

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-101303; File No. SR-CboeBYX-2024-036)

October 10, 2024

Self-Regulatory Organizations; Cboe BYX Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend its Fees Schedule Regarding Dedicated Cores

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 September 30, 2024, Cboe BYX Exchange, Inc. (the “Exchange” or “BYX”) filed with the Securities and Exchange Commission (“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

Cboe BYX Exchange, Inc. (the “Exchange” or “BYX Equities”) proposes to amend its Fees Schedule. The text of the proposed rule change is provided in Exhibit 5.

The text of the proposed rule change is also available on the Exchange’s website ([http://markets.cboe.com/us/equities/regulation/rule\\_filings/BYX/](http://markets.cboe.com/us/equities/regulation/rule_filings/BYX/)), at the Exchange’s Office of the Secretary, 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

---

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

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

Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

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

1. Purpose

The Exchange proposes to amend its fee schedule to adopt fees for Dedicated Cores.<sup>3</sup>

By way of background, the Exchange recently began to allow Users<sup>4</sup> to assign a Single Binary Order Entry (“BOE”) logical order entry port<sup>5</sup> to a single dedicated Central Processing Unit (CPU Core) (“Dedicated Core”). Historically, CPU Cores had been shared by logical order entry ports (i.e., multiple logical ports from multiple firms may connect to a single CPU Core). Use of Dedicated Cores however, can provide reduced latency, enhanced throughput, and improved performance since a firm using a Dedicated Core is utilizing the full processing power of a CPU Core instead of sharing that power with other firms. This offering is completely voluntary and is available to all Users that wish to purchase Dedicated Cores. Users may utilize BOE logical order entry ports on shared CPU Cores, either in lieu of, or in addition to, their use of Dedicated Core(s). As such, Users are able to operate across a mix of shared and dedicated CPU Cores which the Exchange believes provides additional risk and capacity management.

---

<sup>3</sup> The Exchange initially adopted pricing for Dedicated Cores on May 6, 2024 (SR-CboeBYX-2024-014). On July 1, 2024, the Exchange withdrew that filing and submitted SR-CboeBYX-2024-024. On August 1, 2024, the Exchange withdrew that filing and submitted SR-CboeBYX-2024-028. On business date September 30, 2024, the Exchange withdrew that filing and submitted this filing.

<sup>4</sup> A User may be either a Member or Sponsored Participant. The term “Member” shall mean any registered broker or dealer that has been admitted to membership in the Exchange, limited liability company or other organization which is a registered broker or dealer pursuant to Section 15 of the Act, and which has been approved by the Exchange. A Sponsored Participant may be a Member or non-Member of the Exchange whose direct electronic access to the Exchange is authorized by a Sponsoring Member subject to certain conditions. See Exchange Rule 11.3.

<sup>5</sup> Users may currently connect to the Exchange using a logical port available through an application programming interface (“API”), such as the Binary Order Entry (“BOE”) protocol. A BOE logical order entry port is used for order entry.

Further, Dedicated Cores are not required nor necessary to participate on the Exchange and as such Users may opt not to use Dedicated Cores at all.

The Exchange proposes to assess the following monthly fees for Users that wish to use Dedicated Cores and adopt a maximum limit. First, the Exchange proposes to provide up to two Dedicated Cores to all Users who wish to use Dedicated Cores, at no additional cost. For the use of more than two Dedicated Cores, the Exchange proposes to assess the following fees: \$650 per Dedicated Core for 3-10 Dedicated Cores; \$850 per Dedicated Core for 11 – 15 Dedicated Cores; and \$1,050 per Dedicated Core for 16 or more Dedicated Cores. The proposed fees are progressive and the Exchange proposes to include the following example in the Fees Schedule to provide clarity as to how the fees will be applied. Particularly, the Exchange will provide the following example: if a User were to purchase 11 Dedicated Cores, it will be charged a total of \$6,050 per month ( $\$0 * 2 + \$650 * 8 + \$850 * 1$ ). The Exchange also proposes to make clear in the Fees Schedule that the monthly fees are assessed and applied in their entirety and are not prorated. The Exchange notes the current standard fees assessed for BOE Logical Ports, whether used with Dedicated or shared CPU cores, will remain applicable and unchanged.<sup>6</sup>

Since the Exchange currently has a finite amount of physical space in its data centers in which its servers (and therefore corresponding CPU Cores) are located, the Exchange also proposes to prescribe a maximum limit on the number of Dedicated Cores that Users may purchase each month. The purpose of establishing these limits is to manage the allotment of Dedicated Cores in a fair manner and to prevent the Exchange from being required to expend large amounts of resources in order to provide an unlimited number of Dedicated Cores. The

---

<sup>6</sup> The Exchange currently assesses \$550 per port per month. Port fees will also continue to be assessed on the first two Dedicated Cores that Users receive at no additional cost. See Cboe BYX Equities Fee Schedule.

Exchange previously established a limit for Members of a maximum number of 60 Dedicated Cores and Sponsoring Members a limit of a maximum number of 25 Dedicated Cores for each of their Sponsored Access relationships.<sup>7</sup> The Exchange has since been able to procure additional servers with CPU Cores and also has a better understanding of User demand relative to its available space since the current maximum was adopted last month. As such, the Exchange proposes to increase that caps and provide that Members will be limited to a maximum number of 80 Dedicated Cores<sup>8</sup> and Sponsoring Members will be limited to a maximum number of 35 Dedicated Cores for each of their Sponsored Access relationships.<sup>9</sup> The Exchange notes that it will continue monitoring Dedicated Core interest by all Users and allotment availability with the goal of increasing these limits to meet Users' needs if and when the demand is there and the Exchange is able to accommodate additional Dedicated Cores.

## 2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Securities Exchange Act of 1934 (the "Act") and the rules and regulations thereunder applicable to the

---

<sup>7</sup> See Securities Exchange Act Release No. 100476 (July 9, 2024), 89 FR 57482 (July 15, 2024) (SR-CboeBYX-2024-024).

<sup>8</sup> The prescribed maximum quantity of Dedicated Cores for Members applies regardless of whether that Member purchases the Dedicated Cores directly from the Exchange and/or through a Service Bureau. In a Service Bureau relationship, a customer allows its MPID to be used on the ports of a technology provider, or Service Bureau. One MPID may be allowed on several different Service Bureaus.

<sup>9</sup> The fee tier(s) applicable to Sponsoring Members are determined on a per Sponsored Access relationship basis and not on the combined total of Dedicated Cores across Sponsored Users. For example, under the proposed changes, a Sponsoring Member that has three Sponsored Access relationships is entitled to a total of 105 Dedicated Cores for those 3 Sponsored Access relationships but would be assessed fees separately based on the 35 Dedicated Cores for each Sponsored User (instead of combined total of 105 Dedicated Cores). For example, a Sponsoring Member with 3 Sponsored Access relationships would pay \$30,450 per month if each Sponsored Access relationship purchased the maximum 35 Dedicated Cores. More specifically, the Sponsoring Member would be provided 2 Dedicated Cores at no additional cost for each Sponsored User under Tier 1 (total of 6 Dedicated Cores at no additional cost) and provided an additional 8 Dedicated Cores at \$650 each for each Sponsored User, 5 Dedicated Cores at \$850 each for each Sponsored User and 20 Dedicated Cores at \$1,050 each for each Sponsored User (combined total of 99 additional Dedicated Cores).

Exchange and, in particular, the requirements of Section 6(b) of the Act.<sup>10</sup> Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)<sup>11</sup> requirements that the rules of an exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest. Additionally, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)<sup>12</sup> requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers. The Exchange also believes the proposed rule change is consistent with Section 6(b)(4)<sup>13</sup> of the Act, which requires that Exchange rules provide for the equitable allocation of reasonable dues, fees, and other charges among its Members and other persons using its facilities.

The Exchange believes the proposal is reasonable because the Exchange is offering any Users who wishes to utilize Dedicated Cores up to two Dedicated Cores at no additional cost. For example, of the Users that currently maintain Dedicated Cores, 38% maintain only 1 or 2 Dedicated Cores and therefore pay no additional fees. The Exchange believes the proposed fees are reasonable because Dedicated Cores provide a valuable service in that it can provide reduced latency, enhanced throughput, and improved performance compared to use of a shared CPU Core since a firm using a Dedicated Core is utilizing the full processing power of a CPU Core. The

---

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

<sup>11</sup> 15 U.S.C. 78f(b)(5).

<sup>12</sup> Id.

<sup>13</sup> 15 U.S.C. 78f(b)(4).

Exchange also emphasizes however, that the use of Dedicated Cores is not necessary for trading and as noted above, is entirely optional. Users can also continue to access the Exchange through shared CPU Cores at no additional cost. Indeed, 18% of the Exchange's Members currently use Dedicated Cores and as noted above, of those who do, 38% take only 1 or 2 Dedicated Cores at no additional cost. Depending on a firm's specific business needs, the proposal enables Users to choose to use Dedicated Cores in lieu of, or in addition to, shared CPU Cores (or as emphasized, not use Dedicated Cores at all). If a User finds little benefit in having Dedicated Cores based on its business model and trading strategies, or determines Dedicated Cores are not cost-efficient for its needs or does not provide sufficient value to the firm, such User may continue its use of the shared CPU Cores, unchanged. The Exchange also has no plans to eliminate shared CPU Cores nor to require Users to purchase Dedicated Cores.

The Exchange has seen general interest in Dedicated Cores from a variety of market participants, with varying size and business models. Such market participants include proprietary trading firms (who tend to be more latency sensitive), as well as sell-side market participants and buy-side market participants (who tend to be less latency sensitive). Further, Members have various reasons for obtaining Dedicated Cores. Some Members for example, may be seeking to further reduce latency, whereas others may use Dedicated Cores as a general risk mitigation by siloing their respective activity. Of further note, only 50% of Members that are propriety trading firms (who again, generally tend to be more latency sensitive) utilize Dedicated Cores, and of that 50%, 25% are utilizing the 1 to 2 free Dedicated Cores available to all Users. The lack of universal, or even widespread, adoption by all such users therefore demonstrates that purchasing Dedicated Cores is not effectively a requirement to compete for any one type of market participant, including latency sensitive market participants. Instead, Dedicated Cores are an

optional and voluntary connectivity offering, which market participants are free to choose whether or not to utilize based on whether they meet their unique business needs.

The Exchange also believes that the proposed Dedicated Core fees are equitable and not unfairly discriminatory because they continue to be assessed uniformly to similarly situated users in that all Users who choose to purchase Dedicated Cores will be subject to the same proposed tiered fee schedule. Moreover, all Users are entitled to up to 2 Dedicated Cores at no additional cost and as previously discussed, 38% of all Users that take Dedicated Cores (including both latency sensitive and non-latency sensitive Users) take only 1 or 2 Dedicated Cores at no additional cost. The Exchange believes the proposed ascending fee structure is also reasonable, equitable and not unfairly discriminatory as it is designed so that firms that use a higher allotment of the Exchange's finite number of Dedicated Cores pay higher rates, rather than placing that burden on market participants that have more modest needs who will have the flexibility of obtaining Dedicated Cores at lower price points in the lower tiers. As such, the proposed fees do not favor certain categories of market participants in a manner that would impose a burden on competition; rather, the ascending fee structure reflects the (finite) resources consumed by the various needs of market participants— that is, the lowest Dedicated Core consuming Users pay the least, and highest Dedicated Core consuming Users pay the most. Other exchanges similarly assess higher fees to those that consume more Exchange resources.<sup>14</sup> Moreover, those consuming more Dedicated Cores do so if they find a benefit in having higher quantities of Dedicated Cores based on their respective business needs. The proposed tier structure is also designed to encourage firms to manage their needs in a fair manner and to

---

<sup>14</sup> See e.g., Cboe U.S. Options Fees Schedule, BZX Options, Options Logical Port Fees, Ports with Bulk Quoting Capabilities.

prevent the Exchange from being required to expend large amounts of resources in order to provide an additional number of Dedicated Cores. Moreover, as discussed above and in more detail below, the Exchange cannot currently offer an unlimited number of Dedicated Cores due in part to physical space constraints in the third-party data center. The Exchange believes the proposed ascending fee structure is therefore another appropriate means, in conjunction with an established cap, to manage this finite resource and ensure the resource is apportioned more fairly.

The Exchange believes it is reasonable to limit the number of Dedicated Cores Users can purchase because the Exchange has a finite amount of space in its third-party data centers to accommodate CPU cores, including Dedicated Cores. The Exchange must also take into account timing and cost considerations in procuring additional Dedicated Cores and related hardware such as servers, switches, optics and cables, as well as the readiness of the Exchange's data center to accommodate additional Dedicated Cores in the Exchange's respective Order Handler Cabinets.<sup>15</sup> Moreover, procuring data center space has grown to be more challenging than it was five years ago with the increased demand for data center space. For example, the U.S. colocation data center market has doubled in size in just four years. In addition to the Exchange's rollout of Dedicated Cores, the Exchange is mindful of its other business areas and the need to continue to be mindful of its existing, external restraints in this area. The Exchange has, and will continue to, monitor market participant demand and space availability and endeavor to adjust the limit if and when the Exchange is able to acquire additional space and power within the third-party data centers and/or additional CPU Cores to accommodate additional Dedicated Cores.<sup>16</sup> The Exchange monitors its capacity and data center space and thus is in the best place to determine

---

<sup>15</sup> The Exchange notes that it cannot currently convert shared CPU cores into Dedicated Cores.

<sup>16</sup> The Exchange notes that no Users that take Dedicated Cores are at or near the maximum limits and the average number of Dedicated Cores used for the Exchange is 8.



these limits and modify them as appropriate in response to changes to this capacity and space, as well as market demand. Indeed, the Exchange has already increased the prescribed maximum since the launch of Dedicated Cores on May 6, 2024 as a result of evaluating the demand relative to Dedicated Cores availability.<sup>17</sup> As another example, the Exchange’s affiliate Cboe EDGA Exchange, Inc. has increased the prescribed maximum limit three times since the launch of Dedicated Cores on its exchange on February 26, 2024 as a result of evaluating the demand relative to Dedicated Cores availability.<sup>18</sup> The proposed increased limits continue to apply uniformly to similarly situated market participants (i.e., all Members are subject to the same limit and all Sponsored Participants are subject to the same limit, respectively). The Exchange believes it’s not unfairly discriminatory to provide for different limits for different types of Users. For example, the Exchange believes it’s not unfairly discriminatory to provide for an initial lower limit to be allocated for Sponsored Participants because unlike Members, Sponsored Participants are able to access the Exchange without paying a Membership Fee. Members also have more regulatory obligations and risk that Sponsored Participants do not. For example, while Sponsored Participants must agree to comply with the Rules of the Exchange, it is the Sponsoring Member of that Sponsored Participant that remains ultimately responsible for all orders entered on or through the Exchange by that Sponsored Participant. The industry also has a history of applying fees differently to Members as compared to Sponsored Participants.<sup>19</sup> Lastly,

---

<sup>17</sup> See Securities Exchange Act Release No. 100476 (July 9, 2024), 89 FR 57482 (July 15, 2024) (SR-CboeBYX-2024-024).

<sup>18</sup> See Securities Exchange Act Release No. 99983 (April 17, 2024), 89 FR 30418 (April 23, 2024) (SR-CboeEDGA-2024-014) Securities Exchange Act Release No. 100300 (June 10, 2024), 89 FR 50653 (June 14, 2024) (SR-CboeEDGA-2024-020); and Securities Exchange Act Release No. 100736 (August 21, 2024), 89 FR 67696 (August 15, 2024) (SR-CboeEDGA-2024-032).

<sup>19</sup> See e.g., Securities Exchange Act Release No. 68342 (December 3, 2012), 77 FR 73096 (December 7, 2012) (SR-CBOE-2012-114) and Securities Exchange Act Release No. 66082 (January 3, 2012), 77 FR 1101 (January 9, 2012) (SR-C2-2011-041).

the Exchange believes its proposed maximum limits, and distinction between Members and Sponsored Users, is another appropriate means to help the Exchange manage its allotment of Dedicated Cores and better ensure this finite resource is apportioned fairly.

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 intramarket competition that is not necessary in furtherance of the purposes of the Act because the proposed tiered fee structure will apply equally to all similarly situated Users that choose to use Dedicated Cores. As discussed above, Dedicated Cores are optional and Users may choose to utilize Dedicated Cores, or not, based on their views of the additional benefits and added value provided by utilizing a Dedicated Core. The Exchange believes the proposed fee will be assessed proportionately to the potential value or benefit received by Users with a greater number of Dedicated Cores and notes that Users may determine at any time to cease using Dedicated Cores. As discussed, Users can also continue to access the Exchange through shared CPU Cores at no additional cost. Finally, all Users will be entitled to two Dedicated Cores at no additional cost.

Next, the Exchange believes the proposed rule change does not impose any burden on intermarket competition that is not necessary or appropriate in furtherance of the purposes of the Act. As previously discussed, the Exchange operates in a highly competitive market, including competition for exchange memberships. Market Participants have numerous alternative venues that they may participate on, including 15 other equities exchanges, as well as off-exchange venues, where competitive products are available for trading. Indeed, participants can readily choose to submit their order flow to other exchange and off-exchange venues if they deem fee levels at those other venues to be more favorable. Moreover, the Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. Specifically, in Regulation NMS, the

Commission highlighted the importance of market forces in determining prices and SRO revenues and, also, recognized that current regulation of the market system “has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.”<sup>20</sup> The fact that this market is competitive has also long been recognized by the courts. In *NetCoalition v. Securities and Exchange Commission*, the D.C. Circuit stated as follows: “[n]o one disputes that competition for order flow is ‘fierce.’ ... As the SEC explained, ‘[i]n the U.S. national market system, buyers and sellers of securities, and the broker-dealers that act as their order-routing agents, have a wide range of choices of where to route orders for execution’; [and] ‘no exchange can afford to take its market share percentages for granted’ because ‘no exchange possesses a monopoly, regulatory or otherwise, in the execution of order flow from broker dealers’ ....”<sup>21</sup> Accordingly, the Exchange does not believe its proposed change imposes any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization’s Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

The Exchange neither solicited nor received comments on the proposed rule change.

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) of the Act<sup>22</sup> and paragraph (f) of Rule 19b-4<sup>23</sup> thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change

---

<sup>20</sup> See Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37499 (June 29, 2005).

<sup>21</sup> *NetCoalition v. SEC*, 615 F.3d 525, 539 (D.C. Cir. 2010) (quoting Securities Exchange Act Release No. 59039 (December 2, 2008), 73 FR 74770, 74782-83 (December 9, 2008) (SR-NYSEArca-2006-21)).

<sup>22</sup> 15 U.S.C. 78s(b)(3)(A).

<sup>23</sup> 17 CFR 240.19b-4(f).

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 Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change 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](mailto:rule-comments@sec.gov). Please include file number SR-CboeBYX-2024-036 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-CboeBYX-2024-036. 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-CboeBYX-2024-036 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.<sup>24</sup>

**Sherry R. Haywood,**

*Assistant Secretary.*

---

<sup>24</sup> 17 CFR 200.30-3(a)(12).