Supercharge Java-Based SaaS Applications with the Zing™ JVM

Improve scalability and performance while reducing costs and downtime with advanced JVM technology from Azul Systems

SaaS Needs Unlimited Application Scalability

Java-based applications are the lifeblood for many SaaS providers. Every day customers rely on your services to run their businesses – hiring, managing, providing great customer service, reducing costs and meeting regulatory requirements. However, conventional Java Virtual Machines (JVMs) were never designed for the demands of high performance, multitenant SaaS applications. They are limited in the amount of heap memory they can use without long garbage collection (GC) pauses and can't grow and shrink elastically to handle unpredictable loads. As a result, conventional JVMs can limit the scalability of your SaaS application.

Multitenancy Requires Infrastructure Elasticity

Multitenant applications have requirements above and beyond those deployed as single tenant. Depending on your SaaS model, customers can be using a single, large app with multiple accounts, or a more separate instance dedicated to their needs and customization. In either case, SaaS providers must try to keep one customer's unexpected demand from impacting other customers on the same hardware. Traditional JVMs are bad at this. They rigidly limit

resource usage and can suffer 'out of memory' errors if load increases too quickly. What is needed is a Java infrastructure that can grow and shrink the resources available to an application instance elastically to handle peak loads without impacting other customers.

Introducing the Azul Zing™ JVM

Azul Systems, the leader in Java runtime innovation, has taken its proven technology and made it available as a software-only solution – the Zing JVM and elastic runtime. Zing eliminates current scalability limitations of Java-based SaaS applications and provides the elasticity needed in multitenant environments. It is a highly innovative Java infrastructure that provides guaranteed predictability, even under unpredictable load.

The Zing JVM provides better consistency, availability, scalability and sustained throughput than conventional JVMs. As SaaS companies wrestle with the competing demands of rapid growth and lower costs, Zing bridges the gap. Zing allows SaaS applications to scale to meet business goals and usage growth while keeping costs low.

BENEFITS OF THE AZUL ZING JVM FOR SAAS

- **Meet the demands of Global enterprises** deliver SaaS outside the SMB market
- **Eliminate GC pauses** even while using large heaps
- **Deliver stable and consistent response times under load** without constant tuning
- **Capitalize on elastic memory** grow and shrink resource usage on-demand, avoid 'out of memory' crashes
- **Streamline operations** Zing makes systems easier to manage, with fewer, larger, elastic instances
- **Speed time to market** with minimal tuning needs
- **Utilize cost-effective x86 hardware** with no porting
- **Proven scalability and performance** production success at industry-leading SaaS applications

Benefits

With the Zing JVM and elastic runtime, SaaS applications enjoy consistently fast response times, improved service availability and a better overall user experience, even under unpredictable loads. Zing is 100% Java-compatible, easy to deploy, requires no changes to your application, and supports multiple deployment topologies giving you wide flexibility.

Zing is more than just another JVM. It also includes a production monitoring and management platform. The Zing Vision tool reduces production issue resolution time by fully instrumenting the JVM to help pinpoint issues on running systems. The platform's Web-based management tool allows you to manage multiple Java instances from a single console.

Zing: The Best JVM for SaaS

The Azul Zing JVM makes your SaaS applications run better — more scalable, reliable and consistent — even under unpredictable loads. With Zing, you deploy just a few large, elastic instances in your multitenant environment. Each instance can grow and shrink resource usage on demand for better reliability and consistent performance. Zing also reduces operational costs and complexity and largely eliminates tuning for fast time to market.

Get Started Today

Consistently fast response times and unshakable reliability create a great user experience that increases revenue and lowers costs. With a robust, scalable Java infrastructure based on the Zing JVM, you'll be able to handle usage growth and unexpected peak loads seamlessly.

CUSTOMER SUCCESS

DC123

Problem:
Current JVM was not able to support projected transaction load.

Solution:

Azul Zing JVM

"We developed a highly scalable SaaS-based recruiting management application that had to be responsive, even under load. Only the Zing JVM allowed us to load more tenants onto a server than what HotSpot could support and Zing also kept response times consistent. Now we have confidence that our systems can scale appropriately without breaking a sweat."

Adam Crow, *Technical Director, DC123 Pty Ltd*

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To get started,
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