Consistent Performance for Java-Based Online Games

Online gaming companies often experience sudden surges in usage based on promotions, reviews or new channels. If your games freeze or slow down, it’s easy for users to click away or delete your app in favor of a competitor’s. In order to capitalize on increased popularity, your games must be easy to use and can’t frustrate users with slow response times or freezes.

Online games require lots of data to be held in-memory to handle user information and game data such as cached images. As more users are added, memory requirements grow quickly. With a conventional JVM such as Oracle’s HotSpot, a larger heap means longer pauses for something your technical people call “garbage collection”. They believe this is an unfortunate fact of life with Java applications. This can cause long delays for users and can even cause the game server to freeze under load.

Azul Zing® is a JVM that meets the Java SE standard and is based on Oracle’s HotSpot. Zing is the only Java runtime that guarantees consistent response times for gaming applications, even under unexpected load. Unlike other runtimes, Zing does not pause for garbage collection.

With Zing, your game server can fully utilize all the on-board memory available without performance penalties or pauses. You can promote your games and handle sudden increases in usage without fear. Zing allows your game server to scale seamlessly to provide a great user experience and consistent game flow.

Zing requires no coding changes to your application and delivers immediate performance results out of the box with no tuning. You can even launch new features and games fast – without worrying about having to tune for performance.

Benefits of Azul Zing for Game Servers

- Deliver consistent response times and game flow – even under sudden, large increases in load
- Handle 2X to 10X more users on the same hardware – out of the box with no tuning
- Improve time to market for new games by eliminating the need for JVM tuning. Just set the memory high and go.
- Promote your games without fear that a jump in users will cause performance issues
- Support very large in-memory datasets (up to 2 TB) with pauseless execution
Solution: Azul Zing
Zing provides consistent interaction and game flow for users, reducing clickaways and uninstalls due to game freezes or unacceptable performance. Better overall performance maximizes the “stickiness” of new users when you promote your games or develop new channels.

Azul Zing: The Best Java Infrastructure for Game Servers
Zing allows your games to deliver a consistent interaction and game flow for users, even under unexpected loads. Zing’s unique ability to allow Java applications to utilize up to 2 TB of memory without performance penalty lets your games handle more users on existing hardware. Because Zing fully conforms to the Java SE specification, you can achieve these performance improvements out of the box with no tuning or coding changes required.

Java Application Performance Comparison Under Heavy Load

Zing delivers 40x lower average response time; 1000x lower worst case response time

CUSTOMER SUCCESS

Smart Bomb Interactive

Problem:
The company was facing explosive growth and having difficulty scaling to serve more concurrent players without long system pauses.

Solution:
Azul Systems Zing
“Our 6–12 year old user base loves the social aspects of our online games. With Zing, more players can interact without the risk of dropped players.”

Kris Johnson, Chief Operating Officer, Smart Bomb Interactive

Contact an Azul Java Performance specialist today:

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