



Enabling low-latency trading

Overview

Ultra-low latency

- Faster response to market conditions
- Under 10 microseconds from the wire to the user application

Ultra-high throughput

- Access to all the data about the market
- Up to 7 million messages per second sustained throughput from a single market

Ultra-consistent performance

- Ability to trade through market data spikes
- Consistently low latency, regardless of the spikes in market data volumes

Increased competition, changing regulation and more pervasive electronic trading have resulted in a massive growth in market data and order traffic in the financial markets.

Trading firms and execution venues are adapting their trading architecture for ultra-low latency, removing unnecessary network hops, introducing co-location services, increasing market data distribution bandwidth and developing optimised software solutions on horizontally scalable low cost server platforms.

Challenges

- **Capacity:** moving from hundreds of millions to billions of order messages per day
- **Throughput:** moving from 100,000+ messages per second to millions of messages/second
- **Latency:** moving from milliseconds to microseconds

Celoxica's solution

Celoxica's hardware-accelerated market data technology provides ultra-low latency, high throughput and consistent performance in all market conditions that will always outperform software-only solutions.

Clients

Celoxica's clients are interested in ultra-low latency trading and include large brokers, StatArb, algorithmic traders, proprietary traders and stock exchanges. Celoxica's solution is particularly suitable for high-frequency, low-latency applications in co-location setups.

Markets

Celoxica products currently support OPRA, ITCH, ISE, ARCA, CME and ICE.

BATS, Eurex, Euronext, Xetra, Chi-X, Turquoise and LSE are coming soon.

Performance-focused approach

Celoxica is focused on solving latency and throughput bottlenecks where it affects the trader, without radical changes to the organisation's infrastructure.

Open Architecture

Celoxica uses standard APIs and supports the latest server and acceleration platforms through standard interfaces, for example PCI Express and the HyperTransport slot.

Service

The service-based approach provides timely updates to software and firmware to support the latest exchange updates. This frees up clients' internal resources to produce proprietary, value-added applications.

Flexibility

Clients can adopt as much or as little of Celoxica's solution as required. Celoxica can customise the solution to meet clients' needs and react quickly to changing requirements.

Cooperation

Celoxica can integrate and collaborate with existing internal or third-party solutions. A growing array of partners allows Celoxica's technology to be deployed in a wide variety of infrastructure architectures.

Roadmap

Celoxica's product roadmap continues to solve key latency and throughput problems in other parts of the trade lifecycle, with the same focused, open and cooperative approach. This means more partnerships, adopting the latest cutting-edge technology and solving critical problems.

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