



## Accelerate Mission- and Business-Critical Application Performance with JBoss and Azul Systems

Improve performance at reduced cost using a highly scalable, standards-based Java infrastructure

### Government Applications Need Innovation and a Robust Java Infrastructure



Java-based applications are the key enablers of many of the Government's mission- and business-critical systems. Every day DoD and Federal civilian agencies rely on key portals and other multi-tenant platforms for situational awareness, operations support and decision support systems. These applications, which have heavy transaction loads and perform data-intensive operations, are under increased pressure to provide drastically improved functionality with greater consistency, while achieving lower TCO.

#### Conventional JVMs Have Performance and Scalability Limitations

Unfortunately, the Java Virtual Machines (JVMs)– the very bytecode engines that give Java its power and versatility– are at the root of many of the difficulties for IT. Java infrastructures haven't kept pace with the latest technology trends and advancements over the last decade. Traditional Java infrastructures are limited in a number of critical ways that prevent applications from meeting business goals.

#### Azul and JBoss Remove Barriers to Business Growth

A new approach is needed to remove these barriers and allow applications to cost-effectively meet Government's needs, one that frees Java execution from the limitations of traditional JVMs and the rigidities of standard operating systems. JBoss Enterprise Platforms and Azul have developed a certified solution that addresses these challenges and meets the needs of modern applications, a highly innovative Java infrastructure that provides guaranteed predictability even under extreme processing loads.

As Government agencies struggle to realize the benefits of new application dynamics, cost-effective x86 hardware, and to reduce time-to-launch for applications, most have quickly discovered that limitations in Java runtimes have slowed adoption and muted potential gains.

### WHY ADOPT A NEW JAVA INFRASTRUCTURE?

- **Large, flexible heaps** up to 2 TB with no GC pauses
- **Stable under heavy load** without requiring re-tuning as apps evolve
- **Efficient** fill a modern x86 server with a single instance
- **Easy to manage** zero-overhead, always-on production monitoring tools
- **Standards-based** 100% Java compatible with no code changes needed
- **Fast to market** with shortened development cycles and minimal tuning needs



## Solution: A Better Java Infrastructure

The joint solution from Red Hat and Azul embodies a new approach to Java infrastructure, one that provides immediate scalability and TCO benefits while preparing Government organizations to take on the challenges of tomorrow's mission critical objectives.

### Development Benefits

The joint solution provides a better, more efficient platform for producing accurate and actionable information faster. You choose the programming models and frameworks that best fit your needs – whether that's Spring, Struts, Google Web Toolkit, JBoss Seam or many others – for maximum flexibility and productivity. Plus, Azul's Zing™ JVM eliminates the need for most JVM tuning during staging and runtime, further reducing time to operational readiness for applications and breathing new life into legacy applications.

### Runtime Benefits

The combined Red Hat/JBoss/Azul Zing JVM infrastructure provides a markedly lower TCO today while preparing you for tomorrow's challenges. Using the Zing JVM's elastic memory model and innovative C4 (Continuously Concurrent Compacting Collector) Garbage Collector, applications enjoy consistent response times, improved service availability and a better overall user experience even under heavy load. And to prepare your Java infrastructure for future opportunities, JBoss Enterprise Middleware and Azul Zing are pre-certified and proven in production deployments.

### Summary: Modern Architecture to Accelerate Your Business

Re-platforming on JBoss Enterprise Middleware and the Azul Zing JVM provides better performance and cost savings today while positioning for the future. The certified, joint solution speeds time to market for new applications and features, improves reliability and resiliency and provides consistent response times, even under heavy loads.

### Get Started Today

Your online presence is both business and mission critical. Consistently fast response times and unshakable reliability create a great user experience that helps drive sales and lowers call center costs. With a robust, scalable infrastructure from Azul and JBoss, you can also be prepared to take advantage of future business opportunities.

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