Health insurers must provide fast service for their employees, customers and providers, especially during peak demand periods such as open enrollment.

Yet, in an era of rising healthcare costs, they cannot afford to maintain expensive on-premises hardware that sits idle during slow periods.

Cognizant is saving a health insurer $400,000 a year by moving 18 business-critical applications from its legacy infrastructure to the Pivotal Cloud Foundry (PCF) platform. The migration, which took only five months, is also reducing application failures while helping the insurer move to a DevOps development model which will speed applications to production more quickly.

The applications, which include those serving retail customers, healthcare providers and employees who generate price quotes for new customers, experience severe swings in demand, with as much as 80 percent of the load occurring during open enrollment periods.

Operational costs in the legacy environment were inflated by the fact that maintenance activities such as restarts and upgrades had to be carried out by the insurer’s own staff, a workload the new environment will reduce significantly.

**AT A GLANCE**

A major health insurer needed to assure the performance of key customer-facing applications that experienced sharp swings in demand while reducing IT infrastructure costs.

Cognizant migrated 18 critical applications from the insurer’s legacy environment to the Pivotal Cloud Foundry platform, managing every step from analysis, design and remediation to application release and program planning and management.

**OUTCOMES**

- Savings of $400,000 per year.
- Up to 50 percent improvement in application performance.
- Code delivered every week rather than every month.
- Fewer application errors.
- Increased developer productivity, simplified infrastructure management.
Disaster recovery could take as long as six hours for some applications because the DR environment was in a separate location.

In partnership with Pivotal, we conducted a Dojo (a group exercise that educates the customer’s staff on the Pivotal open source cloud native platform) to demonstrate the benefits of the migration. Cognizant then performed the analysis, design and remediation, integration, validation and release of applications to PCF, as well as program planning and management.

We moved the insurer from a sequential, waterfall development methodology to agile, lean development using pods (self-organized, autonomous teams) to make the most of each member’s skills, and built quality into the software with practices such as:

- Continuous integration, which merges each developer’s code into a single branch multiple times a day to reduce the risk of deferred integration issues.

- Test-driven development, in which developers begin their work by creating tests, observing failures of the rest, and writing only the code needed to pass the test, or by converting story and feature acceptance criteria into automated acceptance tests which are performed continuously to ensure quality at each stage of development.

- Refactoring, which restructures code to eliminate previously known defects.

**BETTER PERFORMANCE, LOWER COST**

The move to the Pivotal cloud platform not only dramatically reduced the insurer’s infrastructure costs, but increased throughput on some applications by as much as 50 percent. The use of technologies such as auto scaling, and the ability to dynamically reallocate resources among applications in the shared PCF environment, reduces the required footprint while ensuring dramatic performance increases even for applications processing extremely large data sets with search results containing millions of records.

The migration also eliminated the need for downtime due to upgrades or refreshes, simplified management because all such work can be done within PCF, and reduced application error rates for migrated applications from two percent in the legacy environment to less than .0001 percent.

The implementation of DevOps and a microservices architecture, which breaks applications into reusable services, helped the insurer move from monthly to weekly code releases, while use of the New Relic performance monitoring and management tool helped uncover patterns and resolve issues at a transaction level. Developer productivity has already improved as the insurer moves from its previous waterfall model to more modern methods such as Agile and DevOps.

**ABOUT COGNIZANT**

Cognizant (Nasdaq-100: CTSH) is one of the world’s leading professional services companies, transforming clients’ business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 205 on the Fortune 500 and is consistently listed among the most admired companies in the world. Learn how Cognizant helps clients lead with digital at www.cognizant.com or follow us @Cognizant.