RED HAT® OPENSHIFT Application Runtimes

redhat.

RED HAT OPENSHIFT APPLICATION RUNTIMES

DATASHEET

KEY BENEFITS

- Provides a single development platform for creating new cloud-native applications and transitioning from monoliths to microservices at your own pace
- Boosts innovation velocity and operational efficiency to get to market faster and stay ahead of your competition
- Accelerates application development by giving developers and IT operations automation tools to get the job done
- Runs on any cloud infrastructure and supports multiple runtimes, frameworks, and languages for maximum flexibility with no vendor lock-in

PRODUCT OVERVIEW

In today's digital world, software strategy is central to business strategy. To stay competitive, organizations need customized software applications to meet their unique needs—from customer engagements to new product and services development. Therefore, the need to speed up application development, testing, delivery, and deployment is becoming a necessary business competency.

Red Hat® OpenShift Application Runtimes helps organizations use the cloud delivery model and simplify continuous delivery of applications and services on Red Hat OpenShift platform, the cloud-native way. Built on proven open source technologies, Red Hat OpenShift Application Runtimes also provides development teams multiple modernization options to enable a smooth transition to the cloud for existing applications.

FEATURES AND BENEFITS

Red Hat OpenShift Application Runtimes includes the following features and benefits:

FEATURES	BENEFITS
Red Hat OpenShift integration and application missions and boosters	**Simplified development:** Red Hat OpenShift Application Runtimes reduces the complexity of developing cloud-native applications by integrating OpenShift capabilities with the programming model of multiple runtimes, including service discovery, external configurations, and circuit breaker or fault tolerance. Red Hat OpenShift Application Runtimes also includes a number of missions and boosters, such as creating HTTP application programming interfaces (APIs), interoperating with a database, or implementing the health check pattern to speed up application development.
Multiple runtimes and multiple clouds	**Strategic flexibility:** Red Hat OpenShift Application Runtimes supports multiple runtimes, languages, frameworks, and architectures. Its certified interoperability with middleware services offers the choice and flexibility to pick the right services for the right job. In addition, applications developed with containerized Red Hat OpenShift Application Runtimes can run on any cloud infrastructure where Red Hat OpenShift Container Platform can run. It also supports hybrid cloud configurations, offering freedom from vendor lock-in.

MISSIONS AND BOOSTERS:

A mission is a working application that showcases different fundamental pieces of building cloud-native applications and services, such as creating HTTP APIs, interoperating with a database, or implementing the health check pattern.

A booster is the implementation of a mission in a specific runtime. Boosters are preconfigured, functioning applications, based on a mission, that demonstrate a fundamental aspect of modern application development running in an environment similar to production.

FEATURES	BENEFITS
DevOps-ready	**DevOps automation:** Due to its integration with Red Hat OpenShift Container Platform, Red Hat OpenShift Application Runtimes provides developers with a self-service platform for provisioning, building, and deploying applications and their components. It integrates with continuous integration and continuous delivery (CI/CD) tools like Git, Maven, and Jenkins. It also provides intuitive tooling to securely streamline Kubernetes workflows and enable application load-balancing and auto-scaling capabilities with policy-based control and automation.

TECHNICAL SPECIFICATIONS

Red Hat OpenShift Application Runtimes includes multiple runtimes and multiple frameworks to offer the flexibility developers need to pick the right mix of services for their application requirements.

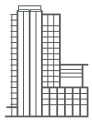
MULTIPLE RUNTIMES	
Red Hat JBoss® Enterprise Application Platform (EAP)	Red Hat JBoss EAP is a leading open-source Java™ EE-based application runtime used for building, deploying, and executing highly transactional Java applications and services.
Eclipse Vert.x	Eclipse Vert.x is a toolkit to build distributed and reactive applications on top of a Java Virtual Machine (JVM) using an asynchronous, non-blocking development model.
WildFly Swarm	WildFly Swarm offers an innovative approach to develop and run Java EE applications by packaging them with just enough of the server runtime to "java -jar" your application. It is MicroProfile compatible, so it accelerates the transition from monoliths to microservices while taking advantage of existing Java EE experience.

MULTIPLE FRAMEWORKS	
Spring Boot	Red Hat OpenShift Application Runtimes supports the Java Web Services (JWS) Embedded Tomcat container for use with Spring Boot applications. These apps run well on Red Hat OpenShift by using capabilities offered by Kubernetes, reducing development and operational overhead.
Netflix Ribbon	Microservice applications built with Red Hat OpenShift Application Runtimes need additional infrastructure to operate in a distributed fashion, including client-side software load balancing provided by Netflix Ribbon.

MULTIPLE FRAMEWORKS	
Netflix Hystrix	Netflix Hystrix provides a framework for building robust and resilient microservice applications. Hystrix is a latency and fault tolerance library that isolates points of access to remote systems, services, and third-party libraries. It stops cascading failure and enables resilience in complex distributed systems where failure is inevitable.

DEVELOPER PRODUCTIVITY	
Launch service	The product's launch services helps developers get up and running quickly in the cloud through a number of ready-to-run examples—or mission-boosters—that demonstrate the power of Red Hat OpenShift Application Runtimes.
Kubernetes and Red Hat OpenShift integration	Red Hat OpenShift Application Runtimes reduces the need for third-party services to support your microservice applications by integrating with Red Hat OpenShift features to support common microservice patterns, such as service discovery, health check, load balancing, externalized configuration, and more. For example, you can host existing Spring Boot applications on Red Hat OpenShift with minimal code changes.

For more information on Red Hat OpenShift Application Runtimes, visit developers.redhat.com/products/rhoar.



ABOUT RED HAT

Red Hat is the world's leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.

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