

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-77381; File No. SR-NASDAQ-2016-033)

March 16, 2016

Self-Regulatory Organizations; The Nasdaq Stock Market LLC; Notice of Filing of Proposed Rule Change to Offer Remote ITCH to Trade Options Wave Ports

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> notice is hereby given that on March 2, 2016, The Nasdaq Stock Market LLC (“Nasdaq” or “Exchange”) filed with the Securities and Exchange Commission (“SEC” or “Commission”) the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to establish a fee for a new optional wireless connectivity service, Remote ITCH to Trade Options Wave Ports.

The text of the proposed rule change is available on the Exchange’s Website at <http://nasdaq.cchwallstreet.com>, at the principal office of the Exchange, and at the Commission’s Public Reference Room.

II. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in

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

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

Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Nasdaq is proposing to amend Nasdaq Options Market (“NOM”) Rules Chapter XV, Section 3, to establish fees for Remote ITCH to Trade Options (“ITTO”) Wave Ports for clients co-located at other third-party data centers located in Mahwah, N.J. (“Mahwah”) and Secaucus, N.J. (“Secaucus”), through which Nasdaq ITTO market data will be distributed after delivery to those data centers via a wireless network. Nasdaq ITTO is a data feed that provides quotation information for individual orders on the NOM book, last sale information for trades executed on NOM, and Order Imbalance Information as set forth in NOM Rules Chapter VI, Section 8.<sup>3</sup>

Nasdaq ITTO market data is subscribed to under NOM Rules Chapter XV, Section 4.

Nasdaq provides market data via two connectivity mediums: fiber optic networks, and/or wireless networks, (aka, Remote Wave Ports). ITTO market data is currently provided only by Nasdaq through fiber optic networks. Nasdaq is now proposing to provide ITTO market data through Remote Wave Ports. A Remote Wave Port is a physical port located in Nasdaq’s space within a third-party’s (remote) data center that receives market data delivered by Nasdaq via a wireless network,<sup>4</sup> which is then simultaneously distributed to Wave Ports within that location. Clients must separately subscribe to the data received by the Remote Wave Port service.

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<sup>3</sup> See Nasdaq Options Rules Chapter VI, Section 1(a)(3)(A).

<sup>4</sup> Wireless technology has been in existence for many years, used primarily by the defense, retail, and telecommunications industries. Wireless connectivity involves the beaming of signals through the air between towers that are within sight of one another. Because the signals travel a straight, unimpeded line, and because light waves travel faster through air than through glass (fiber optics), message latency is reduced. The continued use of this

Nasdaq offers TotalView ITCH equities market data through Remote MITCH Wave Ports for clients co-located at third-party data centers in Mahwah and Secaucus.<sup>5</sup> Nasdaq has recently increased the capacity of its wireless networks connecting Nasdaq's Carteret data center to those third-party data centers, so that they may now support delivery of ITTO market data.

Nasdaq is proposing to deliver ITTO market data to Nasdaq-owned cabinets at the third-party data centers located in Mahwah and Secaucus via a wireless network, as is currently done for TotalView ITCH market data. This offering, which is entirely optional, will enable delivery of Nasdaq ITTO market data to the third-party data centers at the same low latency.<sup>6</sup> Clients will have the option of cross-connecting to their subscribed ITTO Wave Ports in those data centers to receive the ITTO data feed.

Nasdaq is proposing to assess an installation charge for a Remote Wave Port in Mahwah of \$5,000 and a charge of \$2,500 for a Remote Wave Port in Secaucus. Nasdaq is also proposing a monthly recurring fee of \$10,000 for a Remote Wave Port in Mahwah and \$7,500 for a Remote Wave Port in Secaucus. Clients opting to subscribe to a Remote ITTO Wave Port will continue to be fee liable for the applicable market data fees as described in NOM Rules Chapter XV, Section 4(a).

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technology by the defense industry and regulation of the spectrum by the FCC demonstrates the secure nature of wireless networks.

<sup>5</sup> Nasdaq assesses a MITCH Wave Port installation fee of \$5,000 for Mahwah installations and an ongoing monthly fee of \$12,500. See Nasdaq Rule 7015(g)(1). Nasdaq assesses a MITCH Wave Port installation fee of \$2,500 for Secaucus installations and an ongoing monthly fee of \$7,500. Id. Nasdaq notes that the higher ongoing fee for Mahwah is reflective of the longer distance from Carteret to Mahwah requiring greater investment in infrastructure to connect the two locations.

<sup>6</sup> Nasdaq cannot preclude minor latency variances in delivery of Nasdaq ITTO in the third-party data centers to individual clients because it does not control the cross-connects in those centers; however, the microwave connectivity will provide the same latency to all clients' Remote ITTO Wave Ports and offers an improvement in latency over fiber optic network connectivity.

Competition for market data distribution is considerable and the Exchange believes that this proposal clearly evidences such competition. Nasdaq is offering a new data delivery option via Remote Wave Ports to keep pace with changes in the industry and evolving customer needs as new technologies emerge and products continue to develop and change. The new delivery option is similar to existing offerings, entirely optional, and is geared towards attracting new customers, as well as retaining existing customers.

The proposed fees are based on the cost to Nasdaq and its vendors of installing and maintaining the wireless connectivity and on the value provided to the customer, which receives low latency delivery of data feeds. The costs associated with the wireless connectivity system are incrementally higher than fiber optics-based solutions due to the expense of the wireless equipment, cost of installation, and testing. The differing fee levels between Mahwah and Secaucus are reflective of higher cost of connecting to Mahwah based on the longer distance to Mahwah, thus a higher network cost, and higher charges incurred by Nasdaq in co-locating and connecting within Mahwah.

The fees also allow Nasdaq to make a profit, and reflect the premium received by the clients in terms of lower latency over the fiber optics option. Clients can choose to build and maintain their own wireless networks or choose their own third party network vendors but the upfront and ongoing costs will be much more substantial than this Nasdaq wireless offering.

Nasdaq notes that the proposed fees are identical to, or less than, the analogous installation and monthly fees assessed for Remote MITCH Wave Ports located in the same third-party data centers in Mahwah and Secaucus.<sup>7</sup>

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<sup>7</sup> See Nasdaq Rule 7015(g)(1).

## 2. Statutory Basis

Nasdaq believes that its proposal is consistent with Section 6(b) of the Act,<sup>8</sup> in general, and with Sections 6(b)(4) and (b)(5) of the Act,<sup>9</sup> in particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among members and issuers and other persons using any facility or system which the Exchange operates or controls, and is designed 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.

Nasdaq operates in a highly competitive market in which exchanges offer co-location and connectivity services as a means to facilitate the trading activities of those members who believe that co-location and low latency connectivity enhances the efficiency of their trading.

Accordingly, fees charged for co-location and connectivity services are constrained by the active competition for the order flow of such members. If a particular exchange charges excessive fees for these services, affected members will opt to terminate their co-location and/or connectivity arrangements with that exchange, and adopt a possible range of alternative strategies, including using another vendor for connectivity services, co-locating with a different exchange, placing their servers in a physically proximate location outside the exchange's data center, or pursuing trading strategies not dependent upon co-location. Thus, the exchange charging excessive fees would stand to lose not only co-location and connectivity revenues but also revenues associated with the execution of orders routed to it by affected members.

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

<sup>9</sup> 15 U.S.C. 78f(b)(4) and (5).

Nasdaq notes that the Commission recently approved an NYSE MKT LLC (“NYSE MKT”) rule change to offer similar services.<sup>10</sup> Nasdaq believes that this competitive dynamic imposes powerful restraints on the ability of any exchange to charge unreasonable fees for co-location or connectivity services, including fees for wireless connectivity.

A co-location customer may obtain a similar service by contracting with a wireless service provider to install the required dishes on towers near the data centers and paying the service provider to maintain the service. However, the cost involved in establishing service in this manner is substantial and could result in uneven access to wireless connectivity. Nasdaq’s proposed fees will allow these clients to utilize wireless connectivity and obtain the lower latency transmission of data from Nasdaq that is available to others, at a reasonable cost.

Moreover, Nasdaq believes that the proposed fees for wireless connectivity to Nasdaq are reasonable because they are based on Nasdaq’s and its vendors’ costs to cover hardware, installation, testing and connection, as well expenses involved in maintaining and managing the new connection. The proposed fees allow Nasdaq to recoup these costs and make a profit, while providing customers the ability to reduce latency in the transmission of data from Nasdaq, and reducing the cost to them that would be involved if they build or buy their own wireless networks.

Nasdaq believes that the proposed fees are reasonable in that they reflect the costs of the connection and the benefit of the lower latency to clients. Last [sic], the proposed fees are reasonable because they are identical to, or less than, the analogous installation and monthly fees

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<sup>10</sup> See Securities Exchange Act Release No. 76750 (December 23, 2015), 80 FR 81648 (December 30, 2015) (SR-NYSEMKT-2015-85)(approving the offering of a wireless connection to allow users to receive market data feeds from third party markets).

assessed by Nasdaq for Remote Wave Ports located in the same third-party data centers in Mahwah and Secaucus that receive ITCH market data.

Nasdaq believes the proposed Remote Wave Port fees are equitably allocated and non-discriminatory in that all co-location clients that voluntarily select this service option will be charged the same amount for the same services. As is true of all co-location services, all co-located clients have the option to select this voluntary connectivity option, and there is no differentiation among customers with regard to the fees charged for the service. Further, the latency reduction offered will be the same for all clients who choose to receive this wireless feed from the Remote Wave Ports, The [sic] same cannot be said of the alternative where entities with substantial resources invest in private services and thereby obtain lower latency transmission, while those without resources are unable to invest in the necessary infrastructure.

Nasdaq's proposal is also consistent with the requirement of Section 6(b)(5) of the Act that Exchange rules be designed to promote just and equitable principles of trade [sic] to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, 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 are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers. The proposal is consistent with these requirements inasmuch as it makes available to market participants, at a reasonable fee and on a non-discriminatory basis, access to low latency means of receiving Nasdaq's market data feeds at third-party data centers.

Initially, Nasdaq will perform substantial network testing prior to making the service available to members. After this testing period, the wireless network will continue to be closely monitored and maintained by the vendor and the client will be informed of any issues. Additionally, during the initial roll-out of the service and on a rolling basis for future clients, the Exchange will enable clients to test the receipt of the feed(s) for a minimum of 30 days before incurring any monthly recurring fees. Similar to receiving market data over fiber optic networks, the wireless network can encounter delays or outages due to equipment issues. As wireless networks may be affected by severe weather events, clients will be expected to have redundant methods to receive this market data and will be asked to attest to having alternate methods or establishing an alternate method in the near future when they order this service from the Exchange.

B. Self-Regulatory Organization's Statement on Burden on Competition

Nasdaq does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act, as amended.

To the contrary, this proposal will promote competition for distribution of market data by offering an optional and innovative product enhancement. Wireless technology has been in use for decades, is available from multiple providers, and has been adopted by other exchanges to offer microwave connectivity for delivery of market data.

As discussed above, the Exchange believes that fees for co-location services, including those proposed for microwave connectivity, are constrained by the robust competition for order flow among exchanges and non-exchange markets, because co-location exists to advance that competition. Further, excessive fees for co-location services, including for wireless technology,



would serve to impair an exchange's ability to compete for order flow rather than burdening competition.

Competition between the Exchange and competing trading venues will be enhanced by allowing the Exchange to offer its market participants a lower latency connectivity option to receive market data, which is currently available through other connectivity. Competition among market participants will also be supported by allowing small and large participants the same price for this lower latency connectivity.

The proposed rule change will likewise enhance competition among service providers offering connections between market participants and the data centers. The offering will expand the multiple means of connectivity available, allowing customers to compare the benefits and costs of lower latency transmission and related costs with reference to numerous variables.

The Exchange, and presumably its competitors, selects service providers on a competitive basis in order to pass along price advantages to their customers, and to win and maintain their business. The offering is consistent with the Exchange's own economic incentives to facilitate as many market participants as possible in connecting to its market.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the Exchange consents, the Commission shall: (a) by order approve or disapprove such proposed rule change, or (b) institute proceedings to determine whether the proposed rule change should

be disapproved.

#### IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

##### Electronic comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-NASDAQ-2016-033 on the subject line.

##### Paper comments:

- Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-NASDAQ-2016-033. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website (<http://www.sec.gov/rules/sro.shtml>).

Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filing will also be available for inspection and copying at the

principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-NASDAQ-2016-033 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>11</sup>

Robert W. Errett  
Deputy Secretary

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<sup>11</sup> 17 CFR 200.30-3(a)(12).