It’s all about the process: How Red Hat IT is using JBoss BPM Suite

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Who we are

- Mike Cirioli - IT Lead
- Lance Peterson - Developer
- John Bell - Developer
- Lauren Santiago - System Admin
Mission

- To increase efficiency and cost savings at Red Hat by offering Business Process Management as an IT managed service
- Define best practices
- Improve JBoss BPM - customers win!
The IT BPM Team

- Explore Process Automation

Red Hat Product Stack (our own dogfood)

- JBoss BPM Suite 6.4.x
- JBoss EAP 6.4.x
- MariaDB
Case Study:
Account Management Lifecycle
You're Hired!
Oh No! We Hired You!

- How do you manage it all and ensure your employees are productive on their first day?
The Old Way To Do IT

New Employee

HR/People Team

Oracle/EBS

LDAP

Service Ticket

Puppet

Code Templates

Flat Files

Legacy Perl

Service Ticket

Service Desk

Legacy Perl
The Bad News

- Unmaintable
  - Scripts get orphaned when people leave

- Little coordination across teams
  - Equipment can’t be prepped in advance
  - Multiple requests

- Not scaleable
There’s Got To Be A Better Way!

- How can we.....
  - Coordinate better
  - Integrate faster
  - Reduce manual steps
There's Got To Be A Better Way!
Goals

- Avoid knowledge bottlenecks
- Separate the logic of the business process from the implementation details of the integrations
  - Allow the “team” to scale horizontally
  - Service owners “own” the last mile
- Support larger efforts at improving the onboarding experience at Red Hat
The Approach

- Standardize communication between the process and integrated systems
- Leverage industry standards and practices
  - JSON Data Format
  - REST
- Define data model
  - Process operates on the model
  - Connectors consume and transforms this model
Divide & Conquer

● Systems divided into tiers
  ○ Core (system of record)
  ○ Common (most used)
  ○ Outliers

● Integration with existing legacy “process”
  ○ “Big Bang” approach not feasible!
IT-BPM Enhancements
Connectors In Use Today

- ServiceNow Ticketing
- Kerberos
- LightBlue
- AWS
- Openshift
- Oracle/EBS
- LDAP
- CVE
- Revise
- SFDC
BPM-Agent

● Removes knowledge dependency from BPM consumers
● Fine-grained access control
● Multiple authn options
● Broker integrations with JBoss Fuse & Camel
Process Tracking

- External tracking of process state
- Helps identify “lost” processes
- Ties into existing monitoring tools used by IT
Groovy WorkItem Handler

- Ability to run external groovy scripts
- Perform data transformation and “housekeeping” tasks
- Externally managed
Initial Implementation

- IT BPM Team put theory into practice
  - Developed connector framework
  - "Cannonical" data model
  - Infrastructure
Results!

- Reduced show-stopping failures to almost zero!
- Manual steps no longer batched, reducing bottlenecks
- Completely automated first step of 2-part manual process
  - 30 minutes per new account time saving!
- Raised awareness around shortcomings in human process steps
Next Steps

● Integration of second-tier apps
  ○ 4 Teams now using the connector framework for their own integrations
● Tie in to existing human driven processes
  ○ Overhaul of entire onboarding experience
● BRMS
● Embedding BPM engine
Lessons Learned (Pt. 1)

- Understand your process first!
- The concept is simple but there is a steep learning curve for implementation
- Keep the process focused on the business logic
  - Externalize integration points
Lessons Learned (Pt. 2)

- Start small
- Learn from others
- Participate in the BPMS community!
Other Projects

- Red Hat Connect
  - Container Certification
- Rover Groups
  - Self-service group management
- Telephony/Call routing
Resources

- https://developers.redhat.com/products/bpmsuite/community/
- http://mswiderski.blogspot.com/  (Excellent resource!!!)
- IRC - Freenode/#jbpm
Questions??