Required fields are shown with yellow backgrounds and asterisks.

OMB Number: 3235-0045
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| Page 1 of * | 45 | | EXCHANGE COMN GTON, D.C. 20549 orm 19b-4 | | File No.* S | SR - 2016 - * 040 mendments *) |
|--|--|--|--|---------------|---|-----------------------------------|
| Filing by NASDAQ BX, Inc. | | | | | | |
| Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934 | | | | | | |
| Initial * ✓ | Amendment * | Withdrawal | Section 19(b)(2) * | Section V | on 19(b)(3)(A) * | Section 19(b)(3)(B) * |
| 1 1101 | ktension of Time Period r Commission Action * | Date Expires * | | 19b-4(f |)(2) 19b-4(f)(5) | |
| Notice of position 800 | roposed change pursuant 6(e)(1) * | to the Payment, Clear Section 806(e)(2) * | ing, and Settlement A | Act of 2010 | Security-Based Swap to the Securities Exch Section 3C(b)(2) | - |
| Exhibit 2 Sent As Paper Document Exhibit 3 Sent As Paper Document | | | | | | |
| Provide a brief description of the action (limit 250 characters, required when Initial is checked *). Proposal to amend Chapter VI, Section 6, entitled Acceptance of Quotes and Orders, to adopt functionality designed to assist BX 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 | ı | | |
| Title * | | | | | | |
| E-mail * | Angela.Dunn@nasda | q.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 07/08/2016 Executive Vice President and General Counsel | | | | | | |
| | 08/2016 | | Executive vice Pres | sident and Ge | merai Courisei | |
| By Edv | vard S. Knight (Name *) | | | | | |
| 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 EFFS website. The self-regulatory organization must provide all required information, presented in a Form 19b-4 Information * clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal Remove is consistent with the Act and applicable rules and regulations under the Act. The Notice section of this Form 19b-4 must comply with the guidelines for publication Exhibit 1 - Notice of Proposed Rule Change * 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 Add Remove View 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) The Notice section of this Form 19b-4 must comply with the guidelines for publication **Exhibit 1A- Notice of Proposed Rule** in the Federal Register as well as any requirements for electronic filing as published Change, Security-Based Swap Submission, by the Commission (if applicable). The Office of the Federal Register (OFR) offers or Advance Notice by Clearing Agencies * 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, Copies of notices, written comments, transcripts, other communications. If such Transcripts, Other Communications documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G. Remove View Add Exhibit Sent As Paper Document П Exhibit 3 - Form, Report, or Questionnaire 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 Add Remove View referred to by the proposed rule change. Exhibit Sent As Paper Document The full text shall be marked, in any convenient manner, to indicate additions to and **Exhibit 4 - Marked Copies** deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit Add Remove View 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** 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 Add Remove View of the proposed rule change. If the self-regulatory organization is amending only part of the text of a lengthy **Partial Amendment** 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.

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1. Text of the Proposed Rule Change

(a) NASDAQ BX, Inc. ("BX" or "Exchange"), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")¹ and Rule 19b-4 thereunder,² is filing with the Securities and Exchange Commission ("SEC" or "Commission") a proposal to amend Chapter VI, Section 6, entitled "Acceptance of Quotes and Orders" to adopt functionality which is designed to assist BX Participants in the event that they lose communication with their assigned Financial Information eXchange ("FIX")³ or Specialized Quote Feed ("SQF")⁴ Ports due to a loss of connectivity.

A notice of the proposed rule change for publication in the <u>Federal Register</u> is at <u>Exhibit 1</u> and the text of the proposed rule change is at <u>Exhibit 5</u>.

- (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 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.

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

FIX permits the entry of orders.

SQF permits the transmission of quotes to the Exchange by a BX Options Market Makers using its Client Application. SQF Auction Responses would not be cancelled pursuant to this Chapter VI, Section 6(e) because other rules govern auction specific responses, see Chapter VI, Section 9, entitled "Price Improvement Auction ("PRISM").

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

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

3. <u>Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis</u> for, the Proposed Rule Change

a. <u>Purpose</u>

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 BX proposes to adopt for its SQF⁵ and FIX Ports in the event that they lose communication with a Client Application due to a loss of connectivity. This feature is designed to protect BX Options Market Makers⁶ and other market participants from inadvertent exposure to excessive risk.

By way of background, BX Participants currently enter quotes and orders utilizing either an SQF or FIX Port. SQF is utilized by BX Options Market Makers and FIX is utilized by all market participants. These ports are System⁷ components through which a

Today, SQF and FIX have the capability to disconnect and cancel quotes and orders, respectively, for technical disconnects although there is no automated process triggered by pre-set conditions. The rule change would adopt a formalized process to automatically disconnect and cancel quotes for SQF and disconnect and cancel orders, if elected, for FIX when there is a loss of communication with the BX Participant's Client Application.

The term "BX Options Market Makers" or "Options Market Makers" (herein "BX Options Market Makers") 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 BX Rules at Chapter I, Section 1(a)(9).

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

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BX Participant communicates its quotes and/or orders to the BX match engine through the BX Participant's Client Application.

Under the proposed rule change, an SQF Port would be defined as the Exchange's System component through which BX Participants communicate their quotes from the BX Participant's Client Application at proposed Chapter VI, Section 6(e)(i)(B). A FIX Port would be defined as the Exchange's System component through which BX Participants communicate their orders from the BX Participant's Client Application at proposed Chapter VI, Section 6(e)(i)(C). BX 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 Ports. The proposed cancellation feature will be mandatory for each BX Options Market Maker utilizing SQF for the removal of quotes and optional for any market participant utilizing FIX for the removal of orders.

When the SQF Port detects the loss of communication with a BX Participant's Client Application because the Exchange's server does not receive a Heartbeat message⁸ for a certain period of time (a period of "nn" seconds), the Exchange will automatically logoff the BX Participant's affected Client Application and automatically cancel all of the BX Participant's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same BX Options Market Makers ID and underlying issues.

The Exchange proposes to define "Client Application" as the System component of the BX Participant through which the BX 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 which acts as a virtual

It is important to note that the Exchange separately sends a connectivity message to the BX Participant as evidence of connectivity.

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pulse between the SQF or FIX Port and the Client Application at proposed Chapter VI, Section 6(e)(i)(A). The Heartbeat message sent by the BX Participant and subsequently received by the Exchange allows the SQF or FIX Port to continually monitor its connection with the BX 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 BX 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 BX Options Market Maker 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 BX Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity⁹ and will then default back to fifteen seconds. The BX Participant may change the default setting systemically prior to each session of connectivity. The BX Participant may also communicate the time to the

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

The Exchange's System would capture the new setting information that was changed by the BX 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 BX Participant did not change the setting again.

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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 BX Participant shall persist for each subsequent session of connectivity until the BX Participant either contacts Exchange operations and changes the setting or the BX 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 BX Participant may disable the removal of orders feature but not the disconnect feature. If the BX Participant elects to have its orders removed, in addition to the disconnect, the BX Participant may determine a time period of no technical connectivity to trigger the disconnect and removal of orders between one (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 BX 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 BX Participant may change the default setting systemically prior to each session of connectivity. The BX 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 BX Participant shall persist for each subsequent session of connectivity until the BX Participant either contacts Exchange operations and changes

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the setting or the BX 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 (a period of "nn" seconds), the Exchange will automatically logoff the BX Participant's affected Client Application and if elected, automatically cancel all open orders. The BX 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. The Exchange will issue an Options Trader Alert advising BX Participants on the manner in which they should communicate the number of "nn" seconds to the Exchange for SQF and FIX Ports.

The trigger for the SQF and FIX Ports is event and Client Application specific.

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

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distinct Client Application. In other words, with respect to quotes, each BX Options 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 as between BX Options Market Makers submitting quotes and BX Participants submitting orders is that quotes may continue to be submitted and/or refreshed by unaffected BX Options 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 port disconnects, if the firm elected to have orders cancelled.

b. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act, ¹¹ in general, and furthers the objectives of Section 6(b)(5) of the Act, ¹² 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 imposing this mandatory removal functionality on BX Options Market Makers to prevent disruption in the marketplace and also offering this removal feature to other market participants.

BX Options Market Makers will be required to utilize this removal functionality with respect to SQF Ports. This feature will remove impediments to and perfect the

¹⁵ U.S.C. 78f(b).

¹⁵ U.S.C. 78f(b)(5).

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mechanism of a free and open market and a national market system and protect investors and the public interest by requiring BX Options Market Makers quotes to be removed in the event of a loss of connectivity with the Exchange's System. BX Options Market Makers provide liquidity to the market place and have obligations unlike other market participants. This risk feature is important because it will enable BX Options 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 BX Options Market Makers utilizing SQF.

The disconnect feature of FIX is mandatory, however market participants will have the option to either enable or disable the cancellation 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 unlike BX Options Market Makers who are required to provide quotes in all products in which they are registered, market participants utilizing FIX do not bear the same magnitude of risk of potential erroneous or unintended executions. 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.

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

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Utilizing a time period for SQF Ports of fifteen (15) seconds and permitting the BX Options Market Maker 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 BX Options Market Makers and therefore allows BX Options Market Makers the ability to set their time in order to enable the Exchange the authority to disconnect the BX Options Market Maker with this feature. Each BX Options Market Maker has different levels of sensitivity with respect to this disconnect setting and each BX Options Market Maker has their own system safeguards as well. A default setting of fifteen (15) seconds is appropriate to capture the needs of all BX Options Market Makers and high enough not to trigger unwarranted removal of quotes.

Further, BX Options 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. BX Options Market Makers are able to better anticipate the appropriate time within which they may require prior to a logoff as compared to the Exchange. BX Options Market Makers are offered a timeframe by the Exchange within which to select the appropriate time. The Exchange does not desire to trigger unwarranted logoffs of BX Options Market Makers and therefore permits BX Options Market Makers to provide an alternative time to the Exchange, within the Exchange's prescribed timeframe, which authorized the Exchange to disconnect the BX Options Market Maker. The "nn" seconds serve as the BX Options Market Maker's instruction to the Exchange to act upon the loss

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of connection and remove quotes from the System. This range will accommodate BX Options Market Makers in selecting their appropriate times within the prescribed timeframes.

Also, BX Options Market Makers have quoting obligations ¹⁴ 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. BX Options Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other BX Participants entering orders into the System. The proposal acknowledges this sensitivity borne by BX Options Market Makers and reflects the reaction time of BX Options Market Makers as compared to other BX Participants entering orders. Of note, the proposed customized timeframe for FIX would be too long for BX Options Market Makers given their quoting requirements and sensitivity to price movements. BX Options Market Makers would be severely impacted by a loss of connectivity of more than several seconds. The BX Options Market Maker would have exposure during the time period in which they are unable to manage their quote and update that quote. The BX Options Market Maker is best positioned to determine their 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 BX Options Market Maker's quotes that is

Id.

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received¹⁵ 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 BX Options 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 BX Options 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. BX Options Market Makers are required to provide continuous two-sided quotes on a daily basis. BX Options 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 BX Options Market Makers for failing to meet the continuous quoting obligation each trading day as a result of disconnects.

Today, BOX Options Exchange LLC offers its market makers a similar feature to the one proposed by the Exchange for the automatic removal of quotes when connectivity issues arise. BOX automatically cancels a market maker's quotes for all appointed classes when BOX loses communication with a market maker's trading host for a specified time period. BX also proposes to similarly cancel BX Options Market Makers open quotes associated with the same BX Options Market Makers ID and underlyings. BX proposes to cancel all BX Options Market Maker's quotes in options which are

The time of receipt for an order or quote is the time such message is processed by the Exchange book.

See note 13 above.

¹⁷ See BOX Rule 8140.

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assigned to that particular BX Options Market Makers. BOX appears to similarly cancel all open quotes in options which are assigned to a specific market maker. BOX's timeframe is no less than 1 second or no greater than 9 seconds. BX proposes a default timeframe for SQF Ports of fifteen (15) seconds with the ability to modify this setting with a value between 100 milliseconds and 99,999 milliseconds. The proposal to permit BX Options 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 BX Options Market Makers and provides BX Options Market Makers the opportunity to set a time, within the prescribed timeframe, to authorize the Exchange to disconnect the BX Options Market Maker.

Another distinction to note is that while BOX sets the time for participants, BX permits BX Participants to modify the default setting for SQF Ports to a more appropriate time within a set of parameters. While BOX does not offer the cancellations of orders, Chicago Board Options Exchange, Incorporated's ("CBOE") does offer its participants a similar mechanism to cancel orders. CBOE's proposal is discussed further below.

With respect to FIX Ports, the Exchange will offer this optional removal functionality to all market participants. Offering the removal feature on a voluntary basis to all other non-BX Options Market Makers 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

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removal feature will be offered uniformly to all BX Participants utilizing FIX.

The Exchange will disconnect BX Participants from the Exchange and not cancel its orders if the removal feature is disabled. The disconnect feature is mandatory and will cause the BX Participant to be disconnected within the default timeframe or the timeframe otherwise specified by the BX Participant. This feature is consistent with the Act because it enables FIX 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 BX Participant may elect to utilize the Kill Switch ¹⁸ feature. It is consistent with the Act to require other market participants to be disconnected because the BX Participant is otherwise not connected to the Exchange's System and the BX 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 BX Participant of the technical connectivity issue.

The Exchange's proposal to set a default timeframe of thirty (30) seconds and permit a FIX user to modify the timeframe for FIX ports to 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. BX 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

See BX Rule at Chapter VI, Section 6(d).

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to provide a time to the Exchange, within the Exchange's prescribed timeframe, to authorize the Exchange to disconnect the BX Participant and remove orders. The "nn" seconds serve as the BX Participant's instruction to the Exchange to act upon the loss of connection and remove orders from the System. The BX Participant is also best positioned to determine that they only desire the disconnect feature, which is mandatory, and do not desire to have their orders removed.

The Exchange's proposal to offer other market participants the removal feature on a voluntary basis is similar to CBOE's Rule. 19 CBOE offers market participants, on a voluntary basis, the ability to cancel orders entered through FIX when a technical disconnect occurs, similar to the BX proposal. CBOE's Rule offers participants the opportunity to cancel orders within a timeframe determined by the Trading Permit Holder. The default value selected by the CBOE is no less than 5 seconds. The Exchange's default timeframe for the disconnect and removal of orders for FIX is 30 seconds with the ability to modify that timeframe to between 1 second and 30 seconds, on a session by session basis, in contrast to CBOE. Also, in contrast to CBOE, FIX users may choose to enable or disable the cancellation feature when a disconnect occurs. The proposed timeframe for the FIX feature is consistent with the Act because the Exchange seeks to provide BX 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 BX Participant should have the ability to select the appropriate time, within a prescribed timeframe, for authorizing the Exchange to cancel its open orders or

¹⁹ See CBOE Rule 6.23C.

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simply disconnect from the Exchange. Inadvertent cancellations may create a greater risk of harm to investors and the BX Participant is better positioned to determine the appropriate time, with the prescribed timeframe, to remove orders or disconnect.

CBOE's rule also offers participants the ability to cancel orders as proposed by BX, on a voluntary basis.

The proposed rule change will help maintain a fair and orderly market which promotes efficiency and protects investors. This mandatory removal feature for BX Options Market Makers and optional removal for all other market participants will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application.

4. <u>Self-Regulatory Organization's Statement on Burden on Competition</u>

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 BX Options 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 BX Options 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 removal of quotes for SQF Ports does not create an undue burden on competition. BX Options Market Makers have quoting obligations²⁰ and are more sensitive to price movements as compared to other market participants. The

See note 13 above.

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proposal is consistent with the Act because it provides a tighter timeframe for the disconnect and removal of quotes for SQF Ports as compared to the removal of orders for FIX Ports.

BX Options Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other BX Participants entering multiple orders into the System. The proposal reflects this sensitivity borne by BX Options Market Makers and reflects the reaction time of BX Options Market Makers as compared to other BX Participants entering orders. Offering the removal feature to other market participants on an optional basis does not create an undue burden on intra-market competition because unlike BX Options 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 cancellation 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 BX Participants need to weigh. 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. ²¹

5. <u>Self-Regulatory Organization's Statement on Comments on the Proposed Rule</u> Change Received from Members, Participants, or Others

No written comments were either solicited or received.

See BOX's Rule 8140 and CBOE's Rule 6.23C.

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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 $19(b)(3)(A)^{22}$ of the Act and Rule 19b-4(f)(6) thereunder²³ in that it effects a change that: (i) does not significantly affect the protection of investors or the public interest; (ii) does not impose 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 BX Options Market Makers to utilize the disconnect and removal feature on SQF and offering the removal feature on an optional basis on FIX significantly affects the protection of investors or the public interest because unlike other market participants, BX Options Market Makers are required to continuously quote in assigned options and bear potentially significant market risk.

Providing an SQF default setting of 15 seconds for the disconnect and removal of quotes and permitting the BX Options Market Maker to modify the setting to between 100 milliseconds and 99,999 milliseconds does not significantly affects the protection of investors or the public interest because BX Options Market Makers have quoting obligations²⁴ and are more sensitive to price movements as compared to other market

²² 15 U.S.C. 78s(b)(3)(A).

²³ 17 CFR 240.19b-4(f)(6).

See note 13 above.

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

The proposal represents this sensitivity borne by BX Options Market Makers and reflects the reaction time of BX Options Market Makers as compared to other BX Participants entering orders. 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 users the ability to disable the cancellation feature and simply disconnect from the Exchange without cancelling orders. The mandatory disconnect feature does not significantly affect the protection of investors because the BX Participant is otherwise not connected to the Exchange's System. The mandatory disconnect feature does not impose a significant burden on competition because the BX Participant simply needs to reconnect to commence submitting and cancelling orders

BX Participants are able to better anticipate the appropriate time that they require prior to logoff as compared to the Exchange, within the Exchange's prescribed timeframes. The Exchange does not desire to trigger unwarranted logoffs of BX Participants and therefore requires BX Participants to provide a time to the Exchange,

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within the Exchange's prescribed timeframe, to authorize the Exchange to disconnect the BX Participant and remove orders.

The proposed rule change will not impose any significant burden on competition because with respect to the SQF Ports, BX Options 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 BX Options Market Makers, who are required to continuously quote in assigned options, to potentially significant market risk.

Further, BX Options 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 BX Participants entering multiple orders into the System. Requiring BX Options Market Makers to utilize the disconnect and removal feature and offering the removal feature on an optional basis to other market participants does not impose a significant burden on competition because the Exchange places obligations on BX Options Market Makers that are not borne by other market participants.²⁵

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

²⁵ Id.

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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. BOX and CBOE currently offer their Participants these features. The Exchange will remain a competitive options Exchange by offering its BX Participants similar risk protections currently offered on other options exchanges. Market participants will be able to avail themselves of the protections offered on other options markets.

This feature will protect the market by requiring BX Options Market Makers to utilize the disconnect and removal feature in the event of disconnecting from the Client Application. BX Options Market Makers provide liquidity to the market place and have obligations unlike other market participants.²⁸ This risk prevention feature is important because it will enable BX Options 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. Also, it is appropriate to offer this optional cancellation functionality

See BOX Rule 8140 and CBOE Rule 6.23C.

^{27 &}lt;u>Id.</u>

See note 13 above.

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to other market 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.

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

BOX and CBOE have similar rules. BOX offers its market makers a similar feature to the one proposed by the Exchange for the automatic removal of quotes where connectivity issues arise.²⁹ BOX automatically cancels a market maker's quotes for all appointed classes when BOX loses communication with a market maker's trading host for a specified time period.

BX also proposes to similarly cancel BX Options Market Makers open quotes associated with the same BX Options Market Makers ID and underlyings. BX proposes to cancel all BX Options Market Maker's quotes in options which are assigned to that particular BX Options Market Makers. BOX appears to similarly cancel all open quotes in options which are assigned to a specific market maker. BOX's timeframe is no less than 1 second or no greater than 9 seconds.

BX proposes an SQF Port default time period of fifteen (15) seconds with the ability to modify the timeframe between 100 milliseconds and 99,999 milliseconds.

Another distinction to note is that while BOX sets the time for the participant, BX permits BX Participants to modify the default setting for SQF Ports to a more appropriate time within a set of parameters. While BOX does not offer the cancellation of orders,

See BOX Rule 8140 and CBOE Rule 6.23C.

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CBOE does offer its participants a similar mechanism to cancel orders and allows participants to designate a time within a specified timeframe.

The Exchange's proposal to offer other market participants this removal feature on a voluntary basis is similar to CBOE's Rule. CBOE offers market participants, on a voluntary basis, the ability to cancel orders entered through FIX when a technical disconnect occurs, similar to the BX proposal. CBOE's Rule offers members the opportunity to cancel orders within a timeframe determined by the Trading Permit Holder. The default value selected by the CBOE is no less than 5 seconds. The Exchange's default timeframe for FIX is 30 seconds with the ability to modify that timeframe to between 1 second and 30 seconds in contrast to CBOE. Also, in contrast to CBOE, FIX users may disable the removal feature and simply disconnect from the Exchange without removing any orders. CBOE's rule also offers participants the ability to cancel orders as proposed by BX, on a voluntary basis.

- 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 for publication in the Federal Register.
- 5. Text of the proposed rule change.

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EXHIBIT 1

SECURITIES AND EXCHANGE COMMISSION (Release No. ; File No. SR-BX-2016-040)

July ___, 2016

Self-Regulatory Organizations; NASDAQ BX, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change Relating to Detection of Loss of Connection

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"), and Rule 19b-4 thereunder, notice is hereby given that on July 8, 2016, NASDAQ BX, Inc. ("BX" 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. <u>Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change</u>

The Exchange proposes to amend Chapter VI, Section 6, entitled "Acceptance of Quotes and Orders" to adopt functionality which is designed to assist BX Participants in the event that they lose communication with their assigned Financial Information eXchange ("FIX")³ or Specialized Quote Feed ("SQF")⁴ Ports due to a loss of connectivity.

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

FIX permits the entry of orders.

SQF permits the transmission of quotes to the Exchange by a BX Options Market Makers using its Client Application. SQF Auction Responses would not be cancelled pursuant to this Chapter VI, Section 6(e) because other rules govern auction specific responses, see Chapter VI, Section 9, entitled "Price Improvement Auction ("PRISM").

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

II. <u>Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis</u> 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. <u>Self-Regulatory Organization's Statement of the Purpose of, and Statutory</u> <u>Basis for, the Proposed Rule Change</u>

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 BX proposes to adopt for its SQF⁵ and FIX Ports in the event that they lose communication with a Client Application due to a loss of connectivity. This feature is designed to protect BX Options Market Makers⁶ and other market participants from inadvertent exposure to excessive risk.

Today, SQF and FIX have the capability to disconnect and cancel quotes and orders, respectively, for technical disconnects although there is no automated process triggered by pre-set conditions. The rule change would adopt a formalized process to automatically disconnect and cancel quotes for SQF and disconnect and cancel orders, if elected, for FIX when there is a loss of communication with the BX Participant's Client Application.

The term "BX Options Market Makers" or "Options Market Makers" (herein "BX Options Market Makers") means an Options Participant registered with the Exchange for the purpose of making markets in options contracts traded on the

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By way of background, BX Participants currently enter quotes and orders utilizing either an SQF or FIX Port. SQF is utilized by BX Options Market Makers and FIX is utilized by all market participants. These ports are System⁷ components through which a BX Participant communicates its quotes and/or orders to the BX match engine through the BX Participant's Client Application.

Under the proposed rule change, an SQF Port would be defined as the Exchange's System component through which BX Participants communicate their quotes from the BX Participant's Client Application at proposed Chapter VI, Section 6(e)(i)(B). A FIX Port would be defined as the Exchange's System component through which BX Participants communicate their orders from the BX Participant's Client Application at proposed Chapter VI, Section 6(e)(i)(C). BX 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 Ports. The proposed cancellation feature will be mandatory for each BX Options Market Maker utilizing SQF for the removal of quotes and optional for any market participant utilizing FIX for the removal of orders.

When the SQF Port detects the loss of communication with a BX Participant's Client Application because the Exchange's server does not receive a Heartbeat message⁸ for a certain period of time (a period of "nn" seconds), the Exchange will automatically

Exchange and that is vested with the rights and responsibilities specified in Chapter VII of these Rules." <u>See</u> BX Rules at Chapter I, Section 1(a)(9).

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

It is important to note that the Exchange separately sends a connectivity message to the BX Participant as evidence of connectivity.

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logoff the BX Participant's affected Client Application and automatically cancel all of the BX Participant's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same BX Options Market Makers ID and underlying issues.

The Exchange proposes to define "Client Application" as the System component of the BX Participant through which the BX 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 which acts as a virtual pulse between the SQF or FIX Port and the Client Application at proposed Chapter VI, Section 6(e)(i)(A). The Heartbeat message sent by the BX Participant and subsequently received by the Exchange allows the SQF or FIX Port to continually monitor its connection with the BX 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 BX 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 BX Options Market Maker 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 BX Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect

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throughout the current session of connectivity⁹ and will then default back to fifteen seconds.¹⁰ The BX Participant may change the default setting systemically prior to each session of connectivity. The BX 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 BX Participant shall persist for each subsequent session of connectivity until the BX Participant either contacts Exchange operations and changes the setting or the BX 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 BX Participant may disable the removal of orders feature but not the disconnect feature. If the BX Participant elects to have its orders removed, in addition to the disconnect, the BX Participant may determine a time period of no technical connectivity to trigger the disconnect and removal of orders between one (1) second and thirty (30) seconds for FIX Ports prior to each session of connectivity to the Exchange.

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

The Exchange's System would capture the new setting information that was changed by the BX 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 BX Participant did not change the setting again.

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There are two ways to change the number of "nn" seconds: (1) systemically or (2) by contacting the Exchange's operations staff. If the BX 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 BX Participant may change the default setting systemically prior to each session of connectivity. The BX 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 BX Participant shall persist for each subsequent session of connectivity until the BX Participant either contacts Exchange operations and changes the setting or the BX 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 (a period of "nn" seconds), the Exchange will automatically logoff the BX Participant's affected Client Application and if elected, automatically cancel all open orders. The BX 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

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would have to commence a new session to add, modify or cancel its orders once disconnected. The Exchange will issue an Options Trader Alert advising BX Participants on the manner in which they should communicate the number of "nn" seconds to the Exchange for SQF and FIX Ports.

The trigger for the SQF and FIX Ports is event and Client Application specific. The automatic cancellation of the BX Options Market Maker's quotes for SQF Ports and open orders, if elected by the BX Participant for FIX Ports entered into the respective SOF or FIX Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other BX Options Market Makers entered into SQF Ports or orders of the same or other BX Participants entered into the FIX Ports via a separate and distinct Client Application. In other words, with respect to quotes, each BX Options 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 as between BX Options Market Makers submitting quotes and BX Participants submitting orders is that quotes may continue to be submitted and/or refreshed by unaffected BX Options 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 port disconnects, if the firm elected to have orders cancelled.

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2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act, ¹¹ in general, and furthers the objectives of Section 6(b)(5) of the Act, ¹² 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 imposing this mandatory removal functionality on BX Options Market Makers to prevent disruption in the marketplace and also offering this removal feature to other market participants.

BX Options Market Makers will be required to utilize this 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 BX Options Market Makers quotes to be removed in the event of a loss of connectivity with the Exchange's System. BX Options Market Makers provide liquidity to the market place and have obligations unlike other market participants.¹³ This risk feature is important because it will enable BX Options Market Makers to avoid risks associated with inadvertent executions in the event of a loss of

¹⁵ U.S.C. 78f(b).

¹² 15 U.S.C. 78f(b)(5).

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

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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 BX Options Market Makers utilizing SQF.

The disconnect feature of FIX is mandatory, however market participants will have the option to either enable or disable the cancellation 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 unlike BX Options Market Makers who are required to provide quotes in all products in which they are registered, market participants utilizing FIX do not bear the same magnitude of risk of potential erroneous or unintended executions. 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.

Utilizing a time period for SQF Ports of fifteen (15) seconds and permitting the BX Options Market Maker 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 BX Options Market Makers and therefore allows BX Options Market Makers the ability to set their time in order to enable the Exchange the authority to disconnect the BX Options Market Maker with this feature. Each BX Options Market Maker has different levels of sensitivity with respect to this disconnect setting and each BX Options Market Maker has their own system safeguards as well. A default setting of fifteen (15) seconds is appropriate to capture the needs of all BX Options Market Makers and high enough not to trigger unwarranted removal of quotes.

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Further, BX Options Market Makers are able to customize their setting. The Exchange's proposal to permit a timeframe for SOF 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. BX Options Market Makers are able to better anticipate the appropriate time within which they may require prior to a logoff as compared to the Exchange. BX Options Market Makers are offered a timeframe by the Exchange within which to select the appropriate time. The Exchange does not desire to trigger unwarranted logoffs of BX Options Market Makers and therefore permits BX Options Market Makers to provide an alternative time to the Exchange, within the Exchange's prescribed timeframe, which authorized the Exchange to disconnect the BX Options Market Maker. The "nn" seconds serve as the BX Options Market Maker's instruction to the Exchange to act upon the loss of connection and remove quotes from the System. This range will accommodate BX Options Market Makers in selecting their appropriate times within the prescribed timeframes.

Also, BX Options Market Makers have quoting obligations¹⁴ 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. BX Options Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other BX Participants entering orders into the System. The proposal acknowledges this sensitivity

¹⁴ Id.

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borne by BX Options Market Makers and reflects the reaction time of BX Options

Market Makers as compared to other BX Participants entering orders. Of note, the

proposed customized timeframe for FIX would be too long for BX Options Market

Makers given their quoting requirements and sensitivity to price movements. BX

Options Market Makers would be severely impacted by a loss of connectivity of more
than several seconds. The BX Options Market Maker would have exposure during the
time period in which they are unable to manage their quote and update that quote. The

BX Options Market Maker is best positioned to determine their 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 BX Options Market Maker's quotes that is received 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 BX Options 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 BX Options 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. BX Options Market Makers are required to provide continuous two-sided quotes on a

The time of receipt for an order or quote is the time such message is processed by the Exchange book.

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daily basis.¹⁶ BX Options 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 BX Options Market Makers for failing to meet the continuous quoting obligation each trading day as a result of disconnects.

Today, BOX Options Exchange LLC offers its market makers a similar feature to the one proposed by the Exchange for the automatic removal of quotes when connectivity issues arise. 17 BOX automatically cancels a market maker's quotes for all appointed classes when BOX loses communication with a market maker's trading host for a specified time period. BX also proposes to similarly cancel BX Options Market Makers open quotes associated with the same BX Options Market Makers ID and underlyings. BX proposes to cancel all BX Options Market Maker's quotes in options which are assigned to that particular BX Options Market Makers. BOX appears to similarly cancel all open quotes in options which are assigned to a specific market maker. BOX's timeframe is no less than 1 second or no greater than 9 seconds. BX proposes a default timeframe for SQF Ports of fifteen (15) seconds with the ability to modify this setting with a value between 100 milliseconds and 99,999 milliseconds. The proposal to permit BX Options 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 BX Options Market Makers and provides BX Options Market Makers the opportunity to set a time, within the prescribed timeframe, to authorize the Exchange to disconnect the BX Options Market Maker.

See note 13 above.

¹⁷ See BOX Rule 8140.

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Another distinction to note is that while BOX sets the time for participants, BX permits BX Participants to modify the default setting for SQF Ports to a more appropriate time within a set of parameters. While BOX does not offer the cancellations of orders, Chicago Board Options Exchange, Incorporated's ("CBOE") does offer its participants a similar mechanism to cancel orders. CBOE's proposal is discussed further below.

With respect to FIX Ports, the Exchange will offer this optional removal functionality to all market participants. Offering the removal feature on a voluntary basis to all other non-BX Options Market Makers 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 BX Participants utilizing FIX.

The Exchange will disconnect BX Participants from the Exchange and not cancel its orders if the removal feature is disabled. The disconnect feature is mandatory and will cause the BX Participant to be disconnected within the default timeframe or the timeframe otherwise specified by the BX Participant. This feature is consistent with the Act because it enables FIX 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 BX Participant may elect to utilize the Kill Switch¹⁸ feature. It is consistent with the Act to require other market participants

See BX Rule at Chapter VI, Section 6(d).

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to be disconnected because the BX Participant is otherwise not connected to the Exchange's System and the BX 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 BX Participant of the technical connectivity issue.

The Exchange's proposal to set a default timeframe of thirty (30) seconds and permit a FIX user to modify the timeframe for FIX ports to 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. BX 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 BX Participants and therefore permits BX Participants to provide a time to the Exchange, within the Exchange's prescribed timeframe, to authorize the Exchange to disconnect the BX Participant and remove orders. The "nn" seconds serve as the BX Participant's instruction to the Exchange to act upon the loss of connection and remove orders from the System. The BX Participant is also best positioned to determine that they only desire the disconnect feature, which is mandatory, and do not desire to have their orders removed.

The Exchange's proposal to offer other market participants the removal feature on a voluntary basis is similar to CBOE's Rule. 19 CBOE offers market participants, on a

¹⁹ See CBOE Rule 6.23C.

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voluntary basis, the ability to cancel orders entered through FIX when a technical disconnect occurs, similar to the BX proposal. CBOE's Rule offers participants the opportunity to cancel orders within a timeframe determined by the Trading Permit Holder. The default value selected by the CBOE is no less than 5 seconds. The Exchange's default timeframe for the disconnect and removal of orders for FIX is 30 seconds with the ability to modify that timeframe to between 1 second and 30 seconds, on a session by session basis, in contrast to CBOE. Also, in contrast to CBOE, FIX users may choose to enable or disable the cancellation feature when a disconnect occurs. The proposed timeframe for the FIX feature is consistent with the Act because the Exchange seeks to provide BX 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 BX 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 BX Participant is better positioned to determine the appropriate time, with the prescribed timeframe, to remove orders or disconnect. CBOE's rule also offers participants the ability to cancel orders as proposed by BX, on a voluntary basis.

The proposed rule change will help maintain a fair and orderly market which promotes efficiency and protects investors. This mandatory removal feature for BX Options Market Makers and optional removal for all other market participants will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application.

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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 BX Options 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 BX Options 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 removal of quotes for SQF Ports does not create an undue burden on competition. BX Options Market Makers have quoting obligations²⁰ and are more sensitive to price movements as compared to other market participants. The proposal is consistent with the Act because it provides a tighter timeframe for the disconnect and removal of quotes for SQF Ports as compared to the removal of orders for FIX Ports.

BX Options Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other BX Participants entering multiple orders into the System. The proposal reflects this sensitivity borne by BX Options Market Makers and reflects the reaction time of BX Options Market Makers as compared to other BX Participants entering orders. Offering the removal feature to other market participants on an optional basis does not create an undue burden on intra-market competition because unlike BX Options Market Makers, other market participants do not

See note 13 above.

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bear the same risks of potential erroneous or unintended executions. FIX users have the opportunity to disable the cancellation 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 BX Participants need to weigh. 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.²¹

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

No written comments were either solicited or received.

III. <u>Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action</u>

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 Act²² and subparagraph (f)(6) of Rule 19b-4 thereunder.²³

See BOX's Rule 8140 and CBOE's Rule 6.23C.

²² 15 U.S.C. 78s(b)(3)(a)(iii).

²³ 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

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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:

Electronic comments:

- Use the Commission's Internet comment form (http://www.sec.gov/rules/sro.shtml); or
- Send an e-mail to <u>rule-comments@sec.gov</u>. Please include File Number SR-BX-2016-040 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-BX-2016-040. 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

proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

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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-BX-2016-040 and should be submitted on or before [insert date 21 days from publication in the <u>Federal Register</u>].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²⁴

Robert W. Errett Deputy Secretary

²⁴ 17 CFR 200.30-3(a)(12).

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EXHIBIT 5

New text is underlined.

NASDAQ BX 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 BX Options in accordance with the BX Options 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 BX 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 BX Participant's affected Client Application and automatically cancel all of the BX Participant's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same BX Options Market Maker ID and underlying issues.
 - (A) A "Heartbeat" message is a communication which acts as a virtual pulse between the SQF or FIX Port and the Client Application. The Heartbeat message sent by the BX Participant and subsequently received by the Exchange allows the SQF or FIX Port to continually monitor its connection with the BX Participant.
 - (B) SQF Port is the Exchange's System component through which BX Participants communicate their quotes from the Client Application.
 - (C) FIX Port is the Exchange's System component through which BX Participants communicate their orders from the Client Application.
 - (D) Client Application is the System component of the BX Participant through which the BX Participant communicates its quotes and orders to the Exchange.
- (ii) When the FIX Port detects the loss of communication with a BX 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 BX Participant's affected Client Application and, if the BX Participant has elected to have its orders cancelled pursuant to Chapter VI, Section 6(e)(iv), automatically cancel all open orders posted.

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(iii) The default time period ("nn" seconds) for SQF Ports shall be fifteen (15) seconds. A BX 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 BX Participant and may not be disabled.

- (A) If the BX 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 BX 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 BX Participant shall persist for each subsequent session of connectivity until the BX Participant either contacts Exchange operations and changes the setting or the BX Participant systemically selects another time period prior to the next session of connectivity.
- (iv) 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 BX Participant elects to have its orders removed, in addition to the disconnect, the BX 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 BX Participant will be disconnected.
 - (A) If the BX 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 BX 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 BX Participant shall persist for each subsequent session of connectivity until the BX Participant either contacts Exchange operations and changes the setting or the BX Participant systemically selects another time period prior to the next session of connectivity.
- (v) The trigger for the SQF and FIX Ports is event and Client Application specific. The automatic cancellation of the BX Options Market Maker's quotes for SQF Ports and open orders for FIX Ports entered into the respective SQF or FIX Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other BX Options Market Makers entered into SQF Ports or orders of the same or other BX Participants entered into the FIX Ports via a separate and distinct Client Application.

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