TVS Next Works with Red Hat to Improve Processing Time for for a Multinational Oil and Gas Corporation

Our client is one of the world's largest publicly traded energy providers and chemical manufacturers. They develop and apply modern technologies to help safely and responsibly meet the growing demand for energy and chemical products. The client spends billions of dollars on research and development in exploration strategies, biofuels, natural gas, fuel cells, and carbon capture, among many other areas. Incredibly complex scientific challenges require tremendous computing resources to manage, manipulate and analyze large amounts of data. Improving efficiency in how the company crunches data could lead to quicker discoveries that not only help the company but also help the environment and the planet.


How Did It All Start

When the client's scientists run simulations, experiments, and data analysis projects, it often required the use of disparate servers in different locations with varied configurations. Programmers were required to intervene to ensure that processes were properly configured, and in many cases, it took days for new programs and models to run. TVS Next worked in close collaboration with Red Hat to assist the client in developing and improving some of its key data processing challenges.

What Did We Do

The client and Red Hat executives knew that cloud-based solutions, implemented properly, could dramatically improve turnaround times – and Red Hat OpenShift was the perfect solution. The container technology enables applications to be deployed and tested quickly in different environments, using the power of the cloud. TVS Next used Red Hat technology and developed the appropriate scripts and coding to enable the client's data scientists to deploy and test their applications quickly and easily in a cloud environment.

The process was automated using continuous integration and continuous deployment (CI/CD) concepts to meet the immediate business needs. Even with enormous data sets, implementation was easier due to the cloud configuration. TVS Next created scripts within OpenShift to essentially remove the human element which often slowed down the process. Using scripts and APIs, the turnaround time for many applications was reduced from more than 24 hours to about 30 minutes. Data applications can now be tested and run in a much faster and more efficient manner.

User Journey
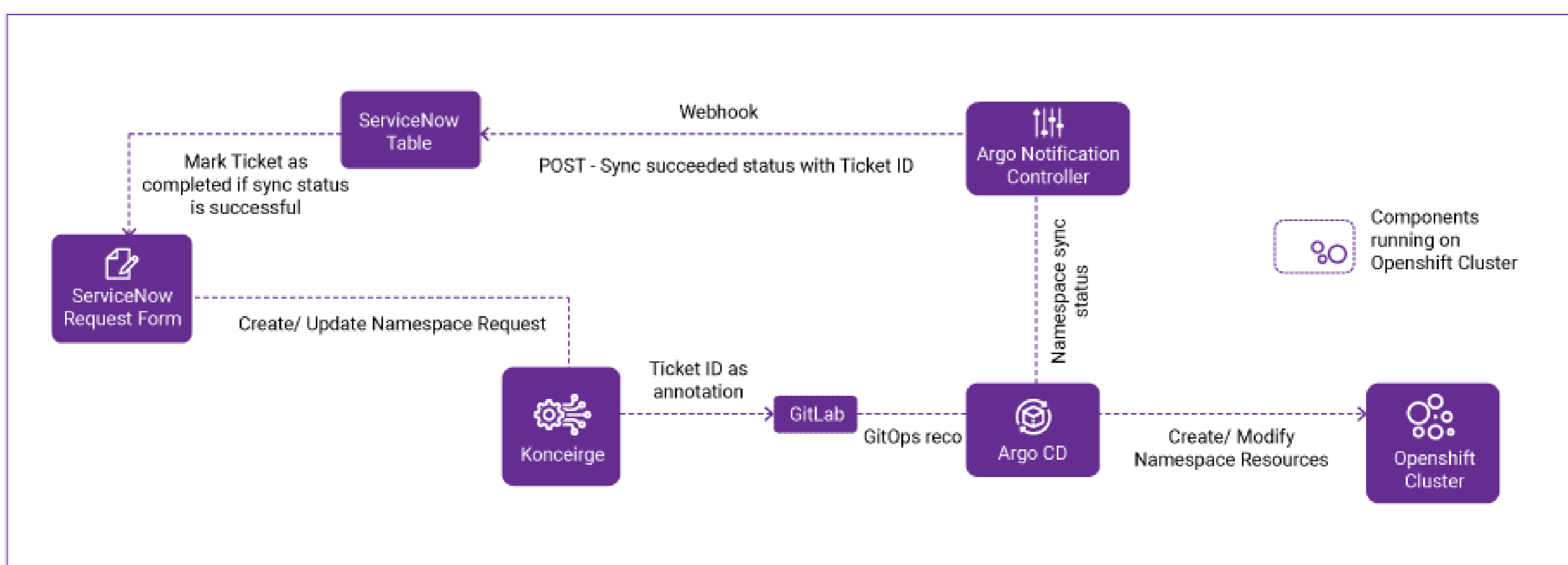
The Business Outcome

In collaboration with TVS Next, the client has gone through a transformation, changing how its scientists work together. The company is teaching its employees modern software development practices like CI/CD to help them innovate faster. The client can now iterate more quickly, share proofs of concept faster, and accelerate time to deliver on its projects.