

Competitive Advantage with Open Source Business Process Automation

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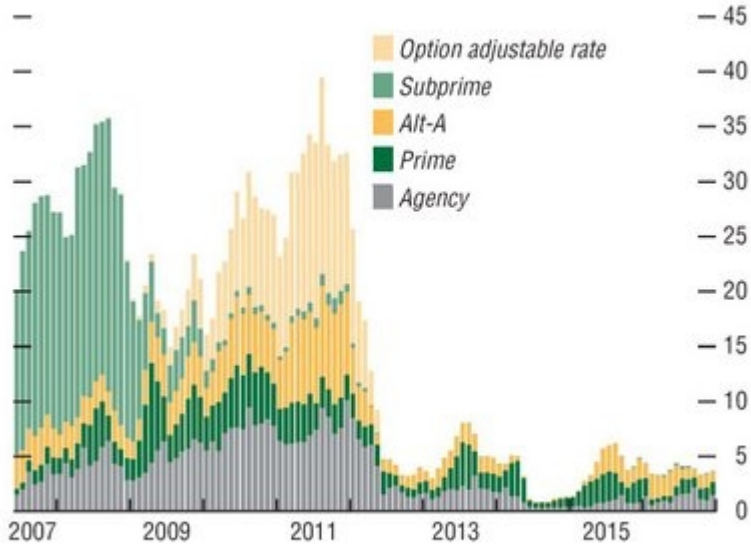
Agenda

- Business and economic environment
- Business process automation and agility
- Common challenges and pain points
- SOA-BPA evolution in enterprises
- Business rules management
- Integration and SOA
- Business process automation (BPA)
- BPA and the cloud
- Wrap-up and Q&A

Business and Economic Environment

Economic and Business Environment

Figure 1.7. Monthly Mortgage Rate Resets
(First reset in billions of U.S. dollars)

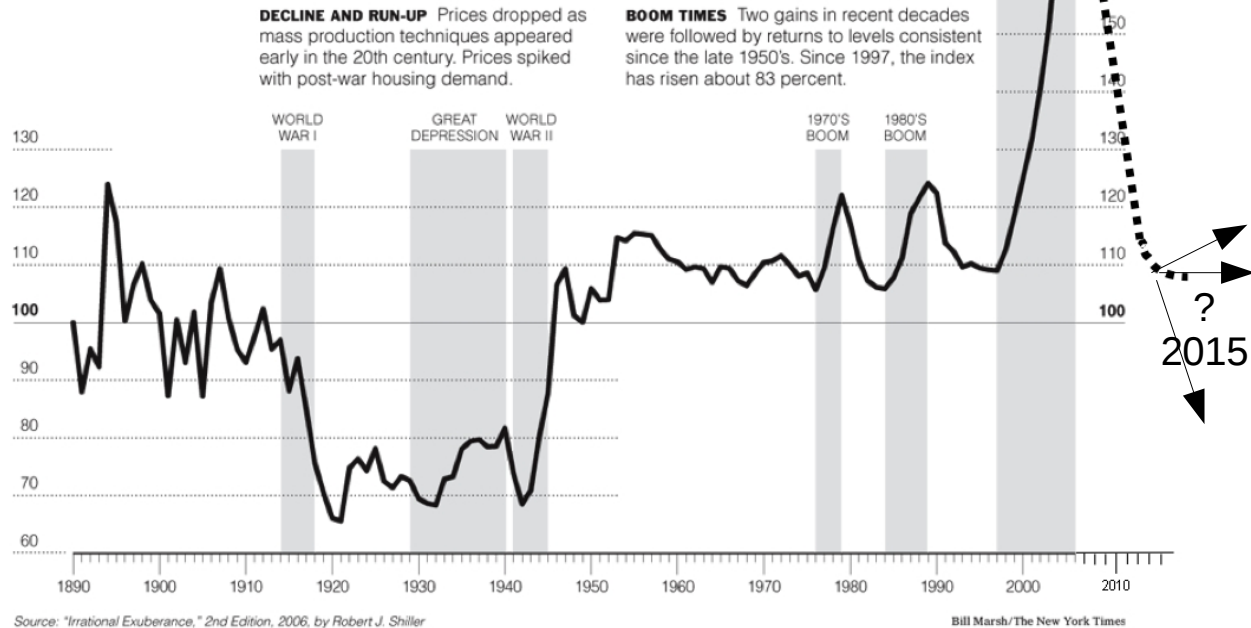


Source: Credit Suisse.

A History of Home Values

The Yale economist Robert J. Shiller created an index of American housing prices going back to 1890. It is based on sale prices of standard existing houses, not new construction, to track the value of housing as an investment over time. It presents housing values in consistent terms over 116 years, factoring out the effects of inflation.

The 1890 benchmark is 100 on the chart. If a standard house sold in 1890 for \$100,000 (inflation-adjusted to today's dollars), an equivalent standard house would have sold for \$66,000 in 1920 (66 on the index scale) and \$199,000 in 2006 (199 on the index scale, or 99 percent higher than 1890).



An estimated 25 million borrowers will owe more than their house is worth by 2011.

CNN Online – Aug 6 2009

Manassas Park, Va
2008 tax assessment
\$309,700 @1.14 millage
2009 tax assessment
\$136,300 @ 1.68 millage

Economic Turmoil Drives Change

- Depressions of 1830s, 1870s, 1890s, 1930s, 1990s (Japan)
 - Business climate turbulence
 - Deflation / inflation / monetary turbulence
 - Government regulatory change
 - Some prospered; Some failed
- New Government Programs in 1890s
 - Antitrust, railroads, foreclosures in new “street car” suburbs
 - “Thou shall not crucify mankind on a cross of gold”, Bryan 1896
- Automating 1930s “New Deal”
 - Lot's of new government programs and rules
 - IBM tabulators --> grew every year – no layoffs
- Automating 2010s “New, New Deal”
 - Financial Services, Real Estate, Automotive (Labor), Trade, Healthcare, Energy, Retirement, etc...
 - SOA and business/government process automation

Business process automation and agility

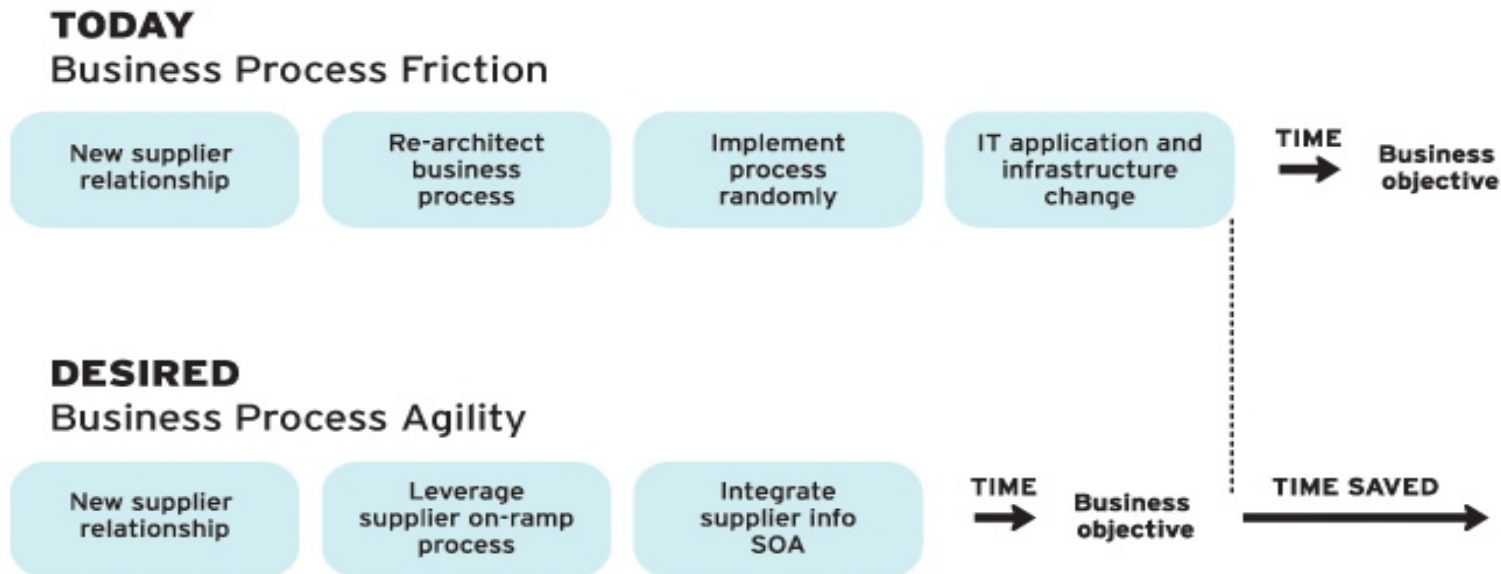


What is business process automation?

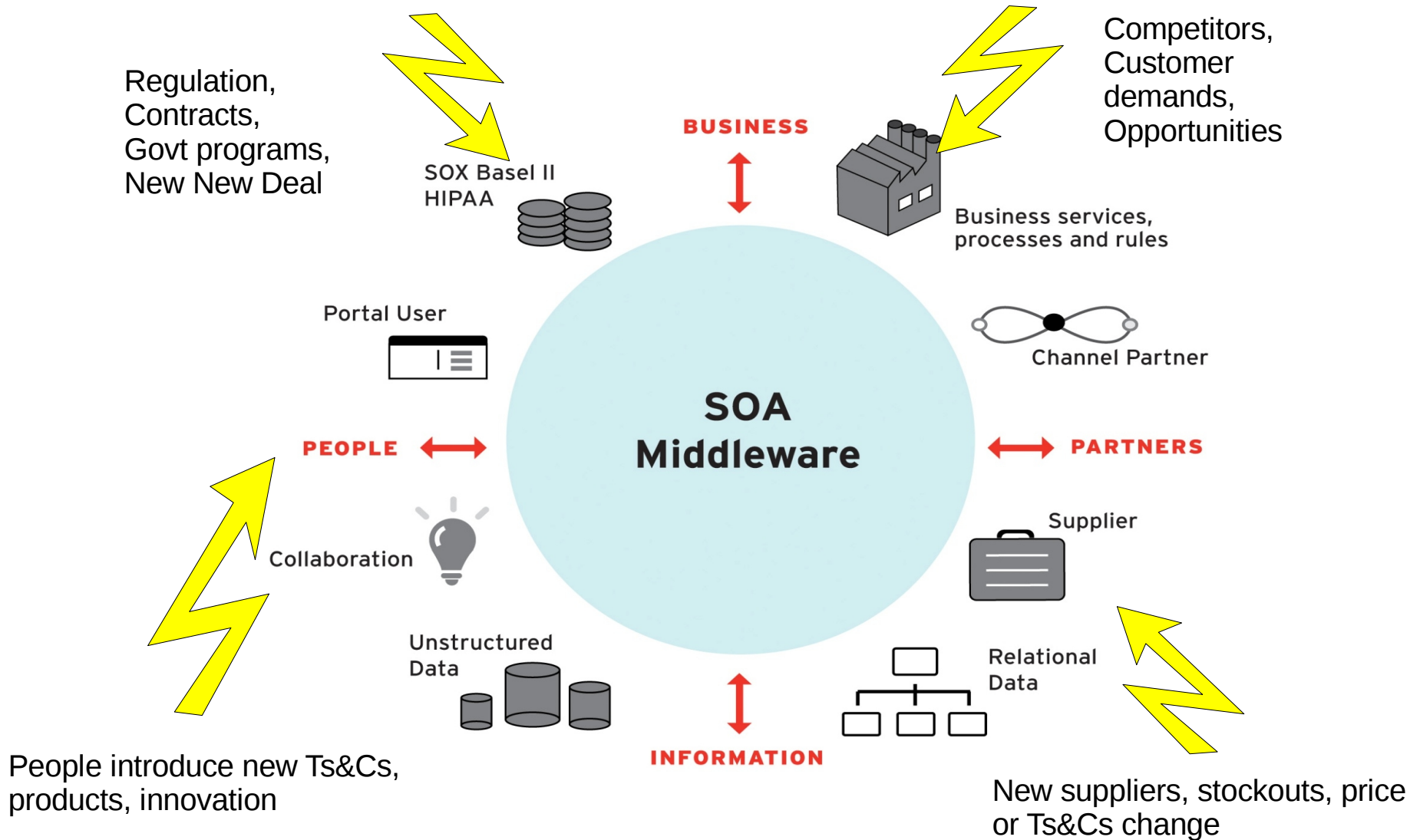
Business process - is a collection of related, structured activities or tasks that produce a specific service or product (serve a particular goal) for a particular customer or customers. It often can be visualized with a flowchart as a sequence of activities. From Wikipedia

Business process automation (BPA) - is the process a business uses to contain costs, improve productivity, and business responsiveness. It consists of integrating applications, restructuring labor resources, and using software applications throughout the organization.

From Wikipedia, edited.



Agility in a Turbulent World



Integrated Value Chain with SOA

- But what happens when change strikes?
- BPA/BRMS enables rapid change

Agility – What and How?

Need to Improve Business and Government Responsiveness

- Hours/Days not Weeks/Months

Need Solution to Author and Manage Government Rules and Policies

- Works across business with existing IT
- Easy to use / Fast to deploy
- Affordable Value

Need Solution to Integrate Value Chain

JBoss Enterprise BRMS and JBoss Enterprise SOA Platform

- Deliver Business and Government Agility
- Deliver Business and Government Performance
- Enterprise Ready
- Simple, Open, Affordable
- Professional Services to Ease the Journey

Common challenges and pain points

Enterprise Pain Points with Typical Application Deployments (business rules buried in apps)

- Unresponsive organizations / processes
- Complex to update IT with new rules
 - Opportunity for errors
- Difficult / poor customer experiences interacting with the business
- High costs due to the above
- Low customer satisfaction due to the above

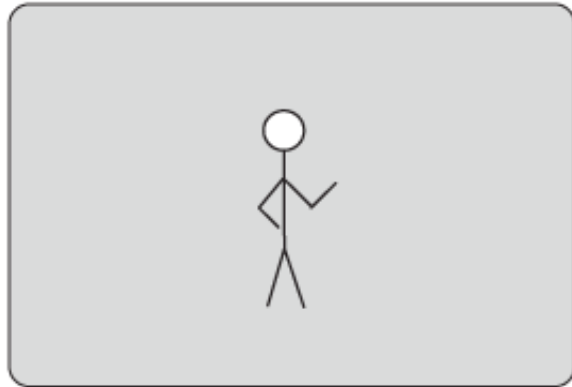
All these things are caused by business rules hard coded in applications, in multiple places in IT, that are difficult to change and get right.

Enterprise Pain Points with Typical Stove-Pipe Application Deployments (weak to no integration)

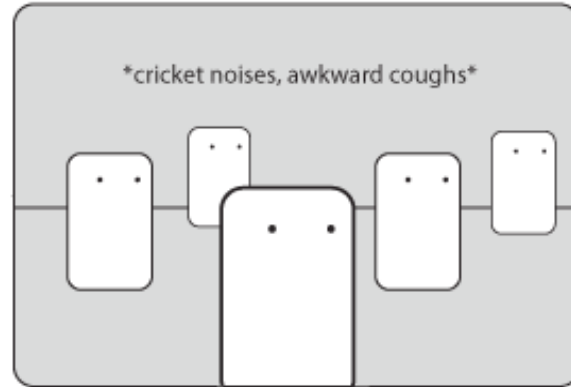
- Business process execution error
- Unresponsive organizations / processes
- Difficult / poor customer experiences interacting with the business
- High costs due to the above
- Low customer satisfaction due to the above

All these things are caused by unnecessary manual hand-offs between business process steps and applications caused by un-integrated applications and business process support/execution with IT

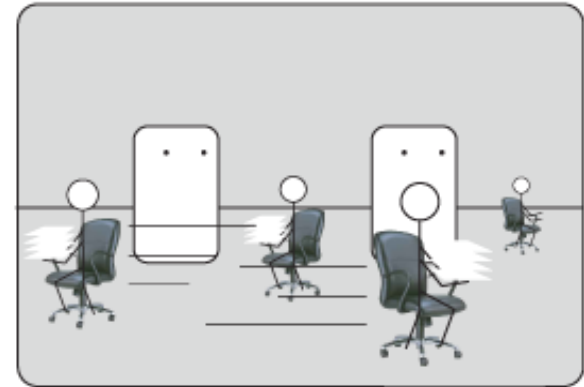
Manual processes vs Automated processes



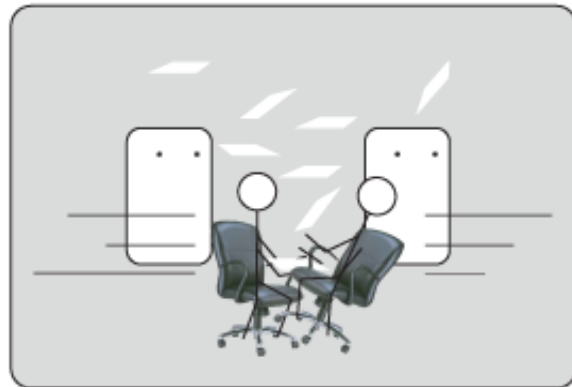
Im an enterprise architect.



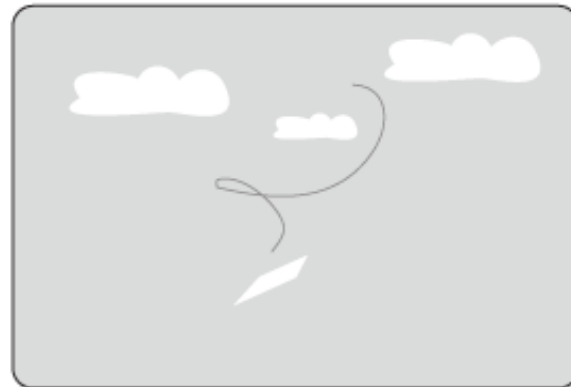
We've got a lot of systems to run our business--but they're not talking to each other



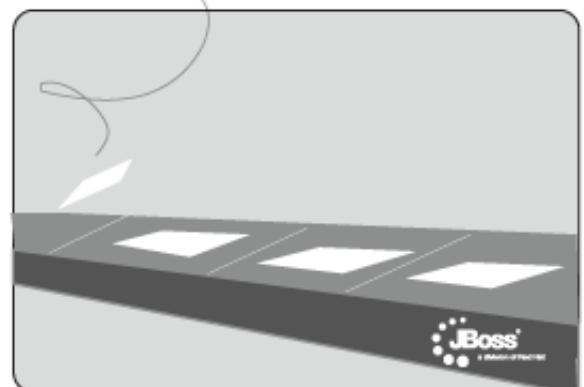
Our people are manually adding the same data to different systems.



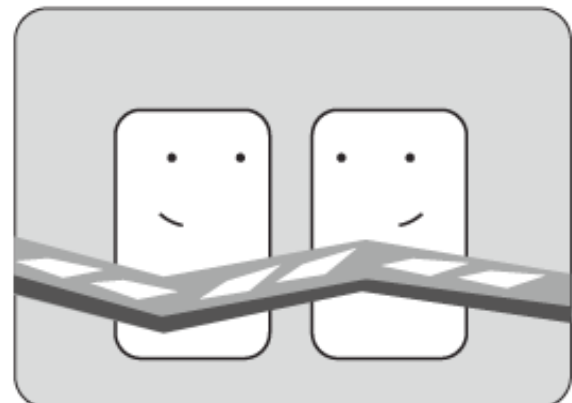
And that can mean mistakes.



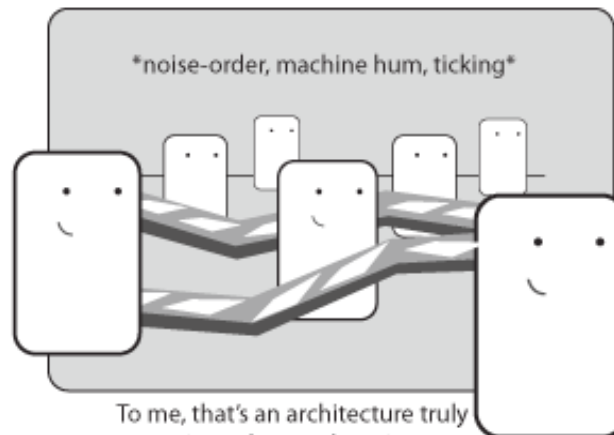
So red hat introduced me to a service-oriented architecture.



They integrated my applications and data through the JBOSS Enterprise SOA Platform.



Now our business processes are automated. And our systems can talk to each other.

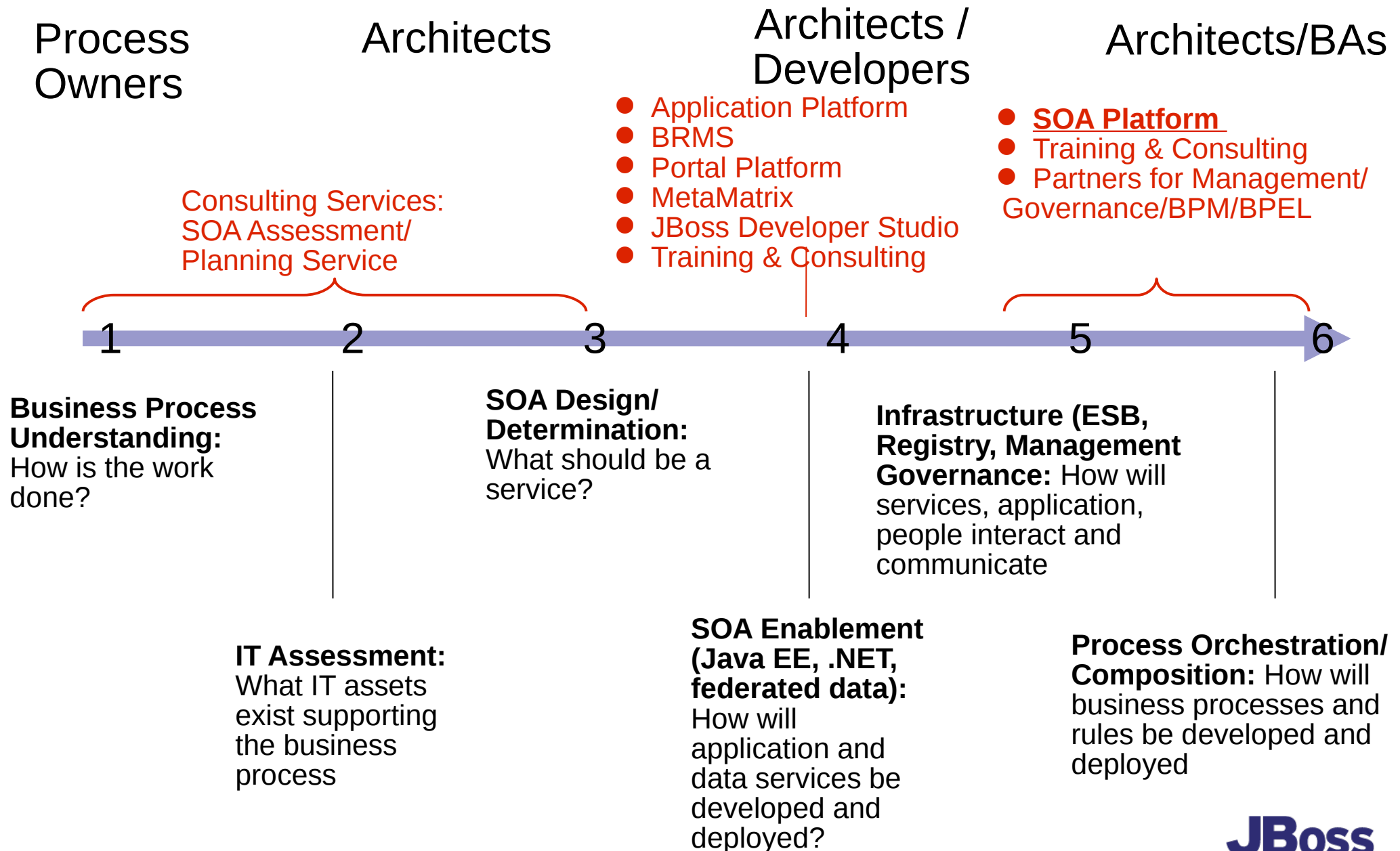


To me, that's an architecture truly oriented around service.

- Live with Bad data and processes.
- Get your systems talking.

SOA-BPA evolution in enterprises

SOA Evolution and Red Hat Offerings



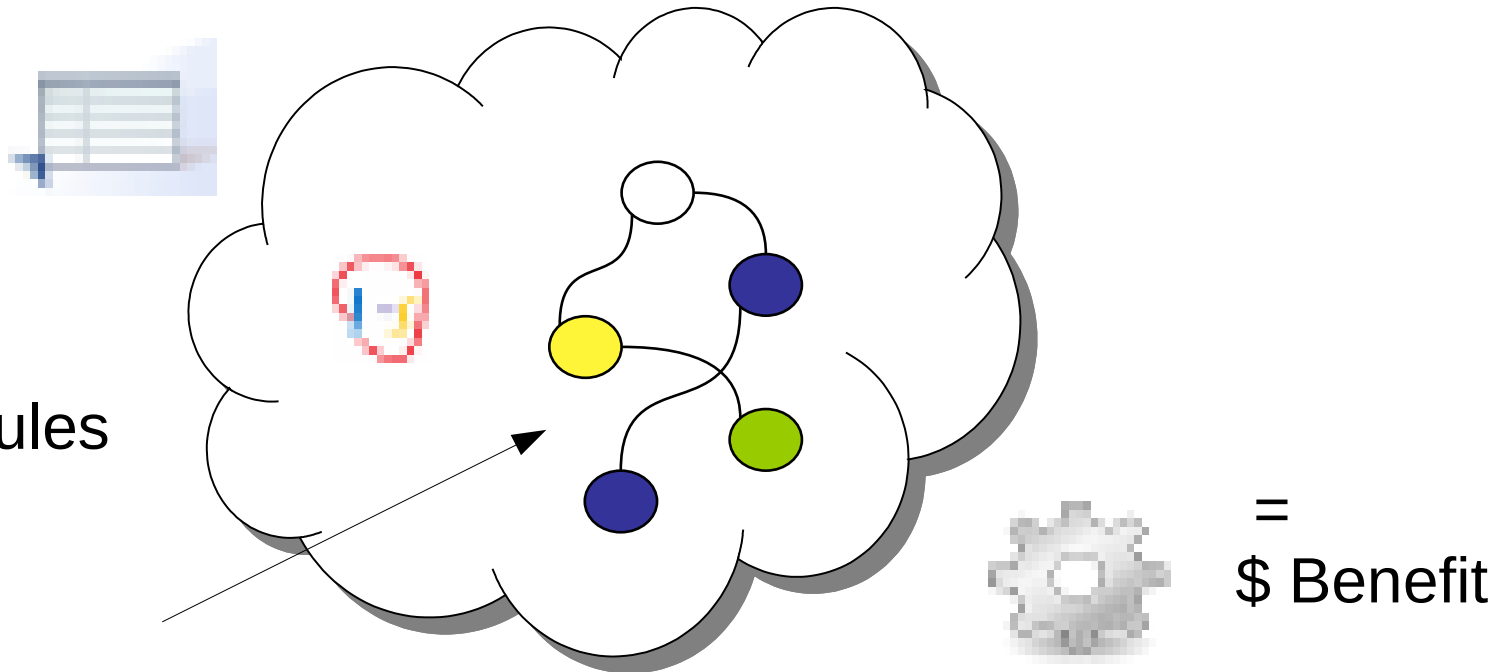
Business rules management



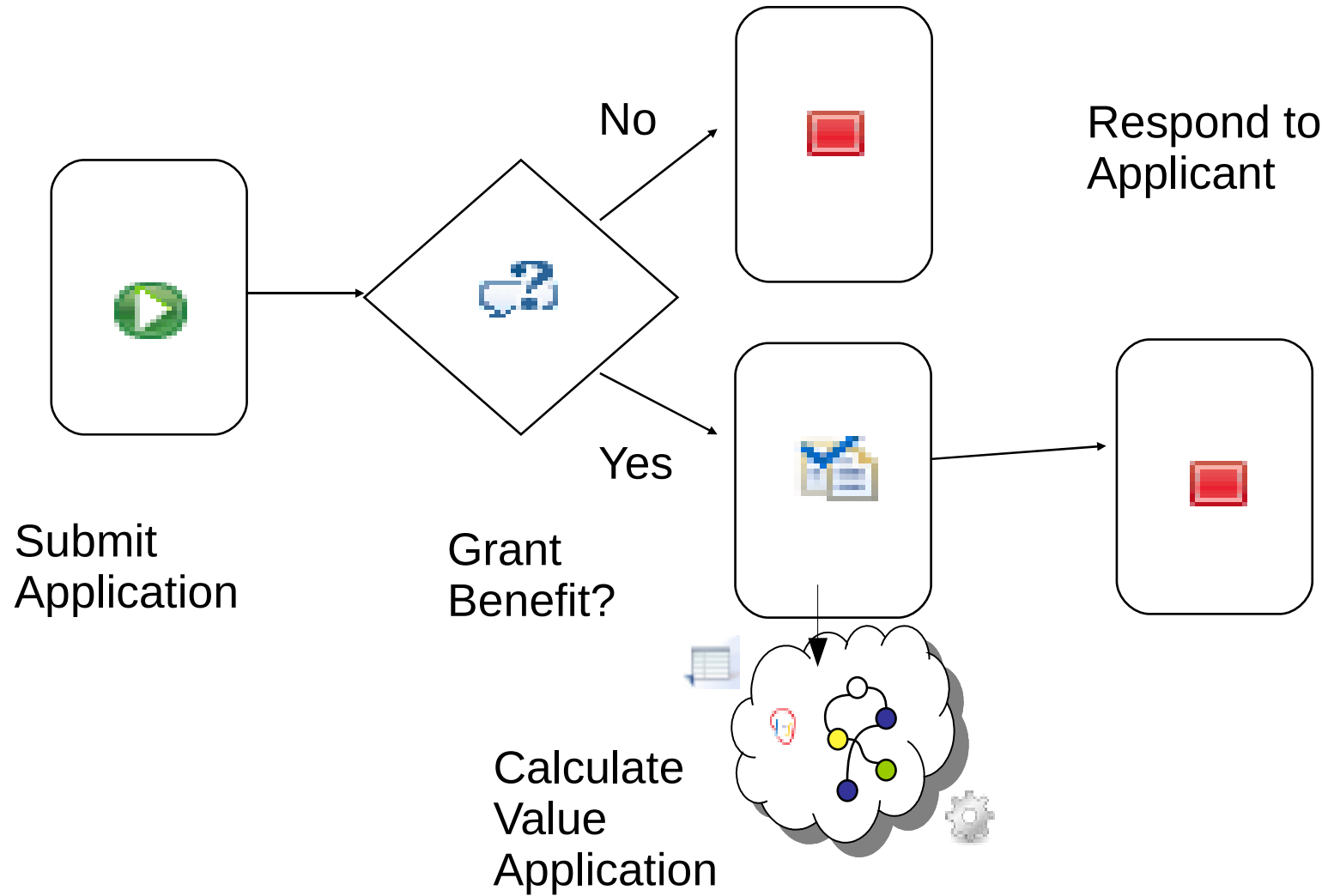
Rules – Calculating Benefits

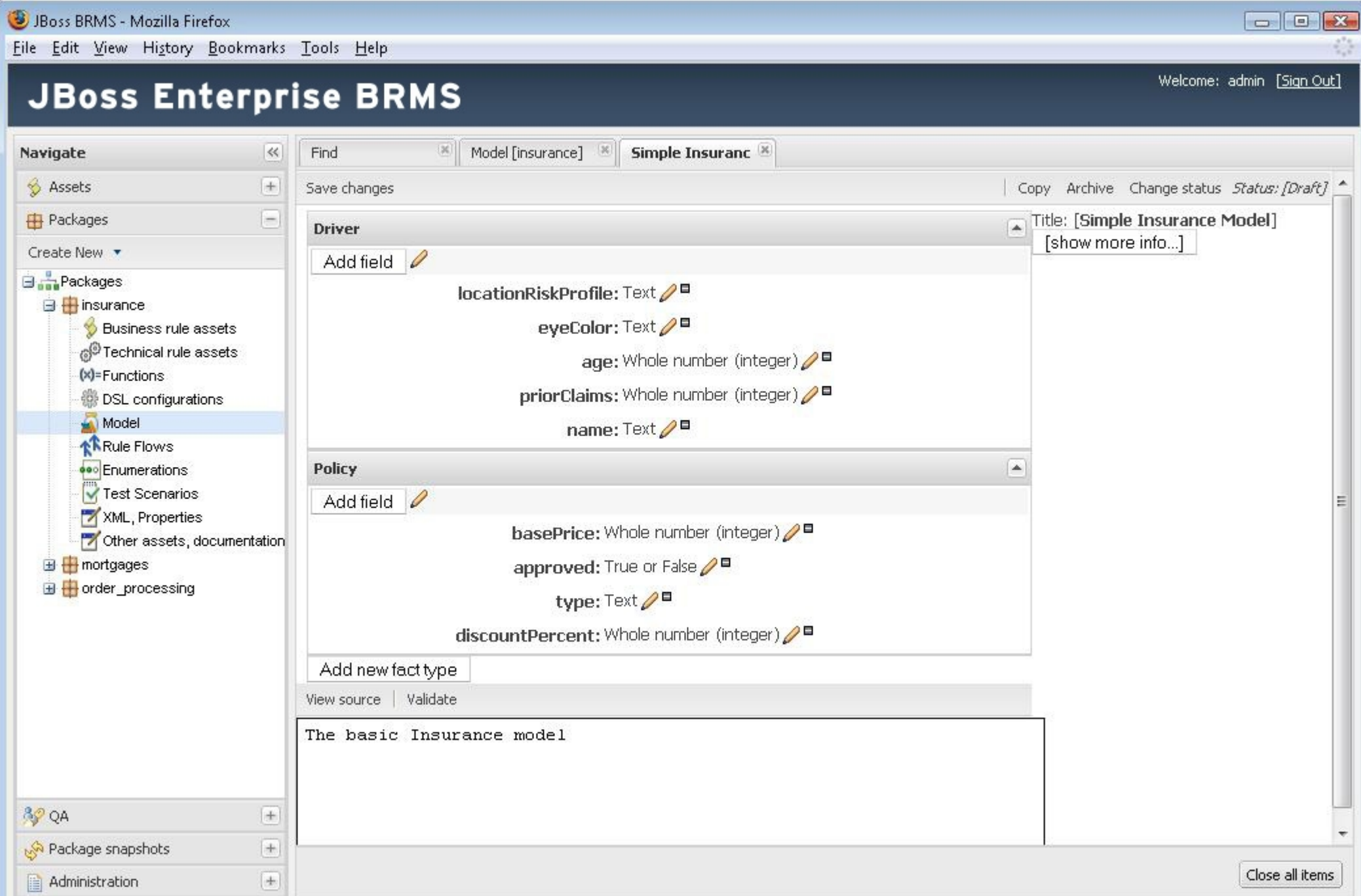
Benefit Rules

- Age
- Status
- Tenure
- Salary
- Means Testing
- Other Rules



Government Benefit Process





The screenshot shows the JBoss Enterprise BRMS Rule Modeler interface in a Mozilla Firefox browser window. The window title is "JBoss BRMS - Mozilla Firefox". The browser's address bar shows "File Edit View History Bookmarks Tools Help". The main header of the application is "JBoss Enterprise BRMS" with a "Welcome: admin [Sign Out]" link on the right.

The interface is divided into several sections:

- Navigate:** A sidebar on the left with a tree view showing the project structure. The "insurance" package is expanded, showing sub-packages like "Business rule assets", "Technical rule assets", "Functions", "DSL configurations", "Model" (selected), "Rule Flows", "Enumerations", "Test Scenarios", "XML, Properties", and "Other assets, documentation". Other packages like "mortgages" and "order_processing" are also visible.
- Find:** A search bar at the top with tabs for "Model [insurance]" and "Simple Insuranc".
- Save changes:** A button to save the current model.
- Copy Archive Change status Status: [Draft]:** A set of utility buttons.
- Driver:** A section for defining driver fields. It includes an "Add field" button and the following fields:
 - locationRiskProfile: Text
 - eyeColor: Text
 - age: Whole number (integer)
 - priorClaims: Whole number (integer)
 - name: Text
- Policy:** A section for defining policy fields. It includes an "Add field" button and the following fields:
 - basePrice: Whole number (integer)
 - approved: True or False
 - type: Text
 - discountPercent: Whole number (integer)
- Add new fact type:** A button to add a new fact type.
- View source | Validate:** Buttons to view the source code or validate the model.
- The basic Insurance model:** A text area containing the text "The basic Insurance model".
- QA, Package snapshots, Administration:** A bottom sidebar with buttons for these actions.
- Close all items:** A button in the bottom right corner.

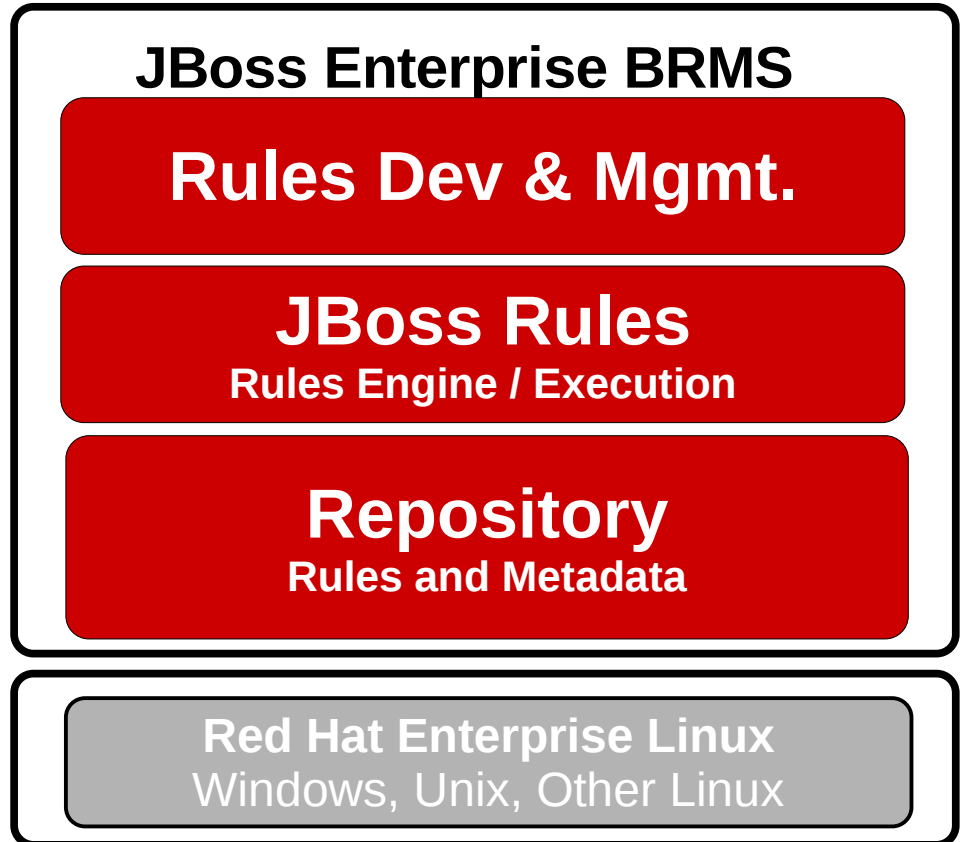
Where are BRMSes used?

- Government Agencies
 - Content management, security, intelligence
- Network Security and Monitoring
 - Intelligent assessment of traffic for malicious intent
 - Smart alerts and control actions
- Authorization
 - Determining user permissions
- Control Systems
 - Air conditioning, heating
- Resource Allocation and Prioritization
- Pricing and Electronic Trading
 - Applying complex algorithms to live pricing information
- Product Configuration
 - Handles complex product feature interdependencies

JBoss Enterprise BRMS Defined

A flexible, high performance platform that delivers great business agility with easy and rapid business rules development, execution and management.

- Automate business decisions
- Business analyst <---> Developer
- Web 2.0 user interface
- Repository
- High performance rules engine



Use Cases: Insurance – Assessing premium
Trading – Apply algorithms to live pricing information
Regulation Compliance / Fraud Detection

Generally: Ability to respond to change faster (agility)

JBoss Enterprise BRMS

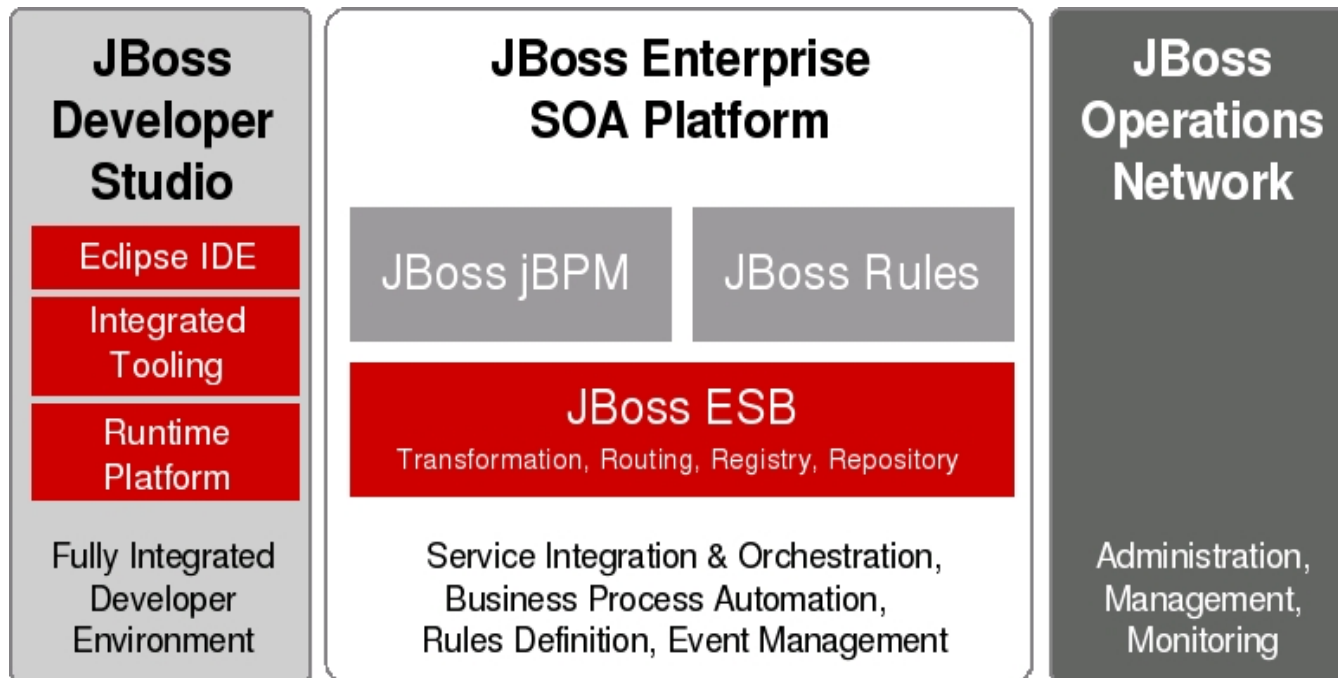
Business Value

- Deliver Greater Business Agility
- Reduce Business Process Execution Error
- Create Better Customer Experiences Leading to Higher Customer Satisfaction
- Accelerate Business Execution and Improve Business Performance
- Increase Return on Existing IT Investment

Integration and SOA

JBoss Enterprise SOA Platform Defined

- A flexible, standards-based platform to integrate applications, SOA services, and business events, and to automate business processes



JBoss SOA Middleware

4.2

4.3

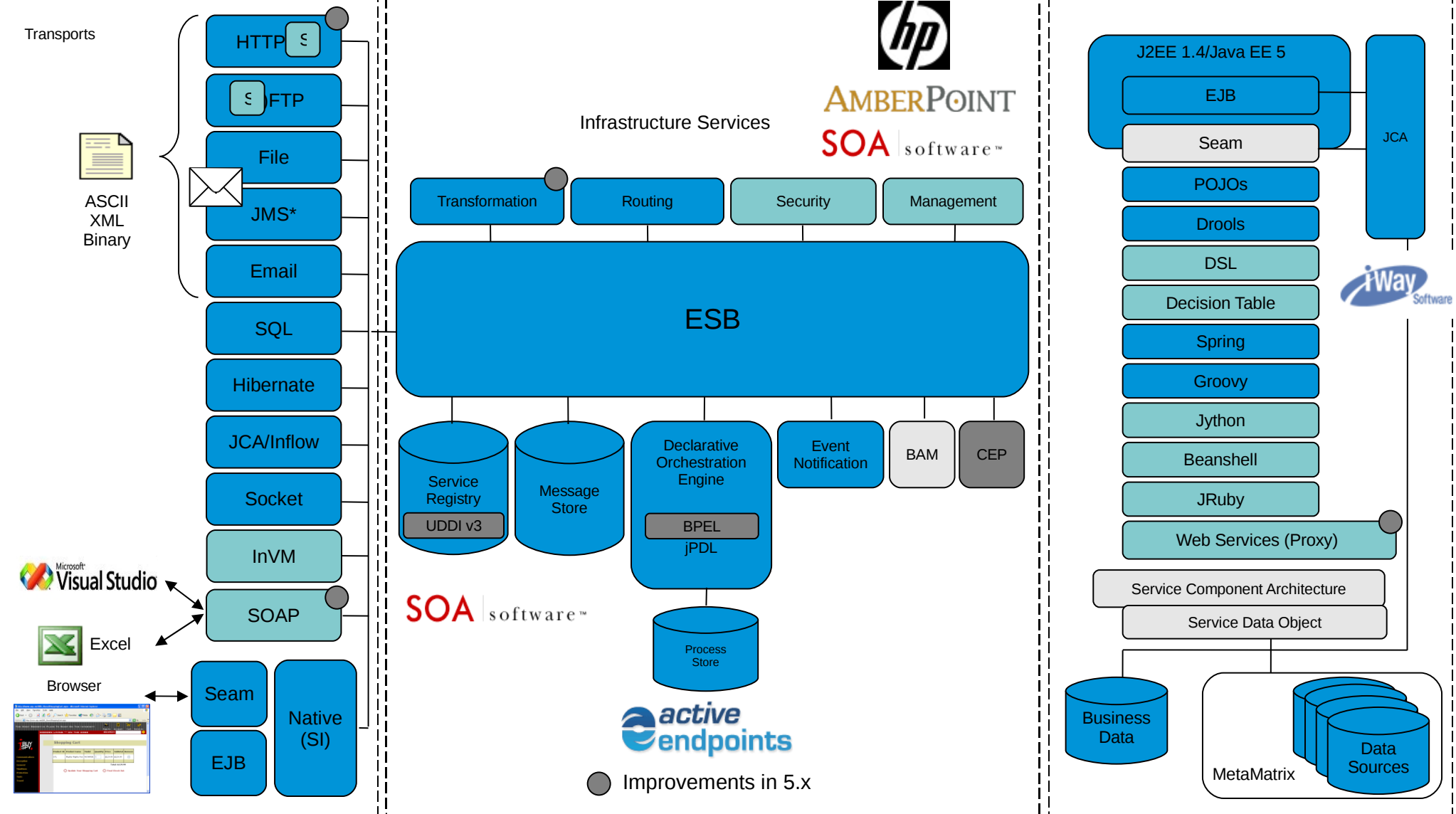
5.0

Future

Event Listeners and Actions provide transport mediation

Pluggable Architecture for integrating infrastructure mediation services

Business Services runs within a container or standalone



JMS* - JBoss Messaging, IBM WebsphereMQ, TIBCO EMS

SOA Platform Business Value

- Eliminate manual pain points from your business processes
- Reduce business process execution error
- Create better customer experiences interacting with your company leading to higher customer satisfaction
- Accelerate business execution
- Improve business performance

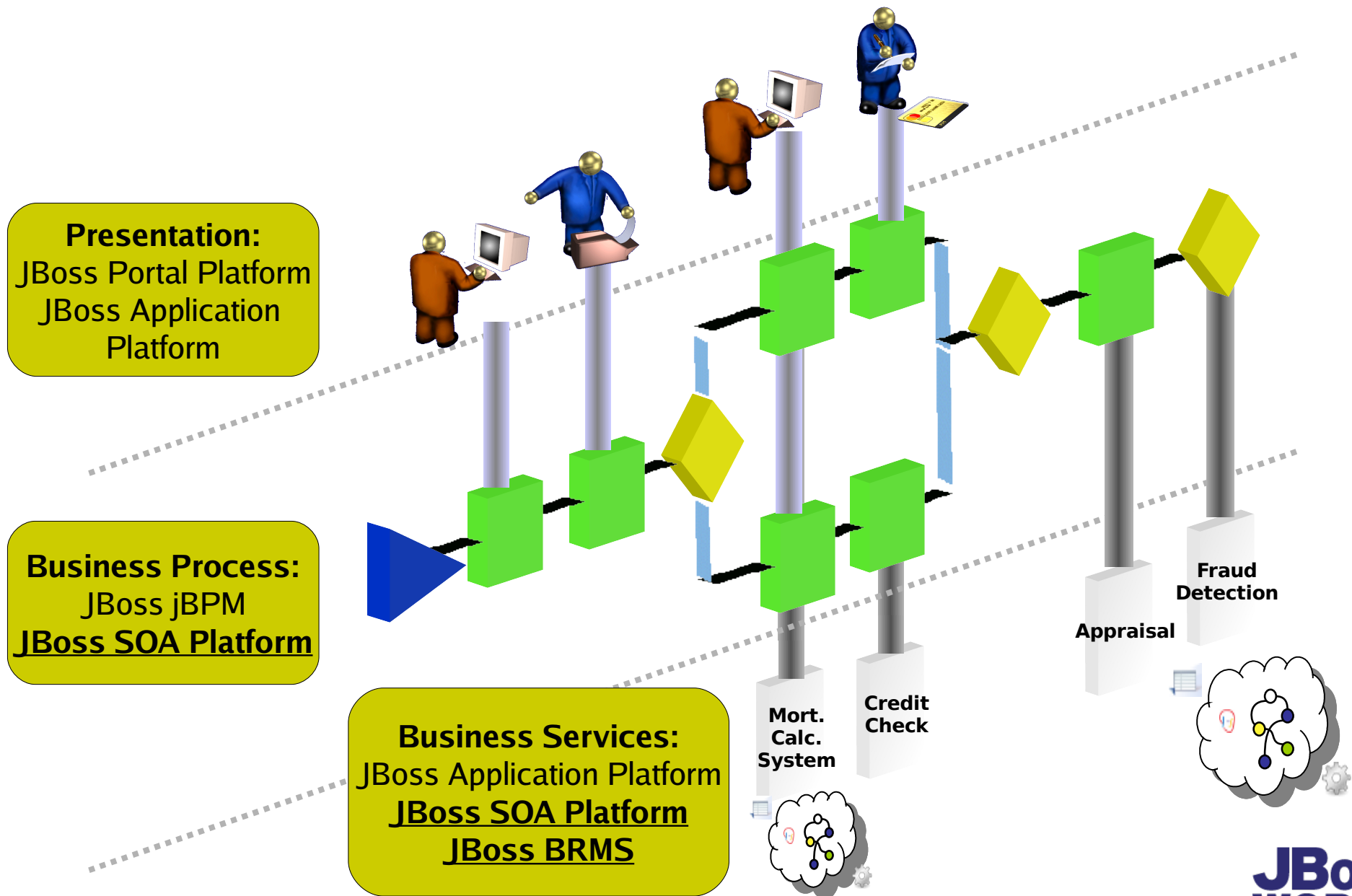
Open Source
Business Process Automation
for Competitive Advantage

Red Hat SOA-BPM Strategy

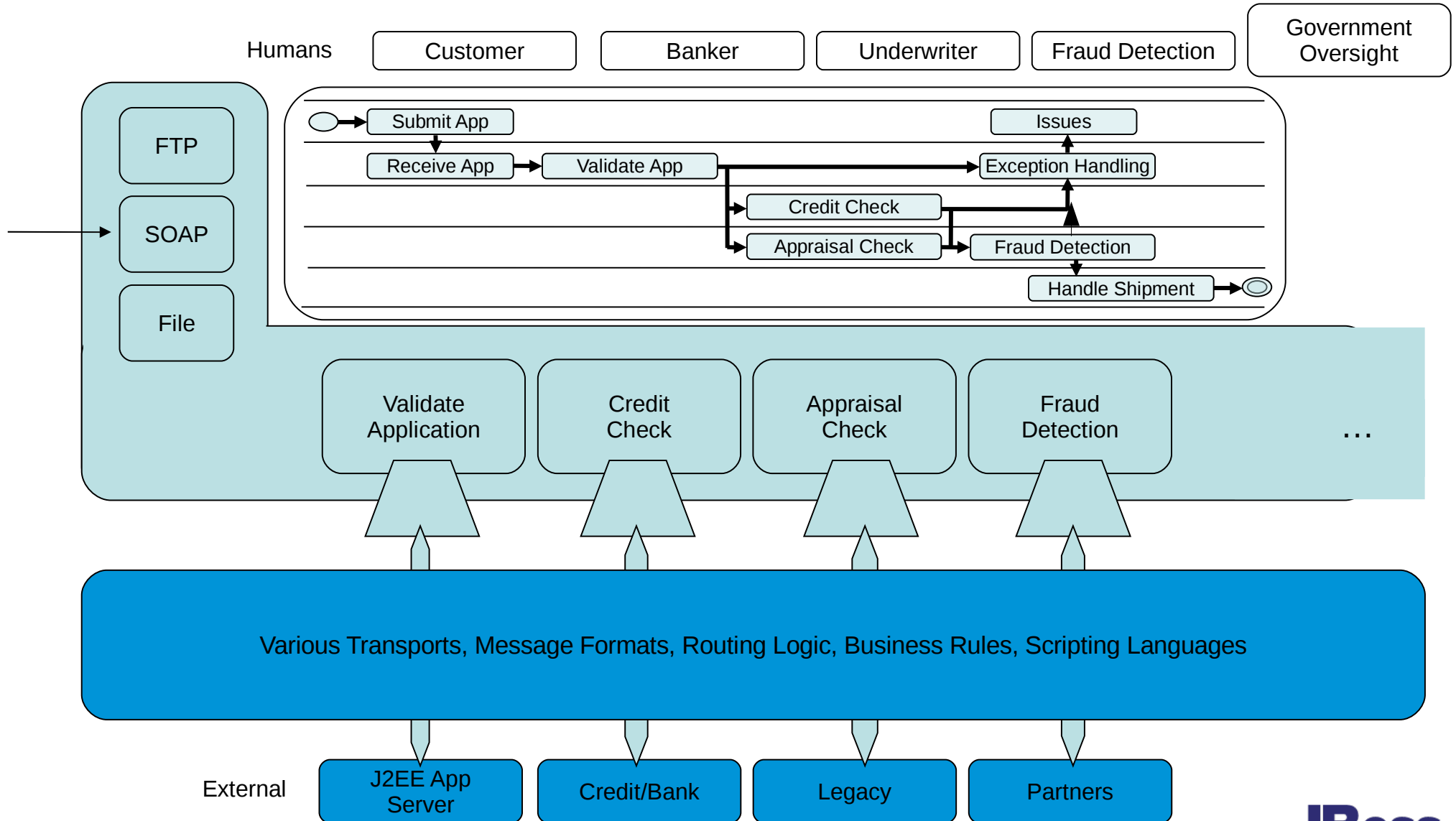
- Deliver enterprise-class SOA middleware working with the open source community and customers that is ...
 - simple, open and affordable* and
 - adds significant value to business and IT
- Create a highly flexible SOA platform portfolio from the highest quality and innovative components
 - JBoss Enterprise Middleware
 - Virtualization
 - MRG
 - Cloud
- Extend to a Business Process Automation Platform to bring SOA to life with the greatest flexibility
 - BRMS
 - EDA / CEP
 - BPMS

JBoss Enterprise Middleware in Action

FHA Mortgage Process



Automating Mortgages



Continuing to Redefine SOA with SOA Platform

Red Hat SOA Value Proposition – the Simple, Open and Affordable way to automate your business and value chain.

Simple:

- Easy-to-consume SOA portfolio
- Expanded JBoss Operations Network support to JBoss Enterprise SOA Platform
- Industry-leading Support and Services
- Enterprise-class Stability and Performance – easy decision vs. OSS SOA frameworks

Open:

- Unparalleled Flexibility and Control of Open Source
- Open Standards-based
- Choice of SOA administration, management, and governance tools

Affordable:

- Significantly lower Total Cost of Ownership (TCO)
- Subscription Model
- JBoss Operations Network
- Re-focus resources on the things that differentiate your business

JBoss Rules and SOA Customer – Booz Allen Hamilton

Booz | Allen | Hamilton

Booz Allen Hamilton has been at the forefront of strategy and technology consulting for more than 90 years. Every day, government agencies, institutions, and infrastructure organizations rely on the firm's expertise.

“We selected Red Hat and JBoss Enterprise Middleware in order to meet our client’s budgetary constraints, support requirements and operational needs. ...The agility provided by the JBoss family of products has led our client to consider these products as their top-tier choice.”

- Christopher Dale
Booz Allen Hamilton Associate

Challenge:

- Needed scalable document processing system.
- Needed greater flexibility to handle widely varying workloads.
- Flexibility for dealing with changing customer requests for additional functionality as well as scalability.

Solution:

- Chose Red Hat Enterprise Linux and JBoss Enterprise Middleware over proprietary platforms.
- Used JBoss Rules with the SOA Platform to deliver the integration and rules and policy management required.

Benefits:

- Consolidated 55 servers to 8.
- Virtualized SOA enabled great flexibility and scalability --> 1000 documents to 10,000 documents / hour and 600% increase in a wide range of different types of users
- SOA, rules, workflow combination reduced need for custom development going forward

JBoss Enterprise SOA Platform Customer Energy Company

- Energy company is a multi-billion dollar enterprise with hundreds of thousands of customers.
- **Challenge and Opportunity:** Point-to-point integrations which was hard to maintain and develop and expensive.
- **Solution:** Evaluated the JBoss SOA-Platform, Mule ESB - made decision for JBoss
 - OSS prevents vendor lock-in; OSS delivers higher quality experience
 - Diverse applications and customer data sets needed integration to support intelligent metering application
 - Used JBoss Rules to manage user rights to data
 - Delivered integrated web application to customers so they can monitor their energy use, times of maximum use, cost, etc...
- **Benefits:**
 1. Customer-focus / responsiveness
 2. Empower customers to conserve energy
 3. Comply with regulations to use less energy esp. during peak periods

JBoss Rules/BRMS Customer – Daiwa Securities



Daiwa Securities America Inc. is owned by Daiwa Securities Group Inc., one of Japan's big three securities brokerages. The subsidiary focuses on sales and trading of Japanese and U.S. Equities and fixed-income instruments, financial futures and investment banking.

“When you contact JBoss technical support, you get the right person immediately... I constantly marvel at the fact that I have achieved 100 percent resolution on all support issues with Red Hat. With other enterprise vendors, I feel lucky if I get 40 percent of my issues resolved.”

- Steve Dunstan

Enterprise Systems Architect and Senior VP

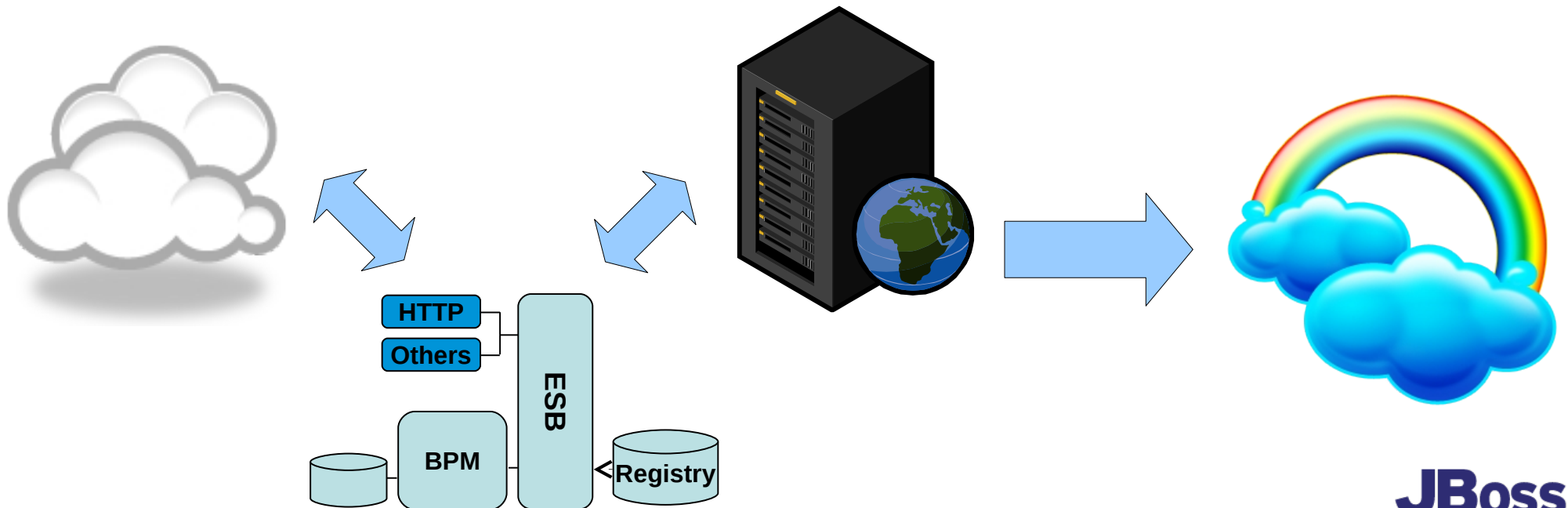
- **Challenge:**
 - Old portal giving 250 employees access to 120 applications was failing
 - Eliminate buggy proprietary middleware deployment and significant down time
 - Integrate 120 applications into new solutions
- **Solution:**
 - Choose JBoss Enterprise Middleware over proprietary platforms
 - Use JBoss Rules with the Portal Platform to deliver personalized alerts into portal applications that notify employees of unfinished trade allocations, unusually large trades, or customers needing their credit threshold
- **Benefits:**
 - Organization is more competitive rather than technical “fire fighting” mode
 - No lost business / money due to downtime
 - Reduced cost – saved \$300K on license fees and reduced admin costs
 - Improved performance

BPA and the cloud



What Does Cloud Computing Have to Do with BPA?

- More Applications and Business Services --> Cloud
- SOA integration and BPM can interact with Cloud-based services and applications today
- Future --> Integration and BPA services in the Cloud
 - Last generation --> Grand Central, E2Open, Covisint



Wrap-up and Q & A



JBoss SOA Assessment Tool

**Where is your enterprise on the path to SOA?
What are your next milestones?
What do you need to get there?**

Find out. Assess your:

- Process understanding
- IT environment
- SOA design
- SOA enablement
- Infrastructure
- Orchestration

Get on the right path to SOA success.

> Take the JBoss SOA Assessment.

<http://www.jboss.com/resources/soa>

> Top of the right column...click on screen shot.

Next Steps

- Bookmark the **JBoss SOA Resource Center** webpage www.jboss.com/resources/soa
 - Red Hat SOA Strategy Whitepaper
 - SOA Redefined: Simple. Open. Affordable. Whitepaper
 - JBoss ESB Demo

- Take the JBoss SOA Assessment – www.jboss.com/resources/soa

- Visit the **JBoss Enterprise Middleware** product webpage to download more information:
 - <http://www.jboss.com/products/>

- Visit the **JBoss Enterprise Services** webpage to learn more about how Red Hat can ease the path to greater agility:
 - <http://www.jboss.com/services/>

Other SOA-BPA Presentations at JBoss World

- jBPM Explained with Simple Use Cases
- An Introduction to the Next Generation of the JBoss ESB Project
- Drools State of the Union
- Project Overlord: SOA Governance
- Birds of a Feather: SOA, ESB, Rules, BPM, EDA
- Red Hat IT's Approach to Consolidating SOA Infrastructure on JBoss Enterprise SOA Platform
- **---- After this session ----**
- Open Source SOA: Enabler for Smart Energy
- Next Generation Open Source SOA
- The Tao of Teiid
- Managing the Data Center Using JBoss Enterprise SOA Platform
- Using JBoss jBPM and JBoss ESB to build a high customizable multi-tenant platform
- Broadband Provider Carved Out Costs by Migrating SOA to JBoss Enterprise Middleware
- Business Agility with Process Centric Solutions

QUESTIONS?

**TELL US WHAT YOU THINK:
[REDHAT.COM/JBOSSWORLD-SURVEY](https://redhat.com/jboss-world-survey)**

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ADD #SUMMIT AND/OR #JBOSSWORLD TO THE END
OF YOUR EVENT-RELATED TWEET

