



February 9, 2016

Mr. Brent J. Fields
Secretary
U.S. Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549-1090

Re: [Investors' Exchange LLC Form 1 Application \(Release No. 34-75925; File No. 10-222\)](#)

Dear Mr. Fields:

Investors' Exchange LLC ("IEX") is writing again to respond to certain recurring comments on its application for registration as a national securities exchange ("Application") and, in general, to state our concerns about the anti-competitive impact of applying different regulatory standards to IEX compared to other exchanges or creating undue delay in the SEC's action on our Application.

In this letter we address two issues:

1. Whether IEX's speed bump, using a length of coiled cable at its point-of-presence ("POP"), is prohibited as an "intentional device" under Regulation NMS.
2. The design and operation of the routing function performed through IEX's affiliated broker-dealer ("Router").

Interpreting "Intentional Device"

Regulation NMS was adopted over ten years ago.¹ An isolated phrase from the adopting release, not the rule itself, has formed the centerpiece of the arguments against IEX's 350 microsecond "speed bump." The focus of our critics is on the words "intentional device" as used in this passage:

[A] quotation will not qualify as "automated" if any human intervention after the time an order is received is allowed to determine the action taken with respect to the quotation. The term "immediate"² precludes any coding of automated quotation systems or other type of intentional device that would delay the action taken with respect to a quotation.³ (emphasis added)

The Commission has never defined "intentional device," but the reference in the preceding sentence to "human intervention" and other context in the regulation⁴ clearly indicate that reliance on these words to

¹ Regulation NMS, Exchange Act Release No. 51808 (June 9, 2005), 70 Fed. Reg. 37496 (June 29, 2005) ("Adopting Release").

² The passage refers to the Rule 600(b)(3) definition of "automated quotation" as one that "immediately and automatically" takes action with respect to an order.

³ Adopting Release, 70 Fed. Reg. at 37534.

⁴ As described in our previous responses. Letters to Brent J. Fields, Secretary, SEC, from Sophia Lee, General Counsel, IEX (November 13, 2015), [available at https://www.sec.gov/comments/10-222/10222-20.pdf](https://www.sec.gov/comments/10-222/10222-20.pdf); (November 23, 2015), [available at https://www.sec.gov/comments/10-222/10222-26.pdf](https://www.sec.gov/comments/10-222/10222-26.pdf).



reject IEX's use of cable adding 350 millionths of a second (1/1000 of a blink of an eye), and to classify IEX's quotes as "manual," is an attempt by vested interests to misinterpret or rewrite the intent of the regulation.⁵

These words must either be read literally or must be subject to interpretation. **The New York Stock Exchange ("NYSE"), Nasdaq, and BATS all coil cable within their data centers** (termed a "delay coil" by the Nasdaq CEO⁶) to equalize latency among their paying co-located members. In fact, the BATS exchange uses a "delay coil" to equalize the distance among members who are co-located in two *different* data centers.⁷ These "delay coils" were not subject to a rule filing or comment period, and the Commission has permitted these arrangements for years, with no question as to whether they are inconsistent with Regulation NMS. And, literally, a NYSE, Nasdaq, or BATS member subject to the additional coiling will have slower access to that exchange's quotations because of a "device" that is "intentionally" used to achieve that purpose. As a result, there is no basis for interpreting Regulation NMS to prohibit IEX's use of coiling but permit all the others, and doing so would be arbitrary and unfairly discriminatory to IEX.

Because of the lack of prior guidance on the meaning of this passage, the only reasonable conclusion is that it must be subject to interpretation. To interpret it, the means used, the length of the delay, whether it affects all users equally, and the purpose and effect of the delay are all relevant. Applying those factors to the POP:

- The means of introducing latency, coiling cable, is the same one widely used by other exchanges.
- The latency of 350 microseconds is not material relative to existing geographical and technological differences among exchanges. IEX has demonstrated that our quotes are faster and more accessible for most participants than both the Chicago Stock Exchange and the New York Stock Exchange,⁸ both of which have protected quotations under Regulation NMS.
- It is applied in the same way to every participant, unlike delay coils used by other exchanges, which are applied selectively to those members that pay to co-locate.
- The purpose and effect of the POP is to create greater parity between long-term investors and short-term traders, consistent with Regulation NMS.

One point, however, is not subject to interpretation: whether the rules protect the ability of high-speed traders to profit from minuscule time advantages at the expense of long-term investors. In the **same document** containing the "intentional device" sentence, the Commission rejected arguments that had been made by some traders that the rules would be unfair to them:

⁵ See, e.g., Testimony of William H. Donaldson, Chairman, SEC, Before the U.S. House Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises (March 15, 2005): "Thus, the trade-through proposal would not require market participants to route orders to access manual quotations, which generally entail a much slower speed of response than automated quotations."

⁶ See Statements of NASDAQ CEO, available at <http://files.shareholder.com/downloads/NDAQ/906606220x0x740452/7918EF32-2541-4F6F-9144-EDC02228351B/NDAQ.20140327.pdf>.

⁷ See "BATS Global Markets and Direct Edge Integration: What You Need to Know," available at <https://forum.equinix.com/insights/bats-global-markets-and-direct-edge-integration-what-you-need-to-know/financial>.

⁸ Letter to Brent J. Fields, Secretary, SEC, from Sophia Lee, General Counsel, IEX (November 23, 2015), available at <https://www.sec.gov/comments/10-222/10222-26.pdf>.



The Reproposing Release [for Regulation NMS] touched on this issue in the specific context of assessing the effect of the Order Protection Rule on the interests of professional traders in conducting extremely short-term trading strategies that can depend on millisecond differences in order response time from markets. Noting that any protection against trade-throughs could interfere to some extent with such short-term trading strategies, the release framed the Commission's policy choice as follows: "Should the overall efficiency of the NMS defer to the needs of professional traders, many of whom rarely intend to hold a position overnight? Or should the NMS serve the needs of longer-term investors, both large and small, that will benefit substantially from intermarket price protection?"

The Reproposing Release emphasized that the NMS must meet the needs of longer-term investors, noting that any other outcome would be contrary to the Exchange Act and its objectives of promoting fair and efficient markets that serve the public interest.⁹ (emphasis added)

This debate is not new. However, existing exchanges and a small group of high-speed traders are now attempting to hijack the rules by crafting a new interpretation of Regulation NMS that directly contradicts the Commission's own words. That is not a position of principle; it is an attempt by the incumbents to protect sources of revenue that advantage those speed-based traders. They have created a system that relies on the sale of speed and market data, and now they want the Commission to rule that no one can challenge it.

Considering the regulatory background and current market practice, to single out and prohibit the IEX speed bump would on its face be arbitrary and discriminatory, and would undermine investor protection. IEX does not require a change to the regulations, only an equitable application of them.

IEX's Router

Several opposing comment letters claim that the IEX Router creates an unfair advantage. These arguments have attempted to take a complex subject and distort the facts to divert attention from the real reason for their objections: the IEX Router protects clients from electronic front running. In this letter, we use the term *electronic front running* to refer to the ability of an opportunistic trader to trade ahead of IEX's clients based on speed advantages and information concerning IEX's clients' orders.¹⁰

In simple terms – IEX's Router is designed to protect our clients

IEX, in order to comply with Regulation NMS, directs orders to its affiliated broker-dealer to route to other markets. IEX's Router only routes on behalf of our clients. Any suggestion otherwise is false.

IEX's Router is not subject to the speed bump to ensure that IEX's Router is not subject to electronic front running when routing to other exchanges on behalf of our clients.

Does electronic front running exist?

One comment letter from a high-speed trading firm in effect acknowledges that electronic front running exists, by describing an example and saying that IEX should not be able to prevent it.¹¹ Nasdaq made a change to its

⁹ Adopting Release, 70 Fed. Reg., at 37499-500.

¹⁰ We use this term to distinguish it from the traditional use of the term front running, which refers to a broker-dealer that trades ahead of its own client's orders, versus a scenario where a broker trades ahead of IEX's routing client.

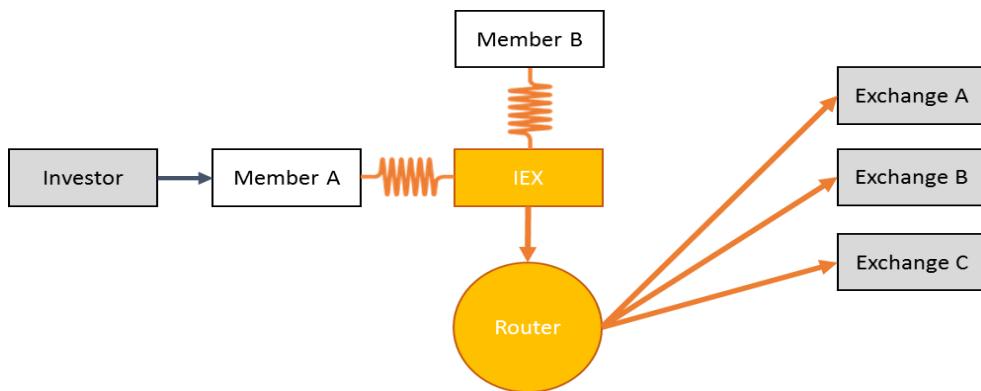
¹¹ See Letter to Brent J. Fields, Secretary, SEC, from Adam Nunes, Hudson River Trading LLC (December 4, 2015), available at <https://www.sec.gov/comments/10-222/10222-33.pdf>; see also Letter to Brent J. Fields, Secretary, SEC, from Clive



router in 2012 (discussed below) explicitly designed to counteract it. Finally, IEX recently published an opinion piece¹² on our website titled “The NYSE Speed Bump You Weren’t Aware Of,” which explained how switching from NYSE’s standard FIX access gateway to a faster Binary gateway resulted in a more than 10% improvement in IEX fill rates on NYSE. The speed difference between the FIX and Binary gateways was on average 200-400 microseconds. Put more simply, in a span of 200-400 microseconds, a high-speed trader was able to pick up a signal on IEX (or another exchange) and cancel its quotes or trade ahead of IEX’s routable order on NYSE (and we have evidence of the occurrence of both). This example reinforces the importance of IEX’s 350 microsecond speed bump in protecting routable orders from electronic front running.

How does IEX’s Router protect our clients?

To best illustrate how IEX’s Router protects our clients from electronic front running, we refer to the following diagram, which describes a routing member (Member A) sending a routable order to buy shares of a stock (e.g., MSFT), while Member B is seeking to react to a report of an IEX execution of that order so that it can electronically front run Member A’s routed orders before they can be executed:



A few important things to note:

1. Investor sends an order to Member A to buy 10,000 MSFT @ \$50.00 with instructions to route the order away if IEX cannot fully fill the order. Member A has fully committed to trading its order, cannot change its mind, and IEX has a responsibility to execute the order to the best of its ability.
2. Member A sends its order to IEX through the speed bump like all other members.
3. Member B is offering 1,000 MSFT for sale at \$50.00 on IEX. 1,000 shares trade as a result.
4. Both Member A and Member B receive their 1,000 share trade reports over the speed bump.
5. IEX’s Router receives 9,000 MSFT to buy at \$50.00 from IEX without going through the speed bump, which deters Member B from electronically front running Member A to Exchanges A, B, and C, while Member A’s order is in the process of fully executing.

Williams, Vice President and Global Head of Trading, T. Rowe Price Associates, Inc. (December 24, 2015), available at <https://www.sec.gov/comments/10-222/10222-273.pdf>.

¹² Donald Bollerman, IEX Co-Founder and Head of Markets & Sales, “A NYSE Speed Bump You Weren’t Aware Of,” available at <https://iextrading.com/about/press/op-ed>.



Placing IEX’s Router on an “equal footing” with members would enable electronic front running

Some commenters have suggested that IEX should be forced to place its Router on an “equal footing” with all members. One commenter even alleged that the Router would have an “insurmountable advantage” because it receives instructions before any IEX member receives its own trade reports.¹³ However, all exchange routers must satisfy regulatory obligations to protect the public interest when routing (e.g., risk checks under Rule 15c3-5 for multiple customers, technology controls under Regulation SCI) and therefore must utilize technology that prioritizes reliability, security, and capacity over speed (e.g., optical fiber over wireless connectivity between data centers). These regulatory obligations inherently **slow down any exchange router subject to them**. Therefore, if placed on exact time and place parity with a high-speed trading member, the exchange router will be at an **insurmountable disadvantage** in attempting to protect its clients from electronic front running based on its slower speed due to regulatory obligations.

How have other exchanges attempted to counter electronic front running?

In 2012, the SEC approved Nasdaq’s proposal to give its router a “head start” advantage to overcome electronic front running.¹⁴ Although Nasdaq in a recent comment letter¹⁵ attempts to conveniently recast the purpose of that routing change, its argument contradicts the filing it submitted and the Commission’s approval order. Those documents show that the change allowed Nasdaq to receive a routable order, execute against all displayed and undisplayed (*i.e.*, dark) interest on the Nasdaq book and *simultaneously* send orders to other markets. This can only be achieved by providing Nasdaq’s router with a view of dark interest on the Nasdaq book that no other member has, and this view provides an important advantage to Nasdaq because it enables the Nasdaq router to fully execute all available displayed and hidden liquidity on Nasdaq and route to other markets without the need to wait for an execution report from Nasdaq. No other routing firm can do the same thing. Nasdaq explained at the time that the change was made to counteract the “deleterious effect of market impact” and “information leakage” (*i.e.*, electronic front running) that occurred with respect to an order executed on Nasdaq .”¹⁶

The IEX Router does not impose a competitive burden on broker routers

A few commenters have alleged that the IEX Router would impose an unfair competitive burden on broker-dealers operating routers. The example that is used to justify this argument points to a “serial router” that first routes to IEX, and then only after receiving a report of a fill from IEX, routes to the next exchange, and so on. In this “edge case” example, the serial router has to wait 350 microseconds both in and out of the IEX system, and some argue this means that the IEX Router has an “insurmountable advantage” since it does not have to traverse the speed bump. This argument should be rejected for two reasons. First, any broker choosing to route serially would be **imposing a competitive burden on itself** and subjecting its clients to electronic front running as a result of this choice. Second, the SEC recently approved an option for BATS’s router (called “ALLB”) that BATS described as allowing clients to “*remove liquidity from all four [BATS] markets*

¹³ Letter to Brent J. Fields, Secretary, SEC, from John C. Nagel, Esq., Citadel LLC (November 30, 2015), [available at https://www.sec.gov/comments/10-222/10222-28.pdf](https://www.sec.gov/comments/10-222/10222-28.pdf).

¹⁴ Exchange Act Release No. 67639 (August 10, 2012), 77 Fed. Reg. 49034 (August 15, 2012) (“Nasdaq Order”).

¹⁵ Letter to Brent J. Fields, Secretary, SEC, from Joan C. Conley, Nasdaq (January 29, 2015), [available at https://www.sec.gov/comments/10-222/10222-350.pdf](https://www.sec.gov/comments/10-222/10222-350.pdf).

¹⁶ Nasdaq Order, 77 Fed. Reg. at 49034.



*with a single order.*¹⁷ Based on this description, the BATS ALLB router would have an “insurmountable advantage” versus a serial router as described in the “edge case,” because that router would have to first route to BATS-Z, for example, and then only after receiving a fill from BATS-Z, route to BATS-Y and so on to the two other BATS exchanges (EDGA, EDGX). A broker using a serial router can only accomplish this using four separate orders and would incur a substantial timing disadvantage versus the BATS ALLB router, which can accomplish it “with a single order.”

Based on the approval of the BATS ALLB router, it would be unfairly discriminatory to IEX to reject IEX’s Router design based on a hypothetical “edge case” involving use of a serial routing strategy.

An agency broker viewpoint

No agency broker has raised the “insurmountable advantage” or “competitive burden” concern, even though it is their business that is supposedly harmed. Instead, the argument has been raised by high-speed traders and exchanges, which we find disingenuous. On the other hand, Jefferies LLC (“Jefferies”), a global investment bank that routes for customers, provided relevant comments to the contrary. Jefferies states that they *“do not see the IEX router having an advantage over a broker router that utilizes ISOs to sweep multiple price levels”* and also that *“the IEX router does not hold an unfair advantage over other exchange routers.”*¹⁸ Importantly, Jefferies also describes a scenario in which an agency router, *“which is able to route to multiple destinations simultaneously (parallel routing) has an advantage over the IEX router.”*¹⁹ This statement, made by an agency broker, **provides evidence that brokers have the means to build routers that are comparable to the IEX Router**, if they choose to do so, and that IEX does not impose a “competitive burden” on, or have an “insurmountable advantage” over, those broker routers.

Conclusion

In adopting Regulation NMS, the Commission made clear in multiple statements that it was crafted to “uphold the interests of long-term investors” over those of short-term traders.²⁰ Because we have designed our market in a way that is true to that principle, we have received overwhelming support from long-term investors. For example, Teacher Retirement System of Texas (“TRS”), a pension fund representing over 1.4 million active and retired public school employees, recently wrote in a comment letter that, *“TRS has found that we consistently receive higher quality executions in IEX compared to other ATS’s and exchanges”* and that *“the enhanced quality of executions we receive in IEX can equate to Millions in savings for our beneficiaries.”*²¹

Denying or delaying IEX’s ability to become a registered stock exchange would reject the desire for competition voiced by investors such as TRS, Aberdeen Asset Management, The Boston Company, Brandes Investment Partners, The Capital Group, Franklin Templeton, Norges Bank, Oppenheimer, Southeastern Asset

¹⁷ “BATS Announces ‘All BATS’ Routing Strategy,” [available at](http://cdn.batstrading.com/resources/release_notes/2016/Reminder-BATS-Announces-ALL-BATS-Routing-Strategy.pdf) http://cdn.batstrading.com/resources/release_notes/2016/Reminder-BATS-Announces-ALL-BATS-Routing-Strategy.pdf; Exchange Act Release No. 76459 (November 17, 2015), 80 Fed. Reg. 73024 (November 23, 2015).

¹⁸ Letter to Brent J. Fields, Secretary, SEC, from Jefferies LLC (January 14, 2016), [available at](https://www.sec.gov/comments/10-222/10222-321.pdf) <https://www.sec.gov/comments/10-222/10222-321.pdf>.

¹⁹Id.

²⁰ Adopting Release, at 37500.

²¹ Letter to Brent J. Fields, Secretary, SEC, from TRS, [available at](https://www.sec.gov/comments/10-222/10222-320.pdf) <https://www.sec.gov/comments/10-222/10222-320.pdf>.



Management, T. Rowe Price, and the many other long term investors who have commented in support of the IEX Application.²² These investors, and hundreds of others like them, represent millions of people who are seeking a stock exchange alternative that offers higher quality execution and protection of their orders, and their interests should be paramount.

Some have argued that controversy over the IEX Application demonstrates the need for a comprehensive review of equity market regulation. We agree that a holistic review of the rules is appropriate, given the evolution of the markets and the multi-class structure that has evolved, but in no way should this review isolate and prevent a new entrant from competing under the existing rules. To do so would create a regulatory barrier to competition and would be the antithesis of a free and fair market.

IEX believes that our Application fully complies with the Exchange Act and with Regulation NMS and, in fact, more fully complies with the spirit of both the Exchange Act and the regulations than existing exchanges do. We are not asking for any changes to the rules and do not believe that IEX requires an exemption to the rules. Instead, we are asking the Commission to apply the rules in an equitable way and to give the same opportunity to IEX that other exchanges have been granted for many years.

The issues have been exhaustively debated in the comment process and in other public statements. We respectfully believe the Commission has all the information needed regarding the two issues posed to render a decision upholding the interests of long-term investors and to approve IEX by the extended deadline of March 21, 2016.

Regards,

A handwritten signature in blue ink that reads "Sophia Lee".

Sophia Lee

General Counsel

cc: The Honorable Mary Jo White, Chair
The Honorable Michael S. Piwowar, Commissioner
The Honorable Kara M. Stein, Commissioner
Stephen Luparello, Director, Division of Trading and Markets
Gary Goldsholle, Deputy Director, Division of Trading and Markets
David S. Shillman, Associate Director, Division of Trading and Markets
Richard Holley III, Assistant Director, Division of Trading and Markets
David Grim, Director, Division of Investment Management

²² These comments are available at <https://www.sec.gov/comments/10-222/10-222.shtml>.