Case Study: Trading Analytics

Delivery of a product providing live trade flow analysis aggregated across all distribution channels.

Challenges

- Monitor and report trade events, RFQs, rejections and activity from liquidity sources in real-time.
- Analyse maker and taker orders and pricing to assist in recognition of economically detrimental Algo-trading strategies.
- Requirement to deliver granular real-time risk monitoring reports at currency, trade, portfolio and platform level.
- Provision of “Best Execution” reporting to clients without impacting latency.
- Disparate technology stack with numerous messaging technologies and inconsistent representations of trade lifecycle and price events.
- Lack of accurate time-stamping across trading architecture.

Response

- Architected and delivered and end-to-end solution, including trade store, real-time cache, data streaming and data analysis application.
- Deployed in the Google cloud using BigTable and BigQuery for analytics.
- Implemented non-intrusive network probes to intersect orders, trades and prices.
- Time synchronised architecture to ensure reporting accuracy by correctly sequencing of events.
- Formalised API across application architecture to simplify/reduce code and increase performance.
- Delivered several reports to monitor rejections, risk per currency, client volumes, volumes per platform.
- Delivered functionality to hedge risk exposure.