



Online Testing Service Adds Biometric Identification

KRYTERION

.NET
Biometric API

JNbridgepro

J2EE App
Server

Business Challenge

Add a third-party sophisticated biometric identification system provided as a .NET-based API to an online testing service that runs on an existing J2EE back-end.

Solution

Use JNBridgePro to analyze the .NET API and produce a proxy API on the Java side that could be called directly from Java.

"JNBridgePro chopped 250-300 hours out of our development cycle, so it reduced our development costs by quite a bit. Going forward, it simplifies the technical architecture. We don't have to support IIS and SOAP. In addition to the technical simplification, this will let us see savings by reducing our IT costs."

*Jeff Caddel
Technical Architect, KRYTERION*

Situation

Many industries require certification exams as conditions for hiring or promotion. Conventional delivery methods for high-stakes tests are costly and antiquated. KRYTERION is an online, secured test delivery company that combines the best practices of test design, test delivery, and test taker account management with the power of sophisticated algorithms and authentication technologies to create the most secure, accurate, convenient and cost-effective testing possible.

With the increase of test-taking fraud and cheating, KRYTERION wanted to add the latest in biometric authentication to guarantee that the person taking the test was indeed the same person that had registered for it.

Challenge

KRYTERION's core testing technology, Webassessor™, delivers tests to candidates in the field for certification, accreditation, or licensing. Webassessor is back-ended with the open-sourced Tomcat J2EE application server and MySQL.

For the next-generation release of Webassessor, KRYTERION looked for the best-of-breed biometric authentication system in order to help validate the identification of the person taking the test. The third-party application they chose uses sophisticated keystroke analysis to insure that the test taker is the same individual who registered for the test. However, this biometric authentication system was a .NET-based API, which posed the immediate problem of getting the two systems to work together.

"We first looked at SOAP for integration," said Jeff Caddel, a technical architect at KRYTERION. "We did not want to deal with the overhead and complexity of SOAP just to invoke a few methods and pass some simple data back and forth. We also tried JNI, but hit a real roadblock trying to get it to interact with the native .NET code. It couldn't do it."

About KRYTERION:

KRYTERION™ provides secure online testing solutions for professional certification exams. KRYTERION's technologies include, Webassessor™, a secured test delivery and test taker-account management system. Its leaders, Caveon, Drake International, and Cito provide extensive experience, leading edge technologies, and legacies of innovations.

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JNBridge connects Java- and .NET-based components and applications together with simple-to-use bridging tools and adapters that remove the complexities of cross-platform interoperability. JNBridge provides fast access to anything Java from anything .NET and anything .NET from anything Java, including JMS, EJBs, J2SE, J2EE, .NET APIs, WinForms, or BizTalk Server. Over 300 unique businesses in 37 countries use JNBridge's solutions for interoperability in industry applications ranging from financial services to media, manufacturing and healthcare.

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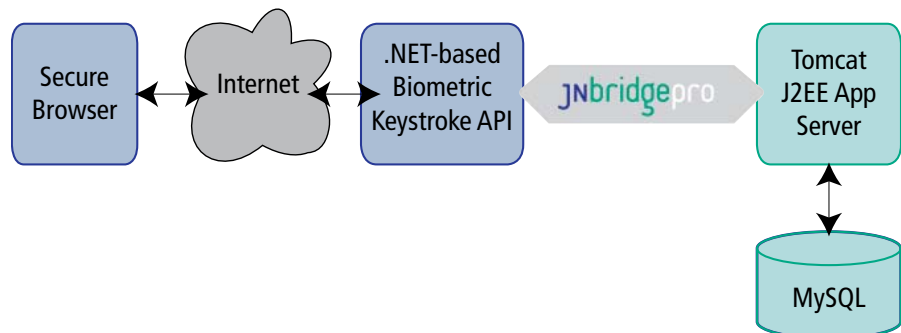
Solution

After looking around for other ways to communicate between Java and .NET, KRYTERION found JNBridge.

"Finding JNBridgePro was a real turning point in the project. It was extremely simple to use. It analyzed the .NET API, and automatically produced the equivalent Java API for us. The developers simply invoke the Java methods on the API produced by JNBridgePro and it automatically converts all the data types and handles all of the communication between the JVM and the .NET Common Language Runtime," said Caddel.

"When we did hit a snag trying to invoke one of the .NET methods, JNBridge produced a fix for us within several hours. They also wrote pseudo-code demonstrating how to make it work."

Caddel added, "We were able to successfully invoke a .NET method using Java the same day we downloaded and installed JNBridgePro. Our entire solution took a few weeks to finalize but JNBridgePro made that process much quicker and simpler."



Benefits

Using JNBridgePro provided KRYTERION with both economic and technical benefits. "Using JNBridgePro chopped 250-300 hours out of our development cycle, so it reduced our development costs by quite a bit," said Caddel. "Going forward, it simplifies the technical architecture; we don't have to support IIS and SOAP. In addition to the technical simplification, this will let us see savings by reducing our IT costs."