



## Market Insight Report Reprint

# Red Hat is taking steps toward a fully cloud-native business process and decision management platform

June 29 2021

by **Carl Lehmann**

The recent release of Red Hat's Process Automation Manager is positioned as a business process application development platform, and is based on the open source project Kogito. It's the first step on a journey to become a fully cloud-native architecture for business process automation and application development.

451 Research

---

**S&P Global**

Market Intelligence

This report, licensed to Red Hat, developed and as provided by S&P Global Market Intelligence (S&P), was published as part of S&P's syndicated market insight subscription service. It shall be owned in its entirety by S&P. This report is solely intended for use by the recipient and may not be reproduced or re-posted, in whole or in part, by the recipient without express permission from S&P.

## Introduction

Red Hat has been a long-standing member in the business process management (BPM) market. Its flagship offering, Process Automation Manager, is positioned as a business process application development platform. It's equipped with process modeling and automation tools, case and rules management capabilities, and process monitoring and management controls.

Process Automation Manager is unusual in its ability to support decision modeling and decision automation, as well as complex event processing. It was developed on the open source projects Drools (a rules engine), jBPM (a workflow engine) and Optaplanner (a constraint solver). Architecturally, however, it did not fully support cloud-native computing services. Nor do many other BPM vendors for that matter. The latest release introduces components of open source project Kogito, which will equip Process Automation Manager with cloud-native business automation technology for building cloud-ready business applications.

### THE 451 TAKE

Many BPM offerings on the market today are positioning as low-/no-code application development platforms. BPM vendors strive to simplify the use of their platforms to put them in the hands of less technical business professionals. Red Hat, on the other hand, is squarely focused on helping application developers build modern business automation applications as efficiently as possible. For Red Hat to fulfill this objective, it must offer fully cloud-native technologies, and enable the gradual migration of Process Automation Manager to a Kogito-based (cloud-native) architecture. It's a pioneering move that is likely to be very popular.

## Details

Our research indicates that industry-leading enterprises are strategically and methodically pursuing cloud-native computing because it promises compelling advantages for application development in the digital business era. It decouples applications from infrastructure, and decomposes applications into sequences of containers, microservices and serverless functions. It can free developers to concentrate on crafting logic, improving development quality, and accelerating the deployment of mission-critical applications. Workloads of all types can also be distributed to the runtime environments they are best suited in.

Red Hat is essentially doing to process automations what it did for applications – decompose them into a series of microservices and maintain them within a Kubernetes-based containerized architecture that can execute in multiple runtime environments. As the evolution of the Process Automation Manager product roadmap and Kogito strategy are realized, Red Hat will eventually be creating a series of automation-as-a-service offerings that will drive demand for its products, as well as help the company expand its managed service offerings.

Red Hat's Process Automation Manager now supports the Kogito cloud-native runtime engine for creating rules, decisions and resource-planning optimization capabilities. Kogito packages process- and decision-based applications as containerized microservices with specialized runtimes that can be managed by Kubernetes, which provides (among other things) automatic, elastic scaling to accommodate complex workloads. Like Process Automation Manager and Red Hat's business rules management offering, Kogito draws on capabilities from Drools, jBPM and OptaPlanner and takes advantage of several cloud-native technologies, including Kafka for data stream processing, Knative for serverless functions, and Quarkus to improve the performance of Java-based code.

Historically, BPM platforms have been both development and runtime environments. They are capable of process modeling and automation and, when development is complete, act as the runtime execution environment. This design essentially made BPM platforms DevOps environments, where changes and additions to process designs and code can be made quickly. The BPM platform takes care of things like scheduling instances of the applications for execution, managing the application lifecycle, and coordinating the communication between them.

This design, however, creates a layer of abstraction away from potential cloud-native services, which, in most cases, can offer a greater range of capabilities (e.g., database, analytics, disaster recovery, AI services) and can be more efficient, economical and better able to scale. With the move to Kogito, Red Hat is gradually enabling all the capabilities of its Process Automation Manager technology to run on cloud-native architecture and exploit the cloud services of potentially multiple cloud services providers.

Red Hat's strategy is to evolve away from traditional automation platform technology toward a set of cloud-based automation services enabled, in part, by Kogito. It is planning a three-part, staged evolution in the coming year, to gradually migrate customers to its vision of automation services. Phase one is to enable decision automation built on Kogito. It will support a limited set of Kogito back-end services for basic decision automation, and include some integration with Kafka data-stream processing capabilities.

Phase two will use Kogito for process automation, and include some decision monitoring capabilities from the open source TrustyAI (explainable AI) project. Phase three is a fully deployed cloud-native platform running on Kogito and offered as a set of managed services. Overall, Red Hat's goal is to provide cloud-native business automation capabilities that support its hybrid cloud strategy and drive demand for its emerging set of OpenShift managed services. The latest version of Process Automation Manager is a big step in this direction.

## CONTACTS

### **The Americas**

+1 877 863 1306

[market.intelligence@spglobal.com](mailto:market.intelligence@spglobal.com)

### **Europe, Middle East & Africa**

+44 20 7176 1234

[market.intelligence@spglobal.com](mailto:market.intelligence@spglobal.com)

### **Asia-Pacific**

+852 2533 3565

[market.intelligence@spglobal.com](mailto:market.intelligence@spglobal.com)

[www.spglobal.com/marketintelligence](http://www.spglobal.com/marketintelligence)

Copyright © 2021 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.

These materials have been prepared solely for information purposes based upon information generally available to the public and from sources believed to be reliable. No content (including index data, ratings, credit-related analyses and data, research, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of S&P Global Market Intelligence or its affiliates (collectively, S&P Global). The Content shall not be used for any unlawful or unauthorized purposes. S&P Global and any third-party providers, (collectively S&P Global Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Global Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON "AS IS" BASIS. S&P GLOBAL PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Global Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Global Market Intelligence's opinions, quotes and credit-related and other analyses are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P Global Market Intelligence may provide index data. Direct investment in an index is not possible. Exposure to an asset class represented by an index is available through investable instruments based on that index. S&P Global Market Intelligence assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P Global Market Intelligence does not endorse companies, technologies, products, services, or solutions.

S&P Global keeps certain activities of its divisions separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions of S&P Global may have information that is not available to other S&P Global divisions. S&P Global has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P Global may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P Global reserves the right to disseminate its opinions and analyses. S&P Global's public ratings and analyses are made available on its websites, [www.standardandpoors.com](http://www.standardandpoors.com) (free of charge) and [www.ratingsdirect.com](http://www.ratingsdirect.com) (subscription), and may be distributed through other means, including via S&P Global publications and third-party redistributors. Additional information about our ratings fees is available at [www.standardandpoors.com/usratingsfees](http://www.standardandpoors.com/usratingsfees).