Delivering Rapid Insights using SAS on AWS

Butterfly Data built a scalable SAS analytics platform on AWS for a UK government agency, enabling fast, agile insights for 800+ users.

Challenge

A major UK Government agency needed a secure, robust analytical platform to support over 800 users across multiple business units. Their existing SAS environment was fragmented, with parts of it running in legacy systems. They required deployment of both SAS Viya and SAS 9.4 on Amazon Web Services (AWS), with fully separated environments for Development, Test, Pre-Production, and Production, rather than a shared grid.

They also needed to integrate with an assortment of data sources: legacy systems, cloud services, and on-premises databases. All of this had to be done in a highly regulated setting handling sensitive data, with users spread across locations and with differing levels of SAS expertise. Usability, flexibility, and scaling capacity were key requirements.

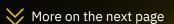
Solution

Butterfly Data adopted a holistic approach, paying attention not only to technology but also to people, process, and organisational alignment. Working in an agile way, they elicited requirements from business stakeholders and end users - both remotely and on site - to ensure the platform would meet real operational needs. They architected and deployed a platform across all environments, creating detailed low-level designs and reference architectures.

Key components implemented included:

- SAS core platform modules (CAS, Visual Analytics)
- Reference data structures
- Secure data transfer and networking setups
- Elastic scaling to allow the system to adjust resources as needed

They also embedded modern DevOps practices using tools such as GitLab, Jenkins, Artifactory, Ansible, Jira, and Confluence to ensure enterprise standard compliance, smooth deployment workflows, and maintainability.

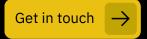




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Impact

Performance improvements were dramatic. For example, a dataset of 200 million rows (~ 90 GB) that took about two hours to process under the old setup now takes about 18 seconds. The move to AWS has brought both scalability benefits and cost efficiencies.

User engagement has also been high. Analysts were especially enthusiastic about new capabilities in SAS Viya - such as Visual Analytics and spatial mapping - which facilitate faster interpretation of results. The agile rollout strategy, involving early-user "trailblazer" groups, helped align expectations, uncover usability feedback early, and smooth out integration across the business units.



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