JAVA ON THE MAINFRAME: MEETING MODERN PERFORMANCE MONITORING CHALLENGES

The mainframe landscape is evolving rapidly, with Java® emerging as a crucial player in enterprise modernization strategies. The *2024 BMC Mainframe Survey* reveals a significant trend: approximately one-third of organizations are now writing 25 to more than 50 percent of their mainframe applications in Java, while 60 percent of respondents are writing five to 25 percent of their applications in Java.

This shift toward Java isn't just about modernization but also strategic advantage, skills management, and cost reduction.

The performance monitoring challenge

This increasing Java adoption brings new challenges. As organizations deploy more Java applications on their mainframe systems, they face a critical need: ensuring that these applications perform optimally without excessive resource consumption. While powerful for COBOL and other mainframe languages, traditional mainframe performance monitoring tools may not provide the specific insights needed for Java applications, or may require several applications to conduct comprehensive application performance monitoring, increasing the complexity and cost of the monitoring function.

Bridging the gap with BMC AMI Strobe for Java®

In response to this evolving need, BMC has introduced BMC AMI Strobe for Java®, designed to integrate seamlessly with BMC AMI Ops Monitor for Java® Environments. This solution addresses a crucial market need: providing mainframe teams with comprehensive Java performance monitoring capabilities using their familiar toolset.

What sets this solution apart is its ability to capture and present Java performance data in a way that's both comprehensive and accessible. For example, the CPU timeline report feature offers detailed visibility into application runtime behavior, allowing teams to:

- Identify and analyze CPU usage patterns
- Pinpoint performance bottlenecks in Java code
- Optimize resource utilization proactively

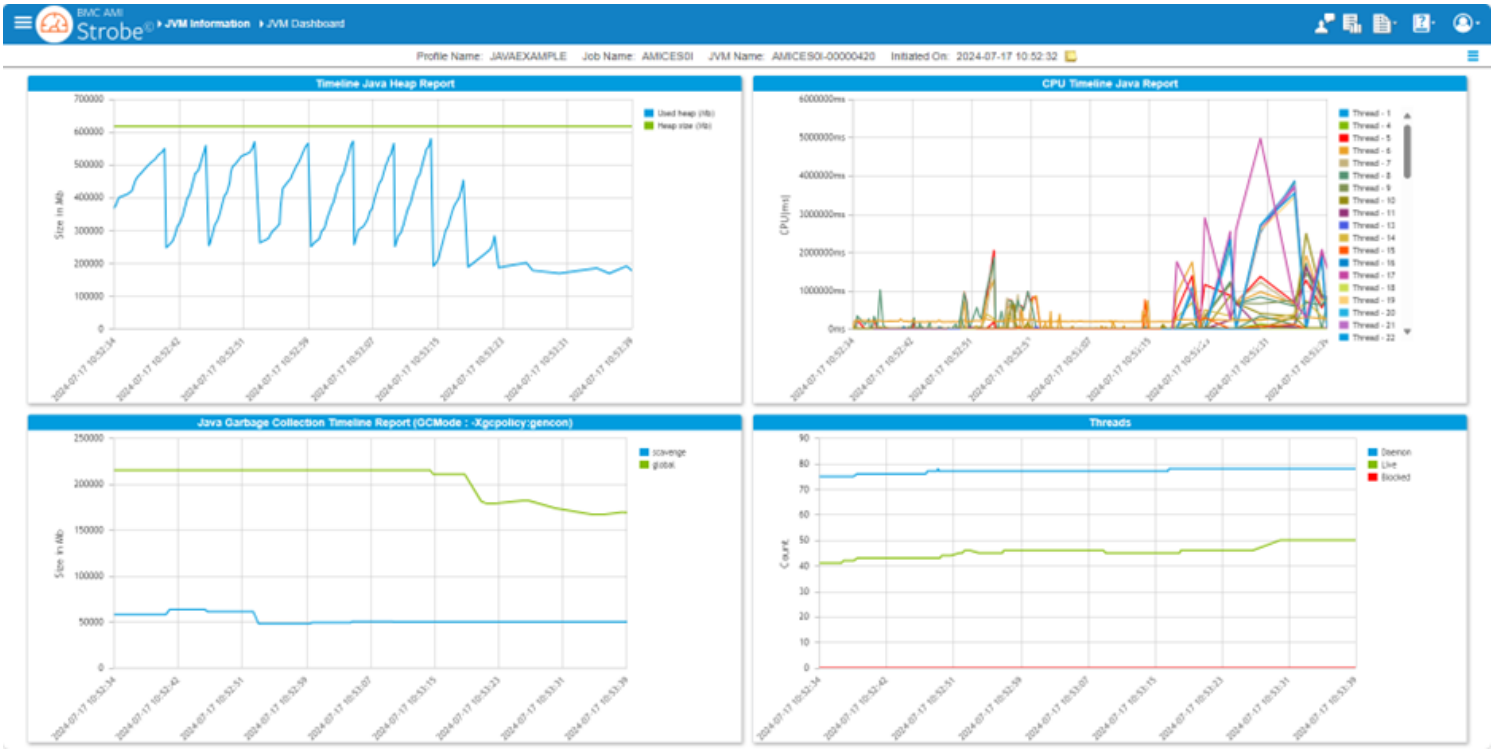

Figure 1. BMC AMI Strobe JVM Dashboard

Why this matters now

The timing of this solution is particularly relevant. As organizations continue their modernization journeys, many are rewriting existing applications in Java, with survey data showing an increase from 44 to 55 percent between 2023 and 2024, and those writing new applications in Java growing from 59 to 64 percent. This trend, combined with the cost advantages of running Java workloads on IBM® z Systems® Integrated Information Processor (zIIP) processors, makes effective performance monitoring more critical than ever.

Looking ahead

As mainframe environments evolve, the ability to effectively monitor and optimize Java application performance becomes increasingly crucial. BMC AMI Strobe for Java® represents a step forward in providing mainframe teams with the tools they need to ensure their Java applications run efficiently and reliably, supporting their modernization initiatives and operational excellence goals.