

**CASE STUDY**

# Migrating and Modernizing Future and Options Trading Web Application for Investors on Google Cloud



## Client

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The client is a major British universal banking and financial services company. It has historical and business links to East Asia and a multinational footprint.

## Challenges

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- The client wanted to migrate applications to Google Cloud Platform (GCP) to harness on-demand scalability benefits.
- Issues with application performance, such as slow initial page loading and delayed responses, negatively impacted user experience.
- Manual testing and deployment procedures extended the cycle time between requirements and releases.
- The aim was to optimize costs by leveraging efficient cloud computing resources and managed services on GCP.
- The company also wanted to reduce licensing costs for the database and web server.

# LTIMindtree solution

Frontend and backend containerized deployment on Google Kubernetes Engine (GKE), a managed service

Transition from on-premises licensed software to open-source software on GCP (Oracle to PostgreSQL, WebSphere to Tomcat)

Data migration from Oracle to PostgreSQL

Implementation of an automated end-to-end process for building, testing, security, and deployment through a DevSecOps pipeline

Performance benchmarking of the migrated application in comparison to its previous on-premises version

Code quality assessments and vulnerability scans, addressing issues to ensure the application complies with cloud cybersecurity standards



## Benefits & outcomes

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- | Inaugural application launch on GCP's India region
- | Elevated quality through automated testing and deployments
- | Enhanced visibility and adherence to SLAs using cloud monitoring and alerts for proactive fault detection and resolution
- | A 50% enhancement in application performance
- | 80% faster deployments
- | Cost savings of USD 1.5 million over a 5-year project period

## Tech Stack

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- Google Cloud
- Google Cloud Kubernetes Engine
- PostgreSQL
- Aqua
- Ora2pg
- Checkmarx
- SonarQube
- nexus IQ server
- Java
- spring boot
- Selenium
- Grafana
- Prometheus





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