



SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-103010; File No. SR-EMERALD-2025-10]

Self-Regulatory Organizations; MIAX Emerald, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Adopt Fees to Access the Testing Systems Environment

May 9, 2025.

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act” or “Exchange Act”)¹ and Rule 19b-4 thereunder,² notice is hereby given that on April 30, 2025, MIAX Emerald, LLC (“MIAX Emerald” or “Exchange”) filed with the Securities and Exchange Commission (“Commission”) a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

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

The Exchange proposes to amend the MIAX Emerald Options Exchange Fee Schedule (“Fee Schedule”) to establish a fee for market participants that choose to utilize the Exchange’s testing systems environment via a dedicated cross connection.

The text of the proposed rule change is available on the Exchange’s website at <https://www.miaxglobal.com/markets/us-options/miax-options/rule-filings>, at the Exchange’s principal office, 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

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

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 establish a fee for market participants that choose to utilize the Exchange's testing systems environment via a dedicated cross connection. The testing systems environment is a virtual trading system environment that supplies mock trading data for Members³ and non-Members to test (i) upcoming Exchange software and code releases, (ii) product enhancements, and (iii) firm-developed software, prior to implementation in the Exchange's production (e.g., live trading) environment.⁴ Further, the testing systems environment allows unlimited testing of existing functionality, such as order types, order entry, order management, order throughput, acknowledgements, risk settings, mass cancelations, and purge requests. The testing systems environment is built to closely approximate the production environment to enable Members and non-Members the ability to test their systems and mimics the live trading environment.⁵

There are currently two methods by which Members and non-Members may access the Exchange's testing systems environment.⁶ One, Members and non-Members may access the

³ The term "Member" means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed "members" under the Exchange Act. See Exchange Rule 100.

⁴ The Exchange maintains two areas of the testing systems environments: one to test existing source code and another to test future software releases. All Members and non-Members that connect to the testing systems environment are provided access to both areas.

⁵ Business continuity and disaster recovery testing is performed separately and not within the testing systems environment that is the subject of this filing.

⁶ The Exchange decommissioned access to the testing systems environment via 1Gb and 10Gb production connections on February 28, 2025 (a production connection is the connection that provides access to the Exchange's live trading environment and allows Members and non-Members to receive market data over the Exchange's proprietary market data feeds). Accordingly, each Member and non-Member that access the testing systems environment must now utilize a dedicated connection or VPN. See Trading Alert, MIAX Options, MIAX Pearl Options and MIAX Emerald Options Exchanges - Final Reminder: New Extranet Access to Firm Test Beds (FTB1 and FTB2) and Decommissioning of Access via Production Connections

Exchange's testing systems environment via a virtual private network ("VPN") that operates over the internet and provides site-to-site access. VPN access is provided for free to all Members and non-Members.

The second method is via a dedicated cross connection that allows Members and non-Members to access the testing systems environment and is available as either a 1 gigabit ("Gb") or 10Gb connection. Members and non-Members that utilize a VPN or a dedicated 1Gb or 10Gb cross connection to access the testing systems environment of the Exchange are also able to access the testing systems environments of each of the Exchange's affiliated options markets – MIAX Sapphire, LLC ("MIAX Sapphire"), MIAX PEARL, LLC⁷ ("MIAX Pearl Options"), and Miami International Securities Exchange, LLC ("MIAX"). This dedicated cross connection provides subscribers access to the testing systems environment of the Exchange, as well as each of its affiliate options exchanges, via a single connection.

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The Exchange now proposes to amend the Fee Schedule to establish a monthly fee for Members and non-Members that choose to access the testing systems environment via a dedicated cross connection. In particular, the Exchange proposes to establish a monthly fee of \$1,000 per dedicated cross connection to the testing systems environment for Members and non-Members. The proposed fee is the same whether a Member or non-Member chooses to connect to the testing systems environment via a dedicated 1Gb or 10Gb cross connection. The proposed fees would be set forth under new Sections 4)e) and 4)f) of the Fee Schedule. Proposed Sections 4)e) and 4)f) would also codify that VPN access to the testing systems environment is provided for free for all Members and non-Members and specify that VPN and each dedicated cross

by February 28, 2025, available at <https://www.miaxglobal.com/alert/2025/02/19/miax-options-miax-pearl-options-and-miax-emerald-options-exchanges-final-1?nav=all> (last visited March 4, 2025).

⁷ All references to "MIAX PEARL" in this filing are to the options trading facility of MIAX PEARL, LLC, referred to herein as "MIAX Pearl Options." Members and non-Members that choose to utilize the testing systems environment of MIAX Pearl Equities, the equities trading facility of MIAX PEARL, LLC, must utilize a separate dedicated cross connection as MIAX Pearl Equities' testing systems environment operates on a separate network from the affiliated options markets.

connection both provide access to the testing systems environments of the Exchange and each of its affiliated options markets.

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Members and non-Members that access the testing systems environment through any one of the available access methods, including a dedicated cross connection, receive functionally the same testing experience. Like the access provided by VPN, access to the testing systems environment via a dedicated cross connection enables Members and non-Members to connect their software to the testing systems environment allowing their applications to communicate directly with the testing systems environment. Each Member or non-Member is free to decide how to access the testing systems environment based on their own needs, security concerns, and trading architecture or not utilize the testing systems environment at all.⁸ Members and non-Members may have differing risk appetites regarding internet security and are free to choose the method of connection that is in line with their own risk thresholds. Again, accessing the testing systems environment via a dedicated cross connection is entirely optional and no Member or non-Member is required by rule or regulation to make use of the testing systems environment via a dedicated cross connection.⁹ Regardless of access method, all Members and non-Members are able to perform all of the same functions.

⁸ The Exchange notes that Members and non-Members are, however, required to connect to the testing systems environment for certification purposes related to upcoming Exchange-initiated technology changes. Certification is to ensure that Members' and non-Members' systems would operate properly once new Exchange technology is implemented. Doing so is intended to prevent potential systems disruptions and enhance ongoing system resiliency. To certify, a Member or non-Member may use VPN access for free to satisfy its certification requirements. Members and non-Members are not required to maintain that connection to the testing systems environment and may cease such connection once they certify. The Exchange's standard certification fee pursuant to Section 4 of the Fee Schedule would not apply because the certification was due to a change initiated by the Exchange, and not the Member or non-Member. See Fee Schedule, Sections 4)c)-d). The Exchange notes that Members and non-Members are also required to certify when they initiate technology changes to their own systems or software that impacts their interactions with the Exchange. In such case, Members and non-Members would be subject to the certification fee where the change was initiated by the Member or non-Member. This certification requirement does not apply to those that connect to the Exchange through an extranet provider or solely to receive market data.

⁹ Also, the size of a dedicated cross connection chosen by the Member or non-Member is solely dependent on their own testing infrastructure needs and is independent of the size of the connections they may use to access the Exchange's separate live trading environment.

Implementation

The proposed fee change is immediately effective.¹⁰

2. Statutory Basis

The Exchange believes that the proposed rule change 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 not designed to permit unfair discrimination among customers, brokers, or dealers. The Exchange also believes that its proposal is consistent with Section 6(b)(4) of the Act¹³ because it represents an equitable allocation of reasonable dues, fees and other charges among market participants using any facility or system which the Exchange operates or controls.

Access to the Testing Systems Environment Via a Dedicated Cross Connection is Optional

Each Member or non-Member has a choice to decide to access the testing systems environment and, if so, how to access the testing systems environment based on their own needs, security concerns, and trading architecture.¹⁴ Members and non-Members may have differing risk appetites regarding internet security and are free to choose the method of connection that is in line with their own risk thresholds. Other than the certification requirements discussed above,¹⁵ each Member or non-Member may also decide not to utilize the testing systems

¹⁰ The Exchange initially filed this proposal on November 29, 2024. See Securities Exchange Act Release No. 101895 (December 12, 2024), 89 FR 102978 (December 18, 2024) (SR-EMERALD-2024-27). On January 14, 2025, the Exchange withdrew SR-EMERALD-2024-27 and refiled the proposal. See Securities Exchange Act Release No. 102290 (January 27, 2025), 90 FR 8731 (January 31, 2025) (SR-EMERALD-2025-02). On March 5, 2025, the Exchange withdrew SR-EMERALD-2025-02 and refiled this proposal. See Securities Exchange Act Release No. 102634 (March 12, 2025), 90 FR 12578 (March 18, 2025) (SR-EMERALD-2025-06). On April 30, 2025, the Exchange withdrew SR-EMERALD-2025-06 and refiled this proposal.

¹¹ 15 U.S.C. 78f(b).

¹² 15 U.S.C. 78f(b)(5).

¹³ 15 U.S.C. 78f(b)(4).

¹⁴ See supra note 8.

¹⁵ See supra note 8.

environment at all. Again, accessing the testing systems environment via a dedicated cross connection is entirely optional and no Member or non-Member is required by rule or regulation to make use of the testing systems environment via a dedicated cross connection. Members and non-Members may select VPN access, which is provided for free and will continue to be free for all Members and non-Members. Members and non-Members may access the testing systems environment through either a VPN or a dedicated cross connection and will receive the same testing environment and are able to perform all of the same functions.¹⁶ Each access method simply serves as a means to reach the same testing systems environment. The testing systems environment, whether accessed via a dedicated cross connection or VPN, provides Members and non-Members the same scope of abilities to test their systems and software in the Exchange's testing systems environment, which replicates the Exchange's production trading environment. In addition, like a dedicated cross connection, a VPN provides access to the testing systems environment of not only the Exchange, but also each of its affiliate options exchanges over the same single access point. Based on the above, accessing the testing systems environment via a dedicated cross connection provides no trading advantage to Members and non-Members compared to those market participants that elect to access the testing systems environment via a VPN for free.

Each Member or non-Member is free to decide how to access the testing systems environment based on their own needs and trading architecture. Again, accessing the testing systems environment via a dedicated direct connection is entirely optional and no Member or non-Member is required by rule or regulation to make use of the testing systems environment via a dedicated cross connection. Again, accessing the testing systems environment via the dedicated cross connection may not provide utility to all Members and non-Members based on their business models, security concerns, and needs, and such users may choose to access the

¹⁶ See supra notes 4 and 5 and accompanying text.

testing systems environment for free through the VPN and perform the same testing functions, depending on their own security risk appetite. Members and non-Members may have differing risk appetites regarding internet security and are free to choose the method of connection that is in line with their own risk thresholds.

The Exchange notes that the testing systems environment provides mock trading data for the testing of functionality only and does not enable Members and non-Members to test performance or latency.¹⁷ Members and non-Members who elect to connect to the testing systems environment via a 1Gb or 10Gb dedicated cross connection receive no latency benefit or advantage that would benefit or translate to trading over their connections to the Exchange's live trading environment.¹⁸ Again, the testing systems environment provides for the testing of functionality only.

As such, the Exchange believes that the proposed fee for access to the testing systems environment via a dedicated cross connection is reasonable and Members and non-Members have the choice, but are not obligated to access the testing systems environment via a dedicated cross connection. Otherwise, a user may choose to access the test environment via a VPN for free to test system functionality. The following paragraph supports the premise that Members and Non-Members are free to select the access method the testing systems environment that best meets their connectivity needs.

As part of the decommissioning of access to the testing systems environment via production connections by the Exchange and its affiliates, thirty-seven (37)¹⁹ firms that are

¹⁷ See supra note 5.

¹⁸ For reference and as described in more detail below, seven Members and non-Members of the Exchange and/or its affiliates that previously accessed the testing systems environment via a 10Gb ULL production connection, which was recently discontinued, chose VPN access or a dedicated 1Gb connection to now connect to the testing systems environment. In particular, five Members and non-Members chose a dedicated 1Gb cross connection and two chose VPN access to the testing systems environment.

¹⁹ In prior versions of these proposals, the Exchange's affiliates (MIAX and MIAX Pearl) noted that they had more than thirty-seven Members and non-Members. Several of those market participants utilize an extranet provider to connect to those exchanges, including to access the testing systems environment, instead of using their own dedicated cross connection or VPN for testing purposes.

Members and non-Members of the Exchange and/or one or more of its affiliated options exchanges needed to transition away from using their existing 1Gb or 10Gb ULL production connections to access the testing systems environment to either a VPN or dedicated cross connection. Of those thirty-seven (37) Members and non-Members, thirteen (13) chose not to maintain access the testing systems environment via VPN or dedicated cross connection for reasons including, but not limited to, those Member or non-Members only receive market data over their 1Gb or 10Gb ULL production connections or connect to the testing systems environment through a third party Extranet Provider. Six (6) Members and non-Members chose to access the testing systems environment through a VPN; nine (9) chose to utilize a dedicated 1Gb cross connection; and another nine (9) chose to utilize a dedicated 10Gb cross connection. Of the fifteen (15) Members and non-Members that chose VPN or a dedicated 1Gb cross connection to access the testing systems environment, seven (7) currently use 10Gb ULL connectivity to connect to the live trading environments of the Exchange and/or one or more of its affiliated options markets.

The Proposed Fee is Not Unfairly Discriminatory

The Exchange believes the proposed fee is equitable and not unfairly discriminatory as the fee would apply equally to all Members and non-Members who choose to utilize a dedicated cross connection to access the testing systems environment. It is a business, operational and security access decision of each Member or non-Member that chooses to subscribe. The Exchange's proposed fee would not differentiate between Members and non-Members or connectivity types and is set at a reasonable and modest level that would allow any interested Member and non-Member to subscribe based on their business and operational needs.

The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act²⁰ in that it is designed to promote just and equitable principles of trade, remove impediments

²⁰ 15 U.S.C. 78f(b)(5).

to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public interest and is not designed to permit unfair discrimination between customer, issuers, brokers and dealers. The Exchange does not believe that the proposed fee is unfairly discriminatory to subscribers to the test environment via a dedicated cross connection because, unlike the live trading environment where the capacity of connectivity to the Exchange may confer a competitive advantage to a market participant and therefore price differentiation is appropriate for the benefit conferred, there is no such benefit conferred in the testing systems environment.

The Exchange does not believe that the proposed fee is unfairly discriminatory among subscribers to the testing systems environment because all Members and non-Members that subscribe to the service will be assessed the same fee. Because the proposed fee does not discriminate between 1Gb and 10Gb cross connection options, Members and non-Members are able to subscribe to the testing systems environment without regard to the cost of their capacity election. Charging the same fee for either a 1Gb and 10Gb cross connection, along with providing a third option of free VPN access, is intended to provide Members and non-Members the choice to choose the access method that most closely aligns with their needs, security concerns, and trading architecture.²¹ The Exchange believes that will allow participants to connect to the testing systems environment in the same manner as they do to the live trading environment, if they choose to do so.

The Proposed Fee is Equitably Allocated

The Exchange believes that the proposed fee is equitably allocated because all Members and non-Members that choose to connect to the testing systems environment will be assessed a uniform fee for those services. The Exchange believes that offering subscribers the option to subscribe to either a dedicated 1Gb or 10Gb cross connection for the same fee is an equitable

²¹ See supra note 8.

allocation of fees because, unlike the live trading environment, there is no competitive advantage to possessing a higher capacity connection in the testing systems environment. The testing systems environment is designed to closely mirror the live trading environment for Members and non-Members, including matching the capacity of the live trading environment connection of each Member and non-Member. In the absence of any competitive advantage, charging a uniform fee for both a 1Gb or 10Gb dedicated cross connection is an equitable allocation of fees.

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

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange made access to the testing systems environment via a dedicated cross connection available to keep pace with technological changes in the industry and evolving customer needs and demands, and believes the product will contribute to robust competition among national securities exchanges. As a result, the Exchange believes this proposed rule change permits fair competition among national securities exchanges.

The Exchange believes the proposed fee would not cause any unnecessary or inappropriate burden on intermarket competition as other exchanges are free to introduce their own comparable access methods to their testing environments for free or at lower prices, which several competing exchanges already provide.²² Providing access to the testing systems environment via dedicated cross connection is provided purely for convenience, and, again, would be entirely optional. The Exchange notes that use of accessing the testing systems environment via a dedicated cross connection is completely voluntary and is simply an additional optional means to access the testing systems environment. Members who do not prefer the to

²² See e.g., <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/Nasdaq%20Options%207>. Nasdaq's affiliates, like Nasdaq PHLX LLC ("PHLX"), also charge the same fee. See e.g., PHLX Options 7: Pricing Schedule, Section 9. Other Member Fees, E. Testing Facilities, available at <https://listingcenter.nasdaq.com/rulebook/phlx/rules/Phlx%20Options%207> (assessing a fee of \$1,000 per hand-off, per month for subscribers to the testing facility via either a 1Gb or 10Gb switch port and a one-time installation fee of \$1,000 per hand-off). See also Securities Exchange Act Release No. 76259 (October 26, 2015), 80 FR 66947 (October 30, 2015) (SR-NASDAQ-2015-117) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Options Testing Facility).

access the testing systems environment via a dedicated cross connection and pay the applicable fee will be able to continue to perform the same testing functions when accessing the testing systems environment via the existing VPN internet access for free.²³ The Exchange must consider this in its pricing discipline in order to attract subscribers. The Exchange believes that if it were to propose a fee that is excessively high, it would simply serve to reduce demand for the Exchange's product, which as discussed, Members and non-Members are under no obligation to utilize.

The Exchange does not believe the proposed rule change would cause any unnecessary or inappropriate burden on intramarket competition. Particularly, the proposed fee applies uniformly to any purchaser in that the Exchange does not differentiate between subscribers that wish to access the testing systems environment via a dedicated cross connection via either a 1Gb or 10Gb connection. The proposed fee is set at a reasonable and modest level that would allow any interested market participant to purchase access to the testing systems environment based on their business needs.

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

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(ii) of the Act,²⁴ and Rule 19b-4(f)(2)²⁵ thereunder. 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 necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the

²³ Again, the Exchange's standard certification fee would not apply because the certification was due to a change initiated by the Exchange, and not the Member or non-Member. See Fee Schedule, Sections 4)c)-d).

²⁴ 15 U.S.C. 78s(b)(3)(A)(ii).

²⁵ 17 CFR 240.19b-4(f)(2).

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 (<https://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include file number SR-EMERALD-2025-10 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-EMERALD-2025-10. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (<https://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 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should

submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to file number SR-EMERALD-2025-10 and should be submitted on or before [INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²⁶

Stephanie J. Fouse,

Assistant Secretary.

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