



# Supercharge Java-Based SaaS Applications with Zing

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

## SaaS Needs Unlimited Application Scalability

Many SaaS applications are built in Java to take advantage of its flexibility, portability and ease of development. Every day your customers rely on these Java-based 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 separate, customized instance dedicated to their needs. 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 Zing®

Azul Systems, the leader in Java runtime innovation, has taken its proven JVM technology and made it available as a software-only solution—Zing. 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.

Zing is a supercharger for SaaS deployments, providing unmatched application scalability and response time consistency. It allows companies to get more leverage out of existing systems, handling 2–3X more customers and transactions on current hardware and software. 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 ZING 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
- **Improve service delivery** eliminate pauses, stalls and jitter that impact user response times
- **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





Zing is a game-changing innovation that transforms apps to business real time and opens up new capabilities and opportunities not practical on traditional and legacy Java platforms.

### Benefits

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

Zing also includes a production monitoring platform. The Zing Vision tool reduces production issue resolution time by fully instrumenting the JVM to help pinpoint issues on running systems.

### Zing: Transform SaaS Applications for Business Real Time

Zing 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 Zing, 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

“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.”

**DC123**<sup>®</sup>

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