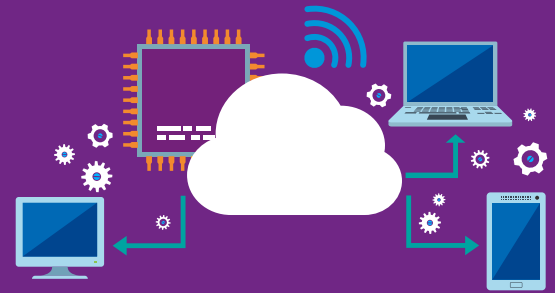




# Let the cloud bring you the power of the grid



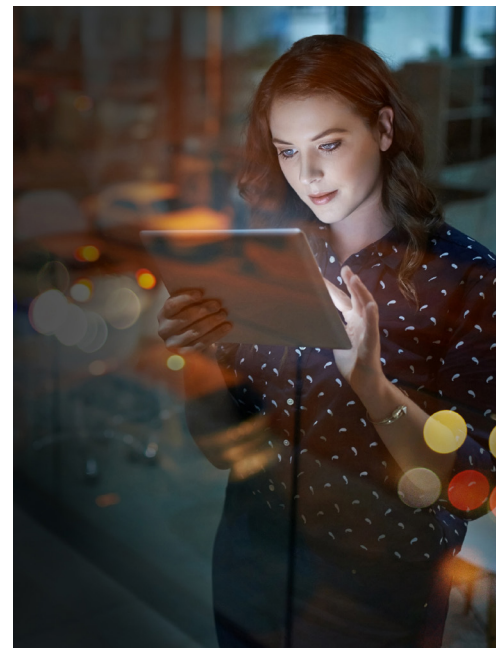
In today's data-hungry era, testing innovations can mean running complex analyses, calculations and simulations, requiring large volumes of compute, storage, memory and a high level of network performance. Organisations are spending millions of pounds investing and maintaining on-premise data centres, which more often than not are underutilised or made completely redundant. This is where Cloud technology could hold the key.

## High Performance Grid Computing

KPMG provides clients with a cloud-based grid computing service, built on Amazon Web Services (AWS). This will allow organisations the ability to analyse huge data sets for specific time periods, accessing as many resources as needed, almost instantly, and only paying for what you used.

Secure and reliable, our grid infrastructure, is ideal for firms wanting to carry out complex computing operations with limited resources. It can be scaled up or down as required, without the time and cost demands of conventional grid networks.

Leveraging KPMG's Risk Controls and Compliance framework for cloud computing, we can help clients from a wide range of environments – including highly regulated – to deploy a scalable grid computing solution on AWS cloud. The application includes financial risk assessment, architectural design, scientific and pharmaceutical research, and pre- and post-production tasks.



## Unprecedented grid performance

Our grid computing service is:



### Fast

15 times the speed of conventional grids



### Affordable

Can be up to 90% cheaper than onsite solutions, with no upfront investment or ongoing maintenance costs



### Robust

Spinning up entire solutions and capabilities through reusable scripts



### Compliant

Deployed securely on the AWS cloud, supported by KPMG's risk and control framework



## Case study

# 90% cost savings for a global bank

Financial institutions often run Monte Carlo simulations to assess credit risk. These exercises require clusters of high-performance computers with high levels of security and reliability.

For one major bank, performing such operations required two on-premise datacentres. These were expensive to run, and significantly under-utilised.

KPMG transformed the bank's Monte Carlo solution, using highly customisable and reusable scripts to guarantee up to 5000 CPU cores at peak.

As a result, tasks can now be performed in under a minute, a 30 minute average reduction in time for the task to be complete, while maintaining complete data security.

Our approach has also dramatically reduced the resources required to run simulations. Once an exercise is completed, the pool of resources shuts down. This prevents wasted spend on redundant computers – and has driven a 90% cost reduction.

### AWS: a highly reliable, secure cloud services platform

AWS brings valuable cloud technology for hosting grid computing. AWS cloud services allows rapid access to flexible and low cost IT resources, providing a simple way to access servers, storage, databases and a broad set of application services.

### Is your organisation ready to move grid computing to the cloud?

Consider these questions as you evaluate utilising a cloud-based grid computing service:

1

Do you require an on demand, highly scalable and flexible environment for Grid workloads but with minimal initial investment?

5

Are any current tasks, simulations or calculations suffering from bottlenecks due to your current infrastructure?

2

Do you currently have operational issues present with the scale required for grid computing workloads?

6

Are you satisfied with the time taken to provide results?

3

Do you find that you use more compute memory and storage than what is required to complete a task?

7

Is your current on-premise Data Centre under-utilised at times?

4

Does it take a long time to scale up existing on-premise computer, memory or storage?

8

How likely is it that your Data Centre can be scaled down?

## Contact Us

To find out more about how you can get the benefits of high-performing grid computing in the cloud, please contact:

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