

THOMSON REUTERS ELEKTRON DIRECT FEED

Market View

Trading firms focused on algorithmic and smart order routed execution look for reliability and standardized data consumption across trading venues and asset classes at the lowest possible latency. When considering the optimum data solution, these firms need to address a number of factors, including;

- A need for better data integration
- Opaque and rising prices from many low latency vendors
- Concerns around the stability / viability of some vendors
- The ever increasing cost and size of market data infrastructure
- A requirement to consolidate vendors

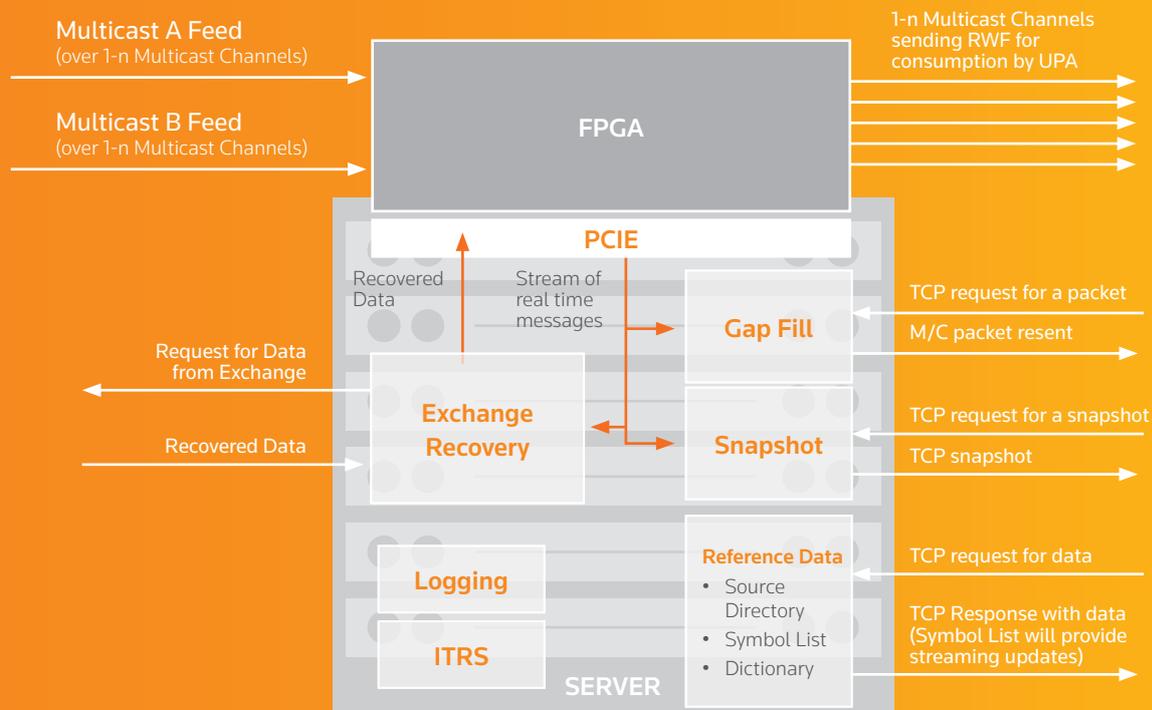
Solution

Thomson Reuters Elektron Direct Feed is an extremely low latency, hardware accelerated, market data feed targeted at trading firms focused on algorithmic and smart order routed execution requiring cost effective, reliable and standardized data consumption across trading venues and asset classes.

The solution utilizes Xilinx FPGA technology to accelerate the straight through path of data, while relying on software components for all recovery and static data mapping. This allows us to offer extremely low latency real-time market data, while still keeping the ability to quickly and easily deploy solutions and support additional markets.

By combining standardized data models with hardware based acceleration, the solution provides a data feed averaging below 10 μ s of wire to wire latency. The use of Thomson Reuters UPA API for data consumption allows clients to quickly and easily integrate the data feeds into their existing workflows.

ELEKTRON DIRECT FEED – HIGH LEVEL ARCHITECTURE



Benefits

EXTREMELY LOW LATENCY, RELIABLE AND STANDARDIZED DATA CONSUMPTION ACROSS VENUES AND ASSET CLASSES

With single digit microsecond average latency, data is delivered via standard data models for consumption. Coverage includes full depth of order book – with all ticks presented and no conflation.

LOW TOTAL COST OF OWNERSHIP

As real-time processing of data is done by the FPGA cards, multiple feeds can be supported on a single server. Each FPGA card currently supports a single feed, and so you are only limited by resiliency requirements and the number of PCIe slots available in the machine. It is easily possible to run the US Equity markets on two servers technically.

CONSISTENTLY HIGH PERFORMANCE

There are three main benefits of the move to FPGA acceleration for feed handlers: lower latency, reduced hardware footprint and consistent performance. As each message is processed, and formatted by the hardware, there is no deviation in the time it takes for one message to be published than another. This gives the Elektron Direct Feed deterministic latency, and consistently low latency when compared with software based solutions.

Key features

- Sub 10µs latency
- Full depth of order book – all ticks presented, no conflation
- Thomson Reuters API support – UPA
- Open and extensible messaging model
- Standard Data Model
- Street symbology

Thomson Reuters

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Thomson Reuters Elektron

Thomson Reuters Elektron is a suite of trading and data propositions that powers the enterprise and connects global markets. Elektron delivers low-latency feeds from thousands of exchange-traded and OTC markets, along with analytics, distribution platforms and transactional connectivity to support any financial workflow application. Elektron also powers the most innovative desktop and mobile application in the world, Thomson Reuters Eikon. This brings our global infrastructure to the fingertips of financial professionals, wherever they are and whatever their role. All of these capabilities can be deployed at a customer location or delivered as a fully managed service from any one of our co-location and proximity hosting sites around the globe.

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Highlights

- Extremely low latency, reliable and standardized data consumption across venues and asset classes
- Low total cost of ownership
- Consistent high performance



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