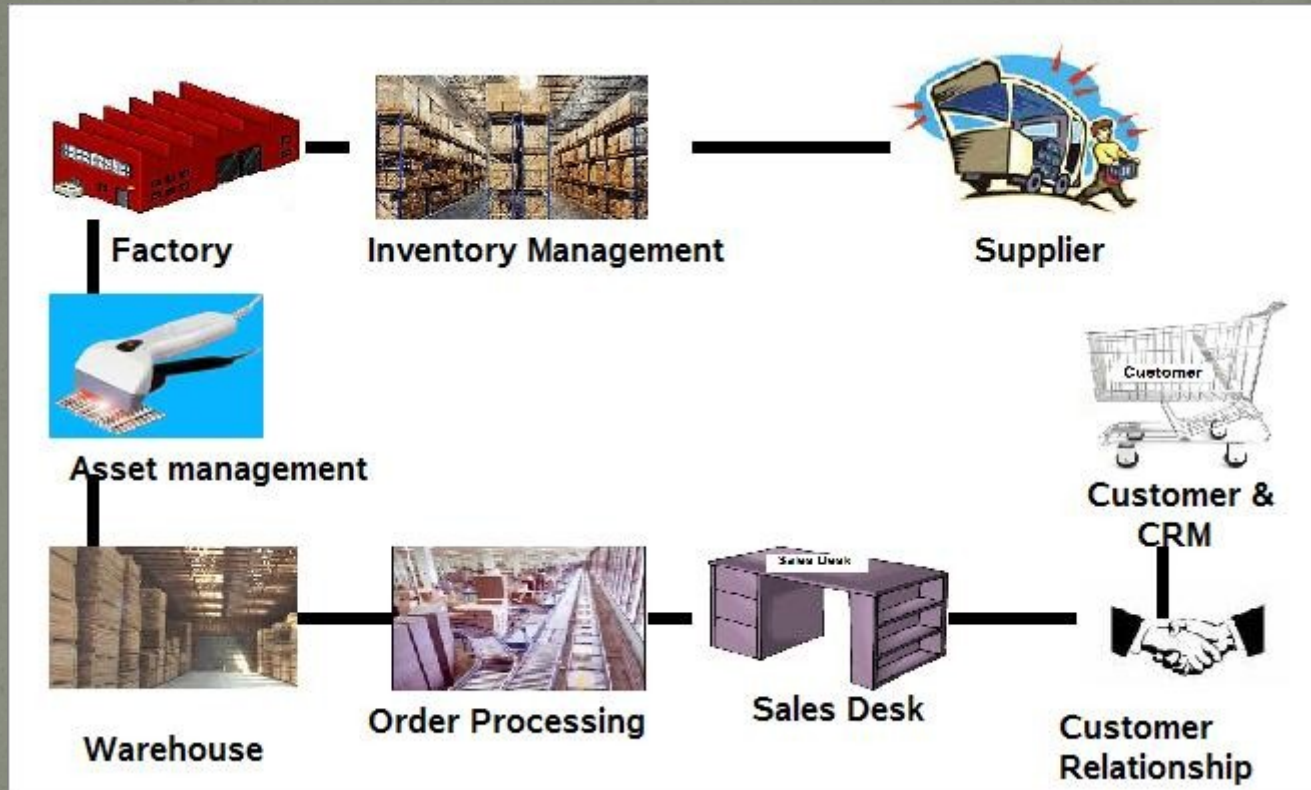
- Frameworks
  - JavaServer Faces
- Web Services
- JPA
- etc.



# Vignettes of ECM Application

1/8

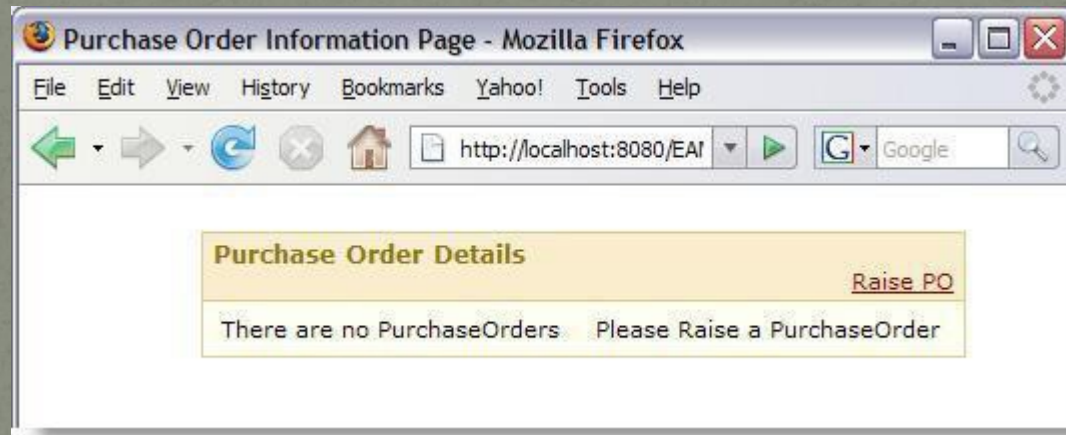
- Asset Component Management Scenario



# Vignettes of ECM Application

2/8

- Purchase Order Module
  - When Initialized





# Vignettes of ECM Application

3/8

- Adding Details of the Customer

**Purchase Order Information Page - Mozilla Firefox**

File Edit View History Bookmarks Yahoo! Tools Help

http://localhost:8080/EAM-po-Web/EditPurchaseOrder?poId=0

Google

**Customer Information** [MasterPO](#)

Name(\*) CTS User

Shipment Address(\*) CTS BLR

Payment Mode By CASH

**Line Items**

S.No	Asset type	Quantity	Add New Item
1	Monitor	23	<input type="button" value="AddLineItem"/> <input type="button" value="Remove"/>



# ECM Application Scenario

4/8

- Confirming PO

**Purchase Order Information Page - Mozilla Firefox**

File Edit View History Bookmarks Yahoo! Tools Help

http://localhost:8080/EAM-po-Web/SavePurchaseOrder?totalA Google

**PurchaseOrderDetails** [MasterPO](#)

Customer Name :	CTS User
ShipmentAddress :	CTS BLR
Payment Mode :	By CASH
Date Ordered :	10-Jan-2007
Due Date :	10-Jan-2037
Status :	<a href="#">Open</a>

**Line Items Selected**

S.No	AssetType	Quantity
1	Monitor null null	23

# ECM Application Scenario

5/8

- PO as reflected in the Master PO module

Purchase Order Information Page - Mozilla Firefox

File Edit View History Bookmarks Yahoo! Tools Help

http://localhost:8080/EAM-po-Web/MasterPurchaseOrder.jsp

Google

**Purchase Order Details** [Raise PO](#)

PoId	Customer Name	Ordered Date	Due Date	Status
<u>1</u>	CTS User	10-Jan-2007	10-Jan-2037	<u>open</u>

**Filter POs** [Show All POs](#)

Available Status Options :



# ECM Application Scenario

6/8

- Component details
- Query to DB reflecting Component Status after updating



Connection: jdbc:derby://localhost:1527/sampl...

```
select * from "APP"."MASTERASSETTABLE"
```

1:39 INS

ASSETID	ASSETTYPE	MAKE	TAGID	POID	UNITPRICE	BRAND	STATUS	CONNECT...	CAPACITY	SCREENSIZE
1	Monitor	Sun	11	0	246.56	Sun	AVAILABLE	NULL	NULL	19
2	HardDrive	Sun	22	0	234.56	Sun	AVAILABLE	SCSI	72	NULL



# ECM Application Scenario

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- Component Module

**Edit Asset - Mozilla Firefox**

File Edit View History Bookmarks Yahoo! Tools Help

http://localhost:808 Google

**Add a Monitor**

Asset Type	Monitor
Brand	<input type="text" value="Sun"/>
Make	<input type="text" value="Sun"/>
TagID	<input type="text" value="11"/>
UnitPrice	<input type="text" value="246.56"/>

**Asset Specific Values for Monitor**

screenSize	<input type="text" value="19"/>
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[Sales](#) | [Processing](#) | [AssetMaster](#)

# ECM Application Scenario

8/8

- Populating Components



Servlet AssetMaster - Mozilla Firefox

File Edit View History Bookmarks Yahoo! Tools Help

http://localhost:8... Google

### Manage Assets

	Asset	Available	Blocked
1	<a href="#">Monitor</a>	<a href="#">1</a>	<a href="#">0</a>
2	<a href="#">HardDrive</a>	<a href="#">1</a>	<a href="#">0</a>

[Sales](#) | [Processing](#)



# IDEs and App Server Choice

- Evaluated IDEs and Application Servers
  - NetBeans
  - Eclipse
  - Tomcat
  - Jboss
  - GlassFish
  - Chose NetBeans / GlassFish Combination
  - NetBeans 5.5, NetBeans 5.5.1, NetBeans 6
  - GlassFish v1 and GlassFish v2



# Glassfish as a Candidate

- Java EE 5 compliant with advanced features
- Enterprise-centric release
- Clustering, Load-Balancing, HA
- Web services interoperability
- World Record Performance
- Seamless IDE integration
- NetBeans, Eclipse, IntelliJ
- Developer, Enterprise, Cluster, Custom profile
- Community

# GlassFish – Ease of Use

1/2

- Administration
- Update Centre
- Call-Flow Monitoring
- Integration with Tools and IDEs
- The usual NFRs
  - Performance
  - Scalability
  - Availability, etc.



# GlassFish – Ease of Use

2/2

- Clustering Architecture
- Integration – Using JBI
- Support to a host of Scripting culture
  - Ajax
  - jRuby
  - jMaki
  - Phobos
  - DynaFaces, etc

# Future Directions

- Will Leverage all the new features of v3
  - Small (Kernel < 100k)
  - Fast (Startup in < 1 second)
  - Modular (Java, Ruby, PHP, JavaScript, ...)
  - Don't think of it as Java EE container
    - ... rather a container that can do Java EE
    - ... an ideal container for next generation web apps
  - Support for new Java EE 6 profiles



# Summary

- Multi Faceted ECM Application
- Collaborative Effort with Sun Microsystems
- Choice of IDE and App Server
- Prototype
- PoC
- Whitepaper
- Training & Workshops on new Java EE

# Question & Answers



# Thank You

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