

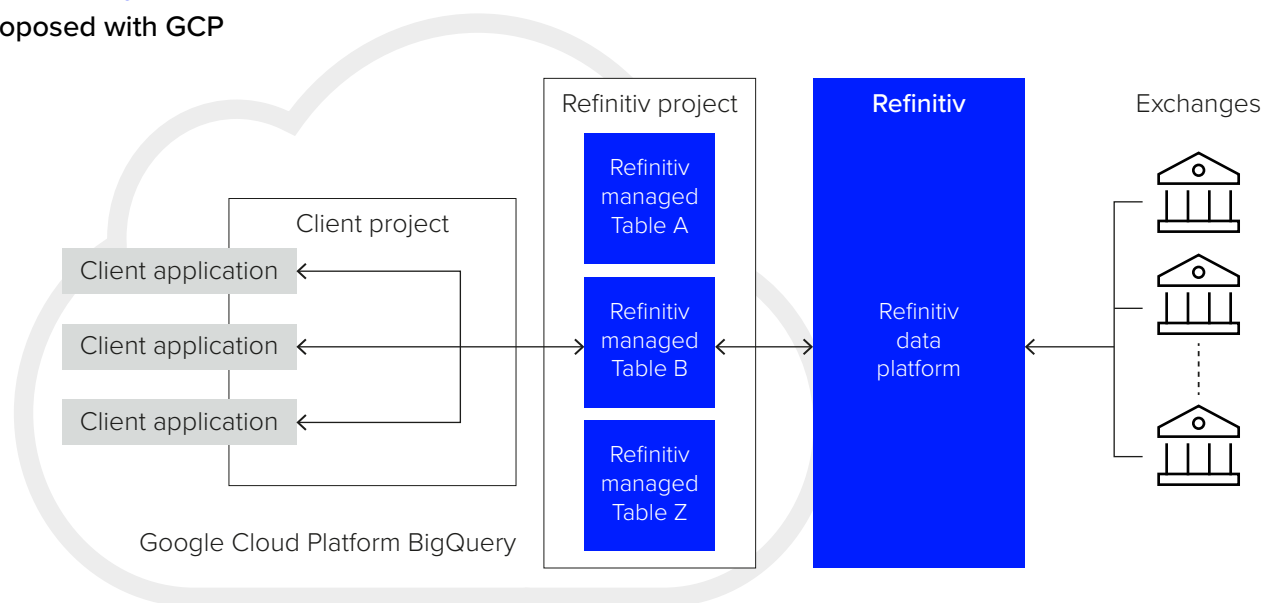
TICK HISTORY IN GOOGLE CLOUD PLATFORM

Access larger data sets, faster and at a lower cost

Refinitiv Tick History in Google Cloud Platform™ is a managed service database of the full depth and breadth of Refinitiv Tick History data. You can query this database directly using the Google® BigQuery™ engine, either via the Google provided GUI or via API from your preferred environment (e.g., Jupyter) and programming language, taking advantage of cloud computing to get your results faster.

Tick History Data Flow

Proposed with GCP



Tick History offers the largest breadth and depth of historical tick data available today:

- Covers OTC and exchange-traded instruments from more than 500 venues
- History goes as far back as 1996
- Covers all asset classes
- Market depth: Includes order book data for 118 venues

Access the full depth and breadth of Refinitiv Tick History

DATA			
Unmanipulated recorded trade and quote messages from our Refinitiv's real-time datafeeds since 1996			
Region	Global: Americas, Asia Pacific and EMEA		
All Asset Classes	<ul style="list-style-type: none"> Equities Fixed Income Foreign Exchange and Money Markets 	<ul style="list-style-type: none"> Commodities and Energy Futures Options Economic Indicators 	

MESSAGE TYPES	
With integrated reference data, Refinitiv Tick History enables the creation of seamless historical time series effortlessly and ensures you can account for trading pattern anomalies and survivorship bias.	
Time Series Data	<ul style="list-style-type: none"> Trades and Quotes (Level 1) Market Depth (Level 2 and Level 3 Data) <ul style="list-style-type: none"> Market by Price Market by Order End-of-Day Prices Intraday Summaries (1 Sec, 1 Min, 5 Min, 15 Min, Hourly)
Reference Data	<ul style="list-style-type: none"> Corporate Actions (Corax) Secondary Identifiers (ISIN, CUSIP, SEDOL, RIC, Etc.)
MiFID II Specific data	Tradeweb APA, MarketAxess Vienna APA, BATS APA (including BATS SI), NASDAQ Nordics APA, NEX

Tick History data use cases:

- Alpha generation
- Quantitative research
- Back testing
- Market Surveillance
- Regulatory compliance (MiFID II, FRTB...)

Benefits of Tick History in GCP

Refinitiv Tick History in Google Cloud Platform gives you access to the unrivaled breadth and depth of Tick History data, with a lower total cost of ownership, and enables you to analyze the data faster.

Why Refinitiv?

Data you can use out of the box

Refinitiv is the de facto industry standard for normalized market data. Worldwide, we have teams of data specialists who perform comprehensive corporate actions, symbol changes and data cross-referencing – so data reach your applications in a totally current, standardized and open format.

Refinitiv is one of the world's largest providers of financial markets data and infrastructure, serving over 40,000 institutions in approximately 190 countries. It provides leading data and insights, trading platforms, and open data and technology platforms that connect a thriving global financial markets community – driving performance in trading, investment, wealth management, regulatory compliance, market data management, enterprise risk and fighting financial crime.

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