

# UNILOGIK STATE OF JAVA REPORT

### SHOULD YOU REPLACE ORACLE JDK WITH OPENJDK?

This report discusses the implications of Oracle's transition to a paid support model, highlighting the choice organizations face between Oracle JDK and the community-driven OpenJDK.

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## The State of Java

Billions of devices run Java™ worldwide. Until January 2019, no one had to pay for access to a current Java Virtual Machine (JVM), but Oracle implemented a significant change to its release cadence and support model multiple times since then. Oracle JDK is not free for production workloads and patches, leaving organizations with a choice to either pay Oracle for continued production support and updates for OracleJDK, or migrate to an alternative OpenJDK implementation.

80%

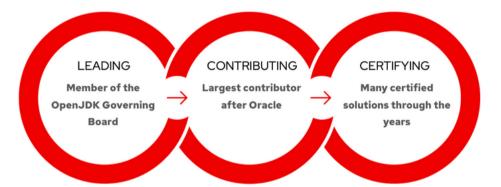
of worldwide enterprises run Java on Desktop, Server, Cloud 3 Billion

Active Java Virtual Machines globally #1

Developer choice for cloud 12 Million

Developers run Java

## Red Hat has a Long History with OpenJDK



## Red Hat takes over OpenJDK Stewardship

- On April 17, 2019, Red Hat announced that it was assuming the stewardship of the OpenJDK 8 and OpenJDK 11 projects following a transition of leadership from Oracle
- With the transition, Red Hat is affirming its support of the Java community and following a similar path that led to its leadership of both the <a href="OpenJDK 6">OpenJDK 6</a> and <a href="OpenJDK 7">OpenJDK 7</a> projects
- Red Hat also worked with the community to enable continued innovation in Java, e.g.
   Shenandoah garbage collector included in OpenJDK 12



### Advantages of OpenJDK

Community-Driven Development:

OpenJDK is developed collaboratively, ensuring a flexible and responsive platform.

Transparency and Security:

OpenJDK's open nature allows for easy identification and resolution of security vulnerabilities.

Flexibility and Customization:

Developers can tailor OpenJDK to meet specific requirements, enhancing performance and integration.

Compatibility and Interoperability:

OpenJDK is compatible with Java SE, ensuring applications can run on any Java SE-compliant platform.



Security: latest bug and vulnerability fixes



Operation and maintenance savings



No proprietary licenses



Red Hat software maintenance for the benefit of all customers



Long-term support and stability



Minimal unplanned downtimes and faster resolution times



Cost-effective and included in Red Hat Enterprise Linux, Red Hat Openshift and Red Hat Application Services



Peace of mind

## Large online bank

"With a well-defined phased approach, migrating from Oracle JDK to Red Hat build of OpenJDK is a smooth transition."

#### CHALLENGE

Enhance supportability of the Java application portfolio and avoid Oracle JDK license cost, for both server and Windows desktop/laptop installations.

#### SOLUTION

Combined, the customer had more than 3,500 JBoss® Enterprise Application Platform and Apache Tomcat instances, which it grouped by environment (dev, stage, test, pre-prod, prod, maintenance) to carry out migration from Oracle JDK to Red Hat build of OpenJDK in a phased manner.

The customer was able to successfully and easily migrate all instances while staying at the same version level.

#### **RESULTS**

- Standardized Java development and production environments on Red Hat build of OpenJDK
- Smooth migration with assistance from Red Hat
- Single vendor for Java applications across the stack
- Reduced support and maintenance cost

## Large airline

"Red Hat consultants and Red Hat support did an outstanding job helping us and our vendors with the transition of the 'nasty 1%' of applications"

#### **CHALLENGE**

Enhance supportability of the Java application portfolio and avoid Oracle JDK license cost, while coordinating with external vendors.

#### SOLUTION

With an up-front analysis, the airline could identify outliers and build a strategy to migrate all applications in a phased manner. As an additional benefit, the analysis provided them with a list of candidate applications to be moved to containers in the next phase.

Given the complex company <u>organisational</u> structure with a majority of applications developed externally, analysis, planning and coordination was crucial.

With assistance from Red Hat, successfully and easily migrated all applications, with a special focus on critical, Swing-based frontend crew planning applications

#### **RESULTS**

- Standardized Java development and production environments on Red Hat build of OpenJDK
- Avoided license cost for Oracle JDK

### What to Expect When Migrating

- Smart, predictable, methodical migration
- · Significant cost savings with no Oracle license fees
- Minimal security risks of community build of OpenJDK every 6 months
- On-par performance with Oracle JDK
- Multiple versions with consolidated JDKs across the entire environment
- Harnessed innovation from Java community and multiple other vendors
- Red Hat build already included in Red Hat Enterprise Linux, Red Hat OpenShift, and Red Hat Middleware subscriptions

## Partner with Unilogik Systems and schedule an OpenJDK discovery session:

- Discuss current inventory and status quo, and look at different JDK options
- · Jointly walk through automated migration analysis of the application portfolio or a subset

#### Result:

√ Gain a good understanding of tooling and process

✓ An initial analysis, recommendation, and migration plan

