

# JUDCon

JBoss Users & Developers Conference

# 2012:India

**Migrating SAP Portal Application to JBoss Portal**  
**Sushil Ajgaonkar**

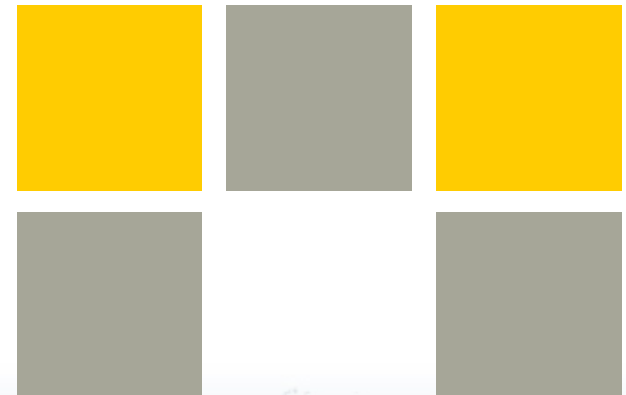




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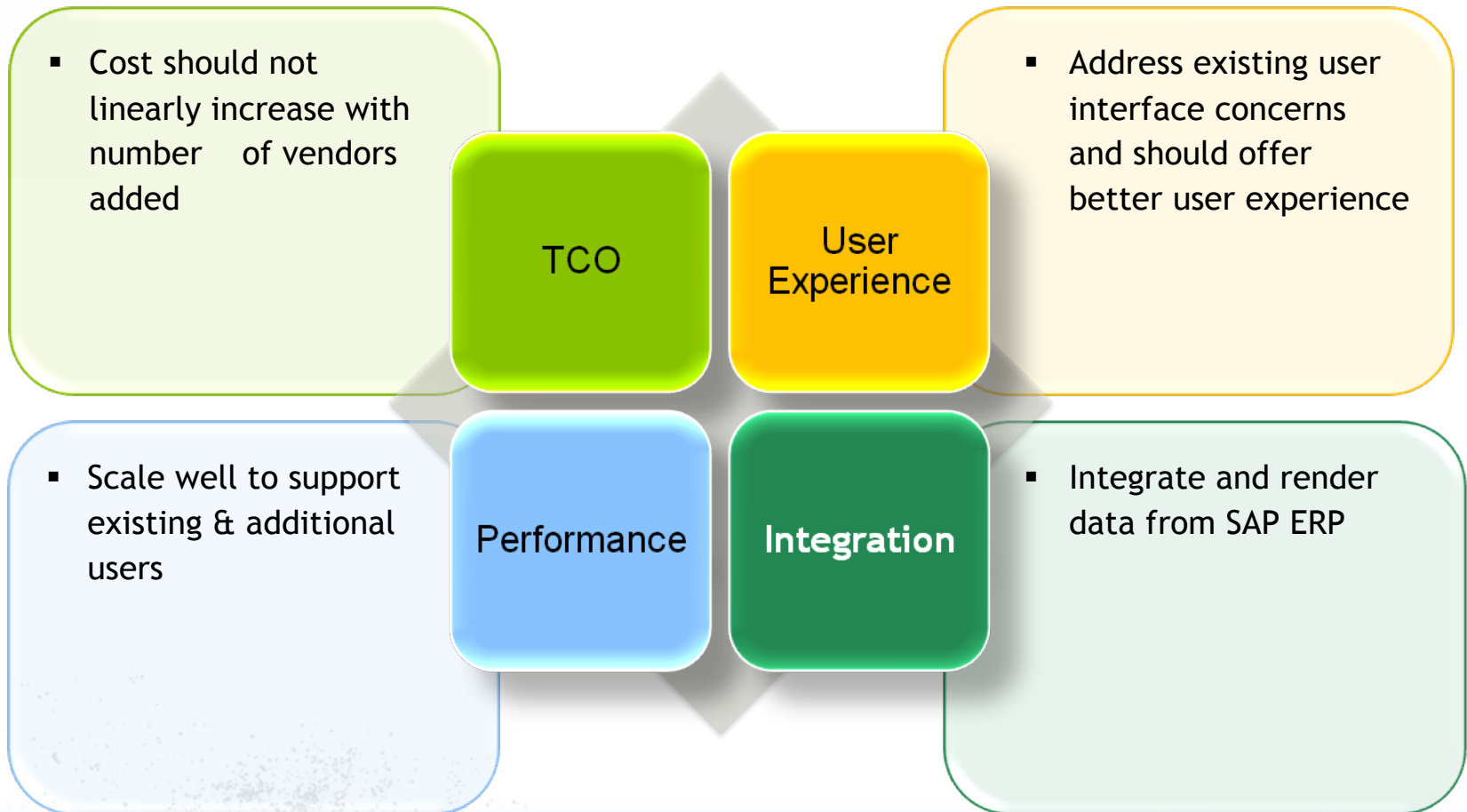
# Challenges with existing Portal

- **USD 12B Engineering conglomerate**
- **Existing Self Service Portal for Vendors**
  - Release of PO and amendments
  - Issue of Material / Receipt of finished goods
  - Quality Inspection Reports
  - Approval of Invoices
- **Challenges**
  - Mounting costs as vendor base expanded
  - High maintenance and support cost
  - Erratic response time
  - Non-intuitive user interface





## Our solution had to address four areas





## Managing TCO



- Proposed migrating the SAP Enterprise Portal to Redhat supported JBoss Portal.
- Took advantage of core based pricing model of JBoss Portal
- For an annual outgo of USD 14000,
  - About 400 users supported on the SAP EP platform
  - 16-core JBoss Portal subscription supporting unlimited users
- Exploited the flexibility in deploying the 16 cores



A circular icon with a yellow outer ring and a grey inner circle. The words 'User Experience' are written in bold black text across the center. The icon is surrounded by puzzle pieces, suggesting a complex or interconnected concept.

## User Experience

- Developed Rich Portlets which would render similar views if not richer than Flex based iViews on existing portal
- Seam portlets combined with RichFaces
- Implemented an inter-portlet communication (IPC) framework to provide intuitive and minimal navigation
- Leveraged AJAX for seamless screen refresh
- Used custom-renderers and themes to improve look-and-feel of the portal.
- Cross browser support



Home News Utility

**Projects Portlet**

Projects

- Projects
  - CCT13700
  - CCT15980**
  - CCT20627
  - CCT60523

Event Publisher

**Actions Portlet**

Create New Action for Project : CCT15980

Description  Assigned To

Assigned Date  Target Date

Status  Created By

Save Reset


\* Actions for Project : CCT15980

Id	Description	Assigned To	Assigned Date	Target Date	Status	Completion Date	Remarks	createdBy
12738	Analyse the data mismatch for Foreign exchange	284088	2010-08-10	2010-08-12	Completed	2010-08-12	Required Analysis done.	282446
12743	prepare UML diagram for dashboard module	284088	2010-08-18	2010-08-20	In Progress			282446


Event Subscriber



User Experience



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Invoice
Procurement
Quality

**Purchase Document List Portlet**

**Purchase Document List**

Pur. Doc. No.	PO Value	Status	Created On
1540005726	858102.75	PENDING ACK...	8/1/2009
1540005953	25018.88	PENDING ACK...	8/5/2009
1540005975	8339.63	PENDING ACK...	8/6/2009
1540006268	59626.13	PENDING ACK...	8/10/2009
1540006344	54205.88	PENDING ACK...	8/11/2009
1540006393	102299.63	PENDING ACK...	8/12/2009
1540006531	47359.13	PENDING ACK...	8/17/2009
1540006554	32374.13	PENDING ACK...	8/18/2009
1540006594	76219.88	PENDING ACK...	8/19/2009
1540006690	663877.13	PENDING ACK...	8/21/2009
1540006691	1144137.38	PENDING ACK...	8/21/2009
1540006812	100071.00	PENDING ACK...	8/26/2009
1540006933	4170.38	PENDING ACK...	8/28/2009
1540007076	222262.88	PENDING ACK...	9/2/2009
1540007077	141778.13	PENDING ACK...	9/2/2009
1540007607	123234.75	PENDING ACK...	9/10/2009
1540007614	2448.00	PENDING ACK...	9/11/2009

**Purchase Document Details Portlet**

**Purchase Document Details : 1540007077**

Pur. Doc. Info
Pur. Doc. Details
Pur. Doc. Delivery Address

<b>PO No :</b> 1540007077 <b>Contact Person :</b> ATTAR S H <b>Telephone :</b> +91 022 -67053222 <b>Email :</b> attarsh@intebg.com	<b>Quotation :</b> <b>Date :</b> <b>Delivery Terms :</b> LT90 <b>Payment Terms :</b> 90 days Credit from Date of GR,Cheque/EFT/RTGS
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**Item Details : 00020**

Pricing Details
Schedule Details
History

Received Qty					
Accepted Qty	Doc. No	Posting Date	Quantity	Vendor Ref No	
Rejected Qty	5000204496	10/6/2009	60.000	1391	
Invoiced Qty	5000208067	10/8/2009	60.000	1408	
Challan Qty	5000209132	10/9/2009	60.000	1451	
	5000168926	9/7/2009	60.000	1130	

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# Manage Performance

A circular icon with a blue outer ring and a grey inner ring, containing the word 'Performance' in bold black text. The icon is set against a light blue background with a white puzzle-piece pattern.

## Performance

- JBoss Portal supports horizontal and vertical scaling
- Exploited the flexibility in deploying the 16 cores
- Tuning – JVM, Pool of connections to SAP ERP, Seam framework, UI layer

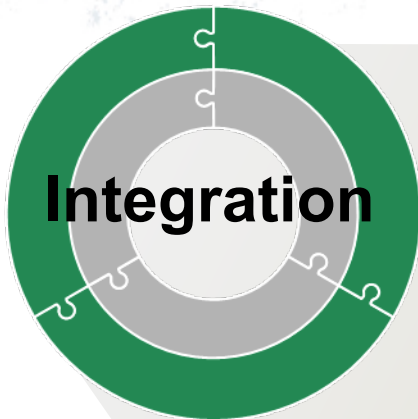






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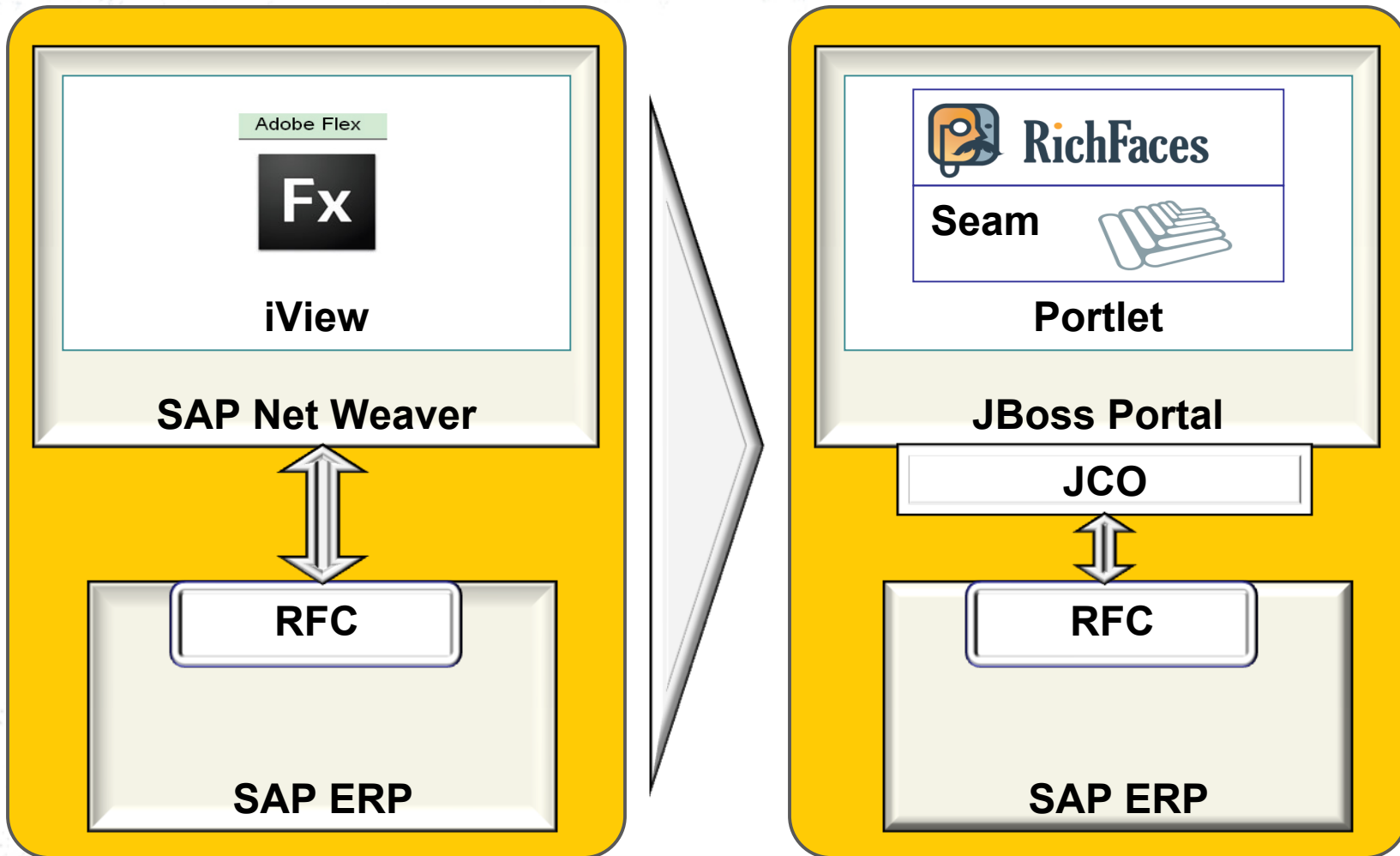
# Integrate with SAP



- Custom developed using SAPJCO library
- Invoke appropriate RFC exposed by SAP ERP



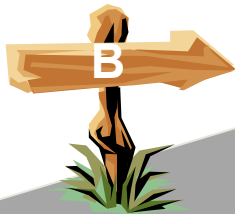




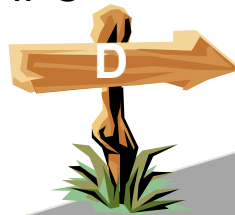


# Migration Approach

Create Seam portlets using Rich Faces components to replicate existing views onto a portlet



Wire appropriate portlets for IPC



Use appropriate themes etc. for desired look-and-feel



Configure the portal to use appropriate authentication mechanism



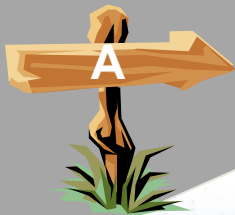
Deploy the portlets into the portal



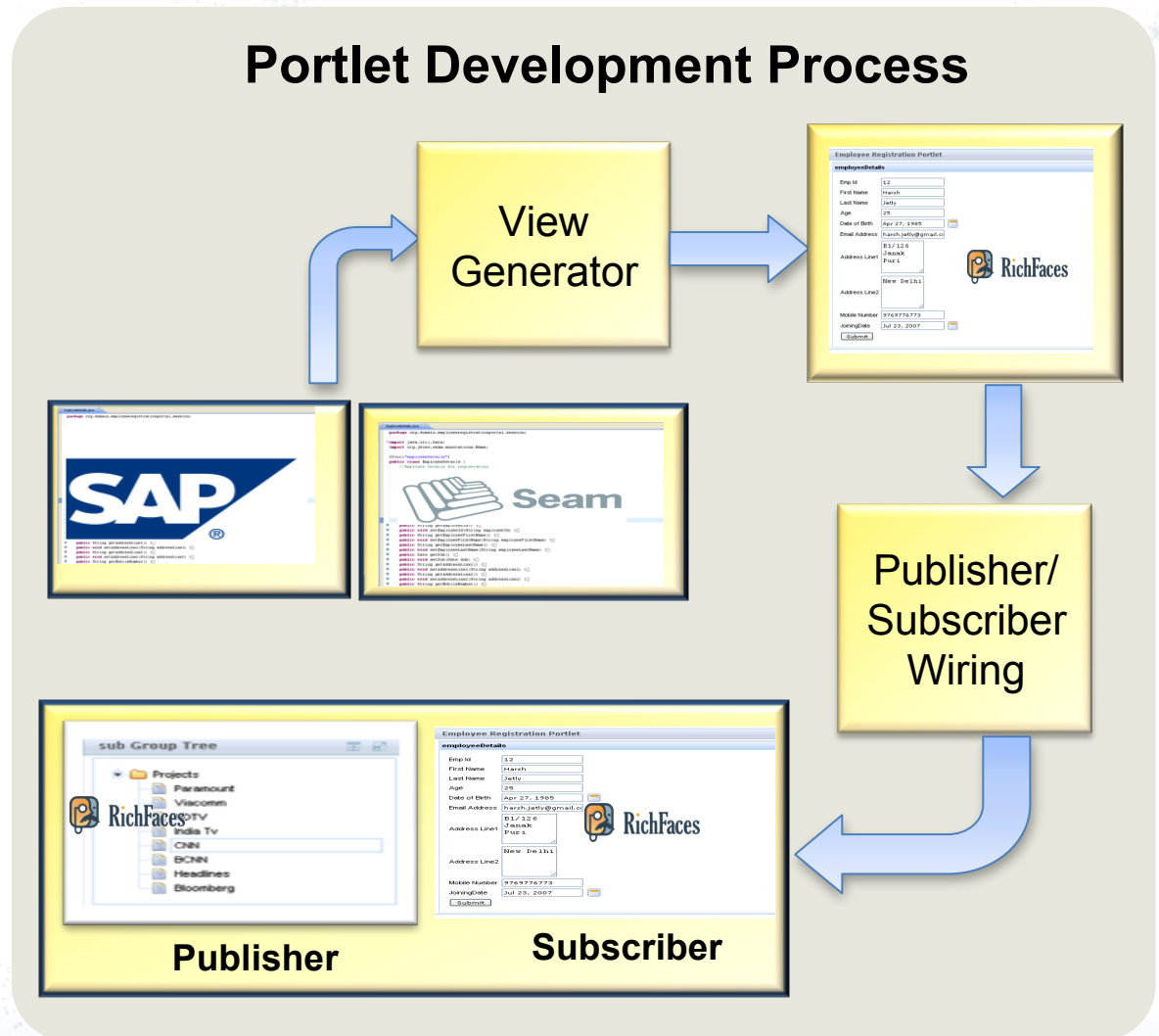
For each portlet, invoke the Seam Bean to bind the SAP ERP data to the view

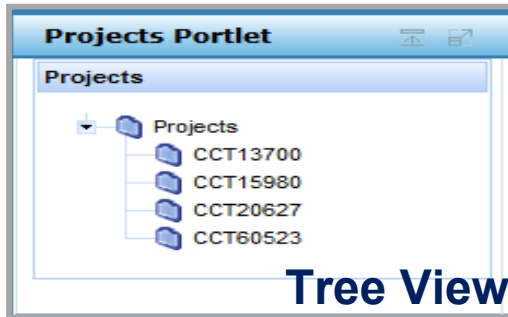


Develop Seam Bean to invoke appropriate SAP RFC calls using JCO.



- Ready framework to accelerate the time-to-market for portal applications
  - Automates the creation of views using Rich Faces components
  - Allows wiring of the portlets for IPC
  - Generates Java proxies and Seam Bean to invoke SAP RFC



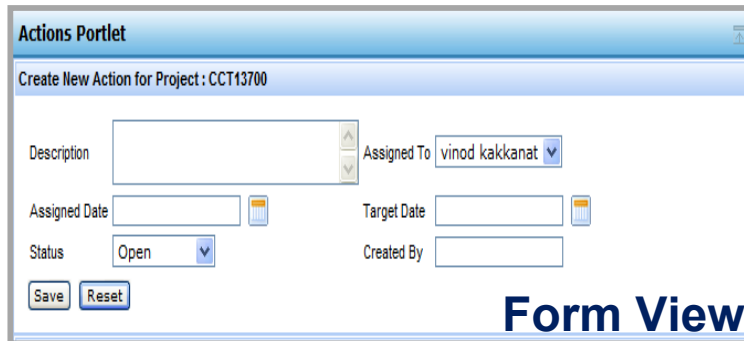


**Projects Portlet**

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**Tree View**



**Actions Portlet**

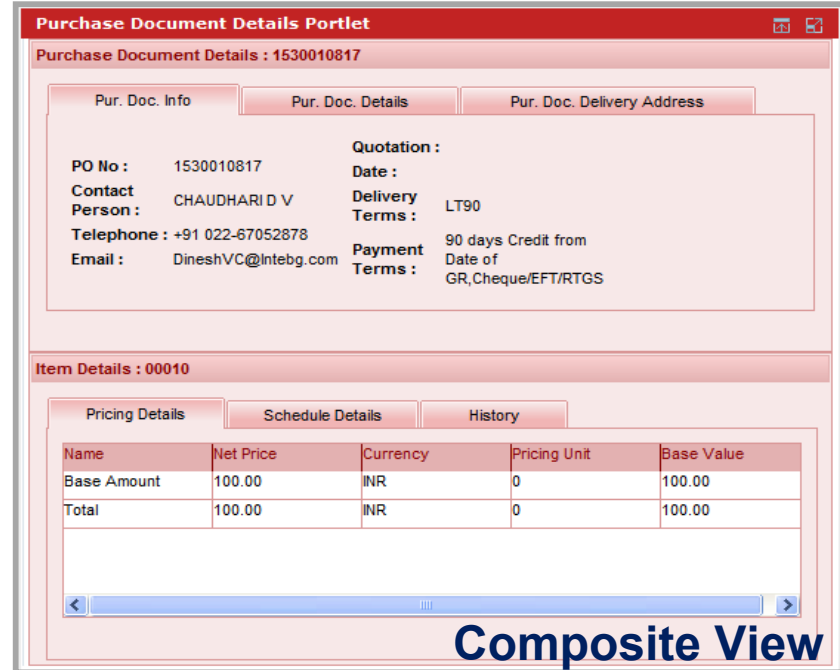
Create New Action for Project : CCT13700

Description  Assigned To

Assigned Date  Target Date

Status  Created By

**Form View**



**Purchase Document Details Portlet**

Purchase Document Details : 1530010817

Pur. Doc. Info    Pur. Doc. Details    Pur. Doc. Delivery Address

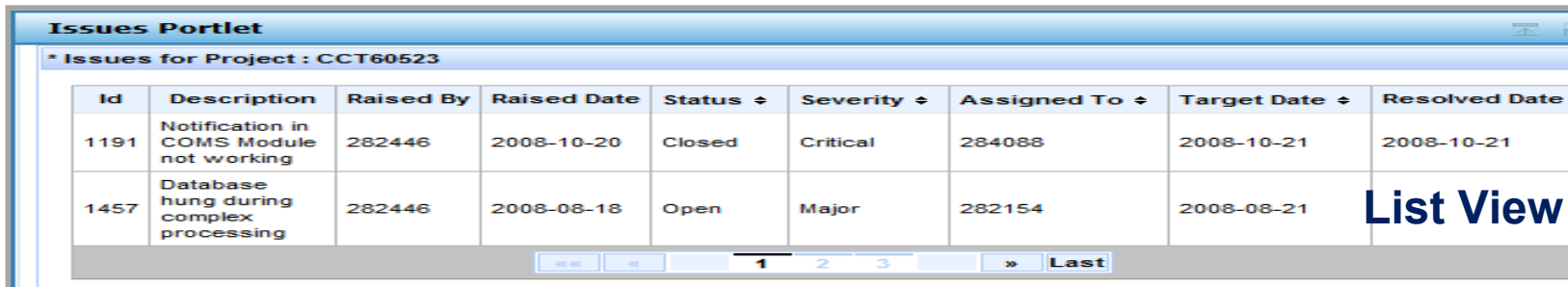
PO No : 1530010817    Quotation :  
 Contact Person : CHAUDHARI D V    Date :  
 Telephone : +91 022-67052878    Delivery Terms : LT90  
 Email : DineshVC@lntebg.com    Payment Terms : 90 days Credit from Date of GR,Cheque/EFT/RTGS

Item Details : 00010

Pricing Details    Schedule Details    History

Name	Net Price	Currency	Pricing Unit	Base Value
Base Amount	100.00	INR	0	100.00
Total	100.00	INR	0	100.00

**Composite View**



**Issues Portlet**

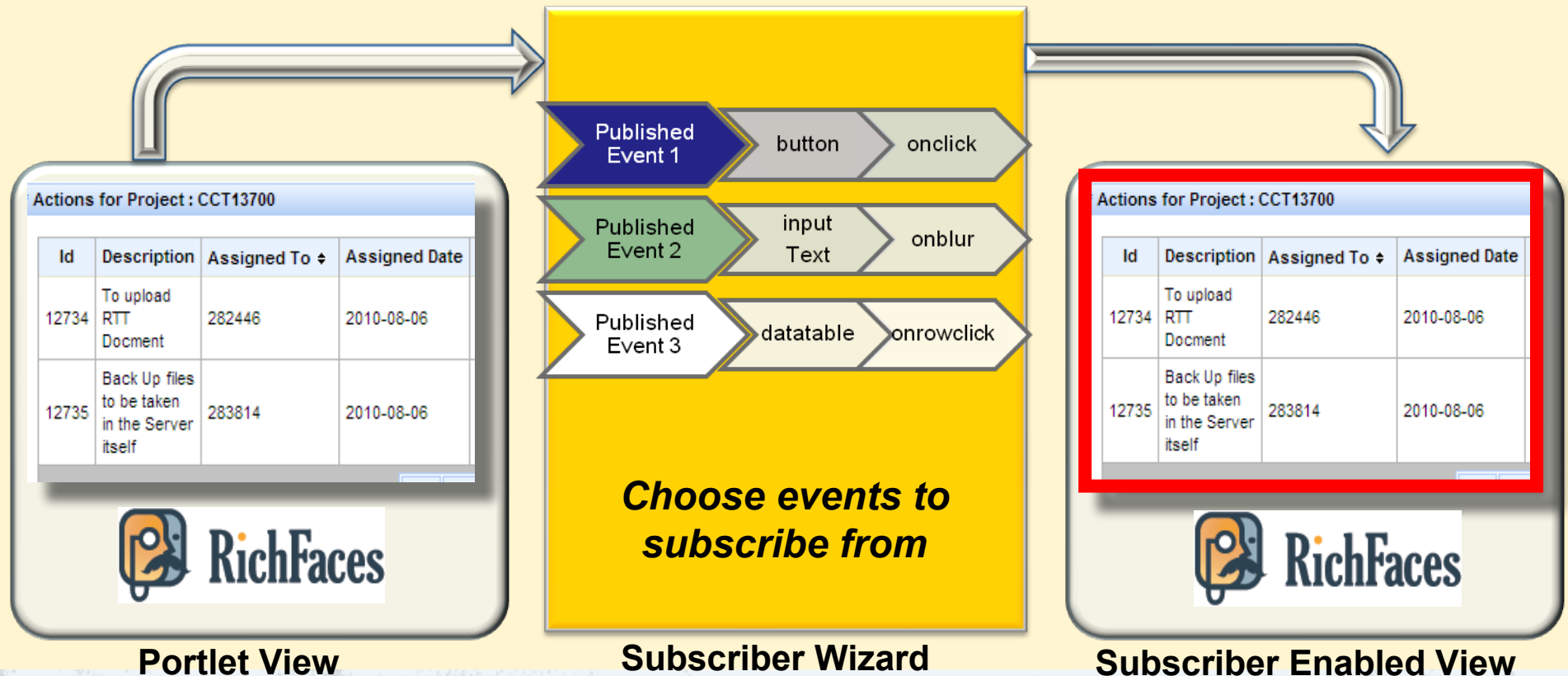
\* Issues for Project : CCT60523

Id	Description	Raised By	Raised Date	Status	Severity	Assigned To	Target Date	Resolved Date
1191	Notification in COMS Module not working	282446	2008-10-20	Closed	Critical	284088	2008-10-21	2008-10-21
1457	Database hung during complex processing	282446	2008-08-18	Open	Major	282154	2008-08-21	


**List View**




- Wizards to configure the Portlets as Publishers or Subscribers or both.
- Allows wiring such configured portlets together to perform IPC.






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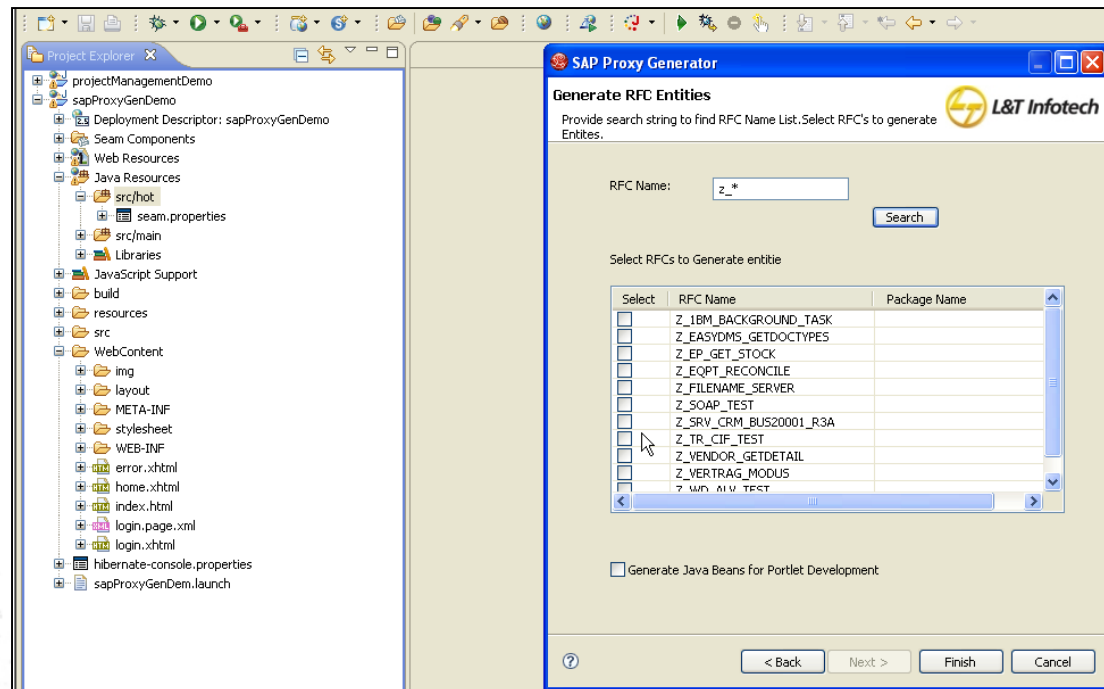
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Challan Qty				

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- Connects to the SAP RFC repository
- Generates ready to use Java proxies and Seam Bean
- Seam Bean can be used to generate Portlet Views





- **Our migration approach**

- Create Portlets to migrate the view
- Bind the view to the source of data. For an enterprise app, identify appropriate integration touch point
- Enhances user experience and performance

- **Leverage the features and capabilities provided in the JBoss Portal**

- **Can be generalized to migrate applications out of commercial portals to improve user experience and performance while reducing TCO**



Thank You