Case Study

Time Machine Helps Armed Forces Insurance Migrate from Legacy Mainframe to a Cloud-Based Core System from Guidewire - Insurance Now

About Armed Forces Insurance

Armed Forces Insurance (AFI) is the insurance company of choice for current and retired members of the uniformed services, their children, and Department of Defense civilians. Founded in 1887 by military leaders with a single mission: to protect the property of those who protect our nation, providing premium quality, competitively priced property and casualty insurance to military professionals throughout the Armed Forces. So for more than 130 years, they have provided military homeowner insurance, military renter insurance, military auto insurance and much more to their members.

AFI originally invested in Time Machine in 2006 to accelerate their testing and development of core insurance systems.

The Project and Challenge

To keep pace with advancing technologies AFI decided to migrate their existing core system, a legacy mainframe system from MicroFocus, to an AWS cloud-based system from Guidewire called Insurance Now. Core insurance systems include: Policy Admin, Claims, Billing, Reinsurance, Payables, Documents, Producers, Rating & Rules, Commissions, and Configuration.

Part of the challenge with this migration was a full suite of Integration, Functional and Regression tests had to be performed for each state, and each Line of Business (LOB), before they could go live. Many of the tests involved time-sensitive logic that is tested before they occur in real time, and require moving the date forward to the execution time to test.

The tests that needed to be performed included:

- Benefits/New Rates/Policy Expirations/Policy Adjustments/Forms/Renewals/Non-Renewals/Future Cancellations/Reserves/Adjustment/Payments/Adjuster Limits, Endorsements, Back-Dated Cancellations, Out of Sequence Transactions, Subro and Salvage.

Quote

“Using Time Machine allows us to move time to test all transaction types, regardless if they are back dated, future dated, and/or out of sequence. AFI successfully migrated 9 states into our cloud-based system and could not have done it without Time Machine. “

QA Manager - AFI
Time Machine Solution

Before using Time Machine AFI’s testing of time-sensitive logic (AKA Time-Shift Tests) was both cumbersome, and time-consuming, because their process to perform time changes involved adjusting server system clocks. Adjusting server system clocks is a slow, error-prone, and inefficient approach to performing time changes. Adjusting system clocks time-travels the entire server and all elements running on it including file time stamps which affects backups, archiving, and audit trails. It is also disruptive when testers on shared systems have to sit idle while waiting for the system to return to real time.

AFI leveraged Time Machine to optimize the time-change process. By providing virtual time to their applications under test, and not affecting the server system clock, testers were able to move their systems to the targeted time points quickly and easily. They were able to continue testing without needing to pause, shut down, and then restart their server, as required when adjusting system clocks. The result was testers completed their tests faster, test cycles shortened, and releases were accelerated.

To aid the need to perform time changes on multiple systems, in multiple environments, AFI utilized Time Machine’s Sync Server option. Time Machine with Sync Server allows AFI to synchronize time across their entire network, and broadcast testing-time points across all departments from a single location. This provided a dramatic increase in productivity and a reduction in wasted time as testers in each department no longer had to wait for system administrators to perform clock changes for them.

“Using Time Machine allows us to move time to test all transaction types, regardless if they are back dated, future dated, and/or out of sequence”. – AFI QA Manager

At the conclusion of the migration project AFI was able to complete their required testing on time, and within budget constraints.

“AFI successfully migrated 9 states into our cloud-based system and could not have done it without Time Machine.” – QA Manager