



## FIORANOMQ REDUCES LIQUIDITYHUB'S LATENCY ON BROKER QUOTES TO AS LOW AS TWO MILLISECONDS

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**Tony Harrop,  
CTO, LiquidityHub**

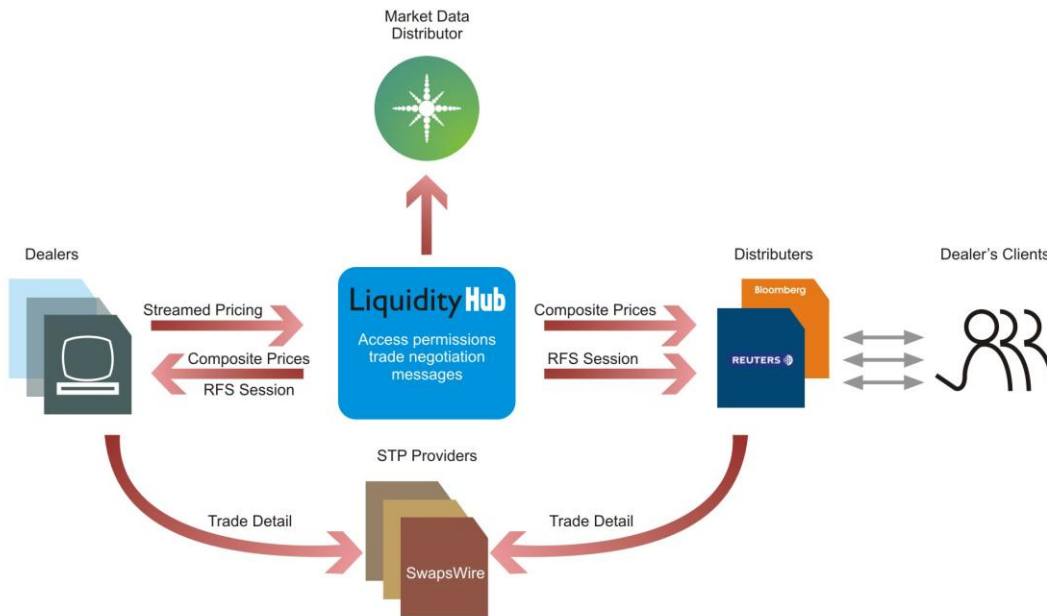
### CUSTOMER PROFILE

LiquidityHub is a liquidity aggregator for the fixed income market. LiquidityHub connects dealers with clients to facilitate transactions involving financial products like US treasuries, bonds and interest rate derivatives. Where trading is typically done over the phone or via multiple single-dealer sites, LiquidityHub provides an aggregated electronic marketplace that allows clients to access price quotes in a secure online environment.

### BUSINESS PROBLEM

The fast-paced nature of the financial marketplace requires quick, consistent communication between servers so prices are updated as close to real-time as possible. With clients wanting prices to be ‘firm’ while they make their trade decision, up-to-date yet stable pricing is difficult to achieve. If the market price moves, a broker needs to be able to immediately refresh their quoted price or else the risk level involved in these financial transactions increases dramatically. Therefore, consistent and real-time pricing is crucial to maintain a fair, balanced marketplace.

## LiquidityHub



In mid-2007, LiquidityHub recognized the need to quickly and efficiently implement a new comprehensive platform that would satisfy the fragile nature of these financial transactions. Tony Harrop, LiquidityHub's chief technology officer, laid out the criteria for developing a new platform.

"The challenge was building and designing a platform with internal regulatory and compliance controls in as little time as possible," said Harrop. "Above all, we needed to create a high performance service based on factors like speed, security, reliability and consistency."

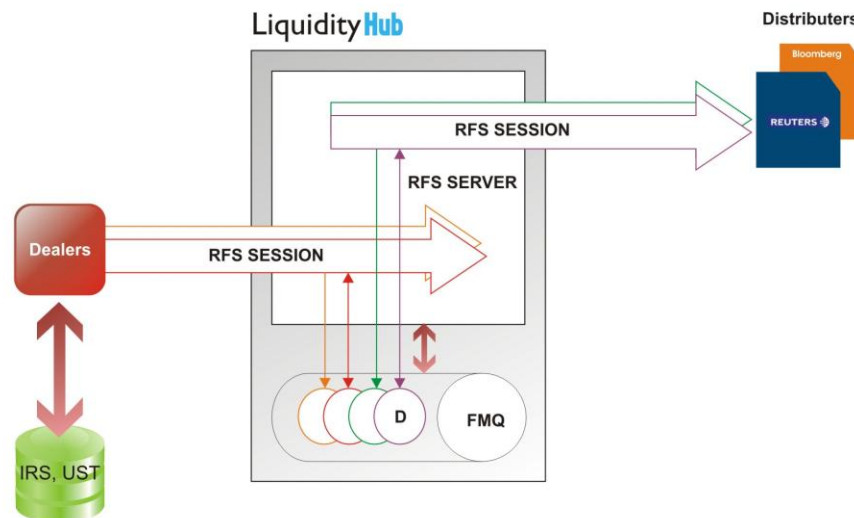
The java environment needed to run quickly, while simultaneously supporting a large volume of messages. Harrop plotted goals: the platform had to be able to deliver 20,000 messages per second upon installation. By the end of the fifth year, the platform would have to be able to deliver 100,000 messages per second. The target latency for message delivery was 100 milliseconds.

## SOLUTION

After a lengthy and comprehensive research process, Harrop had narrowed LiquidityHub's search down to two products, one of which was FioranoMQ. Harrop spent a couple of weeks building an architectural proof of concept and setting targets for messages per second. FioranoMQ met the messaging target in its first week. LiquidityHub launched FioranoMQ into its platform in September 2007.

Harrop mentioned, "FioranoMQ is simply a reliable, robust platform. We now have an extremely fast environment with which to run java and a secure messaging product. From day one (with no employees or development staff) to the launch, we were able to negotiate contracts, recruit and train-up staff, and get our entire platform up and running in less than nine months."

FioranoMQ's speed allowed LiquidityHub to surpass its target latency (100 ms), reducing data latency to as low as 2 ms. By approaching real-time communication, LiquidityHub was able to level the playing field for participants in its marketplace while greatly eliminating the risk associated with data latency.



D- destination in FioranoMQ server  
 IRS- Interest Rate Swap (Liquidity Product Group)  
 UST- United States Treasury (Liquidity Product Group)  
 RFS- Request For Session (Protocol)

## **BENEFITS**

“With FioranoMQ as part of our technology stack, we were able to reduce our cost by 50 percent compared to traditional trading platforms,” remarked Harrop. “We had no production problems with the implementation of the communication backbone into our platform.”

Whereas data refresh latency used to range anywhere from five to ten seconds, LiquidityHub reduced that number to a low of 2 milliseconds. At its peak, LiquidityHub logged more than 7 million prices per day.

Harrop added, “The quick implementation of FioranoMQ was facilitated by great support from the company. The java developers involved in the creation of our platform were able to pick up FioranoMQ easily, assisting in the cost-effective integration.”

## **ABOUT FIORANO SOFTWARE**

Fiorano Software ([www.fiorano.com](http://www.fiorano.com)) is a leading provider of enterprise class business process integration and messaging infrastructure technology. Fiorano's network-centric solutions set a new paradigm in ROI, performance, interoperability and scalability. Global leaders including Fortune 500 companies such as Boeing, British Telecom, Credit Agricole Titres, Lockheed Martin, NASA, POSCO, Qwest Communications, Schlumberger and Vodafone among others have used Fiorano technology to deploy their enterprise nervous systems.

To find out more about how Fiorano can help you meet your enterprise integration objectives, visit [www.fiorano.com](http://www.fiorano.com) or e-mail [sales@fiorano.com](mailto:sales@fiorano.com)