## CASE STUDY: ARRK PERFORMANCE OPTIMISES AWARD-WINNING MEMBERSHIP WEBSITE PLATFORM



Arrk Group optimised a large AWS environment to ensure best use of resources, using a variety of techniques and tools, including New Relic and Google Analytics. The demands on the service vary throughout the year, with the service needing to deal with activity spikes of 500% and 400% over normal usage conditions. A Cloud performance optimisation review was conducted to improve the effectiveness of the Cloud estate and to make best use of features.

### Key Benefits

Optimisation review followed by execution lead to more efficient use of resources Advanced use of analytical tools, including New Relic and Google Analytics



Cloud Optimisation review and execution made significant performance gains

### Customer

A Cloud-based membership website solution which requires the ability to deal with up to 1.7 million users, across over 60 individual instances. The estate is a large and complex digital product.

A flexible, customisable, feature-rich modular website, there are significant cyclical demand spikes of 500% and 400%, the Cloud infrastructure needed to scale accordingly to meet peak demand.

### Situation

Arrk instigated an Cloud Optimisation review to analyse the existing AWS environment, analysing usage and performance data to make informed recommendations to improve the performance of the Cloud infrastructure.

The product is a multi-tenanted service with individual deployments sharing the same Cloud infrastructure. Any performance optimisation improvements would therefore benefit all 60 plus deployments. The current service is available to around 1.7 million users.

# Solution

An Arrk team conducted a thorough review of the AWS estate, through intelligent and expert use of both New Relic and Google Analytics tools. New Relic helped the team identify areas that could benefit from scale and performance improvements, while Google Analytics was used to analyse user behaviours and journeys.

The resulting report was delivered to the customer's senior team and its recommendations were executed to bring significant optimisation to the Cloud deployment.

Changes to the Cloud infrastructure make best use of the intrinsic features of Cloud, such as the ability to flex and scale with demand and to ensure an efficient use of resources and therefore control infrastructure cost.

# Outcomes

Thanks to the successful review, Arrk was able to optimise the AWS deployment to best suit the specific requirements of the membership website product.

Detailed analysis highlighted areas of peak demand which allows a re-configuration of the solution to take account of these peaks and to scale performance accordingly.



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