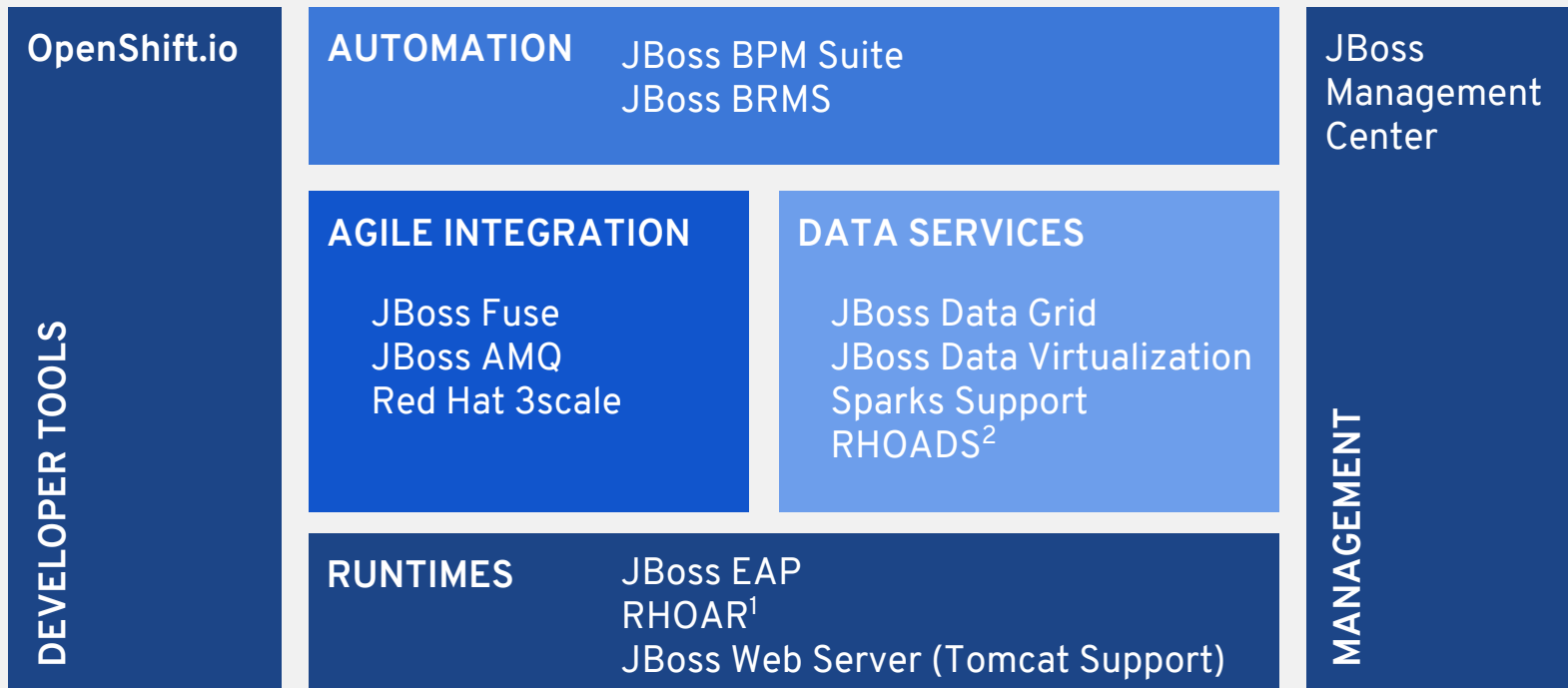


Red Hat Middleware Overview

Digital Transformation with Red Hat Middleware

Morten Rohlfs
Emea Director Middleware and Openshift
14.11.2017

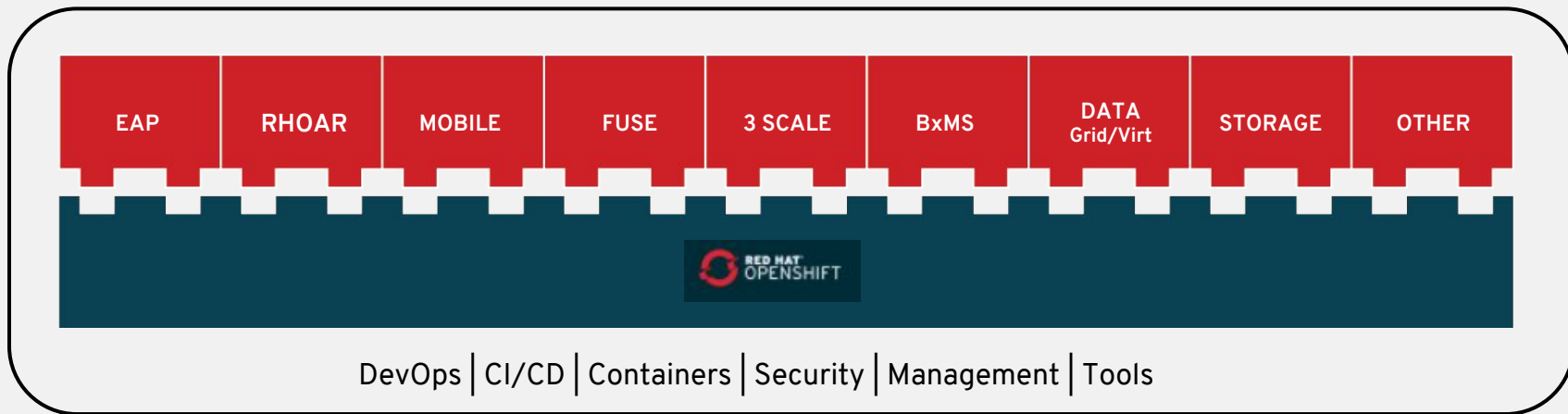
MIDDLEWARE OVERVIEW



1. Red Hat OpenShift Application Runtimes
2. Red Hat OpenShift Application Data Services

RED HAT BRINGS IT ALL TOGETHER

Digital transformation powered by open hybrid platform



Agile Integration



Agility

a·gil·i·ty*

/ə'jɪlədē/

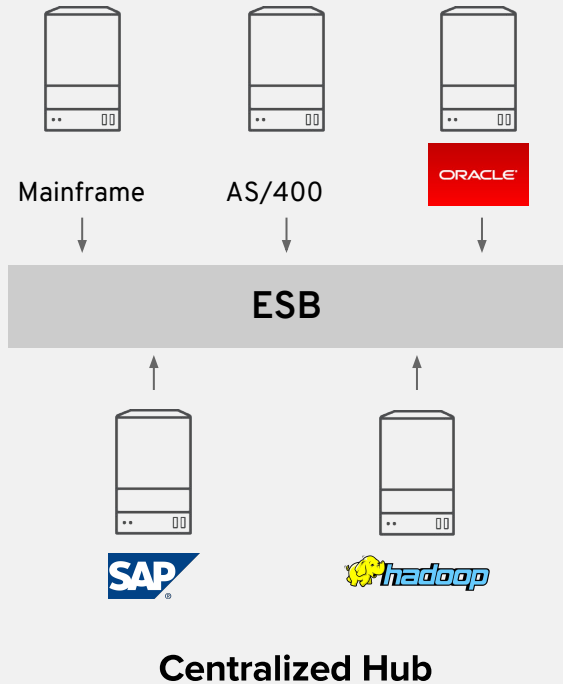
noun

“ability to move quickly and easily.”

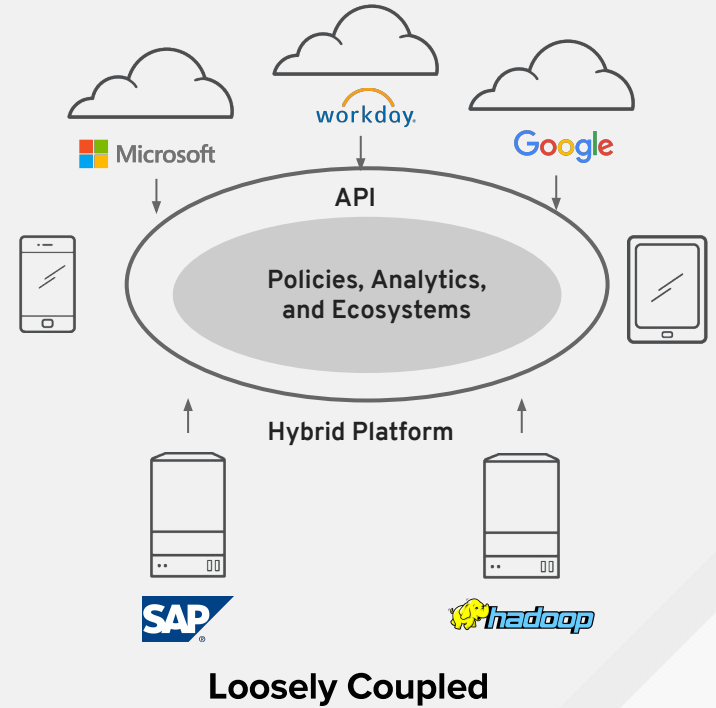
(* lowercase ‘a’)

“The most critical business capability today”

The Need for a Change in Integration Approaches



**Demand for
More Agility**





ANSIBLE

The Agile Integration Concept by Red Hat

DISTRIBUTED INTEGRATION

- LIGHTWEIGHT
- PATTERN BASED
- EVENT ORIENTED
- COMMUNITY SOURCED

FLEXIBILITY

**RED HAT® JBOSS®
FUZE**

CONTAINERS

- CLOUD NATIVE SOLUTIONS
- LEAN ARTIFACTS,
INDIVIDUALLY DEPLOYABLE
- CONTAINER BASED
SCALING AND HIGH
AVAILABILITY

SCALABILITY

 **RED HAT®
OPENSIFT**

APIs

- WELL DEFINED, REUSABLE,
AND WELL MANAGED
END-POINTS
- ECOSYSTEM LEVERAGE

RE-USABILITY

**RED HAT® 3SCALE®
API MANAGEMENT**

**RED HAT® JBOSS®
BRMS**

**RED HAT® JBOSS®
BPM SUITE**

**RED HAT® JBOSS®
DATA GRID**

...

Fuse Variants



1. ***Fuse Standalone*** - based on EAP, including AMQ and CXF
2. ***Fuse Integration Services*** - Fuse optimized for OpenShift PaaS
3. ***Fuse iPaaS*** - Fuse cloud-hosted via OpenShift Online, including rich integration toolchain (targeting citizen-level integrators)

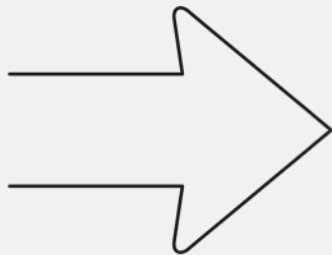
Red Hat 3scale API Management

API Security, Control and Visibility

API visibility & control
enterprise wide

Security, rate limits,
analytics, developer
portal

Manage internal and
external APIs

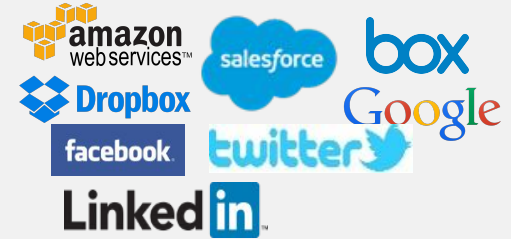
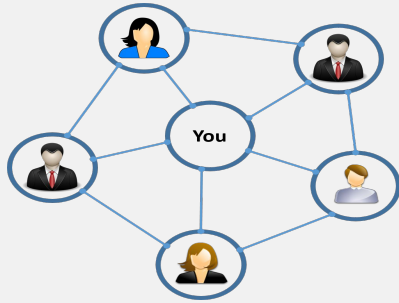


Transform internal IT into “API
First” approach

Empower teams to deliver their
own APIs

Provide global visibility and a
uniform approach

Agile Integration Client Examples



**Build Customer Or
Partner Ecosystems**

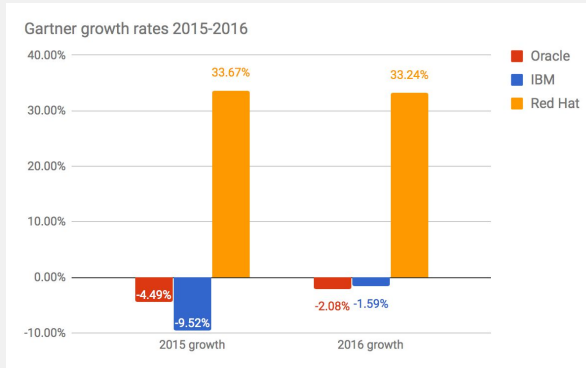
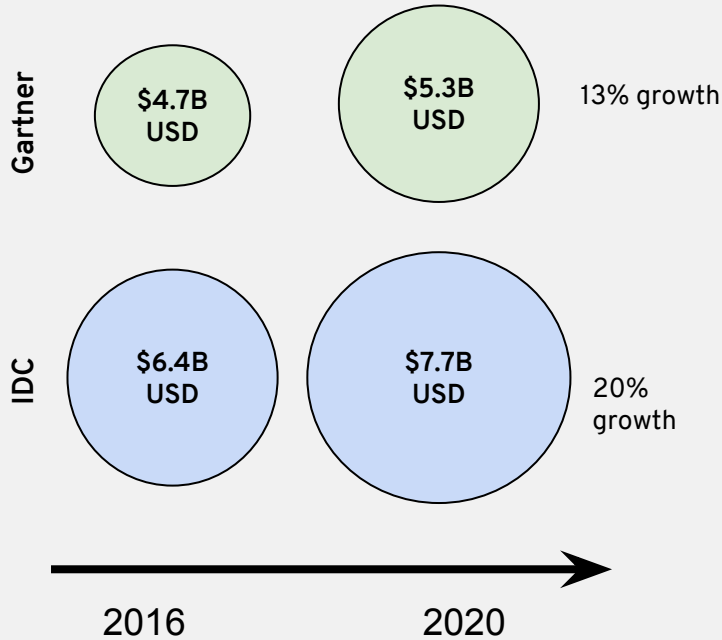
**Integration For
Cloud/Mobile/IoT
Native Apps**

**SaaS Integrations
Across Hybrid
Environments**

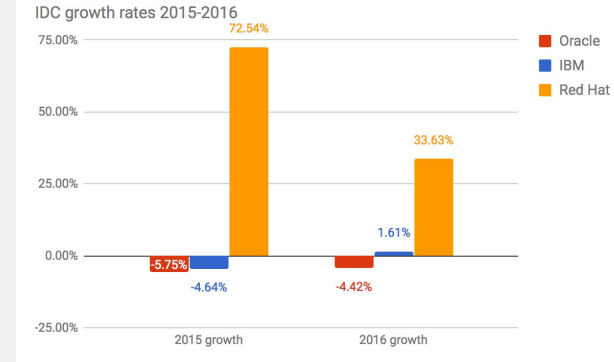


JBoss Application Server EAP and future RHOAR

Application Platform Market

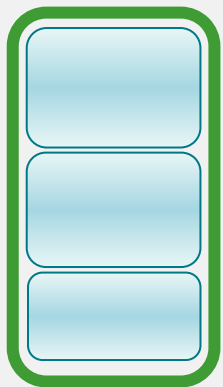


IBM and Oracle negative growth - Red Hat above 33%

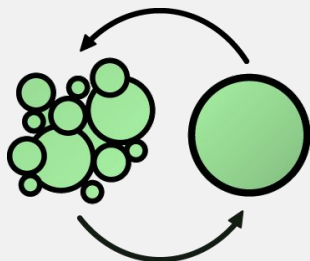


Red Hat JBoss Application Enterprise Platform 7

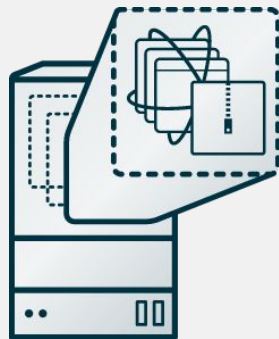
Lightweight, efficient, Microservices, Future: Spring, Node.js



MONOLITHIC



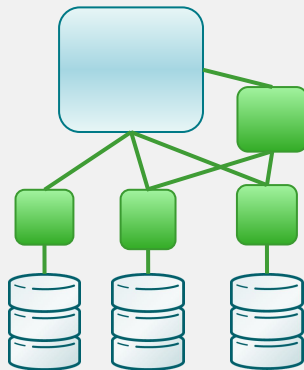
DEVOPS



CONTAINERS



CLOUD



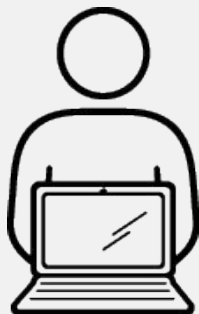
MICROSERVICES

Java EE move to The Eclipse Foundation



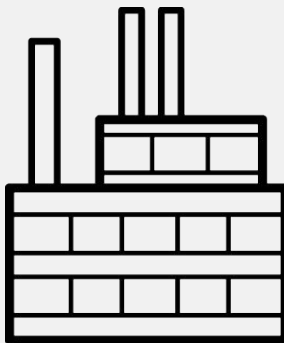
Good news for developers, organizations, and Red Hat

Java developers



will have a channel for their innovations, not owned by any single company

Enterprises



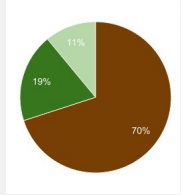
Java will continue to innovate for their needs as they move apps to containers

Red Hat

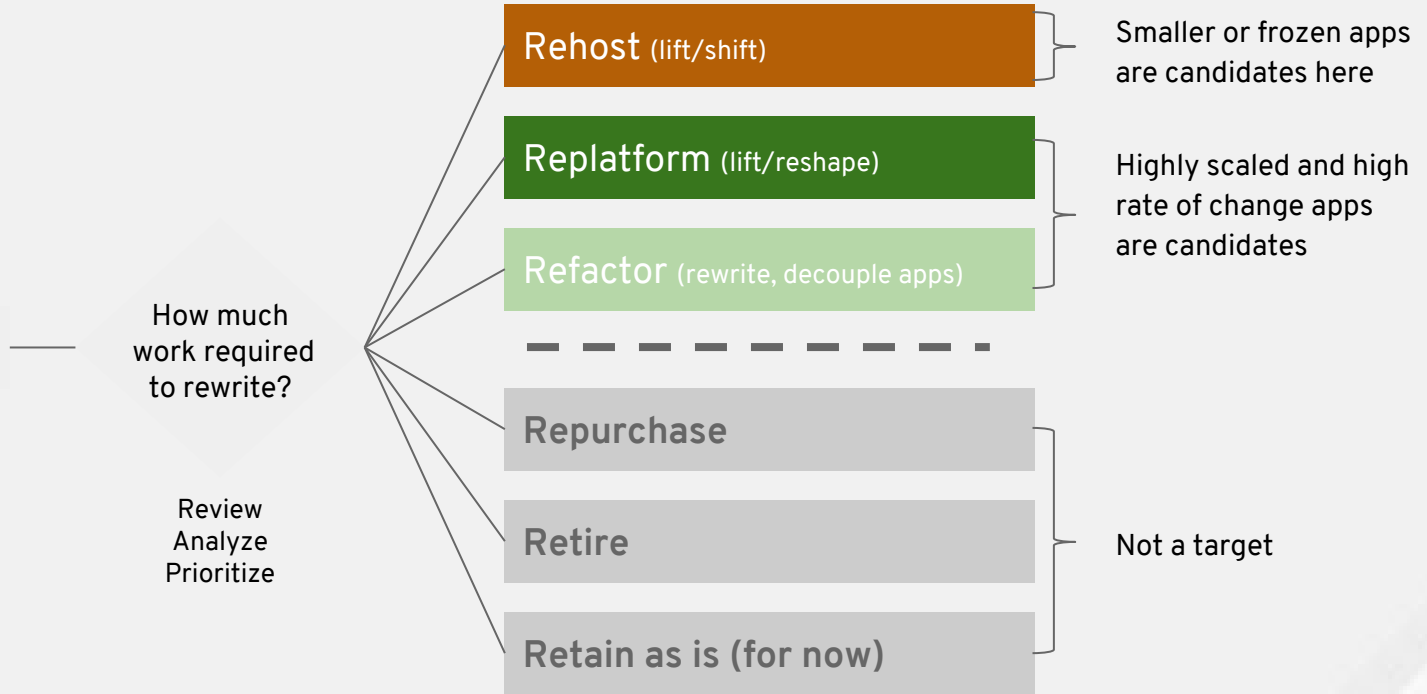


We support Java EE in EAP, as well as in RHOAR Runtimes

Migration of Webshere and Weblogic to EAP with Application Modernization



Existing Apps



Hidden costs of unsupported software

IDC interviewed eight organizations using Red Hat JBoss Middleware solutions and asked them to compare their experiences with Red Hat with comparable alternative community unsupported software.

- \$7.15M value on average/year
- 33% more new apps/year
- 70% more new features/year
- 26% more efficient mgmt
- 49% more efficient support
- Meeting regulatory compliance

Red Hat JBoss Middleware Software and the
Hidden Costs of Unsupported Software

An IDC InfoBrief, sponsored by Red Hat | May 2017



JBoss EAP delivers great value

Beyond security and performance advantages, JBoss EAP delivers:

- 35.5% less dev time/app
- 43.2% gain in dev efficiency
- 70% more applications/year
- 89.3% less application dev downtime
- 79.5% cost savings over proprietary platforms
- 509% ROI over 3 yrs, payback within 9.4 months

Study available at [“IDC - The business value of JBoss EAP”](#)

DC White Paper | The Business Value of Red Hat JBoss Enterprise Application Platform

IDC
Analyze the Future

Sponsored by **Red Hat**

Authors:
Maureen Fleming
Matthew Mandin
July 2015

The Business Value of Red Hat JBoss Enterprise Application Platform

EXECUTIVE SUMMARY

IDC interviewed four organizations leveraging Red Hat JBoss Enterprise Application Platform (JBoss EAP) to standardize and improve their application development efforts. These Red Hat customers, which praised JBoss EAP for providing a cost-effective solution that enables their standardization efforts, will achieve an average three-year return on investment (ROI) in JBoss EAP of 509% and break even on their investment in an average of 9.4 months by:

- Realizing substantial savings compared with the commercial application development platforms being replaced
- Capturing time savings and efficiencies for their application development teams and improving their productivity levels
- Addressing business opportunities through faster deployment of applications and improved application performance
- Reducing the impact of application downtime with more reliable applications

Business Value Highlights

- 509%**
Average three-year ROI
- \$108,664**
Average (discounted) three-year business benefits per 100 users
- 79.5%**
Less expensive than legacy commercial platform
- 43.2%**
Application development staff efficiencies
- 89.3%**
Less application development-related downtime

Situation Overview

The use of application platforms is foundational to the deployment of strategic and packaged applications. As enterprises broaden and mature their use of application platforms, they are increasingly focused on standardizing their processes involving development and IT operations. The goal with standardization is to remove waste from the process, which includes wasting time and wasting money.

Document K27204 © 2015 IDC. [www.idc.com](#) | Page 1

IDC
The Business Value of Red Hat JBoss Enterprise Application Platform

JBoss EAP Migration Customers



50-60% cost savings; increased performance, deployment speed, streamlined processes; faster development cycles, improved security



Saved 50%+ by migrating
Gained flexibility, accommodate new customer requests faster
Free from HW and SW lock-in



Replaced aging and costly IT infrastructure. Scale to growth and respond agilely to changing market dynamics.
Improved reliability and scalability, cut costs, new financial services and products to market faster



Saves \$4 million annually in licensing and maintenance fees, improved developer productivity, reduced time to market



More flexibility at lower cost, better separation of Dev and Ops considerations, save time deploying, provisioning, managing.
WebLogic to JBoss EAP



Reduced cost, developer workload and time-to-market, faster provisioning, optimized operations, high automation. Approx. 600 Java applications. EAP, Data Services, OpenShift.

RHOAR

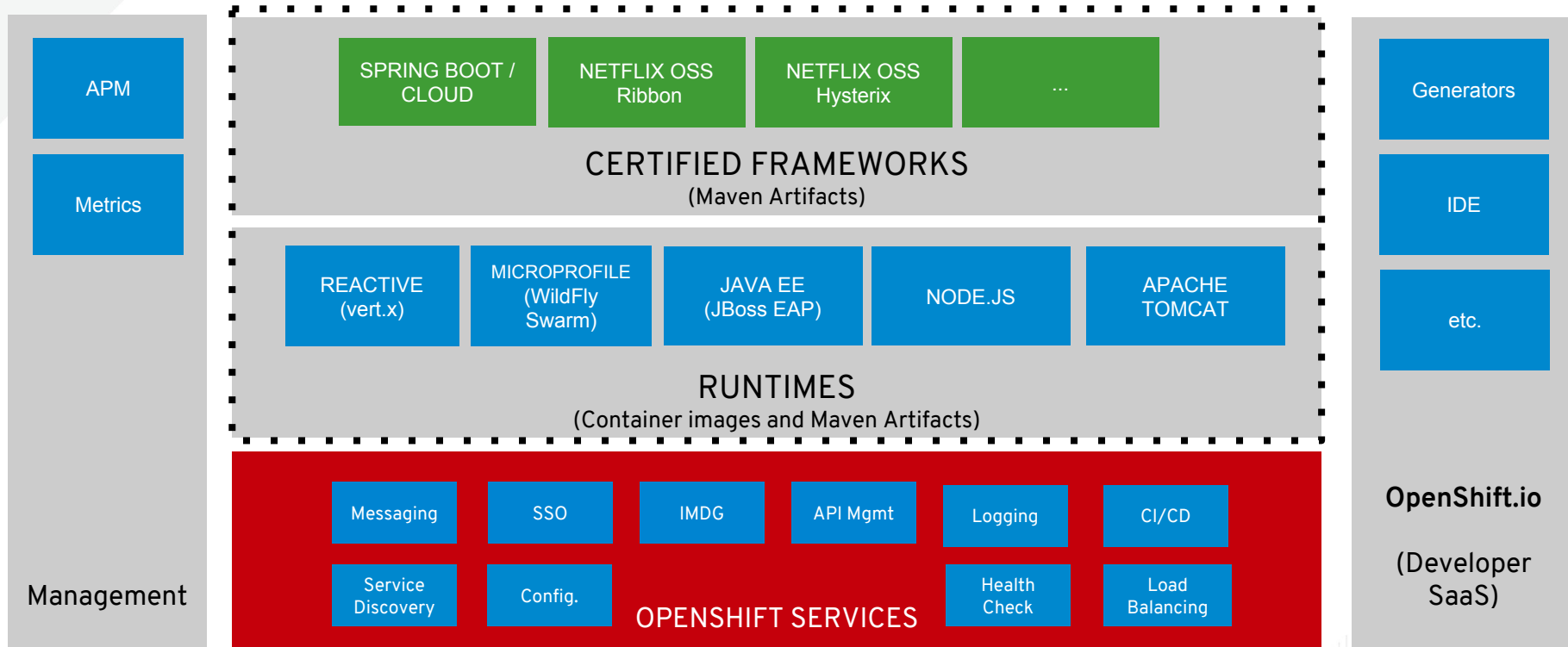
Red Hat Openshift Application Runtimes

RHOAR RUNTIMES USE CASES

Build and Deploy All Your Java or JavaScript Apps on OpenShift

Runtimes/ Framework	Development Target
JBoss EAP	Ideal for containerizing Java EE applications on OpenShift
SPRING	The Spring Framework is an application framework and inversion of control container for the Java platform.
WildFly Swarm	WildFly Swarm enables developers with right-size bootable Java MicroProfile to build microservices while leveraging Java EE expertise.
Vert.x	Create asynchronous, reactive applications for the JVM. Vert.x is great for building very responsive applications that require high concurrency and low latency.
Node.js (Tech preview)	Node.js enables developers to create reactive, event-driven, and non-blocking server-side JavaScript applications.
Tomcat	Red Hat supports the JBoss Web Server embedded Tomcat container for use with Spring Boot applications.

RHOAR - For Developing New Cloud Native Apps and Modernizing Existing Apps



JBoss BPM

Business Process Mgmt

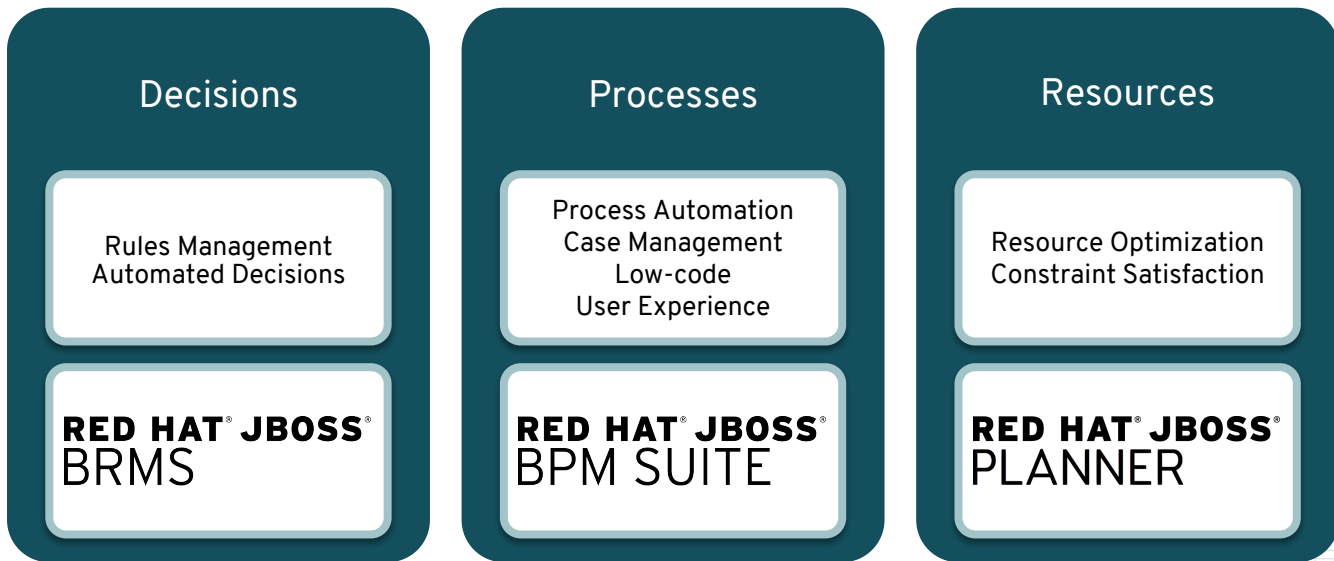
JBoss BRMS

Business Rules Mgmt

→ Process Driven Applications

JBoss Business Process Mgmt and Business Rules Mgmt

Process Driven Apps - Digital Automation campaign addresses the automation of business processes and decisions, collaboration as part of a digital transformation strategy



PROCESS-DRIVEN APPS

Banking

KYC
Loan Origination
Credit Decisioning
Sales Advisory
Payments

Insurance

Claims Processing
Underwriting
Quoting
Rating
Commissioning

Capital Markets

Automated Trading
Trade Order Mgmt
Accounting
Compliance KYC/AML
On Boarding

Public Sector

Claims Processing
Entitlement Calc.
Benefit Calc.
Fraud Detection
Screening

Telecom

Offer Configuration
Order Mgmt
Fraud Detection
Loyalty Programs
Network Monitoring

Transportation

Workforce Mgmt
Promotions Mgmt
Loyalty Programs
Customer Service
Billing

Retail

Recommendation
Campaign Mgmt
Order Mgmt
Pricing
Self-Service

Manufacturing

Order Mgmt
Billing
Contract Mgmt

JDG Data Grid and JDV Data Virtualization + Spark Analytics

→ Intelligent Applications

Data Services

RED HAT® JBOSS® DATA GRID

What is it

In-memory data management and data processing

What's cool about it

1000x faster
Always available data on demand

How helps integration

In-memory data for faster integration services

RED HAT® JBOSS® DATA VIRTUALIZATION

Data integration.
Treat multiple data sources as single source

SQL interface to all your data
OData/REST
OOTB

Virtualized data services to complement integration services

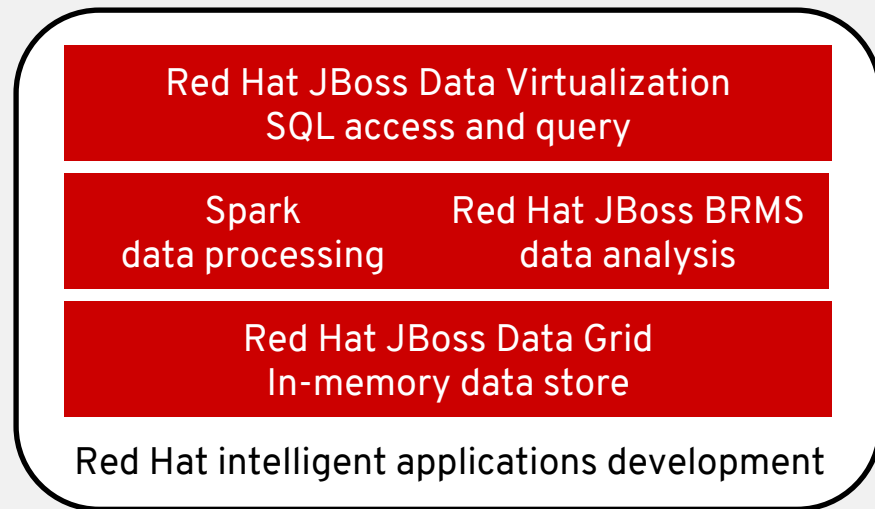
INTELLIGENT APPLICATIONS

Aggregate > Analyze > Act

Simplify development of intelligent applications

- Aggregate data in real time
- Analyze data in-memory
- Act on perishable insights

Apache Spark™ is a fast and general engine for large-scale data processing

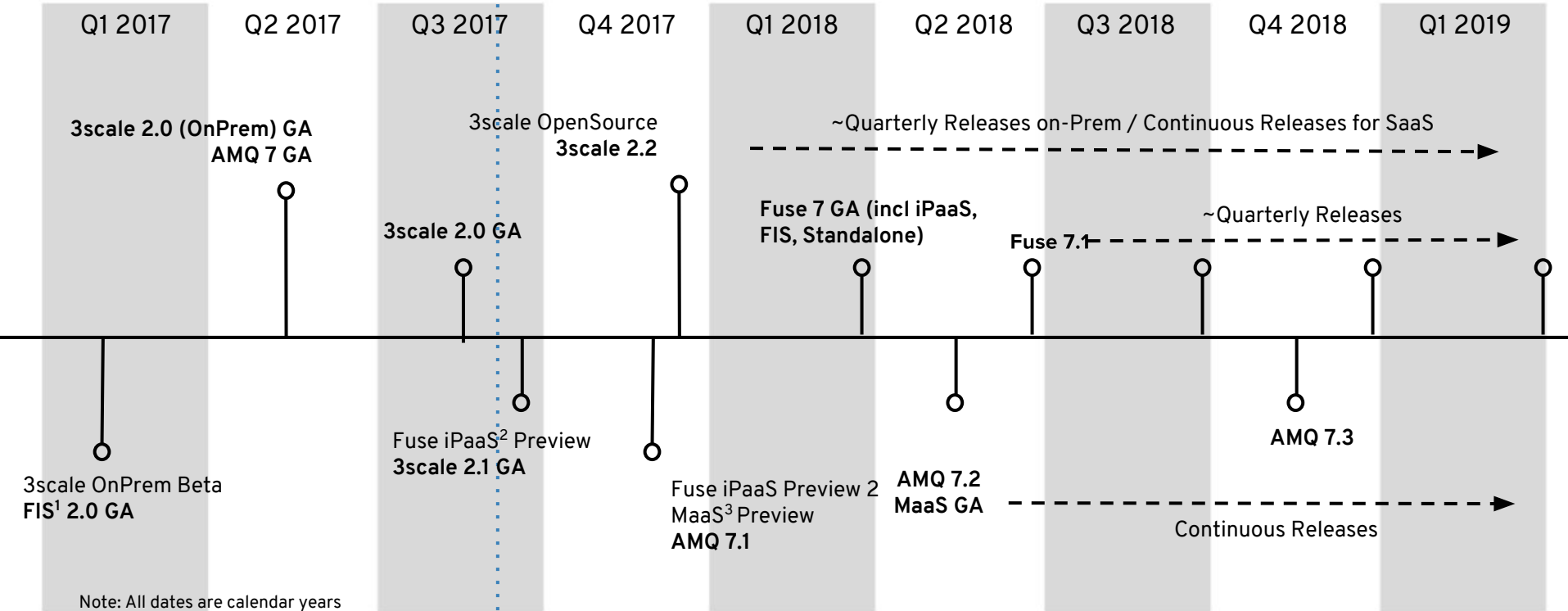




redhat.®

Back Up Roadmaps

INTEGRATION ROADMAP



Note: All dates are calendar years

¹ Fuse Integration Services for OpenShift
² Integration Platform as a Service
³ Messaging as a Service
*Target, uncommitted

INTEGRATION SUMMARY

Areas of product focus 2HFY18 and FY19

Fuse

Launch iPaaS offering, tech preview initially, then GA in FY19. Support Agile Integration message and methodology.

Fuse v7 (Standalone Fuse, FIS, iPaaS): Deliver on Hybrid Integration Platform that spans deployment footprints, use-cases and addresses both technical and citizen user personas.

AMQ

Launch Messaging-as-a-Service capability based on AMQ 7, tech preview late FY18, GA in FY19. Deep OpenShift integration, simple provisioning and user experience.

Add Apache Kafka support to address market demand and as foundational MSA communication technology.

3scale

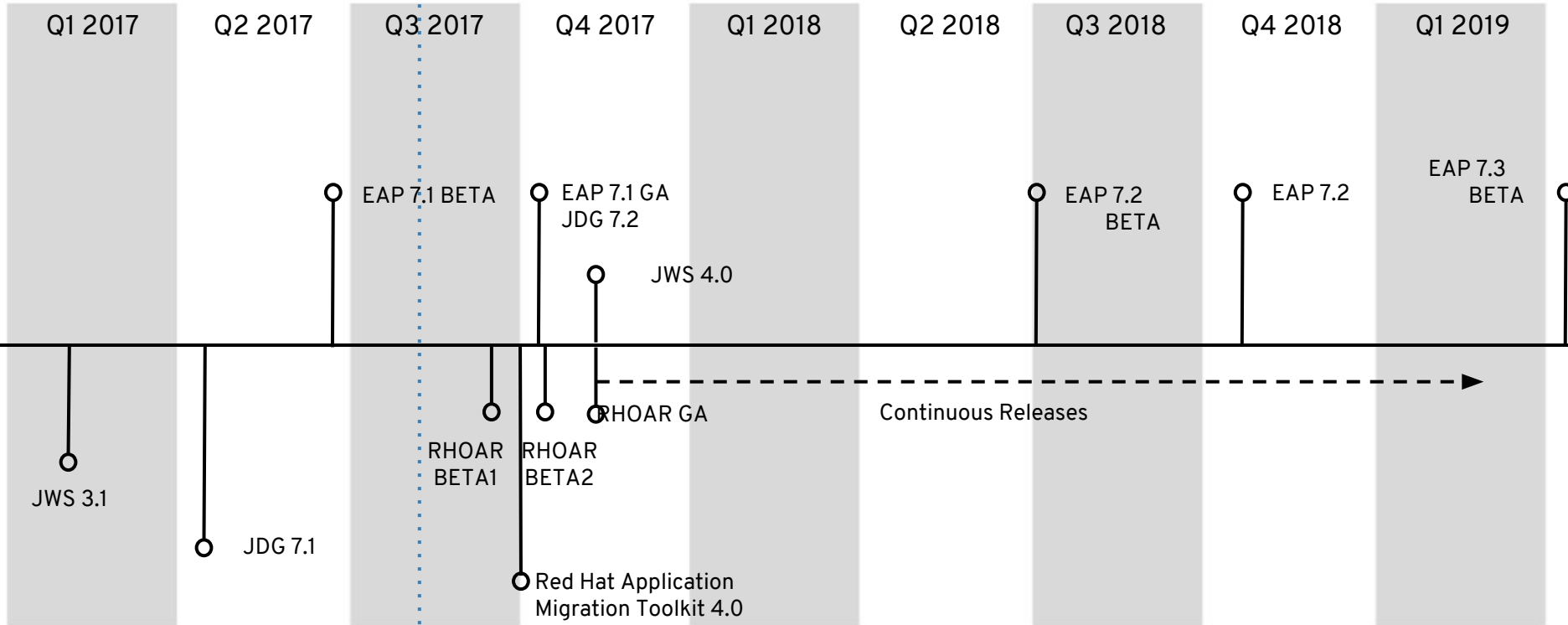
Establish open source project for 3scale technology

Continue to build out product functionality with focus on cross-product integration, tools for API development and emerging microservices technologies.

iPaaS SUMMARY

- iPaaS: A new web-based tool chain, delivered as-a-Service (hosted by Red Hat), that allows “citizen integrators” to build, deploy and run integration apps in containers on OpenShift
- Fuse Integration Services (FIS): an updated CLI- and Eclipse-based tool chain, delivered on premise, that allows technical developers to build, deploy and run integration apps in containers on OpenShift and assist/support citizen technologists

RUNTIMES ROADMAP



* All dates are calendar years

** Features and dates are subject to change

RHOAR ROADMAP - preliminary

- Q4 2017 GA RELEASE

- OSO / OSE Support
- Spring Boot Tested & Certified
- WildFly Swarm 7
- Node.js (Tech Preview)
- Vert.x 3.5
- Red Hat SSO Tested

- BETA1 RELEASED (Sept)

- Runtimes Only - public repo.
- Limited customers

- BETA2 RELEASED (Oct)

- Full Public BETA

- Priority features beyond GA :

- Deeper Spring Cloud support
- Node.js FULL support

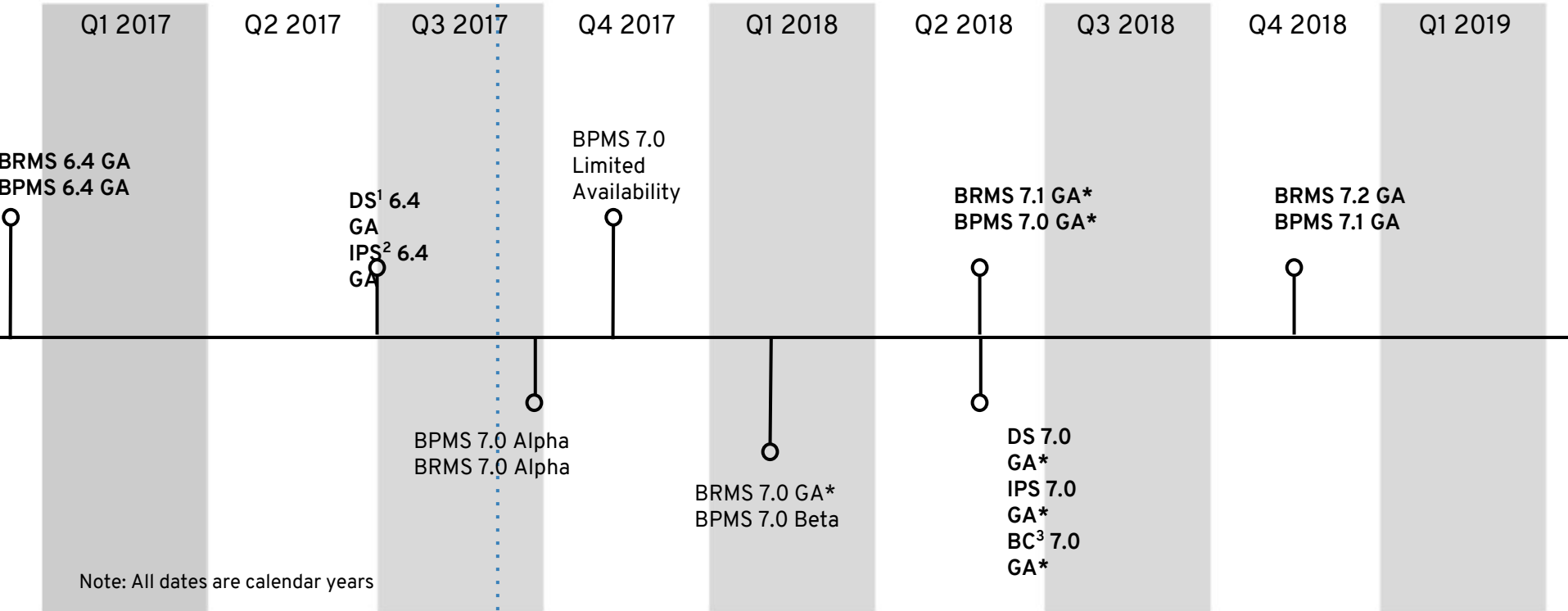
JDG ROADMAP (1 OF 2)

- JDG 7.1 (Released May, 2017)
 - Performance Improvements (up to 60% increase in write throughput)
 - Elastic scale external session management for JBoss Web Server (Tomcat) and Spring apps. (on-premise or cloud/OpenShift)
 - Real-time analytics, through Apache Spark 2.x integration
 - New string-based querying with Ickle (tech preview)
 - Ease of administration
 - Feature enhancements to Hot Rod clients

JDG ROADMAP (2 OF 2)

- JDG 7.2 (Q4 2017)
 - Keyword, Fuzzy, Wildcard remote querying
 - C#, C++, node.js client feature parity
 - Pre-load cache from database
 - JSON/BSON object storage
 - OData and SQL support
- JDG 7.3 (Q2 2018)
 - Deferred JDG 7.2 requirements
 - Change Data Capture (CDC)
 - Other customer priorities
 - Continue Spark integration

AUTOMATION ROADMAP



Note: All dates are calendar years

¹ BRMS Decision Service for OpenShift

² BPMS Intelligent Process Server for OpenShift

³ BC - Business Central for OpenShift

* Targeted, not Committed

Limited Availability not open to all customers

AUTOMATION SUMMARY

Areas of product focus 2HFY18 and FY19

BPM Suite

Deliver v7 product release. Focus on sellability, getting started, and usability for citizen developers. Add key functionality for case management. Deeper integration with OpenShift.

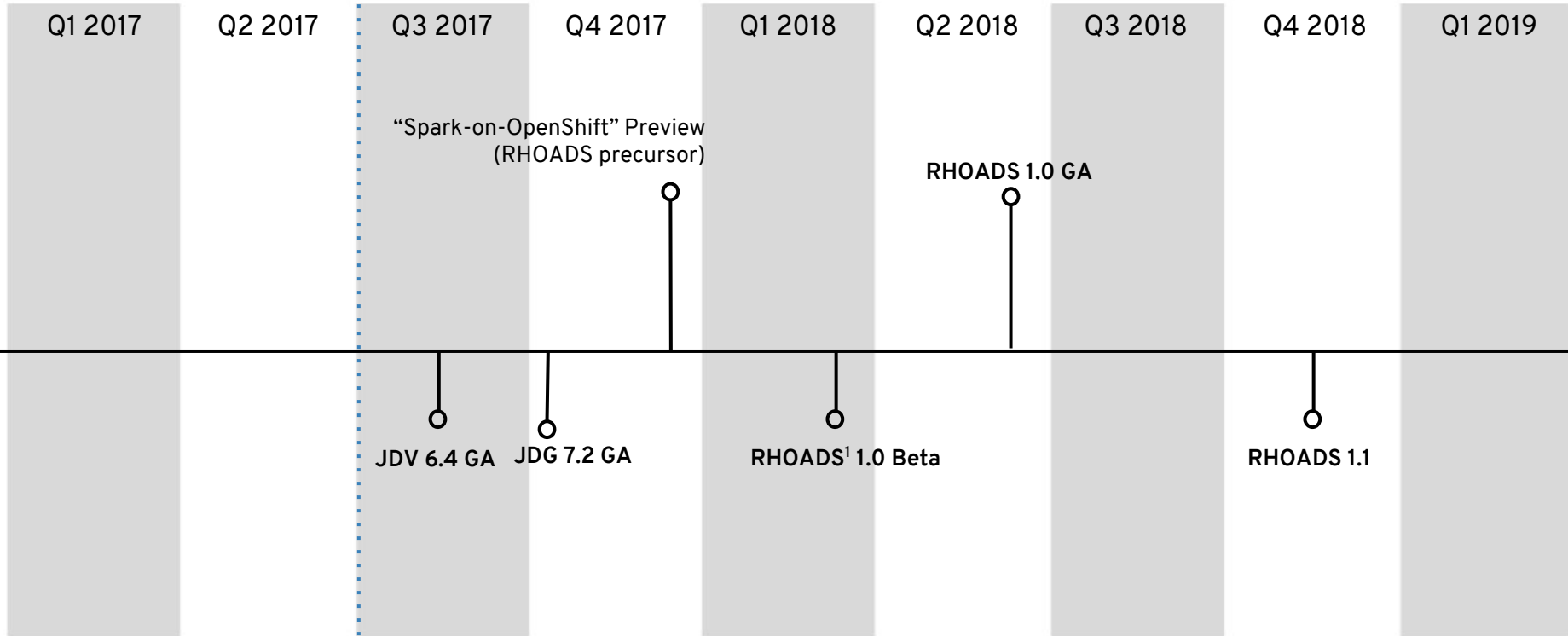
Reposition away from “legacy” Business Process Management towards Digital Process Automation and building of business applications. Product rename under evaluation.

Better leverage technology partners to address customer needs where we are not focusing (e.g. BPA, UX)

BRMS

Greater focus on Rules and Planning use cases. New DMN (Decision Modeling Notation) standard. Revive developer affinity through MSA use cases.

DATA and ANALYTIC SERVICES ROADMAP



Note: All dates are calendar years

¹ Red Hat OpenShift Analytic and Data Services

DATA and ANALYTIC SERVICES SUMMARY

Areas of product focus 2HFY18 and FY19

RHOADS (Red Hat OpenShift Analytic and Data Services)

New product/bundle offering. Foundational services for Analytics, Data/Stream Processing, Machine Learning to support development and deployment of Intelligent Applications.

Based on OpenShift. Includes productized RADAnalytics (Apache Spark on OpenShift) and Data Grid in initial release. Data Virtualization services and other related services added subsequently.

Data Virtualization

Support lifecycle extension for V6.

Core capabilities and future technical evolution to be delivered as part of RHOADS going forward.

Data Grid

In addition to being part of RHOADS, JDG will also continue independently as outlined above in the Runtimes roadmap slides.



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FORUM
Europe, Middle East & Africa