

Alibaba Position Statement

Why Alibaba?

Java is foundational to Alibaba. Alibaba operates Java systems at scale across its online commerce, payment, and logistics services, as well as its cloud and data platforms. Tens of thousands of developers work on over a billion lines of Java code. These systems use a broad range of Java technologies, including application servers, networking frameworks, microservices, big data and analytics platforms, and messaging infrastructure. This breadth gives Alibaba a practical perspective on the needs of Java developers, operators, cloud providers, and enterprise users. We would bring that operational perspective to the JCP Executive Committee.

Alibaba began contributing to OpenJDK in 2010 and remains active in both update releases and the mainline JDK. Our engineers' work spans HotSpot, core libraries, testing infrastructure, and serviceability. They serve the OpenJDK community in roles including Member, Reviewer, Committer, and Author. Oracle's announcements for recent Java releases have repeatedly recognized Alibaba among the organizations making notable contributions.

Hardware architecture support is an important part of these contributions. Our engineers contributed to RISC-V support in OpenJDK 11u and continue that work in the mainline JDK, including work on new vector and bit-manipulation extensions, memory-ordering optimizations and platform intrinsics. Their work extends to AArch64 and helps preserve Java's portability as cloud and data-center hardware evolves.

GraalVM is another area of contribution. Working with the GraalVM community, Alibaba helped add premain support for Java agents in GraalVM for JDK 24. This capability is a step toward improving runtime observability in production.

The rapid development of AI creates a new opportunity for Java. Qwen is Alibaba's open-source family of language and multimodal AI models and has become an important part of the global open-source AI ecosystem. We are exploring how Java can better support AI workloads by bringing together experience from Qwen, the work emerging from OpenJDK Project Babylon, and Alibaba's XuanTie C950 RISC-V server CPU. This work remains exploratory and aims to enable Java developers to express, accelerate, deploy, and observe AI workloads across heterogeneous hardware without giving up the portability and productivity of the Java platform. We hope to share relevant findings and contribute practical capabilities through the OpenJDK and broader Java communities.

Open collaboration around Java extends beyond runtime technologies. Alibaba participates in the Apache and Eclipse ecosystems and has made long-term contributions to Apache Flink, Apache Dubbo, and Apache RocketMQ. Alibaba has also contributed projects and engineering resources to the Eclipse ecosystem, including Eclipse Jifa and the Eclipse Migration Toolkit for Java (EMT4J). As a founding strategic member of the Eclipse Adoptium Working Group, Alibaba works with other members to provide developers with a vendor-neutral, high-quality, and reliable Java platform.

Community engagement also includes work with developers, universities, and user groups to share Java knowledge and engineering practices. The open-source Alibaba Java Coding Guidelines capture practical experience from large-scale software development. Through the GreenTea JUG and other community activities, Alibaba engineers share work on the JVM, middleware, application development, and emerging technologies with developers across China and East Asia. Alibaba also works with universities to help students understand Java and participate in open source.

Together, these experiences allow Alibaba to bring to the JCP Executive Committee the perspective of a large-scale Java user, cloud provider, long-standing open-source contributor, and participant in hardware and AI innovation. We look forward to working with other EC members to strengthen cross-industry collaboration and keep Java relevant and trusted for the next generation of computing.

Alibaba's JCP Representatives

Sanhong Li has been working on Java since 2004, when he began his career at Intel, working on the implementation of JSR 135. In 2010, he began working on IBM's J9 VM, where he led a project to develop multi-tenancy technology for the JVM. In 2014, he joined Alibaba to lead the development of Alibaba Dragonwell, a downstream distribution of OpenJDK. He has authored over twenty technical patents and papers in the area of managed runtimes and presented at conferences including JVMLS, JavaOne, and QCon. He is a Java Champion, co-leader of the GreenTea JUG (the largest JUG in China), Alibaba's representative on the GraalVM Project Advisory Board, and a member of the Eclipse Adoptium PMC.

Denghui Dong has been working on Java since 2015. In 2017, he joined the Alibaba JVM team, focusing on reliability, availability, and serviceability (RAS). He is an OpenJDK Committer and the project lead for Eclipse Jifa and the Eclipse Migration Toolkit for Java (EMT4J).