

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-91016; File No. SR-IEX-2020-18)

January 29, 2021

Self-Regulatory Organizations; Investors Exchange, LLC; Order Granting Approval of Proposed Rule Change to Amend IEX Rule 11.510 to Reduce the Outbound Latency that Presently Applies to All Messages Sent from IEX Back to Users of the Exchange

I. Introduction

On December 9, 2020, the Investors Exchange LLC (“Exchange”) filed with the Securities and Exchange Commission (“SEC” or “Commission”), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> a proposed rule change to amend IEX Rule (“Rule”) 11.510 to reduce the outbound latency that presently applies to all messages sent from IEX to users of the Exchange, as well as to make conforming changes to the outbound latency that applies to all trading messages sent from the IEX order book to the system routing logic with respect to routable orders. The proposed rule change was published for comment in the Federal Register on December 17, 2020.<sup>3</sup> The Commission received no comment letters on the proposed rule change. This order approves the proposed rule change.

II. Description of the Proposal

The Exchange proposed to amend Rule 11.510 to eliminate the “coil” delay that is currently applied to outbound order execution messages and IEX proprietary market data sent to IEX users and the IEX system routing logic used by IEX’s affiliated routing broker-dealer, IEX

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<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

<sup>3</sup> See Securities Exchange Act Release No. 90645 (December 11, 2020), 85 FR 81982 (December 17, 2020) (“Notice”).

Services LLC (“IEXS”).<sup>4</sup> Currently, users access IEX through the Exchange-provided network interface at the IEX Point-of-Presence, or “POP,” located in Secaucus, New Jersey.<sup>5</sup> Electronic messages that users send inbound to the IEX system, and order execution messages and IEX proprietary market data sent outbound to users, traverse the IEX coil, which is a box containing approximately 38 miles of compactly coiled optical fiber cable, and travel an additional geographic and physical distance between the POP and the IEX system located at the Exchange’s primary data center in Weehawken, New Jersey.<sup>6</sup> The time required for such communications to traverse the coil combined with the geographic and physical distance (and related networking) currently equates to an equivalent 350 microseconds of latency.<sup>7</sup> IEXS is a member of the Exchange and its associated routing logic currently is subject to the same 350 microseconds of latency as other members when sending order messages to the IEX order book and when receiving order execution messages and IEX proprietary market data.<sup>8</sup> As a result, IEXS has no

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<sup>4</sup> See proposed Rule 11.510; Notice, supra note 3, at 81982. The Exchange did not propose any changes to the coil delay that applies to inbound order messages, including order cancellations and modifications, from users at the POP to the IEX system and from the system routing logic to the order book. See proposed Rule 11.510; Notice, supra note 3, at 81984. The Exchange does not apply a coil delay to its communications with the Securities Information Processors (“SIP(s)”) or away trading centers, and those aspects of the Exchange likewise are not changing under the proposal. See Notice, supra note 3, at 81983.

<sup>5</sup> See Notice, supra note 3, at 81983.

<sup>6</sup> Id.

<sup>7</sup> Id.

<sup>8</sup> Id. If a user sends a routable order to the Exchange, after traversing the inbound latency (including the coil) from the POP to the IEX system, the order is directed to the system routing logic. Id. The current 350 microsecond latency on order messages between the IEX routing logic and order book is implicated when the routing logic has determined to route to the IEX order book all or part of the routable order submitted by the user, and is in addition to the 350 microsecond latency between the POP and the IEX system. Id. As a result, currently, users connected at the POP experience a cumulative, one-way latency of 700 microseconds on routable order messages to and from the IEX system. Id. at

speed or informational advantage compared to other Exchange members and data recipients.<sup>9</sup>

IEX's proposed elimination of the coil delay on outbound order execution messages and proprietary market data will reduce the latency on outbound communications to 37 microseconds, which latency will be due to geographic and physical distance and network connectivity.<sup>10</sup> The proposed elimination of the coil delay on outbound order execution messages and proprietary market data will affect IEXS in the same manner that it effects other Exchange users, thus ensuring that the Exchange's affiliated routing broker-dealer is similarly situated and not competitively advantaged vis-à-vis any non-affiliated routing broker-dealer.<sup>11</sup>

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81983-84; see also Rule 11.230(b), 11.510(c)(1), and proposed Supplementary Material ("Supp.") .03 to Rule 11.510.

<sup>9</sup> See Notice, supra note 3, at 81983.

<sup>10</sup> See proposed Rule 11.510(a); see also Notice, supra note 3, at 81984. Specifically, the Exchange proposed to amend Rule 11.510(a) to state that outbound communications from the IEX system to the POP will not traverse the physical distance provided by coiled optical fiber and instead will be subject to an equivalent 37 microseconds of latency due to traversing the geographic distribution and network connectivity between the system at the primary data center and the network access point of the POP. See proposed Rule 11.510(a). Relatedly, the Exchange proposed to amend Rule 11.510(b)(2) to state that, for outbound communications (including, without limitation, execution report messages found in the Exchange's FIX Specification, quote and trade update messages found in the Exchange's TOPS and DEEP specifications, and DROP messages), the Exchange's connectivity infrastructure is designed to provide an equivalent 37 microseconds of latency from the system at the primary data center to the Exchange-provided network interface at the POP. See proposed Rule 11.510(b)(2).

<sup>11</sup> See Notice; supra note 3, at 81986. Specifically, the Exchange proposed to amend Rule 11.510(c)(1) to state that all outbound communications (including, without limitation, execution report messages found in the Exchange's FIX specification) from the order book to the system routing logic are subject to 37 microseconds of latency, which is in addition to the 37 microsecond latency on outbound communications from the IEX system to the POP described in proposed Rule 11.510(b)(2). See proposed Rule 11.510(c)(1); see also proposed Supp. .03 (stating that all responses from the IEX order book to the system routing logic are subject to 37 microseconds of latency and all messages from the system routing logic to users are subject to an additional 37 microseconds of outbound latency). Users connected to IEX at the POP therefore would experience a cumulative delay of 74 microseconds on outbound messages from the IEX system regarding their routable orders. See proposed Rule 11.510(c)(1); see also

The Exchange also proposed to make several non-substantive clarifying changes to add further detail to Rule 11.510 to: (i) define the term “POP”;<sup>12</sup> (ii) reference the 350 microsecond latency on inbound communications from the POP to the IEX system and from the system routing logic to the order book separately from the proposed 37 microsecond latency on outbound communications from the system to the POP and from the order book to the system routing logic;<sup>13</sup> (iii) further describe, without alteration, how the Exchange handles incoming routable orders, and specify that the 350 microseconds of latency on inbound communications from the routing logic to the order book is in addition to the inbound latency on communications from the POP to the system;<sup>14</sup> (iv) refine references to “POP” throughout the rule such that they refer to connectivity at the POP or the connectivity infrastructure between the system and the POP, as appropriate;<sup>15</sup> (v) add explanatory cross references to provisions within the rule;<sup>16</sup> and (vi) make non-substantive grammatical revisions.<sup>17</sup>

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proposed Supp. .03. Users would continue to experience a cumulative latency of 700 microseconds on inbound routable order messages. See proposed Rule 11.510(c)(1); proposed Supp. .03; Notice, supra note 3, at 81984. In addition, the Exchange proposed to amend Rule 11.510(c)(2)(A) to specify that the IEX routing logic may only receive Exchange data products subject to 37 microseconds of latency, equivalent to the outbound latency applicable to all other data product recipients that is described in proposed Rule 11.510(b)(2). See proposed Rule 11.510(c)(2)(A).

<sup>12</sup> See proposed Rule 11.510(a).

<sup>13</sup> See proposed Rule 11.510(a) and 11.510(c)(1).

<sup>14</sup> See proposed Rule 11.510(c)(1).

<sup>15</sup> See proposed Rule 11.510.

<sup>16</sup> See proposed Rule 11.510(b), 11.510(c)(3)(A), and Supp. .02.

<sup>17</sup> See proposed Rule 11.510.

### III. Discussion and Commission Findings

After careful review, the Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange.<sup>18</sup> In particular, the Commission finds that the proposed rule change is consistent with Section 6(b)(5) of the Act,<sup>19</sup> which requires, among other things, that the rules of a national securities exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers or dealers; and with Section 6(b)(8) of the Act,<sup>20</sup> which requires that the rules of a national securities exchange not impose any burden on competition that is not necessary or appropriate.

IEX's coil delay on outbound order execution messages and proprietary market data, which has been in place since IEX became a registered national securities exchange in 2016, was designed to help IEX members avoid potential information leakage in connection with an execution on IEX that could reduce their ability to access liquidity on other markets after trading on IEX.<sup>21</sup> Since 2016, however, various technological developments, including the widespread availability of improved smart order routing techniques that take into account transmission

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<sup>18</sup> In approving this proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

<sup>19</sup> 15 U.S.C. 78f(b)(5).

<sup>20</sup> 15 U.S.C. 78f(b)(8).

<sup>21</sup> See Notice, supra note 3, at 81983-84. By contrast, the inbound coil delay, which is not affected by this proposal, is designed to enable IEX to more effectively manage and price orders resting on its book when the market moves. Id. at 81983.

latency in coordinating simultaneous order arrival and execution times across multiple trading venues, have greatly reduced the potential for information leakage when sweeping the market, thus mitigating the utility of IEX's outbound coil delay to IEX users.<sup>22</sup> In addition, SIP latencies have decreased materially since 2016, effectively nullifying the purpose of the coil delay on IEX proprietary data since market participants currently can receive SIP data faster than IEX proprietary data.<sup>23</sup>

Against this backdrop, the Exchange asserts that the considerations that existed in 2016 for imposing the coil delay on its outbound order execution messages and proprietary data have been superseded by developments in the market and are now outweighed by the benefits that would be provided by the proposal – in particular, enhancement of members' ability to manage risk and market exposure through receipt of execution messages and IEX market data closer in time to when executions or quote changes occur.<sup>24</sup> The Exchange also states that the proposal would enable other exchanges to update their pegged orders faster, and enable other exchanges' affiliated routing brokers to more quickly incorporate executions on IEX into their routing decisions.<sup>25</sup>

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<sup>22</sup> Id. at 81983-86; see also Securities Exchange Act Release No. 89686 (August 26, 2020), 85 FR 54438, 54441 (September 1, 2020).

<sup>23</sup> See Notice, supra note 3, at 81984 and n.25 (noting that, at the time of IEX's exchange launch in September 2016 the average latencies for quote messages was 470 microseconds for the CQ Plan and 762 microseconds for the UTP Plan, and for trade messages was 320 microseconds for the CTA Plan and 619.7 microseconds for the UTP Plan); see also [www.utpplan.com](http://www.utpplan.com) (stating that current median latency is approximately 13.0-14.2 microseconds); [www.ctaplan.com](http://www.ctaplan.com) (stating that current median latency is under 17 microseconds for quotes and under 18 microseconds for trades); and compare current Rule 11.150(b)(2) (stating that the POP is currently designed to provide 350 microseconds of latency on IEX proprietary market data).

<sup>24</sup> See Notice, supra note 3, at 81984-86.

<sup>25</sup> Id. at 81986.

Importantly, IEXS (the Exchange's affiliated routing broker) and all other IEX members will remain on equal footing in that they will experience the same 37 microseconds of latency on their receipt of IEX order execution messages and proprietary market data. As a result, IEXS will have no informational or time advantage – or resulting competitive advantage – over any other IEX member.<sup>26</sup> Also, due to the equivalent reduction in the latency attendant to both outbound execution messages and IEX proprietary market data, parties to an execution on IEX will not receive information regarding the execution prior to other market participants, and thus will have no informational or time advantage – or resulting competitive advantage – over members who receive IEX proprietary data but are not parties to the execution. For these reasons, the Commission believes that the proposal is not designed to permit unfair discrimination, consistent with Section 6(b)(5) of the Act, and would not impose any inappropriate or unnecessary burden on competition, consistent with Section 6(b)(8) of the Act.

In addition, permitting the Exchange to modernize its infrastructure in a way that will better enable its members to manage risk and market exposure without inhibiting their ability to capture liquidity when routing orders to multiple market venues is consistent with the Section 6(b)(5) goals of promoting just and equitable principles of trade, removing impediments to and perfecting the mechanism of a free and open market and a national market system, and protecting

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<sup>26</sup> IEX will sequence the necessary systems changes to implement this proposed rule change in two steps, the first occurring for IEX users and the second for IEXS, thus ensuring that IEX's system routing logic is not preferenced over other users during implementation. Id. at 81985. After step one and before step two, while all outbound communications from the order book to the routing logic would continue to be subject to an equivalent 350 microseconds of latency, outgoing messages (i.e., responses) from the routing logic to users (with respect to routable orders sent to IEX) would be subject to the proposed reduced outbound latency of 37 microseconds. Id. at 81985 n.29. During this intervening period IEXS also would be able to receive IEX proprietary market data subject to the same 37 microseconds of latency as other members and data recipients. Id.

investors and the public interest. These goals also will be furthered by the proposal to the extent that other exchanges are better able to manage their own resting orders and routing processes through faster receipt of order messages and proprietary data from IEX. This potential effect on other exchanges, coupled with the fact that no other exchange currently imposes an artificial delay on outbound order execution messages or proprietary market data,<sup>27</sup> also support the conclusion that the proposal will not impose any inappropriate or unnecessary burden on competition, consistent with Section 6(b)(8) of the Act.

Finally, the Commission believes that the Exchange's proposed clarifying changes to Rule 11.510 add helpful detail that will further enhance investors' understanding of how IEX operates in a manner consistent with the Act, thereby helping to protect investors and the public interest consistent with Section 6(b)(5) of the Act.

#### IV. Conclusion

IT IS THEREFORE ORDERED, pursuant to Section 19(b)(2) of the Act,<sup>28</sup> that the proposed rule change (SR-IEX-2020-18) be and hereby is approved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>29</sup>

J. Matthew DeLesDernier  
Assistant Secretary

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<sup>27</sup> Id. at 81986.

<sup>28</sup> 15 U.S.C. 78s(b)(2).

<sup>29</sup> 17 CFR 200.30-3(a)(12).