



FAIREX ACHIEVES SEAMLESS “E-FX” TRADING WITH FIORANO ENTERPRISE BACKBONE SOLUTIONS

"Our online trading system makes extensive use of JMS to send different types of messages among the different components, these components are deployed on several hardware, and it is critical that we have a high performance messaging backbone to dispatch the messages. We have tested several JMS servers, and Fiorano is among the top in terms of performance/ throughput in our evaluation, and we are also very satisfied with their technical support, the response is fast whenever we have any queries."

C.K Lim
Chief Architect
FairEx International Financial Systems

CUSTOMER PROFILE

FairEx develops high quality, cutting edge web-based financial systems solutions for the banking and financial industries. FairEx offers a full range of products to achieve seamless e-fx trading for any level of trading. From turnkey solutions to intricate custom build projects, FairEx provides the technology that enables its clients to deliver reliable, scalable and leading edge e-banking solutions and services at internet speed.

BUSINESS PROBLEM

FairEx Virtual Trading Engine, the most powerful web-based exchange mechanism that not only performs lightning fast order matching, but is bundled with some of the most critical credit and risk control mechanisms; facilitating safe and secured transactions. FairEx always understood that they could offer greater benefits to customers if they could send information more securely, reliably and at a greater speed.

FairEx Trading Engine uses a lot of inter-component messaging; Uses topics (text and serialized objects) and queues. Messages get published from the web server to Order Matching Server (OMS), from the EJB container to the OMS, and from the OMS to the WebServer. Within these 3 sub systems, there are intensive message publishing and subscribing, the topics ranging from heart beat, rate feed, order and trade confirmation, etc. Hence having a reliable and scalable JMS server became a critical component in the entire FairEx trading system. FairEx needed a JMS solution that would allow them to move data through various paths, some sequential and some parallel in a reliable and secure manner.

Some of the key requirements for a JMS solution included:

- Scalability - can scale vertically and horizontally
- Reliability - will not crash under heavy load
- Very fast performance
- Ability to tune and configure the transport details, tools to monitor the server performance
- Ability to cluster servers

The solution should have the ability to publish and subscribe several hundreds of messages per second without crashing under load. Most of these messages were text (strings), and a few were serializable objects. "The uptime of the server had to be solid" said C.K Lim, Chief Architect at FairEx.

SOLUTION

FairEx had several critical requirements that needed to be met by the proposed solution:

Fast performance for text and serialized object messages, was critical for their trading engine to dispatch the volatile forex prices to several machines in the web server farm
Assurance that performance levels do not deteriorate particularly under heavy load conditions was important
Clustering Architecture
Responsive Technical Support

In intensive evaluations conducted by FairEx, FioranoMQ proved to be the fastest and most scalable JMS server for guaranteed message delivery. It performed reliably under heavy load conditions making FioranoMQ the Backbone Middleware solution of choice for FairEx

FioranoMQ provided precisely the kind of messaging solution that FairEx needed. Fiorano's file based data store delivers guaranteed messages significantly faster in publish/subscribe mode than any other JMS implementation, which was a key requirement of FairEx's trading infrastructure. In addition, Fiorano's highly configurable, multi-level security system adds Java REALMS support to improve security management by centralizing and combining user authentication sources. Another key feature was FioranoMQ's reliability. The ability to withstand heavy load to tune and configure the transport details to monitor the server performance was seen as something unique to FioranoMQ.

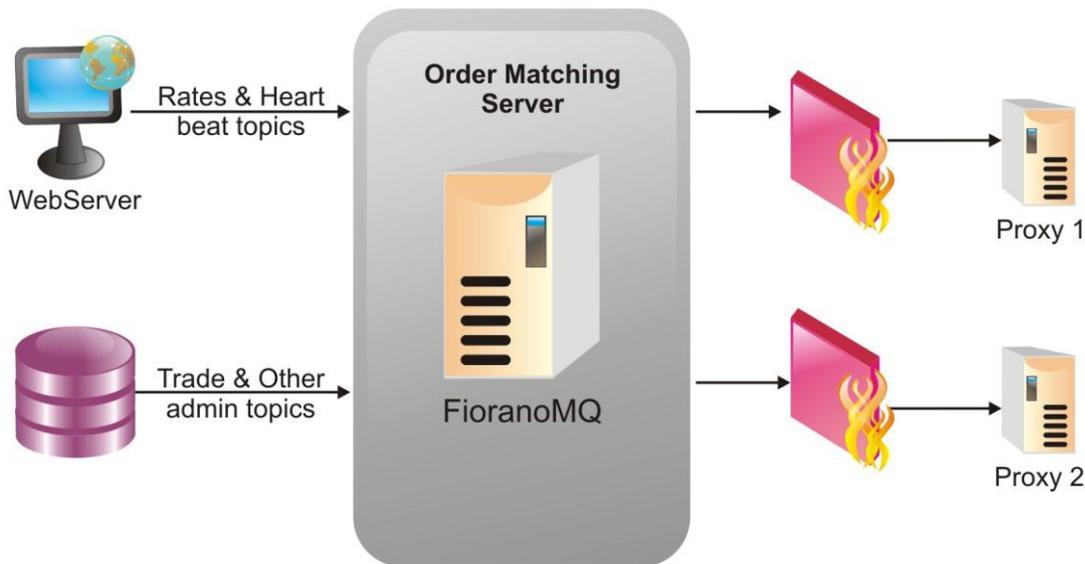


FIGURE1: FairEx Trading Engine Overall Architecture

Only FioranoMQ used a Scalable Connection Management Module (SCM) to achieve scalability levels unmatched by any other JMS (Java Message Service) vendor.

The FioranoMQ cluster can share destinations and provide load-balancing facilities. The FioranoMQ clustering architecture incorporates automatic failover protection thus reducing, in fact, almost eliminating server downtime. If any of the servers in a cluster goes down, the client application automatically reconnects to the dispatcher. FairEx's trading engine is deployed on Java 2 Enterprise Edition, using technologies such as JSP, EJB, JMS, JNDI, etc. In some cases, FairEx also uses JMS to integrate two partner systems together.

BENEFITS

Implementing their solution with Fiorano, FairEx achieved several important business related goals leading to cost effectiveness and improved profitability through enhanced productivity.

Speed and reliability added to the customer experience and allowed FairEx to focus on its core competencies thereby providing an attractive return on investment. Says C.K Lim, Chief Architect with FairEx International Financial Systems. "We have tested several JMS servers, and Fiorano was among the top in terms of performance/ throughput in our evaluation. We are also very satisfied with their technical support, the response is fast whenever we have any queries."

FairEx's online trading engine requires dispatching different types of messages among the different components, deployed on several hardware. It was critical that FairEx have a scalable and high performance messaging backbone to dispatch these messages. FioranoMQ – a JMS compliant server allowed them to move data through various paths, both sequential and in parallel both reliably and securely.

ABOUT FIORANO SOFTWARE

Founded in 1995, Silicon Valley based Fiorano is a USA (California) Corporation, a trusted provider of Digital Business Backplane and enterprise integration middleware, high performance messaging and peer-to-peer distributed systems. Fiorano powers real time, digital enterprises with bimodal integration and API Management strategy that leverages the best of systematic (centralized, high-control) and adaptive (federated, high-speed) approaches to deliver solutions across cloud, on-premise and hybrid environments. Fiorano operates through its worldwide offices and a global network of technology partners and value-added resellers.

Global leaders including AT&T Wireless, Boeing, British Telecom, Federal Bank, L'Oréal, McKesson, NASA, POSCO, Rabobank, Royal Bank of Scotland, Schlumberger, US Coast Guard and Vodafone have deployed Fiorano to drive innovation through open, standards-based, event-driven real-time solutions yielding unprecedented productivity.

To find out more about how Fiorano can help you meet your enterprise integration objectives, visit www.fiorano.com or e-mail sales@fiorano.com

AMERICAS

Fiorano Software, Inc.
230 California Avenue, Suite 103,
Palo Alto, CA 94306 USA
Tel: +1 650 326 1136
Fax: +1 646 607 5875
Toll-Free: +1 800 663 3621
Email: info@fiorano.com

EMEA

Fiorano Software Ltd
3000 Hillswood Drive
Hillswood Business Park
Chertsey Surrey KT16 0RS UK
Tel: +44 (0) 1932 895005
Fax: +44 (0) 1932 325413
Email: info_uk@fiorano.com

APAC

Fiorano Software Pte. Ltd.
Level 42, Suntec Tower Three
8 Temasek Boulevard
038988 Singapore
Tel: +65 6829 2234
Fax: +65 6826 4015
Email: info_asiapac@fiorano.com

www.fiorano.com

