# Taboola Powers Its Discovery & Advertising Platform that Serves Content to 1.4B People Each Month with Azul Platform Prime

***Reduces server footprint by 30-50%*** *and achieves unprecedented performance, stability & security.*

### Taboola: 30 Billion Recommendations Daily

An epic shift is underway in the world of Java which has forced thousands of companies to make a choice: stay with Oracle or switch? It's a critical choice because it greatly impacts both the cost and performance of any company's Java infrastructure.

Taboola is one such company that faced this choice. Taboola's content discovery platform engages customers with precision customized content. Ariel Pisetzky, as Vice President of IT, is responsible for Taboola's technical infrastructure that handles 1.4 million queries per second and serves 30 billion recommendations daily to 1.4 billion unique monthly users.

### "The server would stop responding for 15 full minutes."

*"We are a Java shop,"* says Pisetzky. *"Our core applications, our database and other smaller applications are all Java-based. Over the years, other companies that have merged into Taboola brought along their own applications which were also Java-based. We have about 8,500 servers in total, with thousands of them running Java. So we see a whole lot of impact every time we can optimize anything on the specific Java platform."*

Three years ago, Taboola was experiencing explosive growth in customer demand and, consequently, infrastructure costs. One key problem was the performance of Garbage First (G1) Garbage Collector, a GC algorithm in the Oracle HotSpot Java Virtual Machine (JVM). *"We had a few monolithic applications and we started with a back end application for our*
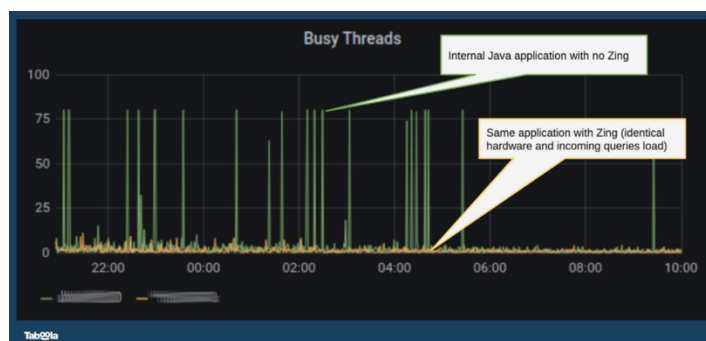
*billing processing on a single server with 1 terabyte of heap,"* says Pisetzky.

*"We had this 15-minute cycle where the server would just stop responding for 15 full minutes and would do the garbage collection, which is just the way Java works. We tried different approaches to performance-tune it: we tried to reduce our heap size, to increase our heap size, to change our cache strategies."*

> **"Wherever we have Java, we have Azul Platform Prime beneath it powering it up."**

**Ariel Pizetsky,** VP of IT,

**Taboola**

None of these efforts worked. Then he heard about Azul, the best kept secret in Java, and Azul Platform Prime, its super fast JVM with three unique performance improving innovations that start Java fast without warm up time, run Java fast without GC pauses, and keep Java running fast with a high performance just in time compiler. He decided to do a proof of concept.



### "We're achieving unobtainable technical feats with Azul Platform Prime."

*"When we tried Azul Platform Prime and saw the latency just flatten out to nothing, this was our first a-ha moment,"* says Pisetzky. *"Azul Platform Prime*

# Taboola Powers Its Discovery & Advertising Platform that Serves Content to 1.4B People Each Month with Azul Platform Prime

*performance is so superior that we're now doing things with our big data system that cannot be done without Azul Platform Prime. We can have humongous heap monoliths managed with Azul. We use Apache Cassandra, which recommends nodes with only a terabyte of data; but we're pushing nodes with 10 TBs of data densities and still achieving the performance we need. Same for NameNodes in HDFS (Hadoop Distributed File System). We re achieving unobtainable technical feats with Azul Platform Prime that you can't achieve using plain vanilla Java.*

*"That's why Azul is famous across our company," he added. "We have hundreds of developers working at Taboola, and Azul is a household name with them all, not only the version but also the flavor, because of how mission-critical it is."*

### Better performance translates into lower infrastructure costs

*"When you provide 3 billion web pages a day, you need a whole lot of servers," says Pisetzky. "The less servers you have, the better the economics work. My IT footprint has a huge impact on my hosting costs, my running costs, and my ability to serve recommendations. Azul Platform Prime performance improvements translate into huge infrastructure savings and simplification by having less servers."*

*"With Azul Platform Prime, we were able to reduce our front-end server footprint by more than 30%, which is hundreds of servers, and our database server footprint by about 50%. This translates into millions of dollars in savings, both hardware we freed up and hosting costs avoided. The ROI of the project is just self-evident."*

*"Our ability to provide services with a smaller IT footprint and to serve our clients better, faster, with fewer errors means that efficiency goes up while spending goes down. There is proven ROI for this project, and that's why we continue to deploy Azul Platform Prime everywhere we can."*

**Contact Azul**

385 Moffett Park Drive, Suite 115

Sunnyvale, CA 94089 USA

📞 +1.650.230.6500

www.azul.com