



Dear BATS Exchange Member,

Thanks to Member feedback and statistics we've gathered internally, we believe BATS remains the fastest, most consistent and most efficient exchange platform on the planet. In addition to seeking to provide our Members with the most diverse and flexible tools for the handling of their orders, as part of the BATS culture, the BATS Exchange technology team is continuously striving to improve the performance of the core BATS Exchange system.

Smart Order Router Improvements

To this end, BATS Exchange has recently completed significant enhancements to our smart order router. These enhancements have resulted in the following performance statistics for orders which BATS routes using its smart order router:

- Greater than 70% share fill rate
- 8 millisecond average order lifetime

If you haven't tried our CYCLE and RECYCLE order routing strategies lately, BATS encourages you to do so and take advantage of the stellar performance at an extremely competitive route rate of \$.0026 per share, a **significant savings** compared with our major competitors.

Order Matching Improvements

The BATS Exchange technical team also recently completed a set of projects which has dramatically reduced overall system latency and increased throughput to unprecedented levels.

What is Latency? – BATS' Transparent Latency Metrics

BATS uses two primary metrics to evaluate system performance:

- **FIX Order Entry Latency** - the time it takes to accept, process, and acknowledge **or fill** a Member order.
- **Order-to-Quote Latency** - the time it takes to accept and process a visible order via FIX and display it via Multicast PITCH.

BATS believes in publishing the distribution of latency for each primary latency metric to adequately represent the performance of our system. We provide this data publicly, as we have for nearly two years, via our web site at http://www.batstrading.com/resources/features/bats_exchange_latency.pdf.

Both of these metrics include the complete round trip from the edge of the BATS network (firewall) to the matching engine and back. This ensures any latency attributable to any part of the BATS network or software is counted, and thus, the reported latency can actually be witnessed by Members who have optimized their systems accordingly.

These performance metrics apply during everyday market conditions, and our Members validate that under heavy market conditions the BATS platform maintains its high-performance/low-latency profile.

FIX Order Entry Latency

Statistics collected outside the BATS network showed a **145 MICROSECOND REDUCTION (37%)** in FIX Order Entry Latency. As a result, average FIX order entry latency through the entire BATS system now averages **250 microseconds**. In addition, latency variance has decreased which has resulted in the following distribution:

Order Entry Latency – 37% REDUCTION	
1% of orders within	200 microseconds



50% of order within	230 microseconds
Average	250 microseconds
80% of all orders within	250 microseconds
99% of all orders within	585 microseconds
99.9% of all orders within	1.3 milliseconds

Order-to-Quote Latency

BATS Multicast PITCH is a world-class full depth of book feed that matches BATS' world-class FIX order entry latency. Statistics collected outside the BATS network showed a **325 MICROSECOND REDUCTION (52%)** in Order-to-Quote Latency to **305 microseconds**. This improvement has resulted in the following Order-to-Quote Multicast PITCH latency distribution:

Multicast PITCH Latency (Order-to-Quote) – 52% REDUCTION	
1% of all orders within	215 microseconds
50% of all orders within	255 microseconds
Average	305 microseconds
80% of all orders within	335 microseconds
99% of all orders within	910 microseconds
99.9% of all orders within	1.9 milliseconds

Increased Capacity

It's important to note the extremely low variance of both latency metrics as it represents the massive scalability of the BATS Exchange system. This low variance gives BATS Exchange Members confidence that the world-class performance they've come to expect from BATS Exchange will remain available during the heaviest of market conditions. Our system has handled message peaks of greater than 440,000 messages per second in production without issue and has been stress tested to **sustain** greater than 600,000 messages per second while handling momentary peaks well above the sustained rate. When the BATS Options system is launched this year it will handle more than **1.2 million messages per second sustained** as a result of significant improvements completed in 2009 by the BATS Exchange technology team.

We greatly appreciate your business and participation in helping us make markets better through the use of world-class technology. For more information on the BATS system performance please refer to http://www.batstrading.com/resources/features/bats_exchange_latency.pdf.

Please contact the BATS Trade Desk, your Director of Sales or me with any questions.

BATS Trade Desk
 +1.913.815.7001
tradedesk@batstrading.com
www.batstrading.com

Sincerely,

Chris Isaacson
 SVP, Chief Operating Officer
 BATS ... Making Markets Better



+1.913.815.7222
chris@batstrading.com