



SIFMA Case Study



User Guide

When the SIFMA Foundation needed to modernize its aging financial education platform used by thousands of students, it turned to Payara Platform Enterprise for a scalable, reliable Java-based solution that could run seamlessly on IBM Advanced Interactive eXecutive (AIX) systems. The result: boost in user capacity per machine, streamlined deployments, and the flexibility to innovate continuously. With Payara's responsive enterprise support and robust middleware technologies, SIFMA transitioned its mission-critical system to a modern architecture that is empowering the application and the organization to grow its impact, serve more students, and deploy updates confidently and efficiently.

The SIFMA Foundation, a non-profit arm of the Securities Industry and Financial Markets Association (SIFMA), has a clear mission: to educate individuals of all backgrounds on financial markets and economic principles. Through its renowned Stock Market Game™ for students grades 4-12 and related programs, the organization has reached millions, helping foster financial literacy and economic opportunity at scale.

But behind the scenes of this mission-driven effort was a decades-old technical stack: a proprietary C/C++-based middleware platform that had reached its functional and support limits.

Challenges: Scaling to Meet Growing Demand

As student participation surged and expectations around uptime and flexibility increased, the legacy system began to show its age. During peak sessions, the platform needed to support upwards of 8,000 concurrent users, yet the infrastructure was only comfortably handling 2,000-4,000 users.

The SIFMA Foundation needed a path to modernization for its application and middleware that could support Java-based architectures, integrate smoothly with AIX, and offer strong support throughout the transition.



About

The SIFMA Foundation is an educational non-profit organization dedicated to fostering knowledge and understanding of the financial markets for individuals of all backgrounds, with a focus on youth in underserved communities and students of color. Drawing on the support and expertise of the financial services industry, the SIFMA Foundation provides high-quality financial education programming that strengthens economic opportunity across communities and increases individuals' access to the benefits of the global marketplace.

Industry:

- Financial
- Trading
- Education

Location:

New York, U.S.

Software & Services:

- Payara Server Enterprise
- Java EE/Jakarta EE

Solution: Seamless Migration with Payara Platform Enterprise

After evaluating options, the SIFMA Foundation chose **Payara Platform Enterprise** to serve as the backbone of their new Java-based system.

Migrating from a monolithic C/C++ implementation to a Java-based architecture was a major lift, but Payara Platform Enterprise, which worked like an out-of-a-box solution, helped minimize any disruption while quickly delivering key modernization benefits.

Results: 20x Increase in Capacity and Accelerated Development

The impact was immediate and dramatic. After moving to Payara Platform Enterprise:

- **User capacity per machine more than doubled**, jumping from 2,000 to 5,000 while unlocking scalability opportunities.
- **Application flexibility increased**, enabling ongoing enhancements and agile bug fixes.
- **Ability to grow** the system to handle more machines and users.

Even when unexpected challenges arose, such as a silent AIX upgrade that impacted the Java environment, Payara's support team stepped in immediately to help resolve the issue.

Key Takeaways:

- **2.5x performance improvement** to support peak time usage
- **Legacy-to-Java migration** with minimal friction
- **Future-ready, scalable platform** for continued growth
- **Highly responsive enterprise support**

Payara Platform Enterprise Includes:

- Access to Customer Hub with unlimited tickets
- Full access to our growing customer knowledge base
- 10-year software lifecycle
- Access to monthly releases
- Personalized fixes
- On-boarding assistance
- Localized support provided directly by engineers
- Fully supported production binaries
- OpenJDK support
- Java EE / Jakarta EE

"Payara is relatively straightforward to learn and allows us to build applications very quickly. But more than anything, the biggest impact has been our ability to scale our operations and grow our user base. In fact, with Payara we have been able to increase the number of users that we serve (...)"

- Reid Watson, Senior Associate,
Software Developer at SIFMA
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