



LMAX Delivers More Efficient and Open Way to Trade Using Informatica Ultra Messaging

Neutral trading venue uses ultralow-latency technology to optimize performance, reduce infrastructure costs and improve system resilience.

FAST FACTS

BUSINESS INITIATIVES

- Increase trading flow using Informatica Ultra Messaging
- Reduce risk for retail and institutional buyers and sellers
- Increase operational efficiency
- Minimize hardware infrastructure costs through efficiency

TECHNOLOGY STRATEGY

Deployed a component of the Informatica Platform—Informatica Ultra Messaging—to support ultralow-latency messaging for all messaging modes, including publish/subscribe, request/reply and queuing, as well as multiple qualities of service such as reliable messaging, guaranteed messaging, and once-and-only-once message delivery.

“As dynamic market conditions continue to challenge legacy systems, LMAX has positioned itself to win market share with its next generation system, built with Informatica Ultra Messaging.”

– Martin Thompson, Chief Technology Officer, LMAX

Executive Summary

Six months ago, LMAX launched an innovative trading venue combining the best of a multilateral trading facility (MTF) and a broker. LMAX provides “on exchange” trading for contracts for difference¹ (CFDs) and rolling spot foreign exchange (FX) contracts. LMAX traders benefit from the ability to place orders directly into the MTF, with the benefit of faster execution, no dealer acceptance and no re-quotes.

Informatica® Ultra Messaging® is this innovative service’s heartbeat—the standard messaging solution used throughout LMAX’s MTF venue. Chosen in the face of intense competition from other vendors, the ultralow-latency technology enables LMAX to consistently execute trades in less than 1 millisecond, while ensuring robust and reliable network stability. This gives retail traders the advantages of exchange trading, so they benefit from increased pricing transparency, market depth, neutrality and control that has until recently been only available to institutions in the wholesale market. In 2011, LMAX was awarded “Best Trading System” at the FSTech Awards.

¹ A contract for difference (or CFD) is a contract between two parties, stipulating that the buyer will pay to the seller the difference between the current value of an asset and its value at contract time. CFDs are financial derivatives that allow investors to take advantage of prices moving up (long positions) or prices moving down (short positions) on underlying financial instruments.

BENEFITS

- Provides retail traders with pricing transparency, market depth, neutrality and control until recently only available to wholesale institutions
- Consistently executing trades at below 1 millisecond
- Reduced trading risk for retail and institutional buyers and sellers
- Supporting an institutional scale exchange with an API to enable retail traders to run algorithms
- Helping LMAX deliver the levels of operational excellence that customers expect
- Eliminating single points of failure while dramatically reducing hardware infrastructure costs
- Ensuring that prices are never re-quoted
- Helping evaluate customer positions in real time without adding noticeable latency

NUTS AND BOLTS

- Solution: System architecture based around Ultra Messaging, from front to back of the exchange
- Product: Informatica Ultra Messaging
- Services: Global Customer Support

Transforming Retail CFD and FX Trading

LMAX is transforming retail CFD and FX trading. The London-based organization provides the retail CFD and FX investor with a highly sophisticated, easy-to-use neutral platform that seeks to give traders a fairer and more transparent alternative to competitors' offerings. The LMAX platform is an exchange that brings together retail and institutional buyers and sellers in a wide variety of financial instruments on a level playing field. Through the exchange, LMAX delivers to its customers' fairness, transparency, neutrality and a more efficient and open way to trade.

Established and majority owned by Betfair, the world's leading sports betting exchange, LMAX was launched in October 2010 and is currently offering customers the opportunity to trade FX contracts and CFDs in equity indices, commodities, bonds and interest rates. Other asset classes will be added to the platform in due course. "LMAX is a truly multiasset, multiapplication platform designed with the retail trader in mind," explains Martin Thompson, chief technology officer, LMAX. "Every aspect of this innovative service is about giving institutional trading advantages to retail clients—effectively taking out the middle man and the broker chain that is there in the traditional space. A retail client can now trade direct into the market and be a market maker, not just a trader."

Creating a Fast, Feature-Rich Exchange

The sheer volume of scale in dealing with the retail market, institutional market makers at the back end, and central clearing, while offering multiple asset classes was an extremely complex process during the development of LMAX. The main challenge was to build an exchange that is not only incredibly fast but also significantly more feature-rich than other exchanges.

According to Thompson, low latency is a key weapon in the battle to win market makers' business. "Low-latency, high-throughput systems are essential when building any financial exchange", he says. "If you don't have low latency, market makers will make their prices wider—they need very predictable low latency and throughput to enable them to pull their prices quickly on market movements and update them."

For the messaging solution, LMAX sought an industry expert with proven deployments that could be a dependable partner, providing the required performance and scalability. After evaluating messaging systems from a number of vendors, as well as a high performance prototype developed in-house, LMAX chose the Informatica Ultra Messaging component of the Informatica Platform. Thompson believes that the use of this prepackaged Informatica Ultra Messaging technology over the home-grown solution enabled the organization to go live a number of months more quickly.

"We are impressed with the performance, reliability, and strength of Informatica Ultra Messaging, which allows us to continue to deliver the levels of operational excellence our customers have come to expect," says Thompson. "Every submillisecond counts for our retail and institutional buyers and sellers. They need to be able to pull a price, if the market moves, in order to reduce the risk and allow them to run the spread tighter."

Resource-Efficient, Highly Reliable Messaging Technology

LMAX is using Informatica Ultra Messaging, with a Java application programming interface (API), as the main messaging bus throughout the architecture, from the front to the back of the exchange. The resource-efficient, highly reliable technology ensures the lowest latency while maintaining network stability. Moreover, the “nothing in the middle” messaging fabric eliminates single points of failure while dramatically reducing hardware infrastructure costs. “As dynamic market conditions continue to challenge legacy systems, LMAX has positioned itself to win market share with its next generation system, built with Informatica Ultra Messaging,” says Thompson.

The core of the system has two principal components. First, the LMAX MTF hosts all the order-books for the markets that LMAX provides. Second, the LMAX broker maintains accounts and positions for retail traders as well as providing real-time margin protection for retail customers. These core components are organized into clusters so that the system will continue to operate normally through any single failure in hardware or software. The system also operates an active disaster recovery system in a second location, which allows it to continue to work in the event of a catastrophic failure, or multiple failures, at the primary site where the system is hosted.

Consistently Performing at Below 1 Millisecond

One of the main advantages of using Informatica Ultra Messaging is the speed of performance. LMAX customers need to be able to react incredibly quickly to market movements and speed of execution is therefore a key requirement for retail users. The LMAX messaging system consistently performs at below 1 millisecond.

LMAX also offers an API to enable retail traders to run algorithms. To enable a retail API, an exchange needs real-time risk management as part of pre-trade controls. Using Informatica Ultra Messaging, LMAX has created a module that evaluates customer positions in real-time without adding noticeable latency.

The final advantage of choosing Informatica has been the quality of service and support. Thompson has worked with many IT vendors over the years, but very few, he says, come close to matching Informatica in terms of depth of commitment, professionalism, and technical knowledge.

“There is a tangible chemistry between the LMAX and Informatica teams,” he explains. “The quality of support has been first class at every step. Whenever we’ve come up against a barrier, the Informatica team has been there to take ownership of the issue, guide us, and see it through to resolution.”

Learn More

Learn more about the Informatica Platform. Visit us at www.informatica.com or call +1 650-385-5000 (1-800-653-3871 in the United States).

About Informatica

Informatica Corporation (NASDAQ: INFA) is the world's number one independent provider of data integration software. Organizations around the world gain a competitive advantage in today's global information economy with timely, relevant and trustworthy data for their top business imperatives. More than 4,200 enterprises worldwide rely on Informatica to access, integrate, and trust their information assets held in the traditional enterprise, off premise, and in the cloud.



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