

Ultra Messaging™ and the Changing World of Electronic Finance

**By Matt Meinel
Global Director of Business Development
29West, Inc**

Copyright 2007, 29West, Inc.
June 15, 2007

A decade ago, completely automatic financial processes like electronic trading, black box trading, algorithmic trading, automatic execution engines, electronic exchanges, crossing networks, and t+0 settlements were the dreams that financial industry technologists worked on. Now these automated solutions are commonplace. Like any technology dreams that come true, these solutions created challenges for the industry. Today, one long-predicted challenge for capital markets participants is hitting their bottom lines, namely: how to compete within ecosystems that combine all these completely electronic solutions?

An electronic exchange connected to the algorithmic trading engines of hedge funds, market makers and investment banks is an example of such a financial ecosystem. If one market participant reduces their trading decision time from 100 milliseconds to 10 milliseconds, it forces other participants to adjust similarly. Furthermore, since the business volumes in terms of quotes, trades, and orders have been growing phenomenally, the necessity to increase compute power, messaging throughput, and network speeds is a constant challenge to all market participants. Similar challenges appear anywhere completely automated financial systems directly connect with no human response times slowing the process.

Automatic systems in these ecosystems interact through high-speed messaging software. In fact, today a major limiting factor for many business processes is the capability of the underlying messaging infrastructure in terms of speed, latency, reach and reliability. Companies seeing that messaging is now in the critical path for profitability are moving towards a new category of messaging solution.

At 29West we call this new category Ultra Messaging™. A few parameters distinguish Ultra Messaging solutions from J2EE-based enterprise messaging or typical publish/subscribe messaging used in market data distribution systems. First, the message generators can potentially send several hundred thousand messages or even 1 million messages per second. Secondly, latency, or the time a message is en route, is measured in microseconds. Thirdly, message fan out is high; that is a single message must reach 10's or 100's of interested receivers. Fourthly, each message has business meaning, therefore Ultra Messaging solutions must be highly reliable with very low tolerances for message loss. Finally, these solutions must be able to run continuously with manageable costs.

Today, there are many examples of ecosystems that must process several 100,000 messages per second and meet very time-sensitive business conditions in order to be profitable for the business involved. However, the infrastructure middleware used in most systems to date is not designed to handle these sorts of demands. The combination of fully automatic processing engines used in electronic trading has created an 'arms race' to handle ever greater business volumes at ever greater speeds. A by-product of this 'arms race' and the health of the markets is that message volumes - particularly quote volumes - are increasing dramatically month after month. The race to upgrade middleware infrastructure is on now.

The bottom line is that every firm participating in the electronic markets - investment banks, brokers, hedge funds, exchanges, and even day traders - must have an Ultra Messaging solution to stay profitable in the years to come. Leading firms have recognized this need and based their state of the art exchange design on 29West's Latency Busters® Messaging (LBM). LBM offers a low latency, high performance, application to application messaging model that is very well suited to this new class of Ultra Messaging applications. With 29West messaging solutions deployed in leading firms world wide, the market is clearly excited about how the 29West messaging model can help provide a critical advantage in many business applications. With the addition of persistence, durable subscription and delivery confirmation in the 29West Ultra Messaging for the Enterprise (UME) messaging solution, 29West has again raised the performance bar and made application to application messaging and its breakthrough daemonless design, applicable to a wide range of new applications.

If you see lower latency and higher performance messaging as a key need for your organization, please contact us to set up a free evaluation. The only way to see how 29West messaging can impact your business is to compare our products with your current solutions, on your network, running your applications. Seeing is believing, and a evaluation will give you the chance to see what 29West can do for your firm. With offices in Chicago, New York and London, we can provide local support and get your project off the ground quickly.

For more information, please contact us at info@29west.com, or visit our web site at www.29West.com

"Ultra Messaging" and "Latency Busters" are trademarks of 29West Inc.