

Case Study: Application Modernization for Cloud

GCP/AWS/Azure, React, Java, NoSQL, Docker/Kubernetes



PROJECT BACKGROUND:

Our client, one of the world's leading teaching and research institutions, receives funding through grant opportunities. Spending of funds received from grants must be tracked and reported with extreme accuracy. Failure to do so jeopardizes the flow of funds across the enterprise and the receipt of future grants. The commitment tracking process, therefore, is integral to managing & retaining funding and is hyper-critical to their business.

THE CHALLENGE:

Our client was using a legacy Microsoft Access based application to track funding commitments. Data was curated manually from several external systems and imported into the database. This process was time consuming and prone to errors leaving our client open to failure to deliver accurate reports according to strict deadlines. The processes and supporting system needed to be re-designed and modernized to fit our client's needs from the ground up.

OUR SOLUTION:

Vertisystem architected and built a new cloud-based application to replace the existing MS-Access application. Functionality was expanded to include more commitment types, provide greater ability to track and report on commitments and automate integration of data from multiple sources providing a single-source of information for all of the organizations funding commitments.

The new application is a web-based application deployed in the cloud and based upon the following technologies:

- ReactJS; HTML; CSS; Angular
- JAVA 11; Spring Boot; Python; SQL; API-Driven; Sonar Qube
- PostgreSQL; Oracle; MYSQL
- Source Clear / OAuth/ SAML/Discovery Page
- Google Cloud Platform; AWS; Azure
- Big Query; CloudSQL
- Google StackDriver/Kubernetes; Docker
- Google Compute Engine (GCE); Google Cloud Storage (GCS); Google AppEngine (GAE)
- AWS EC2 S3; MSFT Azure; Google Fire Base















BUSINESS RESULTS:

Our client is able to better manage their commitments, total dollar value, distribution and tracking of funds across multiple organizations. The new application allows our client to manage distribution & monitoring of spend, provides much improved confidence in accuracy of data. Improved insight to data drives better faster decision making and forecasting of future funding needs.

- Highly accurate and timely tracking of funding through the entire process from submittal of requests through approval and required monthly reporting.
- A single point of access to fully manage, review and report on all of their commitments across the entire enterprise.
- Elimination of time-consuming and error-prone manual data collection and entry processes.
- Automated integration of data from across multiple systems & sources in both batch and real-time
- Real-time insights into data including many new dashboards and reporting capabilities at the stroke of a mouse.