Blue Cross and Blue Shield NC transforms service focus with Red Hat

BlueCross BlueShield of North Carolina

Software

Red Hat® OpenShift®

Red Hat Ansible® Automation Platform

Red Hat Enterprise Linux®

Red Hat Satellite (now Red Hat Smart Management)

Services

Red Hat Technical Account Manager (TAM)

Red Hat Consulting

Red Hat Open Innovation Labs

Red Hat Training

Blue Cross and Blue Shield of North Carolina is working to make health care better, simpler, and more affordable. To achieve this vision, it shifted to an in-house IT approach to create an automated, adaptable IT environment using container and automation technology from Red Hat. With guidance and training from Red Hat's technology experts, Blue Cross NC has improved its efficiency and provisioning-related costs. In just two years, the insurance provider has saved more than US$850,000 and 70,000 work hours.

Durham, North Carolina, United States ●

Headquarters

"*In the first two years alone, we executed 200,000 Ansible Playbooks and saved an estimated 70,000 hours of work.*"

Petar Bojovic
Director of Technology Infrastructure,
Blue Cross NC

Insurance

4,900 employees

Benefits

• Created in-house IT team to replace costly externally managed service

• Saved 70,000 work hours by automating VM provisioning

• Established organization-wide focus on agility

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Supporting high-quality care and digital services with responsive IT

Health insurer Blue Cross and Blue Shield of North Carolina focuses on improving the health and well-being of its customers and communities through continuous improvement.

"We want healthcare service providers to be paid based on patient outcomes, not the amount or type of services delivered," said Petar Bojovic, Director of Technology Infrastructure, Blue Cross NC. "This approach means changing our entire delivery model to focus on making data-led decisions."

To support this shift with better control and responsiveness, Blue Cross NC sought to shift to platform-agnostic operations in a public cloud application environment with reusable resources and efficient, automated processes. Working with a managed service from an external provider had created delays, lacked visibility, and increased costs.

"In a digital, mobile, self-service world, we wanted to find ways for IT to deliver and add business value faster," said Bojovic. "For instance, the more we automate, the more value—and competitive advantage—we can build."

Building a container-based environment with Red Hat software and services

An engagement with Red Hat Open Innovation Labs helped Blue Cross NC find the right architecture and approaches to meet its IT performance needs—including focusing on in-house IT solutions for greater control.

The insurer's new environment is based on Red Hat OpenShift, running on Red Hat Enterprise Linux. This Kubernetes container platform provides automation capabilities and a consistent application foundation across on-premise, cloud, and hybrid infrastructure.

"Our choice of Red Hat OpenShift is recognition of the importance of containers and the need to operate in a hybrid world," said Bojovic. "It provides workload mobility, so any one of our apps can run anywhere, regardless of the underlying architecture. Choosing Red Hat's enterprise open source technology also helps us avoid vendor lock-in."

Blue Cross NC also deployed Red Hat Ansible Automation Platform to enhance OpenShift's automation capabilities with human-readable playbooks. Red Hat Smart Management provides comprehensive management of the insurance provider's new environment, including version control, security, and compliance.

With OpenShift deployment assistance from a Red Hat Technical Account Manager (TAM), as well as guidance and training from Red Hat Consulting and Red Hat Training, Blue Cross NC has now deployed 110 applications to production, including its member services site, BlueConnect. An additional 140 non-production applications, such as application programming interface (API) and content management platforms, have also been migrated to the insurance provider's new container-based environment.

"We've reset our IT by going from a physical environment to being completely virtualized, from deploying the infrastructure to migrating over 100 services to containers, in less than three years," said Bojovic.

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>
> **Petar Bojovic**
> Director of Technology Infrastructure,
> Blue Cross NC

Transitioning to a digital experience with efficient, in-house workflows

Created in-house IT team with expert support and training

Its adoption of Red Hat technology, supported by experienced technology specialists, has helped Blue Cross NC replace its managed service provider with in-house IT talent. Red Hat Consulting and the insurance provider's Red Hat TAM have provided ongoing support, enhanced by Red Hat Training on container and automation technology. Additionally, the company continued to work with Open Innovation Labs to learn best practices for configuring its OpenShift environment.

"When you're working in the health insurance industry, stability and security are just as important as innovation. When we were able to recruit a team with the right skills and attitude, Red Hat helped them build their knowledge to make the most of our technology investment," said Bojovic.

Saved 70,000 work hours by automating VM provisioning

Previously, provisioning a single virtual machine (VM) or server took Blue Cross NC more than 20 hours of work—equating to ten working days—and incurred charges from its managed service provider. With Red Hat Ansible Automation Platform, Blue Cross NC can complete the provisioning work in just 30 minutes—and at no additional cost.

For example, when Blue Cross NC recently needed 1,000 VMs as quickly as possible to support rehosting of its core claims adjudication and payer administration platform, one IT service provider's proposal required 16 weeks and 12 dedicated staff members to meet the demand. With Red Hat OpenShift and Ansible Automation Platform, Blue Cross NC completed the work in house in less than 3 days, saving more than US$850,000.

"By automating complex, repetitive tasks with Ansible Automation Platform, we're demonstrating how IT can create business value through cost-effective, consistent, and efficient work," said Bojovic. "In the first two years alone, we executed 200,000 Ansible Playbooks and saved an estimated 70,000 hours of work. At a staff payment rate of, say, US$50 or $75 per hour, we've avoided a massive cost."

Improved cross-team agility with new strategic approach

Adopting automation and container technology has also positively affected Blue Cross NC's organizational culture. With fewer repetitive, routine tasks to complete, teams are focusing on innovative, dynamic projects.

Faster delivery of these projects has also bolstered alignment between development, operations, and business teams at the insurance provider.

"Our new strategy has worked because it's been adopted broadly. Automation is not just the job of one team but open to many users," said Bojovic. "By going from a traditional waterfall approach to something closer to continuous delivery, we're making changes faster to meet internal and customer demands faster and more effectively."

Expanding automation innovation across the business

As more teams continue to take advantage of Red Hat technology to find new opportunities to innovate, Blue Cross NC plans to focus on improving stability while reducing IT complexity.

"We have a mix of custom and off-the-shelf products, including some cloud-native technology," said Bojovic. "The challenge is to make sure the ecosystem is working well while also replacing outdated solutions. To that end, we're planning to deploy Red Hat OpenShift on AWS [Amazon Web Services] to gain the ability to truly code once and run anywhere."

Blue Cross NC is also examining potential adoption of other Red Hat and open source technology, such as Red Hat JBoss® Enterprise Application Platform, Apache Kafka, Quarkus—natively integrated with Red Hat OpenShift—and OpenJDK, to continue enhancing the infrastructure supporting its digital services and patient-focused approach.

"We want to expand automation beyond infrastructure to other areas of our stack, from middleware to administration of ServiceNow IT Service Management (ITSM). Anywhere there's an event or task that occurs more than once a week, we'll look to automate," said Bojovic. "The benefit of continuing to work closely with Red Hat is that we can move quickly once we've established the right direction. We've given the entire business a platform for change."

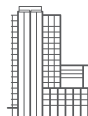## About Blue Cross and Blue Shield of North Carolina

Blue Cross and Blue Shield of North Carolina (Blue Cross NC) is committed to making health care better, simpler, and more affordable. Blue Cross NC serves its customers and communities of more than 3.8 million members, including approximately 1.1 million on behalf of other Blue Plans. Blue Cross NC is an independent licensee of the Blue Cross and Blue Shield Association. bluecrossnc.com

Innovation is the core of open source. Red Hat customers use open source technologies to change not only their own organizations, but also entire industries and markets. Red Hat Innovators in the Open proudly showcases how our customers use enterprise open source solutions to solve their toughest business challenges. Want to share your story? Learn more.

About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.