

SUMMIT

**JBoss
WORLD**

PRESENTED BY RED HAT

**LEARN. NETWORK.
EXPERIENCE OPEN SOURCE.**

www.theredhatsummit.com

Why It's Important to Get Middleware Right: Accenture's Real-World Experience with Red Hat

Clay Olbon & Steven Fisher
Accenture
4 May 2011

SUMMIT

JBoss
WORLD

PRESENTED BY RED HAT



THE NEW REDHAT.COM: POWERED BY JBOSS EPP/SP

Clay Olbon

clay.olbon@accenture.com

Lee-Sam Tao

Kunal Gaba

SUMMIT

**JBoss
WORLD**

PRESENTED BY RED HAT



Agenda

Background

Solution

Key Challenges

Internationalization

Workflow

SUMMIT

JBoss
WORLD

PRESENTED BY RED HAT



Background

- **In our experience, we see many sites that have grown organically over a long period of time. These sites have many common concerns including:**
 - Mashup of technologies – SSI, static HTML, PHP, Perl, Java, etc ...
 - Navigation and user experience become less than optimal
 - Content is managed through multiple disparate systems/approaches
 - Content becomes “siloesd” and hard to find
- **Red Hat understands that their current site exemplifies some of these concerns – and initiated a program to address them**
- **This presentation provides insight into that program, and a glimpse into the future of redhat.com**



Agenda

Background

Solution

Key Challenges

Internationalization

Workflow

SUMMIT

JBoss
WORLD

PRESENTED BY RED HAT



Solution



- **Red Hat partnered with Accenture in a multi-phase program to:**
 - Move to a modern, open-source technology stack, powered by Red Hat technology
 - Deliver control of content to end users
 - Provide a greatly enhanced user experience
 - Build a platform for future growth

- **We leveraged the best of Accenture, providing a multi-disciplinary team to deliver a cutting edge solution that meets Red Hat's business needs:**
 - Technology Architecture
 - Portals and Content Management
 - Accenture Innovation Center for Open Source

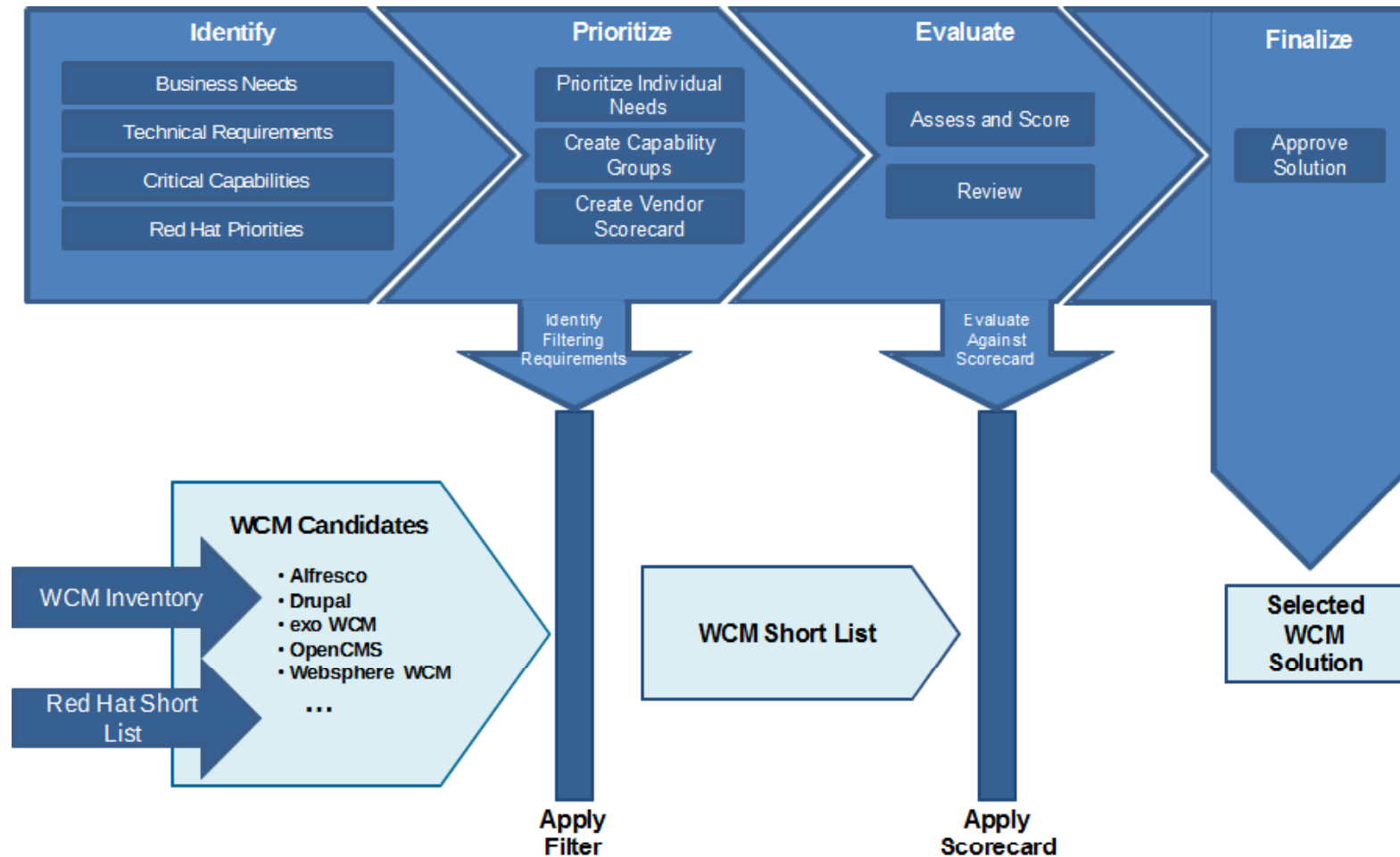
SUMMIT

**JBoss
WORLD**

PRESENTED BY RED HAT



Technology Selection



Accenture applied a rigorous methodology to evaluate and select the right technology platform for redhat.com

SUMMIT

**JBoss
WORLD**

PRESENTED BY RED HAT

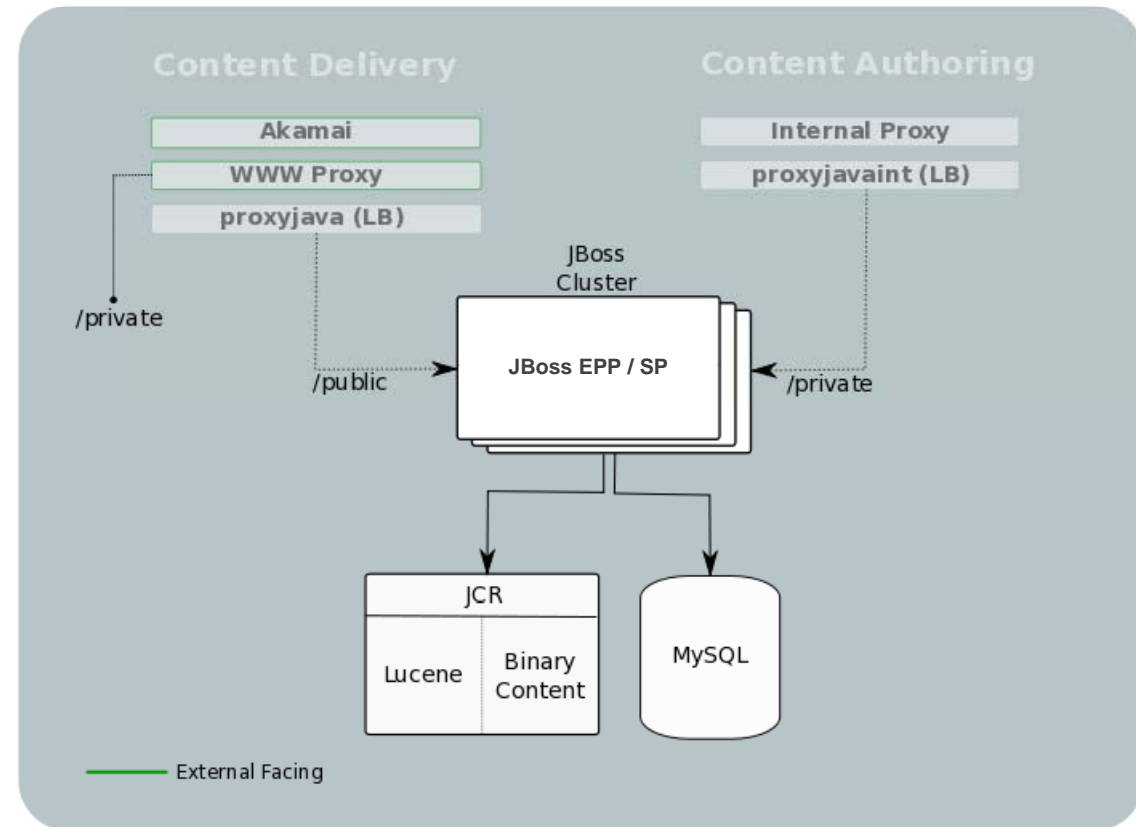


Technology Solution

JBoss Enterprise Portal Platform + Site Publisher

100% Open Source Technology Stack

Web Server	Apache
Web Content Management	JBoss Site Publisher 2.1
Portal Server	JBoss EPP 5.1
Application Server	JBoss EAP
Database	MySQL
Operating System	Red Hat Enterprise Linux
Development Environment	Red Hat Enterprise Virtualization



6 node JBoss cluster:
3 node content delivery
3 node content authoring

SUMMIT

**JBoss
WORLD**

PRESENTED BY RED HAT



Key Features for JBoss Enterprise Portal Platform 5.1



Powerful Presentation Tooling

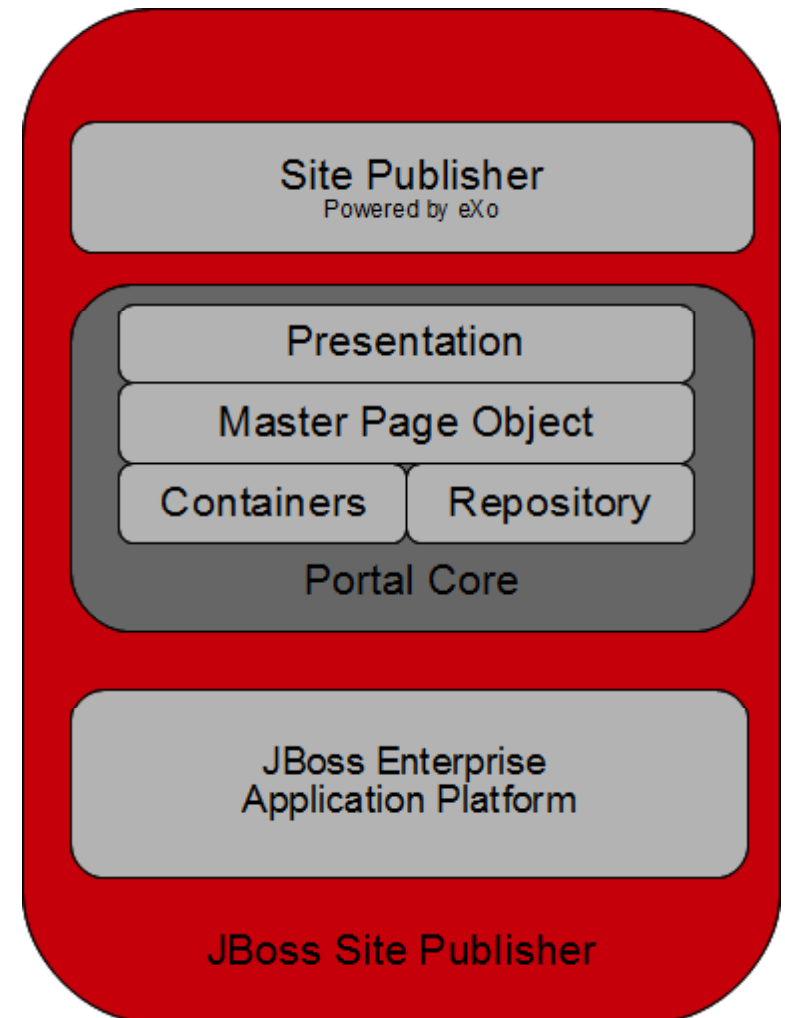
- In context editing & edit mode
- Content & list templates
- Forms editor
- Embedded search

Advanced Content Management

- Multi-site support
- Version control, staging, & regression
- Support for internationalization

Solid Core Infrastructure

- Advanced security model
- Embedded portlet & gadget support



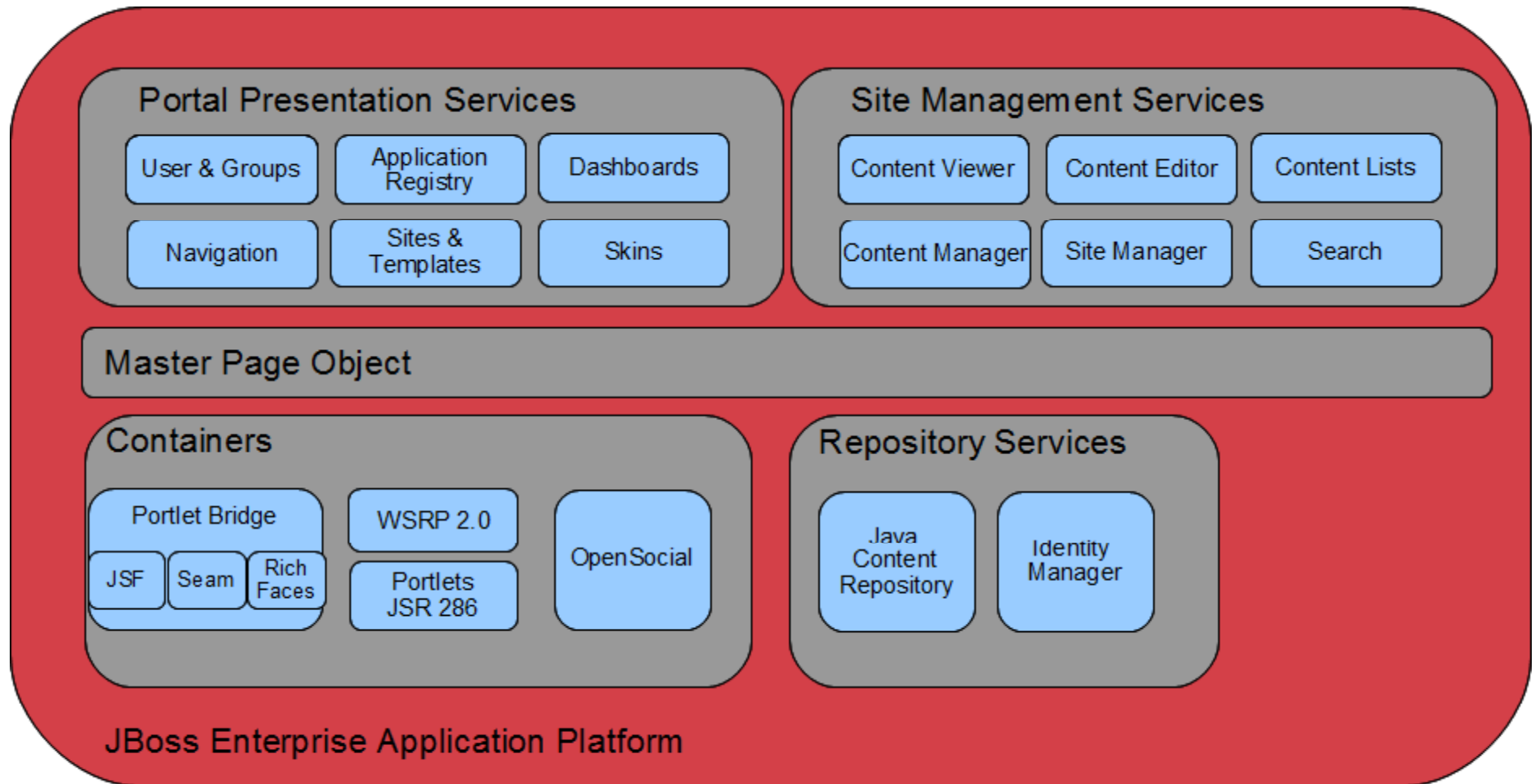
SUMMIT

JBoss
WORLD

PRESENTED BY RED HAT



JBoss Site Publisher 5.1 Architecture



SUMMIT

JBoss
WORLD

PRESENTED BY RED HAT



Agenda

Background

Solution

Key Challenges

Internationalization

Workflow

SUMMIT

JBoss
WORLD

PRESENTED BY RED HAT



Key Challenges

- **Complexity:**
 - 3500+ detailed requirements
 - Global scope: more than 40 stakeholders and over 175 users managing content within the system
 - SOLUTION:
 - Leveraged proven Accenture Delivery Methodologies for Portal and Content Management implementations
 - Worked closely with Red Hat to tailor and align our methodology to their needs and requirements
- **Migrating from Unstructured to Structured Content**
 - SOLUTION:
 - Developed a detailed content inventory using Accenture's Digital Diagnostic Engine
 - Migrated content using COTS software tools, engaging the users to update and validate
- **Product development in parallel with project design/build/test**
 - Typical in the open-source world – but less common for large SI firms
 - SOLUTION:
 - Leveraged our extensive experience from our Innovation Center for Open Source
 - Built and maintained close relationships with the product development team



Agenda

Background

Solution

Key Challenges

Internationalization

Workflow

SUMMIT

JBoss
WORLD

PRESENTED BY RED HAT



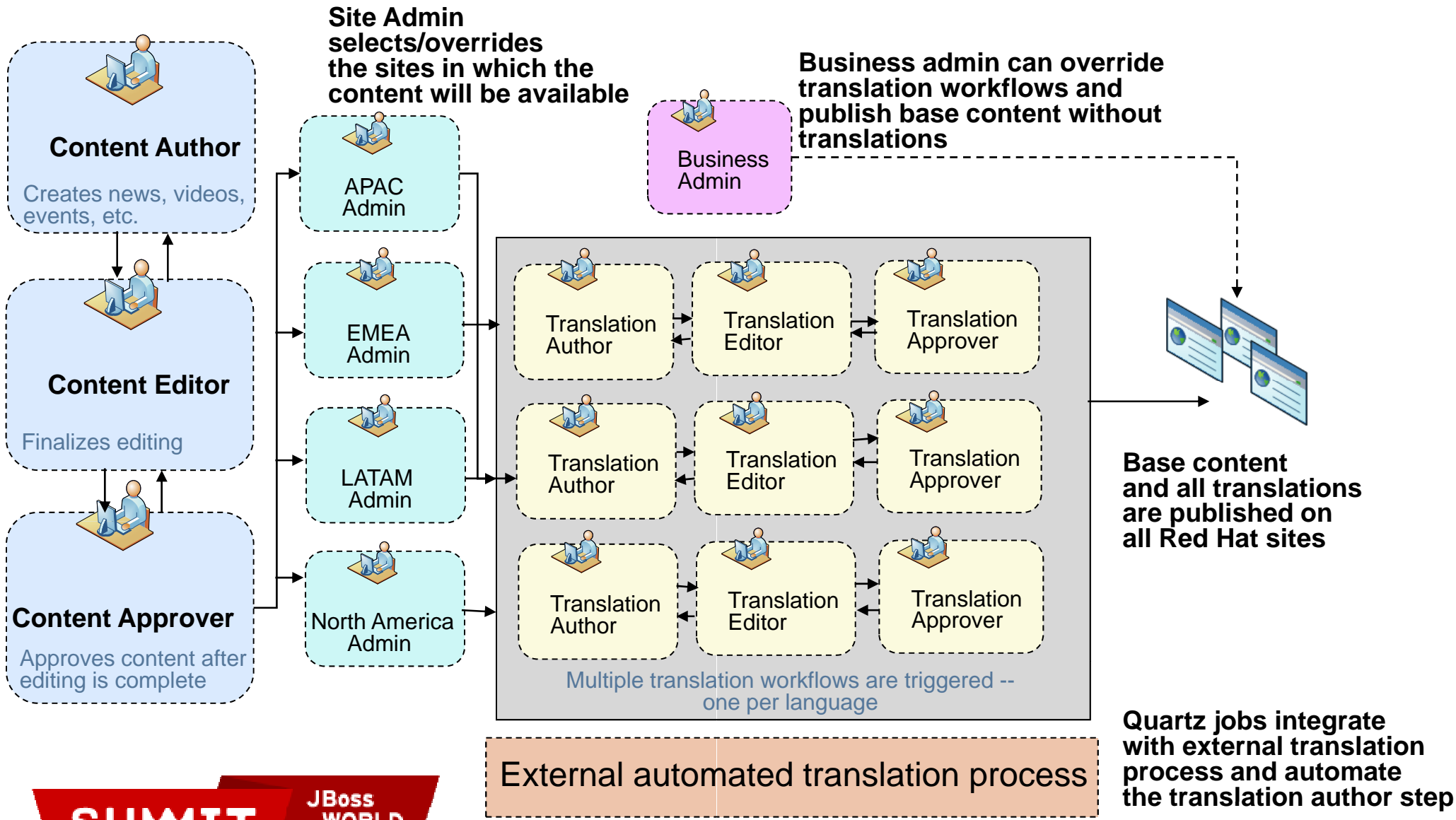
Internationalization

Key Challenges

- Deliver a unified view to users across the world
 - 51 country sites
 - 10 languages
- 90% Common content – but 10% unique
- Coordinate with internal stakeholders in multiple geographies
- Translation content seamlessly and integrate with a Translation Management System (TMS)



Translation Workflow / TMS Integration



SUMMIT

JBoss
WORLD

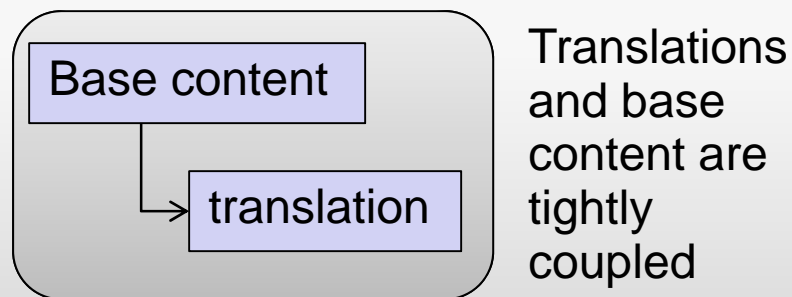
PRESENTED BY RED HAT



Jointly Designed i18n Process

- As shown on the prior slide – our requirements dictated a loose coupling between base content and translated content
- Because of this – and using our experience with content delivery for other i18n sites – we worked with JBoss/eXo to design a system within Site Publisher that is flexible and scalable -- and is now the default approach within SP

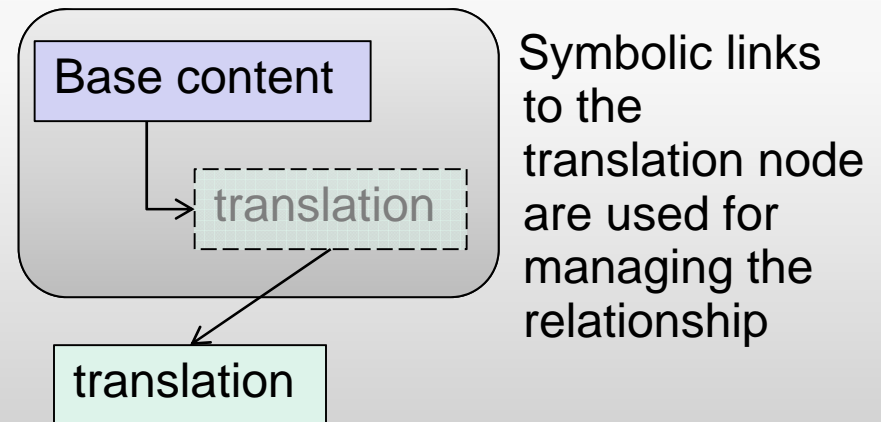
Previous Approach



Translations and base content are tightly coupled

Due to tight coupling the content and it's translations can not have different lifecycle states

Current Approach



Symbolic links to the translation node are used for managing the relationship

translation node exists separately and can have a different lifecycle



Agenda



Background

Solution

Key Challenges

Internationalization

Workflow

SUMMIT

JBoss
WORLD

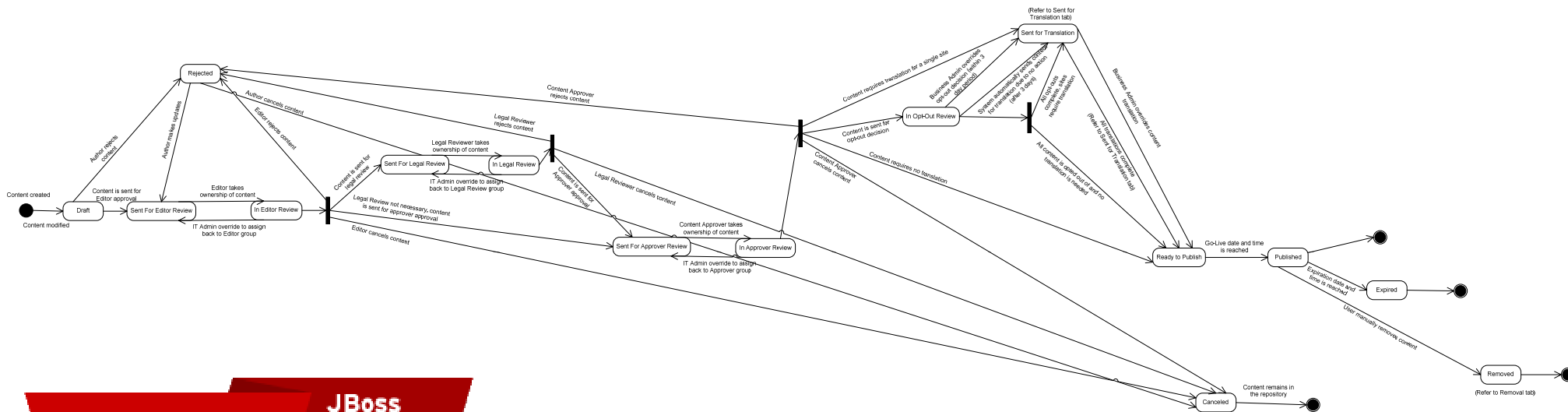
PRESENTED BY RED HAT



Workflow

The workflow shown on the prior slide is a much simplified version of our actual workflow

- Additional reviewers and security requirements
- Override capabilities for key users
- “Return to Pool” for group tasks
- Time-boxed steps with auto-approval



JBPM Integration

- Out of the box, Site Publisher provides a simplified workflow for publishing content that works well for many users. Our requirements were more complex however.
- We chose to implement eXo's JBPM extension package. This allowed us to:
 - Implement the custom publishing and translation workflows
 - Create and manage group tasks
 - Implement "Return to Pool" functionality for returning the acquired tasks back to the group
 - Create a user "dashboard" tied back to workflow tasks



Dashboard

Manage content editing, approval and routing in a single user interface.

My Tasks

Task ID	Process Name	Task Name	Content Title	Go-live Date	Path	Author	Process Date Start	Action
495	Content Publishing Workflow	In Editor Review	ak-new titles	Wed, 20 Apr 2011 16:51:39	/sites content/live/redhat/web-cabinet/content-items/news/ak-news	news_author_1	Tue 19 Apr 2011 05:14:17	Manage

Done

Group Tasks

Group: /redhat/contributor/news/editors

Task ID	Process Name	Task Name	Content Title	Go-live Date	Path	Author	Process Date Start	Action
454	Content Removal Workflow	Sent for Editor Removal Review	A New Goal for Open Source	Wed, 2 Feb 2011 00:00:00	/sites content/live/redhat/web-cabinet/content-items/news/a-new-goal-for-open-source	sbansal	Tue, 5 Apr 2011 11:23:30	Acquire
475	Content Publishing Workflow	Published	nk_news_5	Mon, 4 Apr 2011 13:15:55	/sites content/live/redhat/web-cabinet/content-items/news/nk_news_5	news_editor_1	Tue, 5 Apr 2011 13:30:16	Acquire

Group: /redhat/users
Group: /platform/users

Done

My Content

Content Title	Content State	Go-live Date	Created Date	Repository Path
Individual subscriptions	Draft	Sun, 15 May 2011 00:00:00	Wed, 13 Apr 2011 05:36:33	/sites content/live/redhat/web-cabinet/test/education-academic-subscriptions-individual
JBoss Developer Webinar Series: JSF 2 and Beyond with RichFaces!	Draft	Sun, 15 May 2011 00:00:00	Thu, 14 Apr 2011 04:48:18	/sites content/live/redhat/web-cabinet/home/about/eventswebinars/webinars/8a70ca0f29d3253a0129d66799cf060a
Government	Draft	Sun, 15 May 2011 00:00:00	Mon, 18 Apr 2011 11:53:47	/sites content/live/redhat/web-cabinet/home/solutions/industry/government/meet-the-team/bios/government-carleton-s-jones-bio

MyTasks – Lists all the acquired tasks on which users can take action.

Group Tasks- Lists all the tasks assigned to entire group.

My Content- Lists all the contents owned by you until they are published.



Dashboard

Manage content editing, approval and routing in a single user interface.

The screenshot shows a 'Perform Action' dialog box with a 'Task' dropdown menu set to 'Edit content'. It features two text input fields: 'Comments:' and 'Previous Comments:'. At the bottom, there are four buttons: 'Approve', 'Reject', 'Cancel Publishing', and 'Close'. A 'Show process link' text is located below the buttons.

The screenshot shows the 'Task Management' interface with a 'Task' dropdown menu set to 'Edit content'. It displays a form for editing content with fields for 'Name' (ak-news), 'Title' (ak-new titles), and 'Byline' (ak-news bylines). The 'Subheading' field contains the text 'ak-newsak-news ak-newsak-news subheading'. Below the form is a rich text editor toolbar with options for Source, Bold, Italic, Underline, Bulleted List, Numbered List, Indent, Outdent, Undo, Redo, and Font Color.

Once a user has acquired a task – they can:

- Immediately approve or reject, providing comments that are retained with the content throughout the lifecycle
- Review the displayed version of the content
- Edit the content – using the same template as the content creator



Overrides

- **As with any workflow system – there are times when the default workflow must be overridden. In our system, two key considerations were:**
 - The need to publish quickly, without waiting for regional “opt-out” or translation
 - Content is acquired by a user – but that user is unavailable or has left the firm
- **To resolve these scenarios – we created UI actions within the Site Publisher interface**
 - The easy customization of the Site Publisher UI allowed us to do this simply – and in a user-friendly manner



INSURANCE CLIENT WEB SITE CASE STUDY: POWERED BY JBOSS BRMS

Steven Fisher

steven.j.fisher@accenture.com

SUMMIT

**JBoss
WORLD**

PRESENTED BY RED HAT



Context

- Accenture has been working with an Insurance client to deliver a new strategic architecture to support Quote, Purchase and Mid Term Adjustments through Direct Web, Call Centre and Aggregator Channels.
- A key business requirement is agility and supporting the business to initiate change without requiring any IT involvement.
- After a client-led RFP and selection process Red Hat's BRMS was procured by the client as the underlying rules technology.
- The introduction of a Rules Engine to process Decision Tables (aka spreadsheets) to change business functionality was delivered as part of Release 2.1 (scheduled for go-live Q2 2011).
- Accenture worked with Red Hat to integrate the Drools Engine into the Enterprise Service Bus (ESB) component of the architecture.
- Red Hat has also been involved in supporting the transition of the rules capability from the delivery programme to the client's business as usual processes.



Business Benefits

Rapid Response To Changing Market

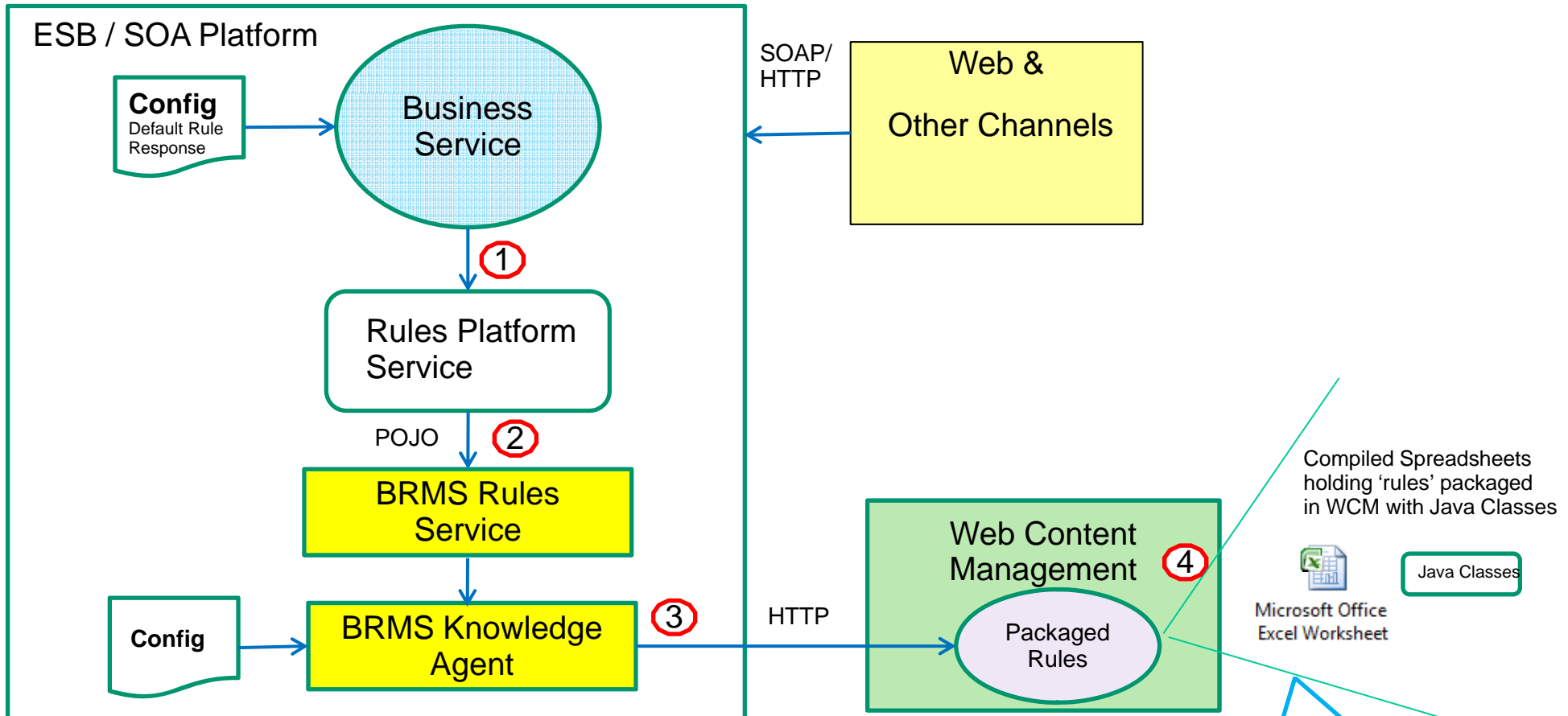
- Analytics and MI support for customer facing web sites provide insights which drive changes to the Customer Journey and Experience.
- The Business requires the ability to change key aspects of the web site without needing to schedule the work to fit in with IT release schedules.

Agility No Code Deployment Required

- Changing the business rules by manipulating the values in the spreadsheets. Each row acts as individual When X THEN Y statements, but in a business friendly way.
- Adding / removing rules for an existing decision tables providing this means adding / removing more conditions / rows in the decisions
- Removing decision criteria (inputs) from an existing Decision Table



High Level (simplified) Rules Integration Architecture



- BRMS rules run-time engine embedded in ESB.
- Interface to Drools through simple POJOs
- Knowledge Agent load packaged rules from WCM

SUMMIT

JBoss
WORLD

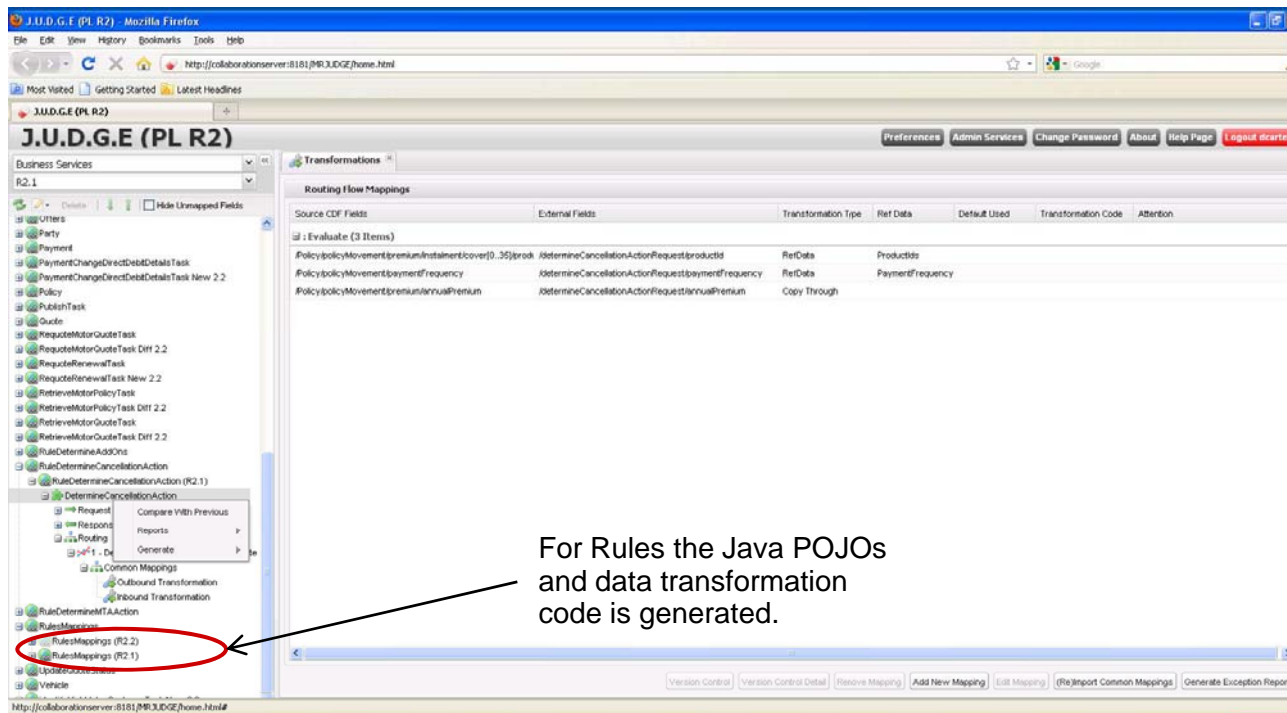
PRESENTED BY RED HAT



Design Tooling supports Build

Accenture's Strategic Industrialisation in action:

Sophisticated Tool for Design and Build:

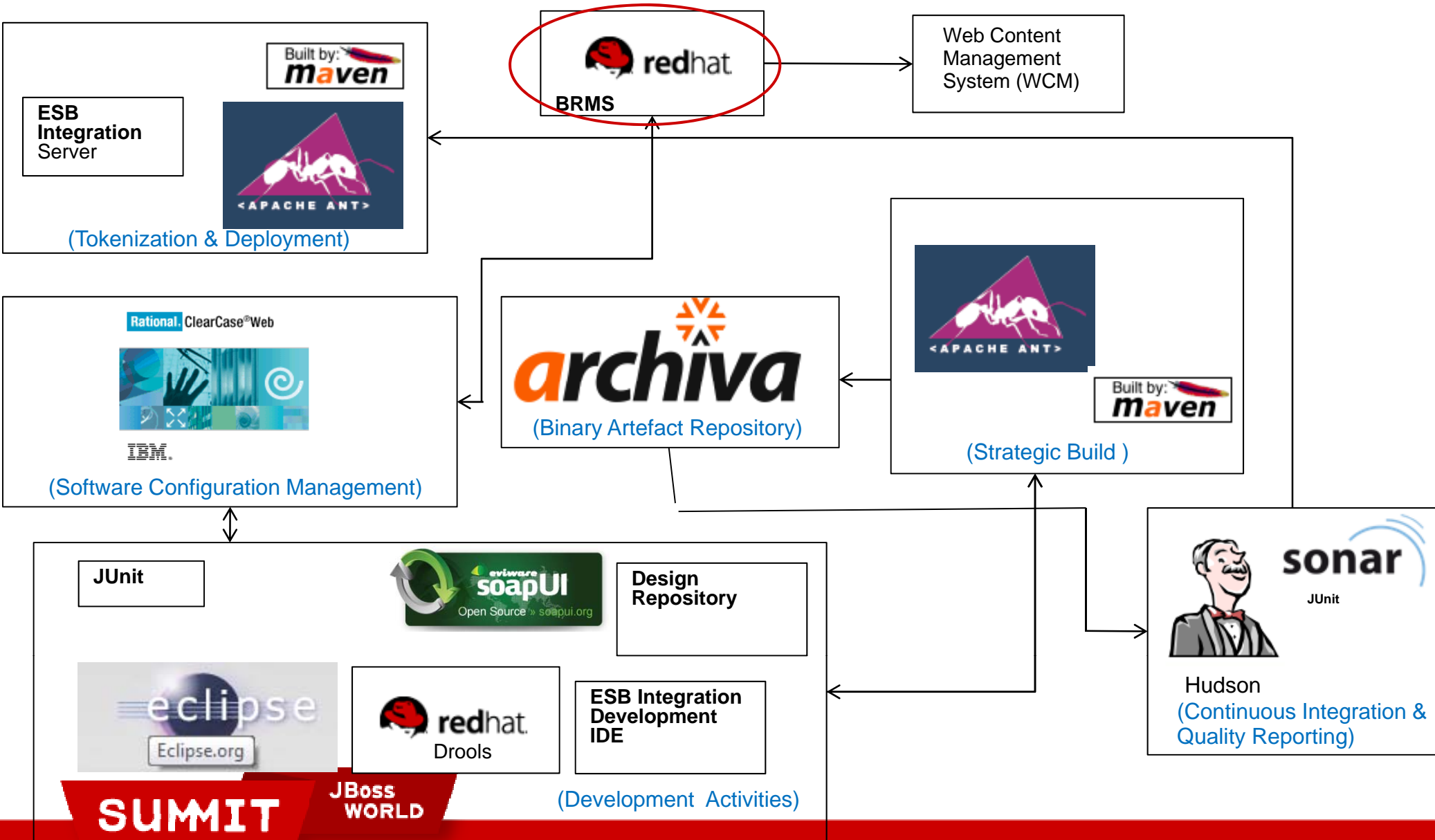


For Rules the Java POJOs and data transformation code is generated.

The design tooling enables services & rules to be defined, data to be mapped (to a Canonical Data Model) and generates build artefacts.



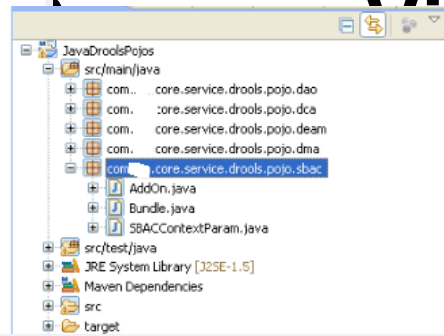
BRMS Used to Test & Package Rule-Sets Development Architecture Overview



```

// *
// * Class Name: OffersSelectBundleAndContentsRequestTransformer Package Name:
// * com. .core.service.bes1.transform.transformer Description : Request
// * Transformer for Address.NarrowSearch Created: Fri Sep 10 13:30:20 BST 2010
// *
// *****/
//package com. .core.service.bes1.transform.transformer;
//
//import java.util.ArrayList;
//
//import com. .core.service.bes1.transform.AbstractTransformer;
//import com. .core.service.custom.techtables.TechTablesManager;
//import com. .core.service.drools.pojo.sbac.AddOn;
//import com. .core.service.drools.pojo.sbac.SBACContextParam;
//import com. .core.service.logging.CALEventCode;
//import com. .core.service.logging.Logger;
//import com. .core.service.logging.LoggerFactory;
//import com. .core.service.refdata.exception.ReferenceDataCalException;
//import com. .core.service.util.ReferenceDataHelper;
//import com. .core.service.util.ReferenceDataTranslator;
//import com. .app.b2b.server.ServiceExcept
//import com.

```

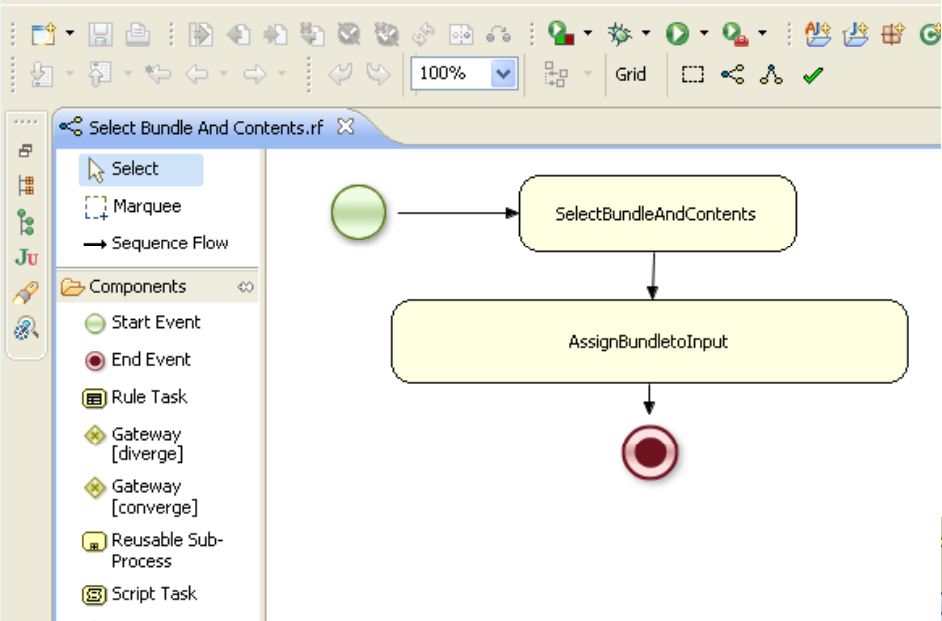


```

1 package com. .core.service.drools.pojo.sbac;
2
3import java.io.Serializable;
4
5
6
7 // START_CUSTOM_CODE:ID:CUSTOM_IMPORTS
8 // END_CUSTOM_CODE:ID:CUSTOM_IMPORTS
9
10 public class SBACContextParam implements Serializable
11 {
12     private static final long serialVersionUID = 42L;
13     private String aggregatorID;
14     private Boolean requete;
15     private Integer creditScore;
16
17     // START_CUSTOM_CODE:ID:CUSTOM_MEMBERS
18     int bNum = 0;
19     Bundle currentBundle;
20     private List<AddOn> eligibleAddOns = new ArrayList<AddOn> ();
21     private List<Bundle> bundles = new ArrayList<Bundle> ();
22     private String defaultBundleId;
23
24     // END_CUSTOM_CODE:ID:CUSTOM_MEMBERS
25
26     public String getAggregatorID()
27     {
28         return aggregatorID;
29     }
30
31     public void setAggregatorID(String val)
32     {
33         aggregatorID = val;
34     }
35
36     public Boolean isRequete()
37     {
38         return requete;
39     }
40
41     public void setRequete(Boolean val)
42     {
43         requete = val;
44     }
45
46     public Integer getCreditScore()
47     {
48         return creditScore;
49     }
50
51 }

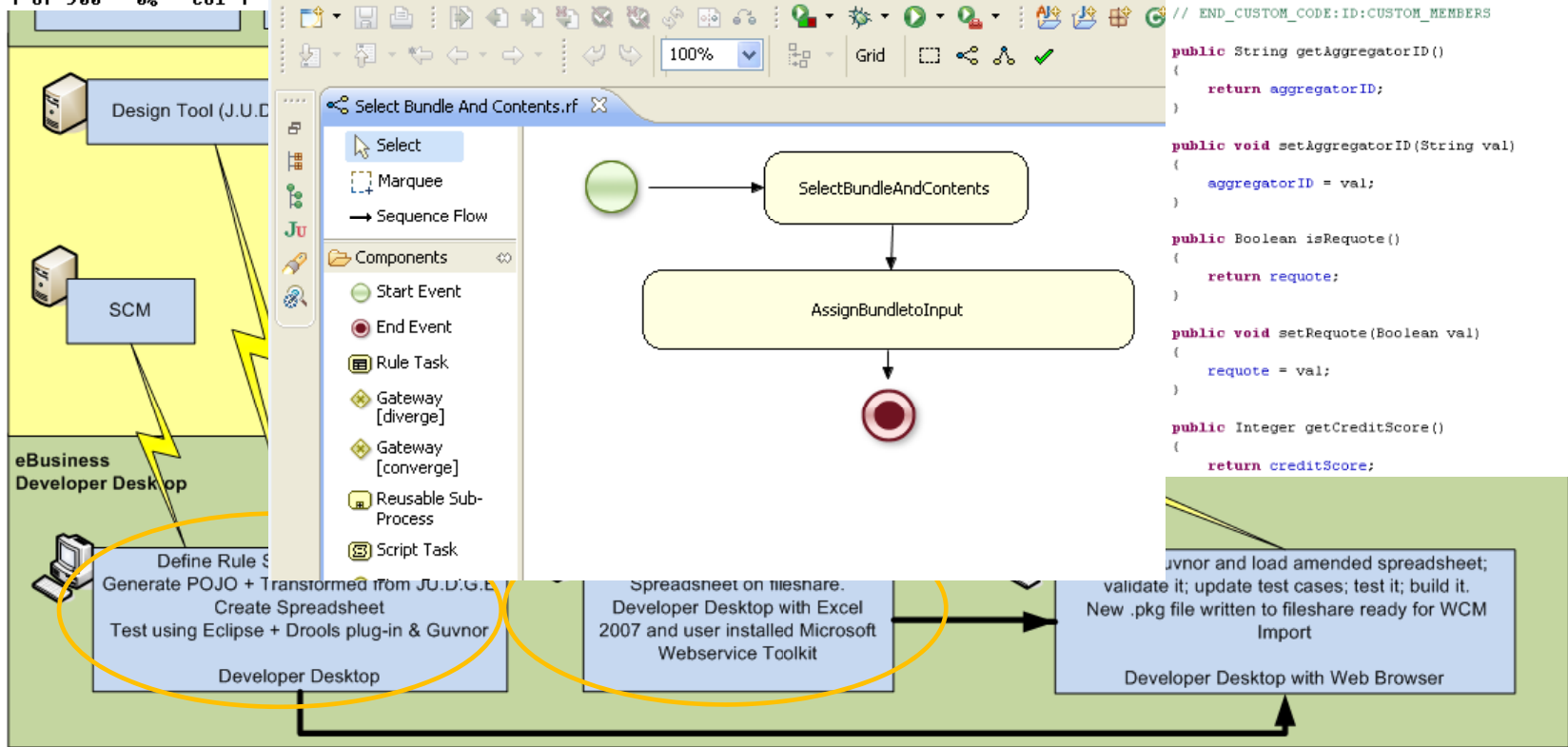
```

Java - RulesSelectBundleAndContents/src/main/rules/Select Bundle And Contents.rf - Eclipse



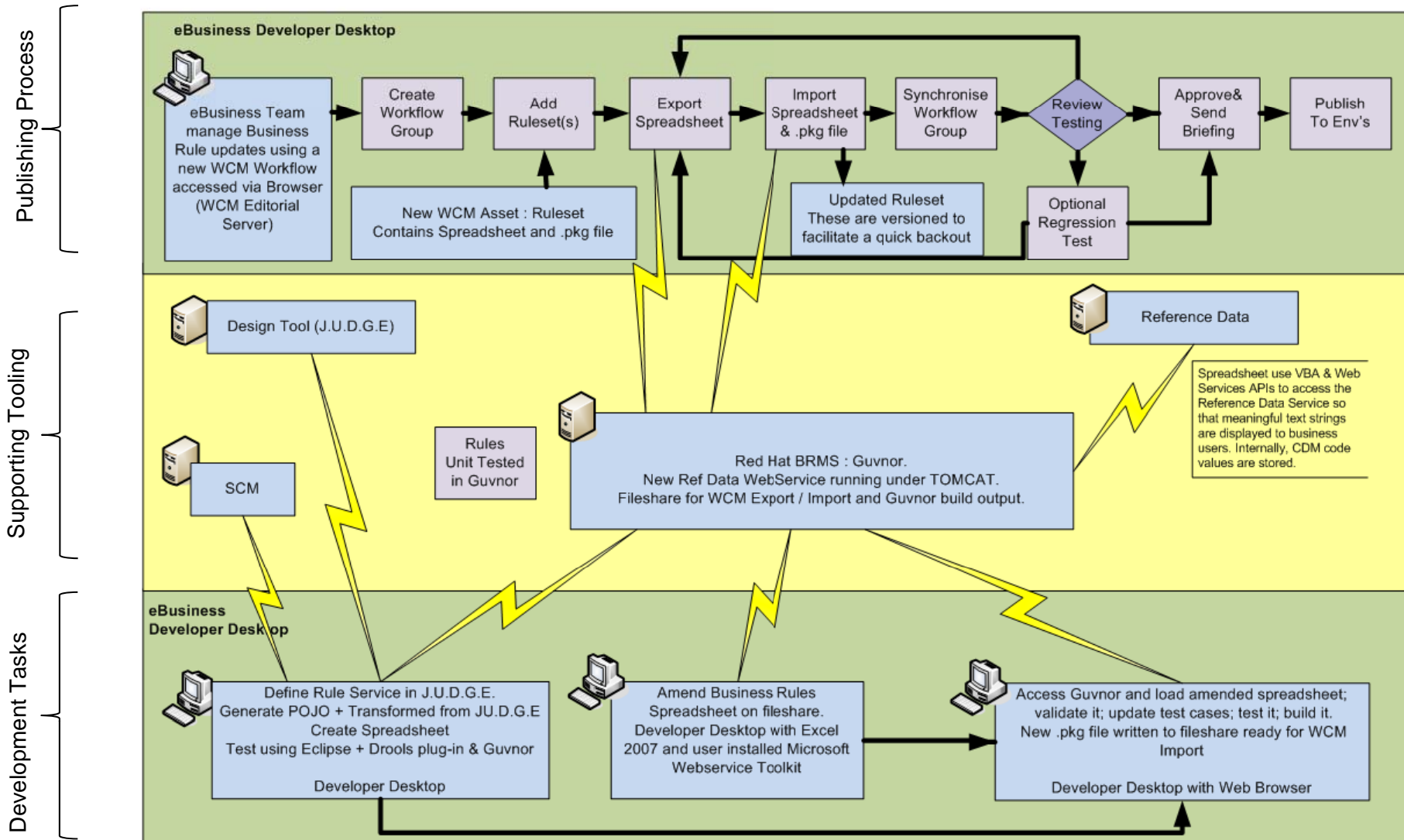
Supporting Tooling

Development Tasks



Rules Life Cycle – a Process View

R2.1 BAU Business Rules Update Process



SUMMIT

JBoss
WORLD

PRESENTED BY RED HAT



LIKE US ON FACEBOOK

www.facebook.com/redhatinc

FOLLOW US ON TWITTER

www.twitter.com/redhatsummit

TWEET ABOUT IT

#redhat

READ THE BLOG

summitblog.redhat.com

GIVE US FEEDBACK

www.redhat.com/summit/survey

SUMMIT

**JBoss
WORLD**

PRESENTED BY RED HAT

