

Cutting-Edge Risk Analytics

How cloud-based risk analytics can give your financial institution a significant competitive advantage

Risk functions in financial institutions are rapidly changing. New regulations increase the variety and volume of data that financial institutions must include in risk measures and computations, which requires a significant increase in storage and resources.

At the same time, customer expectations of banking services are rising, and new business models are emerging and evolving. Thanks to cloud-based technology and advanced analytics, new risk management techniques are available to help make more informed decisions. This cloud technology also provides institutions with smarter and more efficient ways of managing costs, such as the pay-as-you-go model.

The Risk Management Dilemma

Financial institutions must improve the way they manage investment risk while facing significant obstacles:

- Banks have invested in sophisticated risk computation systems, often with colossal amounts of storage on their premises. As regulations require more risk measures on every transaction, hardware demands will continue to grow.
- Complex risk calculations typically require a full day to compute overall exposure.
- Meeting increased computation and data requirements with an on-premises data center is often not cost-effective or even possible.

A Cost-Effective and Scalable Solution

Hitachi's risk analytics solution, built with Google Cloud technology, provides a scalable, open, and cost-effective platform to meet increasing risk and regulatory requirements. Our high performance computing solution can help you to:

- **Reduce costs**
Pay only for the resources you use. It's not uncommon for servers to be idle 70–80% of the time, so usage-based billing can significantly reduce costs.
- **Gain competitive advantage by solving problems faster**
Scale the number of computational cores with little effort. Knowing your exposure before anyone else—or pricing your trades with a full revaluation—becomes your strategic advantage. You can compute and monitor risk within drastically reduced timelines and address risk arbitrage more quickly.
- **Re-architect your risk and pricing environments for greater efficiency**
Rethink grid distribution approaches by taking advantage of Google Cloud auto-scaling and high-performance computing capabilities.
- **Spur innovation**
Google Cloud high-performance infrastructure, Machine Learning engine, and Big Data analysis tools are ideal for processing high volume financial data and ushers in a new generation of innovative risk infrastructure and solutions.

Built with Google Cloud



Cloud Pub/Sub



Cloud Datastore



Big Query



Dataflow



Kubernetes



Data studio



Stackdriver



App Engine Flex



Cloud Endpoints

Hitachi's Risk Analytics Platform: A Closer Look

Apply and scale advanced analytics to reduce risk and improve operational efficiency.



Leverages quantitative libraries

Combines open source quantitative libraries deployed on the Google Cloud Platform with Google's services to execute and scale as needed. Also allows reuse of existing libraries with comparative ease.



Invokes nodes for computation

Summons nodes for computation and releases them when idle. For example, if you have a typical busy/idle ratio of 1:10, you can realize a gain of 90% in use and move away from a fixed expense model.



Scales dynamically for increased computation power

Provides the ability to increase nodes in the cloud and compute results more quickly. Not only is this efficient but when you understand risk and exposure faster, you gain a competitive advantage.



Reduces license fees

Adopts Google Cloud's orchestration mechanism and allows enterprises to save on significant orchestration software license fees.

How to Get Started

Hitachi's risk analytics solution leverages our deep Big Data expertise and the Google Cloud Platform to provide a scalable, high-performing platform based on your requirements and adapted to local regulatory requirements. It's critical to plan your roadmap based on business value and demonstrable return on investment. Hitachi Consulting implements a four-step process to delivery:

1. Assess your current in-house risk analytics platform and models used.
2. Create a proof of value to demonstrate how the platform works with your calculation models.
3. Develop a business case for cost savings using the Google Cloud Platform.
4. Design and deploy the platform integration within the enterprise-wide platforms

Why Hitachi Consulting?

Every financial institution is exploring computing risk in the cloud—with varying degrees of success. Hitachi Consulting's solution brings together our experience in dealing with trade, market and risk data management, including the orchestration and computation of risk metrics. It also leverages our experience in building risk data management solutions for some of the largest investment banks in the world over the last 10 years.

About Hitachi Consulting

Hitachi Consulting is the global solutions and professional services organization within Hitachi, Ltd., a global innovation leader in industrial and information technology solutions and an early pioneer of the Internet of Things. Hitachi Consulting is a business integrator for the IoT era and a catalyst for digital transformation. Using our deep domain knowledge, we strategically collaborate with our clients to help them innovate faster, maximize operational efficiency and realize measurable, sustainable business and societal value. As a consulting-led solutions company, we can help you leverage data as a strategic asset to drive competitive differentiation, customer loyalty and growth. To learn more, visit www.hitachiconsulting.com.