



# RED HAT PROCESS AUTOMATION

Cloud-native business application development

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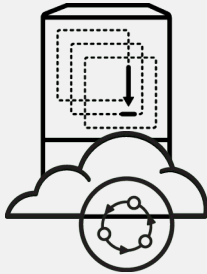


# BALANCING MODERNIZATION AND INNOVATION IS A DIFFICULT ART

“the existing needs update, the new needs innovation”

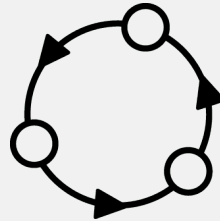
# TRANSFORMING INTO AN **AGILE, MODERN** **AND RESPONSIVE ORGANIZATION**

PICK UP THE PACE TO BECOME DIGITAL LEADERS



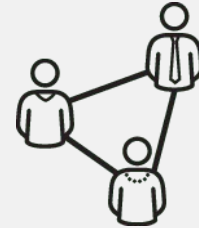
## Next-Generation Architecture

New ways of developing,  
delivering, & integrating  
systems & applications



## Agile Processes

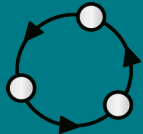
New ways of doing things  
across both IT &  
the business



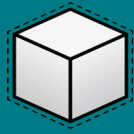
## Collaborative Culture

New ways of working  
together & building  
organizations

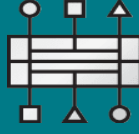
# ADOPTING NEW PATTERNS AND PRACTICES FOR APPLICATION DEVELOPMENT



CI/CD



Container



APIs




Microservices



Hybrid  
Cloud

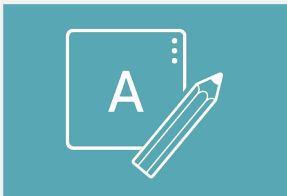
Choosing the right set of products and technologies that will support adoption of **modern application development frameworks** while leveraging modern cloud services, infrastructure and technologies.

A modern house at night with a swimming pool and a teal overlay containing text. The house has large glass windows and doors, and the interior lights are on. The pool is in the foreground, and there are some outdoor furniture items like a table and chairs. The sky is dark, and there are some trees in the background.

# How do you choose a solution to Simplify, Standardize & Optimize Application Development?

# A COMPREHENSIVE SOLUTION FOR MULTIPLE NEEDS

MODERNIZE AND INNOVATE AT YOUR OWN PACE



## ADAPT EXISTING AND DEVELOP NEW APPS

Lightweight runtimes and frameworks, in-memory caching, high-performing messaging & migration tools



## INTEGRATE APPS AND SYSTEMS

Easy-to-use, agile, and flexible tooling for internal and external integration of apps and systems



## AUTOMATE MANUAL PROCESSES

Consistent development model to create and modify business applications and process-centric applications

ENABLE ORGANIZATIONS TO STANDARDIZE  
Hiring, Training, Partners, Ops and Dev Procedures and Governance

# RED HAT MIDDLEWARE

CREATE THE APPLICATION LANDSCAPE YOU NEED WITH  
RED HAT MIDDLEWARE & OPEN SOURCE PRODUCTS

APPLICATION  
RUNTIMES

BUILD & MIGRATE  
APPS

INTEGRATION

COMPOSE &  
INTEGRATE APPS

Process  
AUTOMATION

AUTOMATE & OPTIMIZE  
BUSINESS PROCESSES

**RED HAT® MIDDLEWARE**



PHYSICAL



VIRTUAL



PRIVATE CLOUD



PUBLIC CLOUD

Create, run and maintain traditional  
and cloud-native apps for on-  
premise, cloud or hybrid  
architectures

# APPLICATION RUNTIMES, INTEGRATION AND PROCESS AUTOMATION

## APPLICATION RUNTIMES

Best in class runtimes, frameworks and languages; including EAP

Modernization & optimization initiatives

In-memory data grid and standards-based enterprise messaging

SSO authentication

## INTEGRATION

Pattern-based integration engine

Comprehensive set of connectors and data formats

Manage and secure access to external and internal distributed APIs

Streaming and interconnect messaging

## PROCESS AUTOMATION

Consistent development model to create & modify business apps

Process automation & decision making at the microservice level

Unique platform for business users and developers to create automation

Management of rules and process-centric apps



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# Business experts need to build applications and services

- Apps that incorporate knowledge of business policies
- Apps that automate manual decisions and processes
- Apps that can be changed quickly to meet new market needs
- Apps that engage customers
- Apps that generate revenue
- Apps that coordinate with partners across the supply chain

**“Digital business needs agility, visibility, and consistency”**



# Developers need to collaborate with the business

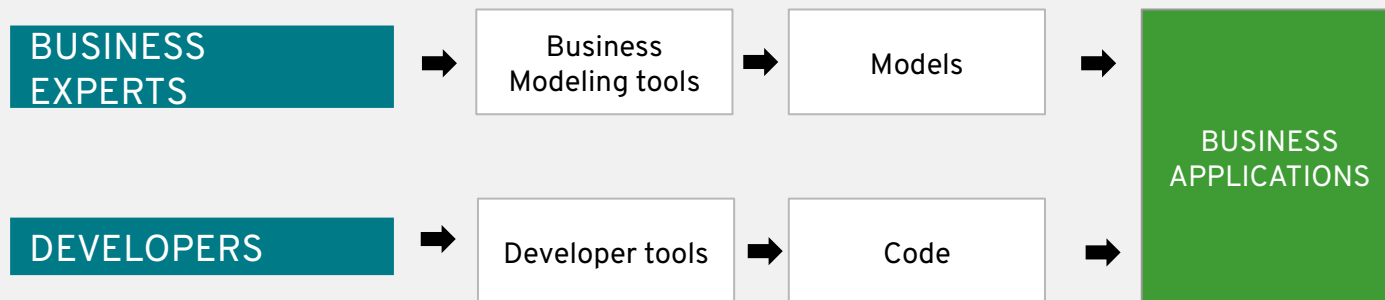
- Utilize expertise of business users
- Reduce the backlog of business requests
- Enable business to create and maintain new applications

The background of the image shows several industrial robotic arms in a factory environment. The arms are primarily grey and white, with some orange accents. They are positioned around a dark, textured surface, possibly a conveyor belt or a worktable. The lighting is bright and even, highlighting the mechanical details of the robots. A semi-transparent dark grey banner is overlaid across the center of the image, containing the text.

**RED HAT PROCESS AUTOMATION**  
**COLLABORATIVE APPLICATION**  
**DEVELOPMENT FOR BUSINESS AND IT**

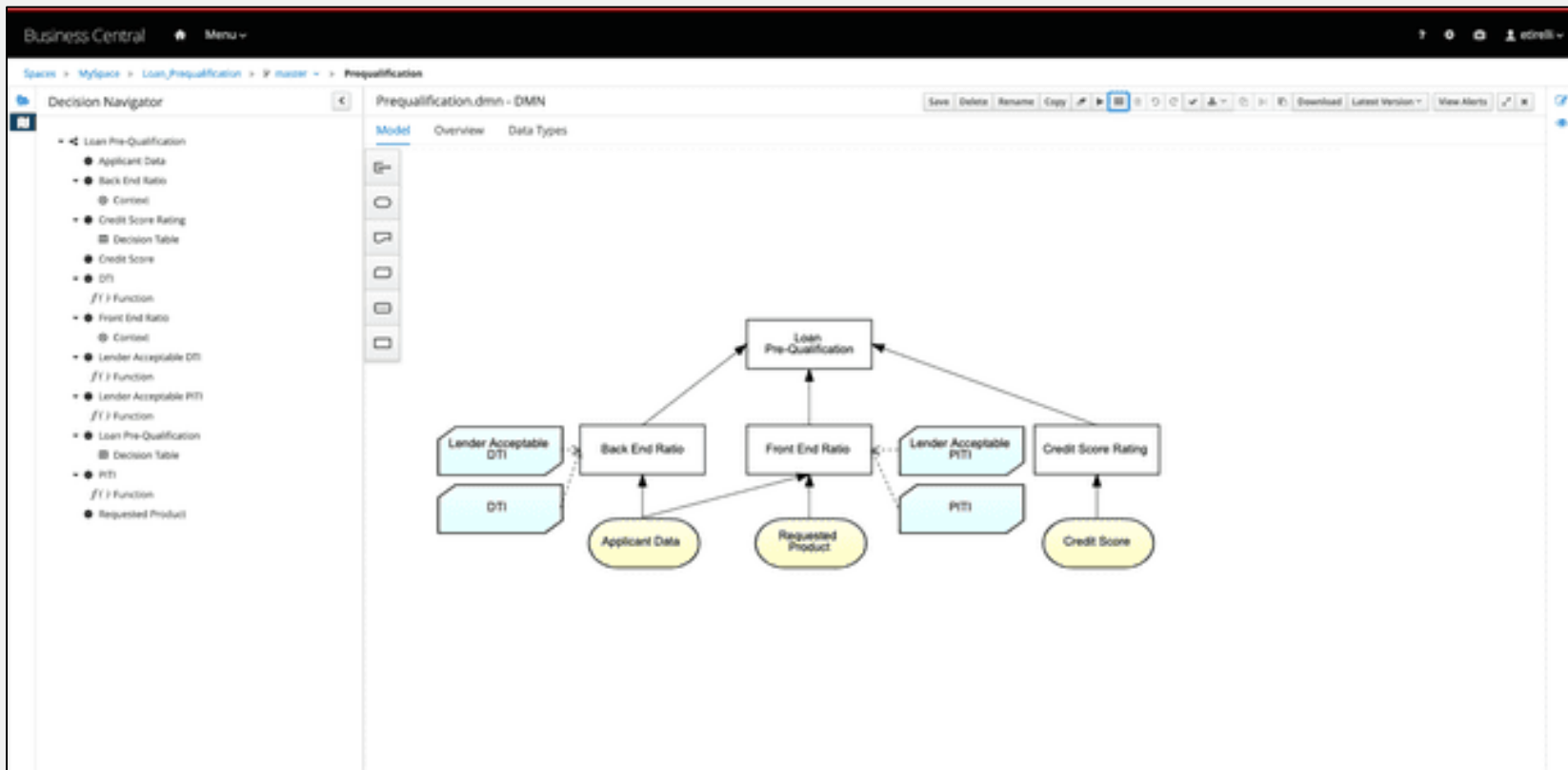
# RED HAT PROCESS AUTOMATION

## BREAKING DOWN ORGANIZATIONAL SILOS



Optimize [collaboration between IT and business users](#) when automating manual processes, thru business logic, decision models, business rules engine and dynamic case management.

# MODELS

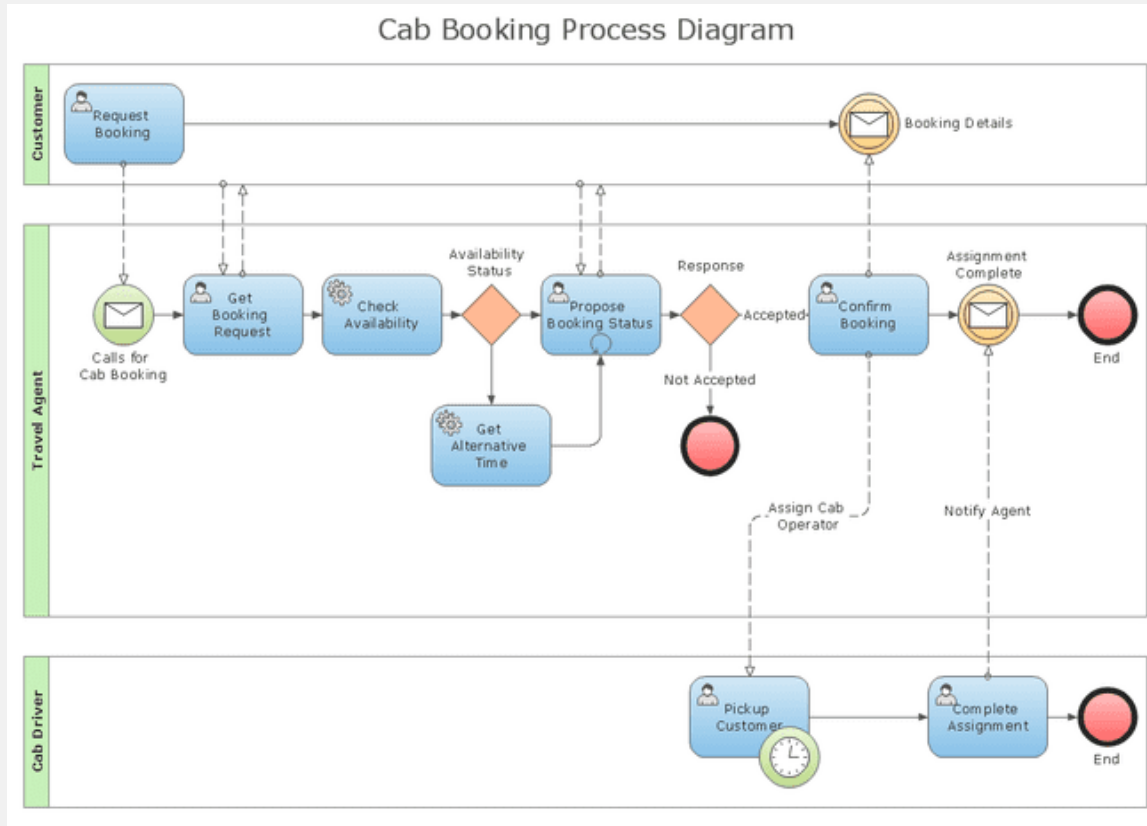


# MODELS

The screenshot displays the Red Hat JBoss BPM Suite interface. At the top, the header reads "RED HAT JBOSSE BPM SUITE" with a home icon and a "Menu" dropdown. On the right, there are icons for help, refresh, notifications, and a user profile labeled "admin". Below the header, a breadcrumb trail shows "Teams > myteam > mortgages > Pricing loans". The main content area is titled "Pricing loans.gdst - Guided Decision Tables" and includes a toolbar with buttons for "Save", "Delete", "Rename", "Copy", "Validate", "Edit", "View", "Insert", "Latest Version", and a close icon. Below the toolbar are tabs for "Editor", "Overview", "Source", and "Data Objects", with "Editor" selected. There are also "Add Column" and "Edit Columns" buttons. The central part of the interface features a table titled "Pricing loans" with the following data:

#	Description	application : LoanApplication				ome : IncomeSou	application		
		amount min	amount max	period	deposit max	income	Loan approved	LMI	rate
1		131900	200000		20000	Asset	true	0	2
2		19000	100000	20	2000	job	true	0	4
3		100001	130000	20	3000	job	true	10	6

# MODELS





# RED HAT® PROCESS AUTOMATION

Red Hat Process Automation solutions are **application development platforms**, designed to enable business users to participate with IT developers in the creation of modern cloud-native applications.

RED HAT®  
PROCESS AUTOMATION  
MANAGER

RED HAT®  
DECISION  
MANAGER

RED HAT®  
APPLICATION RUNTIMES

- Business process modeling and automation
- Decision modeling and automation
- Complex Event Processing
- Business resource optimization
- User Experience design
- Monitoring and management

# AUTOMATE BUSINESS PROCESSES

## **RED HAT®** PROCESS AUTOMATION MANAGER

A platform for modeling and automating  
business processes with BPMN2 and case  
management

- Cloud-native development and execution of process automation apps
- Easy to use, collaborative, modeling tools
- Native support for BPMN 2.0
- Case management
- Powerful UX design tools

# AUTOMATE OPERATIONAL DECISIONS WITH BUSINESS RULES

## RED HAT® DECISION MANAGER

A platform for modeling and automating business decisions with Decision Model & Notation (DMN) and business rules

- Cloud-native development and execution of decision automation apps
- Easy to use, collaborative, modeling tools
- Native support for DMN 1.2
- ML models supported via PMML
- OptaPlanner for resource scheduling
- Complex Event Processing

# BUILD CLOUD-NATIVE APPS & SERVICES

## RED HAT® APPLICATION RUNTIMES

Lightweight runtimes and frameworks for highly-distributed **cloud native** architectures such as microservices

- Best-of-breed runtimes, frameworks and languages
- OpenShift & Kubernetes Services native integration
- Modernization and optimization initiatives
- Established middleware technologies (EAP)
- In-memory data grid
- Standards-based enterprise messaging
- SSO authentication

# BUSINESS PROCESS AUTOMATION FOR CLOUD-NATIVE APP DEVELOPMENT



RAPIDLY  
ADAPT TO  
MARKET  
CHANGES

Extract your rules away from your code and manage them separately, changing them dynamically as the business changes



CREATE  
BUSINESS  
AUTOMATED  
APPS

Quickly develop, maintain and adjust intelligent business automation applications and processes



CONTAINER  
READY

Decision models, business rules engine and dynamic case management for scalable cloud-native apps and microservices architecture

# USE CASES

## Straight Through

The PAM engine “choreographs” a sequence of automated activities, it involves humans by exception

- Trading processes (Capital Market, Banking, Energy ...)
- Automatic claims processing
- Automatic reordering
- Inventory reduction / rebalancing
- Order to cash automation

## Human Intensive

The PAM says to humans which is the next action in a quiet pre-ordered manner.

- Order fulfillment
- Claims processing
- Loan approvals
- Mortgage origination
- Travel requests
- Purchase requests
- Mobile workforce support

## Case Management

The PAM suggests possible next steps, Humans decides the next best action eventually overriding with an ad hoc activity. Users look at the PAM as a task and document organizer

- Investigation solution
- Incident management solution
- Next-Gen customer onboarding
- Customer retention program
- Personalized customer

# BENEFITS OF RED HAT'S APPROACH

## TOPLINE METRICS

**69%**

Less expensive than  
alternative solution

**556%**

3-year ROI

**10 MONTHS**

To payback

## EXECUTION OF PROCESS CHANGES

**33%**

More changes carried out

**26%**

Faster execution of changes

**7%**

Higher developer productivity

## PERFORMANCE AND USER IMPACT METRICS

**25%**

Less downtime

**3%**

Higher net productivity for  
impacted LOB users

**1,261**

Hours, regulatory support  
saved/100 users

Business value of RHPAM, IDC May 2018

# MEET OUR CUSTOMERS



**Lufthansa Technik**

**LogistiCare**



**finanzinformatik**



**FLYTOGET**

**Atos**



**trace**financial



# ATTAIN VALUE WITH RED HAT MIDDLEWARE



## FLEXIBILITY

Innovate, Optimize  
and Modernize at your  
own pace



## COLLABORATION

Collaborative tools and  
techniques that promote  
faster development



## OPTIMIZED INTEGRATION

Interoperable and  
integrated application  
services providing ease-of-  
use



## PRODUCTIVE

Spend more time  
innovating and staying  
competitive



## TIME TO MARKET

Leverage full portfolio's  
capability and reuse  
capabilities to speed up

## Process Automation Highlights

### Continuous Task Assignment

Red Hat PAM users can now use Business Optimizer (a.k.a. OptaPlanner) to have a better planning and continuous assignment of human tasks.

### Prediction Service for Task Augmentation

The prediction service for task augmentation is now officially integrated with Open Data Hub AI/ML services.

### Entando App Builder not included in Red Hat PAM Subscriptions

The OEM agreement with Entando will terminate on August 31. This means that Red Hat and Entando are still partners, but Entando App Builder is not included in RHPAM subscriptions and is not supported by Red Hat.

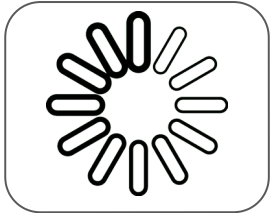


# Red Hat Process Automation

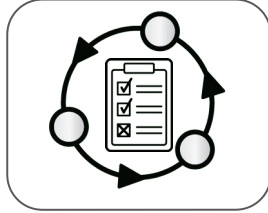
RED HAT CONFIDENTIAL



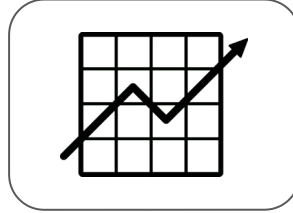
## Red Hat Decision Manager



Complex event  
processing



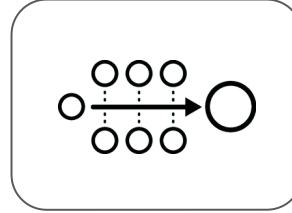
Business rules



Business optimization



## Red Hat Process Automation Manager



Process  
management



App Builder



## Red Hat Runtimes

# New Features

## Overview

- ▶ Process Variables Tagging
- ▶ DMN 1.3
  - Full Support - Compliant with 100% of the [TCK](#)
  - Bug Fixes
  - New features, e.g. DMN Temporal Operators
- ▶ Execution engine extension for advanced search \*
  - Ability to search using OR conditions
  - [Cross Process and Task searches are supported](#)
- ▶ Prediction service for Task Augmentation
- ▶ Initial isolation of Business Central Monitoring Capabilities in a standalone service \*
- ▶ API Extensions for Business Central
- ▶ Business Keys for Case Management
- ▶ Process Instance Migration Full support
  - New Process Instance Migration Image for migrating process instances on OpenShift
- ▶ Migration documentation from the legacy test scenarios
- ▶ OptaWeb VRP usability improvements
- ▶ Full support for Constraint Streams
- ▶ EAP 7.3 Support

\* Tech Preview features

# Announcing: Developer Preview (April 15)

## Kogito - Next-gen Cloud-Native Business Automation



Cloud-Native Business Automation for building intelligent applications, backed by battle-tested capabilities

### Powerful Developer Experience

- Instant developer efficiency
- Embeddable tooling
- Codegen for 80% of work
- Flexible, customizable, use only what you need
- Simplified local development and debugging
- Leveraging / integrating many other (DevExp) technologies

### Built for Cloud from ground up

- Kube-native, built for OpenShift
- Fit into Knative serverless
- Run on Quarkus / SpringBoot
- Superfast boot time, low footprint (native image)
- Operator-driven service lifecycle management
- Leveraging / integrating many other (cloud) technologies

### Ready for Business

- Domain-specific services and APIs
- Context-based data searches, dashboards
- Out-of-the-box customizable, embeddable UI building blocks (e.g. inbox)
- Domain-specific event-based operational visualization

## Process Automation Roadmap

- ▶ The new 7.x minor releases are something between the micro and minor 6.x releases that we had in the past
- ▶ 3 Months release cadence
- ▶ Update to new minor release for fixes
- ▶ Micro release - 7.8.1 - Fixes for any newly discovered blockers

[Official Release Maintenance Plan](#)



# USEFUL CONTENT & RESOURCES

[Path to Cloud Native Application](#)

[Understanding Cloud-Native Apps](#)

[Application Modernization](#)

[Challenges on Integration](#)

[Red Hat Process Automation](#)

[IDC Business Value of OpenShift Whitepaper](#)

[Agile Integration - A Blueprint for enterprise architecture](#)

# Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.



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