

Cinnober discloses latest latency and performance benchmarks

Performance benchmarks of the latest release of TRADExpress™ Trading System reveal outstanding low latency with an average response time of 286 microseconds, and throughput capacity of over 800 thousand quote updates per second in a setup with five matching engine partitions.

Cinnober delivers TRADExpress Trading System and related solutions to exchanges, multilateral trading facilities, and alternative trading venues, such as Alpha ATS, Burgundy, Borsa Italiana, Markit BOAT, and Turquoise.

Speed is crucial to any marketplace that wants to stay competitive, as well as managing growing transaction volumes. TRADExpress Trading System is developed with extreme focus on minimizing latency and maximizing throughput, and remains so in its ongoing development. The system was first delivered to customers in version 7.0 a year ago. This was a major upgrade from the previous version. The results released today are the outcome of continuously pursued tuning efforts.

The response time—door-to-door latency—achieved in the performance benchmark was 286 microseconds on average. When including synchronous write to a hot standby server, approximately 100 microseconds were added to the average response time.

Door-to-door latency is the time lapse from the moment an order enters the marketplace, is processed in the matching engine, until the moment the response and result are sent back to the participant.

Furthermore, a throughput benchmark was carried out in order to verify the system's capacity to manage heavy load. The test verified capacity to handle as much as 801,500 quote updates per second.

The throughput tests were performed with a batch factor of 40—each transaction sent to the system included 40 quotes with a sell and a buy side—on a setup with five matching engine partitions. The TRADExpress architecture allows throughput capacity to be linearly scaled up to manage even larger volumes by adding further partitions.

“Speed and performance is paramount to our customers and several of them are market leading in terms of latency. These benchmark figures are tremendous and confirm not only that we have a market-leading platform but also how well it is equipped to continuously adapt to ever more extreme demands”, commented Nils-Robert Persson, Executive Chairman of Cinnober. “It is important to know that these figures have been achieved on commodity hardware and measures the door-to-door latency and nothing less than that”, he continued.

All benchmarks were performed on a test site. A whitepaper detailing TRADExpress benchmarks is soon to be published.

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About Cinnober Financial Technology

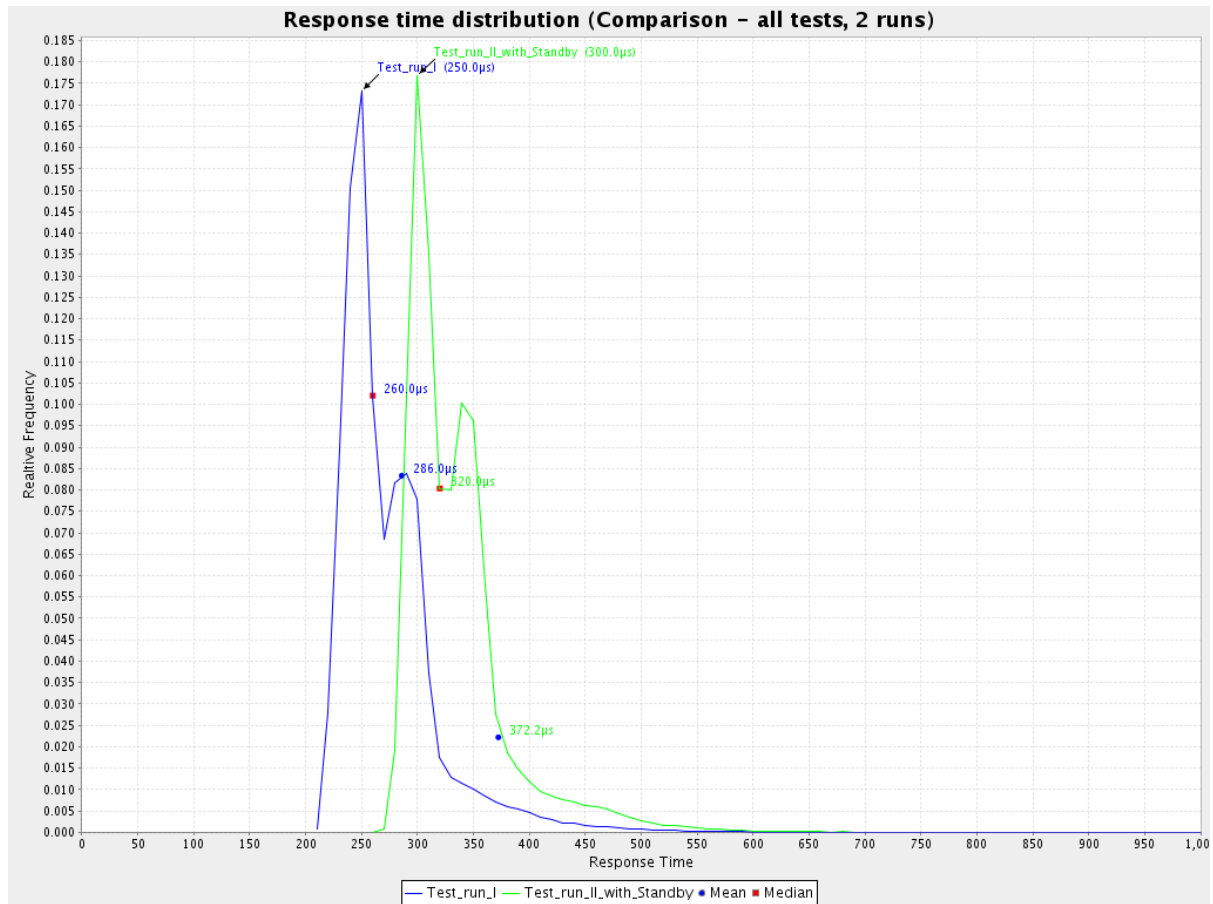
Cinnober provides mission-critical systems to a number of leading marketplaces, including Alpha Trading Systems, The Chicago Board Options Exchange, The London Metal Exchange, Markit BOAT, NYSE Liffe and Turquoise. Cinnober's products are highly customizable and based on TRADExpress, a scalable, high-performance, low-latency platform for transaction processing. TRADExpress is 100% Java-based, enabling solutions that are flexible, as well as hardware- and database-independent. For additional information about Cinnober, please visit www.cinnober.com

About TRADExpress™ Trading System

TRADExpress Trading System is a low-latency, high-throughput trading engine that meets the needs of the most demanding marketplaces within the financial, commodity and energy sectors. It combines advanced business functionality with market leading performance in terms of speed and throughput. For additional information about the trading system, please visit www.cinnober.com/tradexpress-trading-system.

Appendix

Latency benchmarks



The graph illustrates the two latency tests—with and without synchronous write to a collocated hot standby server.

Test run	Mode (microseconds)	Mean (microseconds)	Median (microseconds)
Door-to-door latency, no standby	250.0	286.0	260.0
Door-to-door latency with standby	300.0	372.2	320.0

Mode, mean and median latency in the latency test runs—with and without synchronous write to a collocated hot standby server.