

RELIABILITY ENGINEERING ON GOOGLE CLOUD

<https://www.bbinsight.com/>

THE CHALLENGE

While migrating their on-premises applications to Google Cloud, our client was focused on establishing a robust and dependable data platform. This data platform needed to be highly available and reliable to support essential business functions, including supply chain, marketing, eCommerce, finance, and store operations.

This required implementing Service Level Agreement (SLA)-driven operations and monitoring, with a strong emphasis on security, speed, and performance. Our client aimed to ensure uninterrupted access to critical data and services while upholding stringent performance and security standards.

THE SOLUTION

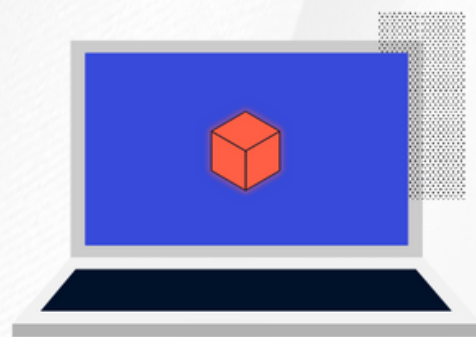
BBI Focused on implementing SRE best practices by establishing a robust observability framework. This framework allows for the collection of metrics, tracking the progression of requests through spans (components), monitoring errors, and measuring the duration of operations. It includes:

- Real-time monitoring of SLA, SLO, and SLI metrics across Google Cloud Projects.
- Intricate alerts to swiftly identify and address errors, job failures, quota breaches, and infrastructure issues.
- Google Monitoring Dashboard, optimized Data Fusion pipelines, and Dataproc clusters, ensuring job completion and improved performance within defined SLAs.

PROJECT SUMMARY

While migrating to Google Cloud, a leading retail enterprise needed to implement Service Level Agreement-driven operations and monitoring to ensure operational efficiency.

BBI established an observability framework that provides transparency into the system's status and performance, which is essential for ensuring reliability and adherence to SLAs.



OUTCOMES

- Significant reduction in on-call events.
- 100% resolution rate for high-priority issues within SLAs.
- ~70% improvement in Time to Resolution.
- Ensured on-time data availability for enhanced data insights and reporting.
- Successfully established orchestration for run books, enhancing operational efficiency.