proKarma

Automation and Performance Testing Framework Reduces Costs and Time-to-Market

ABOUT THE CLIENT

The client partners with public and private agencies to craft public policy and administer access to programs nationwide. Based in Colorado, the client is a national leader in cost-effective administration of public programs that include public health insurance, child support enforcement, and workforce development.

BUSINESS CHALLENGE

With a focus on implementing child support and other public programs across the country, the client's business application had to accommodate the differing business rules in every state. The client's software was workflow-driven, included third-party application programming interfaces (APIs), and incorporated strict federal and state rules that changed constantly. In order to maintain the system, the client had a number of complicated test cases which the in-house technical staff applied using separate, disjointed, time-consuming tools for test automation and performance testing. The client engaged ProKarma to develop a framework for automation and performance testing that would help them achieve their business goals of:

- Reducing automation and performance testing costs.

- Improving the quality of their software.

- Reducing time-to-market for software releases.

- Incorporating changing business rules from the federal and state agencies to support the new bill passed by President Obama in February 2009, which expanded the State Children's Health Insurance Program (SCHIP) by roughly $35 billion over the following five years to provide federally funded healthcare to an estimated additional 4 million children.

THE PROKARMA TOTAL SOLUTION

Following evaluation, ProKarma customized the testing framework and applied additional logic to suit the client's requirements for faster time-to-market and varying business rules from state to state.

APPROACH

ProKarma created a time-boxed environment for tests, running test scripts as needed instead of allowing time for processes that were beyond their control. For example, when a user created a login to request child support, the verification process would take three days. To bypass this manual delay, ProKarma would reset the date and run the automation test scripts.

TECHNOLOGY

The applications were Java-based and deployed across multiple states in the form of Linux-based server farms. ProKarma customized their own Automation Testing Framework to meet the client's requirements, using ApacheJMeter and Hudson for automation testing, performance testing, and continuous integration. The solution was implemented in a Linux environment and used approximately 500 test cases.

EXPERTISE

ProKarma deployed a test architect, automation engineers, and performance specialists who worked onsite with the client's technical staff for maximum collaboration and support.

IMPLEMENTATION

The main challenge that ProKarma faced during the testing was the constantly changing business rules and fields being added during implementation by the client's technical staff. ProKarma's team continued to review federal and state policy documents during the engagement, incorporating changing artifacts from end users as they came up.

SUPPORT

ProKarma supported the client's technical staff in development, testing, and implementation, and provided coaching in Agile methodology throughout the engagement.

ABOUT PROKARMA

ProKarma delivers integrated technology and business process outsourcing solutions for over 150 global leaders in a wide range of industries and markets. ProKarma is co-headquartered in Portland, Oregon and Omaha, Nebraska, with sales and delivery centers in the United States, India, Argentina and Peru. ProKarma was selected as a Global Services 100 Provider for 2012 and ranked as the fastest growing IT services company in America by Inc. 500.