

Required fields are shown with yellow backgrounds and asterisks.

Page 1 of * <input type="text" value="41"/>	SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 Form 19b-4	File No.* SR - <input type="text" value="2018"/> - * <input type="text" value="04"/>	Amendment No. (req. for Amendments *) <input type="text"/>
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Filing by Nasdaq MRX, LLC  
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 \*).

A proposal to memorialize functionality which is designed to assist Members in the event that they lose communication with their assigned Specialized Quote Feed.

**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 * <input type="text" value="Angela"/>	Last Name * <input type="text" value="Saccomandi Dunn"/>
Title * <input type="text" value="Principal Associate General Counsel"/>	
E-mail * <input type="text" value="angela.dunn@nasdaq.com"/>	
Telephone * <input type="text" value="(215) 496-5692"/>	Fax <input type="text"/>

**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 <input type="text" value="02/02/2018"/>	Executive Vice President and General Counsel
By <input type="text" value="Edward S. Knight"/>	<input type="text"/>
(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 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) Nasdaq MRX, LLC (“MRX” 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 (“Commission”) a proposal to memorialize functionality which is designed to assist Members in the event that they lose communication with their assigned Specialized Quote Feed (“SQF”),<sup>3</sup> Financial Information eXchange (“FIX”),<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 at Exhibit 1 and the text of the amended Exchange Rule is at 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 pursuant to authority delegated by the Board of Directors (the “Board”) on September 19, 2017. 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.

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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> SQF is an interface that allows market makers to connect and send quotes, sweeps and auction responses into the Exchange.

<sup>4</sup> FIX is an interface that allows market participants to connect and send orders and auction orders into the Exchange.

<sup>5</sup> OTTO is an interface that allows market participants to connect and send orders, auction orders and auction responses into the Exchange.

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

Angela Saccomandi Dunn  
Principal 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 memorialize its detection of loss of connection risk protection, which is applicable to all Members, at MRX Rule 711(e). This automated process is in effect if a Member's SQF, FIX or OTTO Port loses communication with a Client Application due to a loss of connectivity. This feature is designed to protect MRX Market Makers<sup>6</sup> and other market participants from inadvertent exposure to excessive risk.

Members currently enter quotes and/or orders utilizing either an SQF, FIX or OTTO Port. SQF is utilized by MRX Market Makers and FIX and OTTO are utilized by all market participants. These ports are trading system components through which a Member communicates its quotes and/or orders to the Exchange's match engine through the Member's Client Application. The Exchange proposes to define "Client Application" as the system component of the Member through which the Member communicates its quotes and orders to the Exchange at proposed Rule 711(e)(i)(E). Under the proposed rule change, an SQF Port would be defined as the Exchange's proprietary system component through which MRX Market Makers communicate their quotes from the Client Application at proposed Rule 711(e)(i)(B). A FIX Port would be defined as the

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<sup>6</sup> The term "market makers" refers to "Competitive MRX Market Makers" and "Primary MRX Market Makers" collectively.

Exchange's universal system component through which Members communicate their orders from the Member's Client Application at proposed Rule 711(e)(i)(D). An OTTO Port would be defined as the Exchange's proprietary system component through which Members communicate their orders from the Member's Client Application at proposed Rule 711(e)(i)(C). MRX 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 or OTTO Ports. The proposed cancellation feature will be mandatory for each MRX Market Maker utilizing SQF for the removal of quotes and optional for any market participant utilizing FIX or OTTO for the removal of orders.

When the SQF Port detects the loss of communication with a Member's Client Application because the Exchange's server does not receive a Heartbeat message<sup>7</sup> for a certain period of time (a period of "nn" seconds), the Exchange will automatically logoff the Member's affected Client Application and automatically cancel all of the Member's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same MRX Market Maker ID and underlying issues.

The Exchange proposes to define a "Heartbeat" message as a communication which acts as a virtual pulse between the SQF, FIX or OTTO Port and the Client Application at proposed Rule 711(e)(i)(A). The Heartbeat message sent by the Member and subsequently received by the Exchange allows the SQF, FIX or OTTO Port to continually monitor its connection with the Member.

#### SQF Ports

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<sup>7</sup> It is important to note that the Exchange separately sends a connectivity message to the Member as evidence of connectivity.

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 Member 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 MRX Market Maker and may not be disabled.

There are two ways to change the number of "nn" seconds: (1) systematically or (2) by contacting the Exchange's operations staff. If the Member 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.<sup>8</sup> The Member may change the default setting prior to each Session of Connectivity. A Session of Connectivity would be defined to mean each time the Member connects to the Exchange's system.. If the Member were to connect and then disconnect within a trading day several times, each time the Member disconnected the next session would be a new Session of Connectivity. This definition is proposed at proposed Rule 711(e)(i)(F). The Member 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 Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone

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<sup>8</sup> The Exchange's system would capture the new setting information that was changed by the Member 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 Member did not change the setting again.

and changes the setting or the Member selects another time period in the Client Application prior to the next Session of Connectivity.

#### FIX and OTTO 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 and fifteen (15) seconds for OTTO Ports. The Member may disable the removal of orders feature, but not the disconnect feature. If the Member elects to have its orders removed, in addition to the disconnect for FIX, the Member 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. If the Member elects to have its orders removed, in addition to the disconnect for OTTO, the Member 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. All orders will be automatically cancelled.

There are two ways to change the number of "nn" seconds: (1) systematically or (2) by contacting the Exchange's operations staff. If the Member 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 for FIX Ports or fifteen seconds for OTTO Ports at the end of that session. The Member may change the default setting prior to each Session of Connectivity. The Member 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 Member shall persist for each subsequent Session of Connectivity

until the Member either contacts Exchange operations by phone and changes the setting or the Member selects another time period through the Client Application prior to the next Session of Connectivity.

Similar to SQF Ports, when a FIX or OTTO Port detects the loss of communication with a Member's Client Application for a certain time period (a period of "nn" seconds), the Exchange will automatically logoff the Member's affected Client Application and if elected, automatically cancel all orders. The Member 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 cancelled.

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

The trigger for the SQF, FIX and OTTO Ports is Client Application specific. The automatic cancellation of the MRX Market Maker's quotes for SQF Ports and open orders, if elected by the Member for FIX or 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 MRX Market Makers (not associated with the same Market Maker ID) entered into SQF Ports or orders of the same or other Members entered into the FIX or OTTO Ports via a separate and distinct Client Application.



b. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act<sup>9</sup> in general, and furthers the objectives of Section 6(b)(5) of the Act<sup>10</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 imposing this mandatory removal functionality on MRX Market Makers to prevent disruption in the marketplace and also offering this removal feature to other market participants. Requiring MRX Market Makers to utilize the disconnect feature will avoid risks associated with inadvertent executions in the event of a loss of connectivity. Other market participants will have the option to either enable or disable the cancellation feature, thereby offering the same risk protections throughout the market.

MRX Market Makers will be required to utilize this disconnect and removal functionality with respect to SQF Ports. This feature will remove impediments to and improve the mechanism of a free and open market and a national market system aimed at protecting investors and the public interest by requiring MRX Market Makers quotes to be removed in the event of a loss of connectivity with the Exchange's system. MRX Market Makers provide liquidity to the market place and have obligations unlike other market participants.<sup>11</sup> This risk feature is important because it will enable MRX Market Makers to avoid risks associated with inadvertent executions in the event of a loss of

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

<sup>10</sup> 15 U.S.C. 78f(b)(5).

<sup>11</sup> See MRX Rule 804(e).

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 MRX Market Makers utilizing SQF Ports.

The disconnect feature of FIX and OTTO 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 the applicable FIX or OTTO Port when such port disconnect. It is appropriate to offer this removal feature as optional to all market participants utilizing FIX or OTTO, because unlike MRX Market Makers who are required to provide quotes in all products in which they are registered, market participants utilizing FIX or OTTO do not bear the same magnitude of risk of potential erroneous or unintended executions. In addition, market participants utilizing FIX or 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 FIX and/or OTTO port is disconnected.

Utilizing a time period for SQF and OTTO Ports of fifteen (15) seconds and permitting MRX Market Makers and Members 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 Members and therefore allows Members the ability to set their time in order to enable the Exchange the authority to disconnect the Member with this feature. Both SQF and OTTO are proprietary system components offered by MRX. The Exchange believes that the proposed settings for SQF and OTTO are appropriate timeframes. Each MRX Market Maker and Member has different levels of sensitivity with respect to this disconnect setting and each MRX Market Maker and

Member has their own system safeguards as well. A default setting of fifteen (15) seconds is appropriate to capture the needs of all MRX Market Makers and Members and high enough not to trigger unwarranted removal of quotes and orders.

Further, MRX Market Makers and Members are able to customize their settings. The Exchange's proposal to permit a timeframe for SQF and OTTO 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. Members are able to better anticipate the appropriate time within which they may require prior to a logoff as compared to the Exchange. The Member 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 Members and therefore permits Members to provide an alternative time to the Exchange, within the Exchange's prescribed timeframe, which authorizes the Exchange to disconnect the Member. The "nn" seconds serve as the Member's instruction to the Exchange to act upon the loss of connection and remove quotes from the system, and if elected, orders from the System. This range will accommodate Members in selecting their appropriate times within the prescribed timeframes.

With respect to SQF, 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 MRX

Market Maker's quotes that is received<sup>12</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 MRX Market Maker's size. In other words, the system will process the request for cancellation in the order it was received by the system.

With respect to FIX, a universal system component, the Exchange's proposal would 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. This proposal is consistent with the Act and the protection of investors because this feature, which is optional, will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application. With respect to the longer timeframe for FIX, as compared to SQF and OTTO, the Exchange notes that unlike SQF and OTTO which are proprietary system components, FIX is a universal component. The settings on FIX remain different given FIX is not a proprietary system component. MRX Market Makers require a quicker timeframe (15 seconds as compared to 30 seconds). MRX Market Makers have quoting obligations<sup>13</sup> and are more sensitive to price movements as compared to other market participants. It is consistent with the Act to provide a longer timeframe within which to customize settings for FIX as compared to SQF Ports because MRX Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Members entering orders into the system. The proposal acknowledges this sensitivity borne by MRX Market Makers and reflects the reaction time of MRX Market Makers as compared

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<sup>12</sup> The time of receipt for an order or quote is the time such message is processed by the Exchange book.

<sup>13</sup> See note 11 above.

to Members entering orders. Of note, the proposed customized timeframe for FIX might be too long for MRX Market Makers given their quoting requirements and sensitivity to price movements. MRX Market Makers would be severely impacted by a loss of connectivity of more than several seconds. The MRX Market Maker would have exposure during the time period in which they are unable to manage their quote and update that quote. The Member is best positioned to determine their setting. With respect to other market participants that enter orders, they have the option of selecting either OTTO or FIX and therefore are able to obtain a shortened timeframe with OTTO if they desire.

The system operates consistently with the firm quote obligations of a broker-dealer pursuant to Rule 602 of Regulation NMS. Specifically, with respect to MRX Market Makers, their obligation to provide continuous two-sided quotes on a daily basis is not diminished by the automatic removal of such quotes triggered by the disconnect. MRX Market Makers are required to provide continuous two-sided quotes on a daily basis.<sup>14</sup> MRX 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 MRX Market Maker for failing to meet the continuous quoting obligation each trading day as a result of disconnects.

With respect to FIX and OTTO Ports, the Exchange will offer this optional removal functionality to all market participants. Offering the removal feature on a voluntary basis to all other market participants is consistent with the Act because it permits them an opportunity to utilize this risk feature, if desired, and avoid risks

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<sup>14</sup> See note 11 above.

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 optional removal feature will be offered uniformly to all Members utilizing FIX and/or OTTO.

The Exchange will disconnect Members from the Exchange and not cancel a Member's orders if the removal feature is disabled. The disconnect feature is mandatory and will cause the Member to be disconnected within the default timeframe or the timeframe otherwise specified by the Member. This feature is consistent with the Act because it enables FIX and 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 Member may elect to utilize the Kill Switch<sup>15</sup> feature. The Exchange believes that 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 Member simply needs to reconnect to commence submitting and cancelling orders. The Exchange believes requiring a disconnect when a loss of communication is detected is a rational course of action for the Exchange to alert the Member of the technical connectivity issue.

The proposed rule change will help maintain a fair and orderly market which promotes efficiency and protects investors. This mandatory removal feature for MRX Market Makers and optional removal for all other market participants will mitigate the

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<sup>15</sup> See MRX Rule 711(d).

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 MRX 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 MRX 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 and OTTO orders does not create an undue burden on competition because MRX Market Makers have quoting obligations<sup>16</sup> and are more sensitive to price movements as compared to other market participants. MRX Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Members entering multiple orders into the system. The proposal reflects this sensitivity borne by MRX Market Makers and reflects the reaction time of MRX Market Makers as compared to other Members entering orders. With respect to other market participants that enter orders, they have the option of selecting either OTTO or FIX and therefore are able to obtain a shortened timeframe with OTTO if they desire.

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<sup>16</sup> See note 11 above.

Offering the removal feature to other market participants on an optional basis does not create an undue burden on intra-market competition because unlike MRX Market Makers, other market participants do not bear the same risks of potential erroneous or unintended executions. FIX and OTTO users have the opportunity to disable the cancellation feature and simply disconnect from the Exchange. FIX and OTTO 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 needs 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.<sup>17</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>18</sup> of the Act and Rule 19b-4(f)(6) thereunder<sup>19</sup> in that it effects a change that: (i) does not

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<sup>17</sup> See Phlx Rule 1019(c), NOM Rules at Chapter VI, Section 6(e) and BX Rules at Chapter VI, Section 6(e).

<sup>18</sup> 15 U.S.C. 78s(b)(3)(A).

<sup>19</sup> 17 CFR 240.19b-4(f)(6).



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 MRX 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, MRX Market Makers are required to continuously quote in assigned options and bear potentially significant market risk. Providing an SQF and OTTO default setting of 15 seconds for the disconnect and removal of quotes and permitting the MRX Market Maker 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 MRX Market Makers have quoting obligations<sup>20</sup> and are more sensitive to price movements as compared to other market participants and other market participants are best placed to determine their level of risk when utilizing these proprietary system components. The proposal also represents this sensitivity borne by MRX Market Makers and reflects the reaction time of MRX Market Makers as compared to other Members entering orders. Setting a broader default timeframe for the disconnect and removal of orders for FIX Ports 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 settings on FIX remain different given FIX is not a proprietary

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<sup>20</sup> See note 11 above.

system component. With respect to other market participants that enter orders, they have the option of selecting either OTTO or FIX and therefore are able to obtain a shortened timeframe with OTTO if they desire. The Exchange also offers OTTO and 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 participant is otherwise not connected to the Exchange's system. The mandatory disconnect feature does not impose a significant burden on competition because the Member simply needs to reconnect to commence submitting and cancelling orders

Members 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 Members and therefore requires Members to provide a time to the Exchange, within the Exchange's prescribed timeframe, to authorize the Exchange to disconnect the Member and remove orders.

The proposed rule change will not impose any significant burden on competition because with respect to the SQF Ports, MRX 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 MRX Market Makers, who are required to continuously quote in assigned options, to potentially significant market risk. Further, MRX 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 Members entering multiple orders into the system. Requiring MRX 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 MRX Market Makers that are not borne by other market participants.<sup>21</sup>

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 memorialize this feature in its Rulebook for the benefit to its market participants. Other markets currently offer their participants these features.<sup>22</sup> The Exchange remains a competitive options Exchange by offering its participants these risk protections, which

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<sup>21</sup> Id.

<sup>22</sup> See note 25 below.

are currently offered on other options exchanges.<sup>23</sup> This feature protects the market by requiring MRX Market Makers to utilize the disconnect and removal feature in the event of disconnecting from the Client Application. MRX Market Makers provide liquidity to the market place and have obligations unlike other market participants.<sup>24</sup> This risk prevention feature is important because it will enable MRX 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 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. Proposed Rule Change Based on Rules of Another Self-Regulatory Organization or of the Commission

The proposed rule change is similar to rules of NASDAQ PHLX LLC (“Phlx”), The NASDAQ Options Market LLC (“NOM”) and NASDAQ OMX BX, Inc. (“BX”) Rules.<sup>25</sup> The Exchange notes that there are differences between the PHLX, NOM and BX rules. MRX has an OTTO port and Phlx and BX do not have a similar OTTO port. The NOM OTTO port is different in some aspects, but is also a proprietary port.<sup>26</sup>

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<sup>23</sup> Id.

<sup>24</sup> See note 11 above.

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

<sup>26</sup> NOM OTTO Ports accept both quotes and orders. The orders are counted as quotes for purposes of quoting obligations.

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 for publication in the Federal Register.

5. Proposed rule text.

**EXHIBIT 1**

SECURITIES AND EXCHANGE COMMISSION  
(Release No. \_\_\_\_\_ ; File No. SR-MRX-2018-04)

February \_\_, 2018

Self-Regulatory Organizations; Nasdaq MRX, LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change to a proposal to memorialize functionality which is designed to assist Members in the event that they lose communication with their assigned Specialized Quote Feed.

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 February 2, 2018, Nasdaq MRX, LLC (“MRX” 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 a proposal to memorialize functionality which is designed to assist Members in the event that they lose communication with their assigned

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

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

Specialized Quote Feed (“SQF”),<sup>3</sup> Financial Information eXchange (“FIX”),<sup>4</sup> or Ouch to Trade Options (“OTTO”)<sup>5</sup> Ports due to a loss of connectivity.

The text of the proposed rule change is available on the Exchange’s Website at <http://nasdaqmrx.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 memorialize its detection of loss of connection risk protection, which is applicable to all Members, at MRX Rule 711(e). This automated process is in effect if a Member’s SQF, FIX or OTTO Port loses communication with a Client Application due to a loss of connectivity. This feature is designed to protect MRX

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<sup>3</sup> SQF is an interface that allows market makers to connect and send quotes, sweeps and auction responses into the Exchange.

<sup>4</sup> FIX is an interface that allows market participants to connect and send orders and auction orders into the Exchange.

<sup>5</sup> OTTO is an interface that allows market participants to connect and send orders, auction orders and auction responses into the Exchange.

Market Makers<sup>6</sup> and other market participants from inadvertent exposure to excessive risk.

Members currently enter quotes and/or orders utilizing either an SQF, FIX or OTTO Port. SQF is utilized by MRX Market Makers and FIX and OTTO are utilized by all market participants. These ports are trading system components through which a Member communicates its quotes and/or orders to the Exchange's match engine through the Member's Client Application. The Exchange proposes to define "Client Application" as the system component of the Member through which the Member communicates its quotes and orders to the Exchange at proposed Rule 711(e)(i)(E). Under the proposed rule change, an SQF Port would be defined as the Exchange's proprietary system component through which MRX Market Makers communicate their quotes from the Client Application at proposed Rule 711(e)(i)(B). A FIX Port would be defined as the Exchange's universal system component through which Members communicate their orders from the Member's Client Application at proposed Rule 711(e)(i)(D). An OTTO Port would be defined as the Exchange's proprietary system component through which Members communicate their orders from the Member's Client Application at proposed Rule 711(e)(i)(C). MRX 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 or OTTO Ports. The proposed cancellation feature will be mandatory for each MRX Market Maker utilizing SQF for the removal of quotes and optional for any market participant utilizing FIX or OTTO for the removal of orders.

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<sup>6</sup> The term "market makers" refers to "Competitive MRX Market Makers" and "Primary MRX Market Makers" collectively.



When the SQF Port detects the loss of communication with a Member's Client Application because the Exchange's server does not receive a Heartbeat message<sup>7</sup> for a certain period of time (a period of "nn" seconds), the Exchange will automatically logoff the Member's affected Client Application and automatically cancel all of the Member's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same MRX Market Maker ID and underlying issues.

The Exchange proposes to define a "Heartbeat" message as a communication which acts as a virtual pulse between the SQF, FIX or OTTO Port and the Client Application at proposed Rule 711(e)(i)(A). The Heartbeat message sent by the Member and subsequently received by the Exchange allows the SQF, FIX or OTTO Port to continually monitor its connection with the Member.

#### 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 Member 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 MRX Market Maker and may not be disabled.

There are two ways to change the number of "nn" seconds: (1) systematically or (2) by contacting the Exchange's operations staff. If the Member changes the default number of "nn" seconds, that new setting shall be in effect throughout the current Session

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<sup>7</sup> It is important to note that the Exchange separately sends a connectivity message to the Member as evidence of connectivity.

of Connectivity and will then default back to fifteen seconds.<sup>8</sup> The Member may change the default setting prior to each Session of Connectivity. A Session of Connectivity would be defined to mean each time the Member connects to the Exchange's system.. If the Member were to connect and then disconnect within a trading day several times, each time the Member disconnected the next session would be a new Session of Connectivity. This definition is proposed at proposed Rule 711(e)(i)(F). The Member 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 Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone and changes the setting or the Member selects another time period in the Client Application prior to the next Session of Connectivity.

#### FIX and OTTO 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 and fifteen (15) seconds for OTTO Ports. The Member may disable the removal of orders feature, but not the disconnect feature. If the Member elects to have its orders removed, in addition to the disconnect for FIX, the Member 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. If the Member elects to have its orders removed, in

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<sup>8</sup> The Exchange's system would capture the new setting information that was changed by the Member 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 Member did not change the setting again.

addition to the disconnect for OTTO, the Member 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. All orders will be automatically cancelled.

There are two ways to change the number of “nn” seconds: (1) systematically or (2) by contacting the Exchange’s operations staff. If the Member 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 for FIX Ports or fifteen seconds for OTTO Ports at the end of that session. The Member may change the default setting prior to each Session of Connectivity. The Member 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 Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone and changes the setting or the Member selects another time period through the Client Application prior to the next Session of Connectivity.

Similar to SQF Ports, when a FIX or OTTO Port detects the loss of communication with a Member’s Client Application for a certain time period (a period of “nn” seconds), the Exchange will automatically logoff the Member’s affected Client Application and if elected, automatically cancel all orders. The Member 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 cancelled.

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

The trigger for the SQF, FIX and OTTO Ports is Client Application specific. The automatic cancellation of the MRX Market Maker's quotes for SQF Ports and open orders, if elected by the Member for FIX or 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 MRX Market Makers (not associated with the same Market Maker ID) entered into SQF Ports or orders of the same or other Members entered into the FIX or OTTO Ports via a separate and distinct Client Application.

## 2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act<sup>9</sup> in general, and furthers the objectives of Section 6(b)(5) of the Act<sup>10</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 imposing this mandatory removal functionality on MRX Market Makers to prevent disruption in the marketplace and also offering this removal feature to other market participants. Requiring MRX

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

<sup>10</sup> 15 U.S.C. 78f(b)(5).

Market Makers to utilize the disconnect feature will avoid risks associated with inadvertent executions in the event of a loss of connectivity. Other market participants will have the option to either enable or disable the cancellation feature, thereby offering the same risk protections throughout the market.

MRX Market Makers will be required to utilize this disconnect and removal functionality with respect to SQF Ports. This feature will remove impediments to and improve the mechanism of a free and open market and a national market system aimed at protecting investors and the public interest by requiring MRX Market Makers quotes to be removed in the event of a loss of connectivity with the Exchange's system. MRX Market Makers provide liquidity to the market place and have obligations unlike other market participants.<sup>11</sup> This risk feature is important because it will enable MRX 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 MRX Market Makers utilizing SQF Ports.

The disconnect feature of FIX and OTTO 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 the applicable FIX or OTTO Port when such port disconnect. It is appropriate to offer this removal feature as optional to all market participants utilizing FIX or OTTO, because unlike MRX Market Makers who are required to provide quotes in all products in which they are registered, market participants utilizing FIX or OTTO do not bear the same magnitude of risk of potential

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<sup>11</sup> See MRX Rule 804(e).

erroneous or unintended executions. In addition, market participants utilizing FIX or 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 FIX and/or OTTO port is disconnected.

Utilizing a time period for SQF and OTTO Ports of fifteen (15) seconds and permitting MRX Market Makers and Members 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 Members and therefore allows Members the ability to set their time in order to enable the Exchange the authority to disconnect the Member with this feature. Both SQF and OTTO are proprietary system components offered by MRX. The Exchange believes that the proposed settings for SQF and OTTO are appropriate timeframes. Each MRX Market Maker and Member has different levels of sensitivity with respect to this disconnect setting and each MRX Market Maker and Member has their own system safeguards as well. A default setting of fifteen (15) seconds is appropriate to capture the needs of all MRX Market Makers and Members and high enough not to trigger unwarranted removal of quotes and orders.

Further, MRX Market Makers and Members are able to customize their settings. The Exchange's proposal to permit a timeframe for SQF and OTTO 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. Members are able to better anticipate the appropriate time within which they may require prior to a logoff as compared to the Exchange. The Member 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 Members and therefore permits Members to provide an alternative time to the Exchange, within the Exchange's prescribed timeframe, which authorizes the Exchange to disconnect the Member. The "nn" seconds serve as the Member's instruction to the Exchange to act upon the loss of connection and remove quotes from the system, and if elected, orders from the System. This range will accommodate Members in selecting their appropriate times within the prescribed timeframes.

With respect to SQF, 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 MRX Market Maker's quotes that is received<sup>12</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 MRX Market Maker's size. In other words, the system will process the request for cancellation in the order it was received by the system.

With respect to FIX, a universal system component, the Exchange's proposal would 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. This proposal is consistent with the Act and the protection of investors because this feature, which is optional, will mitigate the risk of potential erroneous or unintended executions associated with a loss in communication with a Client Application. With

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<sup>12</sup> The time of receipt for an order or quote is the time such message is processed by the Exchange book.

respect to the longer timeframe for FIX, as compared to SQF and OTTO, the Exchange notes that unlike SQF and OTTO which are proprietary system components, FIX is a universal component. The settings on FIX remain different given FIX is not a proprietary system component. MRX Market Makers require a quicker timeframe (15 seconds as compared to 30 seconds). MRX Market Makers have quoting obligations<sup>13</sup> and are more sensitive to price movements as compared to other market participants. It is consistent with the Act to provide a longer timeframe within which to customize settings for FIX as compared to SQF Ports because MRX Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Members entering orders into the system. The proposal acknowledges this sensitivity borne by MRX Market Makers and reflects the reaction time of MRX Market Makers as compared to Members entering orders. Of note, the proposed customized timeframe for FIX might be too long for MRX Market Makers given their quoting requirements and sensitivity to price movements. MRX Market Makers would be severely impacted by a loss of connectivity of more than several seconds. The MRX Market Maker would have exposure during the time period in which they are unable to manage their quote and update that quote. The Member is best positioned to determine their setting. With respect to other market participants that enter orders, they have the option of selecting either OTTO or FIX and therefore are able to obtain a shortened timeframe with OTTO if they desire.

The system operates consistently with the firm quote obligations of a broker-dealer pursuant to Rule 602 of Regulation NMS. Specifically, with respect to MRX

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<sup>13</sup> See note 11 above.



Market Makers, their obligation to provide continuous two-sided quotes on a daily basis is not diminished by the automatic removal of such quotes triggered by the disconnect. MRX Market Makers are required to provide continuous two-sided quotes on a daily basis.<sup>14</sup> MRX 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 MRX Market Maker for failing to meet the continuous quoting obligation each trading day as a result of disconnects.

With respect to FIX and OTTO Ports, the Exchange will offer this optional removal functionality to all market participants. Offering the removal feature on a voluntary basis to all other market 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 optional removal feature will be offered uniformly to all Members utilizing FIX and/or OTTO.

The Exchange will disconnect Members from the Exchange and not cancel a Member's orders if the removal feature is disabled. The disconnect feature is mandatory and will cause the Member to be disconnected within the default timeframe or the timeframe otherwise specified by the Member. This feature is consistent with the Act because it enables FIX and OTTO users the ability to disconnect from the Exchange,

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<sup>14</sup> See note 11 above.

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 Member may elect to utilize the Kill Switch<sup>15</sup> feature. The Exchange believes that 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 Member simply needs to reconnect to commence submitting and cancelling orders. The Exchange believes requiring a disconnect when a loss of communication is detected is a rational course of action for the Exchange to alert the Member of the technical connectivity issue.

The proposed rule change will help maintain a fair and orderly market which promotes efficiency and protects investors. This mandatory removal feature for MRX 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.

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 MRX 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 MRX 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

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<sup>15</sup> See MRX Rule 711(d).

compared to the removal of quotes for SQF Ports and OTTO orders does not create an undue burden on competition because MRX Market Makers have quoting obligations<sup>16</sup> and are more sensitive to price movements as compared to other market participants. MRX Market Makers need to remain vigilant of market conditions and react more quickly to market movements as compared to other Members entering multiple orders into the system. The proposal reflects this sensitivity borne by MRX Market Makers and reflects the reaction time of MRX Market Makers as compared to other Members entering orders. With respect to other market participants that enter orders, they have the option of selecting either OTTO or FIX and therefore are able to obtain a shortened timeframe with OTTO if they desire.

Offering the removal feature to other market participants on an optional basis does not create an undue burden on intra-market competition because unlike MRX Market Makers, other market participants do not bear the same risks of potential erroneous or unintended executions. FIX and OTTO users have the opportunity to disable the cancellation feature and simply disconnect from the Exchange. FIX and OTTO 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 needs to weigh. Finally, the Exchange does not believe that such change will impose any burden on inter-market

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<sup>16</sup> See note 11 above.

competition that is not necessary or appropriate in furtherance of the purposes of the Act. Other options exchanges offer similar functionality.<sup>17</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.

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>18</sup> and subparagraph (f)(6) of Rule 19b-4 thereunder.<sup>19</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.

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<sup>17</sup> See Phlx Rule 1019(c), NOM Rules at Chapter VI, Section 6(e) and BX Rules at Chapter VI, Section 6(e).

<sup>18</sup> 15 U.S.C. 78s(b)(3)(A)(iii).

<sup>19</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.

#### IV. Solicitation of Comments

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

Electronic comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-MRX-2018-04 on the subject line.

Paper comments:

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

All submissions should refer to File Number SR-MRX-2018-04. 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-MRX-2018-04 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>20</sup>

Eduardo A. Aleman  
Assistant Secretary

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<sup>20</sup> 17 CFR 200.30-3(a)(12).

**EXHIBIT 5**

*New text is underlined.*

**NASDAQ MRX Rules**

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**Rule 711. Acceptance Of Quotes and Orders**

(a) - (d) No change.

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

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

(B) SQF Port is the Exchange’s proprietary system component through which MRX Market Makers communicate their quotes from the Client Application.

(C) OTTO Port is the Exchange’s proprietary system component through which Members communicate their orders from the Client Application.

(D) FIX Port is the Exchange’s universal system component through which Members communicate their orders from the Client Application.

(E) Client Application is the system component of the Member through which the Exchange Member communicates its quotes and orders to the Exchange.

(F) Session of Connectivity shall mean each time the Member connects to the Exchange’s system. Each new connection, intra-day or otherwise, is a new Session of Connectivity.

(ii) When the SQF Port detects the loss of communication with a Member’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 Member’s affected Client Application and automatically cancel all of the Member’s open quotes pursuant to Rule 711(e)(v). Quotes will be cancelled across all Client Applications that are associated with the same MRX Market Maker ID and underlying issues.

(iii) When the OTTO Port detects the loss of communication with a Member’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 Member’s affected Client Application and if the Member has elected to have its orders cancelled pursuant to Rule 711(e)(vi) automatically cancel all orders.

(iv) When the FIX Port detects the loss of communication with a Member'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 Member's affected Client Application and if the Member has elected to have its orders cancelled pursuant to Rule 711(e)(vii) automatically cancel all orders.

(v) The default time period ("nn" seconds) for SQF Ports shall be fifteen (15) seconds. A Member may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (ii) 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 Member and may not be disabled.

(A) If the Member 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 Member may change the default setting 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 Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone and changes the setting or the Member selects another time period through the Client Application prior to the next Session of Connectivity.

(vi) The default period of "nn" seconds for OTTO Ports shall be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. A Member may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (iii) above, to trigger the disconnect and, if so elected, the 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 Member will be disconnected.

(A) If the Member 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 Member may change the default setting 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 Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone and changes the setting or the Member selects another time period through the Client Application prior to the next Session of Connectivity.

(vii) The default period of "nn" seconds for FIX Ports shall be thirty (30) seconds for the disconnect and, if elected, the removal of orders. A Member may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (iv) above,



to trigger the disconnect and, if so elected, the 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 Member will be disconnected.

(A) If the Member 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 Member may change the default setting 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 Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone and changes the setting or the Member selects another time period through the Client Application prior to the next Session of Connectivity.

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

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