# REFINITIV TICK HISTORY – PCAP

**Petabytes of ultra-high quality global market data, accessible from the cloud or on premise**

Ultra-high quality global market data – accessible when, where and how you want it.

Refinitiv Tick History – PCAP is a cloud-based, 20+ petabyte repository of ultra-high quality global market data, captured directly in the exchange data centres. It enables you to access complete sets of lossless, top-of-book and full-depth data (Levels 1, 2 and 3) in your choice of format. You can save bandwidth and compute costs by bringing your query to our cloud, seamlessly pulling down only the data or pre-configured analytics you need. Refinitiv Tick History – PCAP provides reassurance that your mission-critical applications and workflows are powered by the highest quality market data available.

## Lossless data capture and global coverage

To ensure lossless data capture, we maintain redundant capture processes co-located in the major primary and backup exchange data centres across the globe. Using our proprietary Refinitiv Real-Time – Ultra Direct capture technology, we timestamp data to the nanosecond and use sophisticated data arbitrage techniques to fill the gaps. Our data is never conflated and includes every tick.

Our global coverage is extensive, giving you access to feeds from hundreds of venues covering the Americas, EMEA and APAC for equities, options, derivatives, fixed income, FX and more. Content is available as raw PCAP or normalised, formatted in Parquet or CSV. Consume our data however it makes most sense for your business needs.

## Support for multiple workflows

There are multiple ways to consume our data: full datasets or simply query results.

**Data files**

Historical data delivered daily; intraday data delivered in minutes. Our data is available for delivery via SFTP or cloud into your own environment.

Whether you want to receive data files that include all content within a feed or to create a custom data set, we can provide feed data on a historical and ongoing basis in raw PCAPs or normalised formats. For use cases that require intraday data, Refinitiv offers data delivery within minutes. Additionally, Refinitiv produces several consolidated end-of-day files summarising high, low, close, volume and other market statistics. Consuming our data via data files means Refinitiv is responsible for capturing and delivering the data, while clients manage and query the data within their own environment.

**Refinitiv Tick History Workbench**

Refinitiv Tick History Workbench is cloud-based and designed as a ready-to-use analytics environment that also executes Refinitiv Tick History – PCAP queries for analysis and extraction to any environment.

The flexibility and benefits of Tick History Workbench include:

– Intuitive GUI for orchestrating Tick History – PCAP queries. Set up recurring jobs to query the Tick History – PCAP and identify where results should be stored. You can analyse query results within Tick History Workbench or extract them into your own cloud or on-premises environment
– Data analysis without the hard work – let us manage the data capture, delivery and storage
– Upload your own data from a variety of sources, including S3 buckets
– Support multiple use cases including market structure research, trade compliance checks and TCA
– Export reports and 3D visualisations to easily share your findings across Tick History Workbench users
– Develop interactive UIs and Dashboards using Streamlit.io and deploy them to our always-on service hosts with support for custom subdomains
– Multiple cloud deployment choices – work within our fully managed cloud environment or integrate Tick History Workbench into your own cloud environment to leverage existing administration and security policies
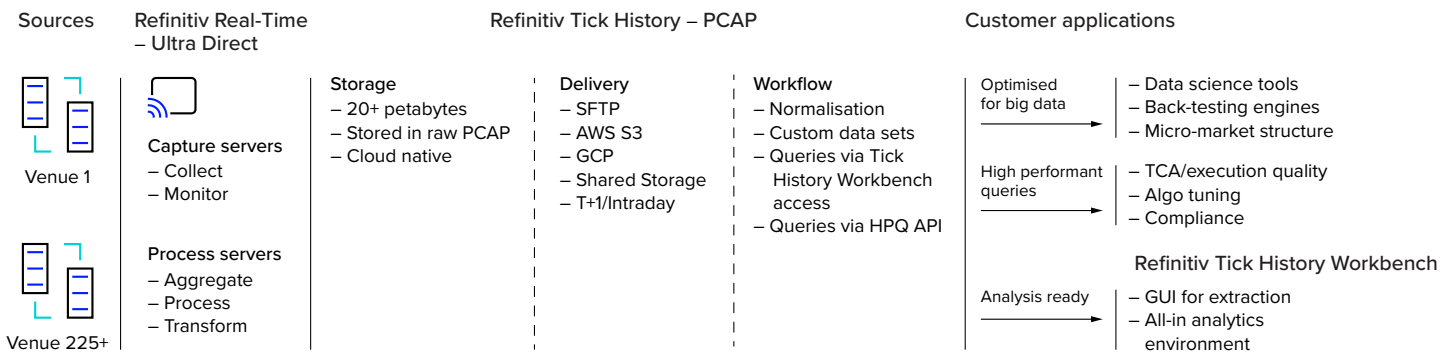
**Queryable services**

Avoid the hassle of data management and bring your queries to the Tick History – PCAP. Using our queryable services or AWS (e.g., EMR, Spark), you can query our Tick History – PCAP and consume only the data you need. Refinitiv offers the ability to query data from an endpoint with services optimised for big data and targeted queries. For big data queries, Refinitiv supports SQL-

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based queries of our data in Parquet format. With the widespread adoption of Parquet by data science tools, clients can easily integrate Refinitiv Tick History – PCAP content into their analytic workflows.

For targeted queries, our HPQ API lets you query near real-time, full-depth data at distinct time intervals of your choosing, resulting in significant bandwidth and compute resource savings. In addition to raw tick data, you can also access pre-configured calculations for TWAP, VWAP or hypothetical order completion time, enabling you to power a variety of workflows – including TCA, order routing analysis, volatility fitting, trade desk support and risk – in the most efficient manner.

## Refinitiv Tick History - PCAP in action

| Sources | Refinitiv Real-Time – Ultra Direct | Refinitiv Tick History – PCAP | | | Customer applications | |
|---|---|---|---|---|---|---|
| | | **Storage** | **Delivery** | **Workflow** | **Optimised for big data** | – Data science tools<br>– Back-testing engines<br>– Micro-market structure |
| Venue 1 | **Capture servers**<br>– Collect<br>– Monitor | – 20+ petabytes<br>– Stored in raw PCAP<br>– Cloud native | – SFTP<br>– AWS S3<br>– GCP<br>– Shared Storage<br>– T+1/Intraday | – Normalisation<br>– Custom data sets<br>– Queries via Tick History Workbench access<br>– Queries via HPQ API | **High performant queries** | – TCA/execution quality<br>– Algo tuning<br>– Compliance |
| Venue 225+ | **Process servers**<br>– Aggregate<br>– Process<br>– Transform | | | | **Analysis ready** | **Refinitiv Tick History Workbench**<br>– GUI for extraction<br>– All-in analytics environment |

## Additional products and services

– Refinitiv® Real-Time – Ultra Direct
– Refinitiv® Tick History
– Refinitiv® Quantitative Analytics

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