SAS IN THE CLOUD

Integrating SAS analytics with AWS cloud solutions, Butterfly Data delivered a key analytical platform to a major public sector client.

AT A GLANCE

Facts

- Large amounts of private data are kept by the customer in highly restricted environments.
- Butterfly Data was in charge of delivering a clustered SAS platform to support 5 business functions and 800 users.

Tools

- AWS public cloud
- SAS Viya
- API's & Integrations

CHALLENGES

The client needed SAS Viya and SAS 9.4 setup on AWS and chose a multi-deployment architecture (rather than multi-tenant SAS Grid). To enable Development, Test, Pre-Production, and Production, multiple SAS environments were necessary. Large amounts of private data are kept by the customer in highly restricted environments. SAS required safe integration with a variety of current data sources (including cloud, on-premise, and legacy data warehouses). The user community is geographically dispersed, with variable SAS experience and adaptability.

OBJECTIVES

Butterfly Data was in charge of delivering a clustered SAS platform to support 5 business functions and 800 users. We also demonstrated code conversion and optimization strategies, as well as new SAS tools (including SAS Viya), to guarantee that customers could rapidly see the benefits of the new platform. Maintaining frequent user interaction, criteria clarification, and training sessions resulted in the delivery of a new system that not only matched the initial needs but exceeded them, and is widely accepted by users.

SOLUTIONS

Butterfly Data took a holistic approach to the project while working in an Agile setting. Requirements were gathered from users in the business (on-premise where feasible). The Solution Architecture and SAS Administration teams then produced low level designs and reference architectures for all business operations and environments. The integration mechanism between AWS and SAS was incorporated in the implementation design. Butterfly implemented the SAS system aspects such as CAS, Visual Analytics, reference data, data security (at-rest and in-flight), data storage, secure networking, and performance scaling. The solution also included DevOps technologies such as GitLab, Artifactory, Jenkins, Ansible, Confluence, and Jira to conform to the client's enterprise deployment process.

RESULTS

We were successful in delivering a high-performance SAS analytical platform on the cloud. This was accomplished within rigorous schedules and to high standards, while adjusting to changing needs throughout the project. Time efficiencies obtained through both cloud processing and code improvement are already demonstrating operational benefits, with one example where a 90Gb, 200 million row file's processing time was cut from 2 hours to just 18 seconds. Butterfly Data placed an emphasis on user approval throughout the project, concentrating on business transformation rather than just IT change. User acceptance of the system has been high, with analysts eager to employ new Viya capabilities (such as mapping within Visual Analytics to create tangible analysis).