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Oracle Java SE Subscription: Protect Your Investment in Java SE

Software platform maintenance and patching is one of the greatest challenges of managing business-critical applications. Oracle Java SE Subscription combines license and support

into a simple subscription that allows you to cost effectively manage Java SE installations, updates and upgrades across your enterprise.

As the main contributor and steward of Java SE, Oracle is the only company that can guarantee long-term support and updates on a timely and predictable schedule. The Java SE Subscription from Oracle provides access to tools that consistently manage updates, enables enterprises to monitor their own Java platforms, and provides direct access to a specialized Java SE support team.



Java is the most widely used professional development language and the #1 developer choice for the cloud. To respond to the rapidly changing needs of developers, Oracle and the Java community introduced a six-month release cadence for Java SE, increasing the pace at which innovation is delivered to developers. It is now easier to keep up with this innovation and move to newer releases, as each

six-month release contains a smaller set of updates compared to the substantial updates in the former two-to-three-year cadence of the major releases.

For large enterprises, this affords greater predictability, consistency, and significant cost savings. This is illustrated in the sidebar, with findings from a September 2019 large enterprise survey on the relative cost of upgrading via different means.

For development environments, Java users no longer need to wait years between releases for eagerly awaited features; they can take advantage of upgrading every six months and getting the latest release at no cost .

To simplify licensing, Oracle produces OpenJDK builds released under the same license as Linux, the GPL. This makes Java SE more open and easier to use than ever. To simplify how organizations purchase support and license Java SE and maintain continued long-term support and updates to older versions, Oracle offers the Java SE Subscription. Upgrade and update your applications on your own schedule.

The end of public updates for Java SE 8 took place in April 2019. Commercial users should consider how they will keep up to date. With a Java SE Subscription, you have access to



Enterprises prefer maximum flexibility with Java version selection. In a recent survey, 56% of respondents preferred staying with the version of Java used when their applications went into production, and upgrading to new feature versions of Java based on business schedules, not development schedules. Upgrading Java SE through a Java SE subscription allows for this, saving money and providing flexibility over other release schedules.

Enterprises are increasingly focused on comprehensive software support and mission critical software patching.

Most large organizations have dozens of distinct Java versions installed.

tools, features and updates to help you manage your desktop deployments. These enterprise management capabilities will help you optimize the performance, stability and security of your Java SE 8 investments.

IMPROVING JAVA MANAGEMENT ACROSS THE ENTERPRISE

An enterprise-wide review often reveals business critical applications that are extensively dependent on Java SE. The average organization has dozens of distinct versions of the Java platform installed across desktops, servers and cloud. A Java SE Subscription helps you effectively monitor, manage and update these installations.

Coordinated management of your Java SE environments gives a unified view of Java use across the enterprise, which is ideal for optimizing resource utilization and managing security. It allows you to see all versions of Java SE that applications are dependent on and the most recent patch being utilized, while also providing a mechanism for consistently delivering Java updates.

To complement the overall management of Java environments, Java SE Subscription also gives you the tools to optimize Java SE 8 performance during development, and monitors Java performance and behavior during production.

Oracle Java SE Advanced Management Console (AMC) provides a dashboard view of Java versions deployed across the organization,

enabling tighter control of platform updates and security fixes. AMC collects information about which Java applications are launched by which Java versions, creating an application compatibility inventory.

Oracle JDK, including Java SE 8, offers local usage logging which paired with AMC helps build a realistic application inventory by cataloging which Java versions are used for which applications.

The Java SE 8 Deployment Rule Set capabilities enable you to control Java execution in browsers across the enterprise including control of security prompts, fixes, and Java SE updates. You can define rule sets that allow different Java applications to use different versions of Java installed on clients. This benefits organizations who must use older versions of Java or need to support multiple Java versions.

Java SE 8 MSI customizations: System Administrators can use the Java Installer Customization Tool to repackage MSIs, controlling the way that Java is installed on managed systems.

Java Flight Recorder and Java Mission Control, available in JDK 8, provide in-production diagnostics with minimal performance overhead, which results in better uptime.

Keeping out-of-date versions of Java on your system may present a security risk. Customers should always install updates to get the latest performance and security improvements.

SUPPORT

More than 430,000 customers choose Oracle and rely on Oracle Support to protect their technology investment. Support for cloud workloads, servers and desktops is an integral part of the Java SE Subscription. Customers get Oracle Premier Support with the purchase of Java SE Subscription, which includes 24/7 access to an experienced Oracle Java support team. Oracle Premier Support on Oracle Java SE products

https://www.oracle.com/support/premier/ is described further in the Oracle Lifetime Support Policy www.oracle.com/support/lifetime-support/. These pages together with support roadmap information www.oracle.com/java/technologies/java-se-support-roadmap.html, provide a comprehensive view of the extent of Oracle's unparalleled Java SE Subscription support coverage.

The average hourly cost of a critical application failure is in the hundreds of thousands of dollars. Furthermore, brand, reputation, and customer satisfaction are often negatively affected by downtime. The stakes are highest when a successful cyberattack leads to negative publicity.²

With direct access to the leading Java SE support resource you can:

Log and resolve Java issues quickly and efficiently.

Reduce time to resolution and minimize Java support costs.

Maximize Java application uptime.

JAVA PATCHES, AND SECURITY UPDATES

Java 8 reached end of public updates in April 2019. Java 7 and Java 6 reached end of public updates in 2015 and 2013, respectively.

What does this mean for your organization?

From extensive experience working with Java partners, we are aware that most large organizations run several versions of Java for a variety of reasons. Some organizations have constrained their applications to particular Java versions. By providing greater flexibility around the Java versions that are maintained, Java SE Subscription is designed to accommodate these business needs.

Use Java SE Subscription's term-based licensing and support to maintain your flexibility around the transition point between versions while at the same time making sure that your Java platform is as stable and up to date as possible. But it is important to remember that keeping out-of-date versions of Java on your system may present a security risk, so customers should always install updates to get the latest performance and security improvements.

In addition, your organization may be subject to corporate or industry-wide obligations, specifically, keeping your software platforms supported and up to date with all available security patches installed. Java SE Subscription makes it easy for you to achieve all of this.

- Remain on a fully updated Java release even after that version reaches end of public updates, thereby controlling your upgrade path.
- Streamline running different Java versions in a browser side-by-side, thereby managing compatibility for different applications.

ENTERPRISE CLASS PERFORMANCE FOR JAVA

Oracle provides the Java SE Subscription Enterprise Performance Pack (Enterprise Performance Pack) to customers who continue to have Java 8 workloads in production at scale. The pack provides performance improvements developed between JDK 8 and JDK 17 to JDK 8 workloads. These include significant memory management and performance improvements like the ZGC. With this drop-in replacement for JDK 8 servers, customers can see immediate benefits on JDK 8 workloads that are running near memory or CPU capacity. Initial testing shows improvements in both memory and performance of heavily loaded applications of up to 40%.

Meanwhile, Oracle provides GraalVM Enterprise, a high-performance runtime for modern microservices. GraalVM also provides ahead of time and polyglot capabilities and more information can be found in the <u>datasheet</u>.

JAVA SE SUBSCRIPTION

The enterprise-wide, term-based Java SE Subscription model includes cloud deployment, server, and desktop licensing and support.

- Server and cloud deployments are priced at \$25 per processor per month; desktop price is \$2.50 per user per month, or lower with tiered volume discounts available
- Oracle Cloud Infrastructure services include Java SE Subscription and support
- Current and legacy Java SE binaries

Java SE subscription summary

- Cover all Java SE licensing needed for Enterprise Cloud, Server and Desktop deployments.
- Protect your Java SE investments by receiving performance, stability and security updates to a variety of versions.
- Manage your Java applications portfolio with maximum flexibility; update any Java versions you are running on your own time schedule.
- Remain up to date on the most current Java updates and security fixes
- Achieve control and management of Java SE 8 Desktop use across the enterprise.
- Minimize your Java deployment, monitoring and maintenance costs.

Java SE subscription performance

- Enterprise Performance Pack brings JDK 17 Performance for JDK 8 server workloads
- Drop-in replacement for JDK 8
- Server-side Linux (Intel ARM), 64-bit, headless
- GraalVM Enterprise is a highperformance runtime for modern microservices.
- Enterprise Performance Pack and GraalVM Enterprise are each available at no additional cost to Java SE Subscription customers and Oracle Cloud Infrastructure (OCI) users

- Java SE 8 Commercial Features
- Performance, stability and security updates
- Entitlement to GraalVM Enterprise at no additional cost (see the <u>GraalVM EE data</u> <u>sheet</u> for details on this product)
- Oracle Premier Support via MOS (My Oracle Support)
- Cloud workload and on-premise, Internal Use License
- Term-based licensing

RESOURCES

- More information on the Java SE Subscription solution can be found here: https://www.oracle.com/java/java-se-subscription.
- <u>Java SE Subscription Enterprise Performance Pack</u> blog

If you feel that your organization may benefit from a free 'Java Health Check', we have a team of Java specialists who can walk you through the steps to understand how Java is being used across your organization and how you can proactively manage it going forward. Call +1-800-633-0738

Common questions regarding managing Java SE across your enterprise

QUESTION	BUSINESS SCENARIO AND IMPACT	SOLUTION
How many versions of Java, in your organization, do not have the latest performance, stability, and security fixes available?	Different application areas within a business are often managed by separate teams, often lacking a central policy to manage Java deployments. While Oracle publicly provides performance, security and stability updates on the latest release of Java, updates to prior versions require a Java SE Subscription.	Use the Java SE Subscription robust monitoring tools for enterprise-wide Java visibility to audit and manage which versions, patches and security updates are used in your enterprise. In addition, gain access to all patches for the Java SE platform for all major releases.
Have you updated all Java applications to the latest release? Are you working with the latest early-access releases? What are your plans for moving to the next Long-Term Support release?	Transitioning between Java versions sometimes requires lengthy and costly QA cycles. You may not have sufficient inhouse Java expertise or resources to upgrade all applications to the latest version. Applications may not be business critical or may have been stable for many years. However, these older versions are putting the business at risk due to a lack of patching and support.	Java SE Subscription includes all patches and global support for the Java SE platform for all major releases. Java SE Subscription, through its provision of Java patches for older versions, enables you to remain on those versions for longer because the latest performance, stability and security improvements for the Java platform are applied.
What versions of Java are installed across your organization's desktops? How are Java updates managed?	You may have a limited view of the extent of Java usage across the organization. In many organizations, updates are sporadic and managed on an ad-hoc basis by individual teams, especially in desktop environments. This highlights a lack of control of a core component of the enterprise platform.	Java SE Subscription provides access to tools and updates to help you manage your organization's desktops. It when applications require different versions with tooling to help manage "Deployment Rulesets" enabling support of challenging and sometimes conflicting requirements.
Can you report on your Java install base in the event of an industry compliance review (e.g. HIPAA)	If you store sensitive information, you may be subject to periodic PCI or HIPAA Audits where you need to show that the environment is supported and up to date with the latest security patches and updates.	The management elements of Java SE Subscription enable you to maintain control of your various Java SE environments and report on the various versions in use throughout your organization.
How do you deal with any potential Java platform issues?	If an issue relating to the Java platform arises and you do not have access to support, you may have to resort to searching the Internet for solutions. Solutions found online may not be accurate, current, or efficient. Researching and applying fixes costs time and money and could incur a large business cost in application down time.	Java SE Subscription gives you access to Oracle's expert global Java support team. You have an immediate resolution route for Java issues, risk is reduced, and application uptime is optimized.

 $^{^1\}mathrm{Wikibon}$ 2019 Java survey data from 59 large enterprises, with > 30,000 employees and > 50 Java applications.

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² IDC, Protect Applications by Integrating Security into DevOps, #US43015217