SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-68735; File No. SR-NASDAQ-2012-119)

January 25, 2013

Self-Regulatory Organizations; The NASDAQ Stock Market LLC; Order Approving a Proposed Rule Change to Establish a New Optional Wireless Connectivity for Colocated Clients

On October 10, 2012, The NASDAQ Stock Market LLC ("Exchange" or "NASDAQ") filed with the Securities and Exchange Commission ("Commission"), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")[1] and Rule 19b-4 thereunder,[2] a proposed rule change to establish a new optional wireless connectivity for colocated clients. The proposed rule change was published for comment in the Federal Register on October 29, 2012.[3] The Commission received one comment on the proposal and a response from NASDAQ.[4] On December 12, 2012, the Commission extended the time period in which to either approve NASDAQ's proposal, disapprove NASDAQ's proposal, or institute proceedings to determine whether to approve or disapprove NASDAQ's proposal, to January 25, 2013.[5] This order approves the proposed rule change.

II. Description of the Proposal

Under the proposal, NASDAQ would establish fees for new optional means for clients to receive third party market data and NASDAQ TotalView ITCH market data. NASDAQ would

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1 15 U.S.C. 78s(b)(1).

2 17 CFR 240.19b-4.

3 Securities Exchange Act Release No. 68085 (October 23, 2012), 77 FR 65596 ("Notice").

4 See comment from Anthony C.J. Nuland, Attorney at Law, representing Quincy Data LLC, dated January 17, 2013 ("Quincy Data Letter"); see also letter from Jeff Davis, Vice President and Deputy General Counsel, NASDAQ, to Elizabeth M. Murphy, Secretary, Commission, dated January 24, 2013 ("NASDAQ Letter").

5 See Securities Exchange Act Release No. 68416 (December 12, 2012), 77 FR 75229 (December 19, 2012).

offer wireless connectivity for colocated clients in NASDAQ's Carteret data center to receive Direct Edge, BATS, NYSE, and NYSE ARCA multi-cast market data feeds. It also would offer remote multi-cast ITCH Wave Ports for clients colocated at other third party data centers, through which NASDAQ TotalView ITCH market data will be distributed after delivery to those data centers via wireless network. As noted by the Exchange, wireless connectivity involves the beaming of signals through the air between towers that are within sight of one another. Over the last year, wireless technology has been introduced in the financial services industry, according to the Exchange.

Additionally, the proposed rule change would amend NASDAQ Rule 7034 to establish fees for the delivery of third party market data to market center clients via a wireless network using millimeter wave or microwave technology. It also would amend NASDAQ Rule 7015 to establish fees for remote multi-cast ITCH Wave Ports for clients colocated at other third-party data centers, through which NASDAQ TotalView ITCH market data will be distributed after delivery to those data centers via wireless network.

Wireless Connectivity in Carteret.

Under the proposed rule change, NASDAQ would utilize a network vendor to supply wireless connectivity from its Carteret data center to the Secaucus Equinix data center (NY4) used by Direct Edge and other exchanges; the Newark data center used by NYSE as a SFTI Network Point of Presence; and the Weehawken Savvis data center (NJ2) used by BATS. The vendor would install, test and maintain the necessary communication equipment for this wireless network between the data centers.

Clients who choose this optional service would have their NASDAQ cross connect handoffs (1G, 10G, or 40G) enabled to receive the chosen raw, multicast market data for Direct

Edge, BATS, and/or NYSE. NASDAQ OMX would continue to act as re-distributor of these third party market data feeds, capturing the data at the originating data centers and transporting the data to the Carteret data center. In the Notice, the Exchange represented that it is offering these particular equity feeds because they are the feeds requested by clients. There is limited bandwidth available on the wireless connection, and the Exchange has opted to offer those that are in most demand to start. Additional feeds may be added based on overall client demand and bandwidth availability.

The wireless connectivity would be an optional offering, an alternative to fiber optic network connectivity, and according to the Exchange, would provide lower latency. It would not provide a new market data product, but merely an alternative means of connectivity. The Exchange has represented that NASDAQ's wireless connectivity offering, in conjunction with NASDAQ's equidistant cross connect handoffs (1G, 10G, or 40G), would ensure that all clients colocated within Carteret and electing to use this wireless connectivity offering would receive the chosen market data at the same low latency, equalizing any variances that might otherwise result from differences in the location of client cabinets within the facility.

To obtain wireless connectivity, clients would be charged a $2,500 installation fee (a non-recurring charge) and a monthly recurring charge (MRC) that will vary depending upon the feed. The MRC for the NYSE multi-cast equities data feed, which includes NYSE ArcaBook Highspeed and NYSE OpenBook (Aggregated or Ultra), will be $10,000; the MRC for BATS Multicast PITCH, which includes BZX and BYX, will be $7,500; and the MRC for Direct Edge Depth of Book multi-cast feed, which includes EDGA and EDGX, will be $7,500. According to the Exchange, the rates are higher for the NYSE feeds because the two feeds are larger and take up more bandwidth than the BATS and Direct Edge feeds.

Clients would place orders for the wireless connectivity via the CoLo Console[6] and would be subject to a one-year minimum lock-in period. In the Notice, the Exchange represented that the lock-in feature, which is common practice for colocation offerings, would ensure that the Exchange can recoup the substantial investment required to establish the wireless system. As an incentive to clients, NASDAQ would waive the first month's MRC. Clients would continue to be charged by NYSE, BATS and Direct Edge for the market data received, and NASDAQ would continue to be charged the redistribution fees by the other exchanges, as occurs today. No changes in these charges would occur as a result of this proposed offering.

In the Notice, the Exchange represented that NASDAQ OMX would perform substantial network testing prior to offering the service for a fee to members. After this "beta" testing period, upon initial roll-out of the service, clients would be offered the service for a fee, and on a rolling basis, the Exchange would enable new clients to receive the feed(s) for a minimum of 30 days before incurring any monthly recurring fees. The wireless network would continue to be closely monitored and the client informed of any issues. Similar to receiving market data over fiber optic networks, the wireless network can encounter delays or outages due to equipment issues, as noted by the Exchange in the Notice. As wireless networks may be affected by severe weather events, clients would be expected to have redundant methods to receive this market data and would be asked by the Exchange to attest to having alternate methods or establishing an alternate method in the near future when they order this service from the Exchange.

This new data feed delivery option would be available to all clients of the data center, and is in response to industry demand, as well as to changes in the technology for distributing market data. Clients opting not to pay for the wireless connectivity would still be able to receive market

6 The "CoLo Console" is a web-based ordering tool NASDAQ offers to enable members to place colocation orders.

data via fiber optics and standard telecommunications connections, as they do currently, and under the same fees. According to the Exchange, receipt of trade data via wireless technology is completely optional. In addition, clients can choose to receive market data via other third-party vendors (Extranets or Telecommunication vendors) via fiber optic networks or wireless networks. They can receive the wireless service, according to the Exchange, 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.

Remote Multi-cast ITCH (MITCH) Wave Ports

Pursuant to the proposed rule change, NASDAQ also would offer remote multi-cast ITCH Wave Ports for clients colocated at other third-party data centers. NASDAQ TotalView ITCH market data would be delivered to NASDAQ–owned cabinets at those data centers via a wireless network. Clients would have the option of cross-connecting to the MITCH Wave Ports in those data centers to receive the raw NASDAQ multi-cast data feed, TotalView ITCH. An installation charge for the remote port would be, at each of the locations, $2,500 for installation, and $7,500 as a monthly recurring fee. According to the Exchange, this offering, which is entirely optional, would enable delivery of NASDAQ TotalView ITCH to the third-party data centers at the same low latency.[7] Clients opting to pay for the remote MITCH Wave Ports would continue to be fee liable for the applicable market data fees as described in NASDAQ Rule 7026, NASDAQ Rule 7019 and NASDAQ Rule 7023.

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7 In the Notice, NASDAQ noted that it cannot preclude minor latency variances in delivery of NASDAQ TotalView in the third-party data centers to individual clients because it does not control the cross-connects in those centers; however, the microwave connectivity would provide the same latency to all MITCH Wave Ports clients and according to the Exchange, offers an improvement in latency over fiber optic network connectivity.

In the Notice, the Exchange represented that the proposed fees are based on the cost to NASDAQ of installing and maintaining the wireless connectivity and on the value provided to the customer, which receives low latency delivery of data feeds. According to the Exchange, 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. Furthermore, the Exchange represented that the fees allow NASDAQ to make a profit, and reflect the premium received by the clients in terms of lower latency over the fiber optics option. In the Notice, the Exchange also stated that the fees for colocation services generally, including those proposed for wireless connectivity, are constrained by the robust competition for order flow among exchanges and non-exchange markets, and colocation exists to advance that competition.

III. Discussion and Commission's Findings

After careful review, the Commission finds that the proposed rule change is consistent with the requirements of Section 6 of the Act[8] and the rules and regulations thereunder applicable to a national securities exchange. Additionally, in approving this proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation, as discussed in more detail below.[9] The Commission finds that the proposed rule change is consistent with Section 6(b)(4)[10], which provides for the equitable allocation of reasonable dues, fees and other charges among members, and Section 6(b)(5) of the Act,[11] which requires, among other things, that the Exchange's rules be designed to prevent

8 15 U.S.C. 78f.

9 See 15 U.S.C. 78c(f).

10 15 U.S.C. 78f(b)(4).

11 15 U.S.C. 78f(b)(5).

fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in 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. In addition, the Commission finds that the proposed rule change is consistent with Section 6(b)(8) of the Act,[12] which requires that the rules of the exchange not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

The Commission believes that the Exchange's proposal to provide this additional connectivity option is consistent with the requirement of Section 6(b)(5) of the Act. The Commission believes that the proposal is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers because the Exchange makes wireless connectivity available to clients of the data center on an equal basis. The Exchange represented that it will perform substantial network testing prior to offering the service for a fee to members and that after the testing period the network will be closely monitored and maintained by the vendor and clients will be informed of any issues. As wireless networks may be affected by severe weather events, the Exchange notes that 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.

The Commission also finds that consistent with Section 6(b)(8) of the Act the proposed rule change does not impose a burden on competition not necessary or appropriate in furtherance of the purposes of the Act. The Quincy Data Letter argues that NASDAQ's proposal is "an anti-

[12] 15 U.S.C. 78f(b)(8).

competitive arrangement" because "Nasdaq would be the only wireless provider permitted to install microwave dishes on the rooftop" of its data center.[13] The Quincy Data Letter states that this rooftop access is a "critical ingredient" for an alternative wireless network to be competitive.[14] Ultimately, argues the Quincy Data Letter, by preventing other wireless networks from accessing the roof of the data center, NASDAQ reduces competition with its own wireless network and is able to charge fees for its service that "are not grounded in competition."[15] This arrangement would result in "vertical tying," according to the Quincy Data Letter, as customers desiring the lowest latency for data would have to obtain the service from NASDAQ.[16]

NASDAQ makes a variety of representations in the Notice and in the NASDAQ Letter that respond to the concerns raised by the Quincy Data Letter. The NASDAQ Letter responds by noting that its proposed rule change "does not unduly constrain competition, nor impede a free and open market and national market system."[17] First, NASDAQ notes that it does not have exclusive control of the roof rights at its data center. Verizon, the lessor of the facility, retains

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13 See Quincy Data Letter, supra note 4, at 2. The Quincy Data Letter also made certain comments outside of the scope of the proposed rule change. Quincy argues that NASDAQ can "control, delay or limit" the vendors that can distribute NASDAQ data through (1) the market data license application process; (2) the co-location application and approval process; (3) the authorized telecom provider and application and approval process; and (4) by controlling the initial dissemination and re-dissemination of NASDAQ data from the trading engine and distribution of other market data within the NASDAQ data center. Id., at 3. The Commission notes, as recognized in the NASDAQ Letter, that these comments are not germane to the proposed rule change, which deals solely with NASDAQ's creation of an alternative means of data transmission. Additionally, the processes the Quincy Data Letter notes here are subject to the relevant standards of the Act.

14 See Id., at 2.

15 See Id., at 3.

16 See Id.

17 See NASDAQ Letter, supra note 4, at 2.

rights to the roof that would permit it to approve other vendors to place equipment on the roof of the facility for the provision of wireless network services.

Second, in the Notice, NASDAQ states that it has chosen not to sell roof rights to individual clients as it "would quickly result in a lack of physical space on the data center roof to accommodate all clients fairly and equally."[18] The NASDAQ Letter states further that "practical issues – space constraints and interference between dishes that are placed too closely together – impose limits to the number of networks that can occupy the Carteret rooftop" and that it is "technologically impossible for the rooftop to support equipment from every provider that NASDAQ anticipates would seek rooftop access."[19]

Third, even if NASDAQ were to operate the only wireless network on the data center roof, the Exchange notes that its wireless network service would still be subject to competition from (1) other wireless network providers and (2) fiber optic networks. NASDAQ responds that roof access is not a prerequisite for creating a competitive network, noting that a variety of factors are at play in determining the speed of a wireless network. Ultimately, NASDAQ avers that competitive wireless networks can be established on buildings across the street from the data center providing "the same or similar data, at the same or similar speed, at the same or similar cost."[20] The NASDAQ Letter also notes that fiber optic networks are also "effective competitors for wireless data," highlighting that (1) 17 market data vendors currently offer connectivity to NASDAQ, and (2) fiber optic networks may be more attractive to some clients as they are "more resilient than wireless networks, which can be more susceptible to weather affects."[21] For these

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18 See Notice, supra note 3, at 65597.

19 See Id., at 5.

20 See Id., at 2.

21 See Id., at 4.

reasons, the Commission does not believe that the proposed rule change imposes a burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

The Commission also believes that the proposed fees for wireless connectivity to NASDAQ are consistent with Section 6(b)(4) of the Act. The Commission believes that the proposed fees are reasonable and equitably allocated. All Exchange members that voluntarily select this service option will be charged the same amount for the same services. The Exchange noted that they are based on the Exchange's costs to cover hardware, installation, testing and connection, as well expenses involved in maintaining and managing the enhanced connection.[22] The Commission notes that, according to the Exchange, the proposed fees would allow the Exchange to recoup these costs and make a profit, while providing customers with additional data connectivity options for receiving data from certain third parties and NASDAQ. With respect to the fee differentials for receiving NYSE data feeds versus BATS and Direct Edge data feeds, the Exchange noted that the fees are higher for the NYSE feeds because the two feeds are larger and take up more bandwidth than the BATS and Direct Edge feeds.[23]

The Quincy Data Letter argues that NASDAQ is able to charge fees for the wireless distribution of market data that are "not grounded in competition," suggesting that these fees may not be consistent with the Exchange Act.[24] As described above, NASDAQ has provided a variety of examples of how it believes its wireless network service could be subject to competition. The Exchange also stated that the fees for colocation services generally, including those proposed for wireless connectivity, are constrained by the robust competition for order flow among exchanges and non-exchange markets, and colocation exists to advance that

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22 See Notice, supra note 3, at 65599.

23 See Id., at 65597.

24 See Quincy Data Letter, supra note 4, at 3.

competition.[25] For these reasons, the Commission believes that the proposed fees for wireless connectivity are consistent with Section 6(b)(4) of the Act.

The Commission also believes that the proposed wireless connectivity fees are consistent with Section 6(b)(5) of the Act. All market participants that voluntarily select this service option will be charged the same amount for the same services. Under the proposal, all colocated clients would have the option to select wireless connectivity, and there would be no differentiation among customers with regard to the fees charged for the service.

IV. Conclusion

IT IS THEREFORE ORDERED, pursuant to Section 19(b)(2) of the Act,[26] that the proposed rule change (SR-NASDAQ-2012-119) be, and it hereby is, approved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[27]

Kevin M. O'Neill
Deputy Secretary

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25 See Notice, supra note 3, at 65599.

26 15 U.S.C. 78s(b)(2).

27 17 CFR 200.30-3(a)(12).