

REDUCE CLOUD COSTS AND PROTECT IP RIGHTS WITH GRAALVM NATIVE IMAGE

Enterprise Java™ applications often carry a significant footprint and tend to take several seconds to start up and several minutes to reach a stable state, which may lead to:

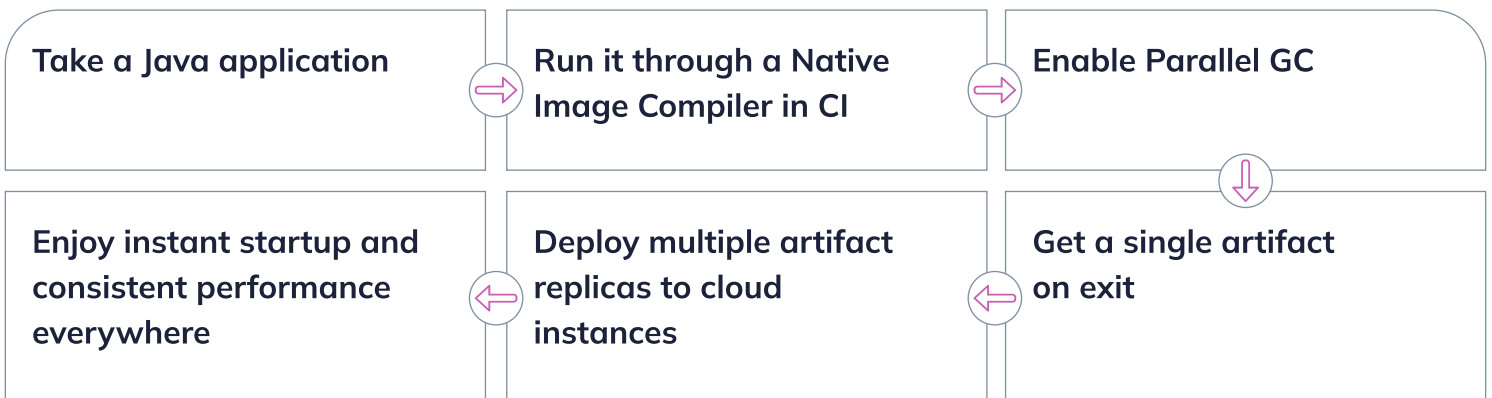
- Higher cloud costs due to larger instances;
- Inability to benefit from AWS Lambdas due to prolonged warmup times;
- User dissatisfaction owing to increased latency.

In addition, the standard Java code can be easily reverse-engineered, posing risks of IP violation in the public cloud environments.



LIBERICA NATIVE IMAGE KIT ENABLES SMALLER INSTANCES WITH INSTANT STARTUP

Liberica Native Image Kit (NIK) is a GraalVM CE-based tool for converting JVM-based applications into fully compiled native executables ahead of time, under the closed-world assumption.



SINGLE ARTIFACT: The JVM and application code are included into one executable. No need to save and deploy extra files.

Default Native Image toolchain for Spring	JavaFX and Swing compatibility	Perfect for microcontainers
---	--------------------------------	-----------------------------

REDUCED RESOURCE CONSUMPTION WITH LIBERICA NIK ON ALPAQUITA LINUX

We used a Spring Boot-based echo microservice to demonstrate the benefits of using Liberica NIK and Alpaquita Linux in terms of reduced footprint and startup.

Container + Application	Container size	Resident Set Size (RSS)	Startup time
Debian 9 + JDK 11 + JAR	240 MB	257 MB	1.75 sec
Debian 9 + native image	188 MB	77 MB	0.039 sec
Alpaquita 3.19 + native image	76 MB	71 MB	0.038 sec

HIGHER AVAILABILITY

Instances start processing requests instantly, no time is wasted on warmup.

EXTRA LAYER OF IP PROTECTION

The code of the native executable is much harder to reverse engineer, especially when run through an obfuscator before compiling a native image.

PERFECT FOR MICROCONTAINERS

BellSoft provides production-ready containers with Liberica Native Image Kit and Liberica JDK.

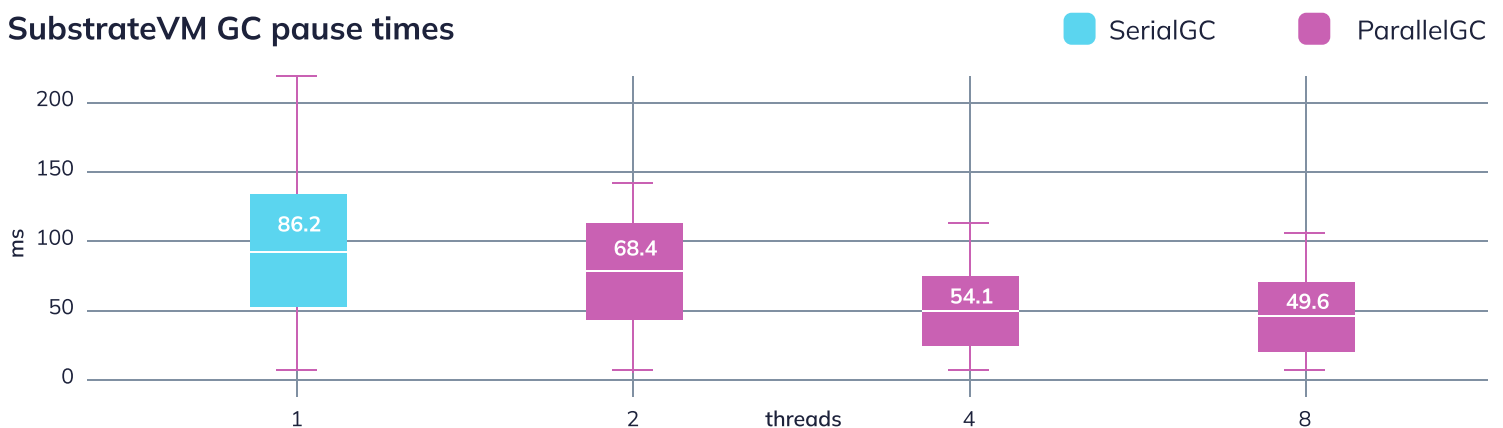
PREDICTABLE SCALING

Add instances and memory as needed, without resource under- or overutilization.

PARALLEL GC FOR SHORTER PAUSES

GraalVM Community Edition includes only Serial GC. Liberica NIK also includes Parallel GC that reduces pause times for better application efficiency.

SubstrateVM GC pause times



WANT TO FIND OUT MORE? | CONTACT US!

📍 111 North Market Street, Suite 300, San Jose, CA 95113

☎ +1 (702) 2135959

✉ info@bell-sw.com

Linux is a registered trademark of Linus Torvalds. Java, JavaFX, Java Swing are the registered trademarks of Oracle Corporation. Spring is a registered trademark of VMware. Windows, macOS, JetBrains, VMware, and other marks are the property of their respective owners.

bell-sw.com

