

ORACLE JROCKIT REAL TIME

KEY FEATURES AND BENEFITS

FEATURES

- Average response times in microseconds for most well-managed applications
- Low, single-digit, millisecond response with a five nines reliability guarantee
- Deterministic garbage collection unequalled in the industry
- Powered by Oracle JRockit, the industry's fastest JVM
- Zero coding install
- Real-time, in-production application monitoring and analysis—with no overhead or performance impact
- Latency identification and resolution
- Memory leak detection
- Specialized locking for thread management
- Multiplatform support, including Intel and SPARC

BENEFITS

- Introduce and enforce new types of services and service-level agreements.
- Improve revenue with higher customer satisfaction and retention.
- Lower operating costs through more-proactive operations.
- Improve competitiveness through enterprise agility.
- Accelerate time to market with low-latency custom applications through increased developer productivity.

Today, organizations must react nearly instantaneously to avoid threats and capture market opportunities. As a result, mission-critical applications require the highest levels of performance—even a slight increase in latency can cause data to become stale and useless. The need for predictable performance and agility, combined with intense economic pressure, has driven many organizations to embrace cost-effective, standards-based Java technology. However, in the most highly competitive environments where every millisecond matters, an even stronger technology is required. Oracle JRockit Real Time provides the first real-time computing infrastructure for standard Java.

Extreme Performance and Predictable Latency with Java

For industries with demanding and precise performance requirements, such as financial services, telecommunications, public sector, and online gaming, Java has traditionally not been a feasible option for development. Traditional Java solutions are incomplete, cannot meet latency requirements, and behave unpredictably. With no other viable real-time options, companies have been forced to build their own infrastructure, principally in C/C++. However, this type of development is expensive, rigid, and difficult to manage.

Now these organizations have a choice. Oracle JRockit Real Time is the industry's fastest real-time solution for standard Java and the only one with average microsecond response performance. With a five nines—guaranteed maximum garbage collection latency on the order of one millisecond, Oracle JRockit Real Time takes latency and performance to dramatic new levels and establishes the industry standard for latency-sensitive environments. The solution is powered by Oracle JRockit, the industry's fastest Java virtual machine (JVM).

Oracle JRockit Real Time is a critical foundation for predictable low-latency, event-driven, service-oriented architectures that have extreme transaction processing needs. It offers the following capabilities and benefits:

- Predictable latency and extreme performance that result in high application availability
- Zero coding when you swap out any JVM, and minimal configuration for instantaneous performance improvements
- Advanced management tools for in-production monitoring and application performance tuning—with no performance penalties

Deterministic Garbage Collection

Reclaiming memory no longer referenced by objects—garbage collection—is a critical factor in Java application performance and stability. Oracle JRockit Real Time uses deterministic garbage collection to overcome the unpredictable pause times associated with traditional garbage collection methods.

Deterministic garbage collection allows users to specify and maintain a maximum pause time, as well as to limit the total number of pauses within a prescribed window. Run as a consistent background task, it is designed to deliver short, predictable pause times with minimal manual tuning. This results in average microsecond latency for real-time applications with a guaranteed maximum on the order of one millisecond garbage collection pause. Such short pauses greatly lessen the impact on application performance.

Oracle JRockit Mission Control

Oracle JRockit Real Time also includes Oracle JRockit Mission Control, a suite of nonintrusive monitoring and diagnostic tools designed to deliver a rich set of operational information with minimal overhead. Oracle JRockit Mission Control is ideally suited for use in production systems. Its functionality is available on demand, and it entails near-zero overhead (on the order of 0.5 percent) that is only in effect while the tools are running. It significantly improves developer productivity and drives down latency for end-to-end applications, hence reducing operational costs while accelerating time to market. Oracle JRockit Mission Control features include

- **Management console.** Monitors application behavior to identify and resolve issues before they affect reliability or performance.
- **Runtime analyzer.** Captures detailed runtime information for issue diagnosis and performance improvement without compromising runtime performance.
- **Memory leak detector.** Quickly identifies memory leaks through an intuitive and powerful tool with near-zero performance overhead.
- **Latency analyzer.** Analyzes and resolves sources of application latency in nanoseconds, in production environments.

Oracle WebLogic Real Time

Oracle WebLogic Real Time is the version of Oracle JRockit Real Time offered exclusively with Oracle WebLogic Suite. It is targeted specifically toward Java Platform, Enterprise Edition applications demanding predictable latency performance on the order of milliseconds.

Is Oracle JRockit Real Time Right for Your Company?

Oracle JRockit Real Time is designed for organizations looking for extreme and predictable latency performance in Java. In the financial services industry, for example, Oracle JRockit Real Time allows you to capitalize on arbitrage opportunities that exist in millisecond or microsecond windows. Oracle JRockit Real

RELATED PRODUCTS

For organizations interested in decreasing total cost of ownership and maximizing predictability, Oracle JRockit Real Time is the only choice. Its unique architecture provides high performance and innovative, nonintrusive management tools that propel Java applications to new heights.

RELATED PRODUCTS:

- Oracle JRockit Mission Control
- Oracle WebLogic Real Time

Time improves network management in the telecommunications industry, and allows autonomic, real-time, instantaneous response to multiple player actions for online gaming companies. If your IT managers require real-time alerts and event detection, or if they need to decipher impending downstream system failures to maintain near-perfect system performance, then Oracle JRockit Real Time is right for your company.

Supported Platforms

Oracle JRockit Real Time delivers a new level of performance for Java applications at significantly lower costs. Supported platforms include

- Oracle Enterprise Linux (32- and 64-bit x86)
- Novell SUSE Linux (32- and 64-bit x86)
- Red Hat Enterprise Linux (32- and 64-bit x86)
- Red Flag AS Linux (32- and 64-bit x86)
- Microsoft Windows (32- and 64-bit x86)
- Sun Solaris (SPARC)

Contact Us

For more information about how your organization can leverage the power of Oracle JRockit Real Time, please visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

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