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# Reliant Powers Up Business Process Testing

by **Ken Murphy**, Features Editor

Customers of Reliant are accustomed to their retail electricity provider devising innovative ways to save them money. The “Keep Your Cash” plan, for instance, provides discounted electricity during weekend nights, while “Degrees of Difference” bestows credits for electricity used during off-peak hours. These plans are just two examples of the many customer-focused initiatives for Reliant, an NRG company based in Houston, Texas. Other customer-related efforts include providing online account management, paperless billing, auto-pay, weekly usage summary emails, and alerts for scenarios such as bill-payment reminders, when usage exceeds pre-set levels, and other important messages.

Countless business processes that help manage approximately 1.5 million customer accounts rely on robust and intricately woven SAP Customer Relationship Management (SAP CRM) and SAP for Utilities solutions. With every new project or promotion, and with mergers and acquisitions bringing other retail companies into a shared SAP ERP system, Reliant’s landscape was becoming overtaxed. With weekly process transports into production, the company found it was taking more and more time to execute manual regression testing for each critical business process.



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— **Sada Krishnan**, IT Project Manager,  
Reliant

These processes include new enrollments, service transfers, plan swaps, billing invoicing, payments, settlements, refunds, and new promotions — processes that Reliant’s customers expect to run smoothly. The acquisitions served to shorten Reliant’s already shrinking timeline because those customers would have to be onboarded onto a shared SAP ERP platform. Due to these integration projects, Reliant calculated it was spending roughly 53,000 hours annually on testing throughout its production pipeline.

This effort bled into post-production; with testing teams overloaded, some production support fell to business teams who were tasked with fixing go-live issues, which consumed valuable time and resources that would be best spent elsewhere.

“We realized that the testing effort alone was a great opportunity for improvement, and the business impact cemented that,” says Sada Krishnan, Reliant’s IT Project Manager. “Business users were more actively engaged in testing than they should have been, and we wanted to avoid that so they could use their time more productively to perform innovative work.”

### **An Automation Journey**

However, having the business users involved with testing did prove to be beneficial later on as Reliant sought their input when seeking a tool to automate some of its manual regression tests. Reliant’s stringent proof of concept (PoC) stage included providing vendors with five challenging testing situations, among them running business process scripts for SAP CRM transactions and processes in SAP Enterprise Portal and Microsoft Office. The results of this PoC tipped the decision heavily toward Worksoft Certify. (For more information about Worksoft Certify, refer to the sidebar at the end of the article.)

Says Krishnan, “A manual aggregation for that test would take roughly four hours to execute, and Worksoft’s performance time during the PoC was 17 minutes. But even more impressive than boiling everything into one end-to-end process was that the automation could seamlessly jump into different environments and platforms.”

Reliant also conducted thorough interviews with existing Worksoft customers, asking detailed questions about the platform itself and implementation timelines. A roundtable demonstration where both IT and business teams saw the product in action convinced them that it was the right tool for its complex business and system environment.

“We received a lot of positive feedback about usability and the fact that there is very little programming knowledge required,” Krishnan says. “And Worksoft Certify itself looked very familiar to everyone with similarities in appearance to a Microsoft Office application and not difficult at all to navigate.”

The business teams being tangentially involved with the testing environment made ease of use a strong requirement, and ultimately a key deciding factor in the product selection process. “We did not want this automation tool to be siloed inside our testing team,” Krishnan explains. “We wanted it to be used by the business because we saw enormous potential to encourage bottom-up innovation in the organization that goes beyond testing, bound only by the limitations of our imagination.”

## At a Glance

**Goal:** Decrease duration and cost of executing regression tests for critical business processes prior to weekly production transports, for new IT projects as well as production support issues

**Strategy:** Implemented Worksoft in December 2012 to develop a scalable test automation capability and a re-usable repository for business process validation

**Outcome:** Savings of approximately \$600,000 and more than 5,000 hours of manual testing effort within eight months of implementation in 2013, plus expected savings of more than \$2 million in 2014



# Company Snapshot

## Reliant, an NRG company

### An End-to-End Validation

For Reliant, ease of use encompassed a lot more than user experience alone; Worksoft Certify includes verification that end-to-end business processes are functioning as intended, functionality it terms Business Process Validation (BPV). This is what Krishnan refers to when he says he was impressed by how the tool can “jump into different environments and platforms.”

Reliant’s intricate SAP CRM landscape and number of mission-critical processes interwoven throughout the platform made BPV a key differentiator when choosing an automated testing tool. (Reliant identified more than 1,500 business processes that touched its SAP CRM environment.) With BPV, Reliant could guarantee that automated testing could validate a process outside of a single application, across various interfaces and applications. This would have the most direct impact on reducing the 53,000 annual testing hours.

In its former testing environment, a manual regression test script for a single application could of course verify the application’s performance, but couldn’t effectively detect bugs that might affect other applications within the process in question. Complicating matters, the person testing the next application in line would likely not know which script had been used, or what, if anything, had been fixed. Plus, programming skills were often required. Simply put, visibility suffered because as projects and mergers mounted, the landscape grew more complex. Therefore, installing stringent best practices and governance processes was an important part of Reliant’s Worksoft implementation. To do this effectively, the business started small — tackling enrollment as its first automated

**Headquarters:** Houston, Texas

**Industry:** Electricity

**Employees:** 1,000

### Company details:

- The home stadium of the NFL’s Houston Texans recently changed its name from Reliant Park to NRG Park as part of a branding strategy; sustainable energy plans for the renamed stadium include the addition of 700 solar panels, electric vehicle charging stations, and LED lighting
- Reliant’s Online Account Management features provide customers with the ability to monitor usage, set cost and usage alerts, and compare usage against nearby homes
- The Weekly Summary Email provides comparison tools for consumers to see how consumption stacks up against historical usage and also provides information on weather effects and projected bill estimates
- Elizabeth Killinger, Reliant’s president since 2012 and a 12-year veteran of the company, is listed in the 2013 “Who’s Who in Energy in Houston,” and was honored in the Houston Business Journal’s 2013 Power Book
- [www.reliant.com](http://www.reliant.com)

### SAP solutions:

- SAP for Utilities industry solution (functionality for sales and distribution, HR, warehouse management, materials management, plant maintenance, financials, controlling, and profitability analysis)
- SAP CRM
- SAP BW
- SAP SRM
- SAP BusinessObjects BI solutions
- SAP Enterprise Portal

## Spotlight on Savings in 2013

Projects	Money Saved	Time Saved
Project 1	\$82,000	608 hours
Project 2	\$147,000	1,452 hours
Additional Projects (Reuse of scripts from Project 1)	\$88,000	735 hours
Operation Updates (Reuse of scripts from Projects 1 and 2)	\$265,000	2,274 hours
<b>Total:</b>	<b>\$582,000</b>	<b>5,069 hours</b>

testing project. By focusing on best practices and governance during this initial project, Reliant sought to achieve a number of goals:

- Reduce end-to-end process creation for future projects
- Develop a common naming convention
- Increase automation re-usability
- Improve lights-out (after hours) testing capability
- Create well-defined validation points and access rules

In short, a focus on best practices and governance gave Reliant an automation development life cycle with little variation, vastly improving visibility throughout the entire testing environment.

“It’s a verification and certification process from the design phase through to the development phase,” Krishnan says. “The beauty of it is that even with no idea of what other people are doing, just by knowing best practices, I can look at a script and have a full understanding because all the validation points are well-defined. It helped us change the culture, because this is no longer confusing — there’s a detailed process that makes it easy to become part of the team and build an automation portfolio.”

Establishing an end-to-end certification process also helped with a seamless transition to building a testing center of excellence (TCoE) because, with a growing library of lights-out test processes, Reliant could then approach the business users to determine precise scheduling rule-sets, virtually eliminating the previous logjam that had occurred during weekly transports into production.

Reliant discovered that starting with a small win with enrollment and growing an automation repository that could be run for additional business processes greatly helped in achieving business buy-in. “Automated testing doesn’t suddenly take the place of manual testing; the automation is developed in parallel on top of that as part of the investment phase. So by starting small, we didn’t have to have an enormous initial budget for the implementation,” says Krishnan. “With the quick win in the pilot enrollment project, we secured additional budget resources for the other projects.”

Within eight months of its December 2012 implementation, Reliant had automated 55% of its business processes in three separate projects. After starting with enrollments, it tackled existing customer lifecycle processes for its customers, followed by online enrollments.

“Because we’re covering all of the business processes in an automated fashion, we’re finding defects that also give us a snapshot of the data that’s causing a script to fail. Because we’re now on a 24-hour testing cycle, we can isolate the cause more efficiently, which also results in cost savings.”

— Sada Krishnan, IT Project Manager, Reliant

### Big Savings in Time and Cost

Reliant calculated that it saved roughly \$600,000 and 5,100 testing hours in 2013 alone, just from those first few projects — with more than half of the total money saved (\$353,000) due to the reuse of automated tests already in development.

A big win in particular was the first conversion of customers as part of a new brand acquisition. Reliant had broken up a typical system conversion project into five parts, with regression testing planned for each phase. Prior to automating with Worksoft, Reliant had budgeted roughly two weeks of testing for each of the five conversions. With the automation, however, the entire conversion now took 12 hours, with reuse of scripts, lights-out testing, and best practices all contributing to the significant reduction in resources.

“We discovered a quality improvement as well,” says Krishnan. “Because we’re covering all of the business processes in an automated fashion, we’re finding defects that also give us a snapshot of the data that’s causing a script to fail. Because we’re now on a 24-hour testing cycle, we can isolate the cause more efficiently, which also results in cost savings.”

With validation points that isolate failures, a business system or interface can now be changed or repaired and re-tested accordingly, without recreating the entire end-to-end process. Once the automation is built, it’s reusable again and again. The resulting reduction in maintenance upkeep ensures that the TCoE operates efficiently — and the business doesn’t have any unscheduled interruptions.

For 2014, Reliant anticipates additional cost savings with 27,600 testing hours saved — potentially \$2 million or more. Its automation timeline has been accelerated due in part to a monthly Reliant user group made up of both IT and business people. “It has created a lot of exposure and helped keep the momentum going,” says Krishnan. “We’ve even seen a business group use Worksoft for their own processes,” says Krishnan. “Their automation isn’t lights-out testing capable, but it’s helping to make their day-to-day work easier. This speaks to Worksoft’s usability, and highlights the things that can be accomplished that we hadn’t anticipated.” ■

## Reliant Reduces Costs and Boosts Quality with Worksoft’s Automated Business Process Validation

SAP partner Worksoft — a global provider of business process validation software for packaged enterprise applications — ensures that business processes continue to work even when mission-critical enterprise systems change. Companies use Worksoft to replace manual processes, shorten project timelines, reduce costs, innovate faster, and improve business process quality for enterprise systems, including SAP, cloud, mobile, big data, and portal technologies.

Reliant, a North American retail electricity provider, sought a solution for automated testing of SAP and surrounding applications to improve process efficiency, accelerate throughput of changes, and validate end-to-end business processes.

“Reliant turned to Worksoft for automated business process validation to save time, improve cost efficiencies, and increase agility,” said Shoeb Javed, CTO, Worksoft. “By adopting Worksoft Certify, Reliant was able to reduce manual effort with reusable automation to enhance productivity and increase business process quality.”

The electricity retailer successfully automated the validation of over 1,500 SAP and portal business processes across several integrated applications — achieving true end-to-end business process validation. The new standardized approach enabled strong collaboration between the business and IT teams. In 2013 alone, Reliant saved approximately \$600,000 and more than 5,000 hours of manual testing effort, with even larger returns expected in 2014.

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