

Required fields are shown with yellow backgrounds and asterisks.

Filing by NASDAQ Stock Market  
Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

Initial * <input checked="" type="checkbox"/>	Amendment * <input type="checkbox"/>	Withdrawal <input type="checkbox"/>	Section 19(b)(2) * <input type="checkbox"/>	Section 19(b)(3)(A) * <input checked="" type="checkbox"/>	Section 19(b)(3)(B) * <input type="checkbox"/>
			Rule		
Pilot <input type="checkbox"/>	Extension of Time Period for Commission Action * <input type="checkbox"/>	Date Expires * <input type="text"/>	<input type="checkbox"/> 19b-4(f)(1)	<input type="checkbox"/> 19b-4(f)(4)	
			<input type="checkbox"/> 19b-4(f)(2)	<input type="checkbox"/> 19b-4(f)(5)	
			<input type="checkbox"/> 19b-4(f)(3)	<input checked="" type="checkbox"/> 19b-4(f)(6)	

Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010	Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934
Section 806(e)(1) * <input type="checkbox"/>	Section 806(e)(2) * <input type="checkbox"/>
Section 3C(b)(2) * <input type="checkbox"/>	

Exhibit 2 Sent As Paper Document <input type="checkbox"/>	Exhibit 3 Sent As Paper Document <input type="checkbox"/>
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**Description**

Provide a brief description of the action (limit 250 characters, required when Initial is checked \*).

Proposal to amend NOM Rules at Chapter VI, Section 6, to adopt functionality designed to assist NOM Participants, in the event that they lose communication due to a loss of connectivity.

**Contact Information**

Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.

First Name * Angela	Last Name * Dunn
Title * Associate General Counsel	
E-mail * Angela.Dunn@nasdaq.com	
Telephone * (215) 496-5692	Fax

**Signature**

Pursuant to the requirements of the Securities Exchange Act of 1934,

has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

(Title \*)

Date 07/28/2016	Executive Vice President and General Counsel
By Edward S. Knight	
(Name *)	

edward.knight@nasdaq.com

NOTE: Clicking the button at right will digitally sign and lock this form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EFFF website.

**Form 19b-4 Information \***

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The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

**Exhibit 1 - Notice of Proposed Rule Change \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 1A- Notice of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice by Clearing Agencies \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change, security-based swap submission, or advance notice being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 2 - Notices, Written Comments, Transcripts, Other Communications**

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Exhibit Sent As Paper Document

Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

**Exhibit 3 - Form, Report, or Questionnaire**

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Exhibit Sent As Paper Document

Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

**Exhibit 4 - Marked Copies**

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

**Exhibit 5 - Proposed Rule Text**

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The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change.

**Partial Amendment**

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If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

1. Text of the Proposed Rule Change

(a) The NASDAQ Stock Market LLC (“Nasdaq” or “Exchange”), 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> is filing with the Securities and Exchange Commission (“SEC” or “Commission”) a proposal to amend NASDAQ Options Market LLC’s (“NOM”) Rules at Chapter VI, Section 6, entitled “Acceptance of Quotes and Orders” to adopt functionality which is designed to assist NOM Participants, hereinafter “Participants,” in the event that they lose communication with their assigned Financial Information eXchange (“FIX”),<sup>3</sup> Specialized Quote Feed (“SQF”),<sup>4</sup> or Ouch to Trade Options (“OTTO”)<sup>5</sup> Ports due to a loss of connectivity.

A notice of the proposed rule change for publication in the Federal Register is attached as Exhibit 1. The text of the proposed rule change is attached as Exhibit 5.

(b) Not applicable.

(c) Not applicable.

2. Procedures of the Self-Regulatory Organization

The proposed rule change was approved by senior management of the Exchange

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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> FIX permits the entry of orders.

<sup>4</sup> SQF permits the transmission of quotes to the Exchange by a NOM Market Maker using its Client Application.

<sup>5</sup> OTTO permits the transmission of orders to the Exchange by a Participant. Immediate or cancel orders will not be cancelled pursuant to this Chapter VI, Section 6 because, by definition, these orders will cancel if not executed. All Participants have the ability to utilize OTTO. Orders submitted by NOM Market Makers over this interface will be treated as quotes.

pursuant to authority delegated by the Board of Directors (the “Board”) on July 1, 2015. Exchange staff will advise the Board of any action taken pursuant to delegated authority. No other action is necessary for the filing of the rule change.

Questions and comments on the proposed rule change may be directed to:

Angela Saccomandi Dunn  
Associate General Counsel  
Nasdaq, Inc.  
215-496-5692

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

a. Purpose

The Exchange proposes to amend Chapter VI, Section 6, entitled “Acceptance of Quotes and Orders” to adopt a new section “(e)” entitled “Detection of Loss of Connection,” a new automated process which NOM proposes to adopt for its SQF,<sup>6</sup> FIX and OTTO Ports in the event that they lose communication with a Client Application due to a loss of connectivity. This feature is designed to protect NOM Options Market Makers<sup>7</sup> and other market participants from inadvertent exposure to excessive risk.

By way of background, Participants currently enter quotes and orders utilizing either an SQF, FIX or OTTO Port. SQF is utilized by NOM Options Market Makers.

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<sup>6</sup> Today, SQF, FIX and OTTO have the capability to cancel quotes and orders respectively. The rule change would adopt a formalized process to automatically disconnect and cancel quotes for SQF and offer the opportunity to cancel orders for FIX and OTTO in addition to a disconnect if elected, when there is a loss of communication with the Participant’s Client Application. The Exchange is formalizing the process within Chapter VI, Section 6(e).

<sup>7</sup> The term “Nasdaq Options Market Maker” or “Options Market Maker” (herein “NOM Market Maker”) means an Options Participant registered with the Exchange for the purpose of making markets in options contracts traded on the Exchange and that is vested with the rights and responsibilities specified in Chapter VII of these Rules. See NOM Rules at Chapter I, Section 1(a)(26).

FIX and OTTO are available to all market participants. These ports are System<sup>8</sup> components through which a Participant communicates its quotes and/or orders to the NOM match engine through the Participant's Client Application.

Under the proposed rule change, an SQF Port would be defined as the Exchange's System component through which Participants communicate their quotes from the Client Application at proposed Chapter VI, Section 6(e)(i)(B). FIX and OTTO Ports would be defined as the Exchange's System components through which Participants communicate their orders from the Client Application at proposed Chapter VI, Section 6(e)(i)(C). NOM Options Market Makers may submit quotes to the Exchange from one or more SQF Ports.

Similarly, market participants may submit orders to the Exchange from one or more FIX and/or OTTO Ports. The proposed removal feature will be mandatory for each NOM Market Makers utilizing SQF for the removal of quotes and optional for any market participant utilizing FIX and OTTO for the removal of orders.

When the SQF Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message<sup>9</sup> for a certain period of time ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and automatically cancel all of the Participant's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same NOM Market Makers ID and underlying issues.

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<sup>8</sup> The term "System" shall mean the automated system for order execution and trade reporting owned and operated by NOM as the NOM Options market. See Chapter VI, Section 1(a).

<sup>9</sup> It is important to note that the Exchange separately sends a connectivity message to the Participant as evidence of connectivity.

The Exchange proposes to define “Client Application” as the System component of the Participant through which the Exchange Participant communicates its quotes and orders to the Exchange at proposed Chapter VI, Section 6(e)(i)(D). The Exchange proposes to define a “Heartbeat” message as a communication that acts as a virtual pulse between the SQF, FIX or OTTO Port and the Client Application at proposed Chapter VI, Section 6(e)(i)(A). The Heartbeat message sent by the Participant and subsequently received by the Exchange allows the SQF, FIX or OTTO Port to continually monitor its connection with the Participant.

#### SQF Ports

The Exchange’s System has a default time period, which will trigger a disconnect from the Exchange and remove quotes, set to fifteen (15) seconds for SQF Ports. A Participant may change the default period of “nn” seconds of no technical connectivity to trigger a disconnect from the Exchange and remove quotes to a number between one hundred (100) milliseconds and 99,999 milliseconds for SQF Ports prior to each session of connectivity to the Exchange. This feature is enabled for each NOM Market Makers and may not be disabled.

There are two ways to change the number of “nn” seconds: (1) systemically or (2) by contacting the Exchange’s operations staff. If the Participant systemically changes the default number of “nn” seconds, that new setting shall be in effect throughout the current session of connectivity<sup>10</sup> and will then default back to fifteen seconds.<sup>11</sup> The Participant

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<sup>10</sup> Each time the Participant connects to the Exchange’s System is a new period of connectivity. For example, if the Participant were to connect and then disconnect within a trading day several times, each time the Participant disconnected the next session would be a new session of connectivity.

may change the default setting systemically prior to each session of connectivity. The Participant may also communicate the time to the Exchange by calling the Exchange's operations staff. If the time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

#### FIX Ports

The Exchange's System has a default time period, which will trigger a disconnect from the Exchange and remove orders, set to thirty (30) seconds for FIX Ports. The Participant may disable the removal of orders feature but not the disconnect feature. If the Participant elects to have its orders removed, in addition to the disconnect, the Participant may determine a time period of no technical connectivity to trigger the disconnect and removal of orders between (1) second and thirty (30) seconds for FIX Ports prior to each session of connectivity to the Exchange.

There are two ways to change the number of "nn" seconds: (1) systemically or (2) by contacting the Exchange's operations staff. If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout that session of connectivity and will then default back to thirty seconds at the end of that session. The Participant may change the default setting systemically prior to each session of

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<sup>11</sup> The Exchange's System would capture the new setting information that was changed by the Participant and utilize the amended setting for that particular session. The setting would not persist beyond the current session of connectivity and the setting would default back to 15 seconds for the next session if the Participant did not change the setting again.

connectivity. The Participant may also communicate the time to the Exchange by calling the Exchange's operations staff. If the time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

Similar to SQF Ports, when a FIX Port detects the loss of communication with a Participant's Client Application for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and if elected, automatically cancel all open orders. The Participant may have an order which has routed away prior to the cancellation, in the event that the order returns to the Order Book, because it was either not filled or partially filled, that order will be subsequently cancelled.

The disconnect feature is mandatory for FIX users, however the user has the ability to elect to also enable a removal feature, which will cancel all open orders submitted through that FIX Port. If the removal of orders feature is not enabled, the System will simply disconnect the FIX user and not cancel any orders. The FIX user would have to commence a new session to add, modify or cancel its orders once disconnected.

#### OTTO Ports

The Exchange's System has a default time period, which will trigger a disconnect from the Exchange and remove orders, set to fifteen (15) seconds for OTTO Ports. The Participant may disable the removal of orders feature but not the disconnect feature. If the Participant elects to have its orders removed, in addition to the disconnect, the



Participant may determine a time period of no technical connectivity to trigger the disconnect and removal of orders between one hundred (100) milliseconds and 99,999 milliseconds.

There are two ways to change the number of “nn” seconds: (1) systemically or (2) by contacting the Exchange’s operations staff. If the Participant systemically changes the default number of “nn” seconds, that new setting shall be in effect throughout that session of connectivity and will then default back to fifteen seconds at the end of that session. The Participant may change the default setting systemically prior to each session of connectivity. The Participant may also communicate the time to the Exchange by calling the Exchange’s operations staff. If the time period is communicated to the Exchange by calling Exchange operations, the number of “nn” seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

Similar to SQF and FIX Ports, when an OTTO Port detects the loss of communication with a Participant’s Client Application for a certain time period (“nn” seconds), the Exchange will automatically logoff the Participant’s affected Client Application and if elected, automatically cancel all open orders. The Participant may have an order which has routed away prior to the cancellation, in the event that the order returns to the Order Book, because it was either not filled or partially filled, that order will be subsequently cancelled.

The disconnect feature is mandatory for OTTO users however the user has the ability to elect to also enable a removal feature, which will cancel all open orders

submitted through that OTTO Port. If the removal of orders feature is not enabled, the System will simply disconnect the OTTO user and not cancel any orders. The OTTO user would have to commence a new session to add, modify or cancel its orders once disconnected.

The trigger for the SQF, FIX and OTTO Ports is event and Client Application specific. The automatic cancellation of the NOM Market Maker's quotes for SQF Ports and open orders, if elected by the Participant for FIX and OTTO Ports entered into the respective SQF, FIX or OTTO Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other NOM Market Makers entered into SQF Ports or orders of the same or other Participants entered into FIX or OTTO Ports via a separate and distinct Client Application.

In other words, with respect to quotes, each NOM Market Maker only maintains one quote in a given option in the order book. A new quote would replace the existing quote. Orders on the other hand do not replace each other in the order book as multiple orders may exist in a given option at once. Therefore, the difference in the impact between NOM Market Makers submitting quotes and Participants submitting orders is that quotes may continue to be submitted and/or refreshed by unaffected NOM Market Makers because these market participants are cancelled based on ID when an SQF Port disconnects, whereas all of the open orders submitted by a given firm will be impacted when a FIX or OTTO port disconnects, if the firm elected to have orders cancelled.

The Exchange will issue an Options Trader Alert advising Participants on the manner in which they should communicate the number of "nn" seconds to the Exchange for SQF, FIX and OTTO Ports.

b. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,<sup>12</sup> in general, and furthers the objectives of Section 6(b)(5) of the Act,<sup>13</sup> in particular, in that it 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, by offering removal functionality for NOM Market Makers as well as all other market participants to prevent disruption in the marketplace and also offering this removal feature to other market participants.

NOM Market Makers will be required to utilize removal functionality with respect to SQF Ports. This feature will remove impediments to and perfect the mechanism of a free and open market and a national market system and protect investors and the public interest by requiring NOM Market Makers quotes to be removed in the event of a loss of connectivity with the Exchange's System. NOM Market Makers provide liquidity to the market place and have obligations unlike other market participants.<sup>14</sup> This risk feature for SQF is important because it will enable NOM Market

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<sup>12</sup> 15 U.S.C. 78f(b).

<sup>13</sup> 15 U.S.C. 78f(b)(5).

<sup>14</sup> Pursuant to NOM Rules at Chapter VII, Section 5, entitled "Obligations of NOM Options Market Makers", in registering as a market maker, an Options Participant commits himself to various obligations. Transactions of a NOM Options Market Makers must constitute a course of dealings reasonably calculated to contribute to the maintenance of a fair and orderly market, and NOM Options Market Makers should not make bids or offers or enter into transactions that are inconsistent with such course of dealings. Further, all NOM Options Market Makers are designated as specialists on NOM for all purposes under the Act or rules thereunder. See Chapter VII, Section 5.

Makers to avoid risks associated with inadvertent executions in the event of a loss of connectivity with the Exchange. The proposed rule change is designed to not permit unfair discrimination among market participants, as it would apply uniformly to all NOM Market Makers utilizing SQF.

Utilizing a time period for SQF Ports of fifteen (15) seconds and permitting the NOM Market Makers to modify the setting to between 100 milliseconds and 99,999 milliseconds is consistent with the Act because the Exchange does not desire to trigger unwarranted logoffs of Participants and therefore allows Participants the ability to set their time in order to enable the Exchange the authority to disconnect the Participant with this feature. Each NOM Market Makers has different levels of sensitivity with respect to this disconnect setting and each NOM Market Makers has their own system safeguards as well. A default setting of fifteen (15) seconds is appropriate to capture the needs of all NOM Market Makers and high enough not to trigger unwarranted removal of quotes.

Further, NOM Market Makers are able to customize their setting. The Exchange's proposal to permit a timeframe for SQF Ports between 100 milliseconds and 99,999 milliseconds is consistent with the Act and the protection of investors because the purpose of this feature is to mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application. Participants are able to better anticipate the appropriate time within which they may require prior to a logoff as compared to the Exchange. The Participant is being offered a timeframe by the Exchange within which to select the appropriate time. The Exchange does not desire to trigger unwarranted logoffs of Participants and therefore permits Participants to provide an alternative time to the Exchange, within the Exchange's

prescribed timeframe, which authorized the Exchange to disconnect the Participant. The “nn” seconds serve as the Participant’s instruction to the Exchange to act upon the loss of connection and remove quotes from the System. This range will accommodate Participants in selecting their appropriate times within the prescribed timeframes.

Also, NOM Market Makers have quoting obligations<sup>15</sup> and are more sensitive to price movements as compared to other market participants. It is consistent with the Act to provide a wider timeframe within which to customize settings for FIX Ports as compared to SQF Ports. NOM Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Participants entering orders into the System. The proposal acknowledges this sensitivity borne by NOM Market Makers and reflects the reaction time of NOM Market Makers as compared to Participants entering orders. Of note, the proposed customized timeframe for FIX would be too long for NOM Market Makers given their quoting requirements and sensitivity to price movements. NOM Market Makers would be severely impacted by a loss of connectivity of more than several seconds. The NOM Market Makers would have exposure during the time period in which they are unable to manage their quote and update that quote. The Participant is best positioned to determine its setting.

The Exchange’s proposal is further consistent with the Act because it will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application which protects investors and the public interest. Also, any interest that is executable against a NOM Market Maker’s quotes that is

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<sup>15</sup> See note 14 above.

received<sup>16</sup> by the Exchange prior to the trigger of the disconnect to the Client Application, which is processed by the System, automatically executes at the price up to the NOM Market Maker's size. In other words, the System will process the request for cancellation in the order it was received by the System.

The System operates consistently with the firm quote obligations of a broker-dealer pursuant to Rule 602 of Regulation NMS. Specifically, with respect to NOM Market Makers, their obligation to provide continuous two-sided quotes on a daily basis is not diminished by the removal of such quotes triggered by the disconnect. NOM Market Makers are required to provide continuous two-sided quotes on a daily basis.<sup>17</sup> NOM Market Makers will not be relieved of the obligation to provide continuous two-sided quotes on a daily basis, nor will it prohibit the Exchange from taking disciplinary action against a NOM Market Makers for failing to meet the continuous quoting obligation each trading day as a result of disconnects.

The proposal to permit NOM Market Makers to amend the default setting at the beginning of each session of connectivity is consistent with the Act because it avoids unwarranted logoffs of Participants and provides Participants the opportunity to set a time, within the prescribed timeframe, to authorize the Exchange to disconnect the Participant.

Today, NASDAQ PHLX LLC ("Phlx") and NASDAQ BX, INC. ("BX") offer its market makers a similar feature to the one proposed by the Exchange for the automatic

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<sup>16</sup> The time of receipt for an order or quote is the time such message is processed by the Exchange book.

<sup>17</sup> See note 14 above.

removal of quotes when connectivity issues arise.<sup>18</sup> Phlx and BX have identical rules to the NOM proposal for SQF Ports.

With respect to FIX Ports<sup>19</sup>, the Exchange will offer an optional removal functionality to all market participants. Offering the FIX removal feature on a voluntary basis to all other non-Market Maker Participants is consistent with the Act because it permits them an opportunity to utilize this risk feature, if desired, and avoid risks associated with inadvertent executions in the event of a loss of connectivity with the Exchange. The removal feature is designed to mitigate the risk of missed and/or unintended executions associated with a loss in communication with a Client Application.

The proposed rule change is designed to not permit unfair discrimination among market participants, as this removal feature will be offered uniformly to all Participants utilizing FIX. The Exchange will not require OTTO users to utilize the removal feature for orders similar to FIX. The disconnect feature for FIX is mandatory, however market participants will have the option to either enable or disable the removal feature, which would result in the cancellation of all orders submitted over a FIX port when such port disconnects. It is appropriate to offer this removal feature as optional to all market participants utilizing FIX because these market participants may not bear the same magnitude of risk of potential erroneous or unintended executions.<sup>20</sup> In addition, market participants utilizing FIX may desire their orders to remain on the order book despite a

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<sup>18</sup> See Phlx Rule 1019(c) and BX Rule at Chapter VI, Section 6(e).

<sup>19</sup> OTTO ports may be utilized today by non-NOM Market Makers. The removal functionality remains optional for non-NOM Market Makers similar to FIX.

<sup>20</sup> NOM Market Makers utilizes both SQF and OTTO and would be subject to quoting obligations.

technical disconnect, so as not to miss any opportunities for execution of such orders while the FIX session is disconnected. The Exchange will disconnect Participants from the Exchange and not cancel its orders if the removal feature is disabled for FIX. The disconnect feature is mandatory and will cause the Participant to be disconnected within the default timeframe or the timeframe otherwise specified by the Participant.

This feature is consistent with the Act because it enables FIX or OTTO users, particularly non-Market Maker OTTO users, the ability to disconnect from the Exchange, assess the situation and make a determination concerning their risk exposure. The Exchange notes that in the event that orders need to be removed, the Participant may elect to utilize the Kill Switch<sup>21</sup> feature. It is consistent with the Act to require other market participants to be disconnected because the Participant is otherwise not connected to the Exchange's System and the Participant simply needs to reconnect to commence submitting and cancelling orders. Requiring a disconnect when a loss of communication is detected is a rational course of action for the Exchange to alert the Participant of the technical connectivity issue.

The Exchange's proposal to set a default timeframe of thirty (30) seconds for FIX and permit a FIX user to customize their timeframe between 1 second and 30 seconds for the removal of orders is consistent with the Act and the protection of investors because the purpose of this optional feature is to mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application. Participants selecting the removal feature are able to better anticipate the appropriate time

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<sup>21</sup> See NOM Rule at Chapter VI, Section 6(d). The Kill Switch would impact all three protocols, SQF, FIX and OTTO.



that they require prior to a logoff as compared to the Exchange, within the Exchange's prescribed timeframes.

The Exchange does not desire to trigger unwarranted logoffs of Participants and therefore permits Participants to provide a time to the Exchange, within the Exchange's prescribed timeframe, to authorize the Exchange to disconnect the Participant and remove orders. The "nn" seconds serve as the Participant's instruction to the Exchange to act upon the loss of connection and remove orders from the System. The Participant is also best positioned to determine that it only desires the disconnect feature, which is mandatory, and not the removal feature.

The Exchange's proposal to offer FIX users the removal feature on a voluntary basis is similar to Phlx and BX.<sup>22</sup> Both Phlx and BX have identical rules regarding FIX and a loss of communication as proposed for NOM.

The proposed timeframe for the FIX feature is consistent with the Act because the Exchange seeks to provide its Participants with the ability to select the amount of time that they desire for a loss of communication prior to taking action to cancel open orders or simply disconnect. The Participant should have the ability to select the appropriate time, within a prescribed timeframe, for authorizing the Exchange to cancel its open orders or simply disconnect from the Exchange. Inadvertent cancellations may create a greater risk of harm to investors and the Participant is better positioned to determine the appropriate time, with the prescribed timeframe, to remove orders or disconnect.

With respect to OTTO Ports, the Exchange notes that it offers OTTO to all market participants, not just NOM Market Makers. Similar to SQF, the Exchange desires to

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<sup>22</sup> See Phlx Rule 1019(c) and BX Rule at Chapter VI, Section 6(e).

utilize the 15 second default with the ability to customize the setting to permit a timeframe between 100 milliseconds and 99,999 milliseconds. The Exchange believes that it is consistent with the Act to utilize the shorter timeframe of 15 seconds as compared to the 30 second timeframe for FIX because today, OTTO is utilized solely by NOM Market Makers, although it is offered to all Participants. OTTO orders submitted by NOM Market Makers over this interface are treated as quotes for purposes of compiling with quoting obligations.

As noted previously, NOM Market Makers have quoting obligations<sup>23</sup> and are more sensitive to price movements as compared to other market participants. NOM Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Participants entering orders into the System. The proposal acknowledges this sensitivity borne by NOM Market Makers and reflects the reaction time of NOM Market Makers as compared to Participants entering orders. NOM Market Makers would be severely impacted by a loss of connectivity of more than several seconds. The NOM Market Makers would have exposure during the time period in which they are unable to manage their quote and update that quote. The Participant is best positioned to determine its setting. Also, the Exchange desires to offer NOM Market Makers the ability to have SQF quotes and OTTO orders removed with the same timeframes in order that NOM Market Makers may attend to all open interest in a similar manner with this risk feature.

The Exchange notes that offering the shorter timeframe, despite the fact that non-Market Maker Participants are utilizing this feature is also consistent with the Act

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<sup>23</sup> See note 14 above.

because the removal feature will not be mandatory. The disconnect feature for OTTO will be mandatory, however market participants will have the option to either enable or disable the removal feature, which would result in the cancellation of all orders submitted over an OTTO Port when such port disconnects. NOM Market Makers will be able to set a similar timeframe for both SQF and OTTO to ensure all open interest is removed simultaneously.

The Exchange believes that it is consistent with the Act to permit OTTO users to disable the removal feature, similar to FIX, because the Exchange does not desire to require non-Market Maker Participants to have orders removed on mandatory basis. While the Exchange believes that this risk feature will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application which protects investors and the public interest, as noted above, Participants are able to better anticipate the appropriate time within which they may require prior to a logoff as compared to the Exchange.

The Exchange does not desire to trigger unwarranted logoffs of Participants and therefore permits Participants to provide an alternative time to the Exchange, within the Exchange's prescribed timeframe, which authorized the Exchange to disconnect the Participant. The "nn" seconds serve as the Participant's instruction to the Exchange to act upon the loss of connection and remove quotes from the System. This range will accommodate Participants in selecting their appropriate times within the prescribed timeframes.

The Exchange believes this hybrid approach will permit NOM Market Makers to synchronize the removal of their SQF quotes and OTTO orders,<sup>24</sup> while still permitting non-Market Maker Participants the ability to choose to enable the risk feature. OTTO is not available on either Phlx or BX, so the OTTO feature is not similar to those markets, rather, as mentioned, it is a hybrid approach.

It is appropriate to offer this removal feature as optional to all Participants utilizing OTTO, who may not be required to provide quotes in all products in which they are registered. Non-Market Maker Participants utilizing OTTO may not bear the same magnitude of risk of potential erroneous or unintended executions as NOM Market Makers. In addition, non-Market Maker Participants utilizing OTTO may desire their orders to remain on the order book despite a technical disconnect, so as not to miss any opportunities for execution of such orders while the OTTO session is disconnected. OTTO is similar to FIX on Phlx and BX because it offers market participants, on a voluntary basis, the ability to cancel orders when a technical disconnect occurs.<sup>25</sup>

The Exchange's default timeframe for the disconnect and removal of orders for OTTO is 15 seconds with the ability to modify that timeframe to between 100 milliseconds and 99,999 milliseconds, on a session by session basis. This timeframe is similar to the SQF timeframe offered by Phlx and BX today.<sup>26</sup> Similar to FIX on Phlx and BX today, OTTO users may choose to enable or disable the removal feature when a disconnect occurs. The proposed timeframe for the OTTO feature is consistent with the Act because the Exchange seeks to provide its Participants with the ability to select the

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<sup>24</sup> NOM Market Makers may utilize both SQF and OTTO.

<sup>25</sup> See Phlx Rule 1019(c) and BX Rule at Chapter VI, Section 6(e).

<sup>26</sup> Id.

amount of time that they desire for a loss of communication prior to taking action to cancel open orders or simply disconnect.

The Exchange notes that Participants are free to select the protocols with which they desire to access NOM. The Exchange does not require Participants to utilize more than one protocol to access NOM. The proposed rule change will help maintain a fair and orderly market which promotes efficiency and protects investors. This mandatory removal feature for NOM Market Makers using SQF and optional removal for all market participants using FIX or OTTO will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application.

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

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. Specifically, the Exchange does not believe the proposed rule change will cause an undue burden on intra-market competition because NOM Market Makers, unlike other market participants, have greater risks in the market place. Quoting across many series in an option creates large principal positions that expose NOM Market Makers, who are required to continuously quote in assigned options, to potentially significant market risk.

Providing a broader timeframe for the disconnect and removal of orders for FIX as compared to the disconnect and removal of quotes for SQF Ports does not create an undue burden on competition. NOM Market Makers have quoting obligations<sup>27</sup> and are more sensitive to price movements as compared to other market participants. The proposal does not impose an undue burden on intra-market competition because it

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<sup>27</sup> See note 14 above.

provides a tighter timeframe for the disconnect and removal of quotes for SQF Ports as compared to the disconnect and removal of orders, if enabled, for FIX Ports. NOM Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Participants entering multiple orders into the System.

The proposal reflects this sensitivity borne by NOM Market Makers and reflects the reaction time of NOM Market Makers as compared to other Participants entering orders. Offering the removal feature to other market participants on an optional basis for FIX and OTTO users does not create an undue burden on intra-market competition because unlike NOM Market Makers, other market participants do not bear the same risks of potential erroneous or unintended executions. FIX users have the opportunity to disable the removal feature and simply disconnect from the Exchange. FIX users may also set a timeframe that is appropriate for their business. It is appropriate to offer this optional cancellation functionality to other market participants for open orders, because those orders are subject to risks of missed and/or unintended executions due to a lack of connectivity which the Participants need to weigh.

Today, OTTO is utilized solely by NOM Market Makers, although it is offered to all Participants. OTTO Orders submitted by NOM Market Makers over this interface are treated as quotes for purposes of compiling with quoting obligations. NOM Market Makers have quoting obligations<sup>28</sup> and are more sensitive to price movements as compared to other market participants. NOM Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other

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<sup>28</sup> See note 14 above.

Participants entering orders into the System. For this reason, the proposal does not impose an undue burden on intra-market competition because the proposal acknowledges this sensitivity borne by NOM Market Makers and reflects the reaction time of NOM Market Makers as compared to Participants entering orders. As noted, NOM Market Makers would be severely impacted by a loss of connectivity of more than several seconds. NOM Market Makers would have exposure during the time period in which they are unable to manage their quote and update that quote.

The Exchange's proposal offers NOM Market Makers the ability to have SQF and OTTO orders removed within the same timeframes in order that NOM Market Makers may attend to all open interest in a similar manner with this risk feature. The Exchange notes that offering the shorter timeframe, despite the fact that non-Market Maker Participants may utilize this feature does not impose an undue burden on intra-market competition because the removal feature will not be mandatory. The disconnect feature for OTTO will be mandatory, however market participants will have the option to either enable or disable removal feature, which would result in the cancellation of all orders submitted over an OTTO Port when such port disconnects.

The Exchange believes that it does not impose an undue burden on intra-market competition to permit OTTO users to disable the removal feature, similar to FIX, because the Exchange does not desire to require non-Market Maker Participants to have orders removed on mandatory basis. While the Exchange believes that this risk feature will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application which protects investors and the public interest,

as noted above, Participants are able to better anticipate the appropriate time within which they may require prior to a logoff as compared to the Exchange.

The Exchange does not desire to trigger unwarranted logoffs of Participants and therefore permits Participants to provide an alternative time to the Exchange, within the Exchange's prescribed timeframe, which authorized the Exchange to disconnect the Participant. This hybrid approach will permit NOM Market Makers to synchronize the removal of their SQF quotes and OTTO orders, while still permitting non-NOM Market Makers the ability to choose to enable the risk feature.

Finally, the Exchange does not believe that such change will impose any burden on inter-market competition that is not necessary or appropriate in furtherance of the purposes of the Act. Other options exchanges offer similar functionality.<sup>29</sup>

5. 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.

6. Extension of Time Period for Commission Action

Not applicable.

7. Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2)

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)<sup>30</sup> of the Act and Rule 19b-4(f)(6) thereunder<sup>31</sup> in that it effects a change that: (i) does not significantly affect the protection of investors or the public interest; (ii) does not impose

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<sup>29</sup> See BOX's Rule 8140, CBOE's Rule 6.23C, Phlx Rule 1019(c) and BX Rule at Chapter VI, Section 6(e).

<sup>30</sup> 15 U.S.C. 78s(b)(3)(A).

<sup>31</sup> 17 CFR 240.19b-4(f)(6).



any significant burden on competition; and (iii) by its terms, does not become operative for 30 days after the date of the filing, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest.

The Exchange does not believe that requiring NOM Market Makers to utilize the disconnect and removal feature on SQF and offering the removal feature on an optional basis on FIX and OTTO significantly affects the protection of investors or the public interest because unlike other market participants, NOM Market Makers are required to continuously quote in assigned options and bear potentially significant market risk. OTTO non-Market Maker Participants would continue to have the ability to select whether to utilize the removal feature.

Providing an SQF and OTTO default setting of 15 seconds for the disconnect and removal of quotes and permitting the NOM Market Makers to modify the setting to between 100 milliseconds and 99,999 milliseconds does not significantly affect the protection of investors or the public interest because NOM Market Makers have quoting obligations<sup>32</sup> and are more sensitive to price movements as compared to other market participants.

It is consistent with the Act to provide a tighter timeframe for the disconnect and removal of quotes for SQF and OTTO Ports, which are utilized by NOM Market Makers, as compared to the disconnect and removal of orders for FIX Ports because NOM Market Makers need to remain vigilant of market conditions and react quickly to market movements as compared to other Participants entering multiple orders into the System.

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<sup>32</sup> See note 14 above.

The proposal represents this sensitivity borne by NOM Market Makers and reflects the reaction time of NOM Market Makers as compared to other Participants entering orders. This hybrid approach will permit a NOM Market Maker to synchronize the removal of their SQF quotes and OTTO orders, while still permitting non-Market Maker Participants the ability to choose to enable the risk feature.

Also, setting a 30 second default timeframe for the disconnect and removal of orders for FIX Ports and offering market participants the ability to modify that timeframe to between 1 second and 30 seconds does not significantly affect the protection of investors or the public interest because this feature is designed to mitigate the risk of missed and/or unintended executions associated with a loss in communication with a Client Application.

The Exchange also offers FIX and OTTO users the ability to disable the removal feature and simply disconnect from the Exchange without cancelling orders. OTTO users may include non-Market Maker Participants. The mandatory disconnect feature does not significantly affect the protection of investors because the Participant is otherwise not connected to the Exchange's System. The mandatory disconnect feature does not impose a significant burden on competition because the Participant simply needs to reconnect to commence submitting and cancelling orders. Permitting OTTO users the ability to disable the removal feature, similar to FIX, does not significantly affect the protection of investors because while the Exchange believes that this risk feature will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application, which protects investors and the public interest as noted above, Participants are able to better anticipate the appropriate time within which they may

require prior to a logoff as compared to the Exchange. The Exchange does not desire to trigger unwarranted logoffs of Participants and therefore permits Participants to provide an alternative time to the Exchange, within the Exchange's prescribed timeframe, which authorized the Exchange to disconnect the Participant.

The proposed rule change will not impose any significant burden on competition because with respect to the SQF Ports, NOM Market Makers, unlike other market participants, have greater risks in the market place. Quoting across many series in an option create large principal positions that expose NOM Market Makers, who are required to continuously quote in assigned options, to potentially significant market risk.

Further, NOM Market Makers are more sensitive to price movements as compared to other market participants and need to remain vigilant of market conditions and react quickly to market movements as compared to other Participants entering multiple orders into the System. Requiring NOM Market Makers to utilize the disconnect and removal feature for SQF and offering the removal feature on an optional basis to other market participants utilizing FIX or OTTO does not impose a significant burden on competition because the Exchange places obligations on NOM Market Makers that are not borne by other market participants.<sup>33</sup> Permitting OTTO users a default timeframe of 15 seconds with the ability to customize the setting to between 100 milliseconds and 99,999 milliseconds does not impose a significant burden on competition because OTTO orders submitted by NOM Market Makers over this interface are treated as quotes for purposes of compiling with quoting obligations. NOM Market

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<sup>33</sup> Id. Also, today only NOM Market Makers utilize OTTO to submit orders.

Makers have quoting obligations<sup>34</sup> and are more sensitive to price movements as compared to other market participants. NOM Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Participants entering orders into the System. The proposal acknowledges this sensitivity borne by NOM Market Makers and reflects the reaction time of NOM Market Makers as compared to Participants entering orders.

Furthermore, Rule 19b-4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file a proposed rule change under that subsection at least five business days prior to the date of filing, or such shorter time as designated by the Commission. The Exchange has provided such notice.

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is: (i) necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

A proposed rule change filed under Rule 19b-4(f)(6) normally does not become operative prior to 30 days after the date of filing. Rule 19b-4(f)(6)(iii), however, permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange requests that the Commission waive the 30-day operative delay contained in Rule 19b-4(f)(6)(iii) so that the Exchange may offer this important feature to its market participants. Phlx and BX currently offer similar

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<sup>34</sup>

See note 14 above.

risk features.<sup>35</sup> The Exchange will remain a competitive options Exchange by offering its Participants similar risk protections currently offered on other options exchanges.<sup>36</sup> Market participants will be able to avail themselves of the protections offered on other options markets.

This feature will protect the market by requiring NOM Market Makers to utilize the disconnect and removal feature for SQF in the event of disconnecting from the Client Application. NOM Market Makers provide liquidity to the market place and have obligations unlike other market participants.<sup>37</sup> This risk prevention feature is important because it will enable NOM Market Makers to avoid risks associated with inadvertent executions in the event of a loss of connectivity with the Exchange with the removal of quotes. This hybrid approach for OTTO will permit NOM Market Makers to synchronize the removal of their SQF quotes and OTTO orders, while still permitting non-Market Maker Participants the ability to choose to enable the risk feature. Also, it is appropriate to offer this optional removal functionality to other market participants for FIX and OTTO, particularly for non-Market Maker Participants, for the removal of open orders, because those orders are subject to risks of potential erroneous or unintended executions due to a lack of connectivity. This type of protection is important as it relates to the protection of investors. NOM Market Makers utilizing OTTO may elect to remove OTTO orders as well as other Participants.

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<sup>35</sup> See Phlx Rule 1019(c) and BX Rule at Chapter VI, Section 6(e).

<sup>36</sup> Id.

<sup>37</sup> See note 14 above.

8. Proposed Rule Change Based on Rules of Another Self-Regulatory Organization or of the Commission

Phlx and BX have identical rules with respect to the SQF and FIX protocols. Phlx and BX do not offer OTTO. As mentioned herein, OTTO is a hybrid of the SQF and FIX model. The default timeframe for the disconnect and removal of orders for OTTO would be 15 seconds with the ability to modify that timeframe to between 100 milliseconds and 99,999 milliseconds, on a session by session basis, similar to SQF. This timeframe is utilized for SQF on both Phlx and BX.<sup>38</sup> Also, OTTO users may choose to enable or disable the removal feature when a disconnect occurs similar to FIX. The optional removal feature for FIX is available on Phlx and BX.<sup>39</sup>

9. Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act

Not applicable.

10. Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act

Not applicable.

11. Exhibits

1. Notice of Proposed Rule Change for publication in the Federal Register.
5. Text of the proposed rule change.

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<sup>38</sup> See Phlx Rule 1019(c) and BX Rule at Chapter VI, Section 6(e).

<sup>39</sup> Id.

**EXHIBIT 1**

SECURITIES AND EXCHANGE COMMISSION  
(Release No. \_\_\_\_\_ ; File No. SR-NASDAQ-2016-097)

August \_\_, 2016

Self-Regulatory Organizations; The NASDAQ Stock Market LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change Related to Detection of Loss of Connection

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 July 28, 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 amend NASDAQ Options Market LLC’s (“NOM”) Rules at Chapter VI, Section 6, entitled “Acceptance of Quotes and Orders” to adopt functionality which is designed to assist NOM Participants, hereinafter “Participants,” in the event that they lose communication with their assigned Financial Information eXchange (“FIX”),<sup>3</sup> Specialized Quote Feed (“SQF”),<sup>4</sup> or Ouch to Trade Options (“OTTO”)<sup>5</sup> Ports due to a loss of connectivity.

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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> FIX permits the entry of orders.

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 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

The Exchange proposes to amend Chapter VI, Section 6, entitled "Acceptance of Quotes and Orders" to adopt a new section "(e)" entitled "Detection of Loss of Connection," a new automated process which NOM proposes to adopt for its SQF,<sup>6</sup> FIX

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<sup>4</sup> SQF permits the transmission of quotes to the Exchange by a NOM Market Maker using its Client Application.

<sup>5</sup> OTTO permits the transmission of orders to the Exchange by a Participant. Immediate or cancel orders will not be cancelled pursuant to this Chapter VI, Section 6 because, by definition, these orders will cancel if not executed. All Participants have the ability to utilize OTTO. Orders submitted by NOM Market Makers over this interface will be treated as quotes.

<sup>6</sup> Today, SQF, FIX and OTTO have the capability to cancel quotes and orders respectively. The rule change would adopt a formalized process to automatically disconnect and cancel quotes for SQF and offer the opportunity to cancel orders for FIX and OTTO in addition to a disconnect if elected, when there is a loss of communication with the Participant's Client Application. The Exchange is formalizing the process within Chapter VI, Section 6(e).



and OTTO Ports in the event that they lose communication with a Client Application due to a loss of connectivity. This feature is designed to protect NOM Options Market Makers<sup>7</sup> and other market participants from inadvertent exposure to excessive risk.

By way of background, Participants currently enter quotes and orders utilizing either an SQF, FIX or OTTO Port. SQF is utilized by NOM Options Market Makers. FIX and OTTO are available to all market participants. These ports are System<sup>8</sup> components through which a Participant communicates its quotes and/or orders to the NOM match engine through the Participant's Client Application.

Under the proposed rule change, an SQF Port would be defined as the Exchange's System component through which Participants communicate their quotes from the Client Application at proposed Chapter VI, Section 6(e)(i)(B). FIX and OTTO Ports would be defined as the Exchange's System components through which Participants communicate their orders from the Client Application at proposed Chapter VI, Section 6(e)(i)(C). NOM Options Market Makers may submit quotes to the Exchange from one or more SQF Ports.

Similarly, market participants may submit orders to the Exchange from one or more FIX and/or OTTO Ports. The proposed removal feature will be mandatory for each

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<sup>7</sup> The term "Nasdaq Options Market Maker" or "Options Market Maker" (herein "NOM Market Maker") means an Options Participant registered with the Exchange for the purpose of making markets in options contracts traded on the Exchange and that is vested with the rights and responsibilities specified in Chapter VII of these Rules. See NOM Rules at Chapter I, Section 1(a)(26).

<sup>8</sup> The term "System" shall mean the automated system for order execution and trade reporting owned and operated by NOM as the NOM Options market. See Chapter VI, Section 1(a).

NOM Market Makers utilizing SQF for the removal of quotes and optional for any market participant utilizing FIX and OTTO for the removal of orders.

When the SQF Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message<sup>9</sup> for a certain period of time ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and automatically cancel all of the Participant's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same NOM Market Makers ID and underlying issues.

The Exchange proposes to define "Client Application" as the System component of the Participant through which the Exchange Participant communicates its quotes and orders to the Exchange at proposed Chapter VI, Section 6(e)(i)(D). The Exchange proposes to define a "Heartbeat" message as a communication that acts as a virtual pulse between the SQF, FIX or OTTO Port and the Client Application at proposed Chapter VI, Section 6(e)(i)(A). The Heartbeat message sent by the Participant and subsequently received by the Exchange allows the SQF, FIX or OTTO Port to continually monitor its connection with the Participant.

#### SQF Ports

The Exchange's System has a default time period, which will trigger a disconnect from the Exchange and remove quotes, set to fifteen (15) seconds for SQF Ports. A Participant may change the default period of "nn" seconds of no technical connectivity to trigger a disconnect from the Exchange and remove quotes to a number between one hundred (100) milliseconds and 99,999 milliseconds for SQF Ports prior to each session

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<sup>9</sup> It is important to note that the Exchange separately sends a connectivity message to the Participant as evidence of connectivity.

of connectivity to the Exchange. This feature is enabled for each NOM Market Makers and may not be disabled.

There are two ways to change the number of “nn” seconds: (1) systemically or (2) by contacting the Exchange’s operations staff. If the Participant systemically changes the default number of “nn” seconds, that new setting shall be in effect throughout the current session of connectivity<sup>10</sup> and will then default back to fifteen seconds.<sup>11</sup> The Participant may change the default setting systemically prior to each session of connectivity. The Participant may also communicate the time to the Exchange by calling the Exchange’s operations staff. If the time period is communicated to the Exchange by calling Exchange operations, the number of “nn” seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

#### FIX Ports

The Exchange’s System has a default time period, which will trigger a disconnect from the Exchange and remove orders, set to thirty (30) seconds for FIX Ports. The Participant may disable the removal of orders feature but not the disconnect feature. If the Participant elects to have its orders removed, in addition to the disconnect, the

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<sup>10</sup> Each time the Participant connects to the Exchange’s System is a new period of connectivity. For example, if the Participant were to connect and then disconnect within a trading day several times, each time the Participant disconnected the next session would be a new session of connectivity.

<sup>11</sup> The Exchange’s System would capture the new setting information that was changed by the Participant and utilize the amended setting for that particular session. The setting would not persist beyond the current session of connectivity and the setting would default back to 15 seconds for the next session if the Participant did not change the setting again.

Participant may determine a time period of no technical connectivity to trigger the disconnect and removal of orders between (1) second and thirty (30) seconds for FIX Ports prior to each session of connectivity to the Exchange.

There are two ways to change the number of “nn” seconds: (1) systemically or (2) by contacting the Exchange’s operations staff. If the Participant systemically changes the default number of “nn” seconds, that new setting shall be in effect throughout that session of connectivity and will then default back to thirty seconds at the end of that session. The Participant may change the default setting systemically prior to each session of connectivity. The Participant may also communicate the time to the Exchange by calling the Exchange’s operations staff. If the time period is communicated to the Exchange by calling Exchange operations, the number of “nn” seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

Similar to SQF Ports, when a FIX Port detects the loss of communication with a Participant’s Client Application for a certain time period (“nn” seconds), the Exchange will automatically logoff the Participant’s affected Client Application and if elected, automatically cancel all open orders. The Participant may have an order which has routed away prior to the cancellation, in the event that the order returns to the Order Book, because it was either not filled or partially filled, that order will be subsequently cancelled.

The disconnect feature is mandatory for FIX users, however the user has the ability to elect to also enable a removal feature, which will cancel all open orders

submitted through that FIX Port. If the removal of orders feature is not enabled, the System will simply disconnect the FIX user and not cancel any orders. The FIX user would have to commence a new session to add, modify or cancel its orders once disconnected.

#### OTTO Ports

The Exchange's System has a default time period, which will trigger a disconnect from the Exchange and remove orders, set to fifteen (15) seconds for OTTO Ports. The Participant may disable the removal of orders feature but not the disconnect feature. If the Participant elects to have its orders removed, in addition to the disconnect, the Participant may determine a time period of no technical connectivity to trigger the disconnect and removal of orders between one hundred (100) milliseconds and 99,999 milliseconds.

There are two ways to change the number of "nn" seconds: (1) systemically or (2) by contacting the Exchange's operations staff. If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout that session of connectivity and will then default back to fifteen seconds at the end of that session. The Participant may change the default setting systemically prior to each session of connectivity. The Participant may also communicate the time to the Exchange by calling the Exchange's operations staff. If the time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

Similar to SQF and FIX Ports, when an OTTO Port detects the loss of communication with a Participant's Client Application for a certain time period ("n" seconds), the Exchange will automatically logoff the Participant's affected Client Application and if elected, automatically cancel all open orders. The Participant may have an order which has routed away prior to the cancellation, in the event that the order returns to the Order Book, because it was either not filled or partially filled, that order will be subsequently cancelled.

The disconnect feature is mandatory for OTTO users however the user has the ability to elect to also enable a removal feature, which will cancel all open orders submitted through that OTTO Port. If the removal of orders feature is not enabled, the System will simply disconnect the OTTO user and not cancel any orders. The OTTO user would have to commence a new session to add, modify or cancel its orders once disconnected.

The trigger for the SQF, FIX and OTTO Ports is event and Client Application specific. The automatic cancellation of the NOM Market Maker's quotes for SQF Ports and open orders, if elected by the Participant for FIX and OTTO Ports entered into the respective SQF, FIX or OTTO Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other NOM Market Makers entered into SQF Ports or orders of the same or other Participants entered into FIX or OTTO Ports via a separate and distinct Client Application.

In other words, with respect to quotes, each NOM Market Maker only maintains one quote in a given option in the order book. A new quote would replace the existing quote. Orders on the other hand do not replace each other in the order book as multiple

orders may exist in a given option at once. Therefore, the difference in the impact between NOM Market Makers submitting quotes and Participants submitting orders is that quotes may continue to be submitted and/or refreshed by unaffected NOM Market Makers because these market participants are cancelled based on ID when an SQF Port disconnects, whereas all of the open orders submitted by a given firm will be impacted when a FIX or OTTO port disconnects, if the firm elected to have orders cancelled.

The Exchange will issue an Options Trader Alert advising Participants on the manner in which they should communicate the number of “nn” seconds to the Exchange for SQF, FIX and OTTO Ports.

## 2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,<sup>12</sup> in general, and furthers the objectives of Section 6(b)(5) of the Act,<sup>13</sup> in particular, in that it 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, by offering removal functionality for NOM Market Makers as well as all other market participants to prevent disruption in the marketplace and also offering this removal feature to other market participants.

NOM Market Makers will be required to utilize removal functionality with respect to SQF Ports. This feature will remove impediments to and perfect the mechanism of a free and open market and a national market system and protect investors

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<sup>12</sup> 15 U.S.C. 78f(b).

<sup>13</sup> 15 U.S.C. 78f(b)(5).

and the public interest by requiring NOM Market Makers quotes to be removed in the event of a loss of connectivity with the Exchange's System. NOM Market Makers provide liquidity to the market place and have obligations unlike other market participants.<sup>14</sup> This risk feature for SQF is important because it will enable NOM Market Makers to avoid risks associated with inadvertent executions in the event of a loss of connectivity with the Exchange. The proposed rule change is designed to not permit unfair discrimination among market participants, as it would apply uniformly to all NOM Market Makers utilizing SQF.

Utilizing a time period for SQF Ports of fifteen (15) seconds and permitting the NOM Market Makers to modify the setting to between 100 milliseconds and 99,999 milliseconds is consistent with the Act because the Exchange does not desire to trigger unwarranted logoffs of Participants and therefore allows Participants the ability to set their time in order to enable the Exchange the authority to disconnect the Participant with this feature. Each NOM Market Makers has different levels of sensitivity with respect to this disconnect setting and each NOM Market Makers has their own system safeguards as well. A default setting of fifteen (15) seconds is appropriate to capture the needs of all NOM Market Makers and high enough not to trigger unwarranted removal of quotes.

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<sup>14</sup> Pursuant to NOM Rules at Chapter VII, Section 5, entitled "Obligations of NOM Options Market Makers", in registering as a market maker, an Options Participant commits himself to various obligations. Transactions of a NOM Options Market Makers must constitute a course of dealings reasonably calculated to contribute to the maintenance of a fair and orderly market, and NOM Options Market Makers should not make bids or offers or enter into transactions that are inconsistent with such course of dealings. Further, all NOM Options Market Makers are designated as specialists on NOM for all purposes under the Act or rules thereunder. See Chapter VII, Section 5.



Further, NOM Market Makers are able to customize their setting. The Exchange's proposal to permit a timeframe for SQF Ports between 100 milliseconds and 99,999 milliseconds is consistent with the Act and the protection of investors because the purpose of this feature is to mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application. Participants are able to better anticipate the appropriate time within which they may require prior to a logoff as compared to the Exchange. The Participant is being offered a timeframe by the Exchange within which to select the appropriate time. The Exchange does not desire to trigger unwarranted logoffs of Participants and therefore permits Participants to provide an alternative time to the Exchange, within the Exchange's prescribed timeframe, which authorized the Exchange to disconnect the Participant. The "nn" seconds serve as the Participant's instruction to the Exchange to act upon the loss of connection and remove quotes from the System. This range will accommodate Participants in selecting their appropriate times within the prescribed timeframes.

Also, NOM Market Makers have quoting obligations<sup>15</sup> and are more sensitive to price movements as compared to other market participants. It is consistent with the Act to provide a wider timeframe within which to customize settings for FIX Ports as compared to SQF Ports. NOM Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Participants entering orders into the System. The proposal acknowledges this sensitivity borne by NOM Market Makers and reflects the reaction time of NOM Market Makers as compared to Participants entering orders. Of note, the proposed customized timeframe

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<sup>15</sup> See note 14 above.

for FIX would be too long for NOM Market Makers given their quoting requirements and sensitivity to price movements. NOM Market Makers would be severely impacted by a loss of connectivity of more than several seconds. The NOM Market Makers would have exposure during the time period in which they are unable to manage their quote and update that quote. The Participant is best positioned to determine its setting.

The Exchange's proposal is further consistent with the Act because it will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application which protects investors and the public interest. Also, any interest that is executable against a NOM Market Maker's quotes that is received<sup>16</sup> by the Exchange prior to the trigger of the disconnect to the Client Application, which is processed by the System, automatically executes at the price up to the NOM Market Maker's size. In other words, the System will process the request for cancellation in the order it was received by the System.

The System operates consistently with the firm quote obligations of a broker-dealer pursuant to Rule 602 of Regulation NMS. Specifically, with respect to NOM Market Makers, their obligation to provide continuous two-sided quotes on a daily basis is not diminished by the removal of such quotes triggered by the disconnect. NOM Market Makers are required to provide continuous two-sided quotes on a daily basis.<sup>17</sup> NOM Market Makers will not be relieved of the obligation to provide continuous two-sided quotes on a daily basis, nor will it prohibit the Exchange from taking disciplinary action against a NOM Market Makers for failing to meet the continuous quoting

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<sup>16</sup> The time of receipt for an order or quote is the time such message is processed by the Exchange book.

<sup>17</sup> See note 14 above.

obligation each trading day as a result of disconnects.

The proposal to permit NOM Market Makers to amend the default setting at the beginning of each session of connectivity is consistent with the Act because it avoids unwarranted logoffs of Participants and provides Participants the opportunity to set a time, within the prescribed timeframe, to authorize the Exchange to disconnect the Participant.

Today, NASDAQ PHLX LLC (“Phlx”) and NASDAQ BX, INC. (“BX”) offer its market makers a similar feature to the one proposed by the Exchange for the automatic removal of quotes when connectivity issues arise.<sup>18</sup> Phlx and BX have identical rules to the NOM proposal for SQF Ports.

With respect to FIX Ports<sup>19</sup>, the Exchange will offer an optional removal functionality to all market participants. Offering the FIX removal feature on a voluntary basis to all other non-Market Maker Participants is consistent with the Act because it permits them an opportunity to utilize this risk feature, if desired, and avoid risks associated with inadvertent executions in the event of a loss of connectivity with the Exchange. The removal feature is designed to mitigate the risk of missed and/or unintended executions associated with a loss in communication with a Client Application.

The proposed rule change is designed to not permit unfair discrimination among market participants, as this removal feature will be offered uniformly to all Participants utilizing FIX. The Exchange will not require OTTO users to utilize the removal feature for orders similar to FIX. The disconnect feature for FIX is mandatory, however market

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<sup>18</sup> See Phlx Rule 1019(c) and BX Rule at Chapter VI, Section 6(e).

<sup>19</sup> OTTO ports may be utilized today by non-NOM Market Makers. The removal functionality remains optional for non-NOM Market Makers similar to FIX.

participants will have the option to either enable or disable the removal feature, which would result in the cancellation of all orders submitted over a FIX port when such port disconnects. It is appropriate to offer this removal feature as optional to all market participants utilizing FIX because these market participants may not bear the same magnitude of risk of potential erroneous or unintended executions.<sup>20</sup> In addition, market participants utilizing FIX may desire their orders to remain on the order book despite a technical disconnect, so as not to miss any opportunities for execution of such orders while the FIX session is disconnected. The Exchange will disconnect Participants from the Exchange and not cancel its orders if the removal feature is disabled for FIX. The disconnect feature is mandatory and will cause the Participant to be disconnected within the default timeframe or the timeframe otherwise specified by the Participant.

This feature is consistent with the Act because it enables FIX or OTTO users, particularly non-Market Maker OTTO users, the ability to disconnect from the Exchange, assess the situation and make a determination concerning their risk exposure. The Exchange notes that in the event that orders need to be removed, the Participant may elect to utilize the Kill Switch<sup>21</sup> feature. It is consistent with the Act to require other market participants to be disconnected because the Participant is otherwise not connected to the Exchange's System and the Participant simply needs to reconnect to commence submitting and cancelling orders. Requiring a disconnect when a loss of communication is detected is a rational course of action for the Exchange to alert the Participant of the

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<sup>20</sup> NOM Market Makers utilizes both SQF and OTTO and would be subject to quoting obligations.

<sup>21</sup> See NOM Rule at Chapter VI, Section 6(d). The Kill Switch would impact all three protocols, SQF, FIX and OTTO.

technical connectivity issue.

The Exchange's proposal to set a default timeframe of thirty (30) seconds for FIX and permit a FIX user to customize their timeframe between 1 second and 30 seconds for the removal of orders is consistent with the Act and the protection of investors because the purpose of this optional feature is to mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application. Participants selecting the removal feature are able to better anticipate the appropriate time that they require prior to a logoff as compared to the Exchange, within the Exchange's prescribed timeframes.

The Exchange does not desire to trigger unwarranted logoffs of Participants and therefore permits Participants to provide a time to the Exchange, within the Exchange's prescribed timeframe, to authorize the Exchange to disconnect the Participant and remove orders. The "nn" seconds serve as the Participant's instruction to the Exchange to act upon the loss of connection and remove orders from the System. The Participant is also best positioned to determine that it only desires the disconnect feature, which is mandatory, and not the removal feature.

The Exchange's proposal to offer FIX users the removal feature on a voluntary basis is similar to Phlx and BX.<sup>22</sup> Both Phlx and BX have identical rules regarding FIX and a loss of communication as proposed for NOM.

The proposed timeframe for the FIX feature is consistent with the Act because the Exchange seeks to provide its Participants with the ability to select the amount of time that they desire for a loss of communication prior to taking action to cancel open orders

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<sup>22</sup> See Phlx Rule 1019(c) and BX Rule at Chapter VI, Section 6(e).

or simply disconnect. The Participant should have the ability to select the appropriate time, within a prescribed timeframe, for authorizing the Exchange to cancel its open orders or simply disconnect from the Exchange. Inadvertent cancellations may create a greater risk of harm to investors and the Participant is better positioned to determine the appropriate time, with the prescribed timeframe, to remove orders or disconnect.

With respect to OTTO Ports, the Exchange notes that it offers OTTO to all market participants, not just NOM Market Makers. Similar to SQF, the Exchange desires to utilize the 15 second default with the ability to customize the setting to permit a timeframe between 100 milliseconds and 99,999 milliseconds. The Exchange believes that it is consistent with the Act to utilize the shorter timeframe of 15 seconds as compared to the 30 second timeframe for FIX because today, OTTO is utilized solely by NOM Market Makers, although it is offered to all Participants. OTTO orders submitted by NOM Market Makers over this interface are treated as quotes for purposes of compiling with quoting obligations.

As noted previously, NOM Market Makers have quoting obligations<sup>23</sup> and are more sensitive to price movements as compared to other market participants. NOM Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Participants entering orders into the System. The proposal acknowledges this sensitivity borne by NOM Market Makers and reflects the reaction time of NOM Market Makers as compared to Participants entering orders. NOM Market Makers would be severely impacted by a loss of connectivity of more than several seconds. The NOM Market Makers would have exposure during the time period

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<sup>23</sup>

See note 14 above.

in which they are unable to manage their quote and update that quote. The Participant is best positioned to determine its setting. Also, the Exchange desires to offer NOM Market Makers the ability to have SQF quotes and OTTO orders removed with the same timeframes in order that NOM Market Makers may attend to all open interest in a similar manner with this risk feature.

The Exchange notes that offering the shorter timeframe, despite the fact that non-Market Maker Participants are utilizing this feature is also consistent with the Act because the removal feature will not be mandatory. The disconnect feature for OTTO will be mandatory, however market participants will have the option to either enable or disable the removal feature, which would result in the cancellation of all orders submitted over an OTTO Port when such port disconnects. NOM Market Makers will be able to set a similar timeframe for both SQF and OTTO to ensure all open interest is removed simultaneously.

The Exchange believes that it is consistent with the Act to permit OTTO users to disable the removal feature, similar to FIX, because the Exchange does not desire to require non-Market Maker Participants to have orders removed on mandatory basis. While the Exchange believes that this risk feature will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application which protects investors and the public interest, as noted above, Participants are able to better anticipate the appropriate time within which they may require prior to a logoff as compared to the Exchange.

The Exchange does not desire to trigger unwarranted logoffs of Participants and therefore permits Participants to provide an alternative time to the Exchange, within the

Exchange's prescribed timeframe, which authorized the Exchange to disconnect the Participant. The "nn" seconds serve as the Participant's instruction to the Exchange to act upon the loss of connection and remove quotes from the System. This range will accommodate Participants in selecting their appropriate times within the prescribed timeframes.

The Exchange believes this hybrid approach will permit NOM Market Makers to synchronize the removal of their SQF quotes and OTTO orders,<sup>24</sup> while still permitting non-Market Maker Participants the ability to choose to enable the risk feature. OTTO is not available on either Phlx or BX, so the OTTO feature is not similar to those markets, rather, as mentioned, it is a hybrid approach.

It is appropriate to offer this removal feature as optional to all Participants utilizing OTTO, who may not be required to provide quotes in all products in which they are registered. Non-Market Maker Participants utilizing OTTO may not bear the same magnitude of risk of potential erroneous or unintended executions as NOM Market Makers. In addition, non-Market Maker Participants utilizing OTTO may desire their orders to remain on the order book despite a technical disconnect, so as not to miss any opportunities for execution of such orders while the OTTO session is disconnected. OTTO is similar to FIX on Phlx and BX because it offers market participants, on a voluntary basis, the ability to cancel orders when a technical disconnect occurs.<sup>25</sup>

The Exchange's default timeframe for the disconnect and removal of orders for OTTO is 15 seconds with the ability to modify that timeframe to between 100

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<sup>24</sup> NOM Market Makers may utilize both SQF and OTTO.

<sup>25</sup> See Phlx Rule 1019(c) and BX Rule at Chapter VI, Section 6(e).



milliseconds and 99,999 milliseconds, on a session by session basis. This timeframe is similar to the SQF timeframe offered by Phlx and BX today.<sup>26</sup> Similar to FIX on Phlx and BX today, OTTO users may choose to enable or disable the removal feature when a disconnect occurs. The proposed timeframe for the OTTO feature is consistent with the Act because the Exchange seeks to provide its Participants with the ability to select the amount of time that they desire for a loss of communication prior to taking action to cancel open orders or simply disconnect.

The Exchange notes that Participants are free to select the protocols with which they desire to access NOM. The Exchange does not require Participants to utilize more than one protocol to access NOM. The proposed rule change will help maintain a fair and orderly market which promotes efficiency and protects investors. This mandatory removal feature for NOM Market Makers using SQF and optional removal for all market participants using FIX or OTTO will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application.

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

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. Specifically, the Exchange does not believe the proposed rule change will cause an undue burden on intra-market competition because NOM Market Makers, unlike other market participants, have greater risks in the market place. Quoting across many series in an option creates large principal positions that expose NOM Market Makers, who are required to continuously quote in assigned options, to potentially significant market risk.

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Id.

Providing a broader timeframe for the disconnect and removal of orders for FIX as compared to the disconnect and removal of quotes for SQF Ports does not create an undue burden on competition. NOM Market Makers have quoting obligations<sup>27</sup> and are more sensitive to price movements as compared to other market participants. The proposal does not impose an undue burden on intra-market competition because it provides a tighter timeframe for the disconnect and removal of quotes for SQF Ports as compared to the disconnect and removal of orders, if enabled, for FIX Ports. NOM Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Participants entering multiple orders into the System.

The proposal reflects this sensitivity borne by NOM Market Makers and reflects the reaction time of NOM Market Makers as compared to other Participants entering orders. Offering the removal feature to other market participants on an optional basis for FIX and OTTO users does not create an undue burden on intra-market competition because unlike NOM Market Makers, other market participants do not bear the same risks of potential erroneous or unintended executions. FIX users have the opportunity to disable the removal feature and simply disconnect from the Exchange. FIX users may also set a timeframe that is appropriate for their business. It is appropriate to offer this optional cancellation functionality to other market participants for open orders, because those orders are subject to risks of missed and/or unintended executions due to a lack of connectivity which the Participants need to weigh.

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<sup>27</sup>See note 14 above.

Today, OTTO is utilized solely by NOM Market Makers, although it is offered to all Participants. OTTO Orders submitted by NOM Market Makers over this interface are treated as quotes for purposes of compiling with quoting obligations. NOM Market Makers have quoting obligations<sup>28</sup> and are more sensitive to price movements as compared to other market participants. NOM Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Participants entering orders into the System. For this reason, the proposal does not impose an undue burden on intra-market competition because the proposal acknowledges this sensitivity borne by NOM Market Makers and reflects the reaction time of NOM Market Makers as compared to Participants entering orders. As noted, NOM Market Makers would be severely impacted by a loss of connectivity of more than several seconds. NOM Market Makers would have exposure during the time period in which they are unable to manage their quote and update that quote.

The Exchange's proposal offers NOM Market Makers the ability to have SQF and OTTO orders removed within the same timeframes in order that NOM Market Makers may attend to all open interest in a similar manner with this risk feature. The Exchange notes that offering the shorter timeframe, despite the fact that non-Market Maker Participants may utilize this feature does not impose an undue burden on intra-market competition because the removal feature will not be mandatory. The disconnect feature for OTTO will be mandatory, however market participants will have the option to either enable or disable removal feature, which would result in the cancellation of all orders submitted over an OTTO Port when such port disconnects.

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<sup>28</sup>See note 14 above.

The Exchange believes that it does not impose an undue burden on intra-market competition to permit OTTO users to disable the removal feature, similar to FIX, because the Exchange does not desire to require non-Market Maker Participants to have orders removed on mandatory basis. While the Exchange believes that this risk feature will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application which protects investors and the public interest, as noted above, Participants are able to better anticipate the appropriate time within which they may require prior to a logoff as compared to the Exchange.

The Exchange does not desire to trigger unwarranted logoffs of Participants and therefore permits Participants to provide an alternative time to the Exchange, within the Exchange's prescribed timeframe, which authorized the Exchange to disconnect the Participant. This hybrid approach will permit NOM Market Makers to synchronize the removal of their SQF quotes and OTTO orders, while still permitting non-NOM Market Makers the ability to choose to enable the risk feature.

Finally, the Exchange does not believe that such change will impose any burden on inter-market competition that is not necessary or appropriate in furtherance of the purposes of the Act. Other options exchanges offer similar functionality.<sup>29</sup>

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.

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<sup>29</sup> See BOX's Rule 8140, CBOE's Rule 6.23C, Phlx Rule 1019(c) and BX Rule at Chapter VI, Section 6(e).

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

Because the foregoing proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A)(iii) of the Act<sup>30</sup> and subparagraph (f)(6) of Rule 19b-4 thereunder.<sup>31</sup>

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is: (i) necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or 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:

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<sup>30</sup> 15 U.S.C. 78s(b)(3)(a)(iii).

<sup>31</sup> 17 CFR 240.19b-4(f)(6). In addition, Rule 19b-4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

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-2016-097 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-2016-097. 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 Web site (<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 the filing also will 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-2016-097 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>32</sup>

Robert W. Errett  
Deputy Secretary

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<sup>32</sup> 17 CFR 200.30-3(a)(12).

**EXHIBIT 5**

*New text is underlined.*

**NASDAQ Stock Market Rules**

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**Options Rules**

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**Chapter VI Trading Systems**

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**Sec. 6 Acceptance of Quotes and Orders**

All bids or offers made and accepted on NOM in accordance with the NOM Rules shall constitute binding contracts, subject to applicable requirements of the Rules of the Exchange and the Rules of the Clearing Corporation.

(a) – (d) No change.

**(e) Detection of Loss of Communication**

(i) When the SQF Port detects the loss of communication with a Participant’s Client Application because the Exchange’s server does not receive a Heartbeat message for a certain time period (“nn” seconds), the Exchange will automatically logoff the Participant’s affected Client Application and automatically cancel all of the Participant’s open quotes. Quotes will be cancelled across all Client Applications that are associated with the same NOM Market Maker ID and underlying issues.

(A) A “Heartbeat” message is a communication which acts as a virtual pulse between the SQF, FIX or OTTO Port and the Client Application. The Heartbeat message sent by the Participant and subsequently received by the Exchange allows the SQF, FIX or OTTO Port to continually monitor its connection with the Participant.

(B) SQF Port is the Exchange’s System component through which Participants communicate their quotes from the Client Application.

(C) FIX and OTTO Ports are the Exchange’s System components through which Participants communicate their orders from the Client Application.

(D) Client Application is the System component of the Participant through which the Exchange Participant communicates its quotes and orders to the Exchange.

(ii) When the FIX Port detects the loss of communication with a Participant’s Client Application because the Exchange’s server does not receive a Heartbeat message for a certain time period (“nn” seconds), the Exchange will automatically logoff the Participant’s affected Client Application and if the Participant has elected to have its



orders cancelled pursuant to Chapter VI, Section 6(e)(v) automatically cancel all open orders posted.

(iii) When the OTTO Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and if the Participant has elected to have its orders cancelled pursuant to Chapter VI, Section 6(e)(vi) automatically cancel all open orders posted.

(iv) The default time period ("nn" seconds) for SQF Ports shall be fifteen (15) seconds. A Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (i) above, to trigger the disconnect and must communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for SQF Ports prior to each session of connectivity to the Exchange. This feature is enabled for each Participant and may not be disabled.

(A) If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to fifteen seconds. The Participant may change the default setting systemically prior to each session of connectivity.

(B) If a time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

(v) The default period of "nn" seconds for FIX Ports shall be thirty (30) seconds for the disconnect and, if elected, the removal of orders. If the Participant elects to have its orders removed, in addition to the disconnect, the Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (ii) above, to trigger the disconnect and removal of orders and communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one (1) second and thirty (30) seconds for FIX Ports prior to each session of connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.

(A) If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to thirty seconds. The Participant may change the default setting systemically prior to each session of connectivity.

(B) If the time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

(vi) The default time period (“nn” seconds) for OTTO Ports shall be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. If the Participant elects to have its orders removed, in addition to the disconnect, the Participant may determine another time period of “nn” seconds of no technical connectivity, as required in paragraph (iii) above, to trigger the disconnect and removal of orders and communicate that time to the Exchange. The period of “nn” seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for OTTO Ports prior to each session of connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.

(A) If the Participant systemically changes the default number of “nn” seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to fifteen seconds. The Participant may change the default setting systemically prior to each session of connectivity.

(B) If a time period is communicated to the Exchange by calling Exchange operations, the number of “nn” seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

(vii) The trigger for the SQF, FIX and OTTO Ports is event and Client Application specific. The automatic cancellation of the NOM Market Maker’s quotes for SQF Ports and open orders for FIX and OTTO Ports entered into the respective SQF, FIX or OTTO Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other NOM Market Makers entered into SQF Ports or orders of the same or other Participants entered into the FIX or OTTO Ports via a separate and distinct Client Application.

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