

Google Cloud for Financial Services

Run Risk Calculations Using Scalable, Efficient Compute Resources

Get all the high-performance computing (HPC) resources you need to calculate and simulate value-at-risk (VaR), in real time or on-demand, without building the server farm.

Risk Modeling at Your Fingertips

Global trading institutions require increasingly complex risk calculations to keep up with market movements and stay compliant. Analyzing portfolios and forecasting potential P&L are a top priority industry-wide. Firms conduct formal risk modeling, such as value-at-risk (VaR) and other calculations, to mitigate risk, ensure financial control, and make better informed trading decisions.

To do so, they need to aggregate the risk assessments from positions held by different trading desks, portfolios and departments within the institution, on a regular schedule or on-demand. The challenge is that VaR valuations that use Monte Carlo or historical methodology require significant computational resources. It can take a virtual server farm to handle the operation. Many companies just don't have an extensive amount of infrastructure on site. Furthermore, building your own farm may mean that computing power will sit idle after peak demand has passed.

That's where Google Cloud can help. Our high-performance computing grid offers all the resources you need to perform timely risk calculations and simulations, efficiently, effectively, and in the most cost-effective way.

Flexibility, Agility, and Efficiency

Get the computing power you need to model risk in uncertain financial markets. Overcome the cost and constraints associated with on-premises computing – and mitigate risk effectively – with Google Cloud.

Related Products



Cloud Storage



BigQuery



Filestore



Persistent Disk



Dataflow



Cloud Composer



Compute Engine



Cloud Bigtable



Datalab



Data Studio

Learn More

- [Google Cloud for Financial Services](https://cloud.google.com/solutions/financial-services)
cloud.google.com/solutions/financial-services
- [HPC](https://cloud.google.com/hpc)
[http://cloud.google.com/hpc](https://cloud.google.com/hpc)

5 Reasons to Choose Google Cloud

Google Cloud delivers a high-speed data processing platform, required for complex VaR calculations, that benefits your HPC workloads in five ways:

- 1 **Scalability:** Scale up your complex risk calculation workloads as necessary. You only pay for the compute seconds you use.
- 2 **Efficiency:** Take advantage of automation, templated configurations, and preemptible compute instances, to increase agility while saving money.
- 3 **Speed:** Spin up multiple virtual machines quickly and calculate risk at the desk or portfolio level and aggregate it to enterprise-level on Google Cloud's purpose-built infrastructure.
- 4 **Performance:** Access high-performance infrastructure, including GPUs that may help you conduct large-scale risk calculations and simulations and cut down the time needed to generate reports.
- 5 **Security:** Google's in-depth approach to security includes multiple layers of physical and logical protection. 100% of data at rest is encrypted by default. Dedicated, in-house monitoring and response services work 24x7x365.

Google Cloud Platform

