SambaSafety
How SambaSafety delivers customer value faster with Pivotal

Cloud-Native development brings speed and swagger to an industry pioneer

Nearly 30 percent of jobs in the U.S. require driving, according to the Bureau of Labor and Statistics. This translates to millions of people getting behind the wheel to accomplish their work, some in professions you might not associate with driving, like veterinarians, sales managers, or lawyers. It’s not surprising, then, that employers rely on driver monitoring services like SambaSafety to understand the risk profile of employees, enforce policies, and mitigate risk.

SambaSafety created the driver risk-monitoring industry over 20 years ago. Now, its continuous monitoring services cover several million subscribers. SambaSafety’s cloud-based, software-as-a-service (SaaS) offerings include real-time analytical insights that help employers make hiring decisions, provide targeted training, and address risky driving behavior. SambaSafety also provides 40–50 million driver risk assessments annually for the auto insurance industry.

"SambaSafety helps to protect our customers from hidden driver risk and America’s communities from unsafe drivers," says CEO Allison Guidette. "We’re about promoting enhanced visibility into your driver population."

“Samba has long been an agile shop, but... Pivotal kind of takes it up a notch or two. It’s allowed us to supercharge our agility.”
Allison Guidette, CEO, SambaSafety

INDUSTRY
Technology

HEADQUARTERS
Greenwood Village, CO

SOLUTION
Pivotal Labs and Pivotal Cloud Foundry

5x
Faster to production

30%
Increase in subscribers

70%
Developer time spent coding
**A commitment to improving software delivery**

When Guidette joined SambaSafety in 2018, she aimed to re-energize the culture and brand to reflect the company's innovative and pioneering spirit. "We started to talk about making sure we have the correct level of swagger...confidence, excitement, and energy that, frankly, we've earned because we're innovating every single day," she said.

One of Guidette's primary objectives was to accelerate innovation and get new features and products to market quickly. "This required us to come up with a very different approach to how we designed products, how we developed products, and how we rolled them out," recalls Guidette.

Legacy technology and multiple acquisitions contributed to a somewhat "cobbled-together" architecture, according to Pat Kemble, CTO at SambaSafety. Due to this, engineers spent too much time on maintenance activities to keep applications online in production. The product teams had big ideas but these manual, operational tasks left little time to develop product enhancements or new capabilities.

With a renewed focus on delivering value to customers quickly, SambaSafety "needed a platform that would allow us to innovate more rapidly, to prototype, and to get new features and solutions to market faster," said Rich Lacey, EVP of Product.

Shortly after starting at SambaSafety, Guidette received customer feedback asking for specific features for Samba's flagship driver monitoring platform, Driver Risk Management (DRM). Guidette and the leadership team spotted an opportunity to work with Pivotal to make significant product changes and set an aggressive deadline. The goal was to have a customer beta in five and a half months, which is "five times faster than any sizeable project we had tried in the past," says Guidette.

SambaSafety turned to Pivotal Cloud Foundry (PCF) for a cloud-native application platform. This was coupled with a Pivotal Labs engagement to kickstart an entirely new way of building software.

"Pivotal Cloud Foundry and that whole methodology and approach was the platform that we used to reimagine how we build products and shrink the timeframes to get very significant initiatives out the door," said Guidette.

**“PCF allows our engineering team to spend the vast majority of their time creating new solutions for our customers, as opposed to supporting old things.”**

Rich Lacey, EVP of Product, SambaSafety
Building software faster with test-driven development and pairing

"I'd had experience with Pivotal and the Spring framework in the past," says Kemble. "I saw a good opportunity for us to take advantage of a partner that was going to be able to help us change the culture and transform not only our product and engineering teams, but the entire organization to be more modern," he recalls.

To get the hang of cloud-native development practices and lean product management, a team from SambaSafety worked with Pivotal Labs practitioners at the Pivotal office in Denver, CO. Pivotal’s approach involves bringing together small groups of people with skills in development, design, and product management. These groups, known as balanced teams, learn to collaborate in ways that foster consistent communication and transparency in order to create a great software product.

At the start of this engagement, Pivotal practitioners helped SambaSafety’s balanced team identify and prioritize a project. Originally, SambaSafety had intended to start small, and develop new product features based on customer feedback. But in the end, they decided to “go big” and completely reimagine how they deliver their driver monitoring products.

"As we began to ideate with Pivotal on where we should start with the DRM enhancements," says Kemble, “we realized we could be far more audacious in our goals. Instead of feature enhancements on a legacy solution, we opted to build an entirely reimagined, modern platform that was going to take advantage of new capabilities and deliver it in a much more clean and cost-effective way to the customer."

SambaSafety engineers remained at Pivotal Labs for three months to hone their skills in agile, test-driven development. They worked side by side with Pivotal developers, writing code in pairs (a practice called "pairing"). The developers used Spring Boot to build a completely new version of SambaSaftey's SaaS monitoring products, integrated into a single platform called Qorta™.

"Samba has long been an agile shop, but...Pivotal kind of takes it up a notch or two," says Guidette. "It's allowed us to supercharge our agility."

After learning how to pair and follow best practices, such as Test-Driven Development, SambaSafety's software developers returned to their own office with a fresh way of working. "We saw them continue to do the pairing and the same exercises and ceremonies that we had taken from the Pivotal engagement, and so today we're still actively pairing with each other," said Kemble.

"The Pivotal process of pairing gives you two sets of eyes all the time on that code. Whether it be for bugs or whether it be for compliance reasons and holding each other accountable—it really just motivates you," says Tommy Cordova, a software engineer at SambaSafety.
SambaSafety's team quickly noticed the benefits of their new way of working combined with the automation and fast feedback loops that PCF provides. "With this process, you can focus on developing more. Especially using Pivotal Cloud Foundry, you can just deploy the app right away. So, your changes can be seen right away, verified by product [management] right away. It's really nice to use this stack of software," Cordova notes.

Flipping the focus from maintenance to creating value with PCF

Implementing PCF was a key piece of SambaSafety's strategy to increase developer productivity. "It seems counterintuitive that pair programming increases productivity, but it does. Pivotal Cloud Foundry allowed us to take the effort we were focused on from a production monitoring and operational standpoint and leverage those resources to build new capabilities, increase the value of our product, and do that in a much more time-effective way," says Kemble.

"Prior to the Pivotal Cloud Foundry platform, we were spending 50 percent of our time on production maintenance," Kemble recalls. "Now we're spending 70 percent of our time on customer value."

The product and engineering teams are happy with PCF—particularly the reliability and automation it provides for security patching. "As a product team, you want to build software that provides high-value solutions to customers. Every minute you spend supporting infrastructure, patching services, or fixing bugs takes away from this mission. PCF allows our engineering team to spend the vast majority of their time creating new solutions for our customers, as opposed to supporting old things," says Lacey.

When choosing application platforms, a key requirement was compatibility and ease of integration with Amazon Web Services (AWS). Using the PCF Service Broker for AWS, SambaSafety's PCF applications easily connect to services such as Amazon Relational Database Service (RDS) and Amazon Simple Queue Service (SQS). "SambaSafety is a cloud-based business that relies on AWS. That has been a great solution for us," says Guidette. "PCF made it easy for SambaSafety to expand on the value of our investment in AWS and remove redundant capabilities, remove unnecessary waste, and really hone in on the most effective and most efficient platform we're able to develop on," Kemble notes.

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Patrick Kemble, CTO, SambaSafety
Building a sustainable competitive advantage with modern tools and processes
The teams at SambaSafety were initially skeptical that they'd be able to deliver a complete redesign of their flagship monitoring platform in just five months. But with help from Pivotal, they met their goal and released a beta five months after the start of the engagement with Pivotal Labs. And they've kept up the pace of software releases ever since. "We've been able to change our product delivery from once every five years to once every month," says Lacey.

“When we hit our first significant release milestone and were able to show it to our employees and customers, there was universal excitement. It's a beautiful user experience that addressed, even in that very early iteration, so many of the features that our customers had been requesting for years," Lacey says.

"It's easy to have swagger about the Qorta product," he says. "It's a simplified yet super high-functioning product that takes full advantage of Samba's legacy expertise and presents data and insights to customers in fresh, new ways. I think the organization is walking a lot taller since the launch of Qorta.”

Fast forward to today: Qorta is the single platform for all of SambaSafety's monitoring solutions. The Qorta platform allows SambaSafety to bring new capabilities and data to market rapidly. They can also integrate past and future acquisitions into a single platform of solutions, providing a better customer experience. Samba has already launched several newly designed solutions within Qorta: Q License provides driver monitoring via motor vehicle reports (MVR) and Q Transportation brings together MVR data with compliance, safety, and accountability (CSA) data for the regulated driving industry. Looking ahead, the company has a robust plan for new Qorta modules.

"Customers that have migrated from the legacy system [give us] raves. They're very excited about it, they comment about how easy it is to use. New customer trainings have gone from one hour to 10 minutes for almost all customers," Kemble says. “The enthusiasm of Samba's customers is reflected in a 30% increase in the number of monitored drivers and we are now on track to double our total monitored drivers by the end of 2019.”

"The processes we've gained through the engagement with Pivotal Labs and our project for Qorta has allowed us to really start to get better at customer engagement, customer feedback, and do that in a much more iterative and shorter timeframe. So now we’re able to get that feedback, turn that around, and give that visibility to those customers in months or weeks. Not years or decades,” says Kemble.
Reflecting on the partnership with Pivotal, Guidette said, "Our product and engineering group is energized by the partnerships that they had with Pivotal and the methodologies and techniques and also the technologies that the partnership brought to Samba. It's allowed us to effectively recruit some superb talent. It allowed us to increase the productivity of existing excellent engineers and just generally drove a lot of excitement, enthusiasm and confidence in the project."

When asked, Guidette offered words of advice to CEOs facing changes in technology strategy and digital transformation: "Set ambitious goals that aren't restricted by legacy limitations of the business. There are great partners out there like Pivotal...that can allow you to deliver different kinds of results than you may have had in the past."

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