



Platform deployment to enhance availability, performance and scalability

Industry case study: Life Sciences

Challenges

- Centralise multiple data centres located in different countries worldwide
- Seeking improved platform availability and scalability and reduced downtime
- SAS users working globally requiring access concurrently.

Solutions

- Installation and implementation of SAS architecture comprising SAS grid
- Web-based analytics environment
- Thorough testing of the new SAS environment
- Comprehensive documentation of installation and testing.

Benefits

- New platform offering high scalability and faster analytics
- High availability design to minimise disruption
- Detailed documentation in accordance with stringent industry regulation.



Deployment and configuration of a global SAS grid platform to improve performance for SAS users worldwide.

Background

The customer, a global clinical research organisation, employs more than 300 SAS users across the globe. It has been using SAS software to support their work as a drug development consultancy for many years, analysing essential data.

Business issue

Our customer had two data centres located in disparate locations globally and several SAS teams accessing these environments. The customer wanted to consolidate its existing platforms into one Production Grid environment and one Test Grid environment, with SAS Studio being used as the primary web interface. With significant demand for its services, the customer needed an analytics solution that could adequately meet the demands of its drug development work. With drug development being the lifeblood of the business, platform availability is paramount. Other key expectations from a new solution included cost savings, optimised efficiency across SAS teams and the capacity to scale to meet demand.

Why was this required?

The Life Sciences industry is highly competitive and the process of creating new medicines (from inception to development) is a long, expensive one. As such, it is essential the process is made as efficient and accurate as possible, avoiding errors and any potential lack of clarity. Any solution must ultimately be able to improve business performance - the customer felt a new analytics solution would be best placed to empower the business.

Vision

The customer sought a new approach to its analytics that would meet its essential criteria for achieving greater efficiencies, as well as being flexible enough to meet evolving requirements. Finally, given many of their SAS users were located in different countries across the world, they wanted a solution that wouldn't require expensive client installations and regular updating.

Amadeus solution delivered

Skilled Amadeus Platform Engineers implemented a solution that corresponded to the customer's needs and expectations. This involved the installation and configuration of two SAS 9.4 Office Analytics grid environments - one Production environment consisting of 12 machines, and an Infrastructure Test environment made up of seven machines - comprising grid nodes, metadata server clusters and middle tier machines.

This solution ensured all subsequent platform amendments can be tested in the Infrastructure environment to identify any issues before they are implemented in the Production environment.

This platform utilises SAS Studio as its web-based user interface. As high availability was a key requirement, the configuration included a SAS Metadata server cluster, SAS grid technology and a highly available middle tier. This middle tier was configured with load balancing between two servers and utilised SAS Web Application Server horizontal clustering.

Throughout the platform deployment and configuration, comprehensive documentation was recorded to provide a step-by-step guide for the customer on how the platform was developed. This guide was to be used by the customer for auditing and validation processes, as well as ensuring a smooth transition to the customer's internal team of platform administrators.

On completion, the platform underwent rigorous quality assurance and resilience testing on behalf of the customer and was found to meet all goals - scalability, availability and performance.

Results

On completion, the customer immediately began utilising its brand-new platform with its grid technology to support future clinical trials. This implementation offered several key benefits:

- Sophisticated platform architecture (particularly the middle tier) minimised processing time and maximised efficiency and availability. This was further supported by the inclusion of automated failover of grid services using Enterprise Grid Orchestrator (EGO). High availability is fundamental to ongoing business success as the customer is heavily reliant on its analytics platform.
- As web-based software, SAS Studio alleviated the need for local installations. This overcame any potential complications linked to the fact the customer's SAS users are based across several different locations worldwide.
- Platform scalability - key in the face of increased workload or changes in the size of SAS teams.
- Clear documentation of the final solution in accordance with industry regulation and to enable self-sufficiency of internal teams.

Amadeus' grid installation provided a scalable, robust, available platform to optimise the customer's drug development services in an industry where efficiency and reliability are paramount.

About Amadeus Software – trusted analytics experts

Founded in 1989, Amadeus has an impressive history of supporting its customers in maximising their Return on Investment from data through the application of data analytics and data science across its key business services.



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Amadeus partners leading providers within the industry, including SAS, Microsoft and AWS, to ensure our customers receive the best solution to meet their challenges. These solutions can be across any main programming language, such as SAS, Python, R or SQL.

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